

Alaska Clean Seas Technical Manual

Volume 2 Map Atlas

Revised September 2001





ALASKA CLEAN SEAS TECHNICAL MANUAL VOLUME 2 MAP ATLAS

© 1999, 2001 Alaska Clean Seas

All rights reserved. No part of this work covered by the copyrights hereon may be reproduced in any form or by any means without the written permission of Alaska Clean Seas.

Alaska Clean Seas
Pouch 340022
Prudhoe Bay, Alaska 99734-0022

Phone: (907) 659-2405
Fax: (907) 659-2616

DISCLAIMER

In producing this manual, Alaska Clean Seas has endeavored to provide the best available information based on the latest technological and engineering advancements. ACS believes that the information and procedures contained herein are well founded, and utilize information obtained from actual experiences in the environments where these procedures are intended to apply. Nonetheless, ACS and its members expressly disclaim that the procedures provided in this manual, even if followed correctly and competently, will necessarily produce any specific results. Implementation of the recommendations and procedures contained herein is at the sole risk of the user.

The base maps in this atlas were provided by BP Exploration (Alaska) Inc. While every effort was made to ensure an accurate depiction of surface features, BPXA does not warrant that the data is accurate or fit for any particular purpose.

The *Alaska Clean Seas Technical Manual* provides a detailed source of information pertaining to spill response variables on the North Slope of Alaska. This information includes:

- Spill response tactics in a variety of conditions and seasonal variations.
- Maps of resources at risk from a spill.
- Information on the Incident Management System used in a spill event.

The *Technical Manual* is generally applicable to all operators on the North Slope. Facility-specific information is provided in operator oil discharge prevention and contingency plans. The information provided in this manual, in conjunction with the individual operator contingency plans, is intended to meet the requirements of Alaska Department of Environmental Conservation spill planning regulations (18 AAC 75).

There are always variables beyond the control of any response organization that affect response performance. These variables include personnel safety considerations, weather, visibility, sea conditions, location of spill, type of oil spilled, rate of discharge, condition of the equipment or facility causing the spill, and for a vessel, position of discharging vessel and condition of remaining cargo. In addition, site-specific conditions such as the amount and type of wildlife and sea mammals in or around the site, or the amount and nature of debris present, could interfere with response performance. Accordingly, it is not possible to guarantee response performance in exact accordance with the estimates, strategies or scenarios presented in this *Technical Manual* for planning purposes. For example, the safety of employees, contractor personnel, government representatives, and the public is of paramount importance and will override all other considerations in response operations.

FOREWORD

This map atlas is the second volume of three manuals that make up the *Alaska Clean Seas Technical Manual* providing ACS member companies with a unified response plan for spills in the North Slope oil fields, both onshore and offshore, and from Pump Station 1 to Pump Station 4 (Milepost 167) of the Trans-Alaska Pipeline System:

Volume 1: Tactics Descriptions

Volume 2: Map Atlas

Volume 3: North Slope Incident Management System

The *Technical Manual* grew out of the work of the Industry/Agency North Slope Spill Response Project Team, which consists of government and industry personnel representing the following organizations: Alaska Clean Seas, Alaska Department of Environmental Conservation, Alyeska Pipeline Service Company, ARCO Alaska, Inc., BP Exploration (Alaska) Inc., North Slope Borough, U.S. Coast Guard, U.S. Environmental Protection Agency, and U.S. Minerals Management Service. This team was formed in the spring of 1997 in response to the concerns of both agencies and industry that spill response capability for the North Slope needed to be re-evaluated in light of proposed new offshore development such as Northstar and Liberty. Also, both agency and industry felt that industry should develop a unified North Slope response plan under the auspices of Alaska Clean Seas. The Project Team was supported by the Tactics Team, consisting of technical representatives from agencies and industry. The Project Team developed nine scenarios covering a variety of spill situations, conditions, and seasons. The Tactics Team used the scenarios to develop tactics, which became the basis for the tactics descriptions in the *Technical Manual*.

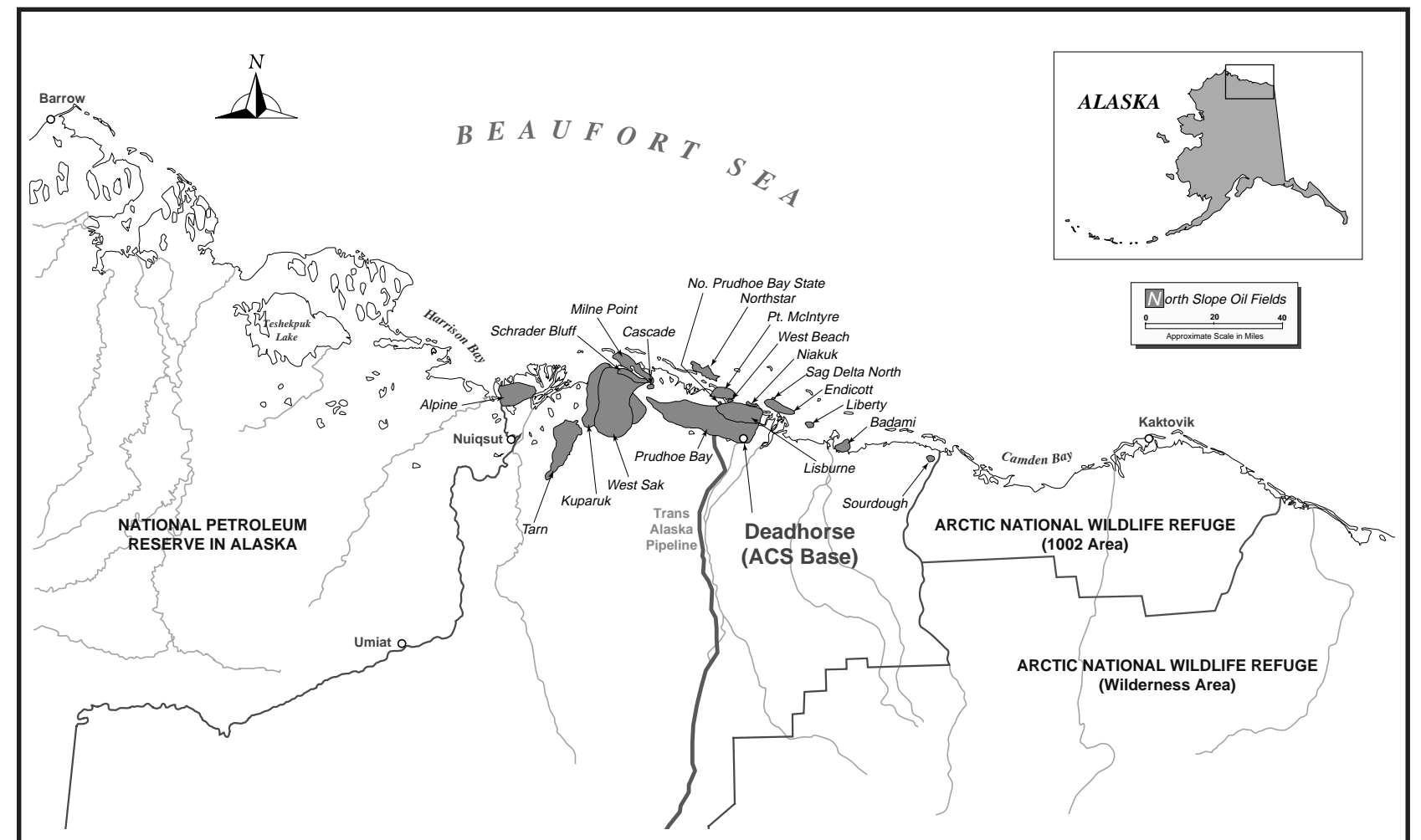
This manual contains a set of maps that cover the North Slope oil fields and their environs at a scale of 1:26,000. An index map and overall legend are provided. The region was windowed to fit on 11" x 17" pages, and efforts were made to cover all facilities as completely as possible.

The following information has been included on these maps:

- Facilities, roads, and pipelines
- Culvert locations
- Pre-staged response equipment
- Priority protection sites
- Topographic information
- Hydrographic information including drainage divides and flow directions interpreted from aerial photography
- Shoreline types

For each map there is a legend page that provides the following information:

- Priority protection sites
- General sensitivity information
- Cultural sites
- Air access
- Vessel access and hydrographic conditions
- Staging areas and prestaged equipment
- Countermeasures considerations





Alaska Clean Seas Technical Manual

Volume 2, Map Atlas

REVISION FORM

Alaska Clean Seas requests that users of this manual provide notification of any errors or suggested revisions for use in future updates. If you would like to submit information, please photocopy this form and fill it out. The form is designed to copy easily onto an 8.5" x 11" sheet. Please send the completed form to:

Alaska Clean Seas
Special Projects and Development Coordinator
Pouch 340022
Prudhoe Bay, Alaska 99734-0022

Phone: 907-659-3207
Fax: 907-659-2616

Map: _____

Change: _____

Source of Information for Change: _____

Name of Person Submitting Change: _____

Organization: _____ Telephone: _____

Date: _____

Thank you for helping ACS maintain its Technical Manual up-to-date!

HOW TO USE THE ACS *TECHNICAL MANUAL* VOLUME 2, *MAP ATLAS*

The purpose of the *ACS Technical Manual* is to provide a comprehensive set of response tactics in a user-friendly format that is accessible both to plan reviewers and operations personnel. The tactics were designed to provide the building blocks for facility-specific plans so that scenarios in those plans could simply and thoroughly identify the resources and personnel needed to respond to site-specific spills. At the same time, the technical details on how each tactic is implemented can be eliminated from the facility plans of ACS member companies.

Volume 1, Tactics Descriptions, contains tactics arranged by subject as follows:

- Safety
- Containment
- Recovery and Storage
- Tracking and Surveillance
- Burning
- Shoreline Cleanup
- Wildlife and Sensitive Areas
- Disposal
- Logistics and Equipment
- Administration

Each tactic is numbered with a key letter to identify the subject: e.g., Tactic S-1 (Site Entry Procedures) is the first tactic in the safety section, while C-1 (Containment Using Snow Berm) is the first in the containment section. These numbers are useful for referencing in member-company response plans.

Each tactic consists of the following elements: a simplified diagram, a brief narrative description, an equipment and personnel table, a support equipment table, capacities for planning, and deployment considerations and limitations. Sufficient information is provided to allow the user to quickly see how the tactic is deployed and to identify the equipment and personnel needed to implement the tactic. The resource tables also provide storage locations for the equipment and estimated mobilization times and deployment times. These tables can be used to determine equipment needs and to develop response times for individual facilities.

Volume 2, Map Atlas, contains 11" x 17" maps (scaled 1:26000) and legend pages covering the developed areas of the North Slope and providing detailed geographic, biological, and civil information on the region. The following two pages contain a sample map and corresponding

legend page. As shown on these samples, each color map contains the following information: facilities, roads, and pipelines; culvert locations; prestaged response equipment locations; priority protection sites; topographic information; hydrographic information, including drainage divides and flow direction; and shoreline types. For each map there is a corresponding legend page that provides written data on the information shown on the maps, including priority protection sites, general sensitivity data, cultural sites, air access, vessel access, hydrographic conditions, countermeasures considerations, staging areas, and prestaged equipment.

As with the tactics volume, the key consideration in developing the map atlas was providing operationally useful data. For instance, ACS member company biologists identified the priority protection sites based on environmental sensitivity information from both industry and agencies, with the criterion that a site would be shown on the map only if it was defensible with spill response equipment. Many areas on the North Slope are sensitive during the summer, because of the numerous migratory birds and mammals in the region. However, showing such information on the maps would in many cases require shading the entire map, and the entire map area cannot be protected from a spill. Therefore, this information is noted on the legend pages, since it is useful for the responders to know, for example, that migratory birds may be nesting in the area in the summer so that bird hazing equipment can be deployed.

Note that the priority protection sites shown on these maps are discrete locations along the coast that can be defended from a spill by means of mechanical containment and recovery equipment. Industry biologists identified these sites from available data. They may be superseded at the time of a spill by decision of the Unified Command. Furthermore, these sites do not represent all sensitive areas that exist in the region. Environmental sensitivity information provided by the Alaska Regional Response Team Sensitive Areas Working Group is included on the map legend pages under "General Sensitivities." The purpose of this information is to alert responders that certain animals may be present at certain times of the year and that some regions are more sensitive than others.

Volume 3, Incident Management System, provides a unified organization for ACS member companies to respond to spills and other incidents and crises on the North Slope. The organization consists of three levels of teams (Tactical Response Teams, Incident Management Teams, and Crisis Management Teams) and is based on the Incident Command System (ICS). The manual describes the organization of the teams and includes a full complement of ICS forms and status boards, as well as job checklists for ICS positions.



SAMPLE MAP LEGEND PAGE

The sheet number matches the appropriate map

Environmental sensitivity information is provided on the left side of the page

Response considerations are presented on the right side of the page (in some cases, they start at the bottom of the left side of the page).

SHEET 35

Sensitivity Information

PRIORITY PROTECTION SITES

SITE NO.	DESCRIPTION	SENSITIVITY	TACTIC	EST. BOOM
PS25	Ugnuravik River mouth	Most sensitive during open water season. Keep oil from entering river. Peat shorelines are present on west shore of river.	C-13 or C-14	1,500'
PS27	Creek mouth west of Oliktok Pt. airstrip	Most sensitive during open water season. Keep oil from entering river.	C-13 or C-14	100'

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Simpson Lagoon has large flocks of molting male Oldsquaw in July and early August, especially in the lee shores of the barrier islands.
- Shoreline and offshore areas support molting and brood-rearing eiders. This is also a staging area for migrating Phalaropes (shorebirds). Birds are present in June, July, and August.
- This is a Brant nesting, brood-rearing, and molting area. Birds are present from May through August.
- This is a Spectacled Eider breeding and nesting area. Birds may be present in spring and summer.
- Plan to deploy bird-hazing systems during the open-water season.
- The Ugnuravik River provides habitat for anadromous whitefish and for resident fish.
- There is a seawater intake on the north wall of the Oliktok Seawater Treatment Plant approximately 8 ft below the surface. Precautions should be taken to keep oil away from this area.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XBP-002 on the coast west of Oliktok Point
- XBP-039 on the coast west of Oliktok Point

The priority protection sites are discrete locations along the coast that can be defended from a spill by means of mechanical containment and recovery equipment. Industry biologists identified these sites from available data. They may be superseded at the time of a spill by decision of the Unified Command.

Most environmental sensitivity information was provided by the Alaska Regional Response Team Sensitive Areas Working Group. The purpose of this information is to alert responders that certain animals may be present at certain times of the year and that some regions are more sensitive than others.

Information on cultural sites is intentionally vague in order to protect the sites. The purpose of this information is to alert responders they need to check the actual location.

ACS Tech. Manual Vol. 2, 3/1/99

NOTE: All values given on these pages are for planning purposes only.

Response Considerations

SHEET 35

AIR ACCESS*

- There is an emergency aircraft landing strip located at Oliktok Point. This is a 4,000-ft gravel airstrip, which is unattended and closed to the public. Approval to use the strip must be obtained 24 hours in advance by calling 907-552-1738 or 317-552-1738. Visual inspection prior to use is recommended.
- Kuparuk airstrip (Sheet 51) is located approximately 14 miles southeast of Oliktok Point.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Kuparuk Airstrip	6,000-ft. gravel runway, attended continuously	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Jet A	24-hr advance notification required: 907-659-7213

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Simpson Lagoon water depths range from 3 to 7 ft.
- Bars and shoals obstruct the passages between Pingok Island and Cottle Island (Sheets 33 and 34, respectively).
- There is small boat shelter from east winds behind the small sand spit west of Oliktok Point. It provides excellent moorage but is limited to 5 ft of water. This shelter is exposed to southwest winds. Shelter from southwest winds is available on the east side of Oliktok Point.
- There is a boat launch at Oliktok Dock.
- Simpson Lagoon currents are generally to the west at 10 to 30 cm/sec.

COUNTERMEASURES CONSIDERATIONS

- Sand-silt shores are very narrow (less than 20 ft wide) and interrupted by small creek mouths and areas of thick peat deposits. Large areas of potential overwash between Oliktok Point and Kalubik Creek (to the west) may make cleanup difficult. Backshore areas are wet tundra.
- Vegetated shorelines in this area may preclude the use of heavy equipment. Sand-silt washed over on the vegetated shorelines is mixed with large peat blocks, making mechanized travel difficult.
- West and north winds and Colville River discharge will cause floating oil to impinge on the shoreline west of Oliktok Point. There is some restricted access to beaches by shallow water.

STAGING AREAS AND PRESTAGED EQUIPMENT

- There are staging areas at Oliktok Dock and approximately 2 miles southeast of Oliktok Dock.

PRESTAGED EQUIP. AREA	LOCATION	ITEM	QUANTITY	TYPE
KUP-12	Oliktok Dock	Boom	3,450'	8" x 6" river
KUP-11	DS 3R	Boom	500'	8" x 6" river

Information on airstrips was taken from the Supplement Alaska, a compilation of airport data published bimonthly by the National Oceanic and Atmospheric Administration. Responders should refer to the latest edition at the time of a spill. Other information on potential landing sites has been included as appropriate.

Much of the information on marine access was taken from the United States Coast Pilot, Pacific and Arctic Coasts Alaska: Cape Spencer to Beaufort Sea, published biannually by the National Oceanic and Atmospheric Administration as a supplement to NOAA nautical charts. Consult the latest edition.

Information is provided on how environmental conditions might affect a response.

Information is provided on potential staging areas and/or prestaged response equipment.

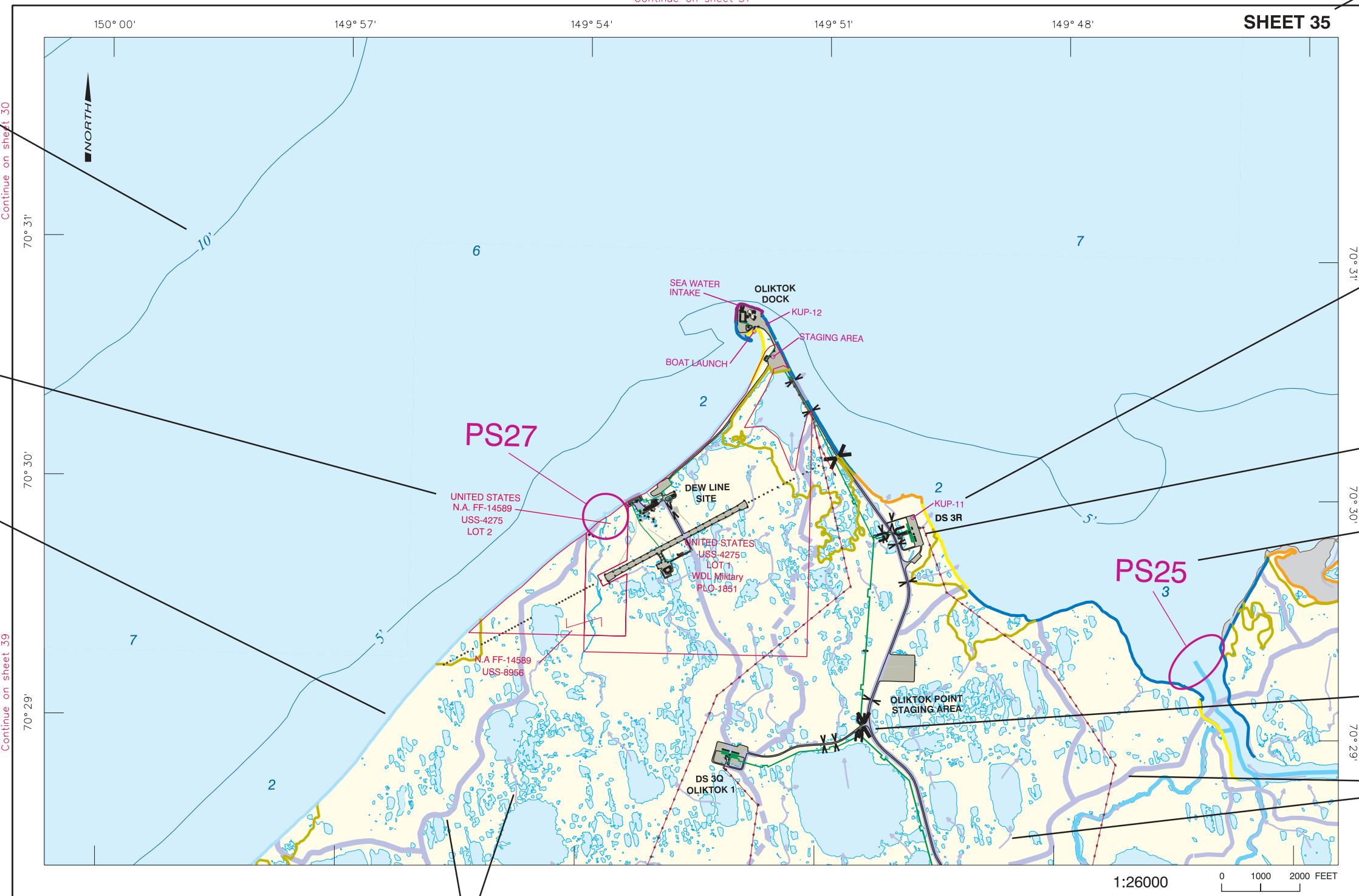
*See the latest Supplement, Alaska and United States Coast Pilot for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

ACS Tech. Manual Vol. 2, 3/1/99

SAMPLE MAP

SHEET 35



Bathymetric data are provided for the nearshore Beaufort Sea.

Areas labeled in red are private lands or military sites.

Shorelines are color-coded to indicate shoreline type (see Map Legend & Index section).

Adjacent atlas maps are indicated where appropriate.

Drainage divides and generalized flow directions are shown as interpreted from aerial photography.

Adjacent atlas maps are indicated where appropriate.

Maps are numbered for easy reference to the index sheets (see Map Legend & Index section) and for use in contingency plans.

Adjacent atlas maps are indicated where appropriate.

Locations of potential staging areas and prestaged equipment for spill response are shown on the map and described on the facing page.

Detail is provided on oil field facilities and infrastructure.



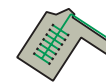


"PS" sites are priority protection sites identified on the facing page.

Culverts are identified on roads.




Drainage divides and generalized flow directions are shown as interpreted from aerial photography.

LEGEND



INFRASTRUCTURE

-  Gravel Road
-  Pipeline
-  Gravel Well Pad/Facility
-  Overhead Power Lines
(Buried Power Lines are not shown)
-  Tractor Tracks or Winter Trails
(Not functional roads)






SURFACE WATER

-  Surface Drainage
Interpreted From Aerial Photography
-  Primary Surface Watershed Boundary
-  Secondary Surface Watershed Boundary

CULTURAL RESOURCES












-  Private Property/Military Site
-  Fish Stream
Alaska Department of Fish and Game

RESPONSE ITEMS



-  Single/Multiple Culvert(s)
-  Single/Multiple Casing(s)
-  **PS18**
Priority Protection Sites
-  **EOA-4**
Approximate location of
Pre-Staged Equipment in Conex
Alaska Clean Seas
-  **KUP-1**
Potential Spill Control Site

SENSITIVE SHORELINE AND RIVER BANK TYPES

(updated April 1997)
EML Environmental Mapping Ltd., Saanichton, BC and
Owens Coastal Consultants, Bainbridge Island, WA

-  Man-Made Solid Structures
-  Pebble-Cobble Beaches
-  Mixed Sand-Gravel Beaches
-  Sand Beaches
-  Sand Flats
-  Mud Flats
-  Salt Marshes
Polygons were generated by photointerpretation from 1:7,200
CIR photography and 1:6,000 topo maps. Coverage is limited
to Kalubik Creek on the west to Staines River on the east.
Interpretation by AeroMap US.
-  Peat Shorelines
-  Inundated Low-Lying
Tundra Shorelines
-  Tundra Cliffs
Vegetated low banks
-  Vegetated low banks
and slopes

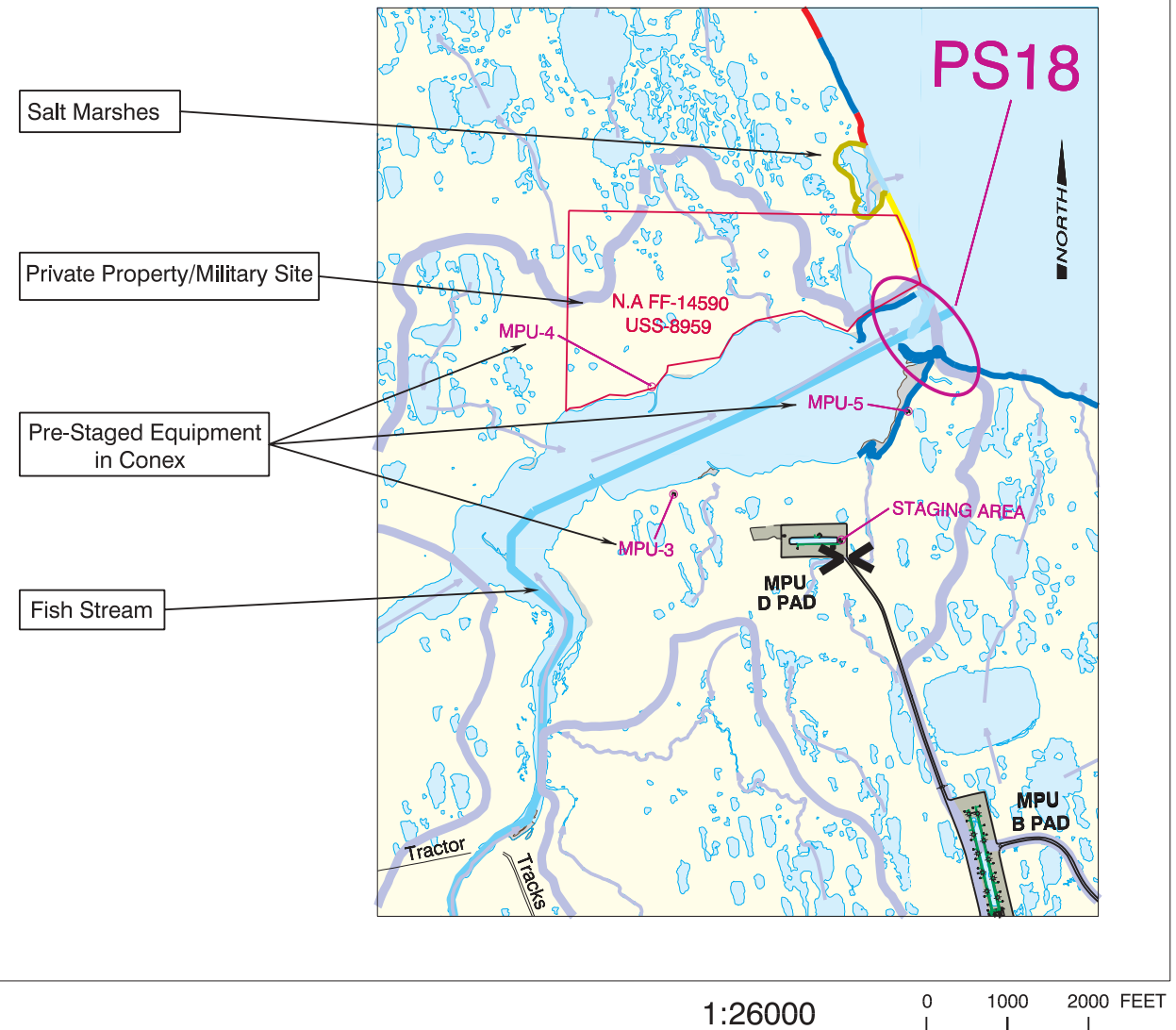
SHORE FEATURES

-  Naturally Occuring Nonvegetated Areas
(Gravel Bars, Beaches, and Mud Flats)
-  Tidal Flats
(Mud or Gravel Bars, below Mean Sea Level)

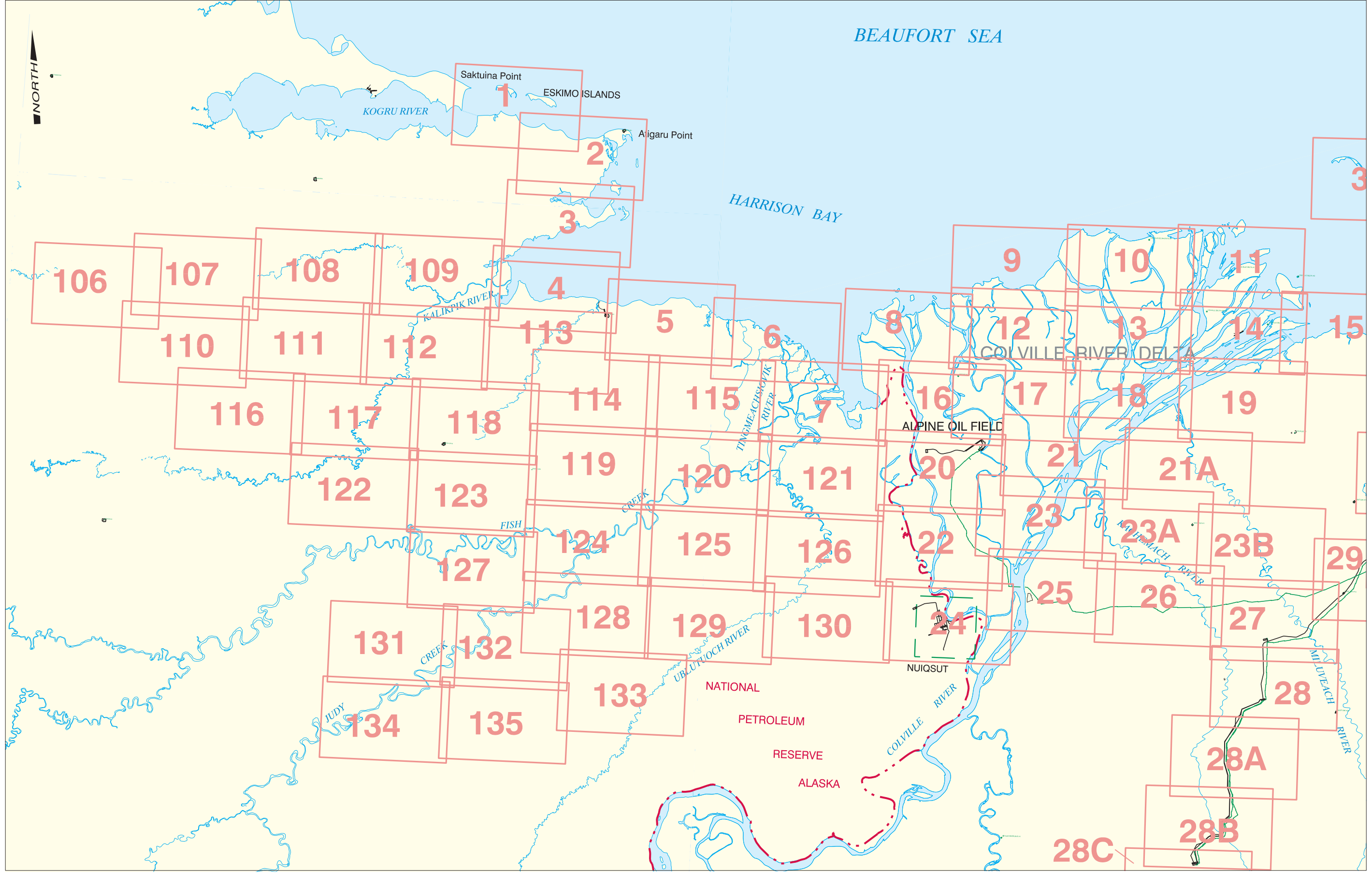
Shoreline is Mean Sea Level as established by
limited tidal observations in 1973 at East Dock.

Bathymetry interpreted from 1949-50 NOAA
soundings, depth in feet.

Map sheets 1 through 28 and 105 are based on USGS
1:63,360 quad maps. Map sheets 29 through 104 are
based on Arco Alaska Inc. and BP Exploration (Alaska) Inc.
topographic maps 1:6,000.

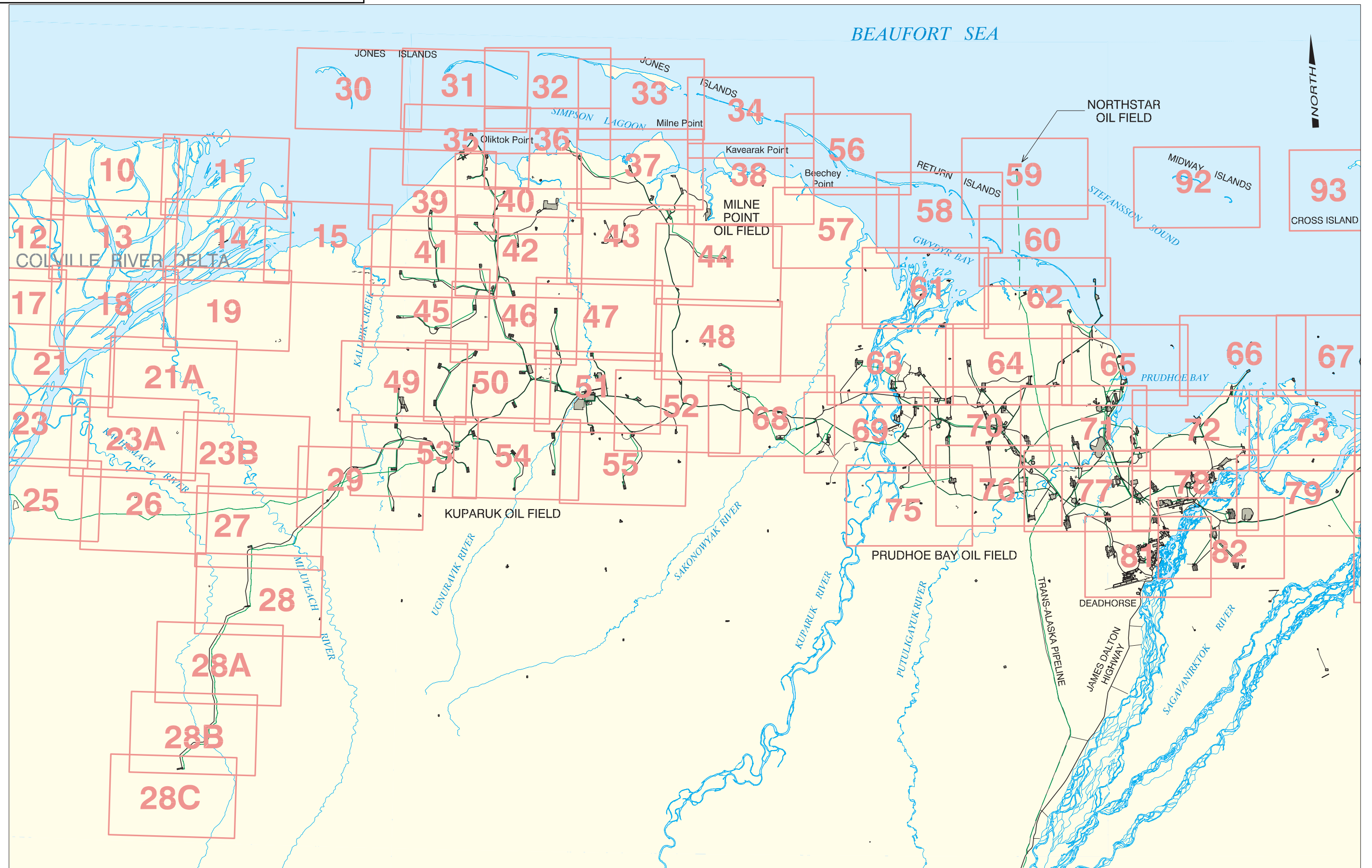


NOTE: Click on map number to jump to the actual map



NOTE: Click on map number to jump to the actual map

Kuparuk, Milne Point, Northstar, Prudhoe Bay and Endicott/Duck Island Oil Fields

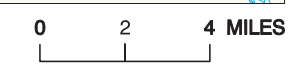
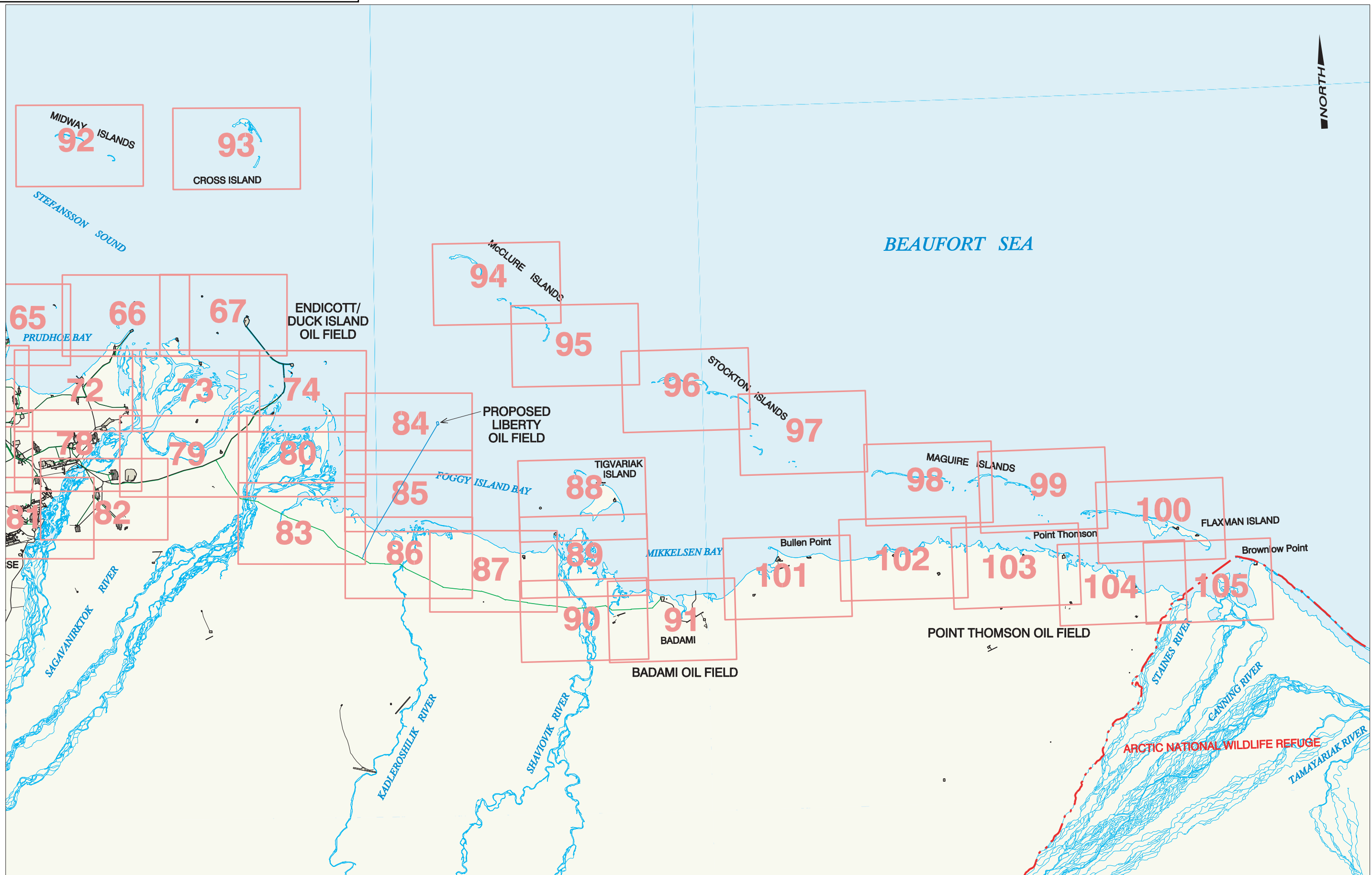


0 2 4 MILES

NOTE: Click on map number to jump to the actual map

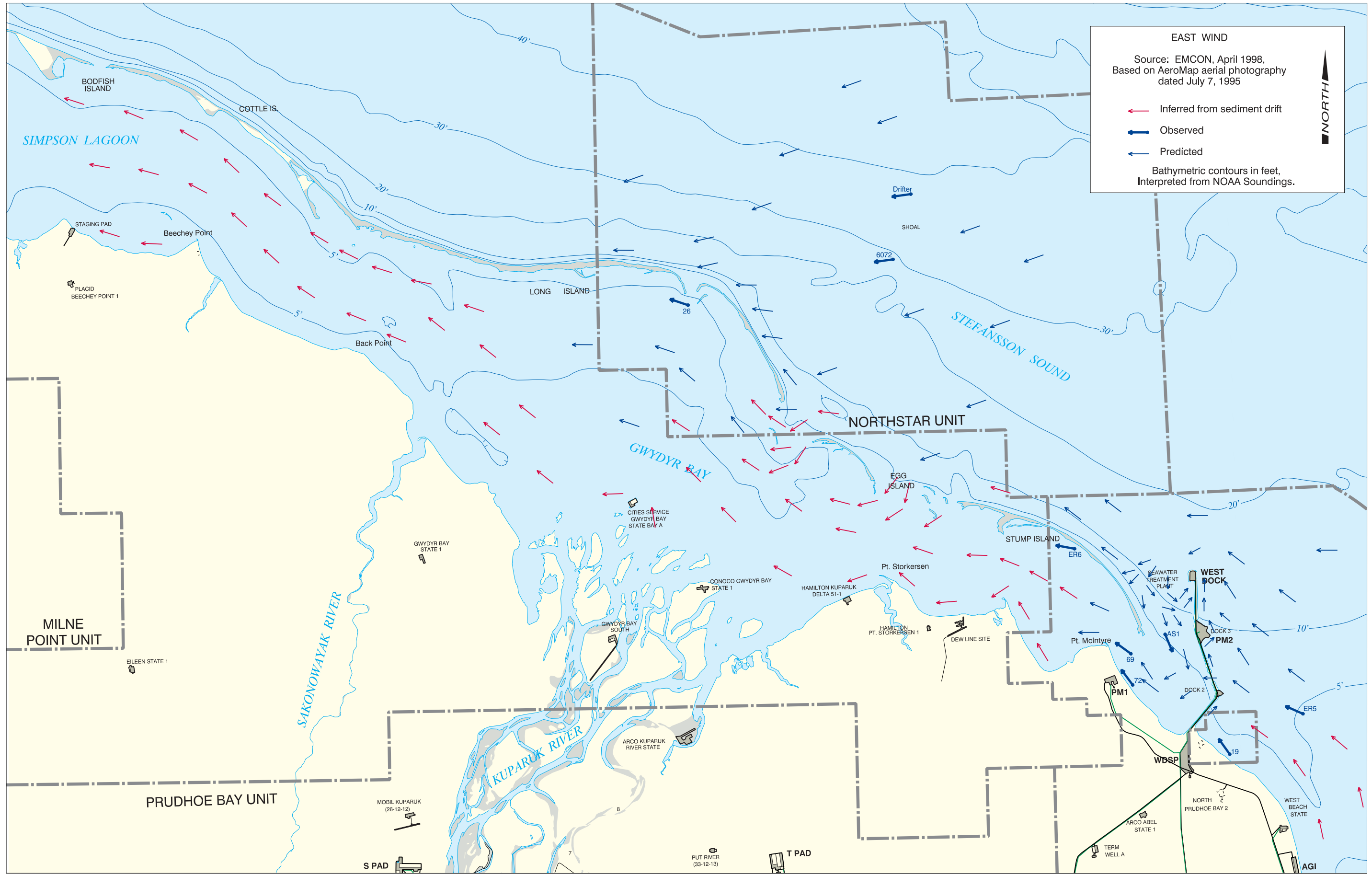
Endicott/Duck Island, Liberty, Badami, Point Thomson Oil Fields

SHEET INDEX 3



CIRCULATION IN THE NEARSHORE BEAUFORT SEA

Ocean surface currents in the vicinity of the North Slope oil production facilities are primarily wind driven. Wind shifts can reverse surface water currents within a few hours. The following maps show surface current patterns under two wind conditions: an east wind and a west wind. This information is a compilation of observed current measurement data, as well as inferred currents from sediment drift and predicted currents. Note that a great deal of data has been collected on the surface water currents in the vicinity of both the Endicott and West Dock causeways.



EAST WIND

Source: EMCON, April 1998,
Based on AeroMap aerial photography
dated July 7, 1995

- ← Inferred from sediment drift
- ← Observed
- ← Predicted

Bathymetric contours in feet,
Interpreted from NOAA Soundings.



1:100000 0 1 2 MILES

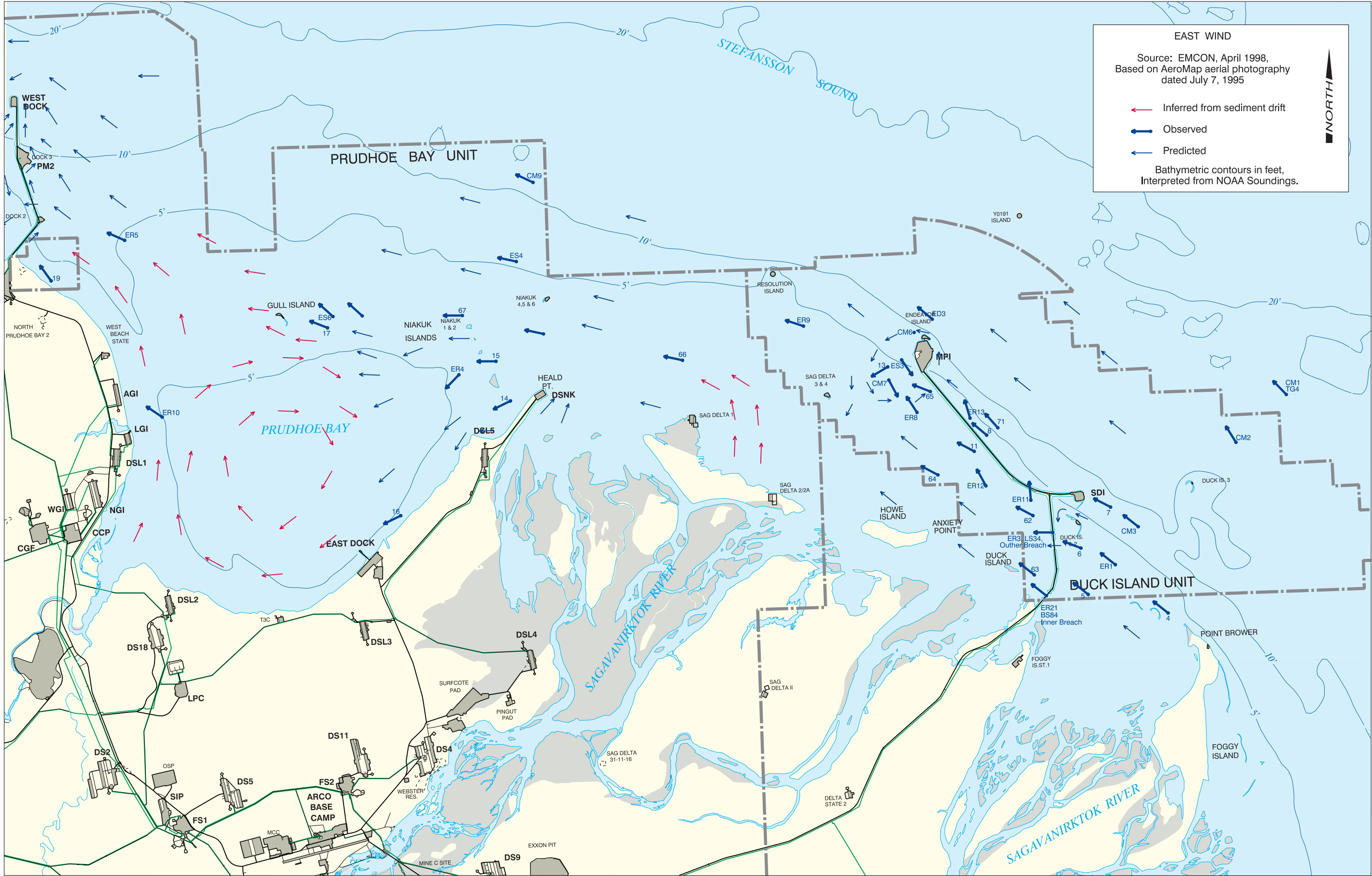
SHEET 1 OF 2

EAST WIND

Source: EMCON, April 1998,
Based on AeroMap aerial photography
dated July 7, 1995

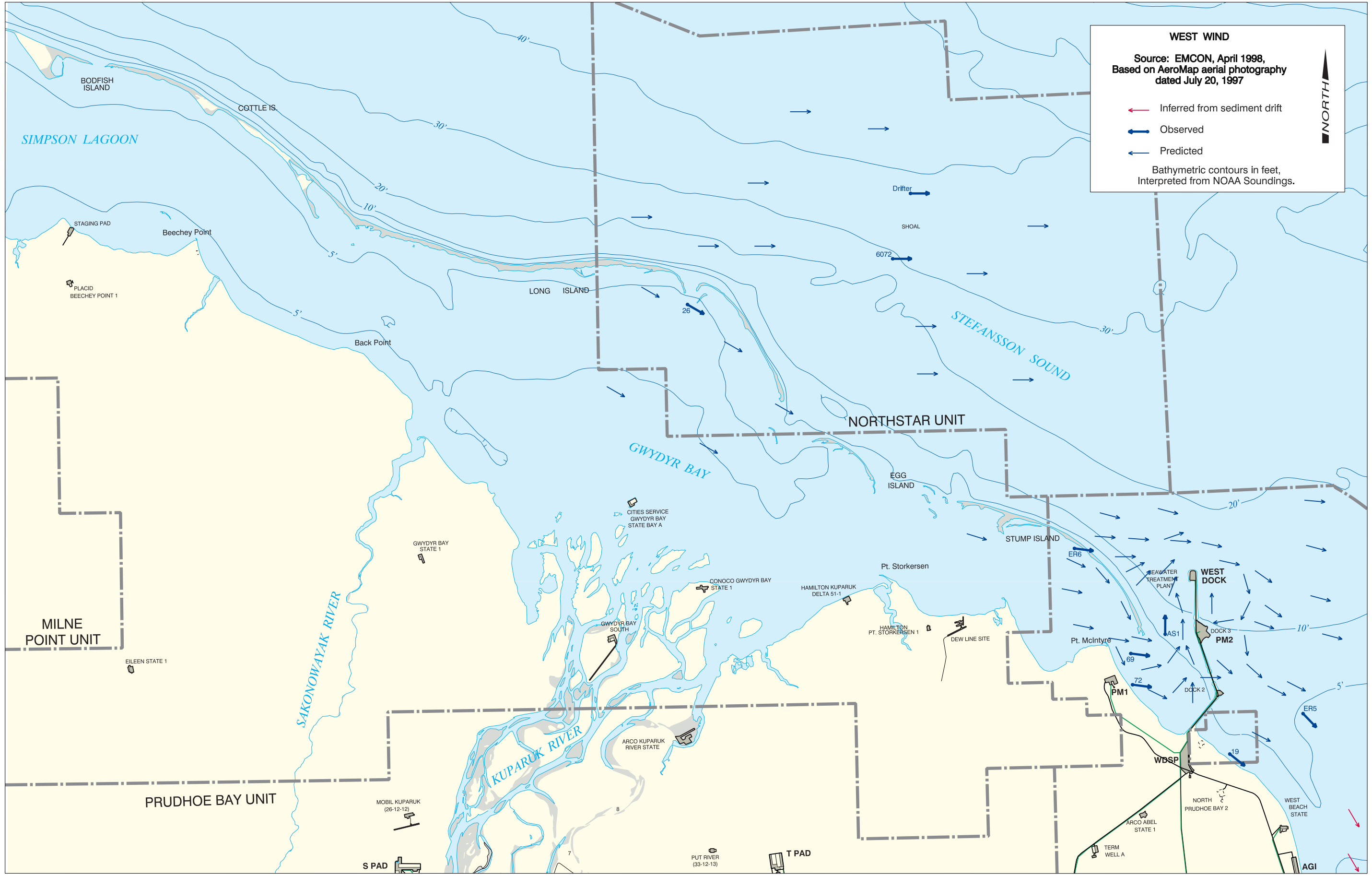
- ← Inferred from sediment drift
- ← Observed
- ← Predicted

Bathymetric contours in feet,
Interpreted from NOAA Soundings.



1:100000 0 1 2 MILES

SHEET 2 OF 2



WEST WIND

Source: EMCON, April 1998,
Based on AeroMap aerial photography
dated July 20, 1997

- ← Inferred from sediment drift
- ← Observed
- ← Predicted

Bathymetric contours in feet,
Interpreted from NOAA Soundings.

NORTH ↑

1:100000 0 1 2 MILES


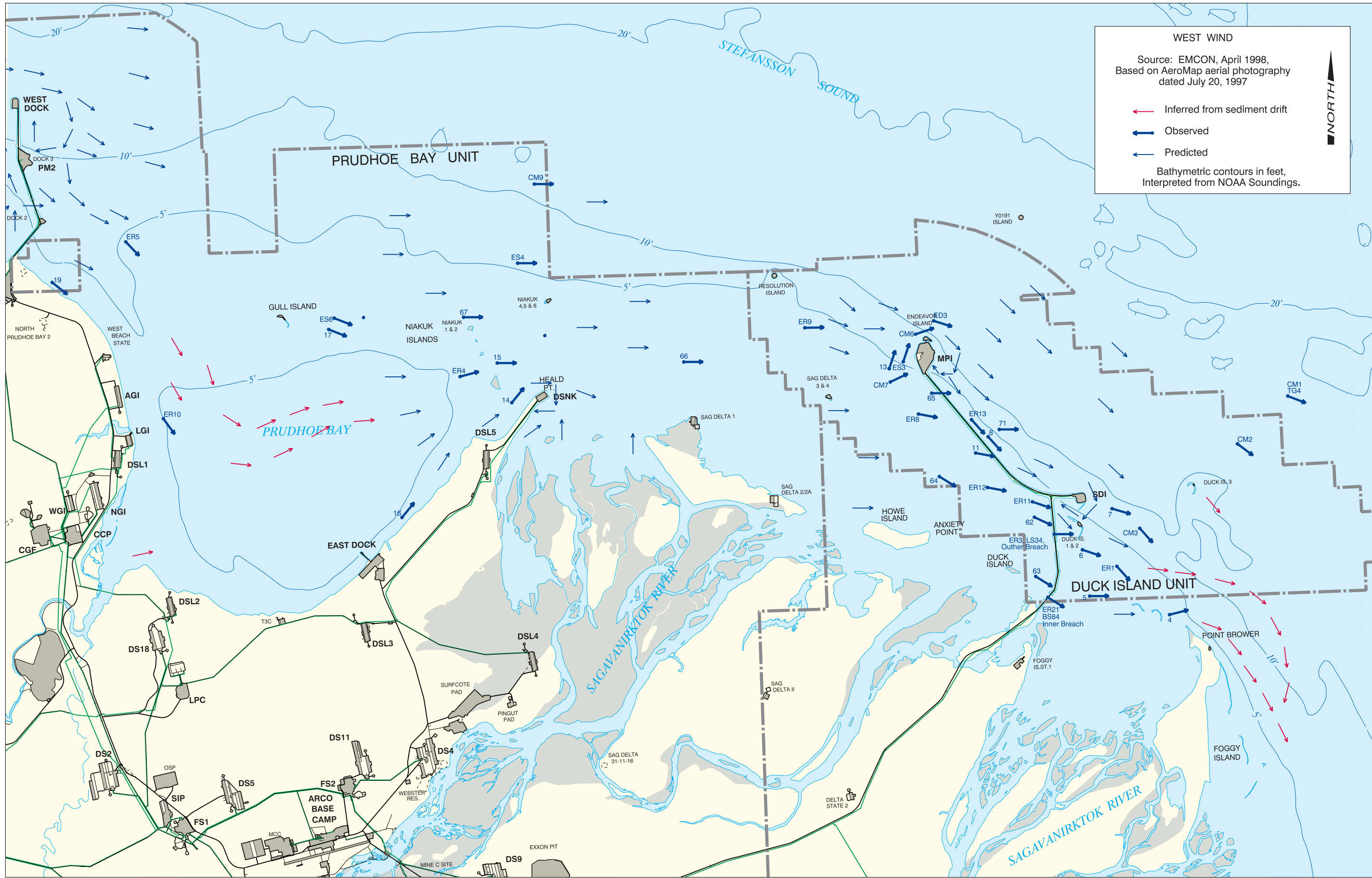
SHEET 1 OF 2

WEST WIND

Source: EMCON, April 1998,
Based on AeroMap aerial photography
dated July 20, 1997

- ← Inferred from sediment drift
- ← Observed
- ← Predicted

Bathymetric contours in feet,
Interpreted from NOAA Soundings.

1:100000 0 1 2 MILES

SHEET 2 OF 2

ALASKA REGIONAL RESPONSE TEAM (ARRT) SENSITIVE AREAS WORKING GROUP

CRITERIA FOR RELATIVE PRIORITY RATING OF SENSITIVE AREAS

This volume of the *Alaska Clean Seas Technical Manual* contains a map atlas of the North Slope oil fields and vicinity. These maps and their accompanying legend pages identify sensitive-area locations for priority protection in the event of a spill. The locations on these maps are ones that can be defended by exclusion or deflection tactics. Also included on the map legend pages are general statements of environmental sensitivity — e.g., presence of birds or marine mammals — provided by the Alaska Regional Response Team (ARRT) Sensitive Areas Working Group.

It is important to remember that detailed protection strategies and incident-specific protection priorities will be developed by the Unified Command at the time of the spill. In evaluating the sites that must be protected, the Unified Command will apply criteria developed by the ARRT Sensitive Areas Working Group with representatives from State and Federal agencies and the private sector. The following relative priority listing prioritizes resources into designations of major, moderate, and lesser concern. Resources are not prioritized within each designation. These designations are for consideration in initial spill response activities; they are not applicable to extended cleanup activities. Specific guidance to On-Scene Coordinators for protecting cultural resources is contained in Annex M of the *Unified Plan*.

The following criteria were developed as a tool to establish levels of concern.* These criteria are not listed in a priority order.

- Human economic disruption — economic/social value; human food source disruption
- Mortality — wildlife, fish, other organisms (how many potentially killed in relation to abundance)
- Animal displacement and sensitivity to displacement
- Aesthetic degradation
- Habitat availability and rarity
- Sublethal effects, including sensitivity to physical or toxic effects of oil or hazardous substances and long-term effects to habitat, species, or both
- Threatened and endangered species, and/or other legal designation
- Persistent concentration of oil or hazardous substances
- Reproduction rate or recolonizing potential
- Relative importance to ecosystem
- Potential for physical contact with spill — pathway of oil or hazardous substance
- Resource sensitivity to response countermeasures

*NOTE: The following information, including the sensitivity graphs on the following pages, were excerpted from the Sensitive Areas section of the *Alaska Regional Response Team North Slope Subarea Contingency Plan*. Please refer to the latest version for any revisions that may have occurred since publication of the *ACS Technical Manual*.

AREAS OF MAJOR CONCERN

- Shoreline Geomorphology - Coastal Habitat Types:
 - River deltas
 - Sheltered lagoons
 - Open lagoons
 - Salt marshes
 - Mud flats
 - Barrier islands
 - Spit beaches
 - Protected bays
- Inland Habitat Types:
 - Riparian willow
 - Connected lakes
 - Freshwater springs
- Threatened or Endangered Species Habitat
- Spotted Seal Haulout Areas (>10 animals)
- Ringed Seal Lairs and Pupping Areas
- Walrus Haulout Areas
- Beluga Whale Concentration Areas
- Bowhead Whale Nearshore Migration Routes
- Polar Bear Denning and Feeding Areas
- Caribou Calving and Insect Relief Areas
- Large Seabird Colonies (>100 birds)
- Waterfowl and Shorebird Spring and Fall Concentration and Staging Areas
- Waterfowl Molting Concentration Areas
- Anadromous Fish Spawning and/or Rearing Streams (i.e., salmon, Dolly Varden, whitefish)
- Land Management Designations
 - Federal: Wilderness
 - Wild and Scenic Rivers
 - National Natural Landmarks
 - Research Natural Areas (Toolik Lake, Galbraith Lake)
- Cultural Resources/Archaeological Sites:
 - National Historic Landmarks
 - Burial Sites
 - National Register Eligible Village Sites
 - Intertidal Sites
- Subsistence Harvest Areas
- High Commercial Use Areas
- High Recreational Use Areas
- River Floodplains

AREAS OF MODERATE CONCERN

- Shoreline Geomorphology - Coastal Habitat Types:
 - Beaded tundra streams
- Upland Habitat Types:
 - Drained lake basins
- Spotted Seal Haulout Areas (< 10 animals)
- Ringed Seal Shorefast Ice Concentration Areas
- Seabird Colonies (10 - 100 birds)
- Waterfowl and Shorebird Nesting Concentration Areas
- Shorebird Molting Concentration Areas
- Bear Concentration Areas (marine mammal/carcasses; salmon)
- Polar Bear General Distribution
- Walrus General Distribution
- Caribou Migration Routes
- Muskox Riparian Habitat
- Commercial Harvest Areas
- Recreational Use Areas
- Land Management Designations
 - Federal: National Parks
 - National Wildlife Refuges
- Cultural Resources/Archaeological Sites
 - National Register Eligible Sites (Other Than Village Sites)
 - Sites Adjacent To Shorelines

AREAS OF LESSER CONCERN

- Upland Habitat Types:
 - Mesic/dry tussock tundra
 - Alpine tundra
- Bearded Seal General Distribution
- Bowhead Whale General Distribution
- Gray Whale Nearshore Migration and Feeding Areas
- Seabird Colonies (<10 birds)
- Waterfowl and Shorebird General Distribution
- General Freshwater Fish Habitat
- Land Management Designations
 - Federal: Public Lands
 - National Forests
 - National Preserves
 - State: General Public Lands



INFORMATION ON SEASONAL SENSITIVITIES

The following information on seasonal sensitivities of various fish and wildlife on the North Slope and adjacent Beaufort Sea has been provided by the Alaska Regional Response Team (ARRT) Sensitive Areas Working Group.

Ringed Seals

CATEGORY	LEAST	MEDIUM	MOST
Abundance		Pack ice	Shorefast ice
Susceptibility		Year around	
Human Harvest			Year around

The shorefast ice between Cape Lisburne and Point Lay has one of the highest densities of ringed seals.



Bearded Seals

CATEGORY	LEAST	MEDIUM	MOST
Abundance			Ice-edge
Susceptibility		Year around	
Human Harvest			Year around



Spotted Seals

CATEGORY	LEAST	MEDIUM	MOST
Abundance (on haulouts)	< 10	10-100	> 100
Susceptibility		Year around	
Human Harvest			May 1-Nov 30

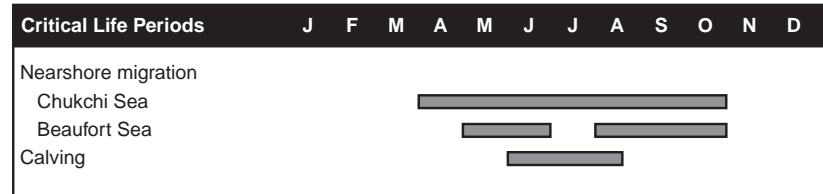
The largest known concentration of spotted seals in Alaska haulout at Kasegaluk Lagoon from mid-July until late October or early November.



Beluga Whales

CATEGORY	LEAST	MEDIUM	MOST
Abundance ¹	< 10	10-100	> 100
Susceptibility	Aug 1-Mar 31	Apr 1-May 20 (Chukchi Sea) May 15-Aug 31 (Beaufort Sea)	May 20-July 31 (Chukchi Sea)
Human Harvest	Sept 10-Mar 31 (Chukchi Sea) Oct 20-July 31 (Beaufort Sea)		Apr 1-Sept 10 (Chukchi Sea) Aug 1-Oct 20 (Beaufort Sea)

¹ Between June 20 and August 15, large numbers of beluga whales concentrate in Kasegaluk Lagoon.



Bowhead Whales

CATEGORY	LEAST	MEDIUM	MOST
Susceptibility	Nov 1-Mar 20	July 1-Oct 31 (Chukchi Sea) July 1- July 31 (Beaufort Sea)	Mar 20-June 30 (Chukchi Sea) Apr 15-June 30; Aug 1-Oct 31 (Beaufort Sea)
Human Harvest ²	June 16-Nov 1 (Chukchi Sea)		Apr 1-June 15 (Chukchi Sea) Aug 1-Oct 20 (Beaufort Sea)

² During the ice-covered months in the Beaufort and Chukchi seas, whales are unavailable for harvest.



Gray Whales

CATEGORY	LEAST	MEDIUM	MOST
Abundance	Jun 1-July 31; Oct 1-Oct 31 (Chukchi Sea) Jun 1-Oct 31 (Beaufort Sea)	Aug 1-Sep 30 (Chukchi Sea)	
Susceptibility		When present	



Walrus

CATEGORY	LEAST	MEDIUM	MOST
Abundance	Nov 1-May 1	May 1-June 15 Oct 1-Oct 31	June 15-Sept 30
Susceptibility		Year around	
Human Harvest	May 1-May 15 Sep 1-Oct 30		May 15-Aug 20



Polar Bears

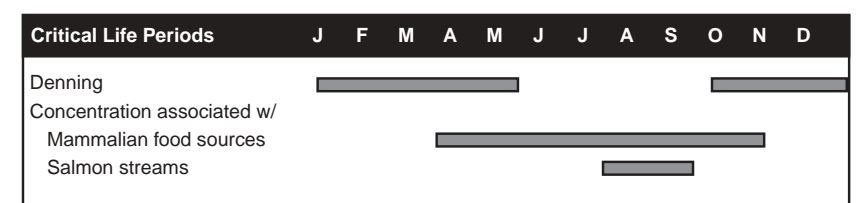
CATEGORY	LEAST	MEDIUM	MOST
Abundance		Shorefast ice	Pack ice/ shorefast ice flaw
Susceptibility			Year around
Human Harvest	June 15-Sept 30 (Chukchi Sea) May 1-Aug 31 (Beaufort Sea)	May 1-June 15; Oct 1-Oct 20 (Chukchi Sea)	Oct 20-Apr 30 (Chukchi Sea) Sept 1-Apr 30 (Beaufort Sea)



* Concentration areas for pregnant females occur at Icy Cape, Pt. Franklin, and in the ANWR 1002 area

Brown Bear

CATEGORY	LEAST	MEDIUM	MOST
Susceptibility	Nov 15-Apr 30		May 1- Nov 15
Human Harvest	June 1-Aug 30		Apr 1-May 30 Sept 1-Oct 30



INFORMATION ON SEASONAL SENSITIVITIES (CONT'D)

Caribou

CATEGORY	LEAST	MEDIUM	MOST
Abundance ³			
Susceptibility	Nov 1-Mar 15	May 15-May 20 June 10-June 30 Aug 15-Sept 15	May 20-June 10 July 1-Aug 15
Human Harvest			Year around

³ There are four caribou herds that utilize various portions of this region. Depending on the herd and the climatic conditions, abundance may vary widely. As a result, specific abundance figures will not be established for use in prioritizing the importance of an area.

Critical Life Periods	J	F	M	A	M	J	J	A	S	O	N	D
Calving period												
Insect relief habitat												
Migrations												

Muskoxen

CATEGORY	LEAST	MEDIUM	MOST
Abundance	Three groups of muskoxen reside in this region of the state. Their range is currently expanding with major concentrations occurring along the river systems.		
Susceptibility		Year around	
Human Harvest	Muskox are not currently harvested in this area.		

Critical Life Periods	J	F	M	A	M	J	J	A	S	O	N	D
Calving												

Seabirds

CATEGORY	LEAST	MEDIUM	MOST
Abundance	< 10	10-100	> 100
Susceptibility	Nov 1-Jan 31	Feb 1-Mar 31	May 1-Sept 30
Species Diversity	1-3	4-6	> 6
Human Harvest ⁹			May 1-July 30

⁹ Seabird eggs utilized by Native communities from late June through July.

Most of the world's population of Ross' Gull is found in nearshore areas of the Barrow area from September through October.

Critical Life Periods	J	F	M	A	M	J	J	A	S	O	N	D
At breeding colonies												
Feeding near colonies												

Waterfowl and Shorebirds

CATEGORY	LEAST	MEDIUM	MOST
Abundance	In prep.		
Susceptibility ⁴⁻⁸	Oct 1-May 15	May 15-June 20	June 20-Sept 30
Human Harvest		July 1-Aug 15 (Chukchi Sea) July 10-Aug 1; Oct 1-Nov 15 (Beaufort Sea)	Apr 1-Jun 30; Aug 15-Sept 30 (Chukchi Sea) May 1- July 10; Aug 1-Sept 30 (Beaufort Sea)

⁴ Spectacled Eider – are in the area from late May through late September.

⁵ Steller's Eider – are concentrated in the Barrow area from early June to September.

⁶ Common Eider – nesting and brood-rearing on barrier islands from late June to mid-August.

⁷ Snow Geese – brood-rearing is concentrated at Putuligayuk, Sagavanirktok, Kadleroshilik, and Shaviovik river deltas; Howe Island; and Foggy Island Bay from early July to mid-August.

⁸ Brant – brood-rearing is concentrated at Putuligayuk, Kuparuk and eastern Colville River deltas; mouth of East Creek to Oliktok Point from early July to mid-August.

Critical Life Periods	J	F	M	A	M	J	J	A	S	O	N	D
Arrival/nesting/brood-rearing												
Molting/feeding concentrations												
Fall migration												

Salmon

CATEGORY	LEAST	MEDIUM	MOST
Abundance	Due to limited information and the finite number of fishbearing streams in the area, all anadromous fish streams in this area are considered important.		
Susceptibility	June 15-Aug 1		Aug 1-June 15
Human Harvest			June 15-Aug 30

Critical Life Periods	J	F	M	A	M	J	J	A	S	O	N	D
Spawning												
Eggs/fry in gravels												

Dolly Varden/Arctic Char

CATEGORY	LEAST	MEDIUM	MOST
Abundance	Due to limited information and the finite number of fishbearing streams in the area, all anadromous fish streams in this area are considered important.		
Susceptibility		June 16-Sept 15	Sept 15-June 15
Human Harvest	Oct 1-June 15		June 16-Sept 30

Critical Life Periods	J	F	M	A	M	J	J	A	S	O	N	D
Spawning												
Overwintering												
Eggs/fry in stream gravels												
Rearing in freshwater												

Anadromous Whitefish

CATEGORY	LEAST	MEDIUM	MOST
Abundance	Limited data are currently available on fish populations within North Slope streams.		
Susceptibility		June 15-Aug 31	Sept 1-June 15
Human Harvest			July 1-Sept 15 Oct 1-Nov 15

Critical Life Periods	J	F	M	A	M	J	J	A	S	O	N	D
Spawning												
Overwintering												
Spring migration												
Fall migration												

Freshwater Fish

CATEGORY	LEAST	MEDIUM	MOST
Abundance	Limited data are currently available on fish populations within North Slope streams.		
Susceptibility		June 15-Aug 31	Sept 1-July 15
Human Harvest	Oct 1-May 30	June 1-Sept 30	

Critical Life Periods	J	F	M	A	M	J	J	A	S	O	N	D
Spawning												
Spring												
Fall												
Overwintering												



CULTURAL RESOURCE CONSIDERATIONS

DEFINITION OF "CULTURAL RESOURCES"

Federal and state law requires protection of cultural resources in the vicinity of the spill or response.

"Cultural resources" is a broad term used to refer to ruins, structures, sites, graves, artifacts, deposits, and/or objects that pertain to history or prehistory. The question is not whether someone thinks a resource has value, but whether the resource meets the criteria of federal or state law.

There are two kinds of impacts of concern during a spill response operation::

- *Direct impact* from spilled substances
- *Indirect impacts* from ground-disturbing activities, vandalism, and theft

RESPONSIBILITIES

Cultural resource protection is primarily an agency responsibility. The duties of the responsible party in an oil spill are to:

- Be aware that cultural resources may exist in the response area.
- Recognize that their existence may affect how response is conducted.
- Cooperate with state and federal officials charged with cultural resource protection.
- Assure that all response personnel do not collect, remove, or disturb cultural resources encountered in a response in any way.
- Consider retaining a cultural resources specialist as a consultant to Planning Section in case of a significant spill.

SITE LOCATIONS

Because of federal law and state policy, the exact locations of cultural resource sites are not shown on ACS or member company maps. Known cultural resource sites on the North Slope have been mapped. Access to this information is restricted. Non-site-specific information on known cultural resources sites can be found in the Area Contingency Plans. In a responsible party-funded response to a spill, the FOSC will consult with appropriate ARRT members regarding cultural resources which may be at risk from a spill or response.

Site-specific cultural resource surveys will be required in areas the State Historic Preservation Officer believes are not well-surveyed for sites.

Responsible parties and response teams should be particularly attentive to the possible existence of cultural resource sites at/on:

- Coastal barrier islands
- Elevated terraces or cut-bank bluffs along rivers
- Pingos
- Most shoreline areas, particularly near embayments or promontories
- Prominent hills inland

For detailed questions, consult the ARRT *Cultural Resources Protection Guidelines (Alaska Unified Plan, Tab E to Annex X)*.

MAPS

The following pages contain the maps that make up the Alaska Clean Seas *Technical Manual Map Atlas*. Please refer to the Map Legend and Index tab to see what the map symbols mean and where these maps fit into the North Slope.



PRIORITY PROTECTION SITES

SITE NO.	DESCRIPTION	SENSITIVITY	TACTIC	EST. BOOM
PS53	Tidal pond	Most sensitive during open water season. Peat shoreline. Keep oil from entering pond.	C-13 or C-14	500'

GENERAL SENSITIVITIES

- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- Plan to deploy bird-hazing systems during the open-water season.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the Phillips Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- HAR-002 on the coast south of the eastern Eskimo Island
- HAR-014 on the coast south of the eastern Eskimo Island
- HAR-018 on the coast south of the eastern Eskimo Island
- HAR-022 near Saktuina Point
- HAR-025 on the eastern Eskimo Island

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- There is a landing strip near the Kogru River inlet approximately 5 miles west of Saktuina Point (west of the area covered by this sheet).

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

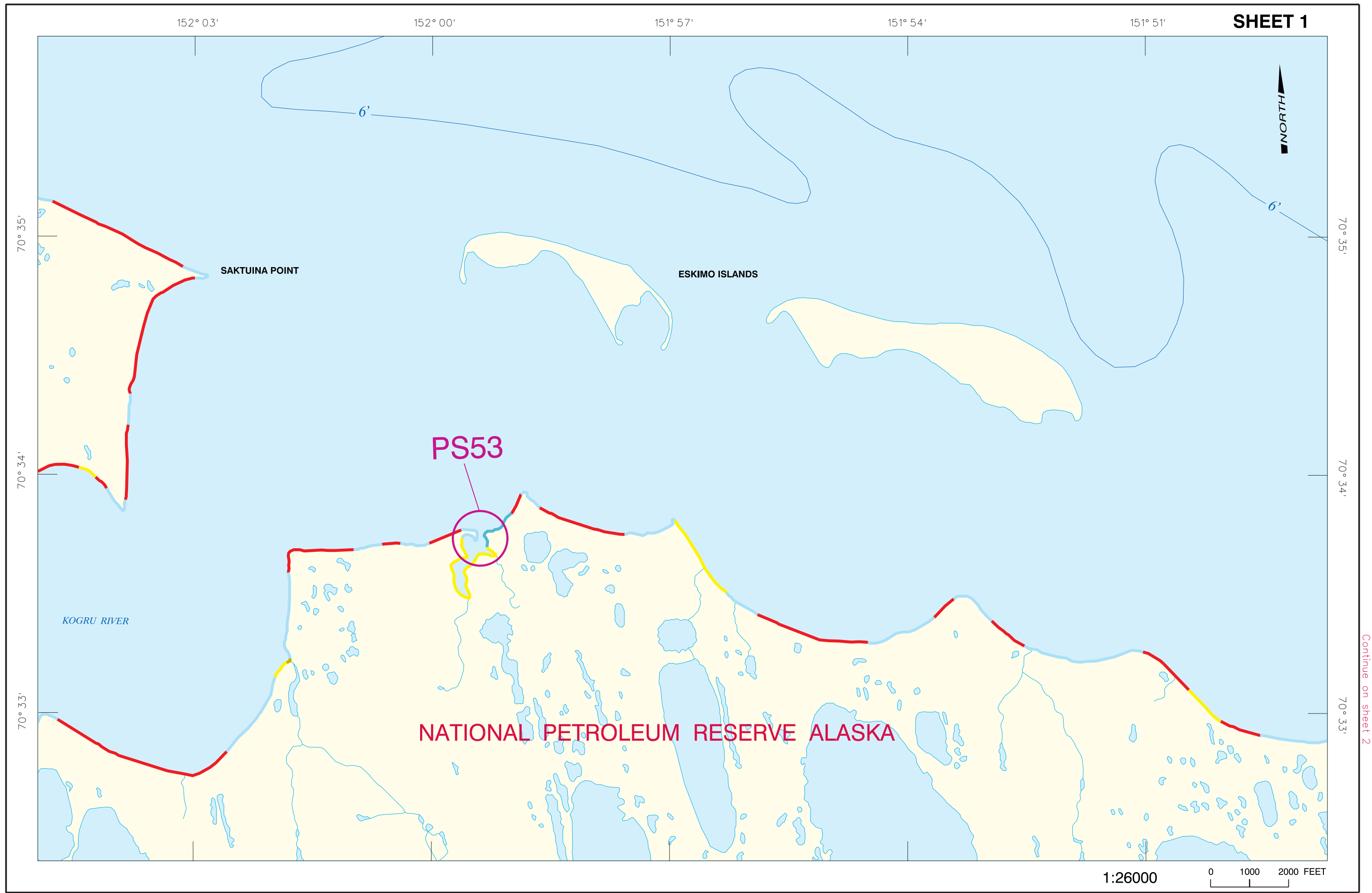
- There is extensive shoaling within 1 mile of shoreline. Water depths range from 1 to 4 ft.
- Navigation is unlikely between the Eskimo Islands and the coast due to shoals.

COUNTERMEASURES CONSIDERATIONS

- Silt is present along many shoreline areas and is layered with peat, making load-bearing capacity minimal. Water depths are very shallow.

*See the latest *Supplement, Alaska* and United States Coast Pilot for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 2



PRIORITY PROTECTION SITES

SITE NO.	DESCRIPTION	SENSITIVITY	TACTIC	EST. BOOM
PS51	Tidal pond opening	Most sensitive during open water season. Inundated low-lying tundra shoreline. Keep oil from entering pond.	C-13 or C-14	800'
PS52	Tidal pond opening	Most sensitive during open water season. Inundated low-lying tundra shoreline. Keep oil from entering pond.	C-13 or C-14	300'

GENERAL SENSITIVITIES

- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- Plan to deploy bird-hazing systems during the open-water season.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- HAR-002 on the coast north of the large lake at the left side of the map
- HAR-014 on the coast north of the large lake at the left side of the map
- HAR-018 on the coast north of the large lake at the left side of the map
- HAR-024 on the unnamed island south-southeast of Atigaru Point
- HAR-026 near Atigaru Point
- HAR-040 near the shore of the large lake at the left side of the map

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- There is a landing strip near the Kogru River 13 miles west of Atigaru Point (west of the area covered by this atlas).

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

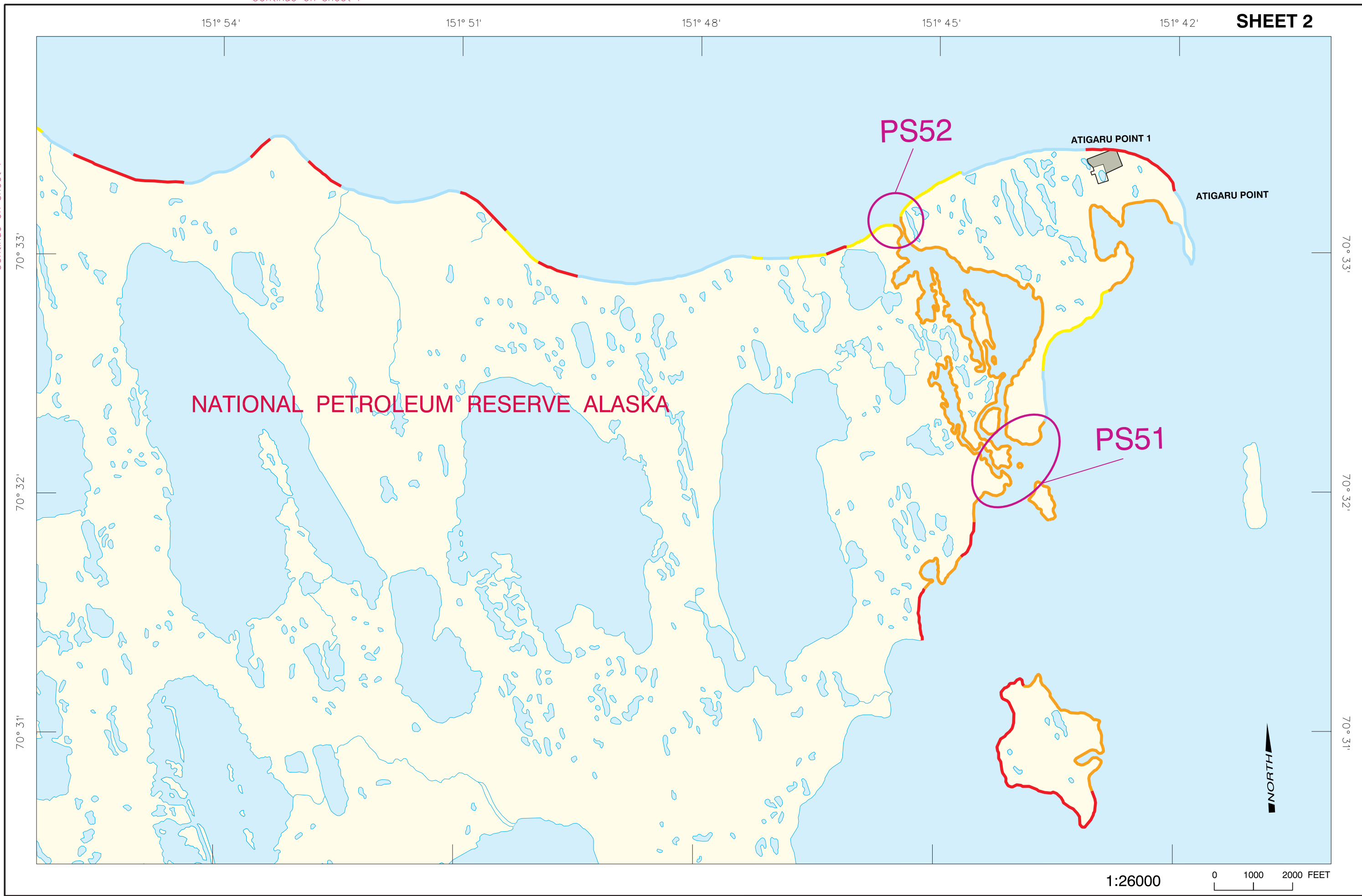
- There is extensive shoaling within 1 mile of shoreline. Water depths range from 1 to 4 ft.
- A fair anchorage for small vessels is located 3 miles south of Atigaru Point.

COUNTERMEASURES CONSIDERATIONS

- Silt is present along many shoreline areas and is layered with peat, making load-bearing capacity minimal. Water depths are very shallow.
- Small islands south of Atigaru Point will collect floating oil.

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



NATIONAL PETROLEUM RESERVE ALASKA

PS52

ATIGARU POINT 1

ATIGARU POINT

PS51

1:26000

0 1000 2000 FEET

NORTH



PRIORITY PROTECTION SITES

SITE NO.	DESCRIPTION	SENSITIVITY	TACTIC	EST. BOOM
PS49	Kalikpik River northern channel mouth	Most sensitive during open water season. Inundated low-lying tundra shoreline and peat shoreline. Keep oil from entering channel.	C-13 or C-14	1,300'
PS50	Tidal pond opening	Most sensitive during open water season. Tundra cliffs and inundated low-lying tundra shoreline. Keep oil from entering pond.	C-13 or C-14	500'
PS54	Tidal pond opening	Most sensitive during open water season. Keep oil from entering pond.	C-13 or C-14	1,200'

GENERAL SENSITIVITIES

- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- Plan to deploy bird-hazing systems during the open-water season.

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- Emergency landing for fixed-wing aircraft is available on the sand flats near the mouth of the Tingmeachsivik River (Sheet 6).

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

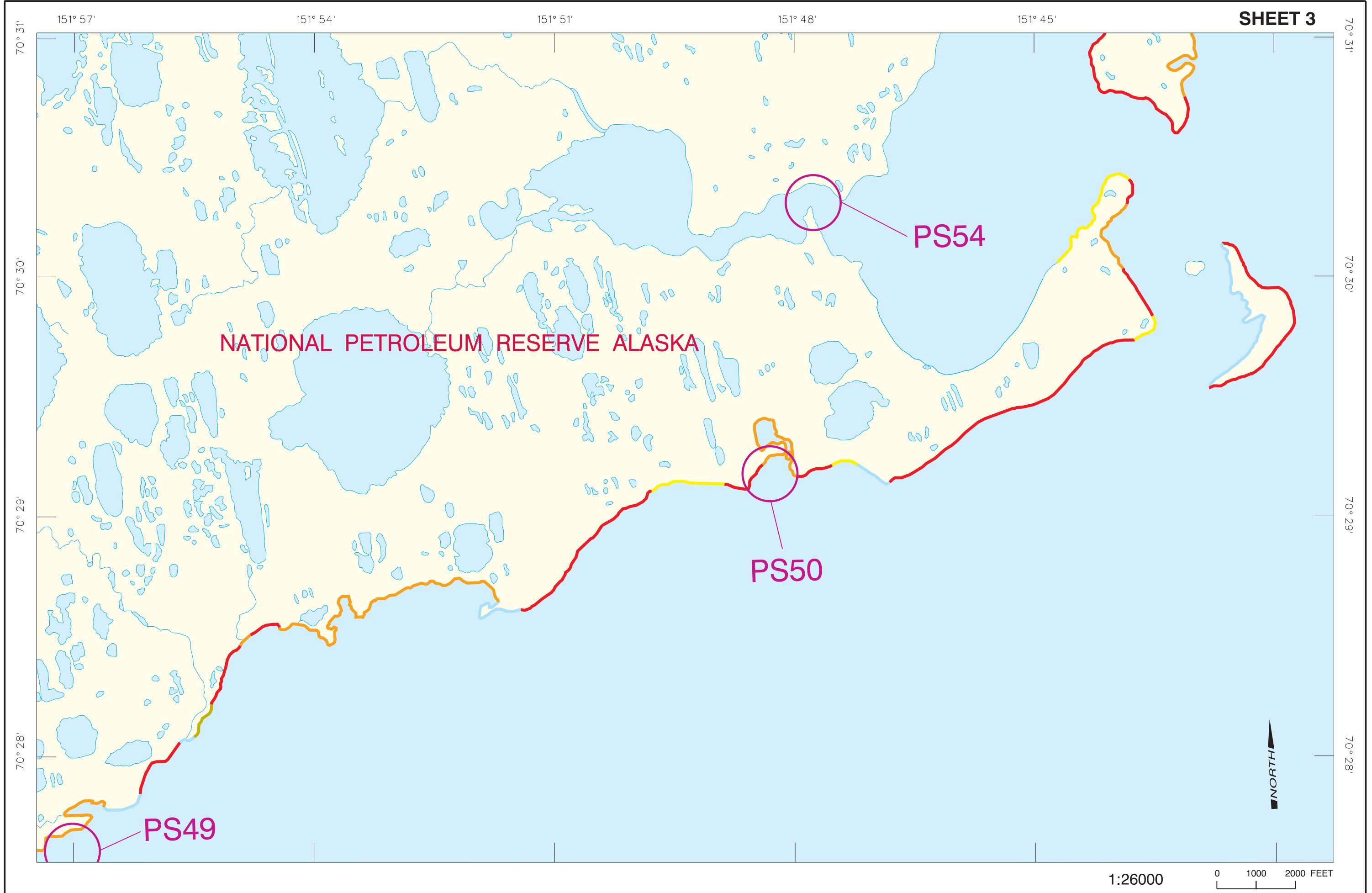
- Extensive shoaling and high sediment transport limit or restrict navigation by sea. Water depths ranging from 2 to 3 ft restrict or preclude marine access.
- Limited small boat anchorage and shelter from west and northwest winds are reported in the bay near the upper right corner of the sheet.

COUNTERMEASURES CONSIDERATIONS

- Sand-silt beaches are very narrow (less than 20 ft wide). Bluffs are often too high for backshore access. Water depths are very shallow in the nearshore areas.
- The west end of the bay (lower portion of map) will collect floating oil during sustained east or northeast winds.

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



NATIONAL PETROLEUM RESERVE ALASKA

PS54

PS50

PS49

1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

SITE NO.	DESCRIPTION	SENSITIVITY	TACTIC	EST. BOOM
PS47	Stream mouth	Most sensitive during open water season. Inundated low-lying tundra shoreline. Keep oil from entering stream.	C-13 or C-14	300'
PS48	Kalikpik River mouth	Most sensitive during open water season. Peat shoreline. Keep oil from entering river.	C-13 or C-14	300'
PS49	Kalikpik River northern channel mouth	Most sensitive during open water season. Inundated low-lying tundra shoreline and peat shoreline. Keep oil from entering channel.	C-13 or C-14	1,300'

GENERAL SENSITIVITIES

- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- Plan to deploy bird-hazing systems during the open-water season.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the Phillips Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- HAR-027 on the coast near the bay south of the Kalikpik River delta
- HAR-028 on the coast east of the Kalikpik River delta near the center of the map

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- Emergency landing for fixed-wing aircraft is available on the sand flats near the mouth of the Tingmeachsiovik River (Sheet 6).

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

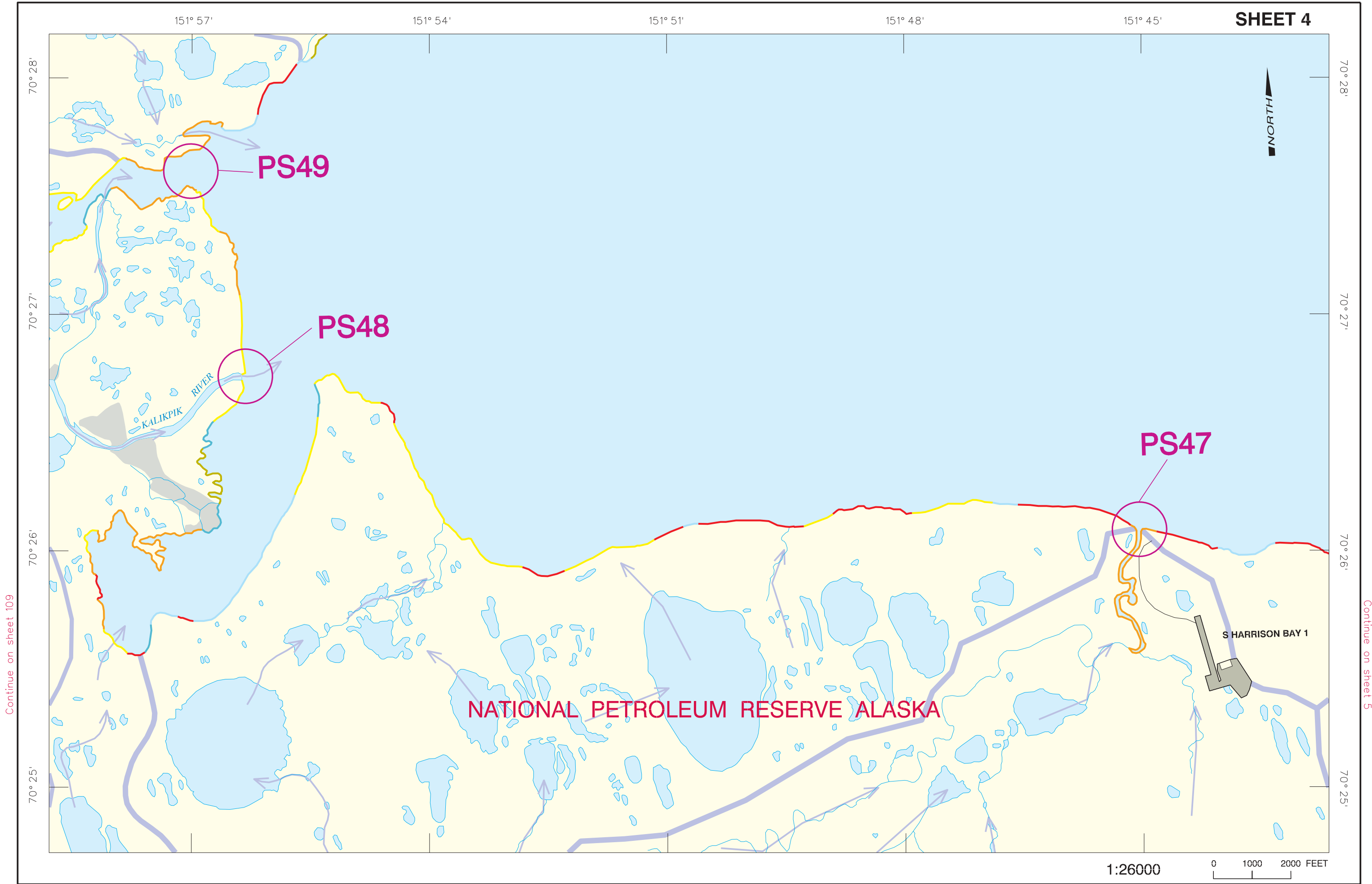
- Extensive shoaling and high sediment transport limit or restrict navigation by sea. Water depths ranging from 2 to 3 ft restrict or preclude marine access.
- Water depths are very shallow in the nearshore areas.
- Kalikpik River annual average discharge rate is 55 cfs.

COUNTERMEASURES CONSIDERATIONS

- Sand-silt beaches are very narrow (less than 20 ft wide). Bluffs are often too high for backshore access.
- The delta of the Kalikpik River is a very complex polygonal tundra and sand-silt flats area. Access is uncertain.
- The west end of Harrison Bay and the mouth of the Kalikpik River will collect floating oil during sustained east or northeast winds.

*See the latest *Supplement, Alaska* and United States Coast Pilot for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 109

Continue on sheet 5



PRIORITY PROTECTION SITES

SITE NO.	DESCRIPTION	SENSITIVITY	TACTIC	EST. BOOM
PS45	Stream mouth	Most sensitive during open water season. Inundated low-lying tundra shoreline. Keep oil from entering stream.	C-13 or C-14	300'
PS46	Stream mouth	Most sensitive during open water season. Inundated low-lying tundra shoreline. Keep oil from entering stream.	C-13 or C-14	800'

GENERAL SENSITIVITIES

- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- Plan to deploy bird-hazing systems during the open-water season.

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- Emergency landing for fixed-wing aircraft is available on the sand flats near the mouth of the Tingmeachsiovik River (Sheet 6).

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Extensive shoaling and high sediment transport limit or restrict navigation by sea. Water depths ranging from 2 to 3 ft restrict or preclude marine access.
- Water depths are very shallow in the nearshore areas.

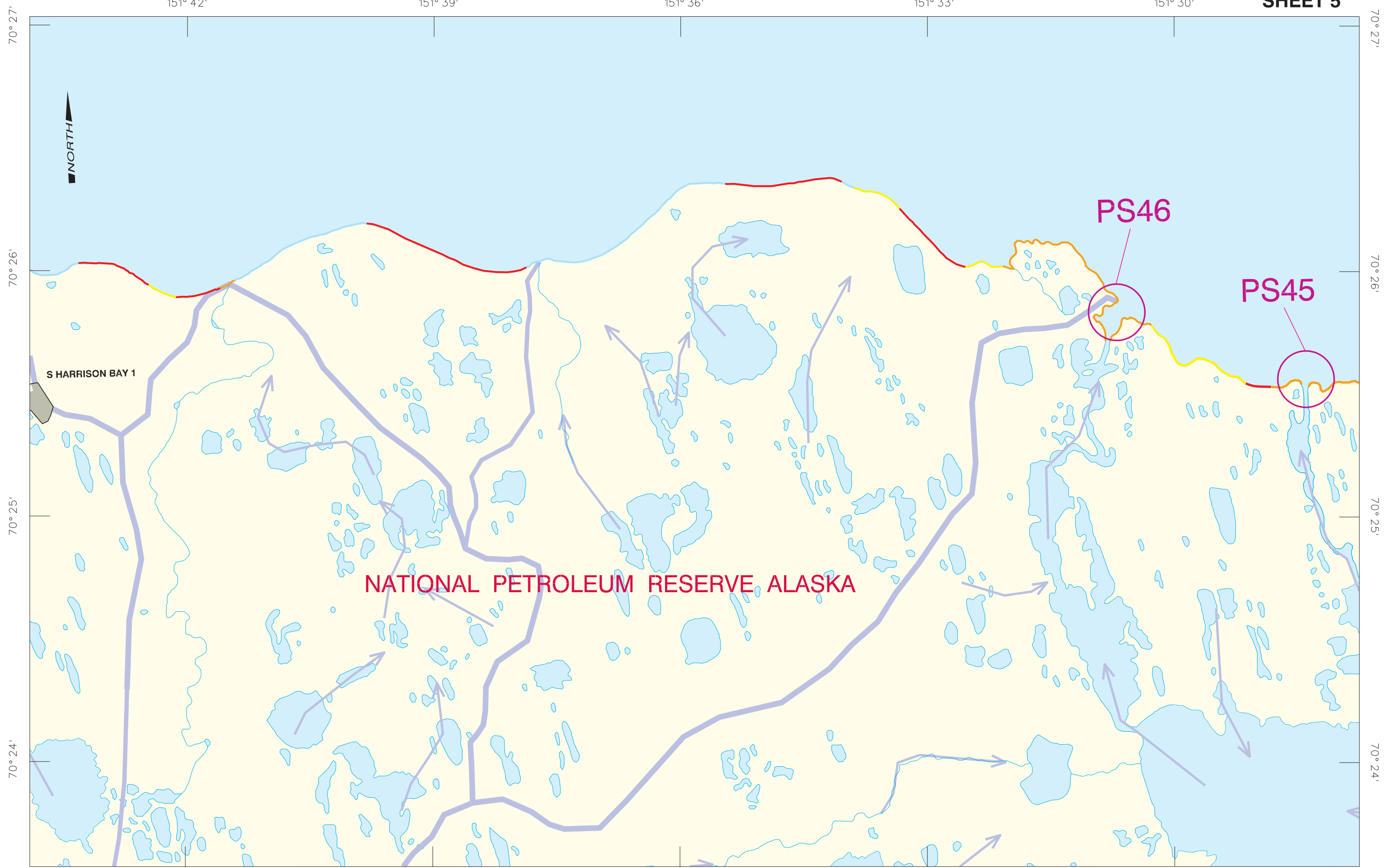
COUNTERMEASURES CONSIDERATIONS

- Sand-silt beaches are very narrow (less than 20 ft wide). Bluffs are often too high for backshore access.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

151° 42' 151° 39' 151° 36' 151° 33' 151° 30'



Continue on sheet 4

Continue on sheet 113

Continue on sheet 6

NATIONAL PETROLEUM RESERVE ALASKA

S HARRISON BAY 1

PS46

PS45

1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

SITE NO.	DESCRIPTION	SENSITIVITY	TACTIC	EST. BOOM
PS38	Tingmeachsiovik River Delta	Most sensitive during open water season. Keep oil from entering river.	C-13 or C-14	300'
PS39	Tingmeachsiovik River Delta	Most sensitive during open water season. Keep oil from entering river.	C-13 or C-14	300'
PS40	Tingmeachsiovik River Delta	Most sensitive during open water season. Keep oil from entering river.	C-13 or C-14	600'
PS41	Tingmeachsiovik River Delta	Most sensitive during open water season. Keep oil from entering river.	C-13 or C-14	400'
PS44	Tidewater ponds	Most sensitive during open water season. Inundated low-lying tundra shoreline. Keep oil from entering ponds.	C-13 or C-14	800'
PS45	Stream mouth	Most sensitive during open water season. Inundated low-lying tundra shoreline. Keep oil from entering stream.	C-13 or C-14	300'

GENERAL SENSITIVITIES

- The Colville River delta (to the east) supports very high numbers of breeding waterfowl in July. Birds may also be present in the freshwater overflow during the spring before breakup elsewhere.
- Plan to deploy bird-hazing systems during spring and the open-water season.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the Phillips Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- HAR-028 near the coast in the Tingmeachsiovik River delta

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- Emergency landing for fixed-wing aircraft is available on the sand flats near the mouth of the Tingmeachsiovik River and on the sand flats west of the Nechelik Channel (Sheet 7).
- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 13 miles to the southeast. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There is severe shoaling and continuous sediment transport in the Colville River delta. Water depths are generally less than 4 ft up to 5 miles offshore.
- Water is highly turbid during summer freshet, up to 1,650 mg/l solids. This precludes visual observation of shoals and subsurface obstructions.

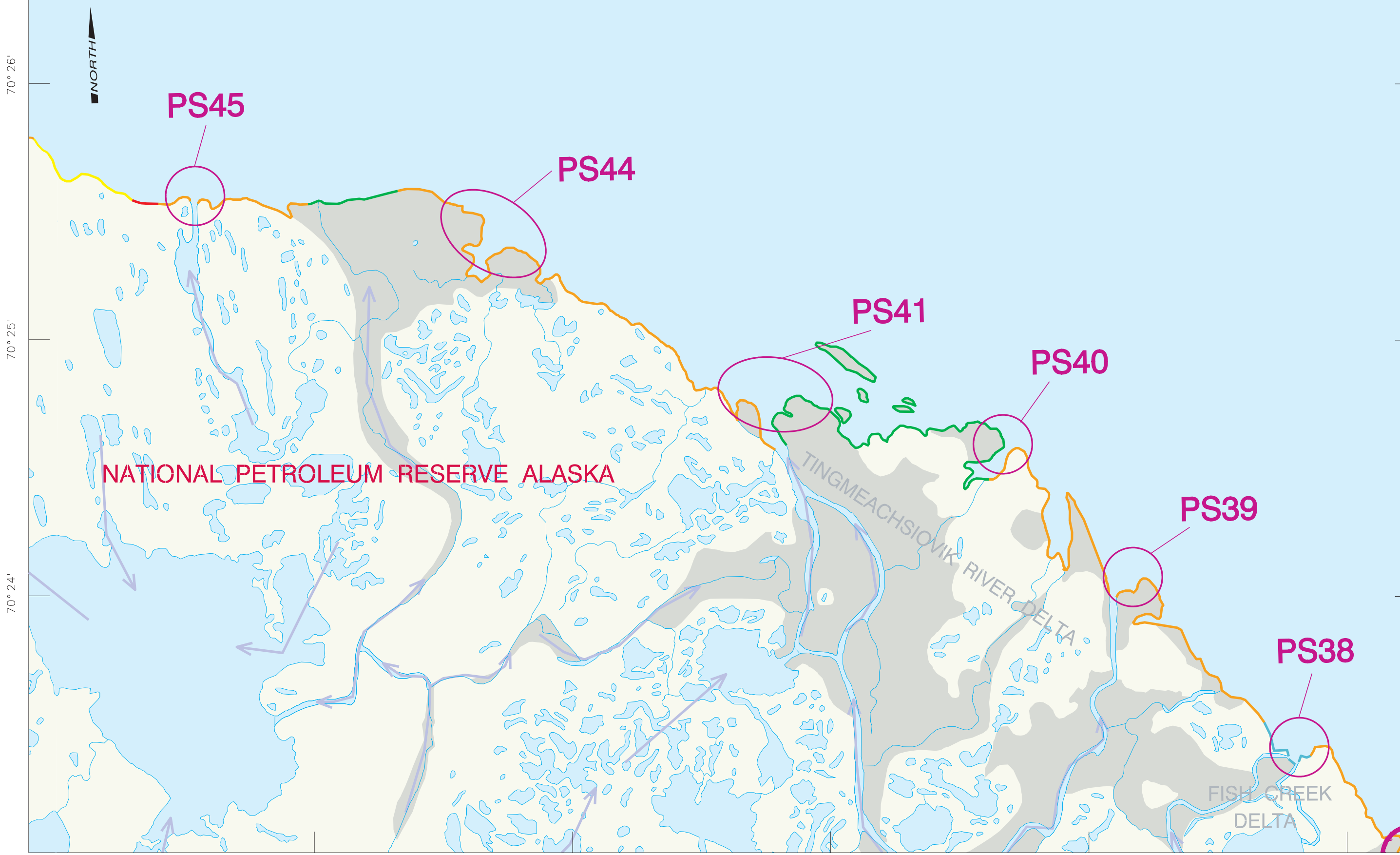
COUNTERMEASURES CONSIDERATIONS

- Vegetated shorelines and mud flats in the river delta have minimal load-bearing capacity. Caution should be used to minimize erosion or loss of equipment.

*See the latest *Supplement, Alaska* and United States Coast Pilot for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

151° 30' 151° 27' 151° 24' 151° 21' 151° 18'



Continue on sheet 5

NATIONAL PETROLEUM RESERVE ALASKA

TINGMEACHSIOVIK RIVER DELTA

FISH CREEK DELTA

1:26000 0 1000 2000 FEET



PRIORITY PROTECTION SITES

SITE NO.	DESCRIPTION	SENSITIVITY	TACTIC	EST. BOOM
PS34	Fish Creek mouth	Most sensitive during open water season. Keep oil from entering river. Important area for anadromous fish.	C-13 or C-14	600'
PS35	Fish Creek mouth	Most sensitive during open water season. Keep oil from entering river. Important area for anadromous fish.	C-13 or C-14	500'
PS36	Fish Creek mouth	Most sensitive during open water season. Keep oil from entering river. Important area for anadromous fish.	C-13 or C-14	1,000'
PS37	Fish Creek mouth	Most sensitive during open water season. Keep oil from entering river. Important area for anadromous fish.	C-13 or C-14	300'
PS38	Tingmeachsiovik River Delta	Most sensitive during open water season. Keep oil from entering river.	C-13 or C-14	300'

GENERAL SENSITIVITIES

- The Colville River delta (to the east) supports very high numbers of nesting and brood-rearing waterfowl, waterbirds, and shorebirds from June through September. Molting birds are present in July and August.
- Birds may also be present in the freshwater overflow during the spring before breakup elsewhere.
- Plan to deploy bird-hazing systems during spring and the open-water season.
- Fish Creek delta is an important area for anadromous fish.

CULTURAL SITES

The area surrounding Fish Creek is a subsistence use area.

Information on the exact locations of cultural sites is confidential. The site described below is being proposed for inclusion in the North Slope archaeological data maintained by the State Historical Preservation Officer (SHPO) (907-269-8721). The following site is located in the area depicted on this sheet:

- Proposed 49-HAR-044 in the Fish Creek Delta

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- Emergency landing for fixed-wing aircraft is available on the sand flats near the mouth of the Tingmeachsiovik River (Sheet 6) and on the sand flats east across the inlet from the Tingmeachsiovik River delta.
- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 13 miles southeast of the Fish Creek delta. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Severe shoaling and continuous sediment transport occur in the Colville River delta (to the east). Water depths are generally less than 4 ft up to 5 miles offshore.
- Water is highly turbid during summer freshet, up to 1,650 mg/l solids. This precludes visual observation of shoals and subsurface obstructions.

COUNTERMEASURES CONSIDERATIONS

- Vegetated shorelines and mud flats in the river deltas have minimal load-bearing capacity. Caution should be used to minimize erosion or loss of equipment.

*See the latest *Supplement, Alaska* and United States Coast Pilot for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

151° 21'

151° 18'

151° 15'

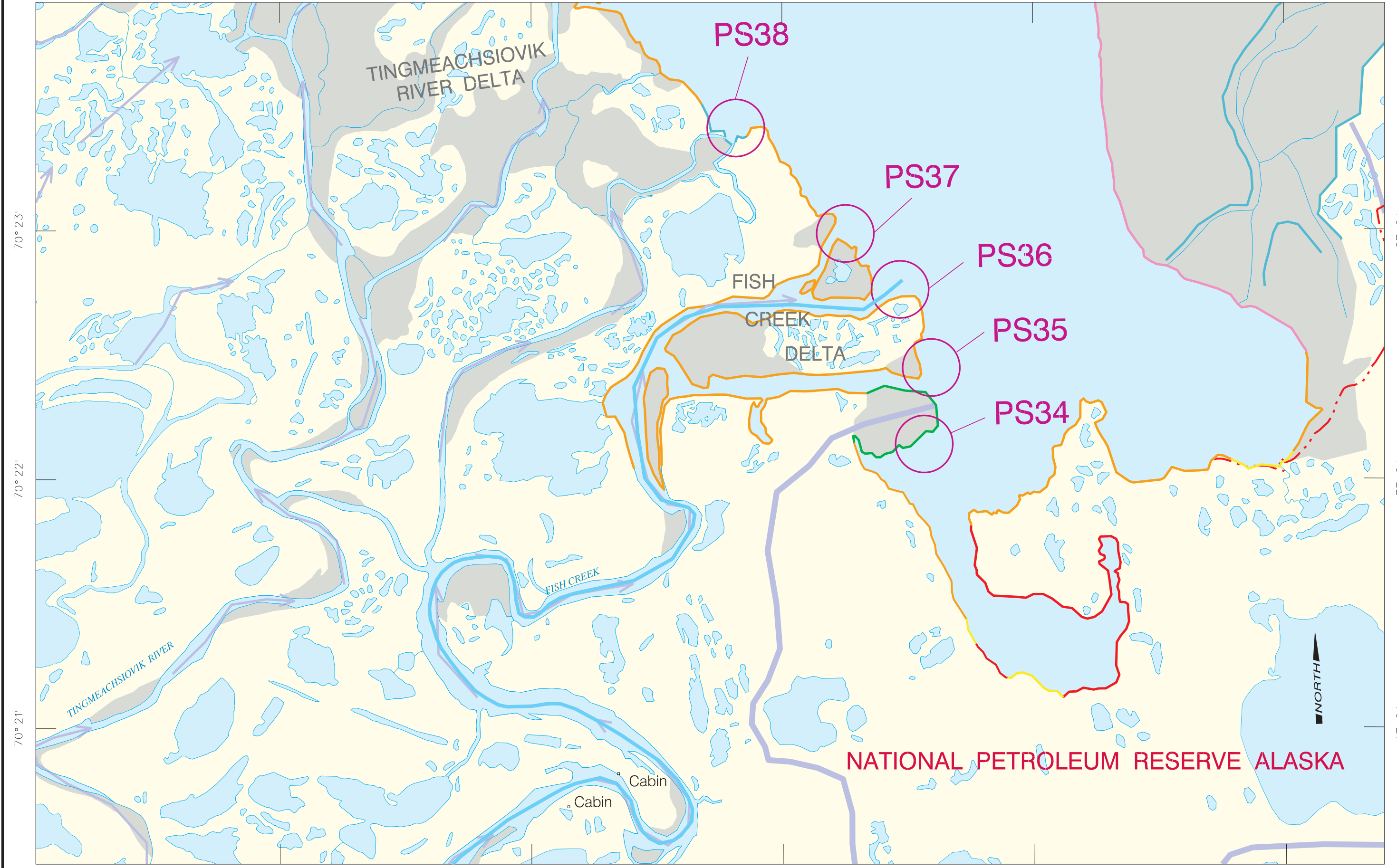
151° 12'

151° 09'

Continue on sheet 6

Continue on sheet 115

Continue on sheet 16





PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Seals and fish are harvested for subsistence in the Nechelik Channel and at its mouth.
- The Colville River delta supports very high numbers of nesting and brood-rearing waterfowl, waterbirds, and shorebirds from June through September. Molting birds are present in July and August.
- Birds may also be present in the freshwater overflow during the spring before breakup elsewhere.
- The outer portion of the delta is an important migration staging area for shorebirds from July through September and a Pintail molting area in July and August.
- Spectacled Eider nest sites have been found near water in this area. Consult Wildlife Leader in the Incident Command System's Environment Unit for an advisory regarding protection of these Spectacled Eider nest sites. The Spectacled Eider is listed as threatened by the U.S. Fish and Wildlife Service.
- Plan to deploy bird-hazing systems during spring and the open-water season.
- All waterways and waterbodies within the confines of the Colville River delta (the west bank of the Nechelik Channel to the Colville River's easternmost bank) are considered habitat for anadromous fish.
- The Nechelik Channel is a migratory pathway for char, cisco and whitefish, and an overwintering area for a number of anadromous and marine fish.
- Polar bear dens have been found in this area. Dens may be in use from October through April.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- HAR-169 on the west bank of Nechelik Channel

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- Emergency landing for fixed-wing aircraft is available on the sand flats near the mouth of the Tingmeachsiovik River (Sheet 6) and on the sand flats west of the Nechelik Channel of the Colville River (Sheet 7).
- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 16 miles south of the mouth of Nechelik Channel. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

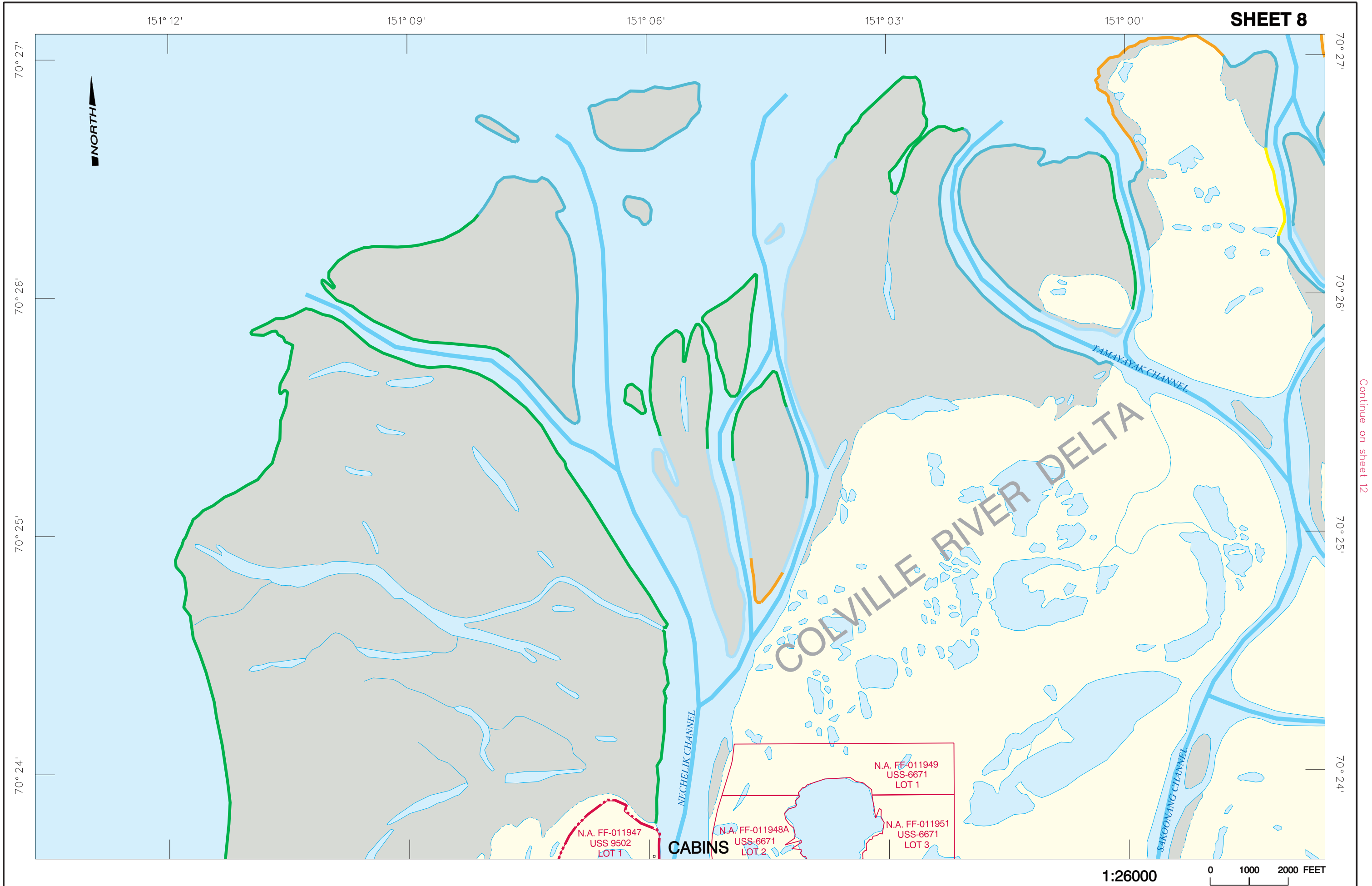
- Severe shoaling and continuous sediment transport occur in the Colville River delta. Water depths are generally less than 4 ft up to 5 miles offshore.
- The average annual discharge rate of the Colville River is 12,000 cfs.
- Annual river-sediment discharge is 6.5 million tons (more than 300 tons/sq mi).
- Water is highly turbid during summer freshet, up to 1,650 mg/l solids. This precludes visual observation of shoals and subsurface obstructions.

COUNTERMEASURES CONSIDERATIONS

- Voluminous riverine discharge and hydrodynamic circulation will preclude almost any floating oil from contacting shoreline. Circulation will cause oil to drift either to western or eastern shores of Harrison Bay.
- Because of very low relief over extensive mud flats in the Colville River delta, oil may spread over large areas.
- Vegetated shorelines and mud flats in the Colville River delta have minimal load-bearing capacity. Caution should be used to minimize erosion or loss of equipment.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



151° 12'

151° 09'

151° 06'

151° 03'

151° 00'

70° 27'

70° 26'

70° 25'

70° 24'

70° 27'

70° 26'

70° 25'

70° 24'



Continue on sheet 12

1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- The Colville River delta supports very high numbers of nesting and brood-rearing waterfowl, waterbirds, and shorebirds from June through September. Molting birds are present in July and August.
- Birds may also be present in the freshwater overflow during the spring before breakup elsewhere.
- The outer portion of the delta is an important migration staging area for shorebirds from July through September and a Pintail molting area in July and August.
- Spectacled Eider nest sites have been found in the western side of the Colville River delta.
- Spectacled Eider broods occasionally occupy the Tolaktovut Point area in late summer.
- Plan to deploy bird-hazing systems during spring and the open-water season.
- The Colville River is a migratory pathway for char, cisco, and whitefish. The Elaktoveach Channel is an overwintering area for several marine and anadromous fish.
- All waterways and waterbodies within the confines of the Colville River delta (the west bank of the Nechelik Channel to the Colville River's easternmost bank) are considered habitat for anadromous fish.



AIR ACCESS*

- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 17 miles south of the coast. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

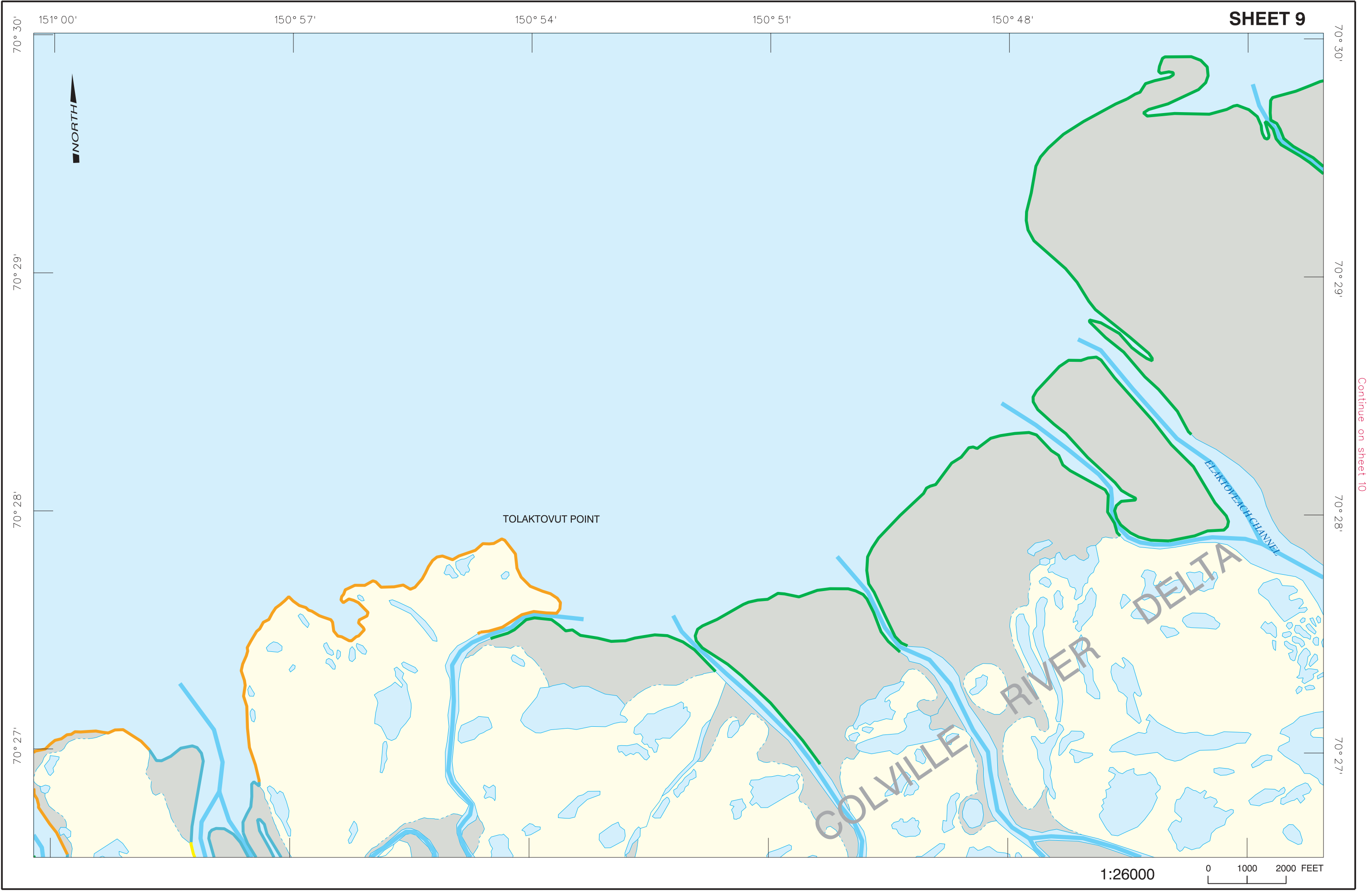
VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Severe shoaling and continuous sediment transport occur in the Colville River delta. Water depths are generally less than 4 ft up to 5 miles offshore.
- The average annual discharge rate of the Colville River is 12,000 cfs.
- Annual river-sediment discharge is 6.5 million tons (more than 300 tons/sq mi).
- Water is highly turbid during summer freshet, up to 1,650 mg/l solids. This precludes visual observation of shoals and subsurface obstructions.

COUNTERMEASURES CONSIDERATIONS

- Voluminous riverine discharge and hydrodynamic circulation will preclude almost any floating oil from contacting shoreline. Circulation will cause oil to drift either to western or eastern shores of Harrison Bay.
- Because of very low relief over extensive mud flats in the Colville River delta, oil may spread over large areas.
- Load-bearing capacity of muddy sediments on the west side of the delta is minimal.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.



Continue on sheet 10

Continue on sheet 12



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- The Colville River delta supports very high numbers of nesting and brood-rearing waterfowl, waterbirds, and shorebirds from June through September. Molting birds are present in July and August.
- Birds may also be present in the freshwater overflow during the spring before breakup elsewhere.
- The outer portion of the delta is an important migration staging area for shorebirds from July through September and a Pintail molting area in July and August.
- Plan to deploy bird-hazing systems during spring and the open-water season.
- The Colville River is a migratory pathway for char, cisco, and whitefish. The eastern channel is an overwintering area for several marine and anadromous fish.
- All waterways and waterbodies within the confines of the Colville River delta (the west bank of the Nechelik Channel to the Colville River's easternmost bank) are considered habitat for anadromous fish.



AIR ACCESS*

- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 21 miles south of the mouth of Elaktoveach Channel. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Severe shoaling and continuous sediment transport occur in the Colville River delta. Water depths are generally less than 4 ft up to 5 miles offshore.
- The average annual discharge rate of the Colville River is 12,000 cfs.
- Annual river-sediment discharge is 6.5 million tons (more than 300 tons/sq mi).
- Water is highly turbid during summer freshet, up to 1,650 mg/l solids. This precludes visual observation of shoals and subsurface obstructions.

COUNTERMEASURES CONSIDERATIONS

- Voluminous riverine discharge and hydrodynamic circulation will preclude almost any floating oil from contacting shoreline. Circulation will cause oil to drift either to western or eastern shores of Harrison Bay.
- Because of very low relief over extensive mud flats in the Colville River delta, oil may spread over large areas.
- Load-bearing capacity of muddy sediments on the west side of the delta is minimal. Sediments at the delta front become more sandy toward the eastern side and therefore more firmly packed.

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

150° 45'

150° 42'

150° 39'

150° 36'

150° 33'

70° 30'

70° 29'

70° 28'

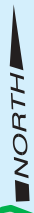
70° 27'

70° 30'

70° 29'

70° 28'

70° 27'



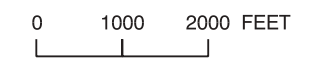
COLVILLE RIVER DELTA

ELAKTOVEACH CHANNEL

Continue on sheet 9

Continue on sheet 1

1:26000





PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- In May and June, before breakup, the freshwater overflow on the ice in front of the Colville River delta is an important area for waterfowl and shorebirds.
- The Colville River delta supports very high numbers of nesting and brood-rearing waterfowl, waterbirds, and shorebirds from June through September. Molting birds are present in July and August.
- The outer portion of the delta is an important migration staging area for shorebirds from July through September and a Pintail molting area in July and August.
- Plan to deploy bird-hazing systems during spring and the open-water season.
- The Colville River is a migratory pathway for char, cisco, and whitefish. The eastern channel is an overwintering area for several marine and anadromous fish.
- All waterways and waterbodies within the confines of the Colville River delta (the west bank of the Nechelik Channel to the Colville River's easternmost bank) are considered habitat for anadromous fish.



AIR ACCESS*

- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 24 miles to the southwest. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.
- There is an unmarked emergency landing strip on the east side of the Colville River delta.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Severe shoaling and continuous sediment transport occur in the Colville River delta. Water depths are generally less than 4 ft up to 5 miles offshore.
- The main channel of the Colville River generally maintains a 3 ft water depth and is usually navigable 70 miles upriver to the rapids below the mouth of the Anaktuvuk River.
- The average annual discharge rate of the Colville River is 12,000 cfs.
- Annual river-sediment discharge is 6.5 million tons (more than 300 tons/sq mi).
- Water is highly turbid during summer freshet, up to 1,650 mg/l solids. This precludes visual observation of shoals and subsurface obstructions.

COUNTERMEASURES CONSIDERATIONS

- Voluminous riverine discharge and hydrodynamic circulation will preclude almost any floating oil from contacting shoreline. Circulation will cause oil to drift either to western or eastern shores of Harrison Bay.
- Because of very low relief over extensive mud flats in the Colville River delta, oil may spread over large areas.
- Load-bearing capacity of muddy sediments on the west side of the delta is minimal. Sediments at the delta front become more sandy toward the eastern side and therefore more firmly packed.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.

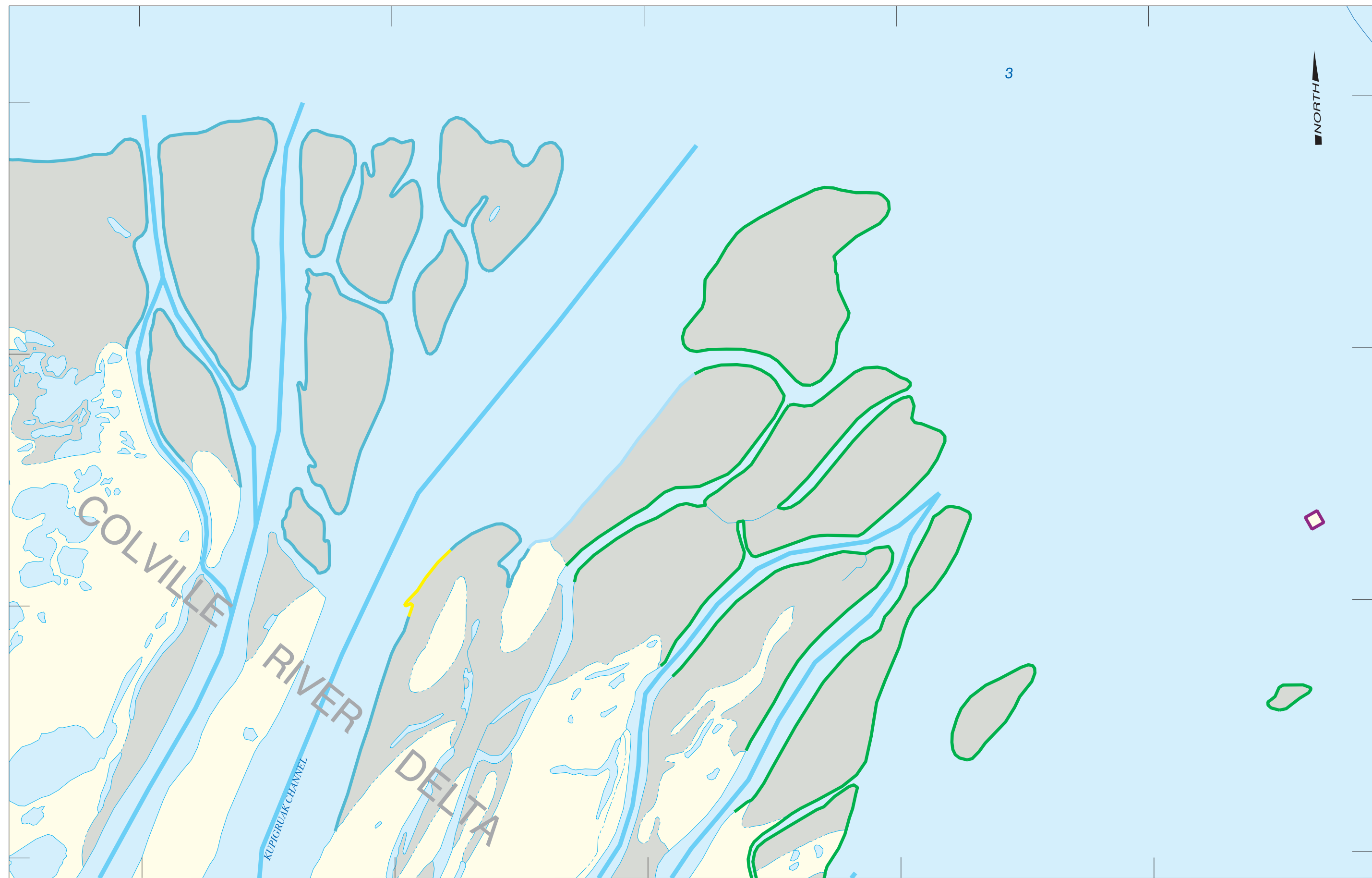
150° 30' 150° 27' 150° 24' 150° 21' 150° 18'

70° 30'
70° 29'
70° 28'
70° 27'

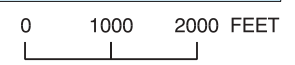
70° 30'
70° 29'
70° 28'
70° 27'

Continue on sheet 10

Continue on sheet 14



1:26000





PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- In May and June, before breakup, the freshwater overflow on the ice in front of the Colville River delta is an important area for waterfowl and shorebirds.
- The Colville River delta supports very high numbers of nesting and brood-rearing waterfowl, waterbirds, and shorebirds from June through September. Molting birds are present in July and August.
- The outer portion of the delta is an important migration staging area for shorebirds from July through September and a Pintail molting area in July and August.
- Spectacled Eider nest sites have been found in the western side of the Colville River delta.
- Plan to deploy bird-hazing systems during spring and the open-water season.
- The Colville River is a migratory pathway for char, cisco, and whitefish. The eastern channel is an overwintering area for several marine and anadromous fish.
- All waterways and waterbodies within the confines of the Colville River delta (the west bank of the Nechelik Channel to the Colville River's easternmost bank) are considered habitat for anadromous fish.

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 15 miles to the south. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Severe shoaling and continuous sediment transport occur in the Colville River delta. Water depths are generally less than 4 ft up to 5 miles offshore.
- The average annual discharge rate of the Colville River is 12,000 cfs.
- Annual river-sediment discharge is 6.5 million tons (more than 300 tons/sq mi).
- Water is highly turbid during summer freshet, up to 1,650 mg/l solids. This precludes visual observation of shoals and subsurface obstructions.

COUNTERMEASURES CONSIDERATIONS

- Voluminous riverine discharge and hydrodynamic circulation will preclude almost any floating oil from contacting shoreline.
- During periods of extreme storm surge, some of the bars and islands may be contaminated by oil. Vegetated areas are probably wet tundra. Caution should be exercised.
- Because of very low relief over extensive mud flats in the Colville River delta, oil may spread over large areas.
- Load-bearing capacity of muddy sediments on the west side of the delta is minimal. Sediments at the delta front become more sandy toward the eastern side and therefore more firmly packed.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

151° 00' 150° 57' 150° 54' 150° 51' 150° 48'

Continue on sheet 8

Continue on sheet 13



70° 24' 70° 25' 70° 26' 70° 27'

1:26000 0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- The Colville River delta supports very high numbers of nesting and brood-rearing waterfowl, waterbirds, and shorebirds from June through September. Molting birds are present in July and August.
- Birds may also be present in the freshwater overflow during the spring before breakup elsewhere.
- The outer portion of the delta is an important migration staging area for shorebirds from July through September and a Pintail molting area in July and August.
- Plan to deploy bird-hazing systems during spring and the open-water season.
- The Colville River is a migratory pathway for char, cisco, and whitefish. The eastern channel is an overwintering area for several marine and anadromous fish.
- All waterways and waterbodies within the confines of the Colville River delta (the west bank of the Nechelik Channel to the Colville River's easternmost bank) are considered habitat for anadromous fish.



AIR ACCESS*

- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 17 miles to the southwest. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Severe shoaling and continuous sediment transport occur in the Colville River delta. Water depths are generally less than 4 ft up to 5 miles offshore.
- The main channel of the Colville River generally maintains a 3 ft water depth and is usually navigable 70 miles upriver to the rapids below the mouth of the Anaktuvuk River.
- The average annual discharge rate of the Colville River is 12,000 cfs.
- Annual river-sediment discharge is 6.5 million tons (more than 300 tons/sq mi).
- Water is highly turbid during summer freshet, up to 1,650 mg/l solids. This precludes visual observation of shoals and subsurface obstructions.

COUNTERMEASURES CONSIDERATIONS

- During periods of extreme storm surge, some of the bars and islands may be contaminated by oil. Vegetated areas are probably wet tundra. Caution should be exercised.

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

150° 45'

150° 42'

150° 39'

150° 36'

150° 33'

70° 27'

70° 26'

70° 25'

70° 27'

70° 26'

70° 25'

70° 24'



ELAKTOVEACH CHANNEL

COLVILLE RIVER DELTA

KUPIGRUAK CHANNEL

N.A. FF-13834
USS-9999
LOT 5

N.A. FF-13834
USS-9999
LOT 4

N.A. FF-13833
USS-9999
LOT 3

N.A. FF-13835
USS-9999
LOT 2

N.A. FF-14315
USS-9999
LOT 1

1:26000



Continue on sheet 12

Continue on sheet 14



PRIORITY PROTECTION SITES

SITE NO.	DESCRIPTION	SENSITIVITY	TACTIC	EST. BOOM
PS31	Main Channel of Colville River, island heads	Most sensitive during open water season. Brant nesting and brood-rearing area.	C-13 or C-14	8,000'
PS43	Creek mouth at eastern edge of Colville River delta	Most sensitive during open water season. Inundated low-lying tundra shoreline. Keep oil from entering creek.	C-13 or C-14	500'

GENERAL SENSITIVITIES

- This is a Brant nesting, brood-rearing and molting area. Birds are present from May through August.
- In May and June, before breakup, the freshwater overflow on the ice in front of the Colville River delta is an important area for waterfowl and shorebirds.
- The Colville River delta and coastal areas support very high numbers of nesting and brood-rearing waterfowl, waterbirds, and shorebirds from June through September. Molting birds are present in July and August.
- The outer portion of the delta is an important migration staging area for shorebirds from July through September and a Pintail molting area in July and August.
- Plan to deploy bird-hazing systems during spring and the open-water season.
- The Colville River is a migratory pathway for char, cisco, and whitefish. The eastern channel is an overwintering area for several marine and anadromous fish.
- All waterways and waterbodies within the confines of the Colville River delta (the west bank of the Nechelik Channel to the Colville River's easternmost bank) are considered habitat for anadromous fish.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- HAR-160 on long narrow island northeast of Nuekshat Island

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 20 miles to the southwest. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.
- An emergency airstrip is situated at Oliktok Point (Sheet 35) approximately 12 miles to the northeast. This is a 4,000-ft gravel airstrip, which is unattended and closed to the public. Approval to use the strip must be obtained 24 hours in advance by calling 907-552-1738 or 317-552-1738. Visual inspection prior to use is recommended.
- There is an emergency landing strip at Helmricks west of the main channel near the mouth. This is an unattended, 2,500-ft dirt runway, for emergency use only. The runway is soft when wet.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Severe shoaling and continuous sediment transport occur in the Colville River delta. Water depths are generally less than 4 ft up to 5 miles offshore.
- The main channel of the Colville River generally maintains a 3 ft water depth and is usually navigable 70 miles upriver to the rapids below the mouth of the Anaktuvuk River.
- The average annual discharge rate of the Colville River is 12,000 cfs.
- Annual river-sediment discharge is 6.5 million tons (more than 300 tons/sq mi).
- Water is highly turbid during summer freshet, up to 1,650 mg/l solids. This precludes visual observation of shoals and subsurface obstructions.

COUNTERMEASURES CONSIDERATIONS

- Voluminous riverine discharge and hydrodynamic circulation will preclude almost any floating oil from contacting shoreline. Circulation will cause oil to drift either to western or eastern shores of Harrison Bay.
- Because of very low relief over extensive mud flats in the Colville River delta, oil may spread over large areas.
- Load-bearing capacity of muddy sediments on the west side of the delta is minimal. Sediments at the delta front become more sandy toward the eastern side and therefore more firmly packed.
- During periods of extreme storm surge, some of the bars and islands may be contaminated by oil. Vegetated areas are probably wet tundra. Caution should be exercised.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

150° 30'

150° 27'

150° 24'

150° 21'

150° 18'

70° 27'

70° 27'

70° 26'

70° 26'

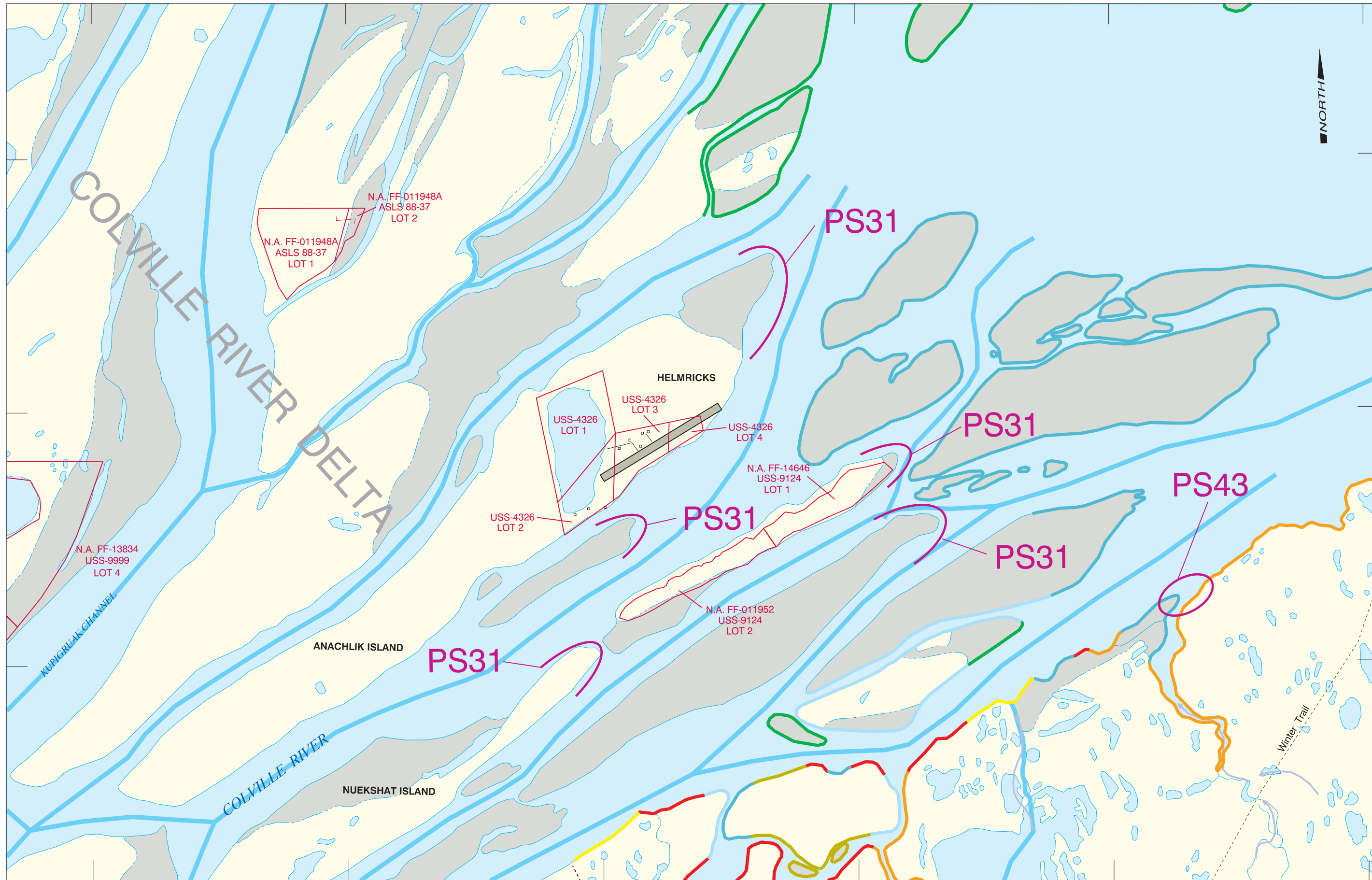
70° 25'

70° 25'

70° 24'

Continue on sheet 13

Continue on sheet 15



1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

SITE NO.	DESCRIPTION	SENSITIVITY	TACTIC	EST. BOOM
PS29	Kalubik Creek mouth	Most sensitive during open water season. Creek mouth is characterized by peat shoreline or salt marsh.	C-13 or C-14	1,500'
PS42	Creek mouth west of Kalubik Creek	Most sensitive during open water season. Inundated low-lying tundra shoreline. Keep oil from entering creek.	C-13 or C-14	300'
PS43	Creek mouth at eastern edge of Colville River delta	Most sensitive during open water season. Inundated low-lying tundra shoreline. Keep oil from entering creek.	C-13 or C-14	500'

GENERAL SENSITIVITIES

- In May and June, before breakup, the freshwater overflow on the ice in front of the Colville River delta is an important area for waterfowl and shorebirds.
- The Colville River delta and coastal areas support very high numbers of nesting and brood-rearing waterfowl, waterbirds, and shorebirds from June through September. Molting birds are present in July and August.
- The outer portion of the delta is an important migration staging area for shorebirds from July through September and a Pintail molting area in July and August.
- This is a Brant nesting, brood-rearing and molting area. Birds are present from May through August.
- Plan to deploy bird-hazing systems during spring and the open-water season.
- The Colville River is a migratory pathway for char, cisco, and whitefish. The eastern channel is an overwintering area for several marine and anadromous fish.
- All waterways and waterbodies within the confines of the Colville River delta (the west bank of the Nechelik Channel to the Colville River's easternmost bank) are considered habitat for anadromous fish.
- Kalubik Creek provides habitat for anadromous whitefish and char and for resident fish.
- Polar bear dens have been found in this area. Dens may be in use from October through April.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- HAR-015 on the west bank of Kalubik Creek
- HAR-016 on the west bank of Kalubik Creek
- HAR-017 on the west bank of Kalubik Creek

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 25 miles southeast of the mouth of Kalubik Creek. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.
- An emergency airstrip is situated at Oliktok Point (Sheet 35) approximately 7 miles northeast of the mouth of Kalubik Creek. This is a 4,000-ft gravel airstrip, which is unattended and closed to the public. Approval to use the strip must be obtained 24 hours in advance by calling 907-552-1738 or 317-552-1738. Visual inspection prior to use is recommended.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Severe shoaling and continuous sediment transport occur in the Colville River delta. Water depths are generally less than 4 ft up to 5 miles offshore.
- The main channel of the Colville River generally maintains a 3 ft water depth and is usually navigable 70 miles upriver to the rapids below the mouth of the Anaktuvuk River.
- The average annual discharge rate of the Colville River is 12,000 cfs.
- Annual river-sediment discharge is 6.5 million tons (more than 300 tons/sq mi).
- Water is highly turbid during summer freshet, up to 1,650 mg/l solids. This precludes visual observation of shoals and subsurface obstructions.

COUNTERMEASURES CONSIDERATIONS

- Voluminous riverine discharge and hydrodynamic circulation will preclude almost any floating oil from contacting shoreline. Circulation will cause oil to drift either to western or eastern shores of Harrison Bay.
- Sand-silt shores are very narrow (less than 20 ft wide) and interrupted by small creek mouths and areas of thick peat deposits. Large areas of potential overwash east of Kalubik Creek may make cleanup difficult. Backshore areas are wet tundra.

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

150° 18'

150° 15'

150° 12'

150° 09'

150° 06'



2

70° 27'

70° 27'

Continue on sheet 14

Continue on sheet 39

70° 26'

70° 26'

COLVILLE RIVER

PS43

N.A. FF-085283
ASLS 88-34
LOT 2

PS42

N.A. FF-085536
USS-8835
TRACT C
LOT 1

PS29

N.A. FF-085282
USS-8835
TRACT B
LOT 1

N.A. FF-085608
USS-8835
TRACT A
LOT 1

Winter Trail

N.A. FF-085283
ASLS 88-34
LOT 1

N.A. FF-085536
USS-8835
TRACT C
LOT 2

N.A. FF-085282
USS-8835
TRACT B
LOT 2

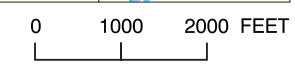
N.A. FF-085603
USS-8835
TRACT A
LOT 2

KALUBIK CREEK

Continue on sheet 41

70° 25'

1:26000





PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- The Colville River delta supports very high numbers of nesting and brood-rearing waterfowl, waterbirds, and shorebirds from June through September. Molting birds are present in July and August.
- Birds may also be present in the freshwater overflow during the spring before breakup elsewhere.
- The outer portion of the delta is an important migration staging area for shorebirds from July through September and a Pintail molting area in July and August.
- Spectacled Eider nest sites have been found in the western side of the Colville River delta.
- Plan to deploy bird-hazing systems during spring and the open-water season.
- The Colville River is a migratory pathway for char, cisco, and whitefish. The Nechelik Channel is an overwintering area for several marine and anadromous fish.
- All waterways and waterbodies within the confines of the Colville River delta (the west bank of the Nechelik Channel to the Colville River's easternmost bank) are considered habitat for anadromous fish.
- Polar bear dens have been found in this area. Dens may be in use from October through April.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- HAR-169 on the west bank of Nechelik Channel in the upper portion of the map

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 11 miles to the south. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.
- Emergency landing for fixed-wing aircraft is available on the sand flats west of the Nechelik Channel.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

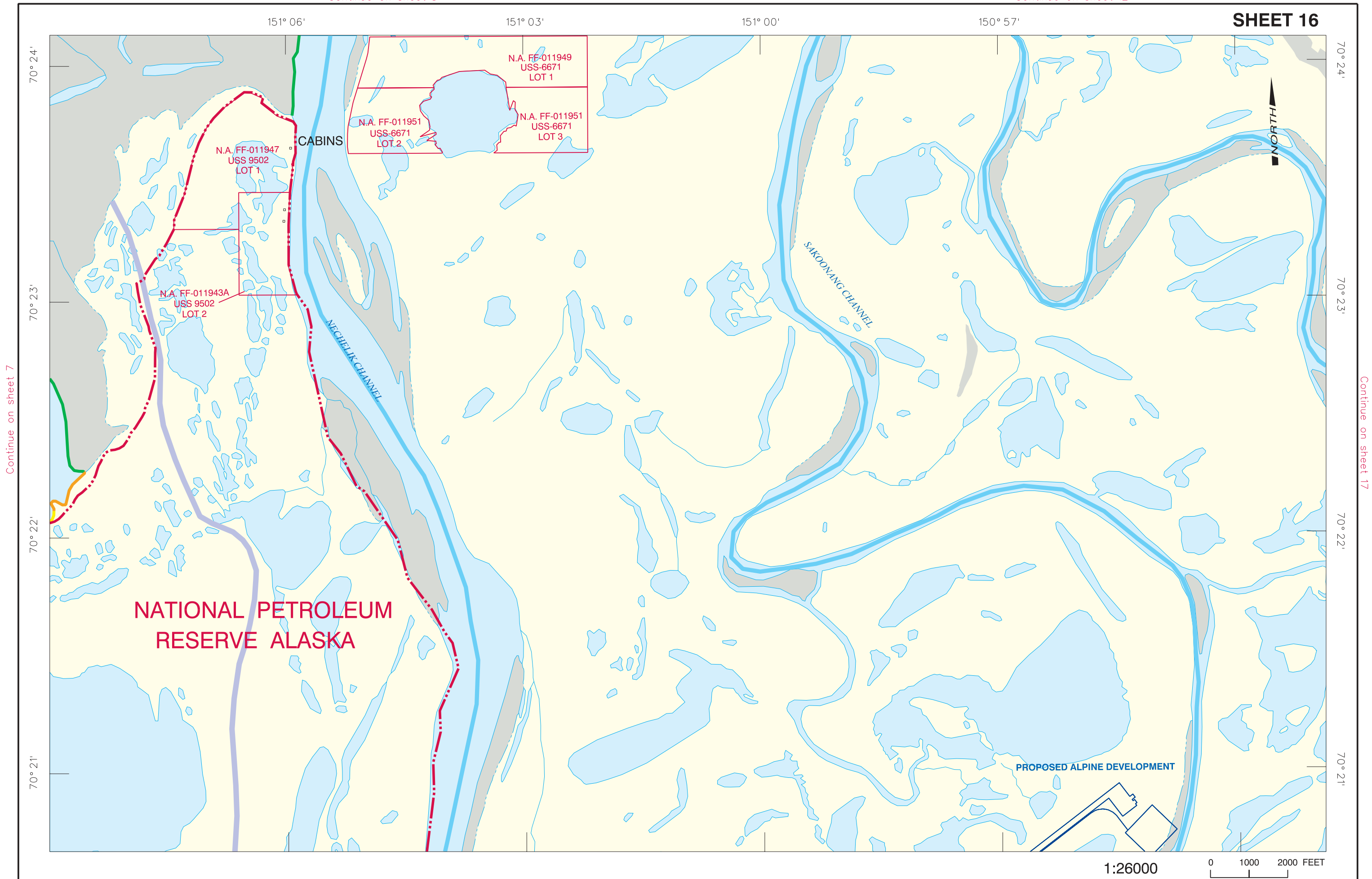
- Water is highly turbid during summer freshet, up to 1,650 mg/l solids. This precludes visual observation of shoals and subsurface obstructions.

COUNTERMEASURES CONSIDERATIONS

- During periods of extreme storm surge, some of the bars and islands may be contaminated by oil. Vegetated areas are probably wet tundra. Caution should be exercised.
- Because of very low relief over extensive mud flats in the Colville River delta, oil may spread over large areas.
- Load-bearing capacity of muddy sediments on the west side of the delta is minimal. Sediments at the delta front become more sandy toward the eastern side and therefore more firmly packed.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 7

Continue on sheet 17



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- The Colville River delta supports very high numbers of nesting and brood-rearing waterfowl, waterbirds, and shorebirds from June through September. Molting birds are present in July and August.
- Birds may also be present in the freshwater overflow during the spring before breakup elsewhere.
- Spectacled Eider nest sites have been found in the western side of the Colville River delta.
- Plan to deploy bird-hazing systems during spring and the open-water season.
- The Colville River is a migratory pathway for char, cisco, and whitefish. The eastern channel is an overwintering area for several marine and anadromous fish.
- All waterways and waterbodies within the confines of the Colville River delta (the west bank of the Nechelik Channel to the Colville River's easternmost bank) are considered habitat for anadromous fish.

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 12 miles to the south. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

**See the latest Supplement, Alaska and United States Coast Pilot for current information on air and vessel access, respectively.*

NOTE: All values given on these pages are for planning purposes only.

150° 57'

150° 54'

150° 51'

150° 48'

150° 45'

70° 24'

70° 24'

70° 23'

70° 23'

70° 22'

70° 22'

70° 21'

70° 21'



Continue on sheet 16

Continue on sheet 18

1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- The Colville River delta and coastal areas support very high numbers of nesting and brood-rearing waterfowl, waterbirds, and shorebirds from June through September. Molting birds are present in July and August.
- Birds may also be present in the freshwater overflow during the spring before breakup elsewhere.
- Plan to deploy bird-hazing systems during spring and the open-water season.
- The Colville River is a migratory pathway for char, cisco, and whitefish. The eastern channel is an overwintering area for several marine and anadromous fish.
- All waterways and waterbodies within the confines of the Colville River delta (the west bank of the Nechelik Channel to the Colville River's easternmost bank) are considered habitat for anadromous fish.
- The Miluveach River provides habitat for anadromous whitefish and char and for resident fish.

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 13 miles to the southwest. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.
- Main channel of the Colville River generally maintains a 3 ft water depth and is usually navigable 70 miles upriver to the rapids below the mouth of the Anaktuvuk River.

COUNTERMEASURES CONSIDERATIONS

- Voluminous riverine discharge and hydrodynamic circulation will preclude almost any floating oil from contacting shoreline.
- During periods of extreme storm surge, some of the bars and islands may be contaminated by oil. Vegetated areas are probably wet tundra. Caution should be exercised.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



150° 45'

150° 42'

150° 39'

150° 36'

150° 33'

70° 24'

70° 24'

70° 23'

70° 23'

70° 22'

70° 22'

Continue on sheet 17

Continue on sheet 19



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- The Colville River delta and coastal areas support very high numbers of nesting and brood-rearing waterfowl, waterbirds, and shorebirds from June through September. Molting birds are present in July and August.
- Birds may also be present in the freshwater overflow during the spring before breakup elsewhere.
- This is a Brant nesting, brood-rearing and molting area. Birds are present from May through August.
- Plan to deploy bird-hazing systems during spring and the open-water season.
- The Colville River is a migratory pathway for char, cisco, and whitefish. The eastern channel is an overwintering area for several marine and anadromous fish.
- All waterways and waterbodies within the confines of the Colville River delta (the west bank of the Nechelik Channel to the Colville River's easternmost bank) are considered habitat for anadromous fish.
- The Miluveach River provides habitat for anadromous whitefish and char and for resident fish.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- HAR-159 on Nuekshat Island

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 18 miles to the southwest. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.
- Main channel of the Colville River generally maintains a 3 ft water depth and is usually navigable 70 miles upriver to the rapids below the mouth of the Anaktuvuk River.

COUNTERMEASURES CONSIDERATIONS

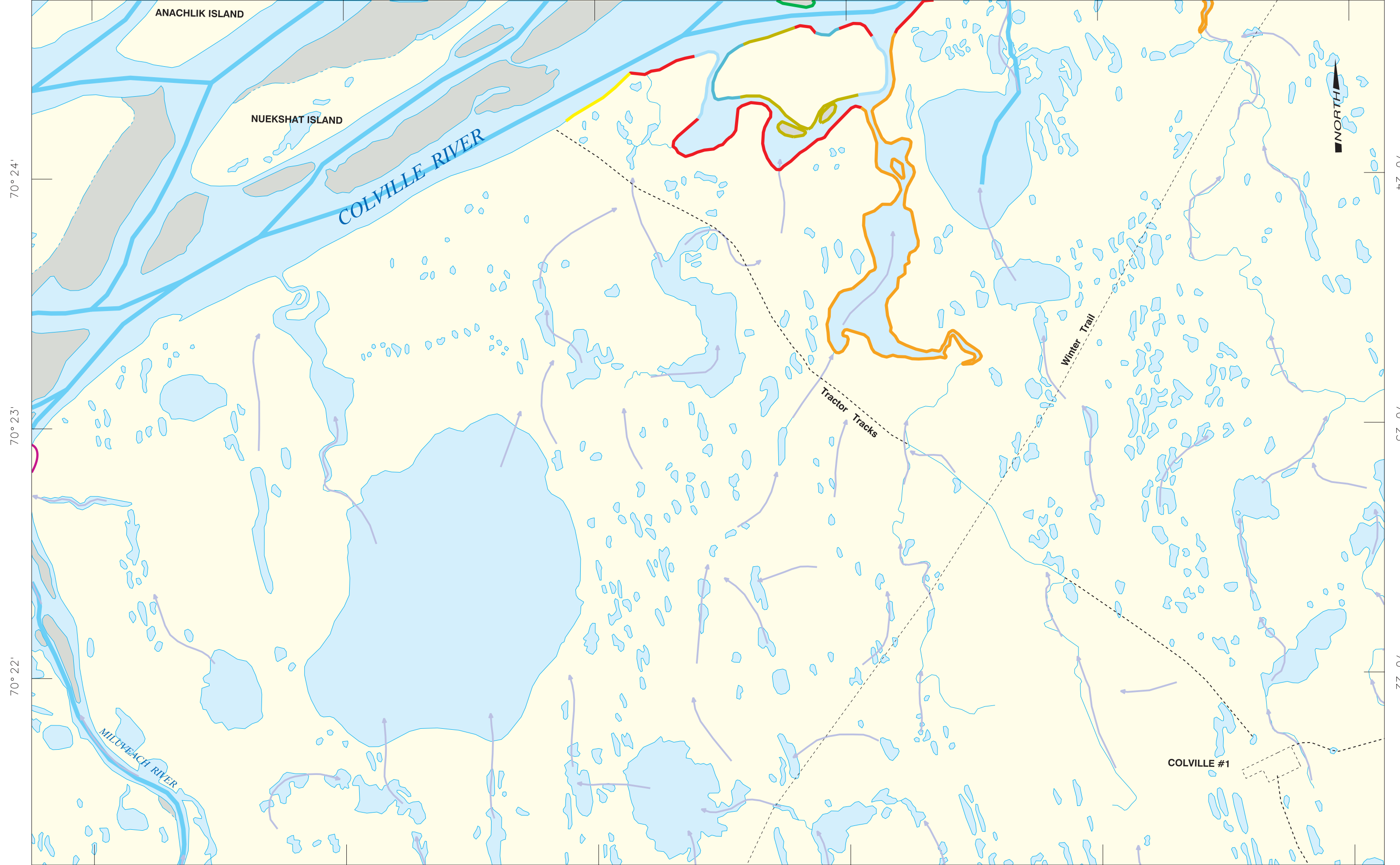
- Voluminous riverine discharge and hydrodynamic circulation will preclude almost any floating oil from contacting shoreline.
- During periods of extreme storm surge, some of the bars and islands may be contaminated by oil. Vegetated areas are probably wet tundra. Caution should be exercised.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

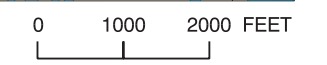
NOTE: All values given on these pages are for planning purposes only.

150° 30' 150° 27' 150° 24' 150° 21' 150° 18'

Continue on sheet 18



1:26000





PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- The Colville River delta supports very high numbers of nesting and brood-rearing waterfowl, waterbirds, and shorebirds from June through September. Molting birds are present in July and August.
- Birds may also be present in the freshwater overflow during the spring before breakup elsewhere.
- Spectacled Eider nest sites have been found near water in this area. Consult Wildlife Leader in the Incident Command System's Environment Unit for an advisory regarding protection of these Spectacled Eider nest sites. The Spectacled Eider is listed as threatened by the U.S. Fish and Wildlife Service.
- Plan to deploy bird-hazing systems during spring and the open-water season.
- The Colville River is a migratory pathway for char, cisco, and whitefish. The Nechelik Channel is an overwintering area for several marine and anadromous fish.
- All waterways and waterbodies within the confines of the Colville River delta (the west bank of the Nechelik Channel to the Colville River's easternmost bank) are considered habitat for anadromous fish.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- HAR-156 on the east bank of Nechelik Channel in the lower portion of the map

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 8 miles to the south. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

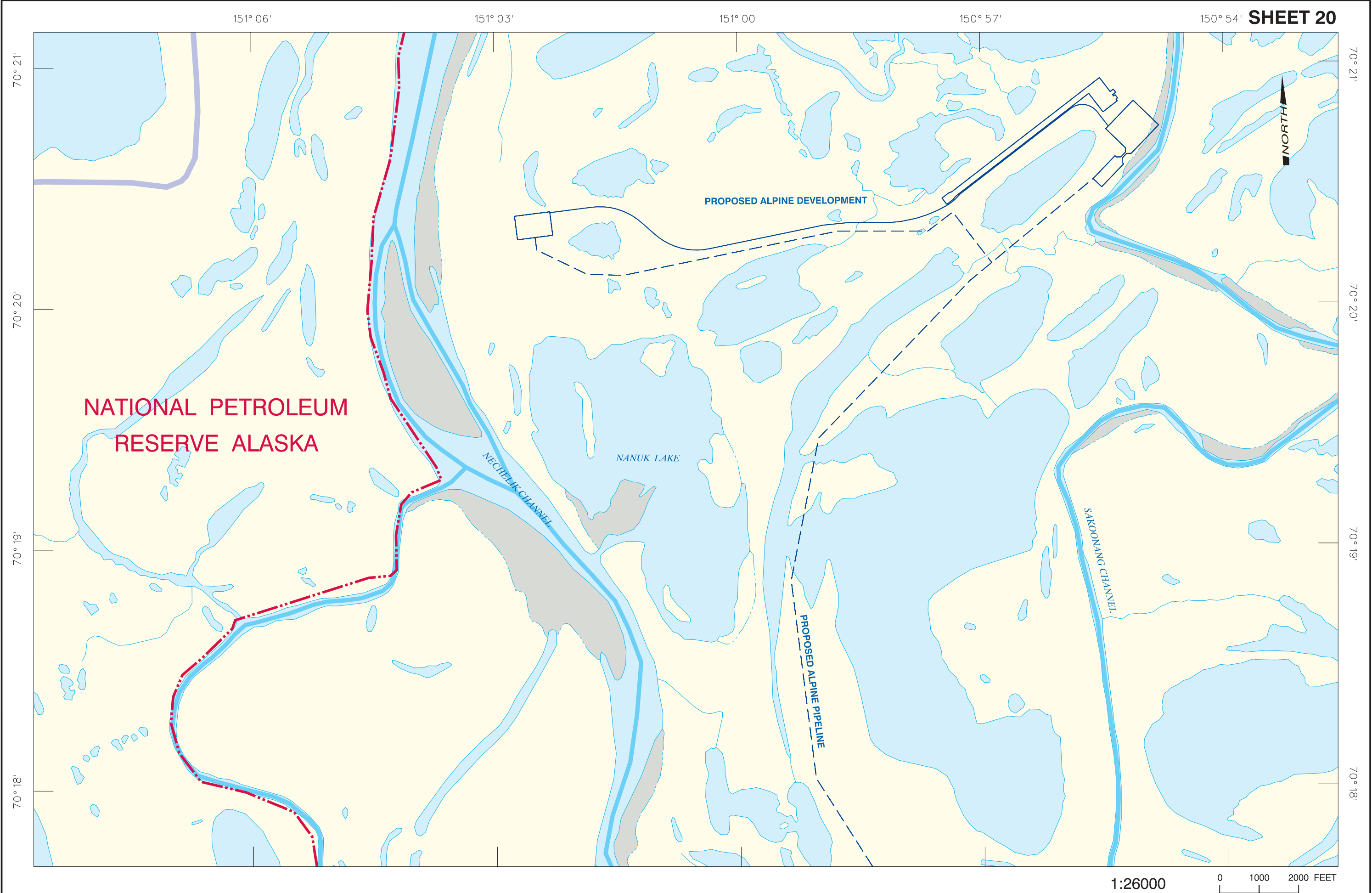
- There are no marine waters or shoreline on this sheet.

COUNTERMEASURES CONSIDERATIONS

- Vegetated shorelines in the Colville River delta have minimal load-bearing capacity. Caution should be used to minimize erosion or loss of equipment.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 21



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- The Colville River delta supports very high numbers of nesting and brood-rearing waterfowl, waterbirds, and shorebirds from June through September. Molting birds are present in July and August.
- Birds may also be present in the freshwater overflow during the spring before breakup elsewhere.
- Plan to deploy bird-hazing systems during spring and the open-water season.
- The Colville River is a migratory pathway for char, cisco, and whitefish. The eastern channel is an overwintering area for several marine and anadromous fish.
- All waterways and waterbodies within the confines of the Colville River delta (the west bank of the Nechelik Channel to the Colville River's easternmost bank) are considered habitat for anadromous fish.
- The Kachemach River provides habitat for anadromous whitefish and for resident fish.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- HAR-162 near Anajuk Point

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 10 miles to the southwest. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

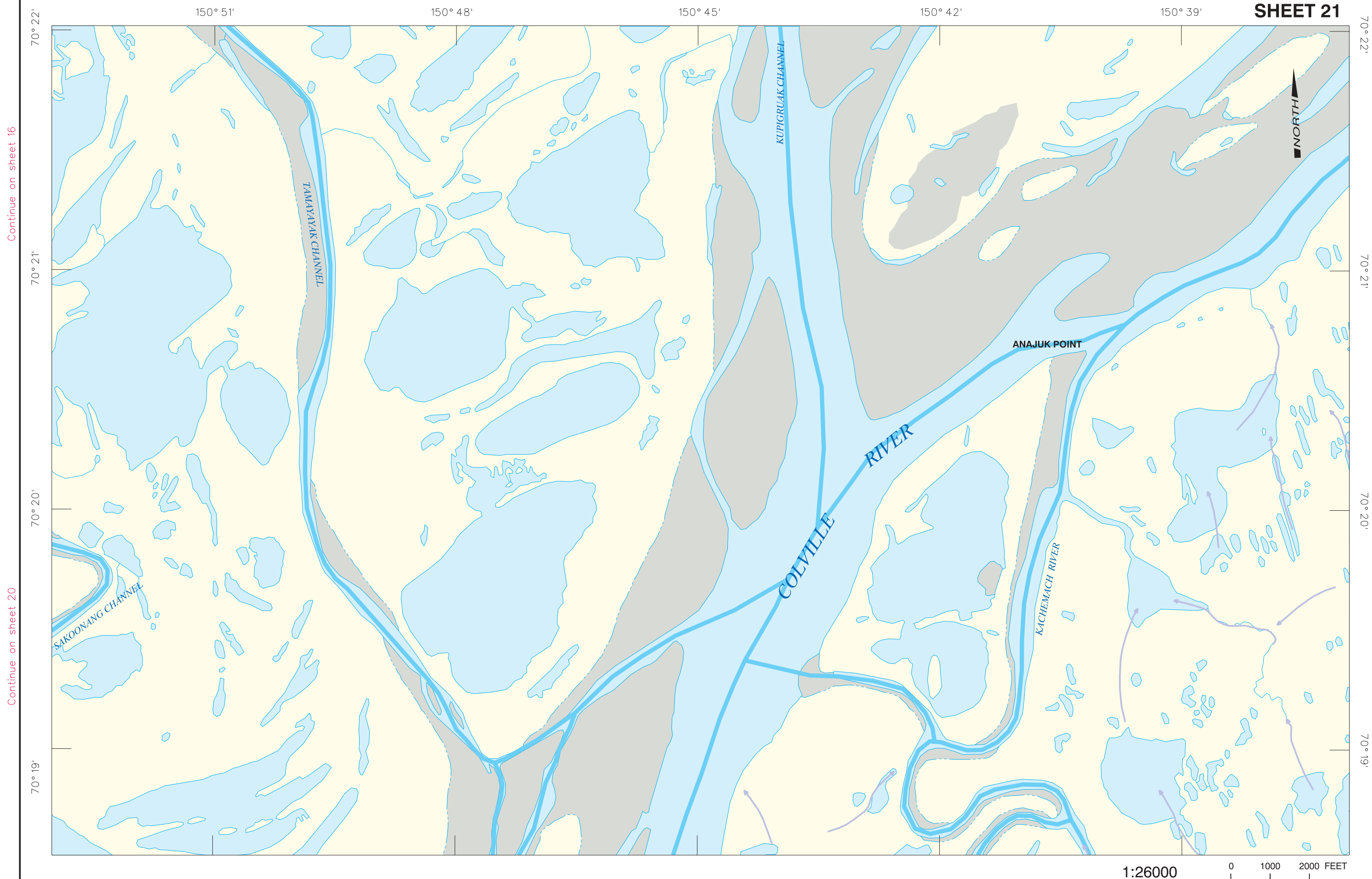
- There are no marine waters or shoreline on this sheet.
- Main channel of the Colville River generally maintains a 3 ft water depth and is usually navigable 70 miles upriver to the rapids below the mouth of the Anaktuvuk River.

COUNTERMEASURES CONSIDERATIONS

- Voluminous riverine discharge and hydrodynamic circulation will preclude almost any floating oil from contacting shorelines.
- Vegetated shorelines in the Colville River delta have minimal load-bearing capacity. Caution should be used to minimize erosion or loss of equipment.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 16

Continue on sheet 20

Continue on sheet 21A



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- The Colville River delta and coastal areas support very high numbers of nesting and brood-rearing waterfowl, waterbirds, and shorebirds from June through September. Molting birds are present in July and August.
- Birds may also be present in the freshwater overflow during the spring before breakup elsewhere.
- This is a Brant nesting, brood-rearing and molting area. Birds are present from May through August.
- Plan to deploy bird-hazing systems during spring and the open-water season.
- The Colville River is a migratory pathway for char, cisco, and whitefish. The eastern channel is an overwintering area for several marine and anadromous fish.
- All waterways and waterbodies within the confines of the Colville River delta (the west bank of the Nechelik Channel to the Colville River's easternmost bank) are considered habitat for anadromous fish.
- The Miluveach River provides habitat for anadromous whitefish and char and for resident fish.

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

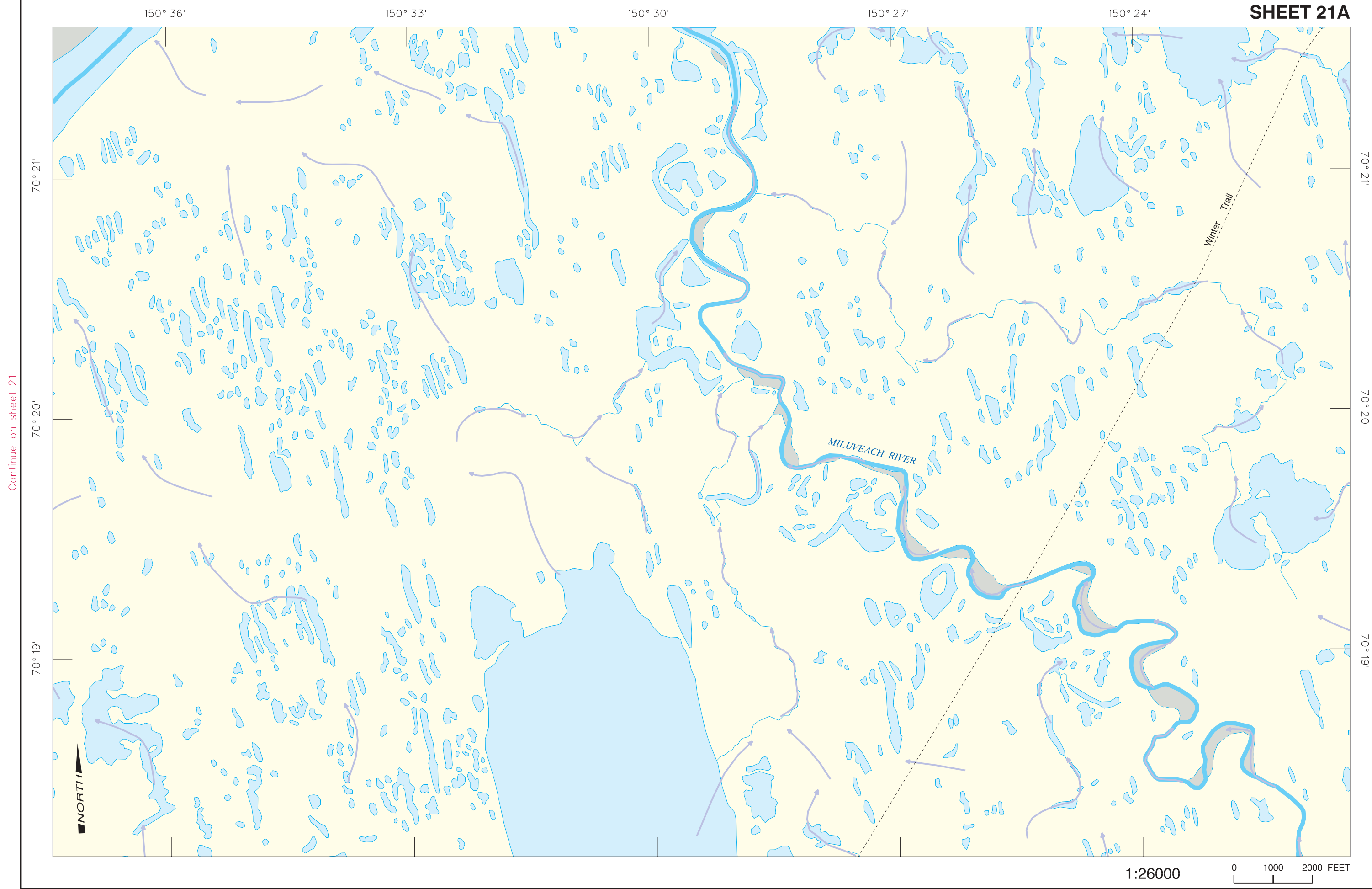
- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 14 miles to the southwest. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

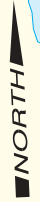
- There are no marine waters or shoreline on this sheet.

**See the latest Supplement, Alaska and United States Coast Pilot for current information on air and vessel access, respectively.*

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 21



1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- The Colville River delta supports very high numbers of nesting and brood-rearing waterfowl, waterbirds, and shorebirds from June through September. Molting birds are present in July and August.
- Birds may also be present in the freshwater overflow during the spring before breakup elsewhere.
- Plan to deploy bird-hazing systems during spring and the open-water season.
- The Colville River is a migratory pathway for char, cisco, and whitefish. The eastern channel is an overwintering area for several marine and anadromous fish.
- All waterways and waterbodies within the confines of the Colville River delta (the west bank of the Nechelik Channel to the Colville River's easternmost bank) are considered habitat for anadromous fish.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- HAR-155 on the west side of Nechelik Channel in the lower portion of the map
- HAR-157 on the west side of Nechelik Channel in the lower portion of the map

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 4 miles to the south. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

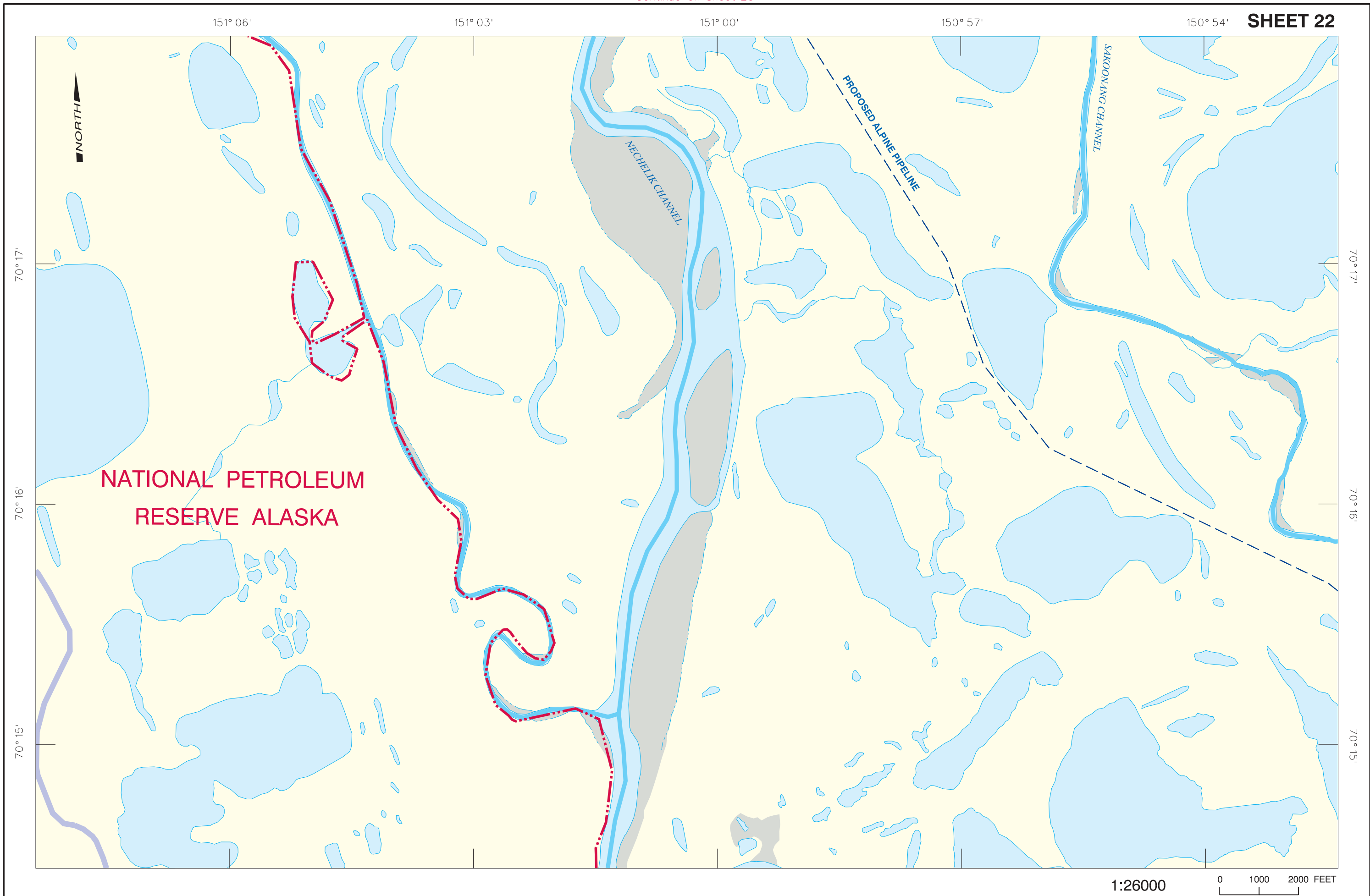
- There are no marine waters or shoreline on this sheet.

COUNTERMEASURES CONSIDERATIONS

- Vegetated shorelines in the Colville River delta have minimal load-bearing capacity. Caution should be used to minimize erosion or loss of equipment.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 23

Continue on sheet 25

NATIONAL PETROLEUM RESERVE ALASKA

1:26000 0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- The Colville River delta supports very high numbers of nesting and brood-rearing waterfowl, waterbirds, and shorebirds from June through September. Molting birds are present in July and August.
- Birds may also be present in the freshwater overflow during the spring before breakup elsewhere.
- Plan to deploy bird-hazing systems during spring and the open-water season.
- The Colville River is a migratory pathway for char, cisco, and whitefish. The eastern channel is an overwintering area for several marine and anadromous fish.
- All waterways and waterbodies within the confines of the Colville River delta (the west bank of the Nechelik Channel to the Colville River's easternmost bank) are considered habitat for anadromous fish.
- The Kachemach River provides habitat for anadromous whitefish and for resident fish.

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 8 miles to the southwest. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.
- Main channel of the Colville River generally maintains a 3 ft water depth and is usually navigable 70 miles upriver to the rapids below the mouth of the Anaktuvuk River.

COUNTERMEASURES CONSIDERATIONS

- Vegetated shorelines in the Colville River delta have minimal load-bearing capacity. Caution should be used to minimize erosion or loss of equipment.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

150° 54' 150° 51' 150° 48' 150° 45' 150° 42'

Continue on sheet 20

Continue on sheet 20

70° 19'

70° 18'

70° 17'

70° 16'

Continue on sheet 23A

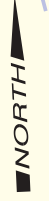


PROPOSED ALPINE PIPELINE

COLVILLE RIVER

KACHEMACH RIVER

SAKONWANG CHANNEL



1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- This is a Brant nesting, brood-rearing and molting area. Birds are present from May through August.
- Plan to deploy bird-hazing systems during spring and the open-water season.
- The Kachemach River provides habitat for anadromous whitefish and for resident fish.

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 11 miles to the southwest. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

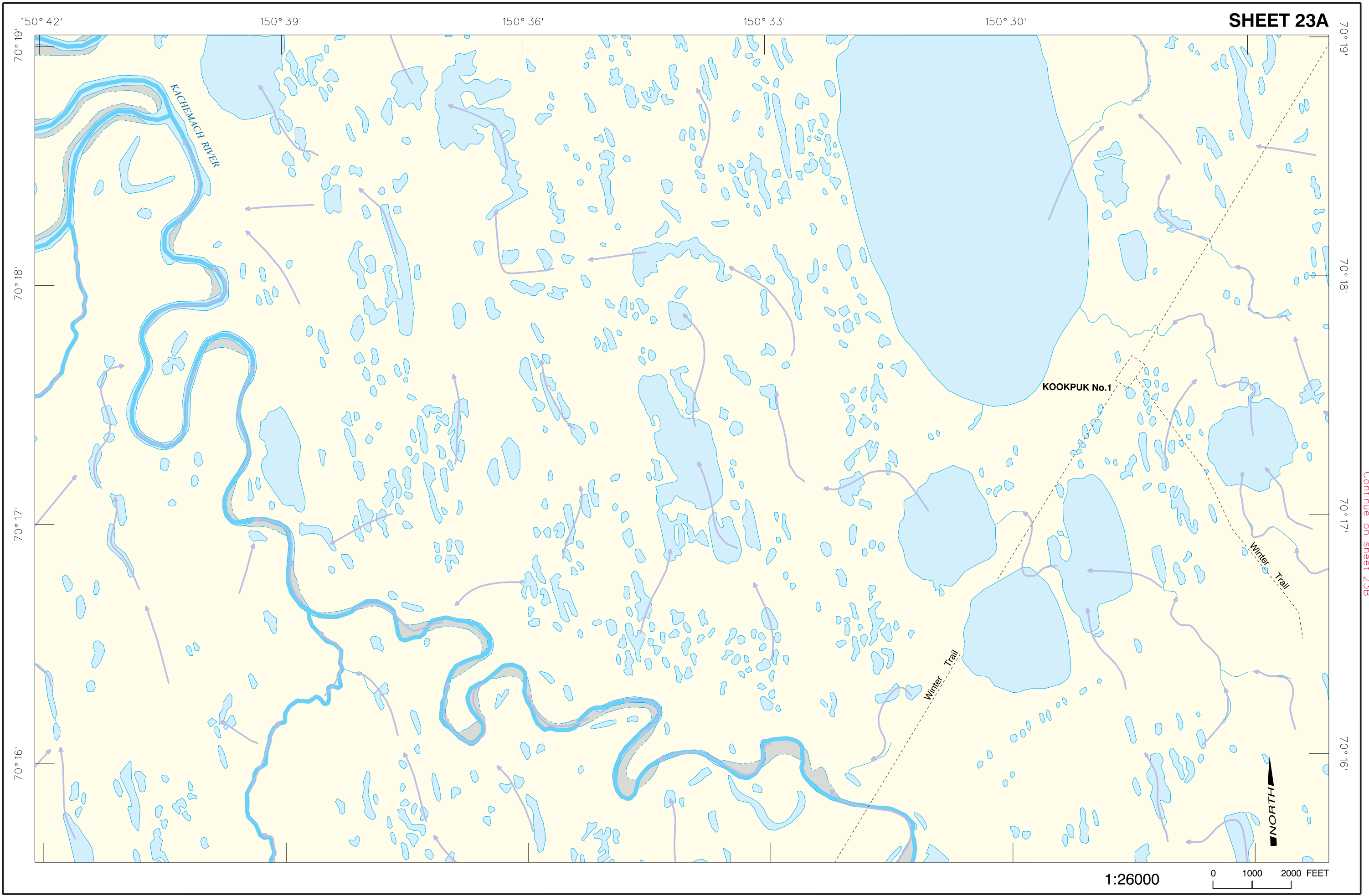
VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

SHEET 23A



Continue on sheet 23

Continue on sheet 23B



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- This is a Brant nesting, brood-rearing and molting area. Birds are present from May through August.
- Plan to deploy bird-hazing systems during spring and the open-water season.
- The Miluveach River provides habitat for anadromous whitefish and char and for resident fish.



AIR ACCESS*

- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 16 miles to the southwest. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

150° 27'

150° 24'

150° 21'

150° 18'

150° 15'

70° 18'

70° 17'

70° 16'

70° 18'

70° 17'

70° 16'

Continue on sheet 23A

Continue on sheet 29



1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- The Colville River delta supports very high numbers of nesting and brood-rearing waterfowl, waterbirds, and shorebirds from June through September. Molting birds are present in July and August.
- Birds may also be present in the freshwater overflow during the spring before breakup elsewhere.
- Plan to deploy bird-hazing systems during spring and the open-water season.
- The Colville River is a migratory pathway for char, cisco, and whitefish. The eastern channel is an overwintering area for several marine and anadromous fish.
- All waterways and waterbodies within the confines of the Colville River delta (the west bank of the Nechelik Channel to the Colville River's easternmost bank) are considered habitat for anadromous fish.
- Polar bear dens have been found in this area. Dens may be in use from October through April.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the Phillips Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- HAR-031 on the west side of Nechelik Channel north of Nuiqsut
- HAR-155 on the west side of Nechelik Channel north of Nuiqsut
- HAR-158 on the east bank of Nechelik Channel east of Nuiqsut

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- Commercial and air freight services are available at the City of Nuiqsut airport. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

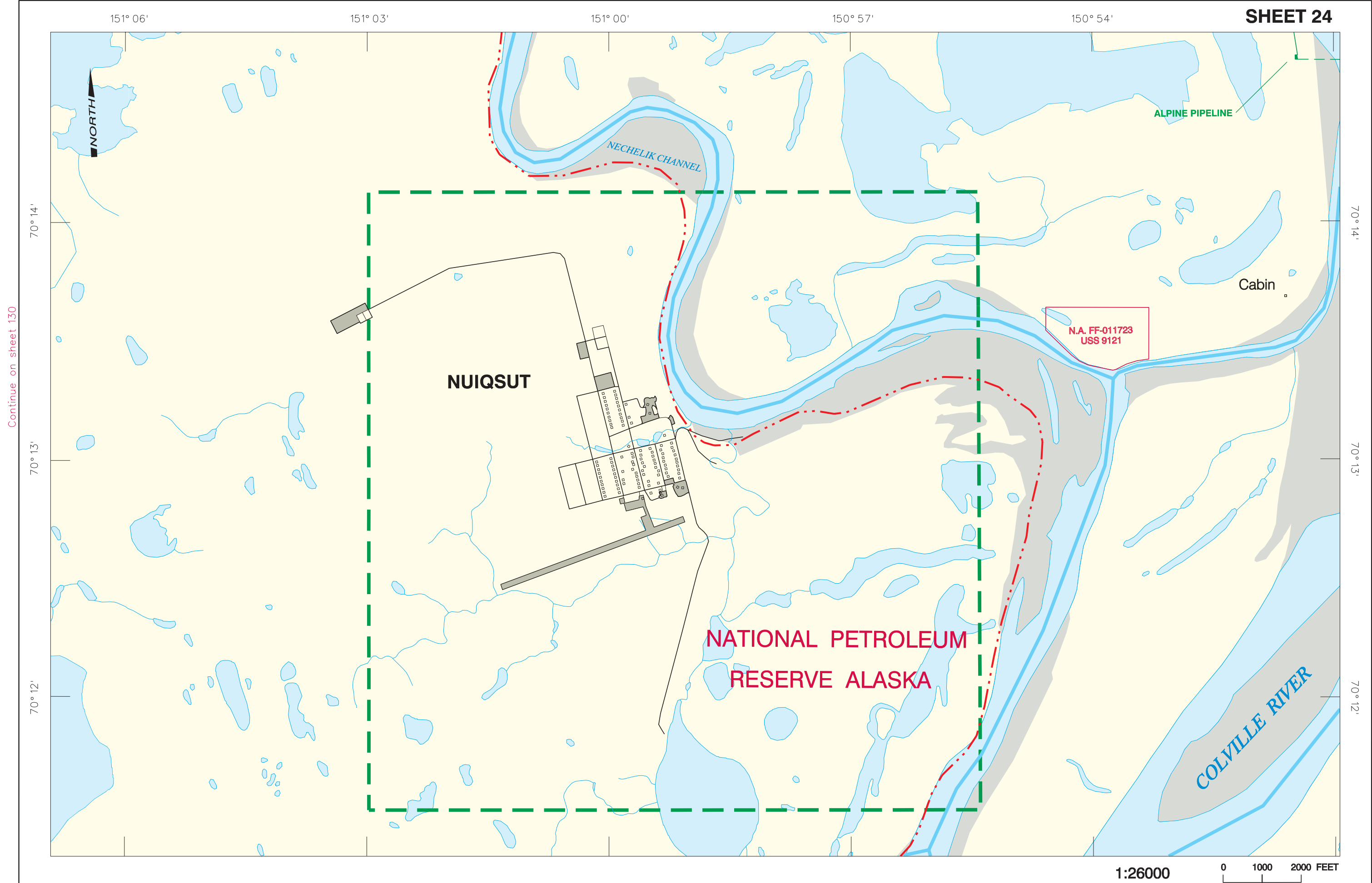
- There are no marine waters or shoreline on this sheet.
- Main channel of the Colville River generally maintains a 3 ft water depth and is usually navigable 70 miles upriver to the rapids below the mouth of the Anaktuvuk River.

COUNTERMEASURES CONSIDERATIONS

- Voluminous riverine discharge and hydrodynamic circulation will preclude almost any floating oil from contacting shoreline.
- Vegetated shorelines in the Colville River delta have minimal load-bearing capacity. Caution should be used to minimize erosion or loss of equipment.
- The community of Nuiqsut is west of the Nechelik Channel.

*See the latest *Supplement, Alaska* and United States Coast Pilot for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 130

Continue on sheet 25



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- The Colville River delta supports very high numbers of nesting and brood-rearing waterfowl, waterbirds, and shorebirds from June through September. Molting birds are present in July and August.
- Birds may also be present in the freshwater overflow during the spring before breakup elsewhere.
- Plan to deploy bird-hazing systems during spring and the open-water season.
- The Colville River is a migratory pathway for char, cisco, and whitefish. The eastern channel is an overwintering area for several marine and anadromous fish.
- All waterways and waterbodies within the confines of the Colville River delta (the west bank of the Nechelik Channel to the Colville River's easternmost bank) are considered habitat for anadromous fish.



AIR ACCESS*

- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 4 miles southwest of the Alpine Pipeline crossing over the Colville River. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.
- Main channel of the Colville River generally maintains a 3 ft water depth and is usually navigable 70 miles upriver to the rapids below the mouth of the Anaktuvuk River.

COUNTERMEASURES CONSIDERATIONS

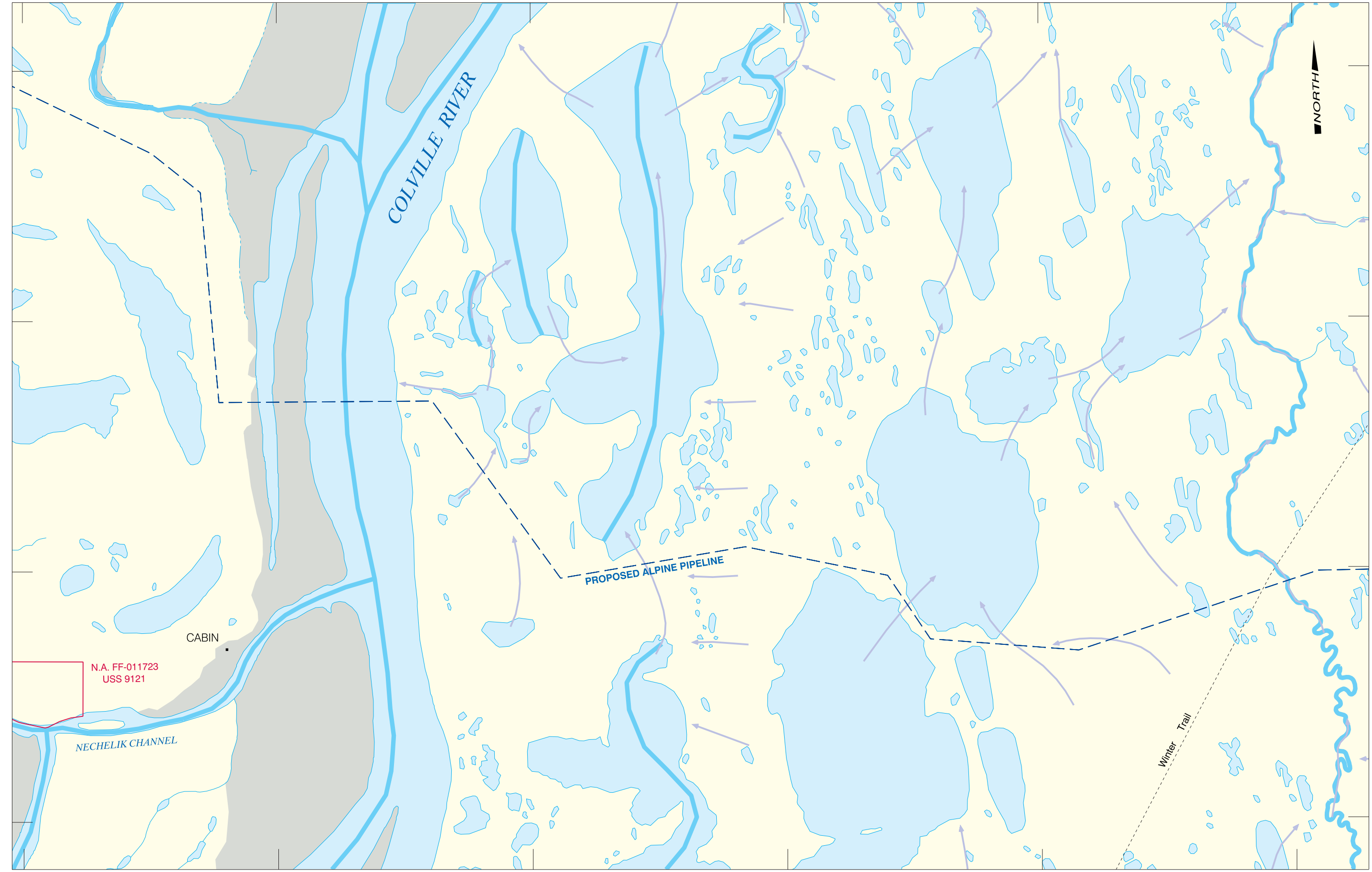
- Voluminous riverine discharge and hydrodynamic circulation will preclude almost any floating oil from contacting shoreline.
- Vegetated shorelines in the Colville River delta have minimal load-bearing capacity. Caution should be used to minimize erosion or loss of equipment.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.

150° 54' 150° 51' 150° 48' 150° 45' 150° 42'



Continue on sheet 22

Continue on sheet 24

Continue on sheet 26

70° 16'
70° 15'
70° 14'
70° 13'

70° 16'
70° 15'
70° 14'
70° 13'

N.A. FF-011723
USS 9121

1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- The Kachemach River provides habitat for anadromous whitefish and for resident fish.

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

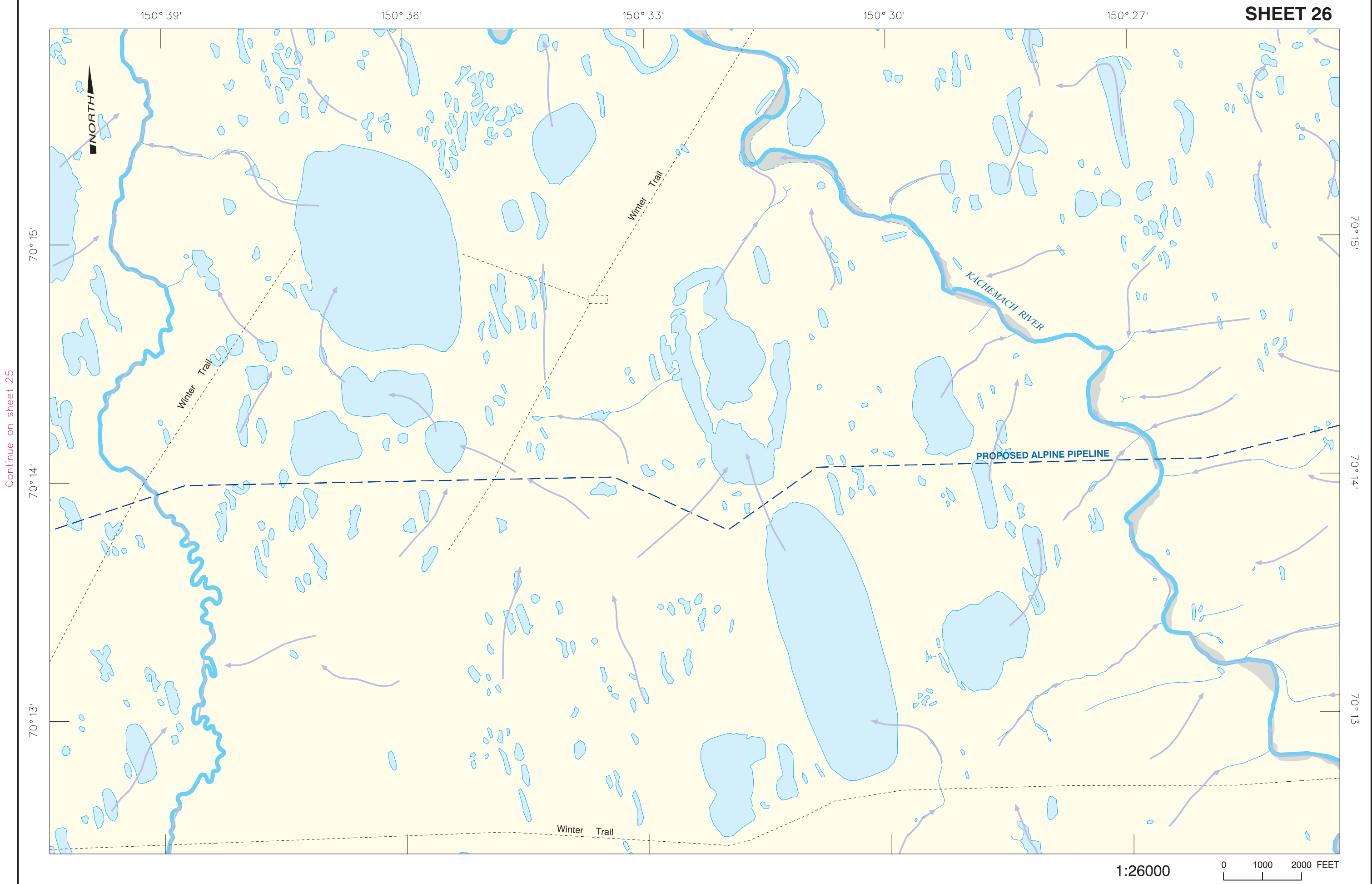
- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 13 miles to the west. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 25

Continue on sheet 27



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- The Miluveach River provides habitat for anadromous whitefish and char and for resident fish.
- The Kachemach River provides habitat for anadromous whitefish and for resident fish.

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

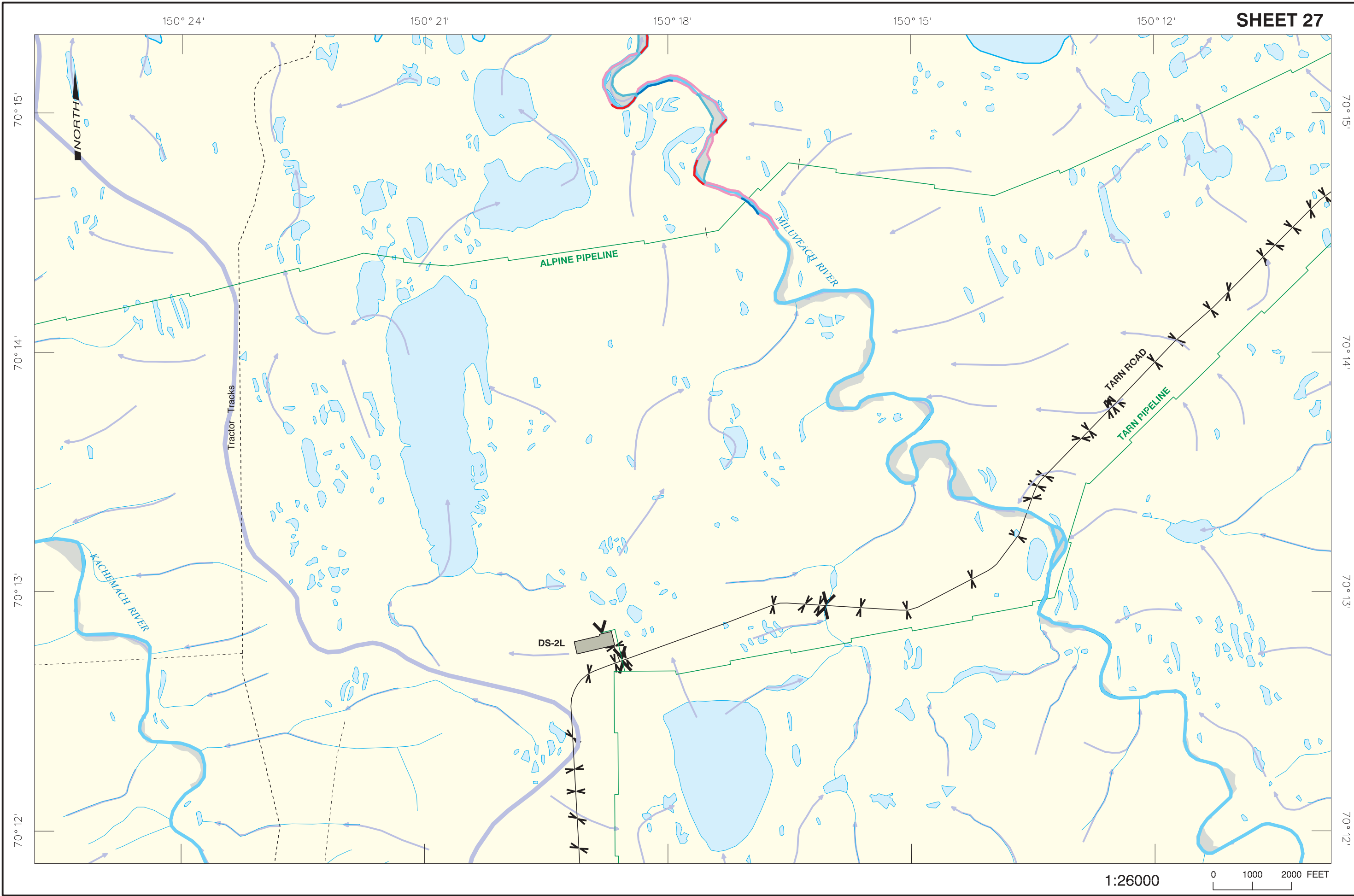
- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 16 miles west of DS 2L. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 26

Continue on sheet 29



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- The Miluveach River provides habitat for anadromous whitefish and char and for resident fish.
- The Kachemach River provides habitat for anadromous whitefish and for resident fish.

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 16 miles west of DS-2N. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

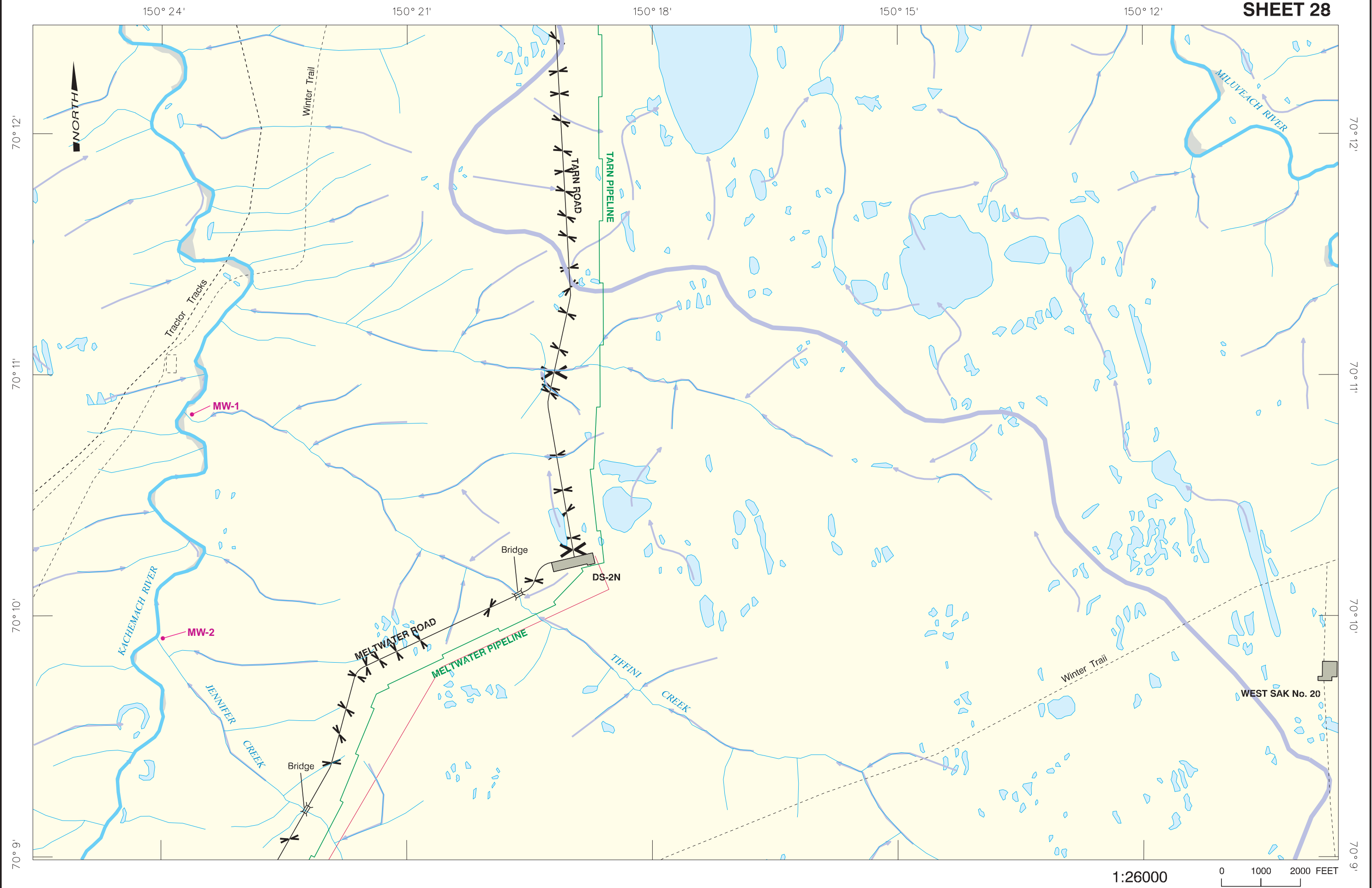
- There are no marine waters or shoreline on this sheet.

STAGING AREAS AND PRESTAGED EQUIPMENT

PRESTAGED EQUIP. AREA	LOCATION	ITEM	QUANTITY	TYPE
MW-1	Confluence of Kachemach River and Tiffini Creek	Pipe Plastic sheeting Sandbags	20' 1 roll Variable (sufficient to block tributary)	6" diameter Visqueen
MW-2	Confluence of Kachemach River and Jennifer Creek	Pipe Plastic sheeting Sandbags	20' 1 roll Variable (sufficient to block tributary)	6" diameter Visqueen

**See the latest Supplement, Alaska and United States Coast Pilot for current information on air and vessel access, respectively.*

NOTE: All values given on these pages are for planning purposes only.





PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- The Kachemach River provides habitat for anadromous whitefish and for resident fish.
- Jessica Creek provides habitat for anadromous fish.

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 14 miles northwest of MW-3. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

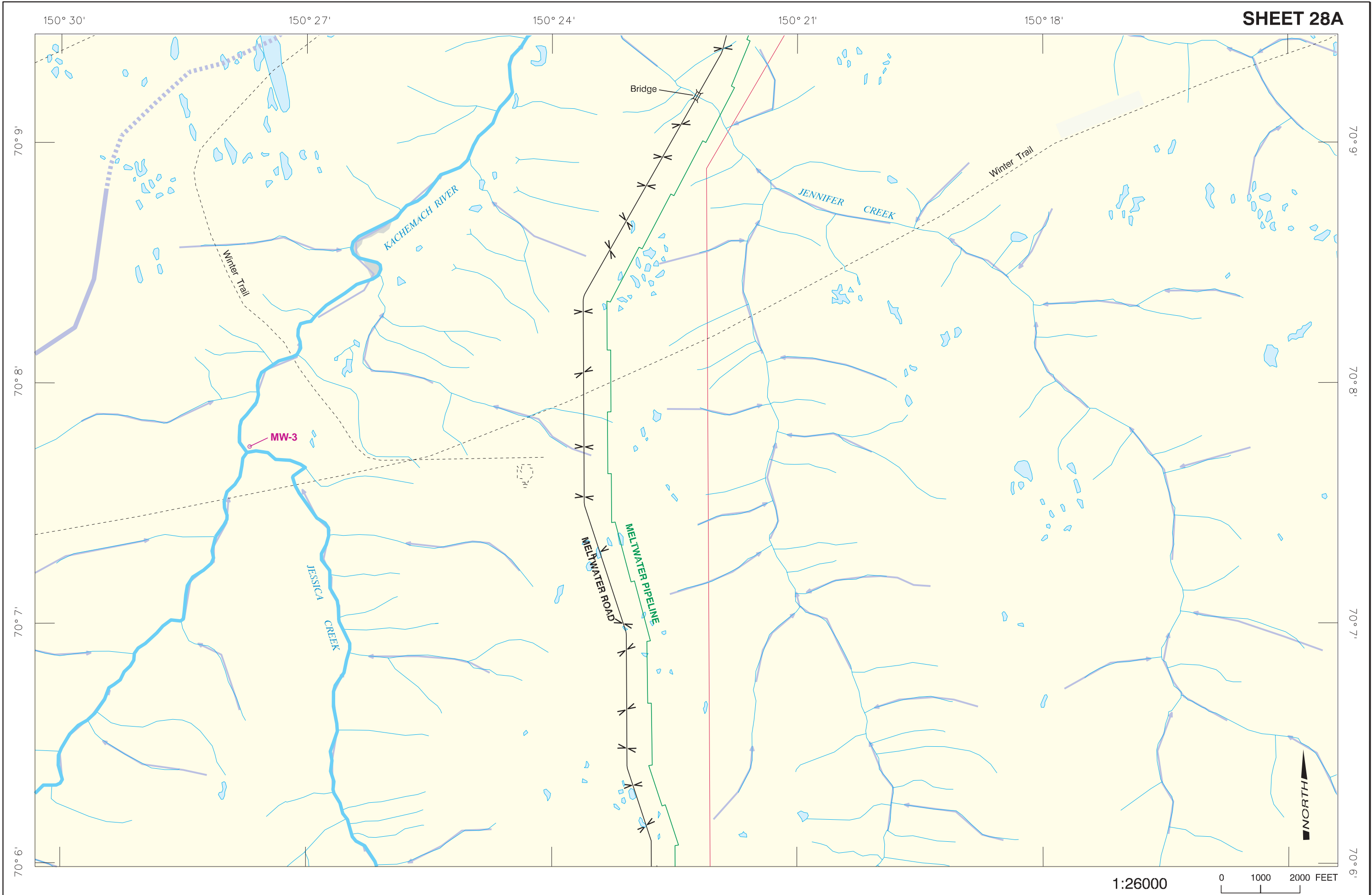
- There are no marine waters or shoreline on this sheet.

STAGING AREAS AND PRESTAGED EQUIPMENT

PRESTAGED EQUIP. AREA	LOCATION	ITEM	QUANTITY	TYPE
MW-3	Confluence of Kachemach River and Jessica Creek	Pipe Plastic sheeting Sandbags	20' 1 roll Variable (sufficient to block tributary)	6" diameter Visqueen

**See the latest Supplement, Alaska and United States Coast Pilot for current information on air and vessel access, respectively.*

NOTE: All values given on these pages are for planning purposes only.



1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- The Kachemach River provides habitat for anadromous whitefish and for resident fish.
- Jessica Creek provides habitat for anadromous fish.

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 17 miles northwest of DS-2P. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

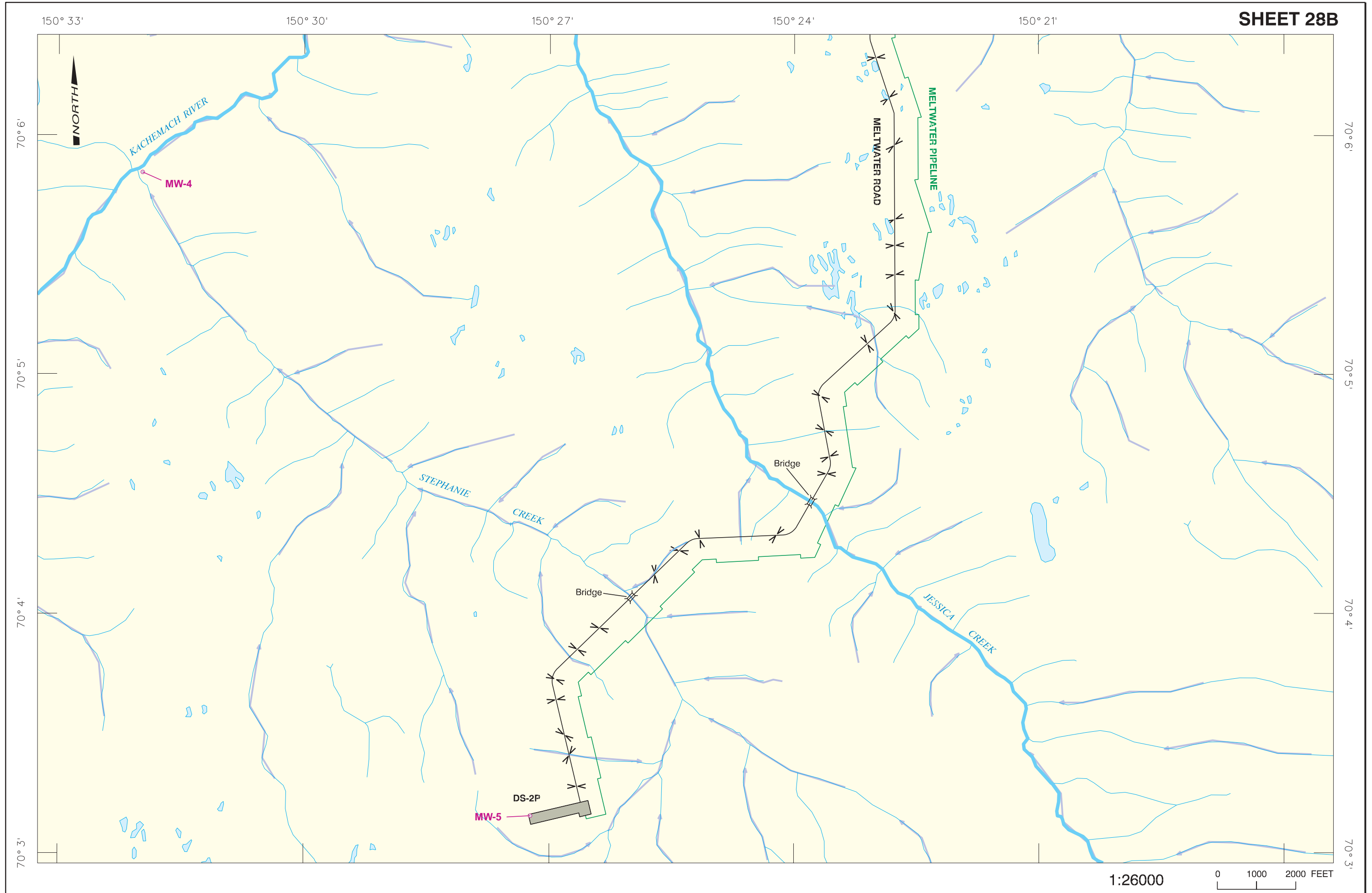
- There are no marine waters or shoreline on this sheet.

STAGING AREAS AND PRESTAGED EQUIPMENT

PRESTAGED EQUIP. AREA	LOCATION	ITEM	QUANTITY	TYPE
MW-4	Confluence of Kachemach River and Stephanie Creek	Pipe Plastic sheeting Sandbags	20' 1 roll Variable (sufficient to block tributary)	6" diameter Visqueen
MW-5	DS-2P	Pump Pump Skimmer Boom	1 1 1 5 bundles	3" diaphragm 4" trash Rope mop Z14-E Sorbent 8" x 200'

**See the latest Supplement, Alaska and United States Coast Pilot for current information on air and vessel access, respectively.*

NOTE: All values given on these pages are for planning purposes only.





PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- The Kachemach River provides habitat for anadromous whitefish and for resident fish.
- Jessica Creek provides habitat for anadromous fish.



AIR ACCESS*

- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 17 miles northwest of DS-2P. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

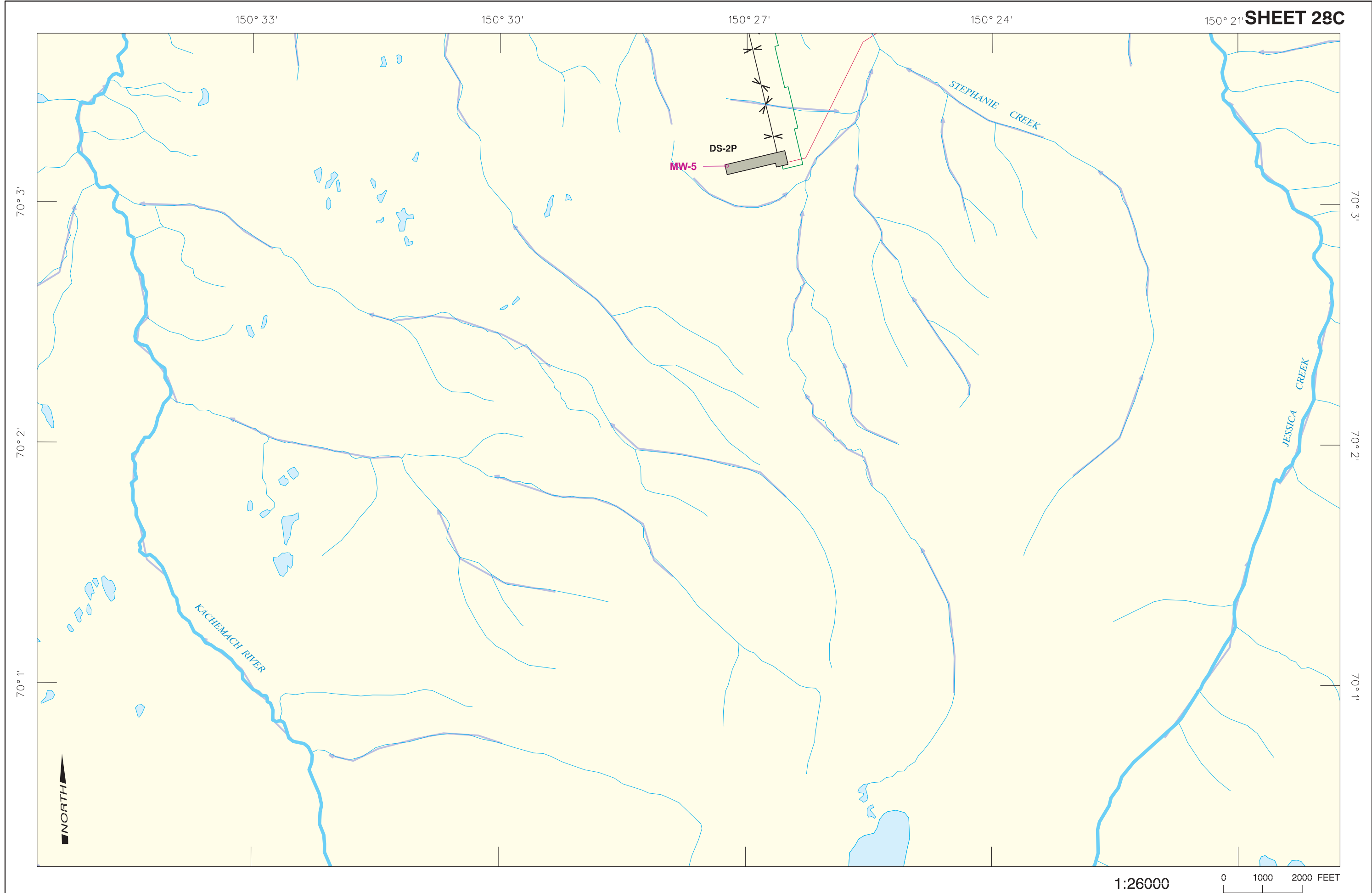
STAGING AREAS AND PRESTAGED EQUIPMENT

PRESTAGED EQUIP. AREA	LOCATION	ITEM	QUANTITY	TYPE
MW-5	DS-2P	Pump	1	3" diaphragm
		Pump	1	4" trash
		Skimmer	1	Rope mop Z14-E
		Boom	5 bundles	Sorbent 8" x 200'

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.





PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- This is a Brant nesting area. Birds are present from May through July.
- This is a Spectacled Eider nesting area.
- Kalubik Creek provides habitat for anadromous whitefish and char and for resident fish.

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

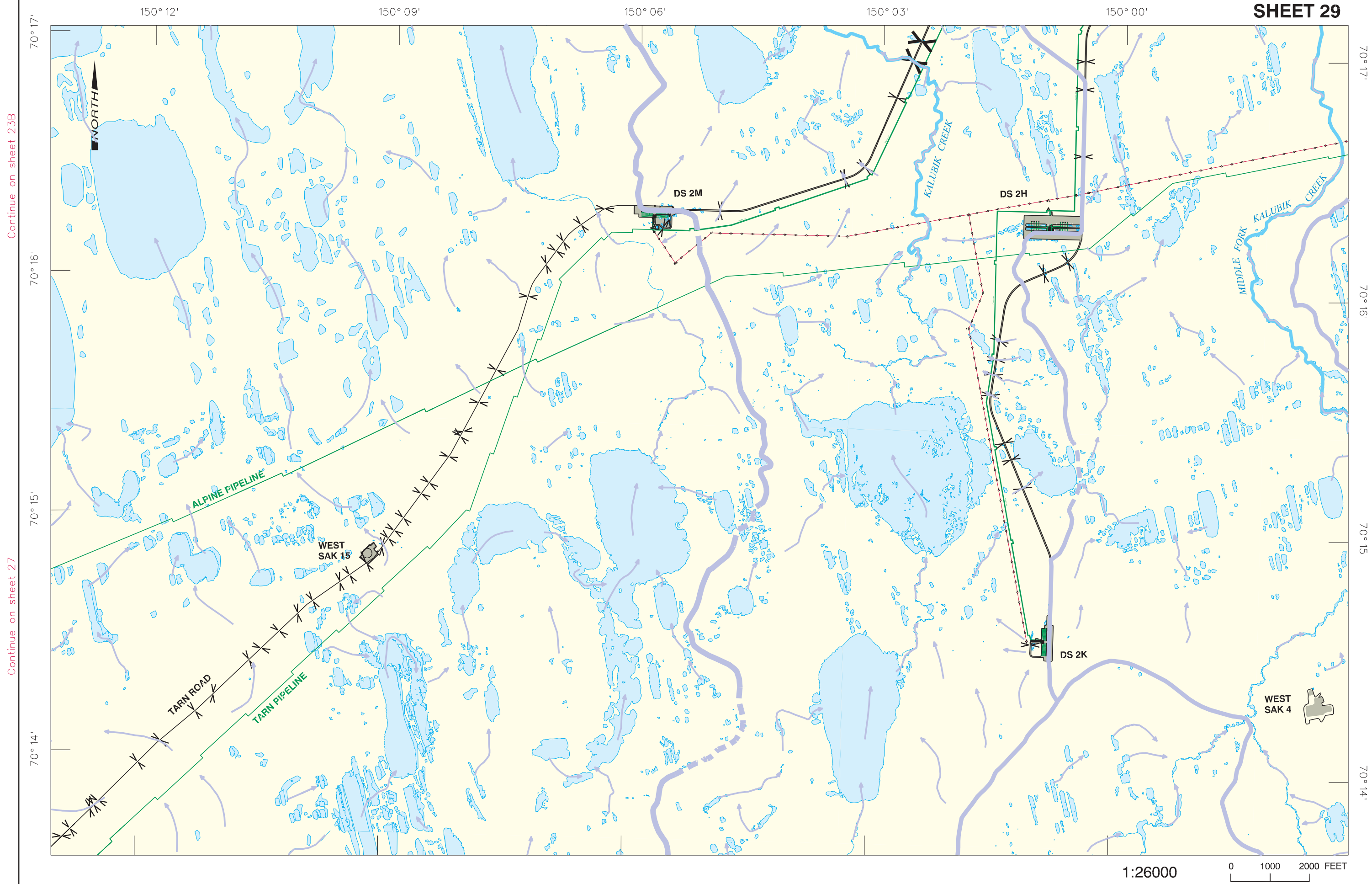
- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 19 miles west of West Sak 15. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 23B

Continue on sheet 27

Continue on sheet 53



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- The lee shores of the barrier islands are important areas for waterfowl molting and staging during August and September.
- Shoreline and offshore areas support molting Oldsquaws and eiders, and brood-rearing eiders. This is also a staging area for migrating Phalaropes (shorebirds). Birds are present in June, July, and August.
- Common Eiders nest on offshore islands in June and July.
- Plan to deploy bird-hazing systems during the open-water season.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- HAR-001 on Thetis Island

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

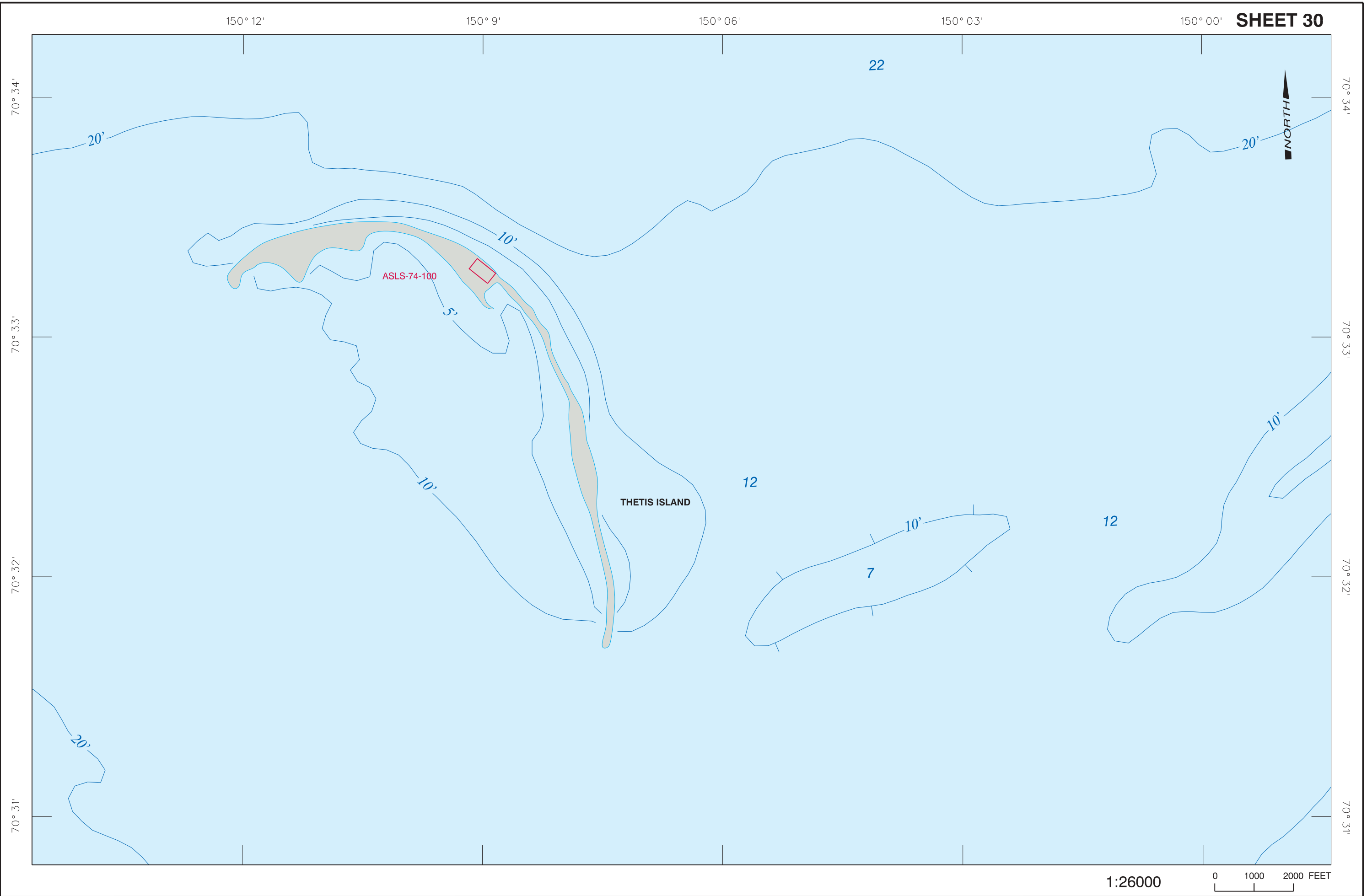
- There is an emergency aircraft landing strip located on Oliktok Point (Sheet 35) approximately 6 miles southeast of Thetis Island. This a 4,000-ft gravel airstrip, which is unattended and closed to the public. Approval to use the strip must be obtained 24 hours in advance by calling 907-552-1738 or 317-552-1738. Visual inspection prior to use is recommended.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Surface currents generally flow to the west at 10 to 30 cm/sec.
- Good small boat anchorage in 12 ft of water is available on the east side of Thetis Island, with protection from southwest winds.
- Strong offshore winds can reduce water depths by 2 to 3 ft.
- Thetis Island may be awash during storm surges of 2 to 3 ft and strong west and northwest winds.

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 31



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- The lee shores of Spy Island are important areas for waterfowl molting and staging during August and September.
- Shoreline and offshore areas support molting Oldsquaws and eiders, and brood-rearing eiders. This is also a staging area for migrating Phalaropes (shorebirds). Birds are present in June, July, and August.
- Common Eiders nest on offshore islands in June and July.
- Plan to deploy bird-hazing systems during the open-water season.
- Polar bear dens have been found in this area. Dens may be in use from October through April.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XBP-035 on Spy Island

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- There is an emergency aircraft landing strip located on Oliktok Point (Sheet 35) approximately 4 miles south of Spy Island. This a 4,000-ft gravel airstrip, which is unattended and closed to the public. Approval to use the strip must be obtained 24 hours in advance by calling 907-552-1738 or 317-552-1738. Visual inspection prior to use is recommended.
- Kuparuk airstrip (Sheet 51) is located approximately 16 miles south-southeast of Spy Island.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Kuparuk Airstrip	6,000-ft. gravel runway, attended continuously	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Jet A	24-hr advance notification required: 907-659-7213

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS*

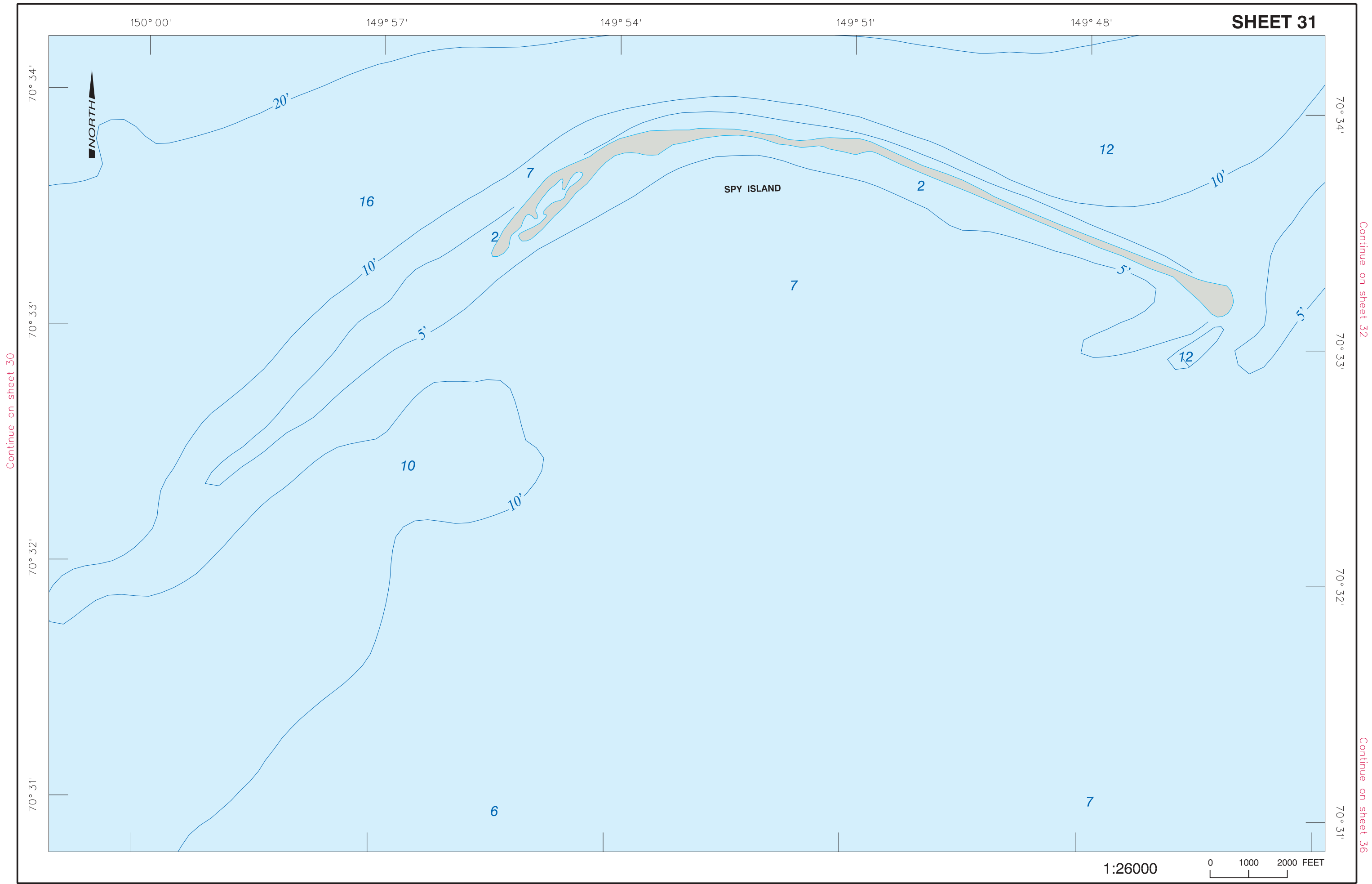
- Marine waters generally flow to the west with surface currents of 10 to 30 cm/sec.
- Water access is limited on lagoon-facing shores of the island, but is good on ocean-facing shores.
- Spy Island is inundated by storm surges.
- Alongshore sediment transport is to the west with erosion on the eastern end of Spy island and accumulation on the western end.

STAGING AREAS AND PRESTAGED EQUIPMENT

- There are staging areas and prestaged equipment at Oliktok Point (Sheet 35).

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 30

Continue on sheet 32

Continue on sheet 36

Continue on sheet 35



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- The lee shores of the islands are important molting areas for male Oldsquaws in late July and early August.
- Shoreline and offshore areas support molting and brood-rearing eiders. This is also a staging area for migrating Phalaropes (shorebirds). Birds are present in June, July, and August.
- Common Eiders nest on offshore islands in June and July.
- Plan to deploy bird-hazing systems during the open-water season.
- Polar bear dens have been found in this area. Dens may be in use from October through April.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XBP-011 on Pingok Island

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- There is an emergency aircraft landing strip located on Oliktok Point (Sheet 35) approximately 7 miles southwest of Leavitt Island. This a 4,000-ft gravel airstrip, which is unattended and closed to the public. Approval to use the strip must be obtained 24 hours in advance by calling 907-552-1738 or 317-552-1738. Visual inspection prior to use is recommended.
- Kuparuk airstrip (Sheet 51) is located approximately 15 miles south of Leavitt Island.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Kuparuk Airstrip	6,000-ft. gravel runway, attended continuously	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Jet A	24-hr advance notification required: 907-659-7213

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

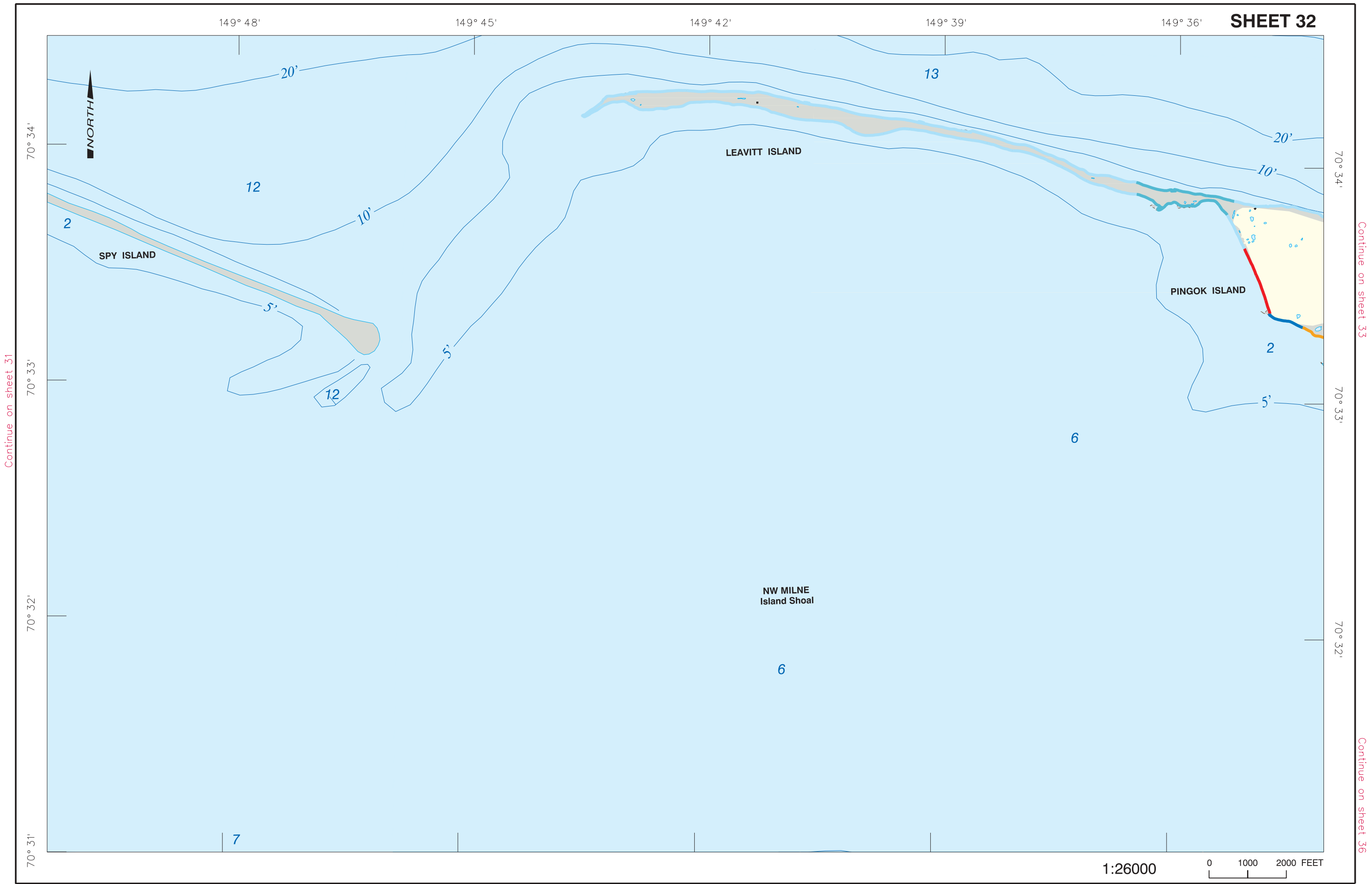
- Water access is limited on lagoon-facing shores of islands, but is good on ocean-facing shores.
- Alongshore sediment transport is to the west with erosion on the eastern ends of islands and accumulation on the western ends.

STAGING AREAS AND PRESTAGED EQUIPMENT

- There are staging areas and prestaged equipment at Oliktok Point (Sheet 35).

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 31

Continue on sheet 33

Continue on sheet 36



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- The lee shores of the islands are important molting areas for male Oldsquaws in late July and early August.
- Shoreline and offshore areas support molting and brood-rearing eiders. This is also a staging area for migrating Phalaropes (shorebirds). Birds are present in June, July, and August.
- Common Eiders nest on offshore islands in June and July.
- Plan to deploy bird-hazing systems during the open-water season.
- Polar bear dens have been found in this area. Dens may be in use from October through April.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XBP-011 on Pingok Island
- XBP-012 on Pingok Island
- XBP-013 on Bertoncini Island
- XBP-030 on Pingok Island
- XBP-034 on Pingok Island

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- There is an emergency aircraft landing strip located on Oliktok Point (Sheet 35) approximately 8 miles southwest of Pingok Island. This a 4,000-ft gravel airstrip, which is unattended and closed to the public. Approval to use the strip must be obtained 24 hours in advance by calling 907-552-1738 or 317-552-1738. Visual inspection prior to use is recommended.
- Kuparuk airstrip (Sheet 51) is located approximately 15 miles south-southwest of Pingok Island.

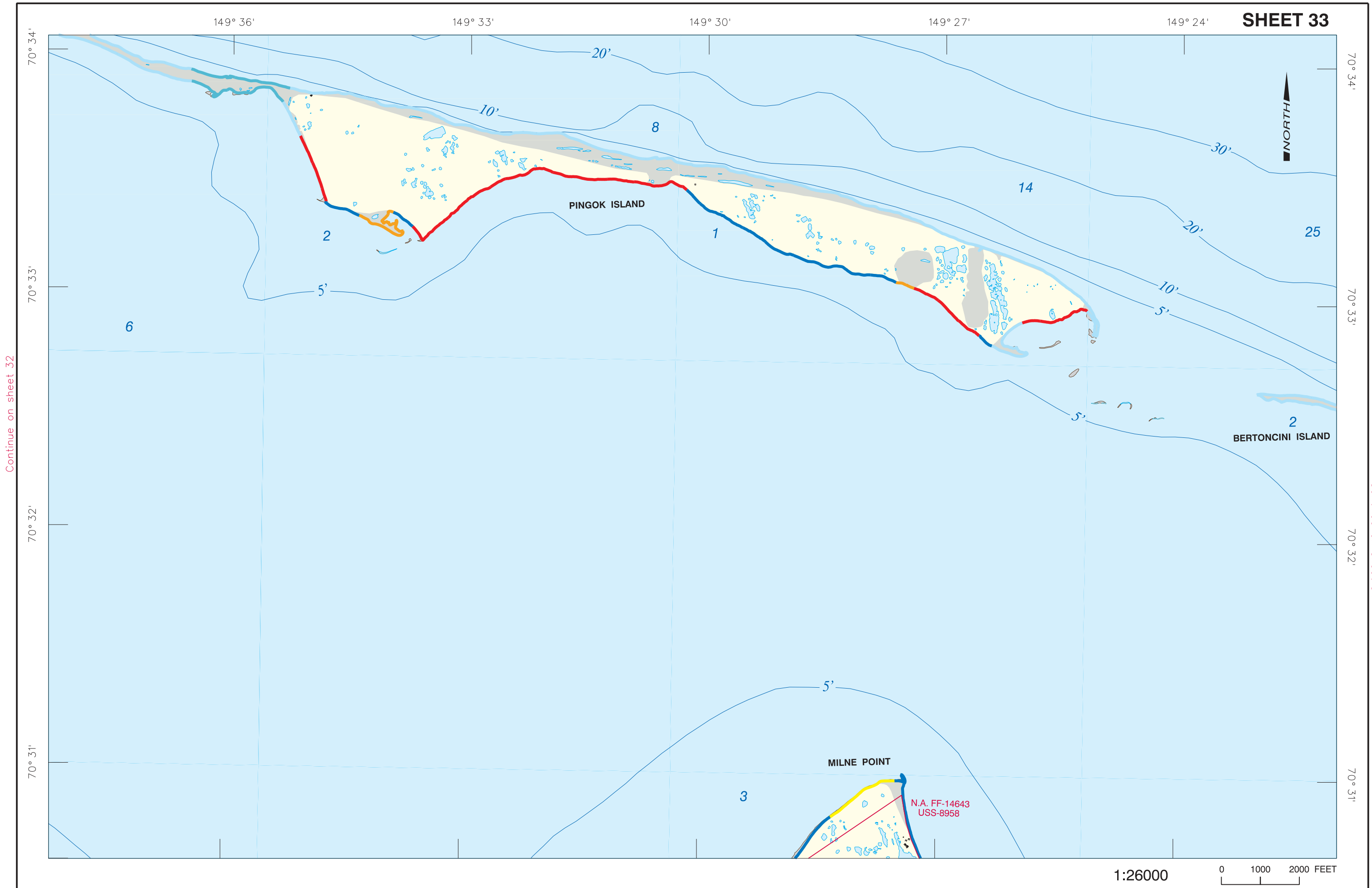
AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Kuparuk Airstrip	6,000-ft. gravel runway, attended continuously	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Jet A	24-hr advance notification required: 907-659-7213

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Water access is limited on lagoon-facing shores of islands, but good on ocean-facing shores.
- Alongshore sediment transport is to the west with erosion on eastern ends of islands and accumulation on the western ends.
- There are a small lake and springs with fresh water at the midpoint of Pingok Island.

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 32

Continue on sheet 34



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- The lee shores of the islands are important molting areas for male Oldsquaws in late July and early August.
- Shoreline and offshore areas support molting and brood-rearing eiders. This is also a staging area for migrating Phalaropes (shorebirds). Birds are present in June, July, and August.
- Common Eiders nest on offshore islands in June and July.
- Plan to deploy bird-hazing systems during the open-water season.
- Polar bear dens have been found in this area. Dens may be in use from October through April.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XBP-004 near Kavearak Point
- XBP-013 on Bertoncini Island
- XBP-014 on Cottle Island

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- There is an emergency aircraft landing strip located on Oliktok Point (Sheet 35) approximately 14 miles southwest of Bodfish Island. This a 4,000-ft gravel airstrip, which is unattended and closed to the public. Approval to use the strip must be obtained 24 hours in advance by calling 907-552-1738 or 317-552-1738. Visual inspection prior to use is recommended.
- Kuparuk airstrip (Sheet 51) is located approximately 15 miles southwest of Bodfish Island.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Kuparuk Airstrip	6,000-ft. gravel runway, attended continuously	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Jet A	24-hr advance notification required: 907-659-7213

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Water access by other than very shallow-draft vessels will be precluded in Simpson Lagoon and Gwydyr Bay due to shallow water depths.
- Bars and shoals obstruct the passages between Pingok Island (Sheet 33) and Cottle Island.
- Barrier islands tend to migrate toward shore at 5 to 10 meters per year and westward 20 to 30 meters.
- Simpson Lagoon currents are generally to the west at 10 to 30 cm/sec.

COUNTERMEASURES CONSIDERATIONS

- The embayment on the east side of Bodfish Island will collect westerly flowing oil spills. All barrier islands will serve to restrain onshore/offshore dispersion of floating oil.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

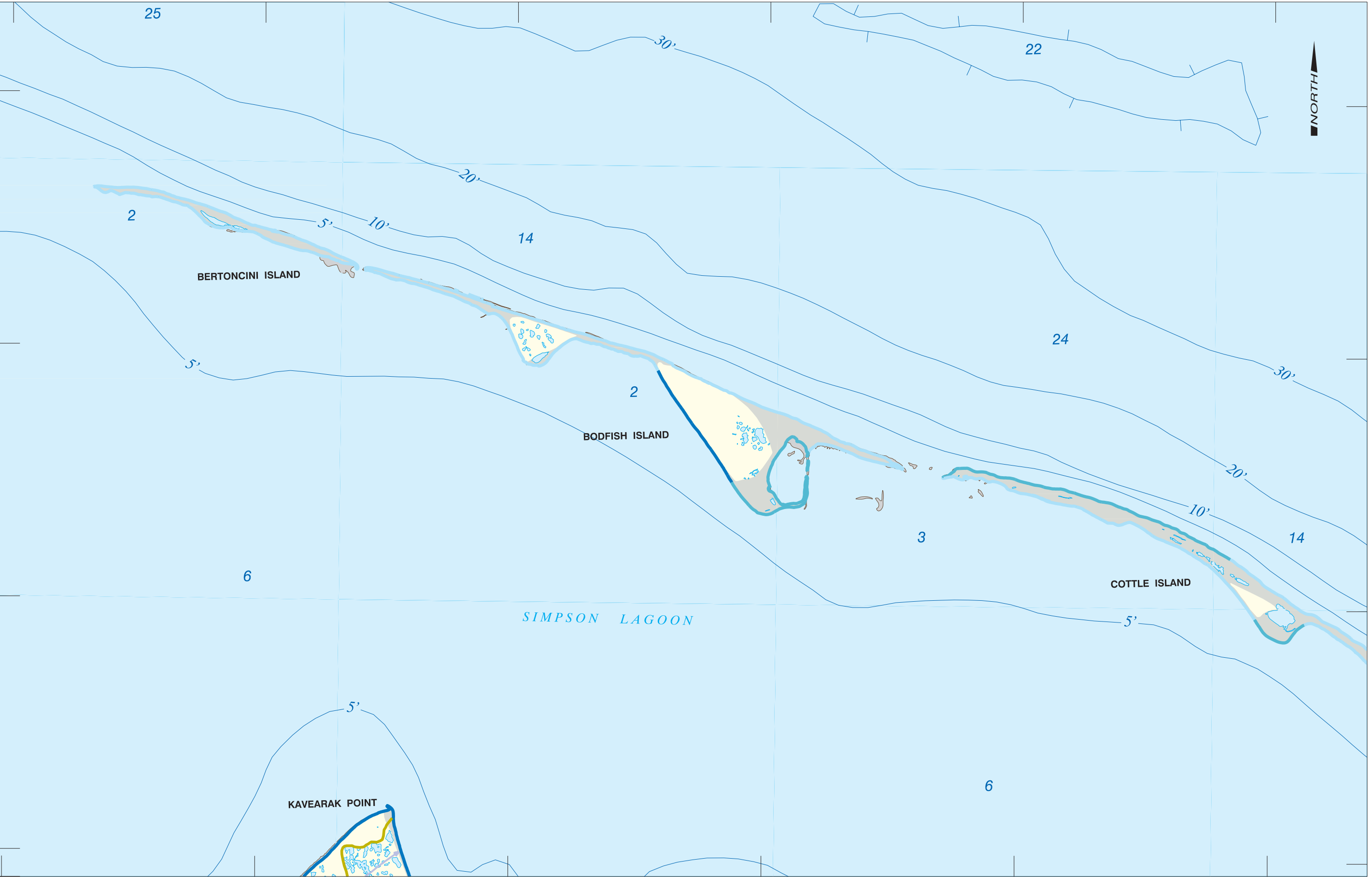
149° 24' 149° 21' 149° 18' 149° 15' 149° 12'

70° 33'
70° 32'
70° 31'
70° 30'

70° 33'
70° 32'
70° 31'
70° 30'

Continue on sheet 33

Continue on sheet 56



1:26000 0 1000 2000 FEET



PRIORITY PROTECTION SITES

SITE NO.	DESCRIPTION	SENSITIVITY	TACTIC	EST. BOOM
PS25	Ugnuravik River mouth	Most sensitive during open water season. Keep oil from entering river. Peat shorelines are present on west shore of river.	C-13 or C-14	1,500'
PS27	Creek mouth west of Oliktok Pt. airstrip	Most sensitive during open water season. Keep oil from entering river.	C-13 or C-14	100'

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Simpson Lagoon has large flocks of molting male Oldsquaw in July and early August, especially in the lee shores of the barrier islands.
- Shoreline and offshore areas support molting and brood-rearing eiders. This is also a staging area for migrating Phalaropes (shorebirds). Birds are present in June, July, and August.
- This is a Brant nesting, brood-rearing, and molting area. Birds are present from May through August.
- This is a Spectacled Eider breeding and nesting area. Birds may be present in spring and summer.
- Plan to deploy bird-hazing systems during the open-water season.
- The Ugnuravik River provides habitat for anadromous whitefish and for resident fish.
- There is a seawater intake on the north wall of the Oliktok Seawater Treatment Plant approximately 8 ft below the surface. Precautions should be taken to keep oil away from this area.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XBP-002 on the coast west of Oliktok Point
- XBP-039 on the coast west of Oliktok Point

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- There is an emergency aircraft landing strip located at Oliktok Point. This is a 4,000-ft gravel airstrip, which is unattended and closed to the public. Approval to use the strip must be obtained 24 hours in advance by calling 907-552-1738 or 317-552-1738. Visual inspection prior to use is recommended.
- Kuparuk airstrip (Sheet 51) is located approximately 14 miles southeast of Oliktok Point.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Kuparuk Airstrip	6,000-ft. gravel runway, attended continuously	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Jet A	24-hr advance notification required: 907-659-7213

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Simpson Lagoon water depths range from 3 to 7 ft.
- Bars and shoals obstruct the passages between Pingok Island and Cottle Island (Sheets 33 and 34, respectively).
- There is small boat shelter from east winds behind the small sand spit west of Oliktok Point. It provides excellent moorage but is limited to 5 ft of water. This shelter is exposed to southwest winds. Shelter from southwest winds is available on the east side of Oliktok Point.
- There is a boat launch at Oliktok Dock.
- Simpson Lagoon currents are generally to the west at 10 to 30 cm/sec.

COUNTERMEASURES CONSIDERATIONS

- Sand-silt shores are very narrow (less than 20 ft wide) and interrupted by small creek mouths and areas of thick peat deposits. Large areas of potential overwash between Oliktok Point and Kalubik Creek (to the west) may make cleanup difficult. Backshore areas are wet tundra.
- Vegetated shorelines in this area may preclude the use of heavy equipment. Sand-silt washed over on the vegetated shorelines is mixed with large peat blocks, making mechanized travel difficult.
- West and north winds and Colville River discharge will cause floating oil to impinge on the shoreline west of Oliktok Point. There is some restricted access to beaches by shallow water.

STAGING AREAS AND PRESTAGED EQUIPMENT

- There are staging areas at Oliktok Dock and approximately 2 miles southeast of Oliktok Dock.

PRESTAGED EQUIP. AREA	LOCATION	ITEM	QUANTITY	TYPE
KUP-12	Oliktok Dock	Boom	3,450'	8" x 6" river
KUP-11	DS 3R	Boom	500'	8" x 6" river

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

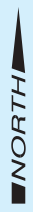
150° 00'

149° 57'

149° 54'

149° 51'

149° 48'

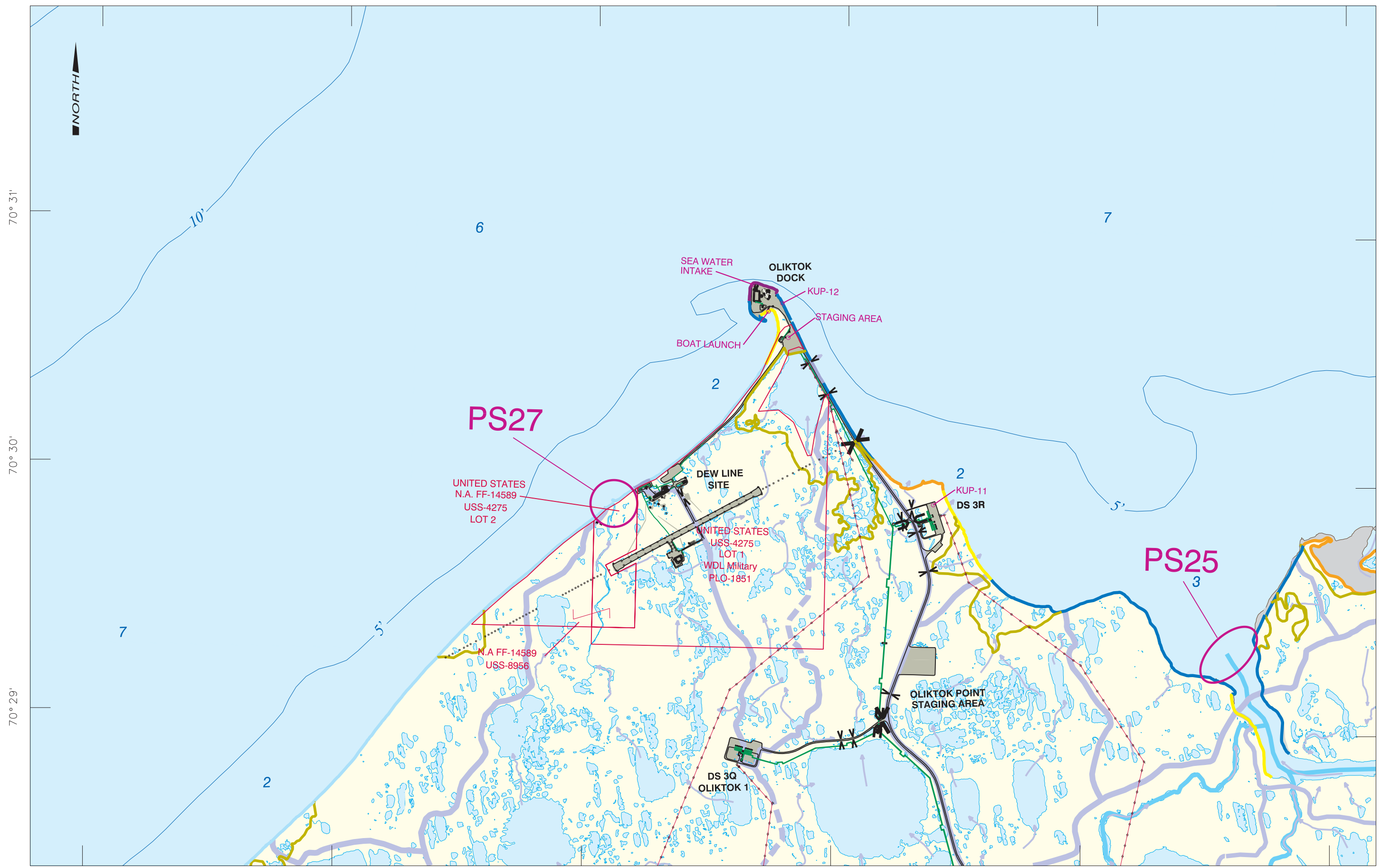


Continue on sheet 30

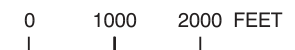
Continue on sheet 32

Continue on sheet 39

Continue on sheet 36



1:26000





PRIORITY PROTECTION SITES

SITE NO.	DESCRIPTION	SENSITIVITY	TACTIC	EST. BOOM
PS24	Gaps between marsh islands west of MPU L Pad	Most sensitive during open water season. Salt marsh and/or inundated low-lying tundra shoreline.	C-13 or C-14	400'
PS25	Ugnuravik River mouth	Most sensitive during open water season. Keep oil from entering river. Peat shorelines are present on west shore of river.	C-13 or C-14	1,500'

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Simpson Lagoon has large flocks of molting male Oldsquaw in July and early August, especially in the lee shores of the barrier islands.
- Shoreline and offshore areas support molting and brood-rearing eiders. This is also a staging area for migrating Phalaropes (shorebirds). Birds are present in June, July, and August.
- This is a Brant nesting, brood-rearing, and molting area. Birds are present from May through August.
- Pairs of Spectacled Eider have been found in this area.
- Plan to deploy bird-hazing systems during the open-water season.
- The Ugnuravik River provides habitat for anadromous whitefish and for resident fish.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XBP-036 on the north bank of the river near MPU M Pad

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- There is an emergency aircraft landing strip located on Oliktok Point (Sheet 35) west of Simpson Lagoon. This is a 4,000-ft gravel airstrip, which is unattended and closed to the public. Approval to use the strip must be obtained 24 hours in advance by calling 907-552-1738 or 317-552-1738. Visual inspection prior to use is recommended.
- The Kuparuk airstrip (Sheet 51) is located approximately 12 miles south of MPU Pad F.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Kuparuk Airstrip	6,000-ft. gravel runway, attended continuously	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Jet A	24-hr advance notification required: 907-659-7213

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Simpson Lagoon water depths range from 3 to 7 ft.
- There is small boat shelter from east winds behind the small sand spit west of Oliktok Point (Sheet 35). It provides excellent moorage but is limited to 5 ft of water. This shelter is exposed to southwest winds. Shelter from southwest winds is available on the east side of Oliktok Point.
- Simpson Lagoon currents are generally to the west at 10 to 30 cm/sec.

COUNTERMEASURES CONSIDERATIONS

- Sand-silt shores are very narrow (less than 20 ft wide) and interrupted by small creek mouths and areas of thick peat deposits. Backshore areas are wet tundra.
- Vegetated shorelines making up much of this area will preclude the use of heavy equipment. Sand-silt washed over on the vegetated shorelines is mixed with large peat blocks, making mechanized travel difficult.

STAGING AREAS AND PRESTAGED EQUIPMENT

- There is a staging area 1 mile west of the mouth of the Ugnuravik River.
- There is a staging area at MPU L Pad.

PRESTAGED EQUIP. AREA	LOCATION	ITEM	QUANTITY	TYPE
KUP-11	DS 3R	Boom	500'	8" x 6" river
MPU-6	MPU F Pad	Boom	4,000'	8" x 6" river
		Boom	900'	Shore/tide
		Pump	2	3" diaphragm
		Pump	2	2" trash
		Skimmer	4	Weir, Manta Ray
		Storage	6	250-gal. bladder
		Storage	1	2,640-gal. bladder, tow/lift

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

149° 48'

149° 45'

149° 42'

149° 39'

149° 36'

6

7



70° 31'

70° 31'

70° 30'

70° 30'

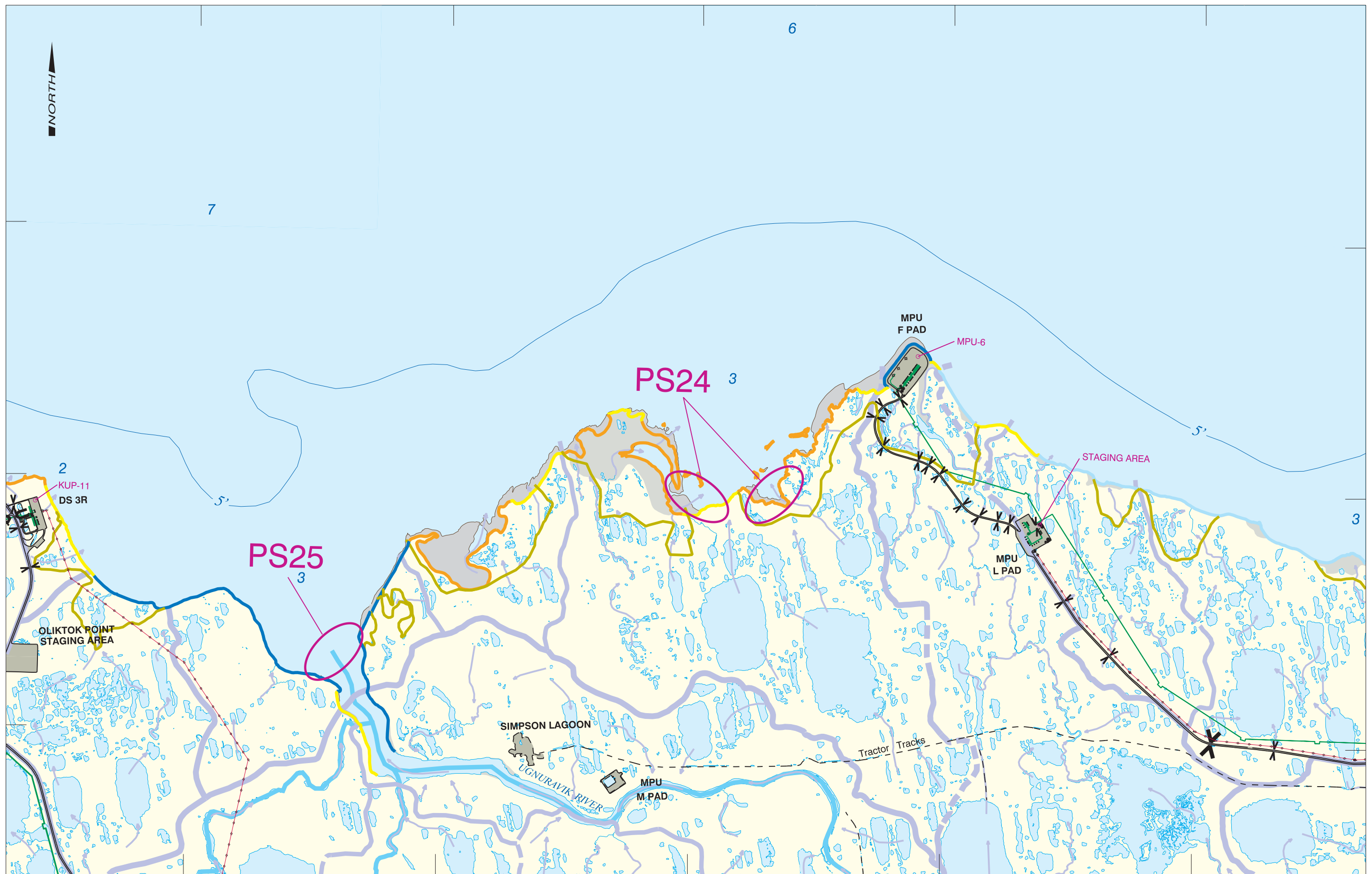
70° 29'

70° 29'

Continue on sheet 35

Continue on sheet 35

Continue on sheet 37



1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

SITE NO.	DESCRIPTION	SENSITIVITY	TACTIC	EST. BOOM
PS18	Creek mouth 2 miles SE of Milne Point	Most sensitive during open water season. Keep oil from entering lagoon.	C-13 or C-14	800'
PS19	Inlet to marsh 2 miles SW of Milne Point	Most sensitive during open water season. Inundated low-lying tundra shorelines.	C-13 or C-14	500'

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Simpson Lagoon has large flocks of molting male Oldsquaw in July and early August, especially in the lee shores of the barrier islands.
- Shoreline and offshore areas support molting and brood-rearing eiders. This is also a staging area for migrating Phalaropes (shorebirds). Birds are present in June, July, and August.
- This is a Brant nesting, brood-rearing, and molting area. Birds are present from May through August.
- Pairs of Spectacled Eiders have been found in this area.
- Plan to deploy bird-hazing systems during the open-water season.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XBP-010 on the coast east of Milne Point

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- There is an emergency aircraft landing strip located on Oliktok Point (Sheet 35) approximately 9 miles west of Milne Point. This a 4,000-ft gravel airstrip, which is unattended and closed to the public. Approval to use the strip must be obtained 24 hours in advance by calling 907-552-1738 or 317-552-1738. Visual inspection prior to use is recommended.
- The Kuparuk airstrip (Sheet 51) is located approximately 13 miles south-southwest of Milne Point.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Kuparuk Airstrip	6,000-ft. gravel runway, attended continuously	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Jet A	24-hr advance notification required: 907-659-7213

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Simpson Lagoon water depths range from 3 to 7 ft.
- Aircraft wreckage is present in 4 ft of water 0.5 mile offshore north of Milne Pt. 18-1.
- Simpson Lagoon currents are generally to the west at 10 to 30 cm/sec.

COUNTERMEASURES CONSIDERATIONS

- Vegetated shorelines making up much of this area will preclude the use of heavy equipment. Sand-silt washed over on the vegetated shorelines is mixed with large peat blocks, making mechanized travel difficult.

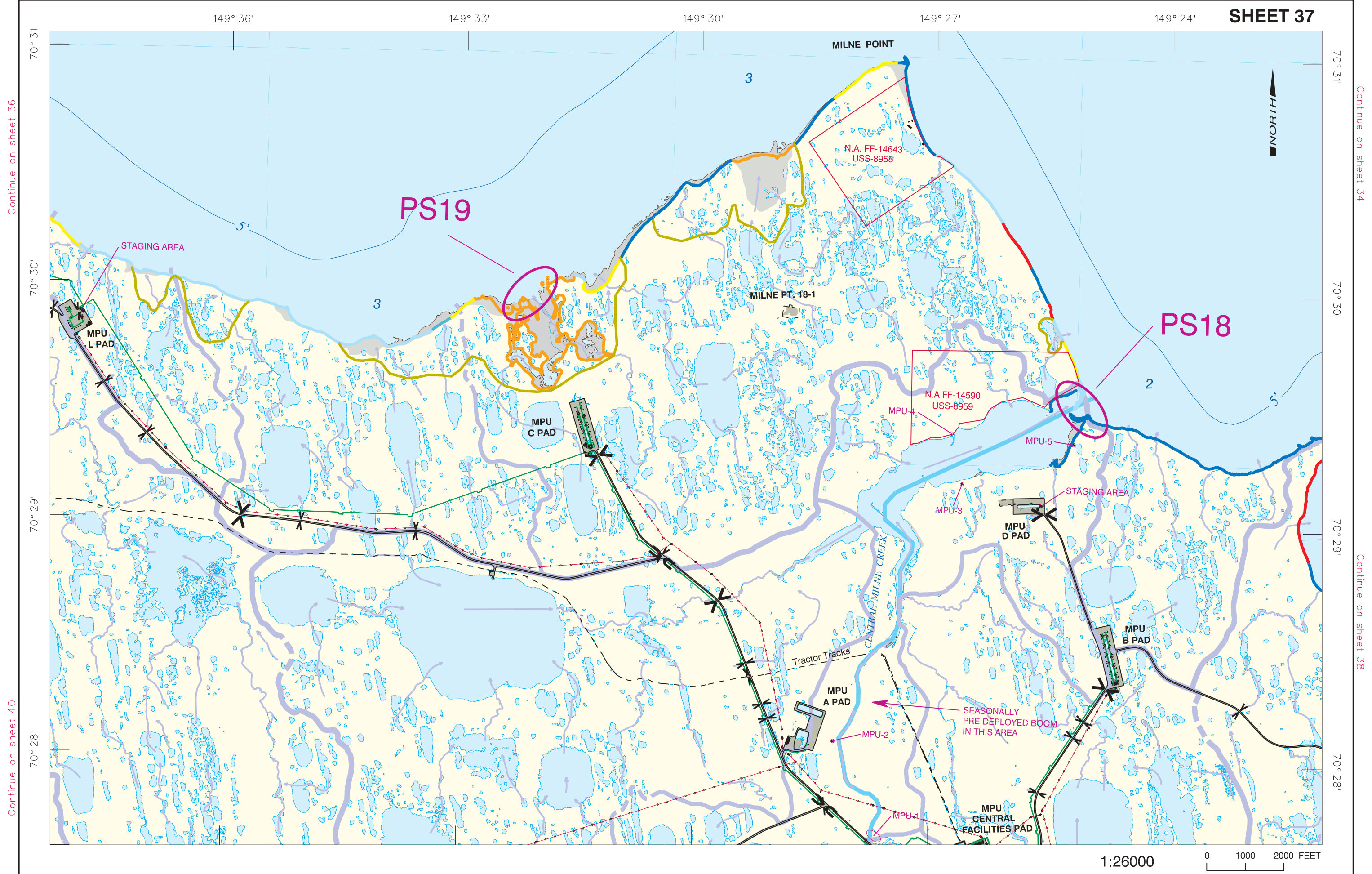
STAGING AREAS AND PRESTAGED EQUIPMENT

- There are staging areas at MPU D Pad and at MPU L Pad.
- MPU-1 is a predetermined containment site. No equipment is staged there.
- Boom is typically predeployed seasonally on Central Milne Creek north of MPU-2.

PRESTAGED EQUIP. AREA	LOCATION	ITEM	QUANTITY	TYPE
MPU-2	At river east of MPU A Pad	Boom Boom Pump Skimmer Skimmer Storage	1,000' 200' 1 1 1 1	8" x 6" river Shore/tide 3" diaphragm Rope mop, Z14-E Disc, MI-30 2,400-gal. Fastank
MPU-3	On south side of inlet, northwest of MPU D Pad	Boom Boom Pump Skimmer Skimmer Storage	1,000' 100' 1 1 1 1	8" x 6" river Shore/tide 3" diaphragm Rope mop, Z14-E Weir, slurp 2,400-gal. Fastank
MPU-4	On north side of inlet northwest of MPU D Pad	Boom Boom	1,000' 200'	8" x 6" river Shore/tide
MPU-5	On south side of inlet near entrance to bay	Boom Boom Pump Skimmer	1,500' 200' 1 1	8" x 6" river Shore/tide 3" diaphragm Disc, MI-30

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 36

Continue on sheet 34

Continue on sheet 40

Continue on sheet 38



PRIORITY PROTECTION SITES

SITE NO.	DESCRIPTION	SENSITIVITY	TACTIC	EST. BOOM
PS17	Creek mouth 0.5 miles SE of Beechey Point	Most sensitive during open water season. Inundated low-lying tundra shorelines.	C-13 or C-14	500'

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Simpson Lagoon has large flocks of molting male Oldsquaw in July and early August, especially in the lee shores of the barrier islands.
- Shoreline and offshore areas support molting and brood-rearing eiders. This is also a staging area for migrating Phalaropes (shorebirds). Birds are present in June, July, and August.
- This is a Brant nesting, brood-rearing, and molting area. Birds are present from May through August.
- Pairs of Spectacled Eiders have been found in this area.
- Plan to deploy bird-hazing systems during the open-water season.
- East Milne Creek provides habitat for anadromous whitefish and char and for resident fish.
- Polar bear dens have been found in this area. Dens may be in use from October through April.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XBP-003 near Beechey Point

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- The Pt. McIntyre airstrip (Sheet 62) is approximately 12 miles southeast of Kavearak Point. This is a 1,500-ft gravel strip, which is unattended and not maintained. Emergency use only is recommended.
- The Kuparuk airstrip (Sheet 51) is approximately 13 miles southwest of Kavearak Point.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Kuparuk Airstrip	6,000-ft. gravel runway, attended continuously	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Jet A	24-hr advance notification required: 907-659-7213

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

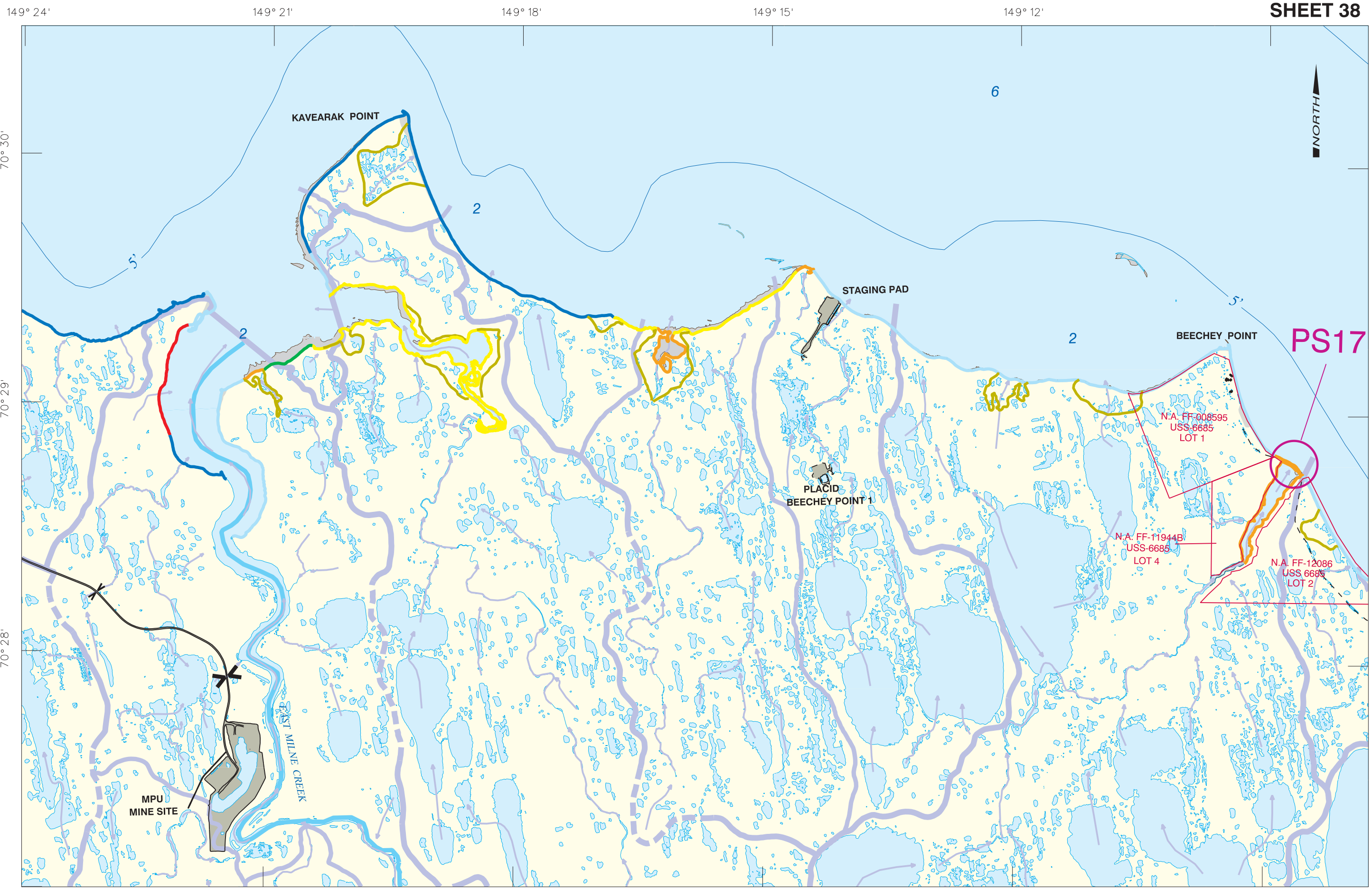
- Water access by other than very shallow-draft vessels will be precluded in Simpson Lagoon and Gwydyr Bay due to shallow water depths.
- There is small boat shelter in 4 ft of water behind sandbar extending northwest from Beechey Point.
- Gwydyr Bay and Simpson Lagoon surface currents are generally to the west at 10 to 30 cm/sec. Water depth is 2 to 7 ft.

STAGING AREAS AND PRESTAGED EQUIPMENT

- There is a staging pad approximately 2 miles west of Beechey Point.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

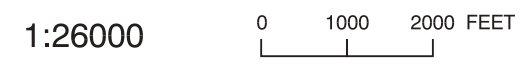


Continue on sheet 37

Continue on sheet 56

Continue on sheet 43

Continue on sheet 57





PRIORITY PROTECTION SITES

SITE NO.	DESCRIPTION	SENSITIVITY	TACTIC	EST. BOOM
PS27	Creek mouth west of Oliktok Pt. airstrip	Most sensitive during open water season. Keep oil from entering river.	C-13 or C-14	100'

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- Shoreline and offshore areas support molting Oldsquaws and eiders, and brood-rearing eiders. This is also a staging area for migrating Phalaropes (shorebirds). Birds are present in June, July, and August.
- This is a Spectacled Eider nesting area.
- This is a Brant nesting, brood-rearing, and molting area. Birds are present from May through August.
- Plan to deploy bird-hazing systems during the open-water season.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XBP-002 on the coast near the airstrip

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- There is an emergency aircraft landing strip located on Oliktok Point (Sheet 35). This is a 4,000-ft gravel airstrip, which is unattended and closed to the public. Approval to use the strip must be obtained 24 hours in advance by calling 907-552-1738 or 317-552-1738. Visual inspection prior to use is recommended.
- The Kuparuk airstrip (Sheet 51) is approximately 13 miles southeast of the Oliktok Point airstrip.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Kuparuk Airstrip	6,000-ft. gravel runway, attended continuously	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Jet A	24-hr advance notification required: 907-659-7213

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Simpson Lagoon water depths range from 3 to 7 ft.
- There is small boat shelter from east winds behind the small sand spit west of Oliktok Point (Sheet 35). It provides excellent moorage but is limited to 5 ft of water. This shelter is exposed to southwest winds. Shelter from southwest winds is available on the east side of Oliktok Point.
- Simpson Lagoon currents are generally to the west at 10 to 30 cm/sec.

COUNTERMEASURES CONSIDERATIONS

- Sand-silt shores are very narrow (less than 20 ft wide) and interrupted by small creek mouths and areas of thick peat deposits. Large areas of potential overwash west of Oliktok Point may make cleanup difficult. Backshore areas are wet tundra.
- West and north winds and Colville River discharge will cause floating oil to impinge on the shoreline west of Oliktok Point. There is some restricted access to beaches by shallow water.

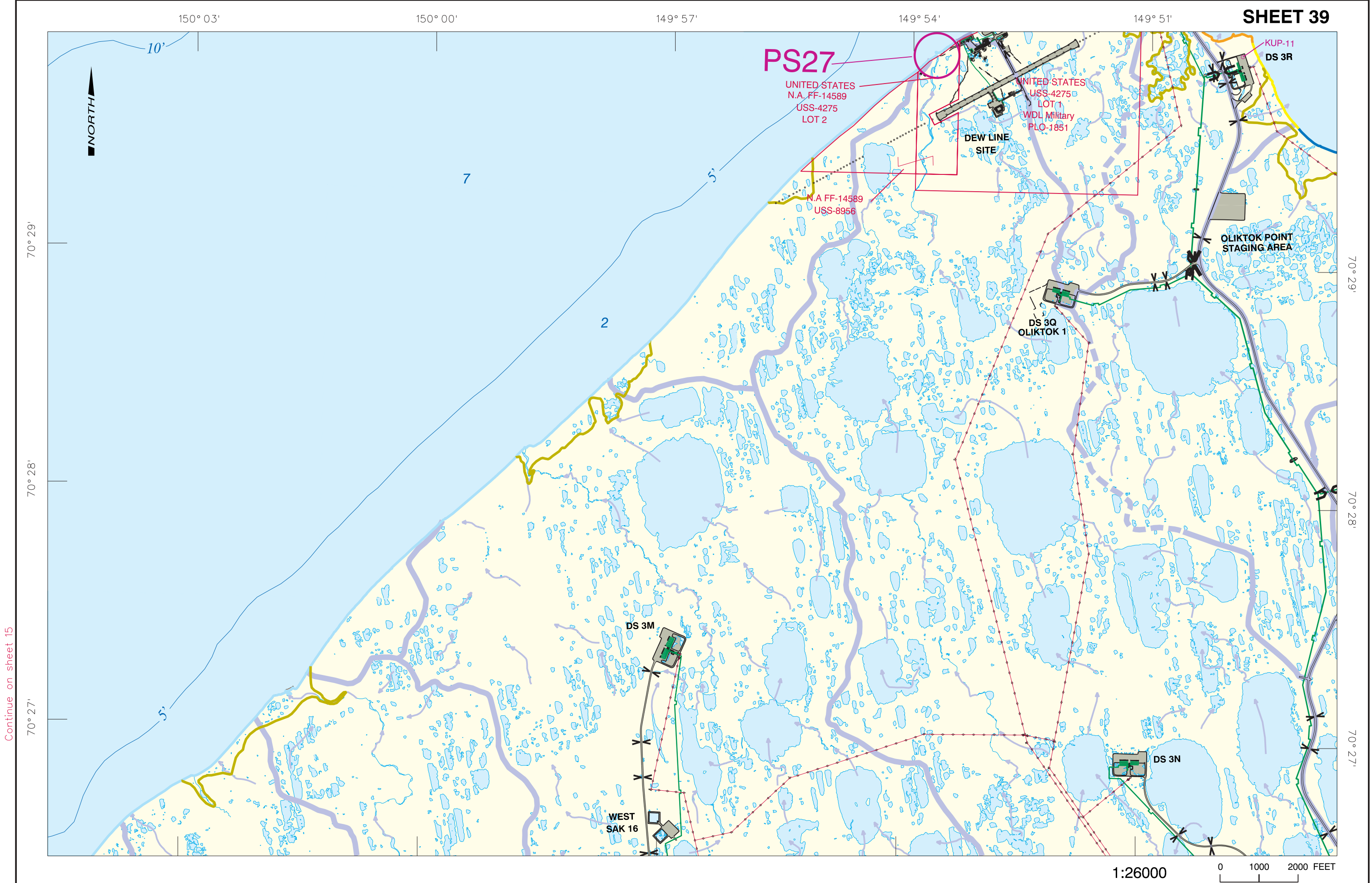
STAGING AREAS AND PRESTAGED EQUIPMENT

- There is a staging area south of DS 3R.

PRESTAGED EQUIP. AREA	LOCATION	ITEM	QUANTITY	TYPE
KUP-11	DS 3R	Boom	500'	8" x 6" river

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 15

Continue on sheet 40



PRIORITY PROTECTION SITES

SITE NO.	DESCRIPTION	SENSITIVITY	TACTIC	EST. BOOM
PS24	Gaps between marsh islands west of MPU L Pad	Most sensitive during open water season. Salt marsh and/or inundated low-lying tundra shoreline.	C-13 or C-14	400'
PS25	Ugnuravik River mouth	Most sensitive during open water season. Keep oil from entering river. Peat shorelines are present on west shore of river.	C-13 or C-14	1,500'
PS27	Creek mouth west of Oliktok Pt. airstrip	Most sensitive during open water season. Keep oil from entering river.	C-13 or C-14	100'

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Simpson Lagoon has large flocks of molting male Oldsquaw in July and early August, especially in the lee shores of the barrier islands.
- This is a Spectacled Eider nesting area.
- This is a Brant nesting, brood-rearing, and molting area. Birds are present from May through August.
- Pairs of Spectacled Eiders have been found in this area.
- Plan to deploy bird-hazing systems during the open-water season.
- The Ugnuravik River provides habitat for anadromous whitefish and for resident fish.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XBP-036 on the north bank of the river near MPU M Pad
- XBP-037 between Mine Site E and the inlet to the northwest
- XBP-038 near Mine Site E

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- There is an emergency aircraft landing strip located on Oliktok Point (Sheet 35). This is a 4,000-ft gravel airstrip, which is unattended and closed to the public. Approval to use the strip must be obtained 24 hours in advance by calling 907-552-1738 or 317-552-1738. Visual inspection prior to use is recommended.
- The Kuparuk airstrip (Sheet 51) is approximately 13 miles southeast of the Oliktok Point airstrip.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Kuparuk Airstrip	6,000-ft. gravel runway, attended continuously	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Jet A	24-hr advance notification required: 907-659-7213

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Simpson Lagoon water depths range from 3 to 7 ft.
- Simpson Lagoon currents are generally to the west at 10 to 30 cm/sec.

COUNTERMEASURES CONSIDERATIONS

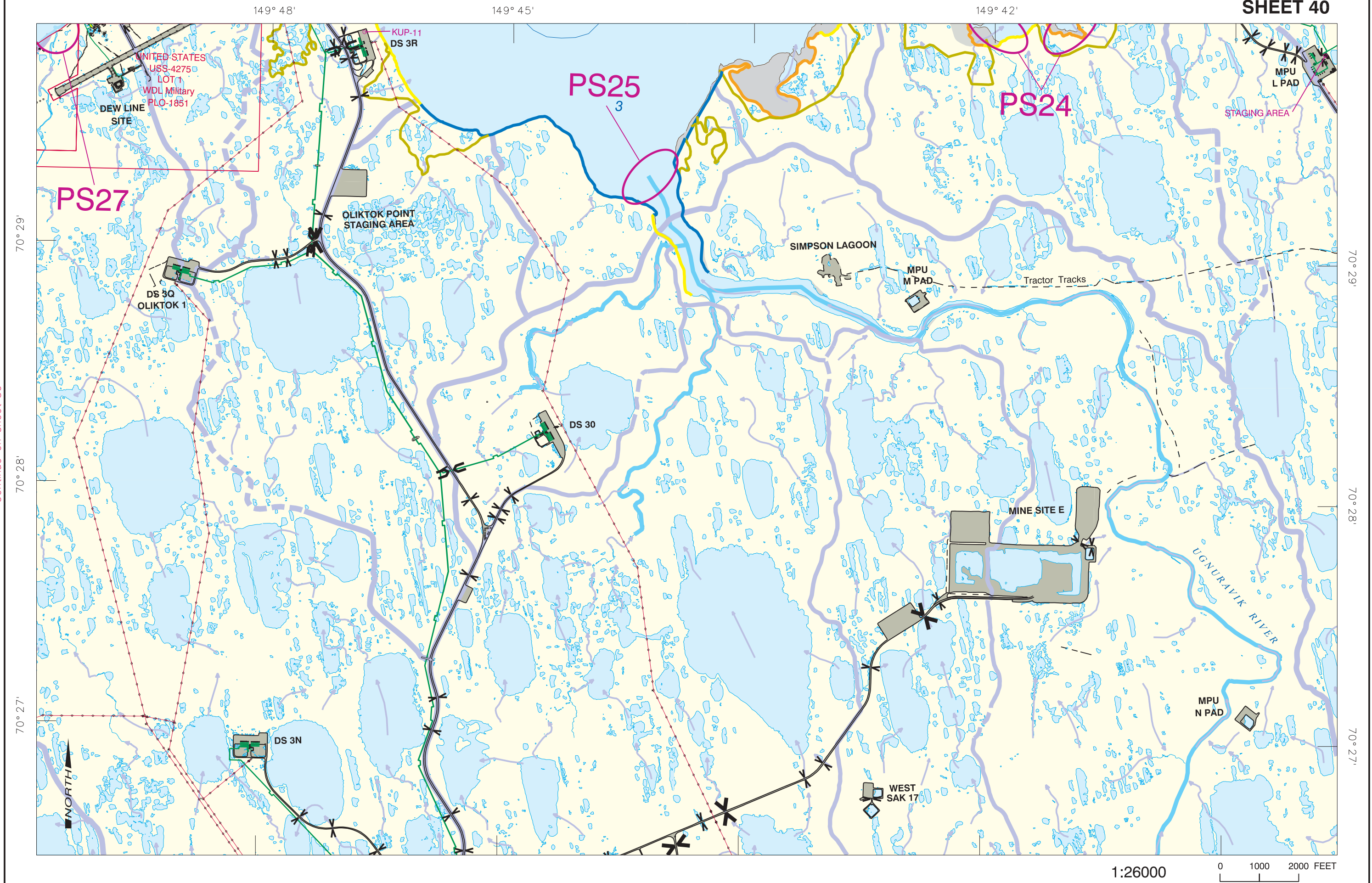
- Vegetated shorelines making up much of this area will preclude the use of heavy equipment. Sand-silt washed over on the vegetated shorelines is mixed with large peat blocks, making mechanized travel difficult.

STAGING AREAS AND PRESTAGED EQUIPMENT

- There is a staging area approximately 1 mile west of the mouth of the Ugnuravik River.
- There is a staging area at MPU L Pad.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 39

Continue on sheet 37

Continue on sheet 43



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- This is a Spectacled Eider nesting area.
- Plan to deploy bird-hazing systems during the open-water season.
- Kalubik Creek provides habitat for anadromous whitefish and char and for resident fish.



AIR ACCESS*

- There is an emergency aircraft landing strip located on Oliktok Point (Sheet 35) approximately 5 miles to the north of West Sak 16. This a 4,000-ft gravel airstrip, which is unattended and closed to the public. Approval to use the strip must be obtained 24 hours in advance by calling 907-552-1738 or 317-552-1738. Visual inspection prior to use is recommended.
- The Kuparuk airstrip (Sheet 51) is approximately 10 miles southeast of West Sak 16.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Kuparuk Airstrip	6,000-ft. gravel runway, attended continuously	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Jet A	24-hr advance notification required: 907-659-7213

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Severe shoaling and continuous sediment transport occur in the Colville River delta. Water depths are generally less than 4 ft up to 5 miles offshore.

COUNTERMEASURES CONSIDERATIONS

- Sand-silt shores are very narrow (less than 20 ft wide) and interrupted by small creek mouths. Areas of potential overwash may make cleanup difficult. Backshore areas are wet tundra.
- West and north winds and Colville River discharge will cause floating oil to impinge on the shoreline west of Oliktok Point. There is some restricted access to beaches by shallow water.

STAGING AREAS AND PRESTAGED EQUIPMENT

PRESTAGED EQUIP. AREA	LOCATION	ITEM	QUANTITY	TYPE
KUP-10	At CPF 3	Storage Boat	2 1	2,400-gal Fastank 14' skiff, aluminium

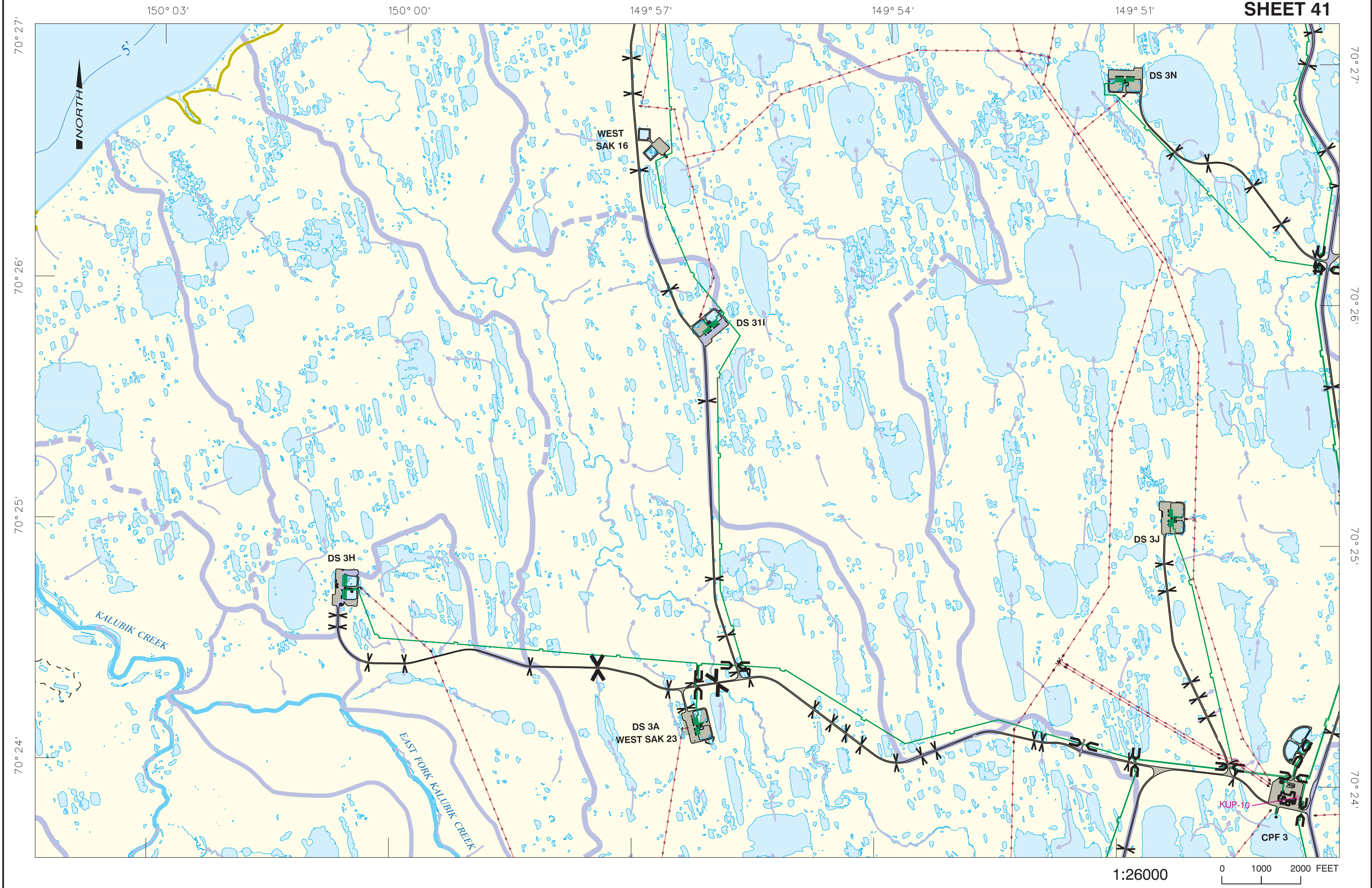
*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.

Continue on sheet 15

Continue on sheet 42





PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- This is a Spectacled Eider nesting area.
- This is a Brant nesting area. Birds are present from May through July.
- Plan to deploy bird-hazing systems during the open-water season.
- The Ugnuravik River provides habitat for anadromous whitefish and for resident fish.



AIR ACCESS*

- There is an emergency aircraft landing strip located on Oliktok Point (Sheet 35) approximately 6 miles northwest of MPU N Pad. This a 4,000-ft gravel airstrip, which is unattended and closed to the public. Approval to use the strip must be obtained 24 hours in advance by calling 907-552-1738 or 317-552-1738. Visual inspection prior to use is recommended.
- The Kuparuk airstrip (Sheet 51) is located approximately 8 miles south of MPU N Pad.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Kuparuk Airstrip	6,000-ft. gravel runway, attended continuously	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Jet A	24-hr advance notification required: 907-659-7213

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shorelines on this sheet.

STAGING AREAS AND PRESTAGED EQUIPMENT

PRESTAGED EQUIP. AREA	LOCATION	ITEM	QUANTITY	TYPE
KUP-10	At CPF 3	Storage Boat	2 1	2,400-gal Fastank 14' skiff, aluminium

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.

149° 51'

149° 48'

149° 45'

149° 42'

149° 39'

70° 27'

70° 27'

70° 26'

70° 26'

70° 25'

70° 25'

70° 24'

70° 24'



Continue on sheet 41

Continue on sheet 43

1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- This is a Brant nesting, brood-rearing, and molting area. Birds are present from May through August.
- Pairs of Spectacled Eiders have been found in this area.
- Plan to deploy bird-hazing systems during the open-water season.
- The Ugnuravik River provides habitat for anadromous whitefish and for resident fish.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XBP-008 west of Central Milne Creek and south of MPU H Pad

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- There is an emergency aircraft landing strip located on Oliktok Point (Sheet 35) approximately 10 miles north-west of the MPU Central Facilities Pad. This a 4,000-ft gravel airstrip, which is unattended and closed to the public. Approval to use the strip must be obtained 24 hours in advance by calling 907-552-1738 or 317-552-1738. Visual inspection prior to use is recommended.
- The Kuparuk airstrip (Sheet 51) is approximately 10 miles south-southwest of the MPU Central Facilities Pad.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Kuparuk Airstrip	6,000-ft. gravel runway, attended continuously	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Jet A	24-hr advance notification required: 907-659-7213

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shorelines on this sheet.

STAGING AREAS AND PRESTAGED EQUIPMENT

- MPU-1 is a predetermined containment site. No equipment is staged there.

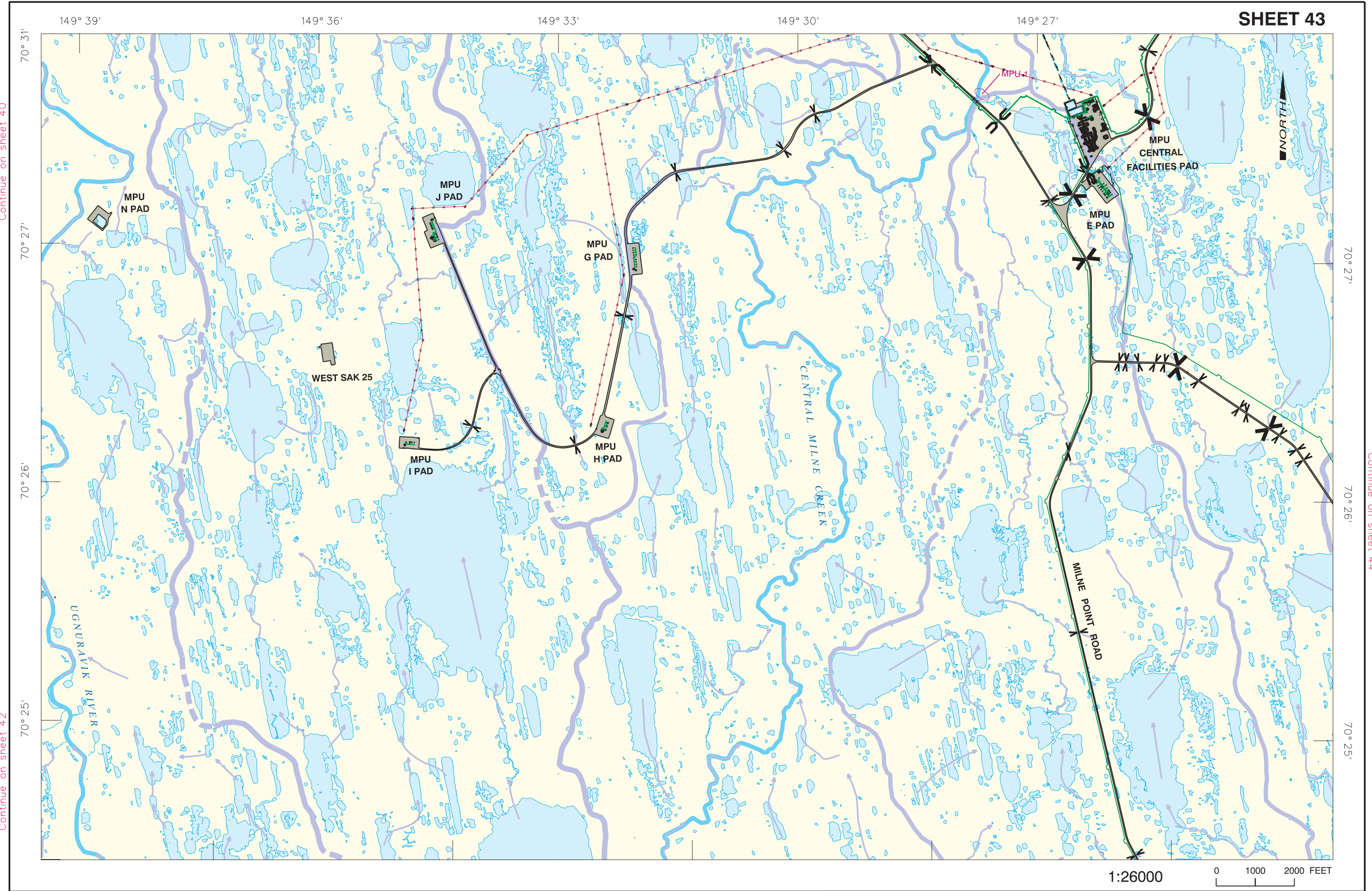
*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

Continue on sheet 40

Continue on sheet 42

Continue on sheet 44





PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- This is a Brant nesting area. Birds are present from May through July.
- Pairs of Spectacled Eiders have been found in this area.
- Plan to deploy bird-hazing systems during the open-water season.
- East Milne Creek provides habitat for anadromous whitefish and char and for resident fish.

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- The Pt. McIntyre airstrip (Sheet 62) is approximately 14 miles east of MPU K Pad. This is a 1,500-ft gravel strip, which is unattended and not maintained. Emergency use only is recommended.
- The Kuparuk airstrip (Sheet 51) is approximately 9 miles southwest of MPU K Pad.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Kuparuk Airstrip	6,000-ft. gravel runway, attended continuously	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Jet A	24-hr advance notification required: 907-659-7213

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shorelines on this sheet.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

Continue on sheet 43

Continue on sheet 57

Continue on sheet 47





PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- This is a Brant nesting, brood-rearing, and molting area. Birds are present from May through August.
- Plan to deploy bird-hazing systems during the open-water season.
- Kalubik Creek provides habitat for anadromous whitefish and char and for resident fish.



AIR ACCESS*

- There is an emergency aircraft landing strip located on Oliktok Point (Sheet 35) approximately 7 miles north of West Sak 23. This a 4,000-ft gravel airstrip, which is unattended and closed to the public. Approval to use the strip must be obtained 24 hours in advance by calling 907-552-1738 or 317-552-1738. Visual inspection prior to use is recommended.
- The Kuparuk airstrip (Sheet 51) is approximately 10 miles southeast of West Sak 23.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Kuparuk Airstrip	6,000-ft. gravel runway, attended continuously	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Jet A	24-hr advance notification required: 907-659-7213

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shorelines on this sheet.

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

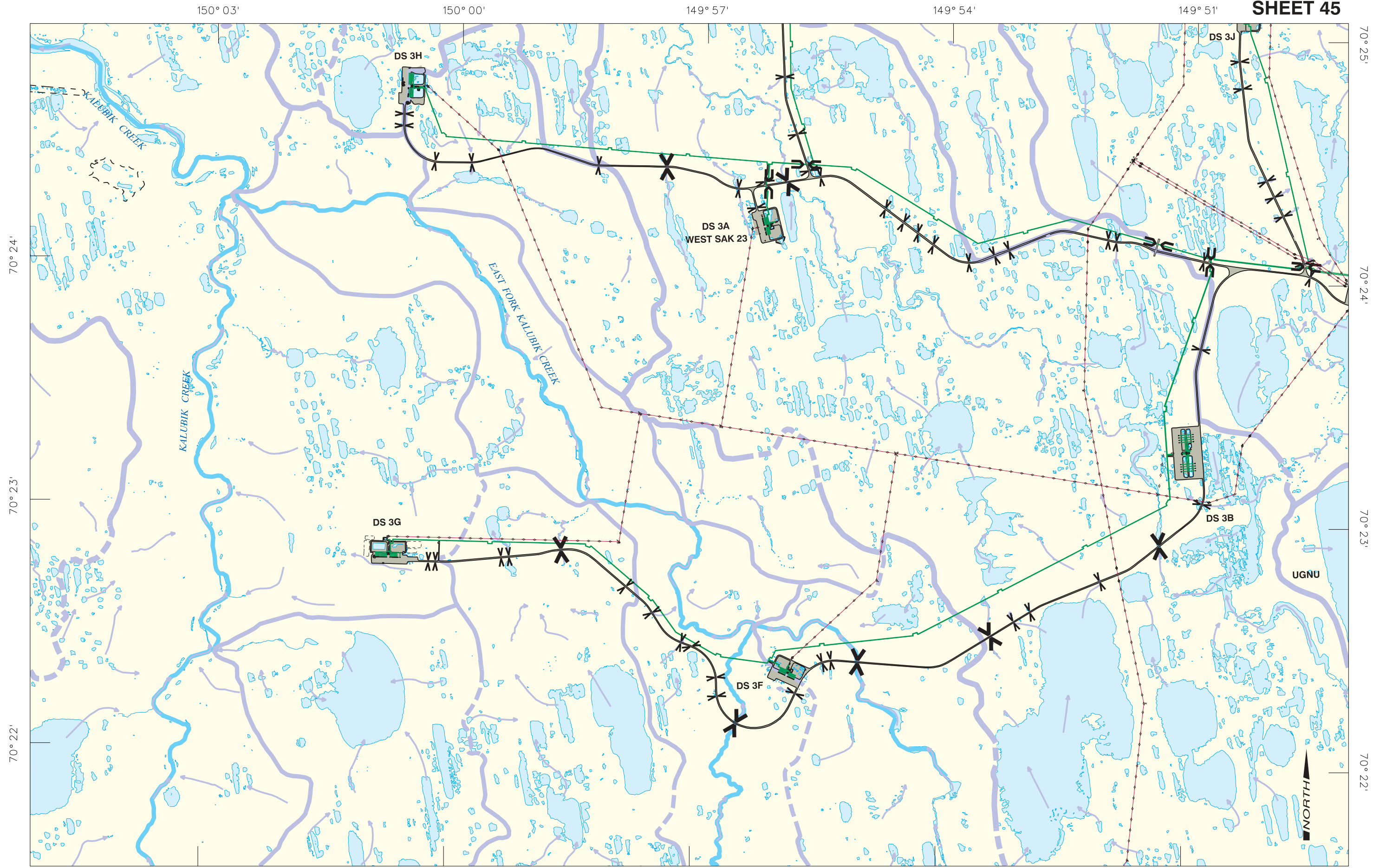
NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.

Continue on sheet 15

Continue on sheet 42

Continue on sheet 46



1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- This is a Spectacled Eider nesting area.
- This is a Brant nesting, brood-rearing, and molting area. Birds are present from May through August.
- Plan to deploy bird-hazing systems during the open-water season.
- Charlie Creek provides habitat for anadromous whitefish and for resident fish.
- The Ugnuravik River provides habitat for anadromous whitefish and for resident fish.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XBP-033 west of the road south of CPF 3

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- There is an emergency aircraft landing strip located on Oliktok Point (Sheet 35) approximately 7 miles north of CPF 3. This a 4,000-ft gravel airstrip, which is unattended and closed to the public. Approval to use the strip must be obtained 24 hours in advance by calling 907-552-1738 or 317-552-1738. Visual inspection prior to use is recommended.
- The Kuparuk airstrip (Sheet 51) is approximately 7 miles southeast of CPF 3.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Kuparuk Airstrip	6,000-ft. gravel runway, attended continuously	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Jet A	24-hr advance notification required: 907-659-7213

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shorelines on this sheet.

STAGING AREAS AND PRESTAGED EQUIPMENT

PRESTAGED EQUIP. AREA	LOCATION	ITEM	QUANTITY	TYPE
KUP-10	At CPF 3	Storage Boat	2 1	2,400-gal Fastank 14' skiff, aluminium

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

149° 54' 149° 51' 149° 48' 149° 45' 149° 42'

70° 24' 70° 23' 70° 22' 70° 21'

70° 24' 70° 23' 70° 22'

Continue on sheet 45

Continue on sheet 47



1:26000 0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- This is a Brant nesting, brood-rearing, and molting area. Birds are present from May through August.
- Pairs of Spectacled Eiders have been found in this area.
- Plan to deploy bird-hazing systems during the open-water season.
- The Ugnuravik River and Charlie Creek provide habitat for anadromous whitefish and for resident fish.



AIR ACCESS*

- There is an emergency aircraft landing strip located on Oliktok Point (Sheet 35) approximately 9 miles northwest of DS 1R. This a 4,000-ft gravel airstrip, which is unattended and closed to the public. Approval to use the strip must be obtained 24 hours in advance by calling 907-552-1738 or 317-552-1738. Visual inspection prior to use is recommended.
- The Kuparuk airstrip (Sheet 51) is approximately 4 miles south-southeast of DS 1R.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Kuparuk Airstrip	6,000-ft. gravel runway, attended continuously	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Jet A	24-hr advance notification required: 907-659-7213

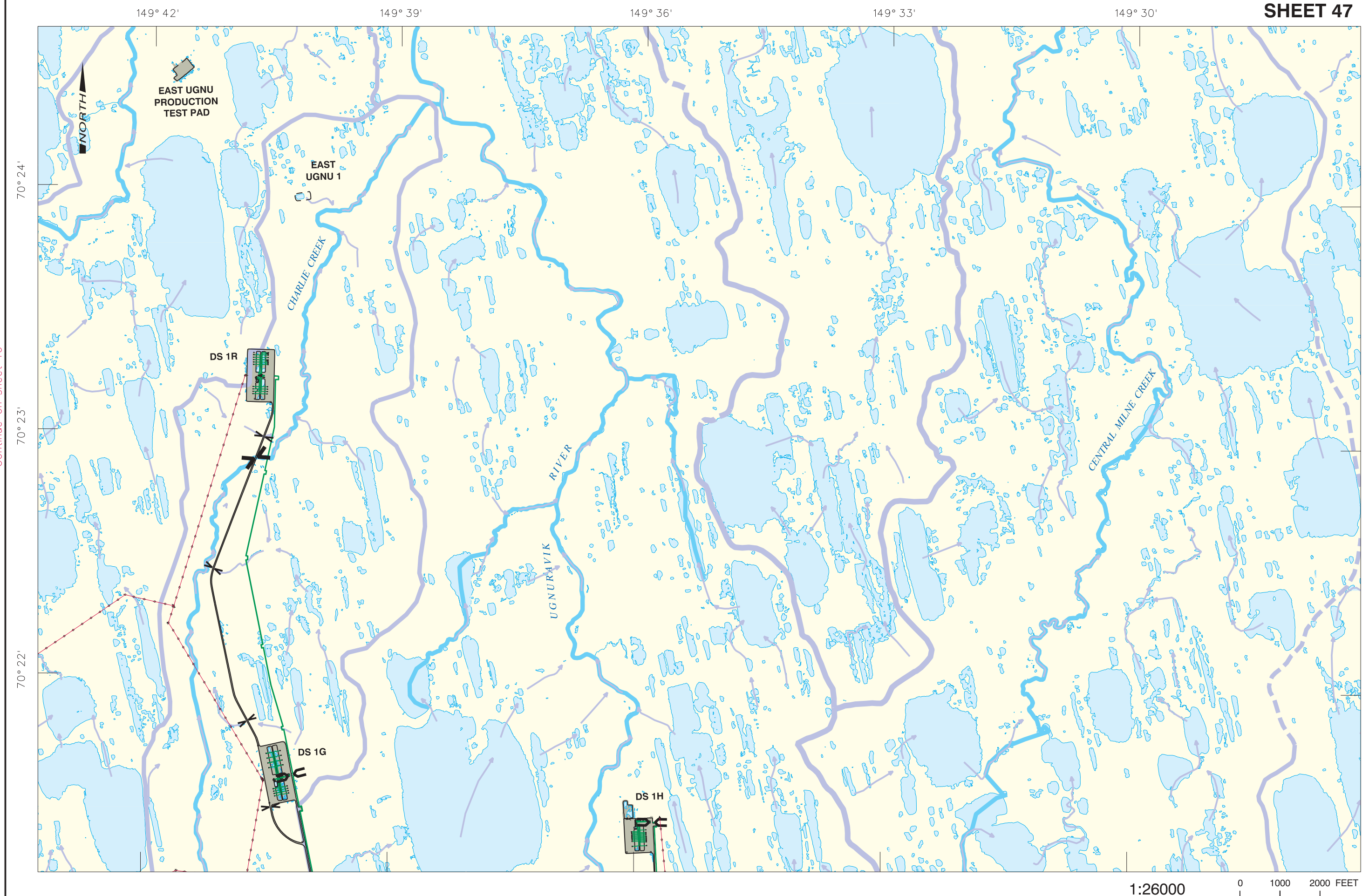
VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shorelines on this sheet.

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 46

Continue on sheet 48



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- This is a Brant nesting, brood-rearing, and molting area. Birds are present from May through August.
- Pairs of Spectacled Eiders have been found in this area.
- Plan to deploy bird-hazing systems during the open-water season.
- East Milne Creek provides habitat for anadromous whitefish and char and for resident fish.

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- The Pt. McIntyre airstrip (Sheet 62) is approximately 16 miles east-northeast of ARCO NW Eileen 1. This is a 1,500-ft gravel strip, which is unattended and not maintained. Emergency use only is recommended.
- The Kuparuk airstrip (Sheet 51) is approximately 5 miles west-southwest of ARCO NW Eileen 1.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Kuparuk Airstrip	6,000-ft. gravel runway, attended continuously	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Jet A	24-hr advance notification required: 907-659-7213

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shorelines on this sheet.

*See the latest Supplement, Alaska and United States Coast Pilot for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

149° 27'

149° 24'

149° 21'

149° 18'

149° 15'

70° 23'

70° 22'

70° 21'

70° 23'

70° 22'

70° 21'



Continue on sheet 47

1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- This is a Spectacled Eider nesting area.
- This is a Brant nesting area. Birds are present from May through July.
- Plan to deploy bird-hazing systems during the open-water season.
- Kalubik Creek provides habitat for anadromous whitefish and char and for resident fish.

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- The Kuparuk airstrip (Sheet 51) is approximately 9 miles west of Mine Site F.

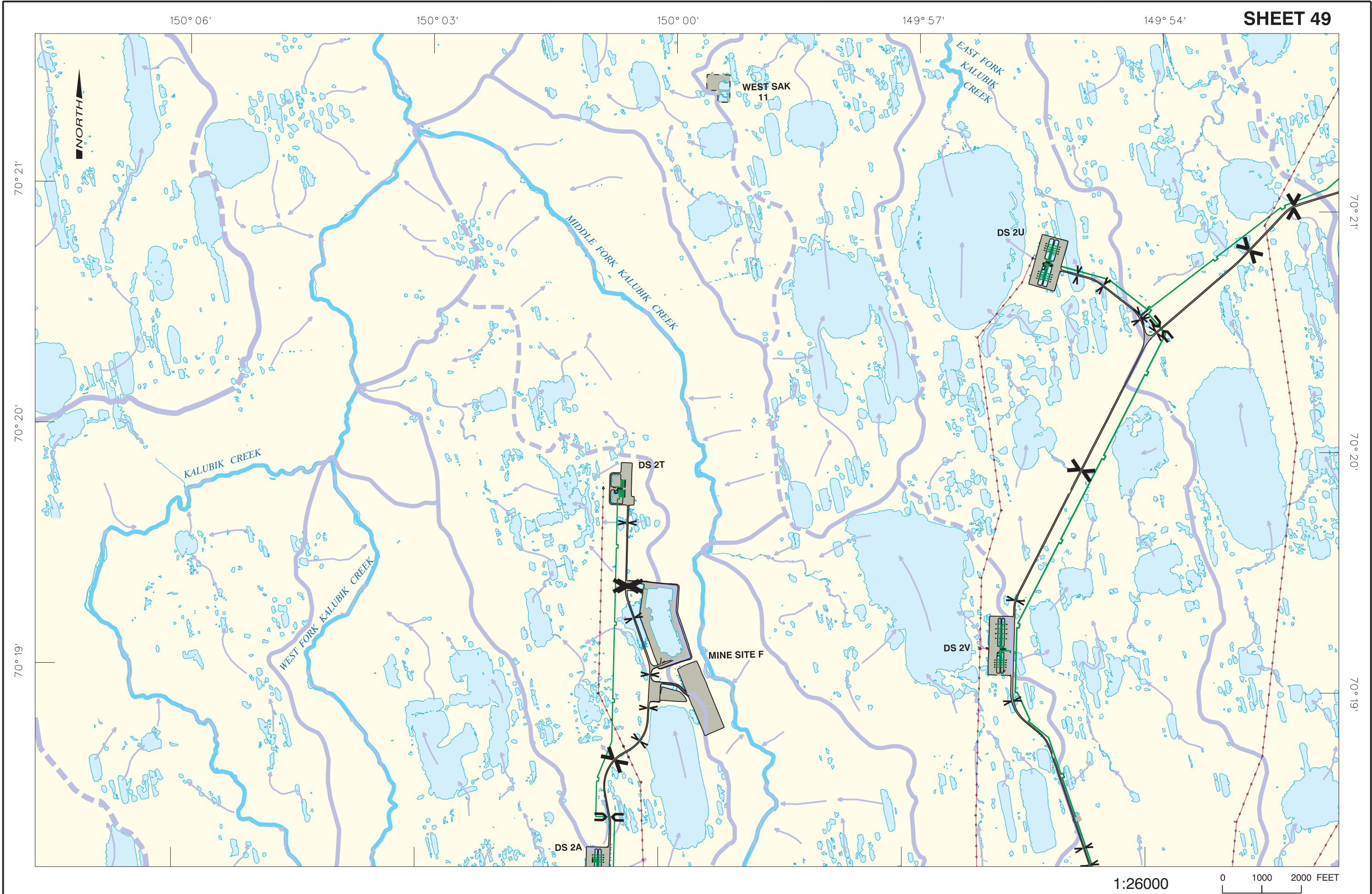
AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Kuparuk Airstrip	6,000-ft. gravel runway, attended continuously	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Jet A	24-hr advance notification required: 907-659-7213

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shorelines on this sheet.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 50



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- This is a Spectacled Eider nesting area.
- This is a Brant nesting area. Birds are present from May through July.
- Plan to deploy bird-hazing systems during the open-water season.
- Kalubik Creek provides habitat for anadromous whitefish and char and for resident fish.
- Charlie Creek provides habitat for anadromous whitefish and for resident fish.

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- The Kuparuk airstrip (Sheet 51) is approximately 5 miles west of DS 2X.

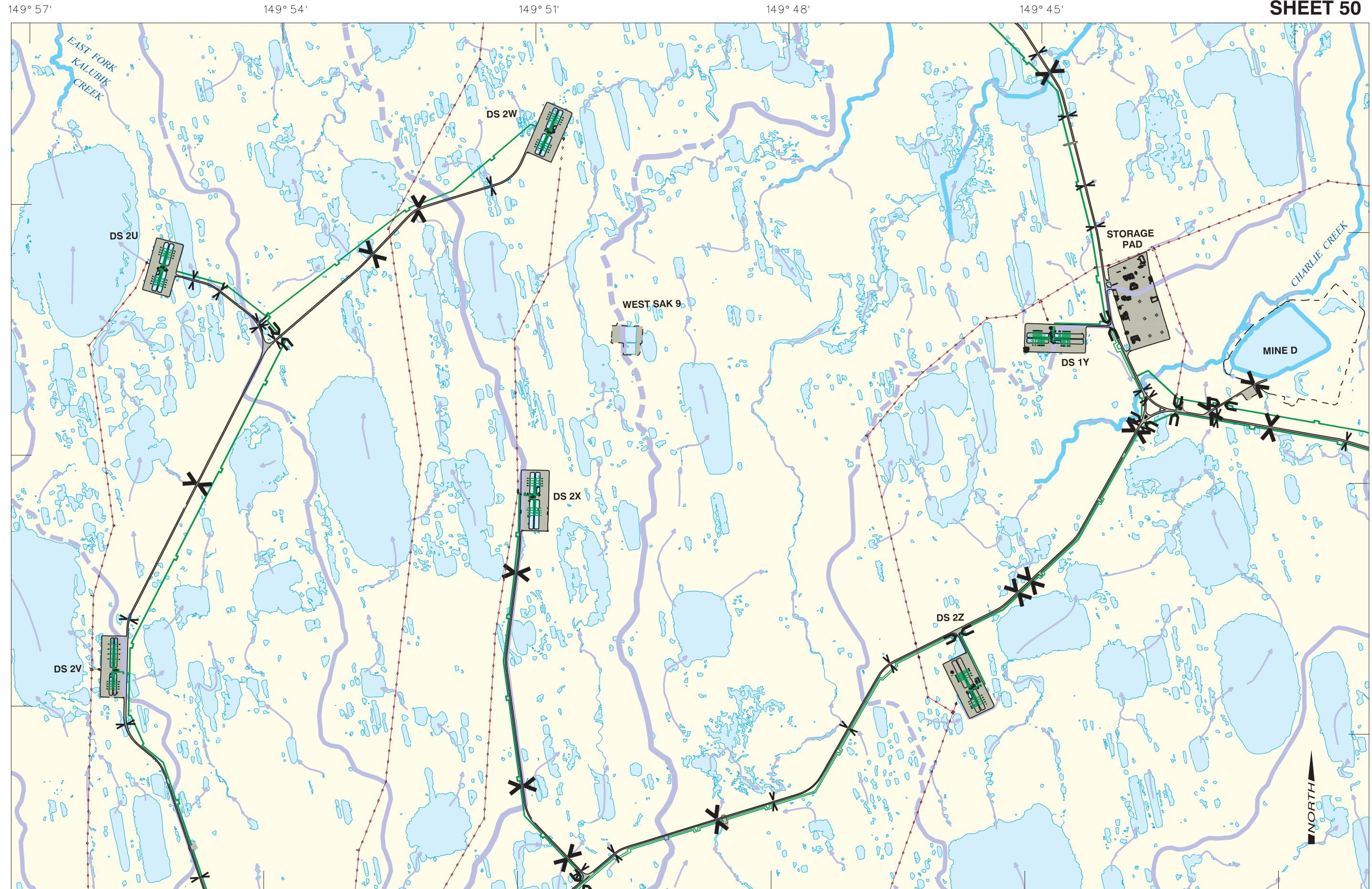
AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Kuparuk Airstrip	6,000-ft. gravel runway, attended continuously	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Jet A	24-hr advance notification required: 907-659-7213

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shorelines on this sheet.

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 49

Continue on sheet 51

1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- This is a Brant nesting area. Birds are present from May through July.
- Plan to deploy bird-hazing systems during the open-water season.
- The Ugnuravik River and Charlie Creek provide habitat for anadromous whitefish and for resident fish.
- There is a freshwater intake west of DS 1B and north of Mine C at approximately 20 to 25 ft below the surface.

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

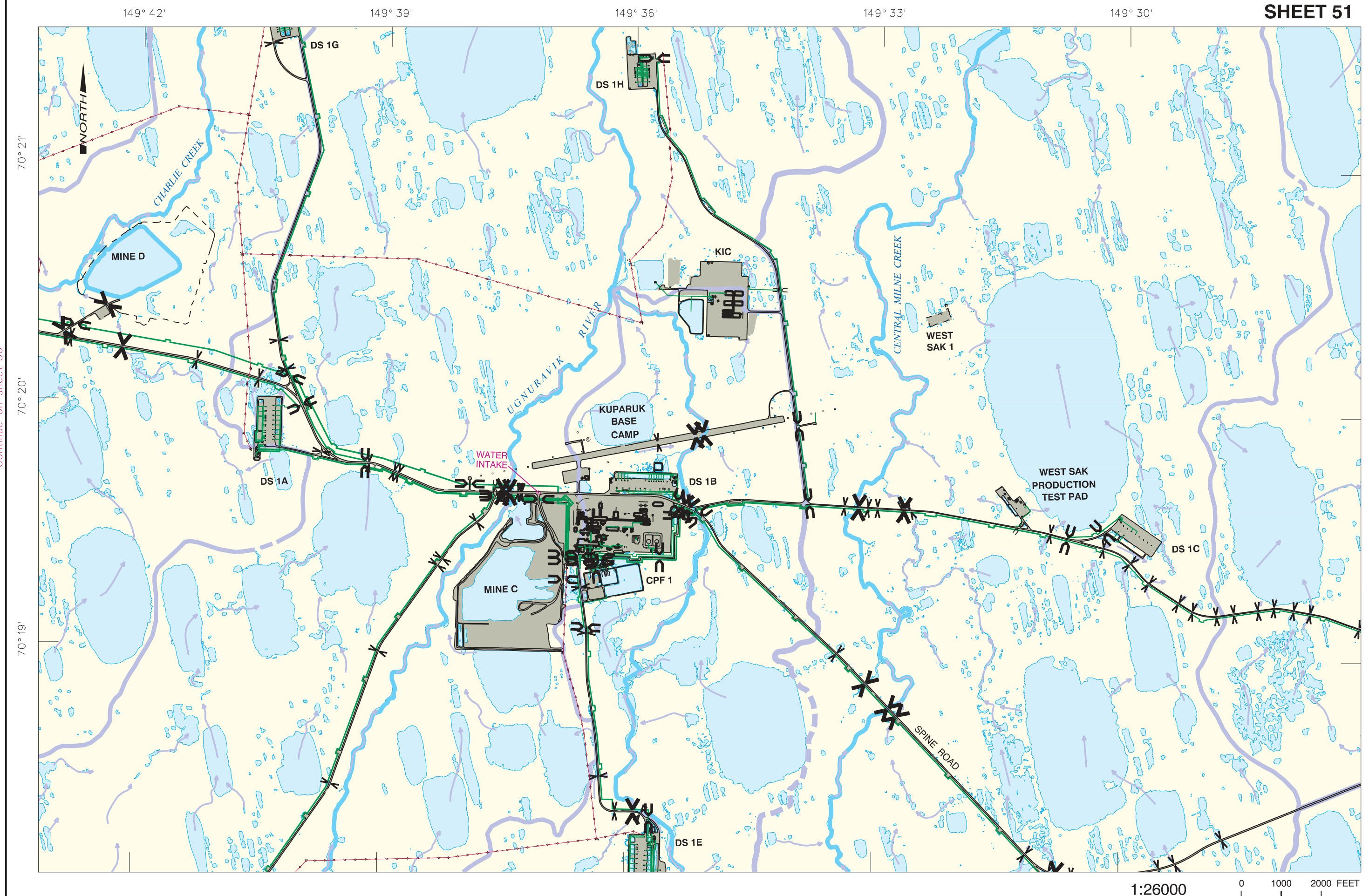
AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Kuparuk Airstrip	6,000-ft. gravel runway, attended continuously	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Jet A	24-hr advance notification required: 907-659-7213

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shorelines on this sheet.

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 50

Continue on sheet 52



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- This is a Brant nesting, brood-rearing, and molting area. Birds are present from May through August.
- Pairs of Spectacled Eiders have been found in this area.
- Plan to deploy bird-hazing systems during the open-water season.
- East Milne Creek provides habitat for anadromous whitefish and char and for resident fish.

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- The Kuparuk airstrip (Sheet 51) is approximately 4 miles west of Mine Site B.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Kuparuk Airstrip	6,000-ft. gravel runway, attended continuously	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Jet A	24-hr advance notification required: 907-659-7213

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shorelines on this sheet.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

149° 33'

149° 30'

149° 27'

149° 24'

149° 21'

70° 20'

70° 20'

70° 19'

70° 19'

70° 18'

70° 18'



Continue on sheet 51

Continue on sheet 68

1:26000

0 1000 2000 FEET





PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- This is a Spectacled Eider nesting area.
- This is a Brant nesting area. Birds are present from May through July.
- Plan to deploy bird-hazing systems during the open-water season.
- Kalubik Creek provides habitat for anadromous whitefish and char and for resident fish.
- Polar bear dens have been found in this area. Dens may be in use from October through April.

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- The Kuparuk airstrip (Sheet 51) is approximately 7 miles northeast of CPF 2.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Kuparuk Airstrip	6,000-ft. gravel runway, attended continuously	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Jet A	24-hr advance notification required: 907-659-7213

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shorelines on this sheet.

STAGING AREAS AND PRESTAGED EQUIPMENT

PRESTAGED EQUIP. AREA	LOCATION	ITEM	QUANTITY	TYPE
KUP-9	At CPF 2	Storage Boat	2 1	2,400-gal Fastank 14' skiff, aluminium

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 54



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- This is a Spectacled Eider nesting area.
- This is a Brant nesting area. Birds are present from May through July.
- Plan to deploy bird-hazing systems during the open-water season.
- The Ugnuravik River provides habitat for anadromous whitefish and for resident fish.



AIR ACCESS*

- The Kuparuk airstrip (Sheet 51) is approximately 7 miles northeast of CPF 2.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Kuparuk Airstrip	6,000-ft. gravel runway, attended continuously	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Jet A	24-hr advance notification required: 907-659-7213

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shorelines on this sheet.

STAGING AREAS AND PRESTAGED EQUIPMENT

PRESTAGED EQUIP. AREA	LOCATION	ITEM	QUANTITY	TYPE
KUP-9	At CPF 2	Storage Boat	2 1	2,400-gal Fastank 14' skiff, aluminium

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.

Continue on sheet 53

Continue on sheet 55





PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- Plan to deploy bird-hazing systems during the open-water season.
- The Ugnuravik River provides habitat for anadromous whitefish and for resident fish.



AIR ACCESS*

- The Kuparuk airstrip (Sheet 51) is approximately 2 miles west of DS 1D.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Kuparuk Airstrip	6,000-ft. gravel runway, attended continuously	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Jet A	24-hr advance notification required: 907-659-7213

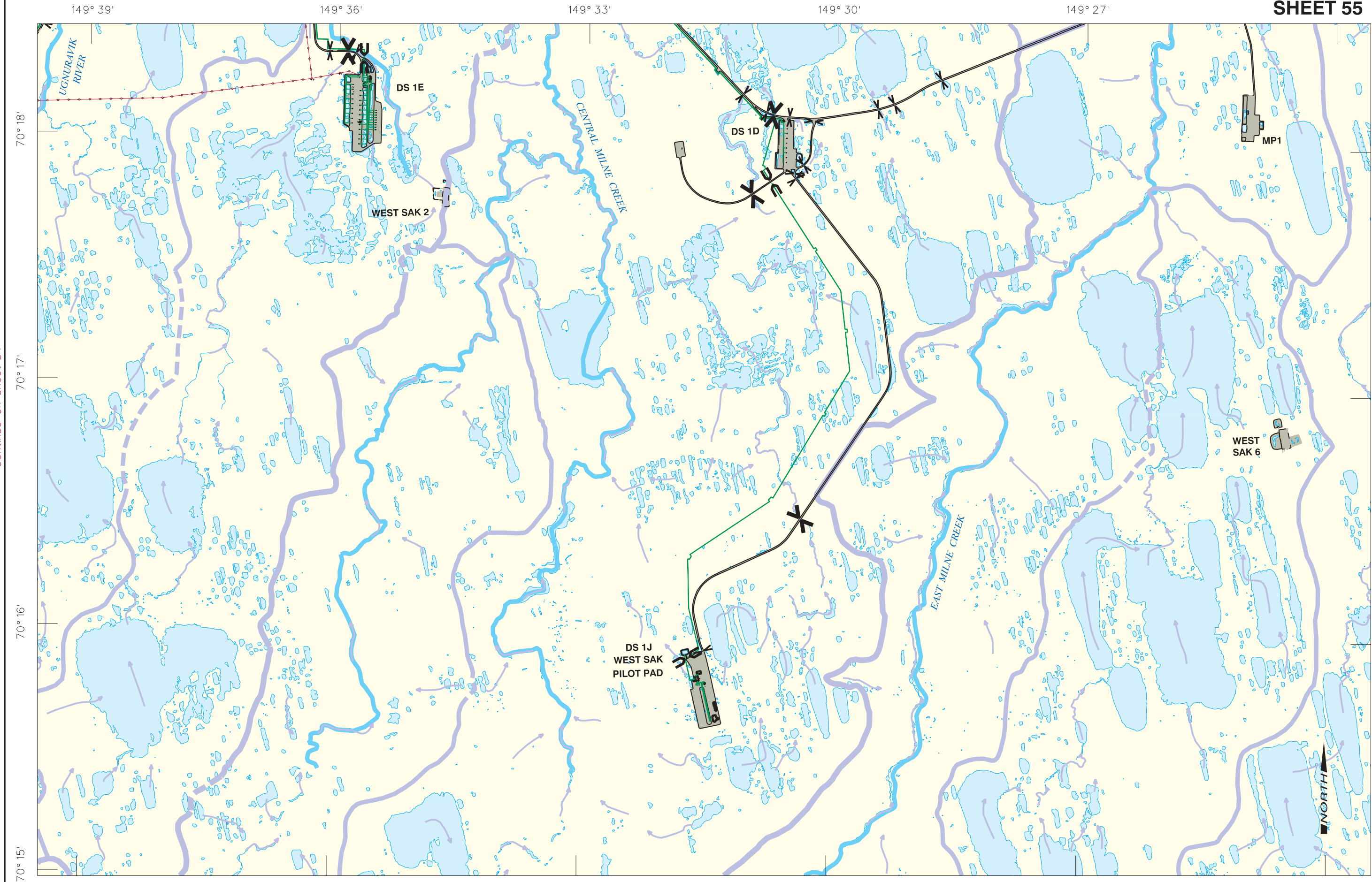
VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shorelines on this sheet.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 54

Continue on sheet 52

1:26000





PRIORITY PROTECTION SITES

SITE NO.	DESCRIPTION	SENSITIVITY	TACTIC	EST. BOOM
PS17	Creek mouth 0.5 miles SE of Beechey Point	Most sensitive during open water season. Inundated low-lying tundra shorelines.	C-13 or C-14	500'

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Simpson Lagoon has large flocks of molting male Oldsquaw in July and early August, especially in the lee shores of the barrier islands.
- Shoreline and offshore areas support molting and brood-rearing eiders. This is also a staging area for migrating Phalaropes (shorebirds). Birds are present in June, July, and August.
- Common Eiders nest on offshore islands in June and July.
- This is a Brant brood-rearing and molting area. Birds are present in July and August.
- Plan to deploy bird-hazing systems during the open-water season.
- Polar bear dens have been found in this area. Dens may be in use from October through April.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XBP-003 near Beechey Point
- XBP-014 on Cottle Island

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- The Pt. McIntyre airstrip (Sheet 62) is approximately 12 miles southeast of Beechey Point. This is a 1,500-ft gravel strip, which is unattended and not maintained. Emergency use only is recommended.
- The Kuparuk airstrip (Sheet 51) is approximately 14 miles southwest of Beechey Point.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Kuparuk Airstrip	6,000-ft. gravel runway, attended continuously	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Jet A	24-hr advance notification required: 907-659-7213

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Water access by other than very shallow-draft vessels will be precluded in Simpson Lagoon and Gwydyr Bay due to shallow water depths.
- There is small boat shelter in 4 ft of water behind a sandbar extending northwest from Beechey Point.
- There is no navigable passage between Cottle and Long Islands.
- Gwydyr Bay and Simpson Lagoon surface currents are generally to the west at 10 to 30 cm/sec. Water depth is 2 to 7 ft.
- Barrier islands tend to migrate toward shore at 5 to 10 meters per year and westward 20 to 30 meters.
- Alongshore sediment transport is westerly.

COUNTERMEASURES CONSIDERATIONS

- The east end of Cottle Island is subject to trapping floating oil during generally east winds and offshore circulation patterns.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

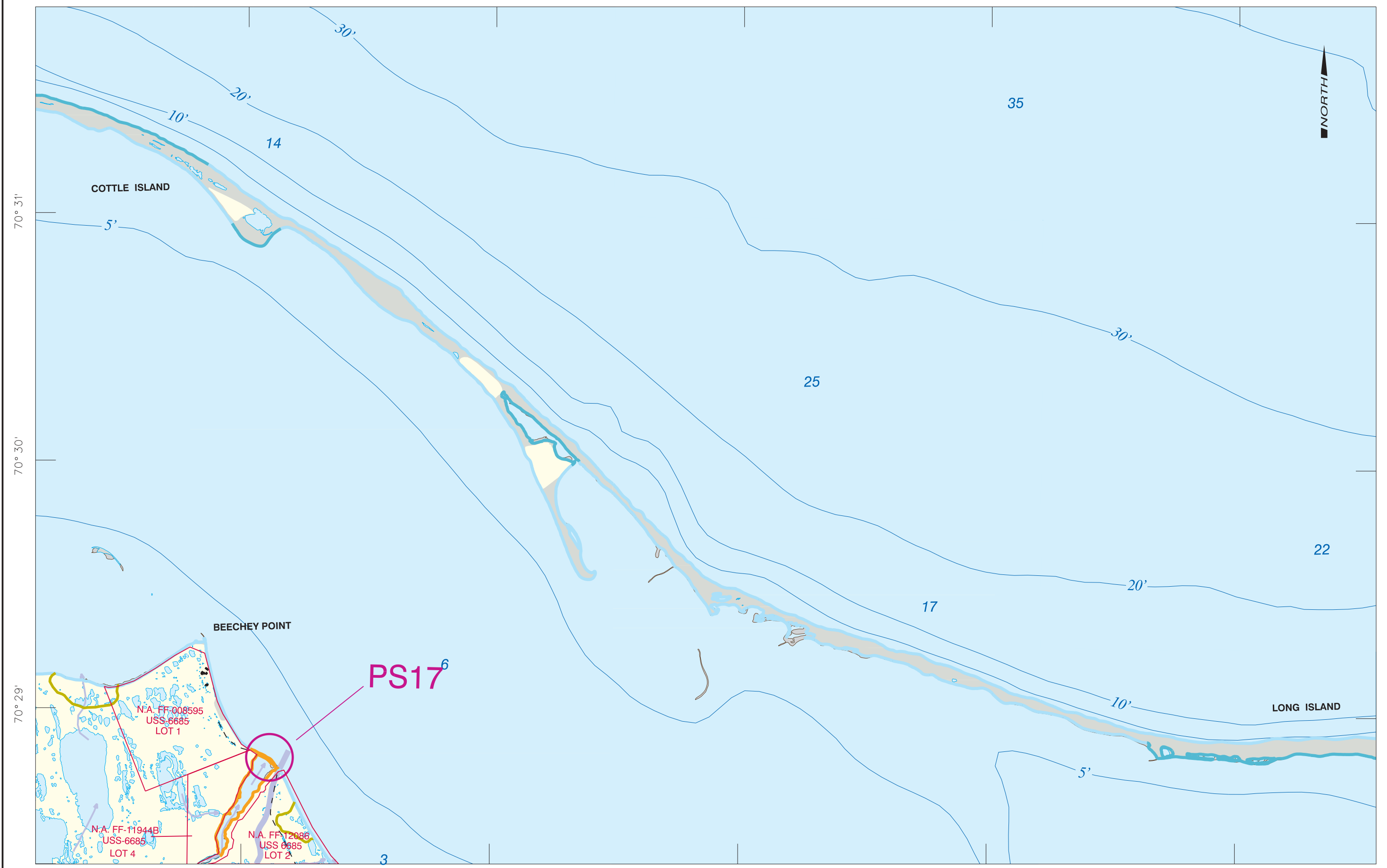
149° 9' 149° 6' 149° 3' 149° 00' 148° 57'

Continue on sheet 34

Continue on sheet 38

Continue on sheet 58

Continue on sheet 58





PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- The lee shores of the barrier islands are important molting areas for Oldsquaw in July and early August.
- Shoreline and offshore areas support molting Oldsquaws and eiders, and brood-rearing eiders. This is also a staging area for migrating Phalaropes (shorebirds). Birds are present in June, July, and August.
- This is a Brant nesting, brood-rearing, and molting area. Birds are present from May through August.
- Pairs of Spectacled Eiders have been found in this area.
- Plan to deploy bird-hazing systems during the open-water season.
- The Sakonowyak River provides habitat for anadromous whitefish.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XBP-015 near Back Point
- XBP-016 on the coast near the bottom right corner of the map

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- The Pt. McIntyre airstrip (Sheet 62) is approximately 10 miles southeast of Back Point. This is a 1,500-ft gravel strip, which is unattended and not maintained. Emergency use only is recommended.
- The Kuparuk airstrip (Sheet 51) is approximately 15 miles southwest of Back Point.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Kuparuk Airstrip	6,000-ft. gravel runway, attended continuously	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Jet A	24-hr advance notification required: 907-659-7213

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Water access by other than very shallow-draft vessels will be precluded in Gwydyr Bay due to shallow water depths.
- Gwydyr Bay surface currents are generally to the west at 10 to 30 cm/sec. Water depth is 2 to 7 ft.
- Annual average flow rate of the Kuparuk River (to the east) is 1,830 cfs. Much of the sediment load is transported west in the alongshore current.

COUNTERMEASURES CONSIDERATIONS

- Riverine discharge is large enough to preclude much oil impinging on any beaches south of Back Point.

STAGING AREAS AND PRESTAGED EQUIPMENT

PRESTAGED EQUIP. AREA	LOCATION	ITEM	QUANTITY	TYPE
KUP-8	West bank of river near mouth	Boom	2,400'	8" x 6" river

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

149° 12'

149° 9'

149° 6'

149° 3'

149° 00'

Continue on sheet 38

70° 27'

Continue on sheet 44

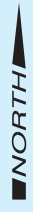
70° 26'

Continue on sheet 58

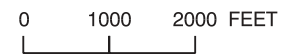
70° 27'

70° 26'

Continue on sheet 61



1:26000





PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- The lee side of Egg Island is an important area for Oldsquaw molting and staging in July and August.
- Shoreline and offshore areas support molting Oldsquaws and eiders, and brood-rearing eiders. This is also a staging area for migrating Phalaropes (shorebirds). Birds are present in June, July, and August.
- Common Eiders nest on offshore islands in June and July.
- This is a Brant nesting area. Birds are present from May through July.
- Plan to deploy bird-hazing systems during the open-water season.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the Phillips Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XBP-018 on the center of the three larger islands on the sheet

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- The Pt. McIntyre airstrip (Sheet 62) is located approximately 2.5 miles southeast of Egg Island. This is a 1,500-ft gravel strip, which is unattended and not maintained. Emergency use only is recommended.
- The Kuparuk airstrip (Sheet 51) is located approximately 10 miles southwest of Egg Island.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Kuparuk Airstrip	6,000-ft. gravel runway, attended continuously	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Jet A	24-hr advance notification required: 907-659-7213

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Water access is limited to shallow-draft vessels on the lagoon-facing shores of the barrier islands.
- Bars and shoals extend into Gwydyr Bay off the southeast end of the island northwest of Egg Island, but a 5-ft deep channel between these bars and Egg Island is the best marine entrance to the bay.
- Gwydyr Bay surface currents are generally to the west at 10 to 30 cm/sec. Water depth is 2 to 7 ft.
- Annual average flow rate of the Kuparuk River is 1,830 cfs. Much of the sediment load is transported west in the alongshore current.
- Barrier islands may be awash during storm surges. The islands are migrating toward shore at 5 to 10 meters per year and westward 20 to 30 meters.

STAGING AREAS AND PRESTAGED EQUIPMENT

PRESTAGED EQUIP. AREA	LOCATION	ITEM	QUANTITY	TYPE
NS-5	Egg Island	Boom Boom Anchors	1,000' 500' 4	10" x 14" NOFI boom bag 8" x 6" Delta boom 40 lb c/w rigging
NS-6	Northwest across channel from NS-7	Anchor systems	2	66 lb. Bruce anchor system w/line and buoys
NS-7	Western end of Egg Island	Boom Anchors Anchor systems	1,000' 4 2	10" x 14" NOFI boom bag 40 lb. c/w rigging 66 lb. Bruce anchor system w/line and buoys

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

148° 57'

148° 54'

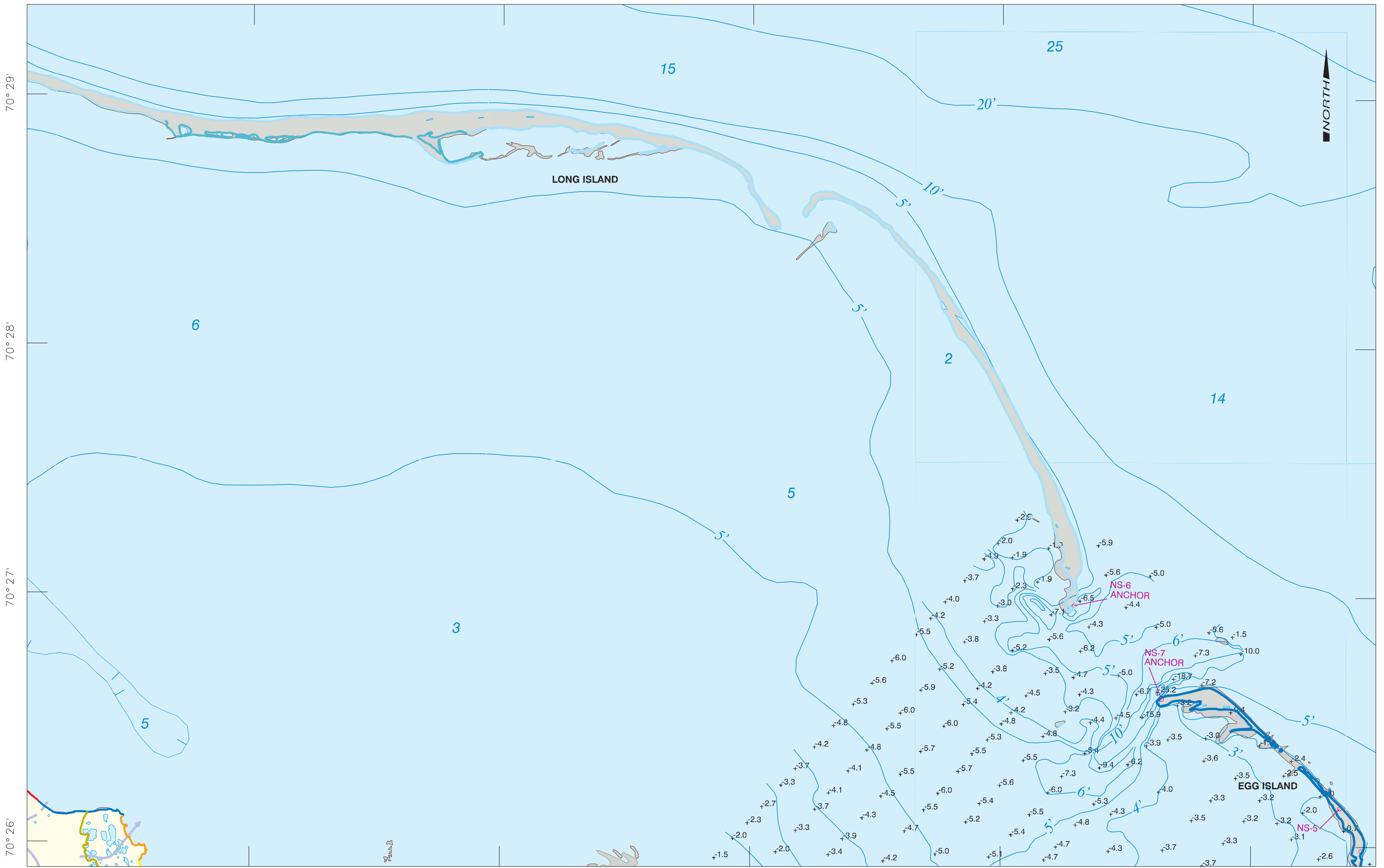
148° 51'

148° 48'

148° 45'

Continue on sheet 56

Continue on sheet 59



70° 28'

70° 28'

70° 27'

70° 27'

70° 26'

70° 26'

Continue on sheet 57

Continue on sheet 60

1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- Shoreline and offshore areas support molting Oldsquaws and eiders, and brood-rearing eiders. This is also a staging area for migrating Phalaropes (shorebirds). Birds are present in June, July, and August.
- Common Eiders nest on offshore islands in June and July.
- Plan to deploy bird-hazing systems during the open-water season.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the Phillips Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XBP-018 on Long Island

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- The Deadhorse airport (Sheet 81) is approximately 21 miles to the south-southeast.
- The Prudhoe Bay airport (Sheet 78) is approximately 18 miles to the southeast.
- The Pt. McIntyre airstrip (Sheet 62) is located approximately 6 miles to the south. This is a 1,500-ft gravel strip, which is unattended and not maintained. Emergency use only is recommended.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Deadhorse Airport	6,500-ft asphalt runway	VFR: 1 mi vis. clear of clouds IFR: 0.5 mi vis. (ILS)	100 octane avgas, Jet B, and Mogas	Deadhorse tower
Prudhoe Bay Airport	6,500-ft gravel runway	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Fuel available for emergencies only	Deadhorse tower

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Water access is limited to shallow-draft vessels on the lagoon-facing shores of the barrier islands.
- The best marine entrance to Gwydyr Bay is in the 5-ft-deep channel at the west end of Egg Island (Sheet 58).
- Gwydyr Bay surface currents are generally to the west at 10 to 30 cm/sec. Water depth is 2 to 7 ft.
- Annual average flow rate of the Kuparuk River is 1,830 cfs. Much of the sediment load is transported west in the alongshore current.
- Barrier islands may be awash during storm surges. The islands are migrating toward shore at 5 to 10 meters per year and westward 20 to 30 meters.

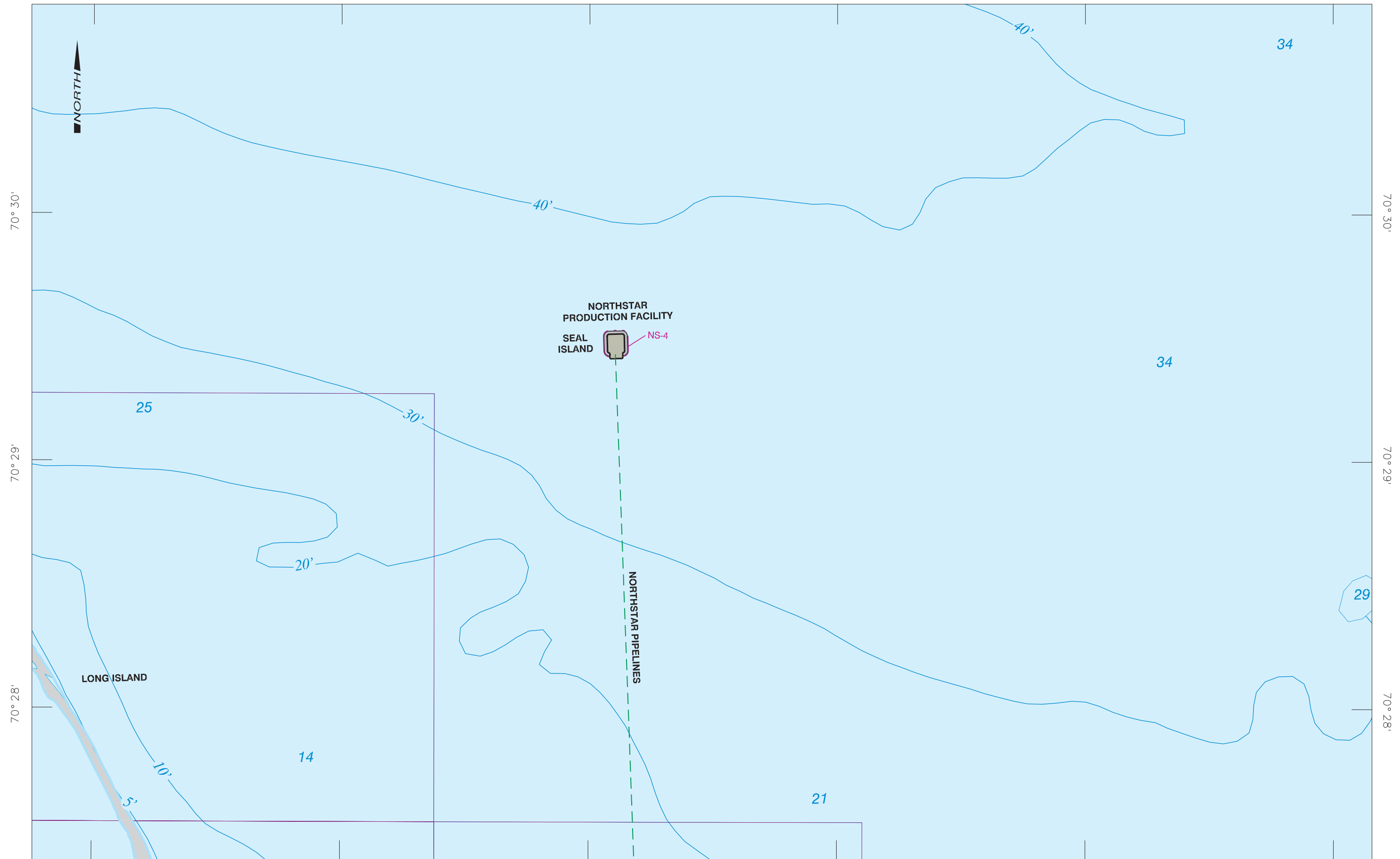
STAGING AREAS AND PRESTAGED EQUIPMENT

PRESTAGED EQUIP. AREA	LOCATION	ITEM	QUANTITY	TYPE
NS-4	Northstar	Vessel	1	20'
		Vessel	2	42' (Bay class)
		Minibarges	2	249 bbl each
		Skimmer	2	Lori LSC-3
		Boom	1,000'	10" x 14" NOFI boom bag

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

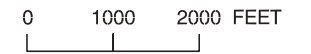
148° 48' 148° 45' 148° 42' 148° 39' 148° 36'



Continue on sheet 58

Continue on sheet 60

1:26000





PRIORITY PROTECTION SITES

SITE NO.	DESCRIPTION	SENSITIVITY	TACTIC	EST. BOOM
PS16	Inlet to salt marsh at Pt. Storkersen	Most sensitive during open water season. Salt marsh and/or undated low-lying tundra shoreline.	C-13 or C-14	400'

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- The lee side of Egg Island is an important area for Oldsquaw molting and staging in July and August.
- Shoreline and offshore areas support molting Oldsquaws and eiders, and brood-rearing eiders. This is also a staging area for migrating Phalaropes (shorebirds). Birds are present in June, July, and August.
- Common Eiders nest on offshore islands in June and July.
- This is a Brant nesting, brood-rearing, and molting area. Birds are present from May through August.
- Plan to deploy bird-hazing systems during the open-water season.
- There is a seawater intake at the seawater treatment plant at West Dock approximately 14 ft below the surface at the southwest corner of the barge. Precautions should be taken to keep oil out of this area.



AIR ACCESS*

- The Deadhorse airport (Sheet 81) is approximately 16 miles southeast of Pt. Storkersen.
- The Prudhoe Bay airport (Sheet 78) is approximately 14 miles southeast of Pt. Storkersen.
- The Pt. McIntyre airstrip (Sheet 62) is located approximately 1 mile southeast of Pt. Storkersen. This is a 1,500-ft gravel strip, which is unattended and not maintained. Emergency use only is recommended.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Deadhorse Airport	6,500-ft asphalt runway	VFR: 1 mi vis. clear of clouds IFR: 0.5 mi vis. (ILS)	100 octane avgas, Jet B, and Mogas	Deadhorse tower
Prudhoe Bay Airport	6,500-ft gravel runway	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Fuel available for emergencies only	Deadhorse tower

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Water access is limited to shallow-draft vessels on the lagoon-facing shores of the barrier islands.
- The best marine entrance to Gwydyr Bay is in the 5-ft-deep channel at the west end of Egg Island.
- The passage between Egg Island and Stump Island has depths of 3 ft, but there is little water between Stump Island and Pt. McIntyre.
- Gwydyr Bay surface currents are generally to the west at 10 to 30 cm/sec. Water depth is 2 to 7 ft.
- Barrier islands may be awash during storm surges. The islands are migrating toward shore at 5 to 10 meters per year and westward 20 to 30 meters.

COUNTERMEASURES CONSIDERATIONS

- Riverine discharge is high enough to preclude much floating oil gathering on deltaic surfaces west of Point Storkersen.

STAGING AREAS AND PRESTAGED EQUIPMENT

PRESTAGED EQUIP. AREA	LOCATION	ITEM	QUANTITY	TYPE
NS-1	End of Pt. Storkersen	Boom Anchors	400' 4	8" X 6" river 40 lb c/w rigging
NS-5	Egg Island	Boom Boom Anchors	1,000' 500' 4	10" x 14" NOFI boom bag 8" x 6" Delta boom 40 lb c/w rigging
NS-7	Western end of Egg Island	Boom Anchors Anchor systems	1,000' 4 2	10" x 14" NOFI boom bag 40 lb c/w rigging 66 lb Bruce anchor system w/line and buoys
NS-8	Southern part of Egg Island	Anchor systems	2	66 lb Bruce anchor system w/line and buoys

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

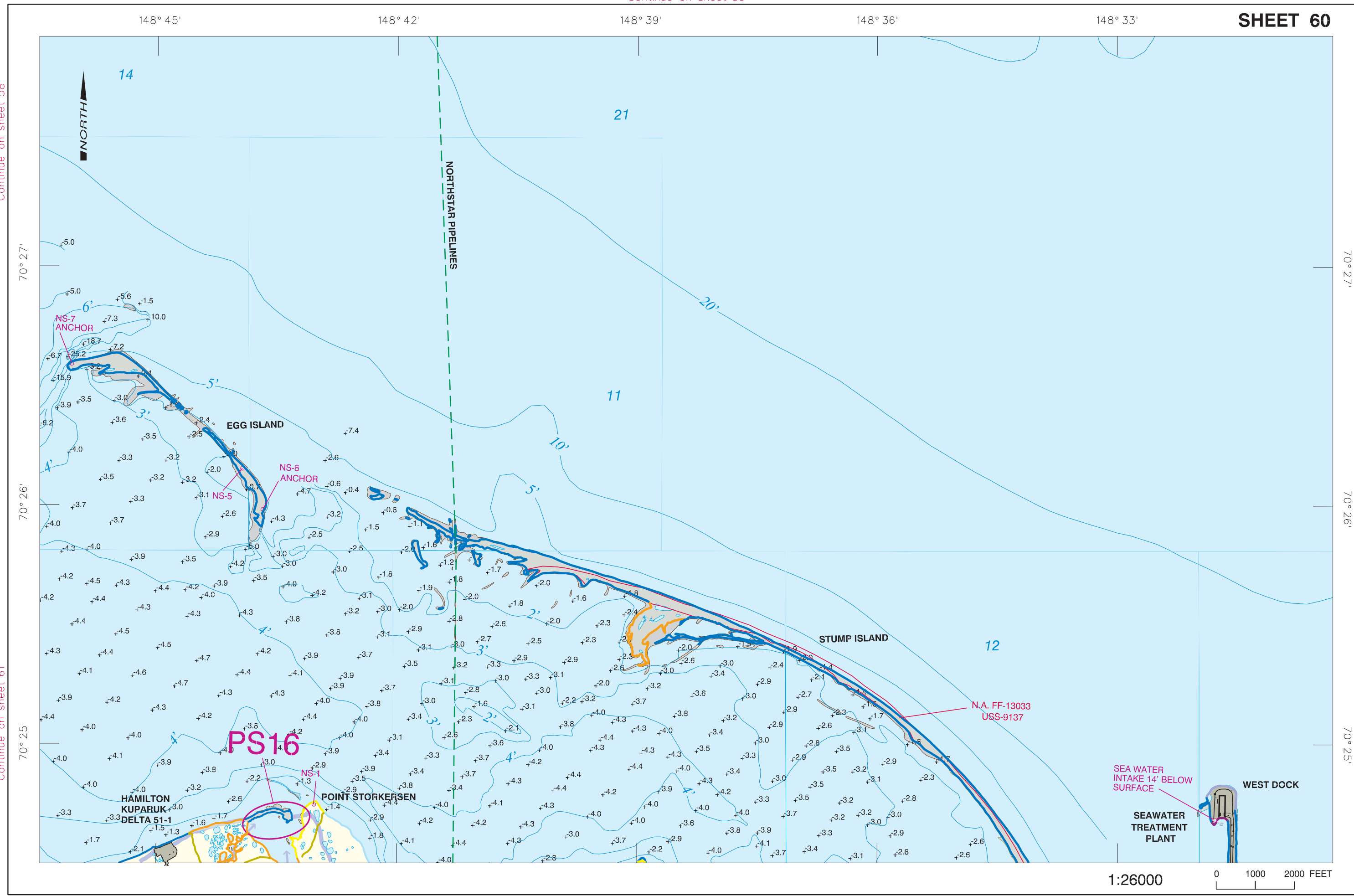
NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.

Continue on sheet 58

Continue on sheet 61

Continue on sheet 62





PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- Shoreline and offshore areas support molting Oldsquaws and eiders, and brood-rearing eiders. This is also a staging area for migrating Phalaropes (shorebirds). Birds are present in June, July, and August.
- This is a Brant nesting, brood-rearing, and molting area. Birds are present from May through August.
- Pairs of Spectacled Eiders have been found in this area.
- Plan to deploy bird-hazing systems during the open-water season.
- The Kuparuk River provides habitat for anadromous whitefish and for resident fish.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the Phillips Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XBP-016 on the coast west of the Kuparuk River delta
- XBP-017 on the west bank of the river southwest of Gwydyr Bay South

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- The Pt. McIntyre airstrip (Sheet 62) is located approximately 3 miles east of the Kuparuk River delta. This is a 1,500-ft gravel strip, which is unattended and not maintained. Emergency use only is recommended.
- The Kuparuk airstrip (Sheet 51) is located approximately 17 miles southwest of the Kuparuk River delta.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Kuparuk Airstrip	6,000-ft. gravel runway, attended continuously	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Jet A	24-hr advance notification required: 907-659-7213

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Water access is limited to shallow-draft vessels on the lagoon-facing shores of the barrier islands.
- Best marine entrance to Gwydyr Bay is in the 5-ft-deep channel at the west end of Egg Island (Sheet 58).
- Gwydyr Bay surface currents are generally to the west at 10 to 30 cm/sec. Water depth is 2 to 7 ft.
- Annual average discharge rate of the Kuparuk River is 1,830 cfs. Much of the sediment load is transported west in alongshore currents.

COUNTERMEASURES CONSIDERATIONS

- Riverine discharge is high enough to preclude much floating oil gathering on deltaic surfaces.

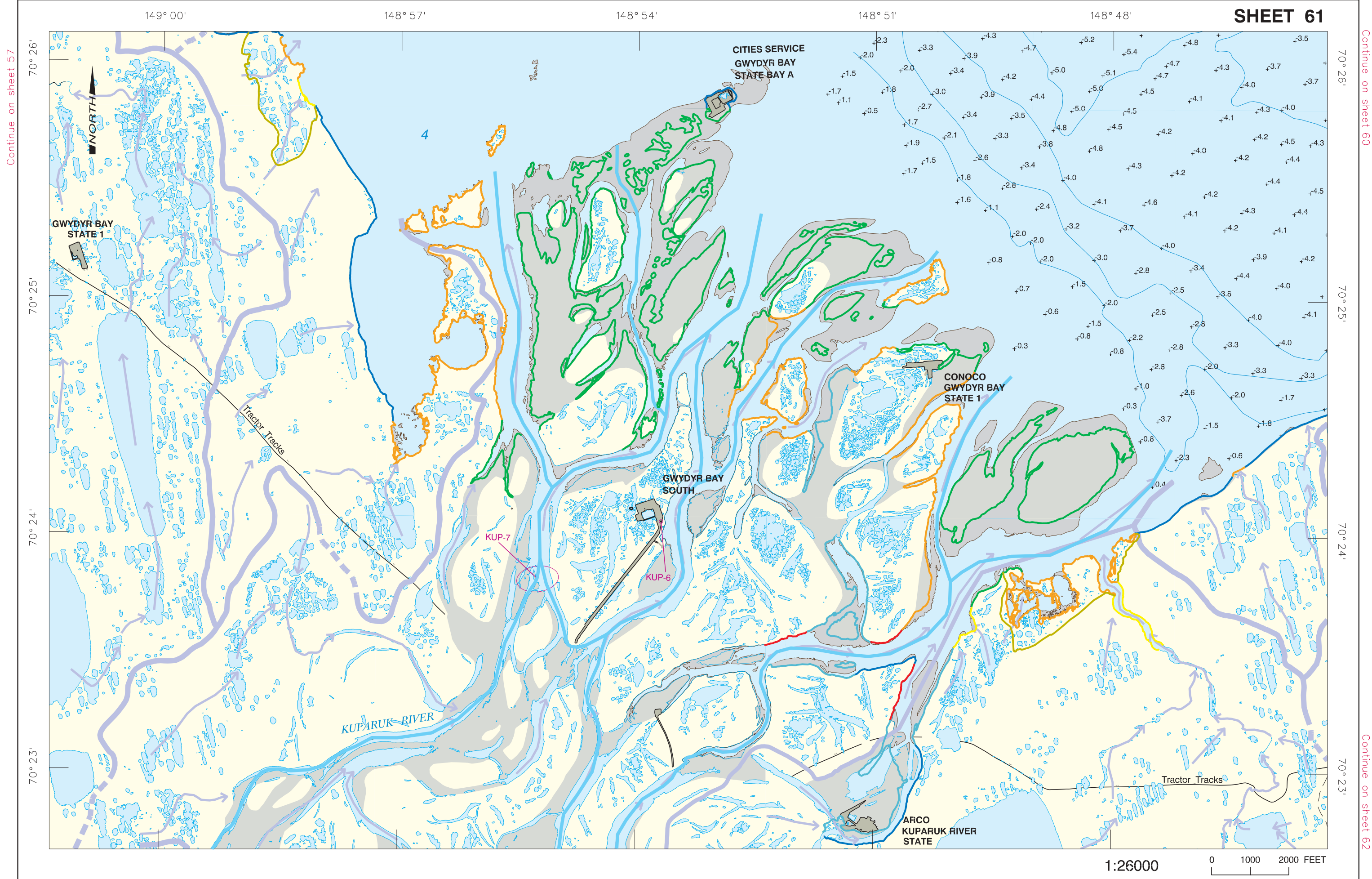
STAGING AREAS AND PRESTAGED EQUIPMENT

- KUP-7 is a predetermined containment site. No equipment is staged there.

PRESTAGED EQUIP. AREA	LOCATION	ITEM	QUANTITY	TYPE
KUP-6	East side of Gwydyr Bay South pad	Boom	4,850'	8" x 6" river

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 57

Continue on sheet 60

Continue on sheet 62



PRIORITY PROTECTION SITES

SITE NO.	DESCRIPTION	SENSITIVITY	TACTIC	EST. BOOM
PS11	Tidal inlet, west side of West Dock base	Most sensitive during open water season, when oil could drift into inlet. Inundated low-lying tundra shoreline.	C-13 or C-14	1,000'
PS14	Marsh inlet, 0.5 miles west of Pt. McIntyre	Most sensitive during open water season, when oil could drift into salt marsh.	C-13 or C-14	500'
PS15	Marsh inlet, 0.5 miles east of DEW line site	Most sensitive during open water season, when oil could drift into salt marsh.	C-13 or C-14	100'
PS16	Inlet to salt marsh, Pt. Storkersen	Most sensitive during open water season, when oil could drift into salt marsh and/or inundated low-lying tundra shoreline.	C-13 or C-14	400'

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- Shoreline and offshore areas support molting Oldsquaws and eiders, and brood-rearing eiders. This is also a staging area for migrating Phalaropes (shorebirds). Birds are present in June, July, and August.
- This is a Brant nesting, brood-rearing, and molting area. Birds are present from May through August.
- Pairs of Spectacled Eiders have been found in this area.
- Plan to deploy bird-hazing systems during the open-water season.
- There is a seawater intake at the seawater treatment plant at West Dock approximately 14 ft below the surface at the southwest corner of the barge. Precautions should be taken to keep oil out of this area.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the Phillips Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XBP-019 near Point McIntyre
- XBP-040 near the DEW line site west of Point McIntyre

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- The Pt. McIntyre airstrip is a 1,500-ft gravel strip, which is unattended and not maintained. Emergency use only is recommended.
- The Prudhoe Bay airport (Sheet 78) is approximately 11 miles southeast of Pt. McIntyre.
- The Deadhorse airport (Sheet 81) is approximately 14 miles south-southeast of Pt. McIntyre.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Deadhorse Airport	6,500-ft asphalt runway	VFR: 1 mi vis. clear of clouds IFR: 0.5 mi vis. (ILS)	100 octane avgas, Jet B, and Mogas	Deadhorse tower
Prudhoe Bay Airport	6,500-ft gravel runway	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Fuel available for emergencies only	Deadhorse tower

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Gwydyr Bay surface currents are generally to the west at 10 to 30 cm/sec. High shoaling areas exist between the Kuparuk River delta (to the west) and West Dock. Water depth ranges from 2 to 5 feet. The best marine entrance to Gwydyr Bay is in the 5-ft-deep channel at the west end of Egg Island (Sheet 58).
- There are boat launches at Dock 2 and at the entrance to West Dock.
- The outer portion of Prudhoe Bay has water depths of 5 to 8 feet and affords good holding anchorage with protection from all but northwest weather. The inner bay has shoals across most of the entrance, with water depths of 2 to 6 ft. There is little water between Pt. Storkersen and Pt. McIntyre, and between Pt. McIntyre and Stump Island.
- Water access is limited to shallow-draft vessels on the lagoon-facing shores of the barrier islands. The barrier islands are awash during storm surges and are migrating toward shore at 5 to 10 meters per year and westward 20 to 30 meters.
- Currents through the West Dock breach can be very strong.
- Annual average discharge rate of the Kuparuk River is 1,830 cfs. Much of the sediment load is transported west in alongshore currents.

COUNTERMEASURES CONSIDERATIONS

- Riverine discharge is high enough to keep much floating oil from gathering on deltaic surfaces west of Pt. Storkersen.

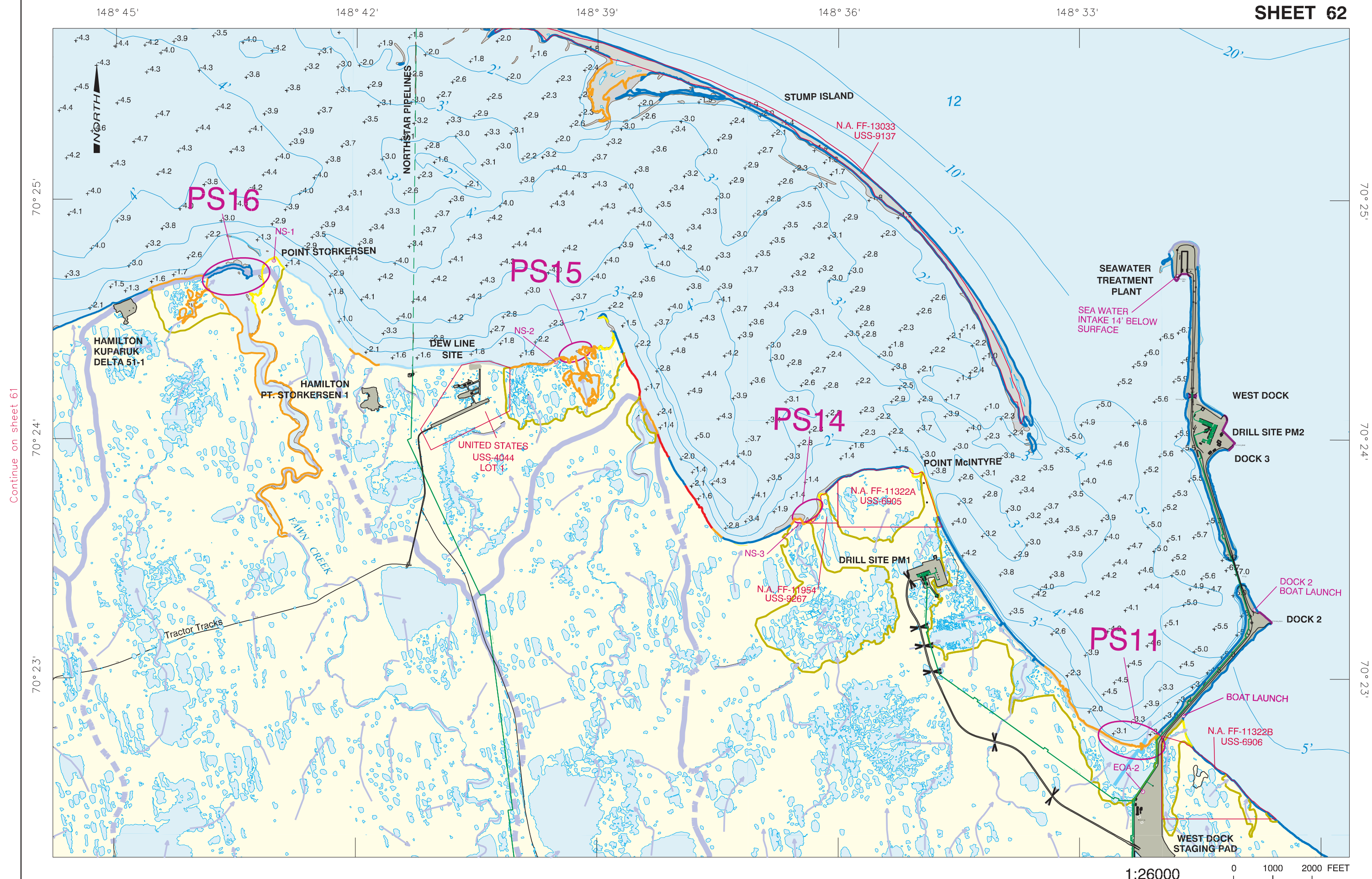
STAGING AREAS AND PRESTAGED EQUIPMENT

- The West Dock Staging Pad is a staging area.

PRESTAGED EQUIP. AREA	LOCATION	ITEM	QUANTITY	TYPE
EOA-2	West Dock Staging Pad	Boom	6,450'	8" x 6" river
		Boom	2,000'	8" x 12" fire
		Boom	1,130'	36" x 43" ocean
		Boom	3,000'	14" x 18" light ocean, reel
		Boom	500'	24" x 36" ocean
		Skimmer	2	Brush, port and starbd, Lori
NS-1	End of Pt. Storkersen	Storage	4	5,000-gal bladder, pillow
		Storage	1	1,500-gal Fastank
NS-2	On coast west of DEW Line site	Storage	400'	8" X 6" river
		Anchors	4	40 lb c/w rigging
NS-3	Near PS14	Storage	1,100'	8" X 6" river
		Anchors	4	40 lb c/w rigging

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 61



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- This is a Brant nesting area. Birds are present from May through July.
- Pairs of Spectacled Eiders have been found in this area.
- Plan to deploy bird-hazing systems during the open-water season.
- The Kuparuk River provides habitat for anadromous whitefish and for resident fish.
- The Sakonowak River provides habitat for anadromous whitefish.



AIR ACCESS*

- The Prudhoe Bay airport (Sheet 78) is approximately 17 miles east-southeast of S Pad.
- The Deadhorse airport (Sheet 81) is approximately 17 miles southeast of S Pad and 4 miles southwest of the Prudhoe Bay airport.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Deadhorse Airport	6,500-ft asphalt runway	VFR: 1 mi vis. clear of clouds IFR: 0.5 mi vis. (ILS)	100 octane avgas, Jet B, and Mogas	Deadhorse tower
Prudhoe Bay Airport	6,500-ft gravel runway	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Fuel available for emergencies only	Deadhorse tower

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.
- There is a boat launch on the Kuparuk River near the Spine Road bridge.
- The annual average discharge rate of the Kuparuk River is 1,830 cfs.

COUNTERMEASURES CONSIDERATIONS

- The Spine Road bridge over the Kuparuk River washes out during breakup each year and must be repaired.

STAGING AREAS AND PRESTAGED EQUIPMENT

- There is a staging area west of the Kuparuk reservoirs near the road to R Pad and M Pad.
- KUP-3 and KUP-5 are predetermined containment sites. No equipment is staged there.
- Boom is typically predeployed seasonally near WOA-1 and between S Pad pipeline and KUP-3.

PRESTAGED EQUIP. AREA	LOCATION	ITEM	QUANTITY	TYPE
KUP-2	On west bank of main channel north of bridge	Boom	6,060'	8" x 6" river
KUP-4	On west bank of river between KUP-3 and KUP-5	Boom Skimmer Storage	3,650' 2 4	8" x 6" river Weir, Manta Ray, 3" 2,400-gal Fastank
WOA-1	On west bank of main channel south of bridge	Boom	10,125'	8" x 6" river

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.

149° 03'

149° 00'

148° 57'

148° 54'

70° 22'

70° 21'

70° 20'

Continue on sheet 68

Continue on sheet 64



1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- This is a Brant nesting area. Birds are present from May through July.
- Pairs of Spectacled Eiders have been found in this area.
- Plan to deploy bird-hazing systems during the open-water season.



AIR ACCESS*

- The Prudhoe Bay airport (Sheet 78) is approximately 9 miles southeast of E Pad.
- The Deadhorse airport (Sheet 81) is approximately 11 miles south of E Pad.
- The Pt. McIntyre airstrip (Sheet 62) is approximately 4 miles north of E Pad. This is a 1,500-ft gravel strip, which is unattended and not maintained. Emergency use only is recommended.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Deadhorse Airport	6,500-ft asphalt runway	VFR: 1 mi vis. clear of clouds IFR: 0.5 mi vis. (ILS)	100 octane avgas, Jet B, and Mogas	Deadhorse tower
Prudhoe Bay Airport	6,500-ft gravel runway	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Fuel available for emergencies only	Deadhorse tower

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine shorelines or waters on this sheet.

STAGING AREAS AND PRESTAGED EQUIPMENT

- There is a staging area at T Pad.

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.

148° 48'

148° 45'

148° 42'

148° 39'

148° 36' SHEET 64

70° 22'

70° 21'

70° 20'

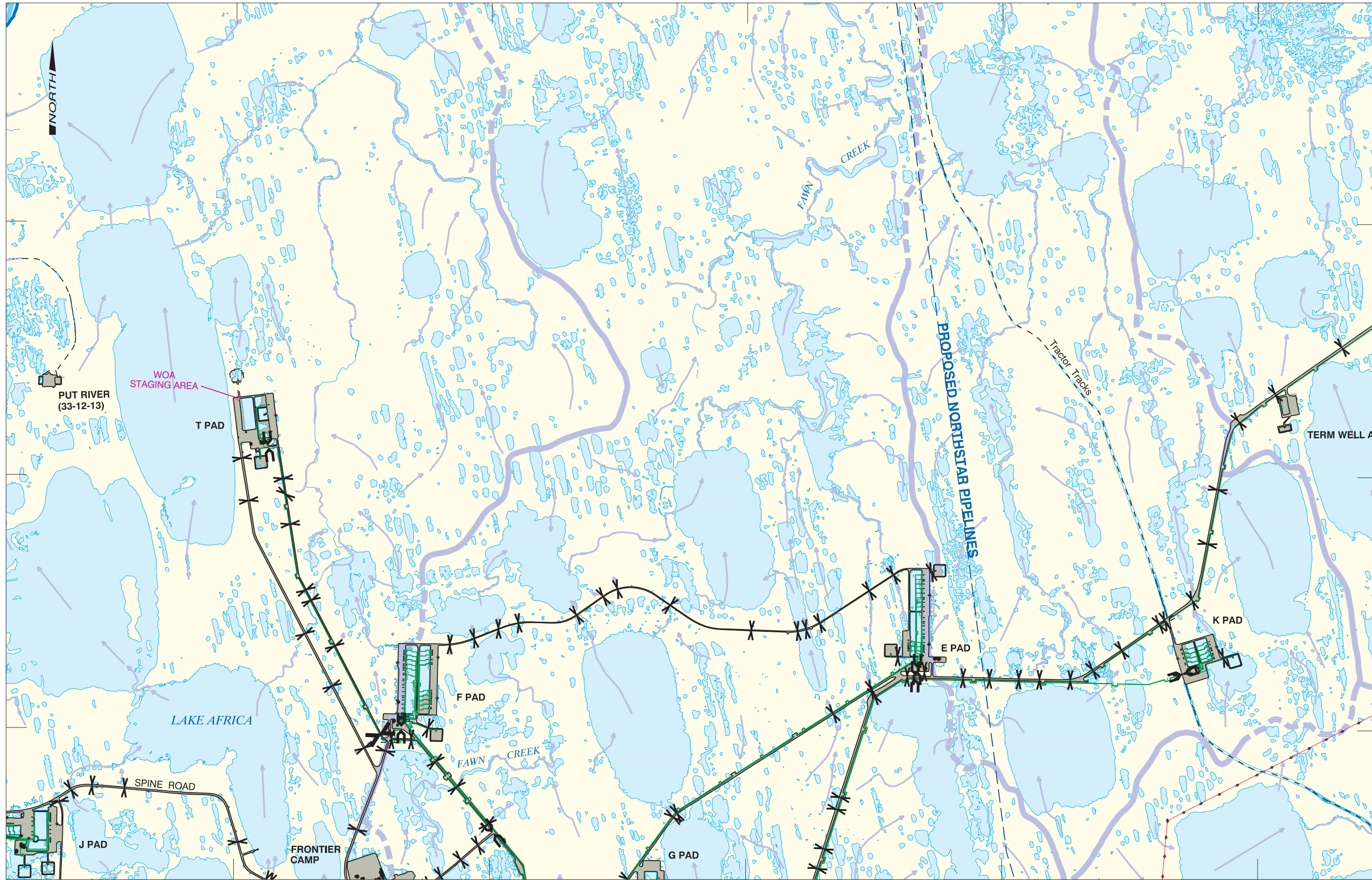
70° 22'

70° 21'

70° 20'

Continue on sheet 63

Continue on sheet 65



1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

SITE NO.	DESCRIPTION	SENSITIVITY	TACTIC	EST. BOOM
PS10	Creek mouth north of LGI	Most sensitive during open water season. Inundated low-lying tundra shoreline.	C-13 or C-14	100'
PS11	Tidal inlet, west side of West Dock base	Most sensitive during open water season, when oil could drift into inlet. Inundated low-lying tundra shoreline.	C-13 or C-14	1,000'

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- Shoreline and offshore areas support molting Oldsquaws and eiders, and brood-rearing eiders. This is also a staging area for migrating Phalaropes (shorebirds). Birds are present in June, July, and August.
- High concentrations of brood-rearing and molting Snow Geese are present in July and August.
- This is a Brant nesting, brood-rearing, and molting area. Birds are present from May through August.
- Pairs of Spectacled Eiders have been found in this area.
- Plan to deploy bird-hazing systems during the open-water season.

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- The Deadhorse airport (Sheet 78) is located approximately 10 miles south of LGI.
- The Prudhoe Bay airport (Sheet 81) is located approximately 6 miles south-southeast of LGI.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Deadhorse Airport	6,500-ft asphalt runway	VFR: 1 mi vis. clear of clouds IFR: 0.5 mi vis. (ILS)	100 octane avgas, Jet B, and Mogas	Deadhorse tower
Prudhoe Bay Airport	6,500-ft gravel runway	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Fuel available for emergencies only	Deadhorse tower

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Outer portions of Prudhoe Bay have water depths of 6 to 9 ft and afford good holding anchorage with protection from all but northwest winds. Inner bay has shoals across most of the entrance, with water depths of 2 to 6 ft.
- The best marine access route to Prudhoe Bay parallels the west shore at a distance of 0.4 mile and has depths of 4 ft.
- There is a boat launch at West Beach State.
- There is high sediment transport in westerly direction along shore due to Sagavanirktok River discharge.
- Eddies and reduced current velocities in Prudhoe Bay cause extensive shoaling and migration of barrier islands.

COUNTERMEASURES CONSIDERATIONS

- Sand-gravel beaches on the interior of Prudhoe Bay are quite narrow and interrupted by vegetated shorelines, making large machinery impractical.

STAGING AREAS AND PRESTAGED EQUIPMENT

- The West Dock Staging Pad is a staging area.

PRESTAGED EQUIP. AREA	LOCATION	ITEM	QUANTITY	TYPE
EOA-2	West Dock Staging Pad	Boom	6,450'	8" x 6" river
		Boom	2,000'	8" x 12" fire
		Boom	1,130'	36" x 43" ocean
		Boom	3,000'	14" x 18" light ocean, reel
		Boom	500'	24" x 36" ocean
		Skimmer	2	Brush, port and starbd, Lori
		Storage	4	5,000-gal bladder, pillow
EOA-3	West Beach State	Storage	1	1,500-gal Fastank
		Boom	2,000'	8" x 6" river

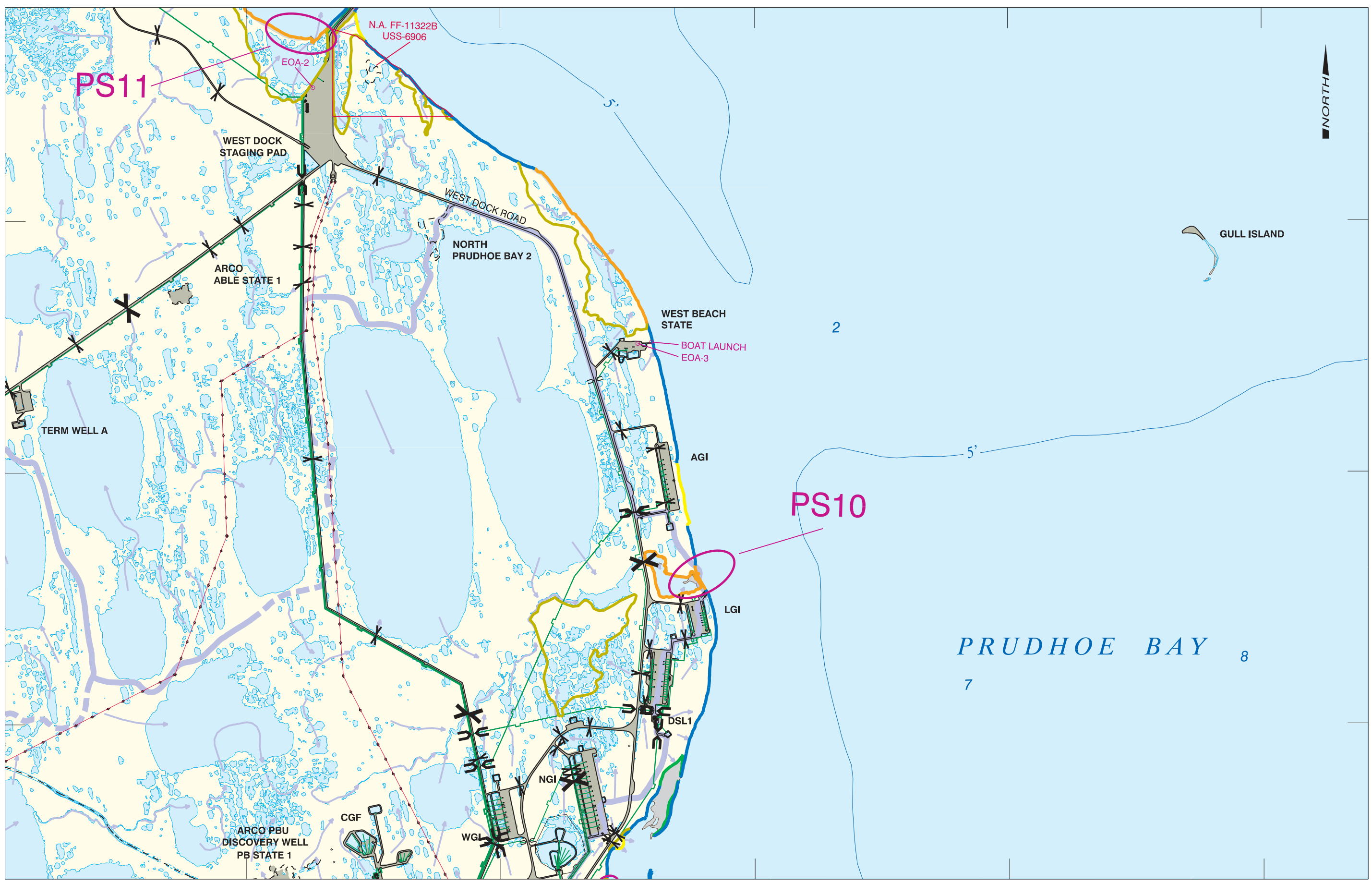
*See the latest Supplement, Alaska and United States Coast Pilot for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

148° 33' 148° 30' 148° 27' 148° 24'

70° 22'
70° 21'
70° 20'

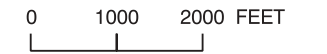
70° 22'
70° 21'
70° 20'



Continue on sheet 64

Continue on sheet 66

1:26000





PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present from June to September in the Sagavanirktok River delta.
- The outer portion of the delta is an important migration staging area for shorebirds from July through September and a Pintail molting area in July and August.
- High concentrations of brood-rearing, and molting Snow Geese are present in July and August.
- This is a Brant nesting, brood-rearing and molting area. Birds are present from May through August.
- Plan to deploy bird-hazing systems during the open-water season.
- The Sagavanirktok River is a migratory corridor for arctic char and whitefish, and an overwintering area for a variety of whitefish, burbot, grayling, and sculpin.
- Polar bear dens have been found in this area. Dens may be in use from October through April.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XBP-006 near Heald Point

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- The Deadhorse airport (Sheet 78) is located approximately 12 miles south-southwest of Heald Point.
- The Prudhoe Bay airport (Sheet 81) is located approximately 7 miles south-southwest of Heald Point.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Deadhorse Airport	6,500-ft asphalt runway	VFR: 1 mi vis. clear of clouds IFR: 0.5 mi vis. (ILS)	100 octane avgas, Jet B, and Mogas	Deadhorse tower
Prudhoe Bay Airport	6,500-ft gravel runway	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Fuel available for emergencies only	Deadhorse tower

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Outer portions of Prudhoe Bay have water depths of 6 to 9 ft and afford good holding anchorage with protection from all but northwest winds. Inner bay has shoals across most of the entrance, with water depths of 2 to 6 ft.
- The best marine access route to Prudhoe Bay parallels the west shore at a distance of 0.4 mile and has depths of 4 ft.
- Annual average flow rate of the Sagavanirktok River is 2,770 cfs.
- There is high sediment transport in a westerly direction along shore due to Sagavanirktok River discharge.
- There is extensive shoaling as much as 2 miles out from the Sagavanirktok River delta.
- Eddies and reduced current velocities in Prudhoe Bay cause extensive shoaling and migration of barrier islands.

COUNTERMEASURES CONSIDERATIONS

- Sand-gravel beaches on the interior of Prudhoe Bay are quite narrow and are interrupted by vegetated shorelines; this makes the use of large machinery impractical.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

148° 18'

148° 15'

148° 12'

148° 09'

70° 23'

70° 23'

70° 22'

70° 22'

70° 21'

70° 21'

70° 20'

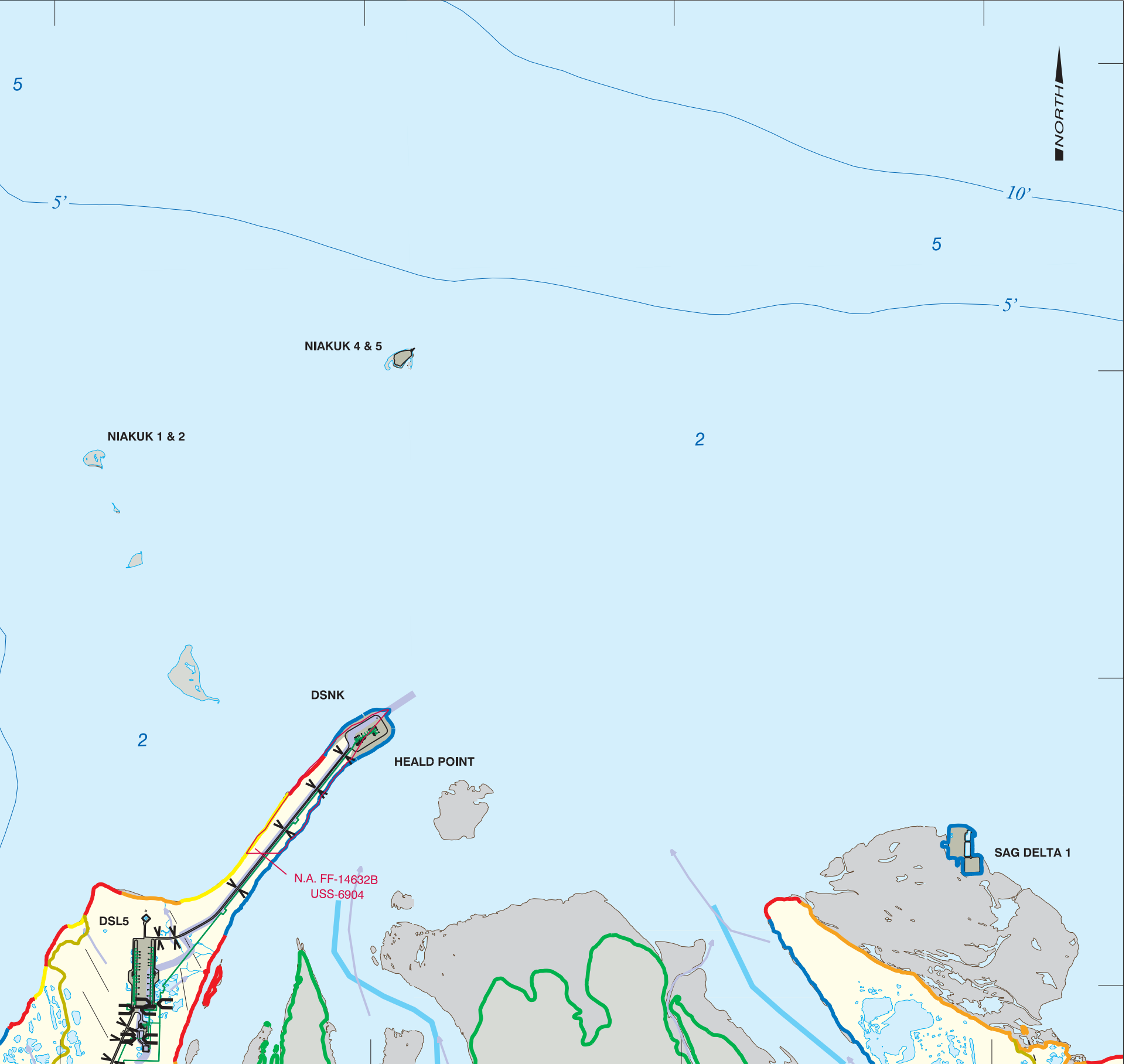
70° 20'

NORTH

Continue on sheet 65

Continue on sheet 67

PRUDHOE BAY



1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

SITE NO.	DESCRIPTION	SENSITIVITY	TACTIC	EST. BOOM
PS12	Eight seabird colonies from Heald Pt. to Pt. Brower	Most sensitive during open water season (June through September). Concentrations of birds.	C-13 or C-14	6,000'

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present from June to September in the Sagavanirktok River delta.
- The outer portion of the delta is an important migration staging area for shorebirds from July through September and a Pintail molting area in July and August.
- High concentrations of brood-rearing and molting Snow Geese are present in July and August.
- Plan to deploy bird-hazing systems during the open-water season.
- There is a seawater intake between the Endicott Main Production Island (MPI) and Endeavor Island approximately 4 to 9 ft below the surface. Precautions should be taken to keep oil away from this area.



AIR ACCESS*

- The Deadhorse airport (Sheet 78) is located approximately 15 miles southwest of the Endicott Main Production Island (MPI).
- The Prudhoe Bay airport (Sheet 81) is located approximately 11 miles southwest of the Endicott MPI.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Deadhorse Airport	6,500-ft asphalt runway	VFR: 1 mi vis. clear of clouds IFR: 0.5 mi vis. (ILS)	100 octane avgas, Jet B, and Mogas	Deadhorse tower
Prudhoe Bay Airport	6,500-ft gravel runway	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Fuel available for emergencies only	Deadhorse tower

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Outer portions of Prudhoe Bay have water depths of 6 to 9 ft and afford good holding anchorage with protection from all but northwest winds. Inner bay has shoals across most of the entrance, with water depths of 2 to 6 ft.
- There is a boat launch on the west side of MPI.
- There is high sediment transport in a westerly direction along shore due to Sagavanirktok River discharge.
- Annual average flow rate of the Sagavanirktok River is 2,770 cfs. River discharge discolors seawater for many miles.
- There is extensive shoaling as much as 2 miles out from the Sagavanirktok River delta.
- Eddies and reduced current velocities in Prudhoe Bay cause extensive shoaling and migration of barrier islands.

STAGING AREAS AND PRESTAGED EQUIPMENT

- There is a staging area on the MPI.

PRESTAGED EQUIP. AREA	LOCATION	ITEM	QUANTITY	TYPE
END-9	West side of MPI	Boom	1,000'	14" x 18" light ocean, reel
END-8	Southwest corner of MPI	Boom	6,000'	8" x 6" river
END-7	On causeway between SDI and MPI	Boom	2,000'	8" x 6" river

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.

148° 06'

148° 03'

148° 00'

147° 57'

147° 54'

70° 23'

70° 23'

70° 22'

70° 22'

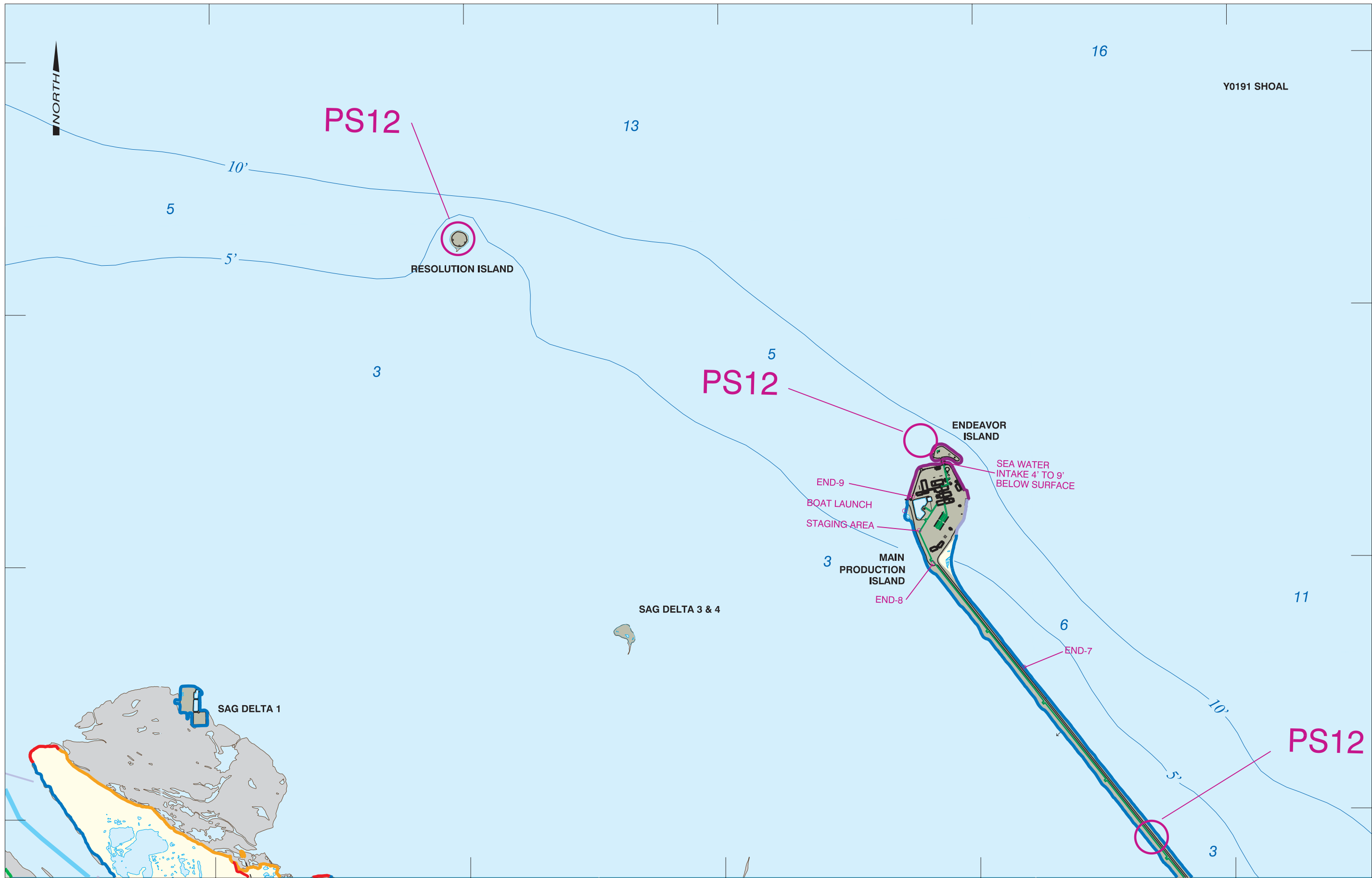
70° 21'

70° 21'

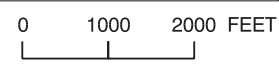
70° 20'

70° 20'

Continue on sheet 66



1:26000





PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- This is a Brant nesting area. Birds are present from May through July.
- Pairs of Spectacled Eiders have been found in this area.
- Plan to deploy bird-hazing systems during the open-water season.
- The Sakonowak River provides habitat for anadromous whitefish.

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- The Prudhoe Bay airport (Sheet 78) is approximately 20 miles east of Z Pad.
- The Deadhorse airport (Sheet 81) is approximately 18 miles southeast of Z Pad.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Deadhorse Airport	6,500-ft asphalt runway	VFR: 1 mi vis. clear of clouds IFR: 0.5 mi vis. (ILS)	100 octane avgas, Jet B, and Mogas	Deadhorse tower
Prudhoe Bay Airport	6,500-ft gravel runway	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Fuel available for emergencies only	Deadhorse tower

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine shorelines or waters on this sheet.

**See the latest Supplement, Alaska and United States Coast Pilot for current information on air and vessel access, respectively.*

NOTE: All values given on these pages are for planning purposes only.

149° 18'

149° 15'

149° 12'

149° 09'

70° 20'

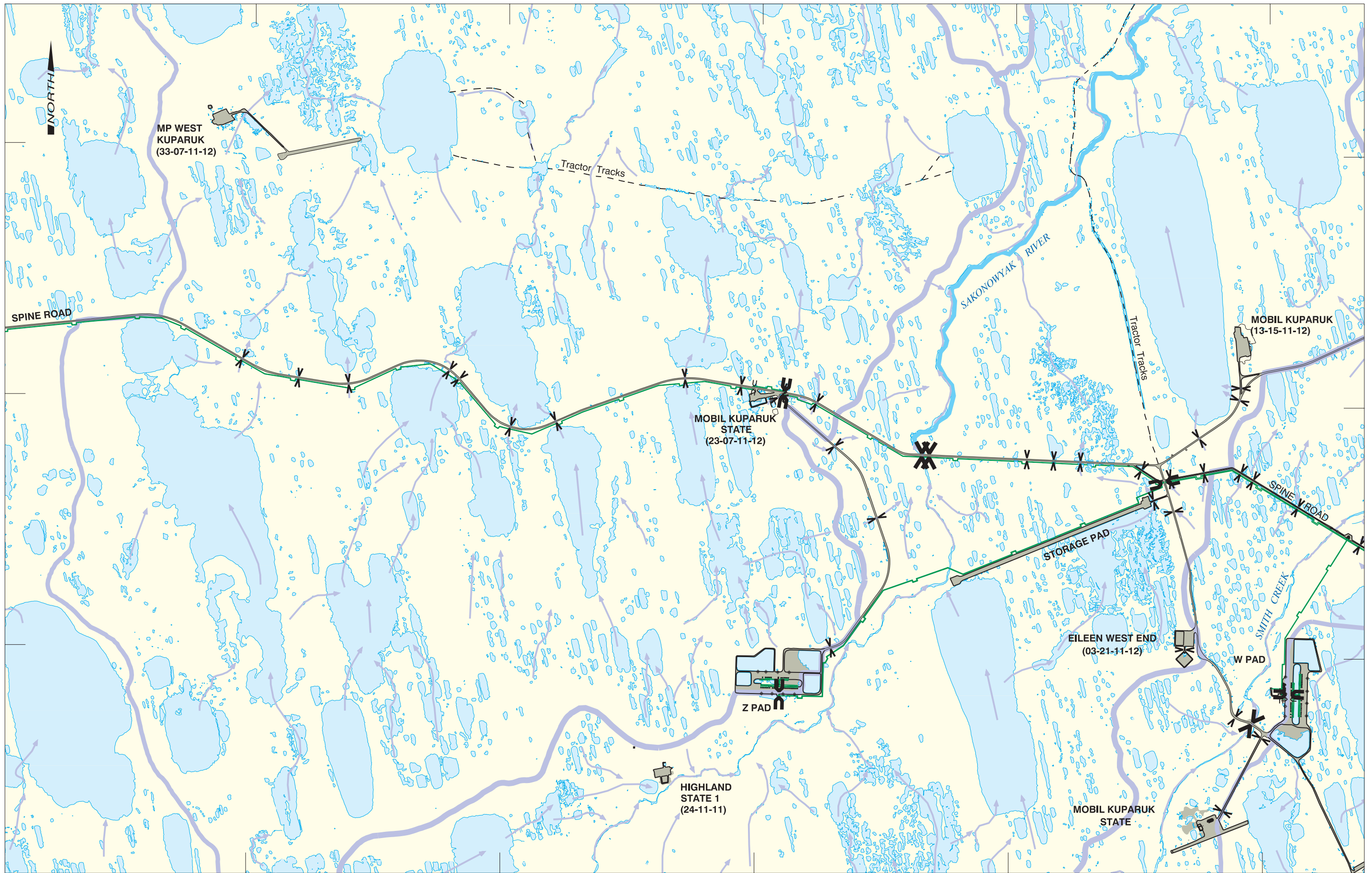
70° 20'

70° 19'

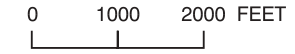
70° 19'

70° 18'

70° 18'



1:26000



Continue on sheet 52

Continue on sheet 69



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- Pairs of Spectacled Eiders have been found in this area.
- Plan to deploy bird-hazing systems during the open-water season.
- The Kuparuk River provides habitat for anadromous whitefish and for resident fish.
- The Sakonowak River provides habitat for anadromous whitefish.



AIR ACCESS*

- The Prudhoe Bay airport (Sheet 78) is approximately 17 miles east of W Pad.
- The Deadhorse airport (Sheet 81) is approximately 16 miles southeast of W Pad.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Deadhorse Airport	6,500-ft asphalt runway	VFR: 1 mi vis. clear of clouds IFR: 0.5 mi vis. (ILS)	100 octane avgas, Jet B, and Mogas	Deadhorse tower
Prudhoe Bay Airport	6,500-ft gravel runway	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Fuel available for emergencies only	Deadhorse tower

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine shorelines or waters on this sheet.
- The annual average discharge rate of the Kuparuk River is 1,830 cfs.
- There is a boat launch on the west bank of the Kuparuk River north of Spine Road.

STAGING AREAS AND PRESTAGED EQUIPMENT

- There is a possible staging area at the Service City pad.
- KUP-1 is a predetermined containment site. No equipment is staged there.

PRESTAGED EQUIP. AREA	LOCATION	ITEM	QUANTITY	TYPE
KUP-2	On west bank of main channel north of bridge	Boom	6,060'	8" x 6" river
WOA-1	On west bank of main channel south of bridge	Boom	10,125'	8" x 6" river

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

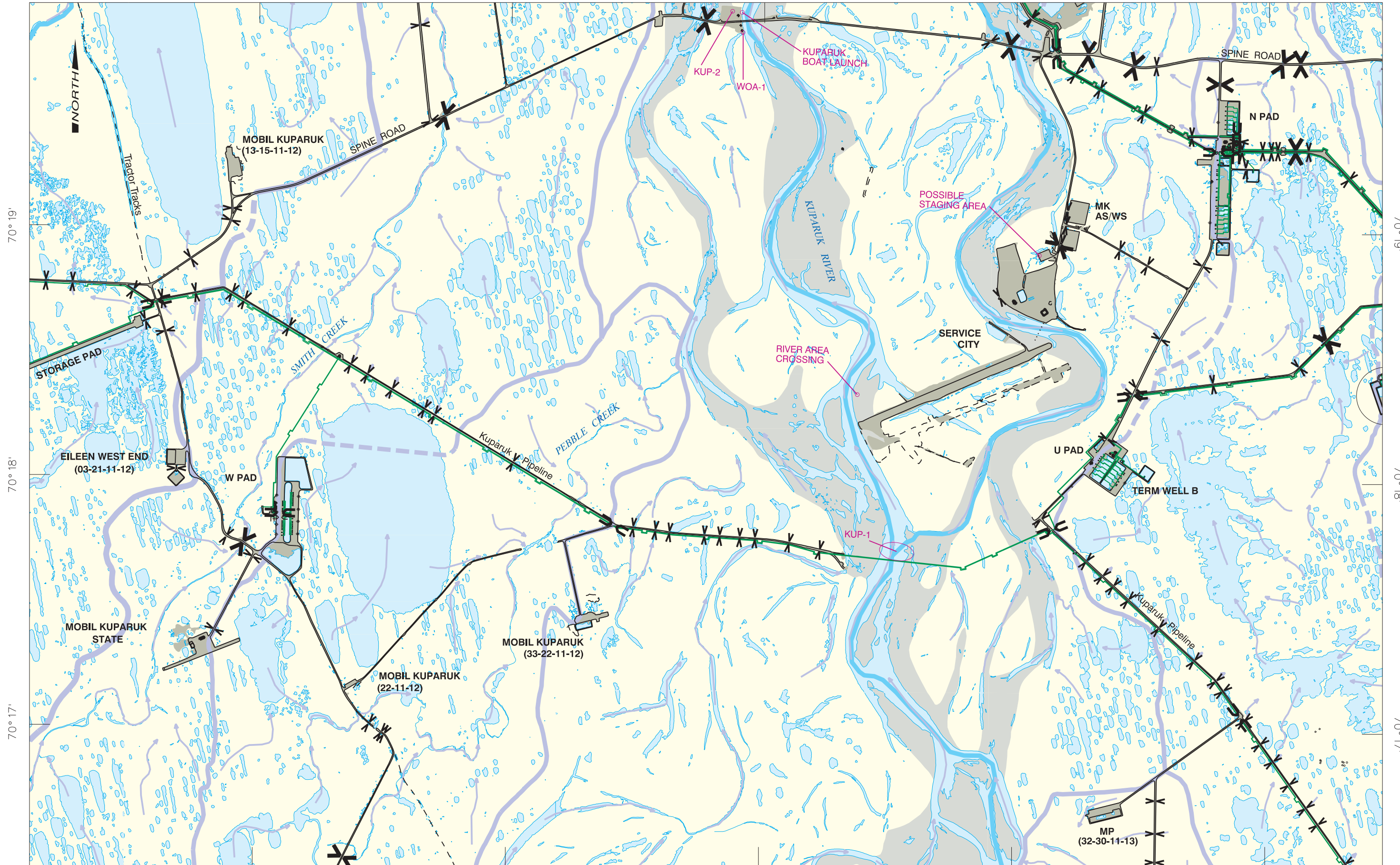
NOTE: All values given on these pages are for planning purposes only.

149° 06'

149° 03'

149° 00'

148° 57'



Continue on sheet 68

Continue on sheet 70

70° 19'

70° 19'

70° 18'

70° 18'

70° 17'

70° 17'

1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- This is a Brant nesting area. Birds are present from May through July.
- Pairs of Spectacled Eiders have been found in this area.
- Plan to deploy bird-hazing systems during the open-water season.
- There is a freshwater intake in Big Lake west of the BOC. The intake is 5 ft below the surface and is not used during winter. Precautions should be taken to protect this area.

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- The Prudhoe Bay airport (Sheet 78) is approximately 9 miles southeast of GC1.
- The Deadhorse airport (Sheet 81) is approximately 10 miles south-southeast of GC1.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Deadhorse Airport	6,500-ft asphalt runway	VFR: 1 mi vis. clear of clouds IFR: 0.5 mi vis. (ILS)	100 octane avgas, Jet B, and Mogas	Deadhorse tower
Prudhoe Bay Airport	6,500-ft gravel runway	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Fuel available for emergencies only	Deadhorse tower

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine shorelines or waters on this sheet.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

148° 51'

148° 48'

148° 45'

148° 42'

148° 39'

70° 20'

70° 20'

70° 19'

70° 19'

70° 18'

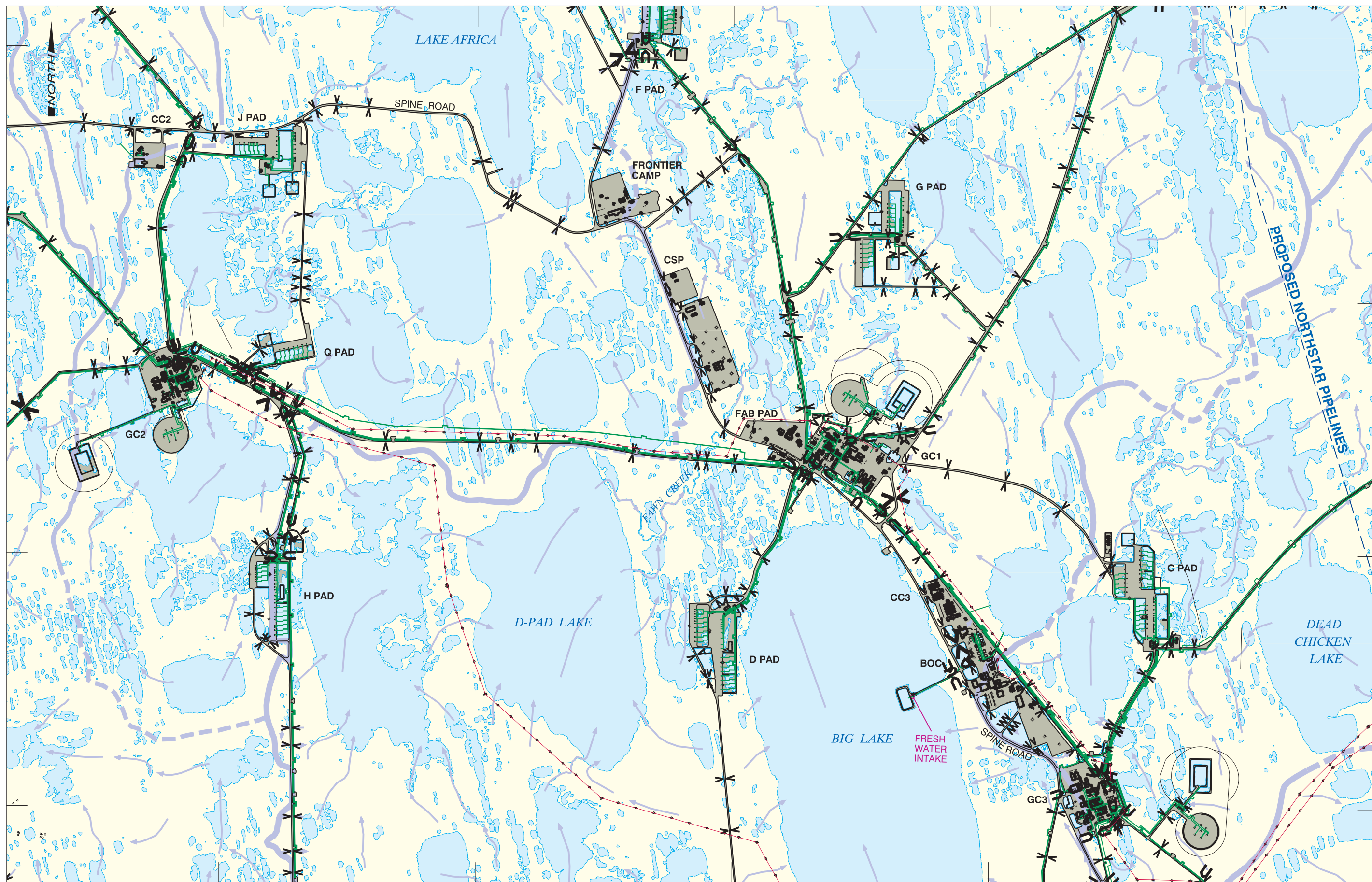
70° 18'

70° 17'

70° 17'

Continue on sheet 69

Continue on sheet 71



1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

SITE NO.	DESCRIPTION	SENSITIVITY	TACTIC	EST. BOOM
PS8	Mouth of the Putuligayuk River	Most sensitive during open water season. Keep oil from entering river.	C-13 or C-14	1,000'
PS9	Creek mouth, east side of CCP	Most sensitive during open water season, when oil could drift into inlet. Salt marsh and/or inundated low-lying tundra shoreline.	C-13 or C-14	500'

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- High concentrations of brood-rearing and molting Snow Geese are present in July and August.
- This is a Brant brood-rearing and molting area. Birds are present in July and August.
- Pairs of Spectacled Eiders have been found in this area.
- Plan to deploy bird-hazing systems during the open-water season.
- The Putuligayuk and Little Putuligayuk Rivers provide habitat for anadromous whitefish and char.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XBP-007 on the coast west of the Putuligayuk River

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- The Prudhoe Bay airport (Sheet 78) is approximately 6 miles southeast of the CGF.
- The Deadhorse airport (Sheet 81) is approximately 9 miles south of the CGF.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Deadhorse Airport	6,500-ft asphalt runway	VFR: 1 mi vis. clear of clouds IFR: 0.5 mi vis. (ILS)	100 octane avgas, Jet B, and Mogas	Deadhorse tower
Prudhoe Bay Airport	6,500-ft gravel runway	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Fuel available for emergencies only	Deadhorse tower

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Outer portions of Prudhoe Bay have water depths of 6 to 9 ft and afford good holding anchorage with protection from all but northwest winds. Inner bay has shoals across most of the entrance, with water depths of 2 to 6 ft.
- The best marine access route to Prudhoe Bay parallels the west shore at a distance of 0.4 mile and has depths of 4 ft.
- There is a boat launch on the north side of the large bend in the Putuligayuk River west of the river mouth.
- There is a boat launch west of the inlet at the mouth of the Putuligayuk River.

COUNTERMEASURES CONSIDERATIONS

- Sand-gravel beaches on the interior of Prudhoe Bay are quite narrow and interrupted by vegetated shorelines; this makes the use of large machinery impractical.

STAGING AREAS AND PRESTAGED EQUIPMENT

- There is a possible staging area at the Put 23 Mine site.

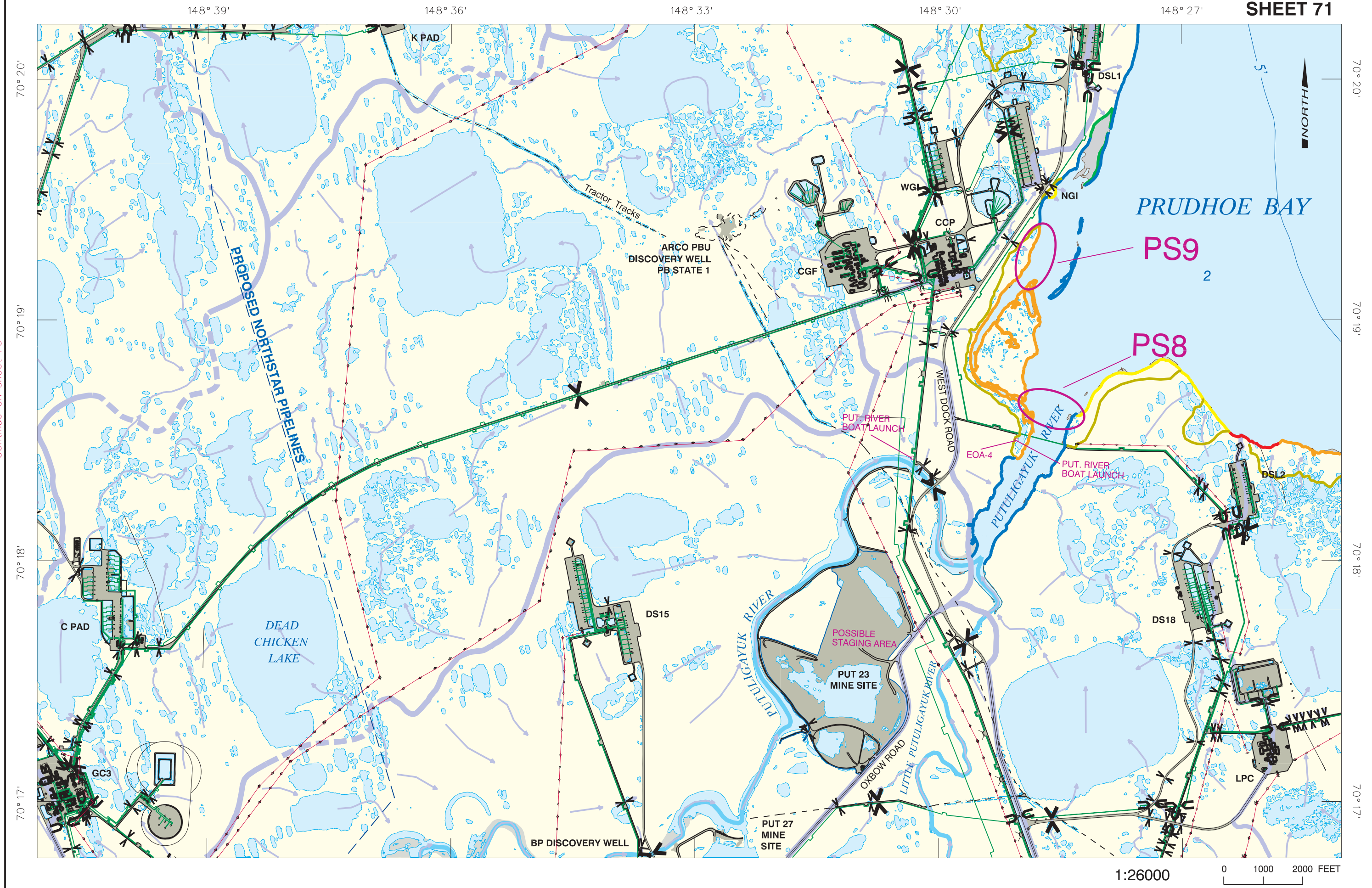
PRESTAGED EQUIP. AREA	LOCATION	ITEM	QUANTITY	TYPE
EOA-4	West side of inlet at the mouth of the Putuligayuk River	Boom	2,000'	8" x 6" river

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

Continue on sheet 70

Continue on sheet 72



1:26000 0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- High concentrations of brood-rearing and molting Snow Geese are present in July and August.
- This is a Brant nesting, brood-rearing and molting area. Birds are present from May through August.
- Pairs of Spectacled Eiders have been found in this area.
- Plan to deploy bird-hazing systems during the open-water season.
- The Sagavanirktok River is a migratory corridor for arctic char and whitefish, and an overwintering area for a variety of whitefish, burbot, grayling, and sculpin.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XBP-005 on the east coast of Prudhoe Bay northeast of East Dock

Response Considerations

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Outer portions of Prudhoe Bay have water depths of 6 to 9 ft and afford good holding anchorage with protection from all but northwest winds. Inner bay has shoals across most of the entrance, with water depths of 2 to 6 ft.
- The best marine access route to Prudhoe Bay parallels the west shore at a distance of 0.4 mile and has depths of 4 ft.
- There is a boat launch at East Dock.
- There is a boat launch on the west bank of the west channel of the Sagavanirktok River south of Surfcode Pad.

COUNTERMEASURES CONSIDERATIONS

- Sand-gravel beaches on the interior of Prudhoe Bay are quite narrow and interrupted by vegetated shorelines; this makes the use of large machinery impractical.

NOTE: All values given on these pages are for planning purposes only.

AIR ACCESS*

- The Prudhoe Bay airport (Sheet 78) is approximately 4 miles south of East Dock.
- The Deadhorse airport (Sheet 81) is approximately 9 miles south-southwest of East Dock.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Deadhorse Airport	6,500-ft asphalt runway	VFR: 1 mi vis. clear of clouds IFR: 0.5 mi vis. (ILS)	100 octane avgas, Jet B, and Mogas	Deadhorse tower
Prudhoe Bay Airport	6,500-ft gravel runway	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Fuel available for emergencies only	Deadhorse tower

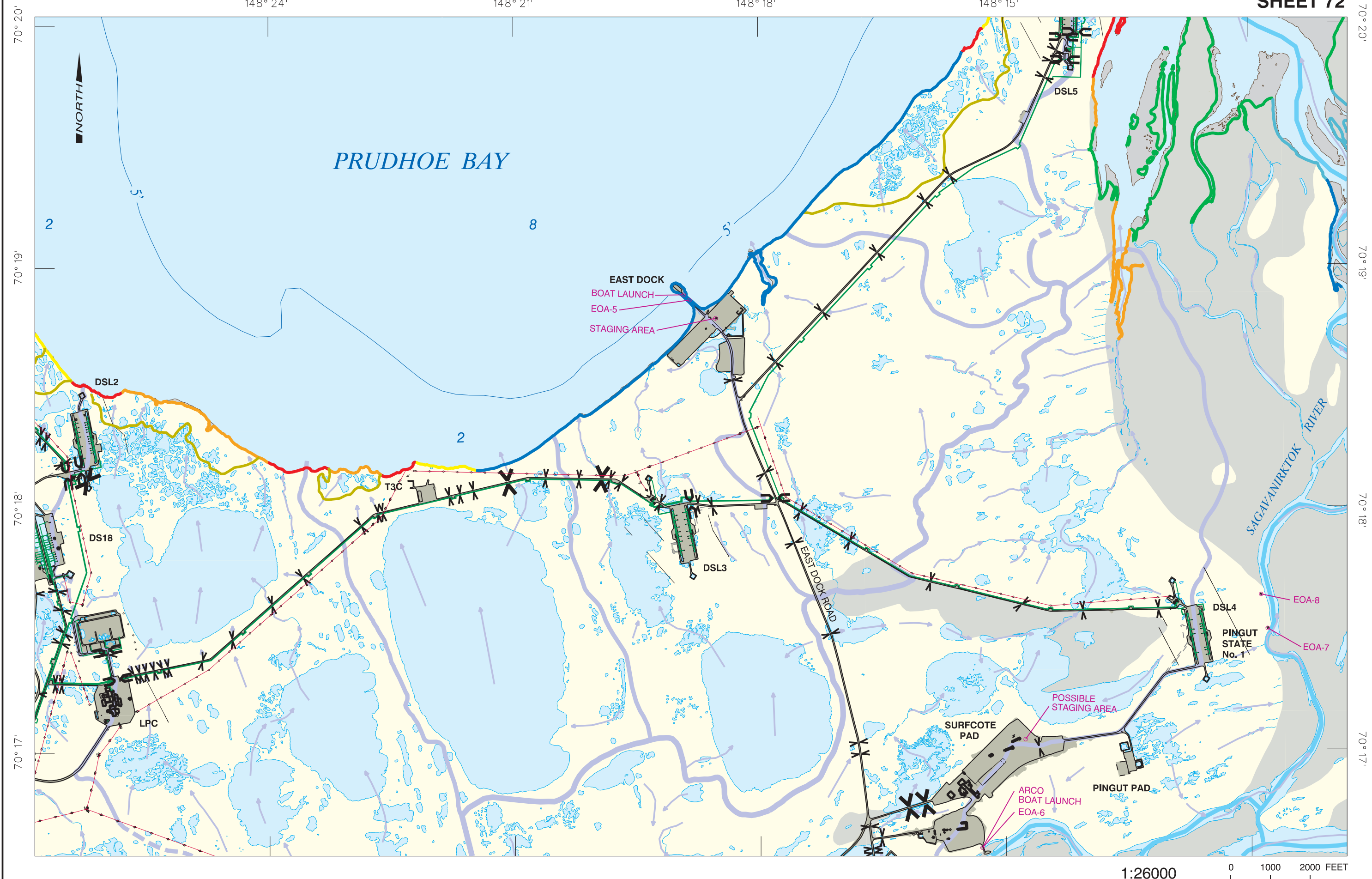
STAGING AREAS AND PRESTAGED EQUIPMENT

- There is a staging area at the East Dock pad.
- There is a possible staging area at Surfcode Pad.

PRESTAGED EQUIP. AREA	LOCATION	ITEM	QUANTITY	TYPE
EOA-5	East Dock	Boom	6,000'	8" x 6" river
		Boom	2,550'	8" x 12" fire
		Boom	2,000'	14" x 18" light ocean, reel
EOA-6	West of the river near the ARCO boat launch	Boom	14,550'	8" x 6" river
		Boom	1,000'	8" x 12" fire
		Pump	1	3" diaphragm
		Pump	1	3" trash, diesel
		Pump	1	2" trash, gas
		Skimmer	3	Disc, MI-11/24
		Skimmer	3	Rope mop, Z14-E
		Skimmer	1	4" rope mop, electric
		Skimmer	3	Weir, slurp
		Storage	4	1,320-gal bladder, liftable
		Storage	4	2,640-gal bladder, tow/lift
		Storage	4	4,400-gal bladder
		Storage	3	2,400-gal Fastank
EOA-7	West bank of river near DSL4 south of EOA-8	Boom	2,500'	8" x 6" river
		Pump	1	2" trash, gas
		Skimmer	1	Disc, MI-11/24
		Skimmer	1	4" rope mop
		Skimmer	1	Weir, slurp
		Storage	1	1,320-gal bladder
		Storage	1	2,640-gal bladder
		Storage	4	4,400-gal Fastank
EOA-8	West bank of river near DSL4 north of EOA-7	Boom	1,500'	8" x 6" river
		Pump	1	3" diaphragm, gas
		Skimmer	1	Disc, MI-11/24
		Skimmer	1	4" rope mop
		Skimmer	1	Weir, slurp
		Storage	1	1,320-gal bladder
		Storage	1	2,640-gal bladder
Storage	1	2,400-gal Fastank		

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 71

Continue on sheet 73



PRIORITY PROTECTION SITES

SITE NO.	DESCRIPTION	SENSITIVITY	TACTIC	EST. BOOM
PS5	Howe Island	Most sensitive during open water season (June through September). Snow Goose breeding area.	C-13 or C-14	5,000'
PS6	Inlet channel, southwest of Howe Island	Most sensitive during open water season when oil could drift into inlet. Inundated low-lying tundra shoreline.	C-13 or C-14	1,000'

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Howe Island is the only known major site for Snow Goose breeding in the United States. Birds are present from June to September on the island and in the Sagavanirktok River delta.
- Concentrations of swans, ducks, other geese, and shorebirds also are present from June to September in the Sagavanirktok River delta.
- The outer portion of the delta is an important migration staging area for shorebirds from July through September and a Pintail molting area in July and August.
- This is a Brant nesting, brood-rearing, and molting area. Birds are present from May through August.
- Pairs of Spectacled Eiders have been found in this area.
- Plan to deploy bird-hazing systems during the open-water season.
- The Sagavanirktok River is a migratory corridor for arctic char and whitefish, and an overwintering area for a variety of whitefish, burbot, grayling, and sculpin.
- Polar bear dens have been found in this area. Dens may be in use from October through April.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XBP-001 on Howe Island

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- The Deadhorse airport (Sheet 81) is located approximately 13 miles southwest of Howe Island.
- The Prudhoe Bay airport (Sheet 78) is located approximately 9 miles southwest of Howe Island.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Deadhorse Airport	6,500-ft asphalt runway	VFR: 1 mi vis. clear of clouds IFR: 0.5 mi vis. (ILS)	100 octane avgas, Jet B, and Mogas	Deadhorse tower
Prudhoe Bay Airport	6,500-ft gravel runway	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Fuel available for emergencies only	Deadhorse tower

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Outer portions of Prudhoe Bay have water depths of 6 to 9 ft and afford good holding anchorage with protection from all but northwest winds. Inner bay has shoals across most of the entrance, with water depths of 2 to 6 ft.
- Annual average flow rate of the Sagavanirktok River is 2,770 cfs. River discharge discolors seawater for many miles. Large amounts of river sediments are swept westward in alongshore currents.
- There is extensive shoaling as much as 2 miles out from the Sagavanirktok River delta.

COUNTERMEASURES CONSIDERATIONS

- Mud flats at the eastern front of the Sagavanirktok River delta may have low load-bearing capacity.
- Most shorelines between the Kuparuk River (to the west) and the Sagavanirktok River are accessible by balloon-tired vehicles or beach-front access at West Dock and East Dock.

STAGING AREAS AND PRESTAGED EQUIPMENT

- Boom is typically predeployed seasonally between EOA-7 and EOA-8, and near EOA-9.

PRESTAGED EQUIP. AREA	LOCATION	ITEM	QUANTITY	TYPE
EOA-7	West bank of river near DSL4 south of EOA-8	Boom	2,500'	8" x 6" river
		Pump	1	2" trash, gas
		Skimmer	1	Disc, MI-11/24
		Skimmer	1	4" rope mop
		Skimmer	1	Weir, slurp
		Storage	1	1,320-gal bladder
		Storage	1	2,640-gal bladder
		Storage	4	4,400-gal Fastank
EOA-8	West bank of river near DSL4 north of EOA-7	Storage	1	2,400-gal Fastank
		Boom	1,500'	8" x 6" river
		Pump	1	3" diaphragm, gas
		Skimmer	1	Disc, MI-11/24
		Skimmer	1	4" rope mop
		Skimmer	1	Weir, slurp
		Storage	1	1,320-gal bladder
		Storage	1	2,640-gal bladder
EOA-9	East bank of main channel west of Sag Delta 11	Storage	1	2,400-gal Fastank
		Boom	2,000'	8" x 6" river
		Pump	1	3" trash, diesel
		Skimmer	1	Disc, MI-11/24
		Skimmer	2	4" rope mop
		Skimmer	1	Weir, slurp
		Storage	2	1,320-gal bladder
		Storage	2	2,640-gal bladder
Storage	1	2,400-gal Fastank		

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

148° 09'

148° 06'

148° 03'

148° 00'

70° 19'

70° 18'

70° 17'

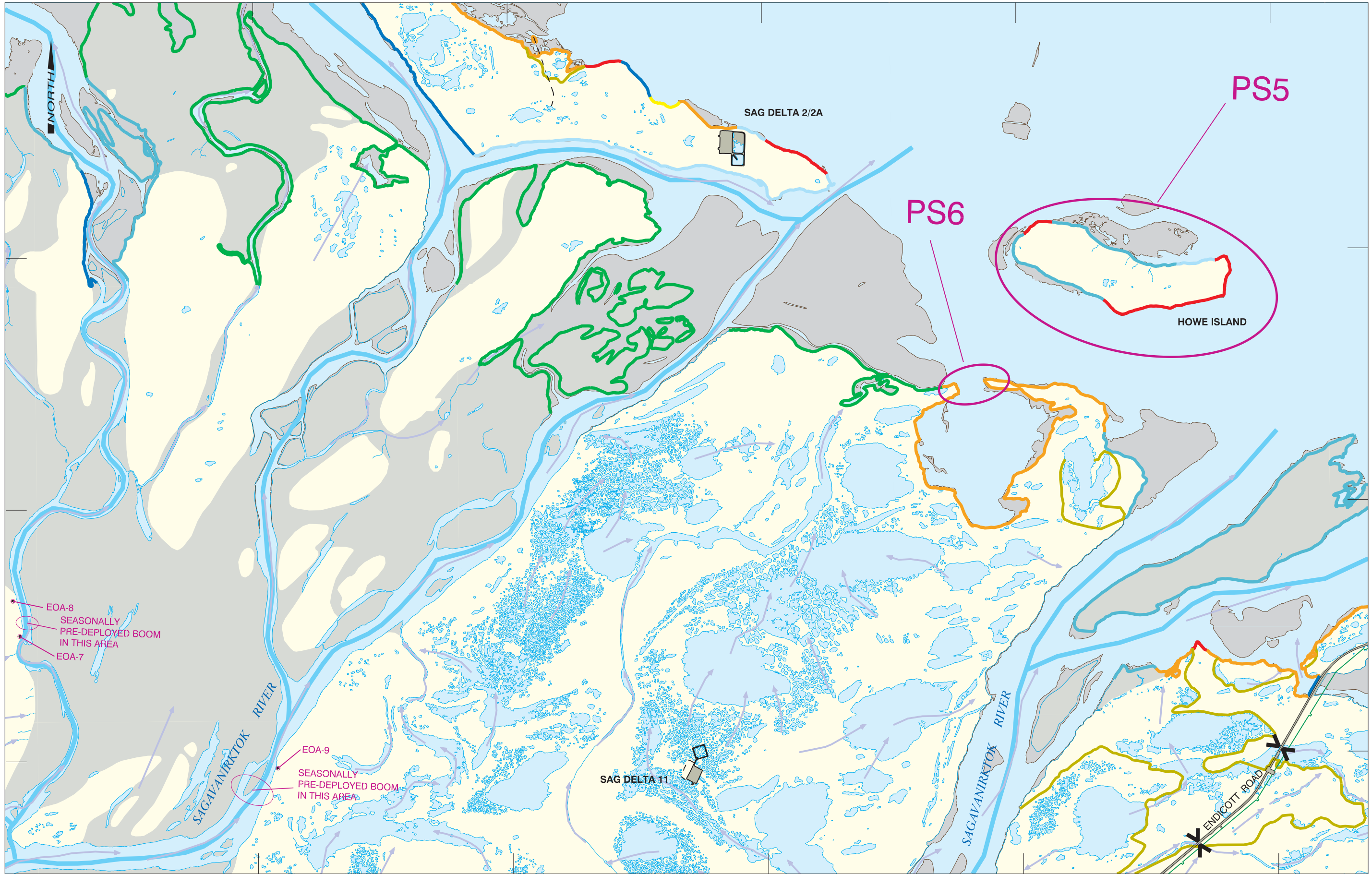
70° 19'

70° 18'

70° 17'

Continue on sheet 72

Continue on sheet 74





PRIORITY PROTECTION SITES

SITE NO.	DESCRIPTION	SENSITIVITY	TACTIC	EST. BOOM
PS5	Howe Island	Most sensitive during open water season (June through September). Snow Goose breeding area.	C-13 or C-14	5,000'
PS7	Duck Island	Most sensitive during open water season (June through September). Concentrations of birds.	C-13 or C-14	3,000'
PS12	Eight seabird colonies from Heald Pt. to Pt. Brower	Most sensitive during open water season (June through September). Concentrations of birds.	C-13 or C-14	6,000'

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Howe Island is the only known major site for Snow Goose breeding in the United States. Birds are present from June to September on the island and in the Sagavanirktok River delta.
- Concentrations of swans, ducks, other geese, and shorebirds also are present from June to September in the Sagavanirktok River delta.
- The outer portion of the delta is an important migration staging area for shorebirds from July through September and a Pintail molting area in July and August.
- This is a Brant nesting, brood-rearing and molting area. Birds are present from May through August.
- Plan to deploy bird-hazing systems during the open-water season.
- The Sagavanirktok River is a migratory corridor for arctic char and whitefish, and an overwintering area for a variety of whitefish, burbot, grayling, and sculpin.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XBP-001 on Howe Island
- XBP-022 near Point Brower

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- The Deadhorse airport (Sheet 81) is located approximately 16 miles southwest of the Endicott Satellite Drilling Island (SDI).
- The Prudhoe Bay airport (Sheet 78) is located approximately 12 miles southwest of the SDI.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Deadhorse Airport	6,500-ft asphalt runway	VFR: 1 mi vis. clear of clouds IFR: 0.5 mi vis. (ILS)	100 octane avgas, Jet B, and Mogas	Deadhorse tower
Prudhoe Bay Airport	6,500-ft gravel runway	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Fuel available for emergencies only	Deadhorse tower

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There is a boat launch on the west side of SDI.
- There is small boat and float plane shelter in the lagoon on the southeast side of Point Brower. Water depth is 2 to 4 ft.
- Annual average flow rate of the Sagavanirktok River is 2,770 cfs. River discharge discolors seawater for many miles. Large amounts of river sediments are swept westward in alongshore currents.
- There is extensive shoaling as much as 2 miles out from the Sagavanirktok River delta.
- Currents are swift through the Endicott causeway breaches.

COUNTERMEASURES CONSIDERATIONS

- Mud flats at the eastern front of the Sagavanirktok River delta may have low load-bearing capacity.

STAGING AREAS AND PRESTAGED EQUIPMENT

- There is a staging area on the SDI.

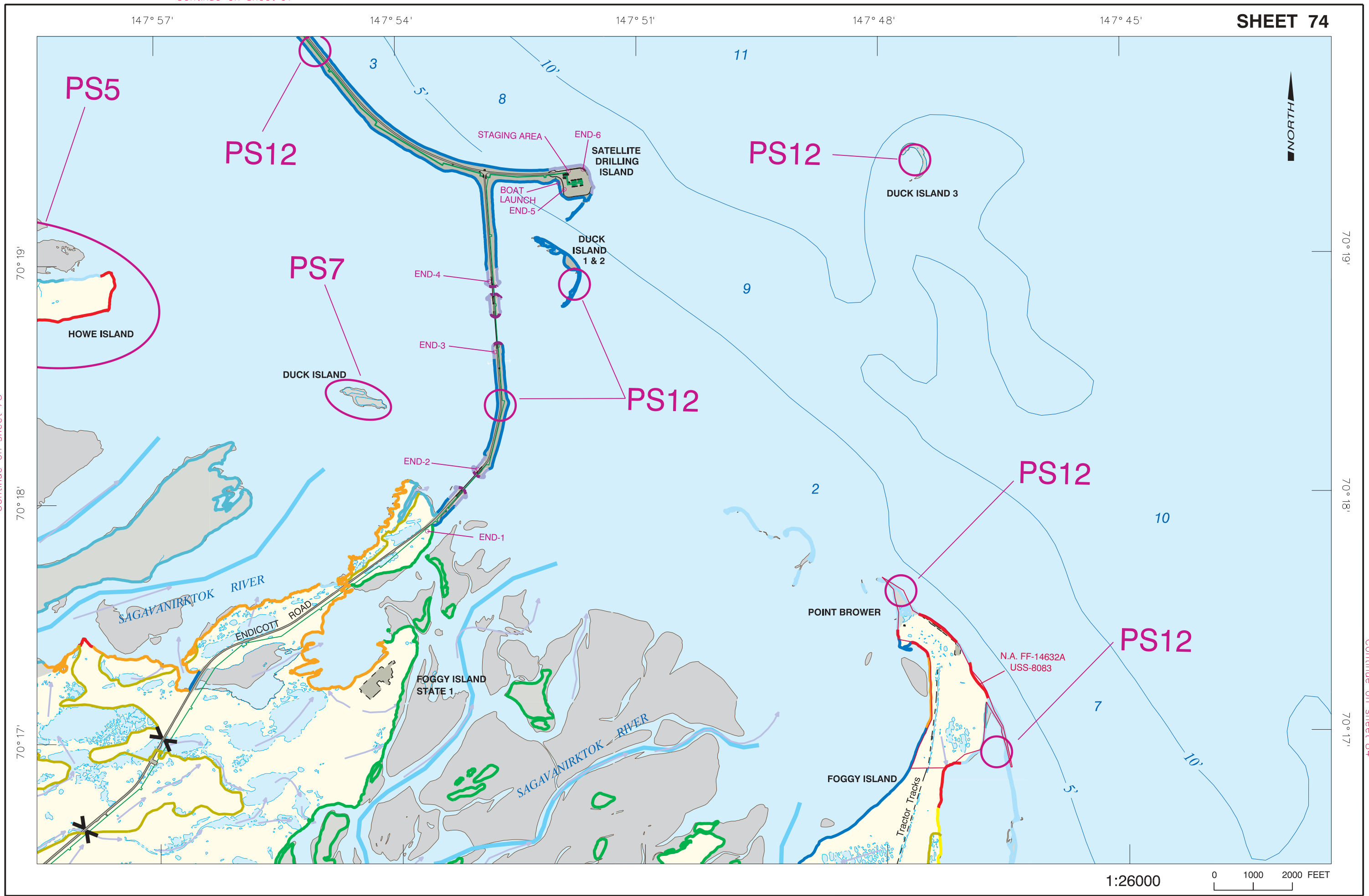
PRESTAGED EQUIP. AREA	LOCATION	ITEM	QUANTITY	TYPE
END-1	At entrance to causeway	Boom	4,000'	8" x 6" river
END-2	On causeway north of first bridge	Boom	4,000'	8" x 6" river
END-3	On causeway south of second bridge	Boom	6,000'	8" x 6" river
END-4	On causeway north of third bridge	Boom	6,000'	8" x 6" river
END-5	On west side of SDI	Boom	4,000'	8" x 6" river
END-6	Northeast corner of SDI	Boom	2,000'	8" x 6" river

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

Continue on sheet 73

Continue on sheet 84





PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- Pairs of Spectacled Eiders have been found in this area.
- Plan to deploy bird-hazing systems during the open-water season.
- The Kuparuk River provides habitat for anadromous whitefish and for resident fish.
- The Putuligayuk River provides habitat for anadromous whitefish and char.

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- The Prudhoe Bay airport (Sheet 78) is approximately 13 miles east of P Pad.
- The Deadhorse airport (Sheet 81) is approximately 12 miles southeast of P Pad.

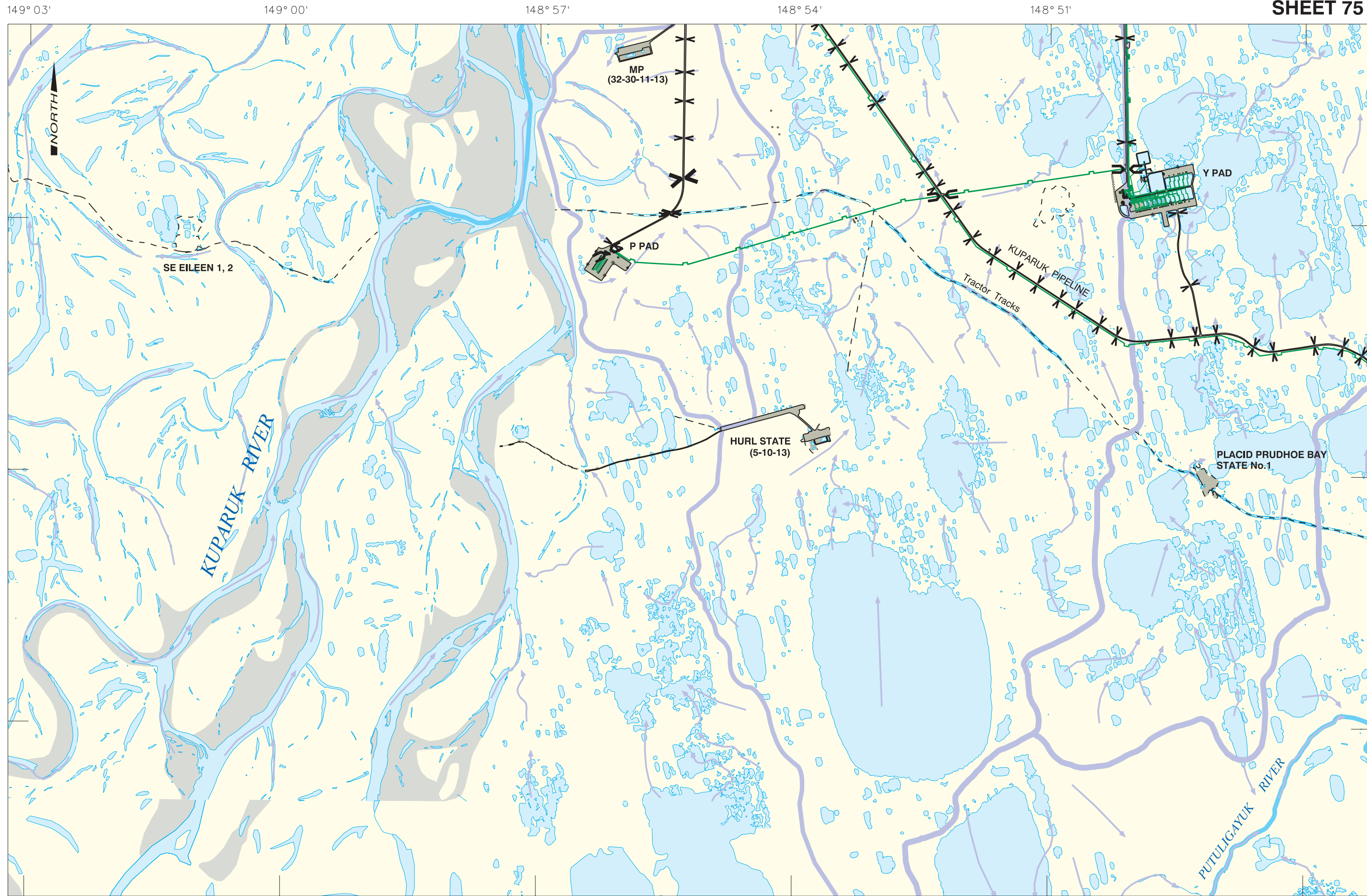
AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Deadhorse Airport	6,500-ft asphalt runway	VFR: 1 mi vis. clear of clouds IFR: 0.5 mi vis. (ILS)	100 octane avgas, Jet B, and Mogas	Deadhorse tower
Prudhoe Bay Airport	6,500-ft gravel runway	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Fuel available for emergencies only	Deadhorse tower

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine shorelines or waters on this sheet.
- The annual average discharge rate of the Kuparuk River is 1,830 cfs.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- This is a Brant nesting area. Birds are present from May through July.
- Pairs of Spectacled Eiders have been found in this area.
- Plan to deploy bird-hazing systems during the open-water season.
- The Putuligayuk River provides habitat for anadromous whitefish and char.
- There is a freshwater intake in Big Lake west of the BOC. The intake is 5 ft below the surface and is not used during winter because of ice. Precautions should be taken to protect this area.



AIR ACCESS*

- The Prudhoe Bay airport (Sheet 78) is approximately 9 miles east of A Pad.
- The Deadhorse airport (Sheet 81) is approximately 8 miles southeast of A Pad.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Deadhorse Airport	6,500-ft asphalt runway	VFR: 1 mi vis. clear of clouds IFR: 0.5 mi vis. (ILS)	100 octane avgas, Jet B, and Mogas	Deadhorse tower
Prudhoe Bay Airport	6,500-ft gravel runway	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Fuel available for emergencies only	Deadhorse tower

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine shorelines or waters on this sheet.

STAGING AREAS AND PRESTAGED EQUIPMENT

- There is a seasonal containment site downstream (northeast) of the Spine Road bridge over the Putuligayuk River. Boom is deployed there during the summer, but no equipment is staged there.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

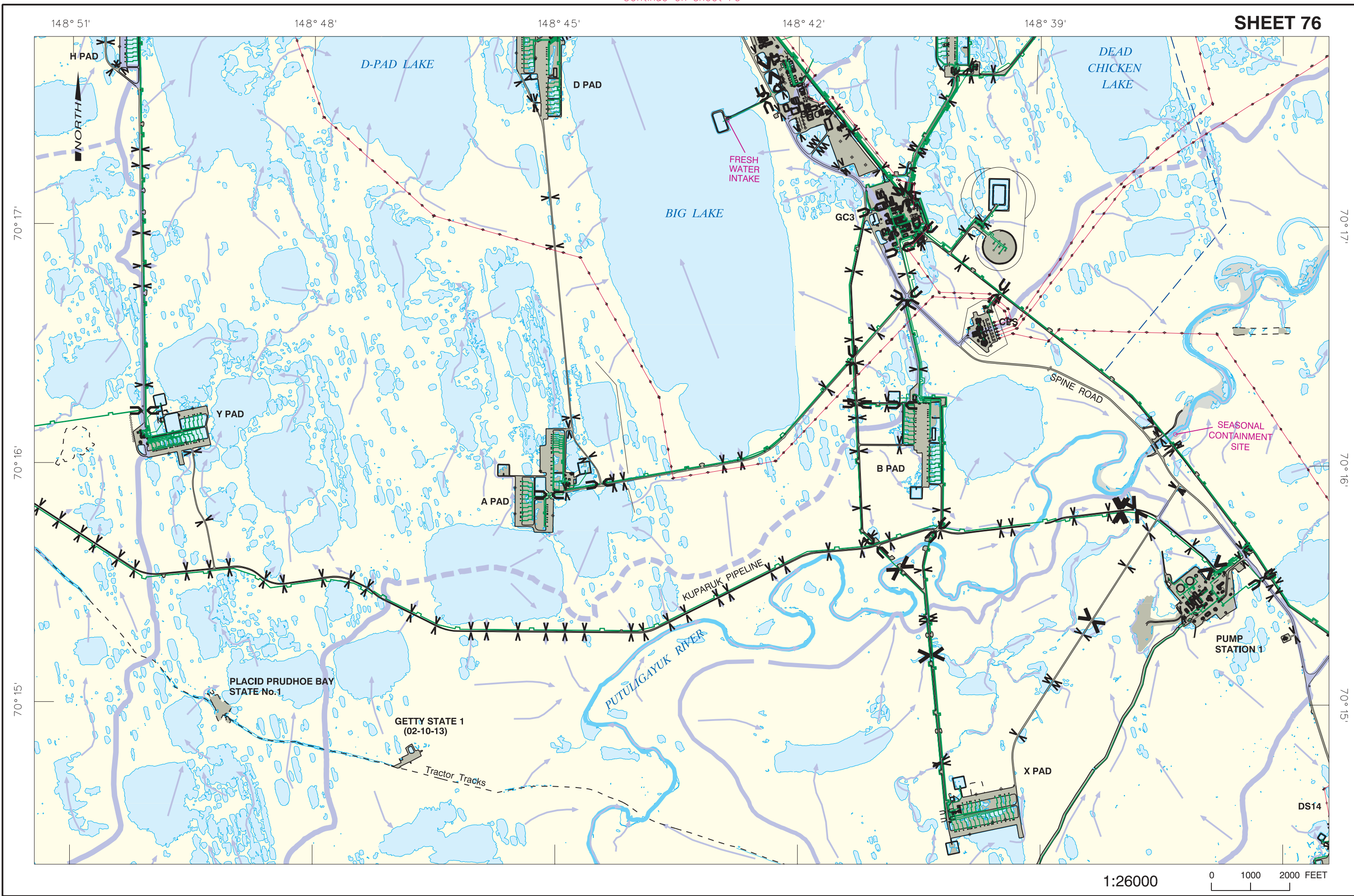
NOTE: All values given on these pages are for planning purposes only.

Continue on sheet 56

Continue on sheet 71

Continue on sheet 75

Continue on sheet 77





PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- This is a Brant nesting area. Birds are present from May through July.
- Pairs of Spectacled Eiders have been found in this area.
- Plan to deploy bird-hazing systems during the open-water season.
- The Putuligayuk and Little Putuligayuk Rivers provide habitat for anadromous whitefish and char.



AIR ACCESS*

- The Prudhoe Bay airport (Sheet 78) is approximately 6 miles east of Pump Station 1.
- The Deadhorse airport (Sheet 81) is approximately 5 miles southeast of Pump Station 1.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Deadhorse Airport	6,500-ft asphalt runway	VFR: 1 mi vis. clear of clouds IFR: 0.5 mi vis. (ILS)	100 octane avgas, Jet B, and Mogas	Deadhorse tower
Prudhoe Bay Airport	6,500-ft gravel runway	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Fuel available for emergencies only	Deadhorse tower

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine shorelines or waters on this sheet.

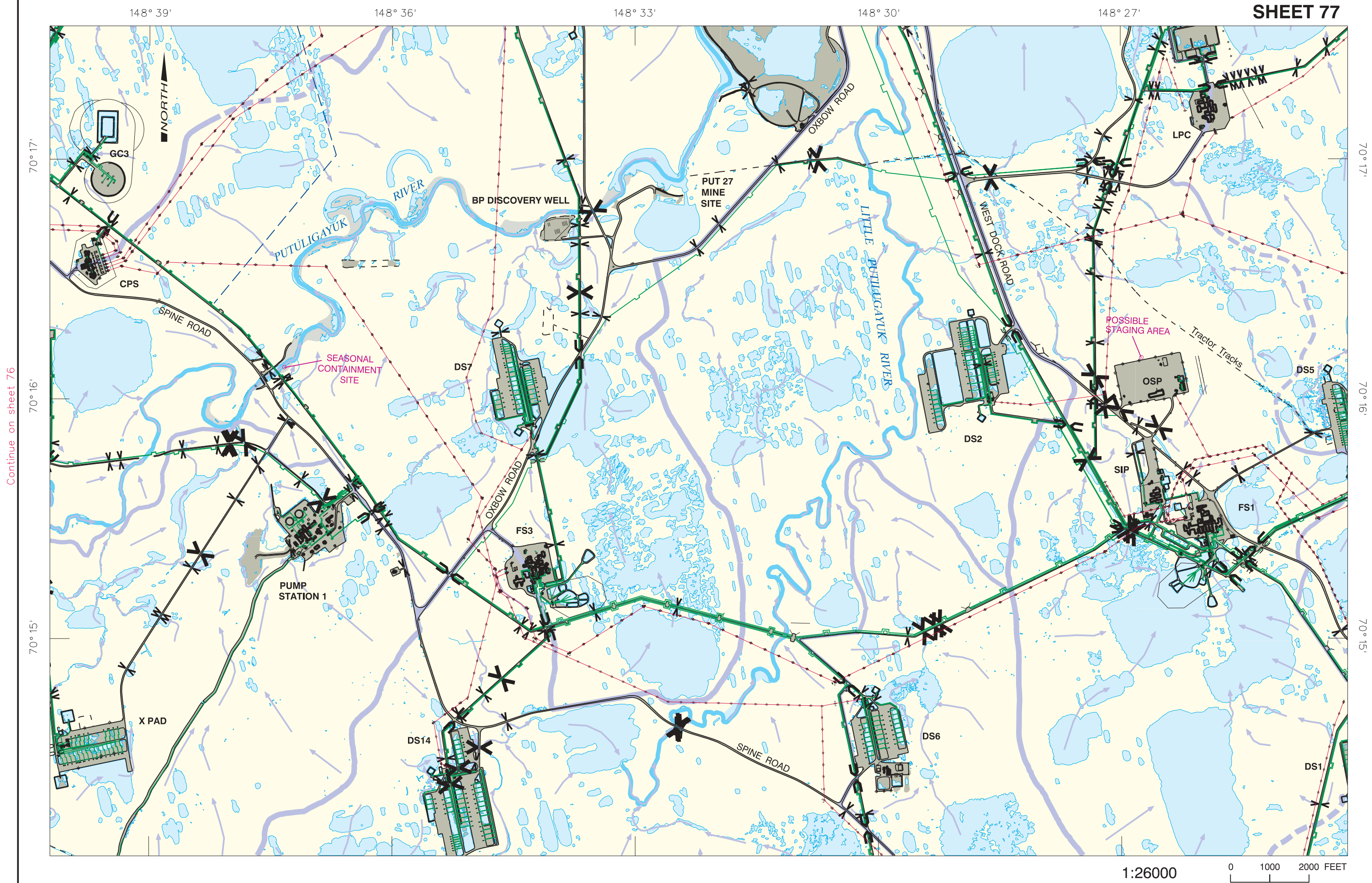
STAGING AREAS AND PRESTAGED EQUIPMENT

- There is a possible staging area at the OSP.
- There is a seasonal containment site downstream (northeast) of the Spine Road bridge over the Putuligayuk River. Boom is deployed there during the summer, but no equipment is staged there.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 76

Continue on sheet 78

1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- High concentrations of brood-rearing and molting Snow Geese are present in July and August.
- This is a Brant nesting area. Birds are present from May through July.
- Pairs of Spectacled Eiders have been found in this area.
- Plan to deploy bird-hazing systems during the open-water season.
- The Sagavanirktok River is a migratory corridor for arctic char and whitefish, and an overwintering area for a variety of whitefish, burbot, grayling, and sculpin.
- There is a freshwater intake at the south end of Webster Reservoir at 30 to 35 ft below the surface. This intake is used from September through June.
- There is a freshwater intake on the west bank of the west channel of the Sagavanirktok River east of the PBOC at approximately 10 to 12 ft below the surface. This intake is used from June to September.
- Precautions should be taken to protect these water intake areas.

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- The Deadhorse airport (Sheet 81) is approximately 5 miles southwest of the PBOC.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Deadhorse Airport	6,500-ft asphalt runway	VFR: 1 mi vis. clear of clouds IFR: 0.5 mi vis. (ILS)	100 octane avgas, Jet B, and Mogas	Deadhorse tower
Prudhoe Bay Airport	6,500-ft gravel runway	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Fuel available for emergencies only	Deadhorse tower

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine shorelines or waters on this sheet.
- There is a boat launch on the west bank of the west channel of the Sagavanirktok River northeast of DS4.
- Annual average flow rate of the Sagavanirktok River is 2,770 cfs.

STAGING AREAS AND PRESTAGED EQUIPMENT

- There is a possible staging area at the Duck Island Gravel Mine site.
- There is a possible staging area at Surfcode Pad.
- Boom is typically predeployed seasonally between the Sagavanirktok River bridge and EOA-6.

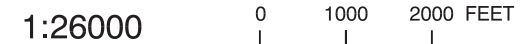
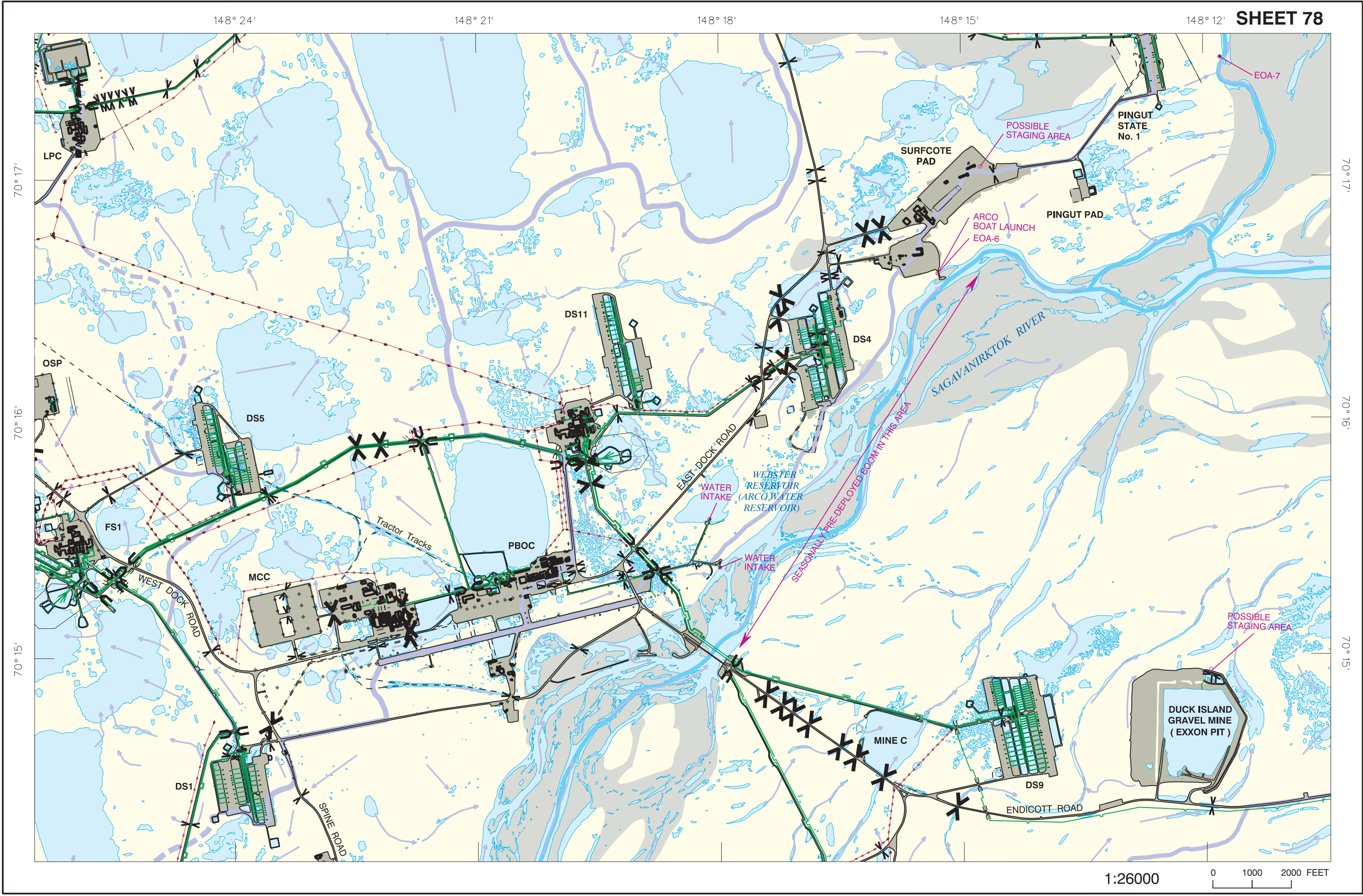
PRESTAGED EQUIP. AREA	LOCATION	ITEM	QUANTITY	TYPE
EOA-6	West of the river near the ARCO boat launch	Boom	14,550'	8" x 6" river
		Boom	1,000'	8" x 12" fire
		Pump	1	3" diaphragm
		Pump	1	3" trash, diesel
		Pump	1	2" trash, gas
		Skimmer	3	Disc, MI-11/24
		Skimmer	3	Rope mop, Z14-E
		Skimmer	1	4" rope mop, electric
		Skimmer	3	Weir, slurp
		Storage	4	1,320-gal bladder, liftable
		Storage	4	2,640-gal bladder, tow/lift
		Storage	4	4,400-gal bladder
		Storage	3	2,400-gal Fastank
EOA-7	West bank of river east of Pingut State No. 1	Boom	2,500'	8" x 6" river
		Pump	1	2" trash, gas
		Skimmer	1	Disc, MI-11/24
		Skimmer	1	4" rope mop
		Skimmer	1	Weir, slurp
		Storage	1	1,320-gal bladder
		Storage	1	2,640-gal bladder
		Storage	4	4,400-gal Fastank
		Storage	1	2,400-gal Fastank

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

Continue on sheet 77

Continue on sheet 79





PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- The outer portion of the delta is an important migration staging area for shorebirds from July through September and a Pintail molting area in July and August.
- High concentrations of brood-rearing and molting Snow Geese are present in July and August.
- This is a Brant nesting, brood-rearing, and molting area. Birds are present from May through August.
- Pairs of Spectacled Eiders have been found in this area.
- Plan to deploy bird-hazing systems during the open-water season.
- The Sagavanirktok River is a migratory corridor for arctic char and whitefish, and an overwintering area for a variety of whitefish, burbot, grayling, and sculpin.

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- The Deadhorse airport (Sheet 81) is approximately 11 miles southwest of Delta State 2.
- The Prudhoe Bay airport (Sheet 78) is approximately 7 miles west of Delta State 2.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Deadhorse Airport	6,500-ft asphalt runway	VFR: 1 mi vis. clear of clouds IFR: 0.5 mi vis. (ILS)	100 octane avgas, Jet B, and Mogas	Deadhorse tower
Prudhoe Bay Airport	6,500-ft gravel runway	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Fuel available for emergencies only	Deadhorse tower

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shorelines on this sheet.
- Annual average flow rate of the Sagavanirktok River is 2,770 cfs.

STAGING AREAS AND PRESTAGED EQUIPMENT

- There is a possible staging area at the Duck Island Gravel Mine site.
- Boom is typically predeployed seasonally near EOA-9.

PRESTAGED EQUIP. AREA	LOCATION	ITEM	QUANTITY	TYPE
EOA-9	East bank of main channel west of Sag Delta 11	Boom	2,000'	8" x 6" river
		Pump	1	3" trash, diesel
		Skimmer	1	Disc, MI-11/24
		Skimmer	2	4" rope mop
		Skimmer	1	Weir, slurp
		Storage	2	1,320-gal bladder
		Storage	2	2,640-gal bladder
Storage	1	2,400-gal Fastank		

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 78

Continue on sheet 80



PRIORITY PROTECTION SITES

SITE NO.	DESCRIPTION	SENSITIVITY	TACTIC	EST. BOOM
PS12	Eight seabird colonies from Heald Pt. to Pt. Brower	Most sensitive during open water season (June through September). Concentrations of birds.	C-13 or C-14	6,000'

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- The outer portion of the delta is an important migration staging area for shorebirds from July through September and a Pintail molting area in July and August.
- High concentrations of brood-rearing and molting Snow Geese are present in July and August.
- This is a Brant nesting, brood-rearing and molting area. Birds are present from May through August.
- Pairs of Spectacled Eiders have been found in this area.
- Plan to deploy bird-hazing systems during the open-water season.
- The Sagavanirktok River is a migratory corridor for arctic char and whitefish, and an overwintering area for a variety of whitefish, burbot, grayling, and sculpin.
- Polar bear dens have been found in this area. Dens may be in use from October through April.

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- The Deadhorse airport (Sheet 81) is approximately 25 miles to the southwest.
- The Prudhoe Bay airport (Sheet 78) is approximately 22 miles to the west-southwest.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Deadhorse Airport	6,500-ft asphalt runway	VFR: 1 mi vis. clear of clouds IFR: 0.5 mi vis. (ILS)	100 octane avgas, Jet B, and Mogas	Deadhorse tower
Prudhoe Bay Airport	6,500-ft gravel runway	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Fuel available for emergencies only	Deadhorse tower

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

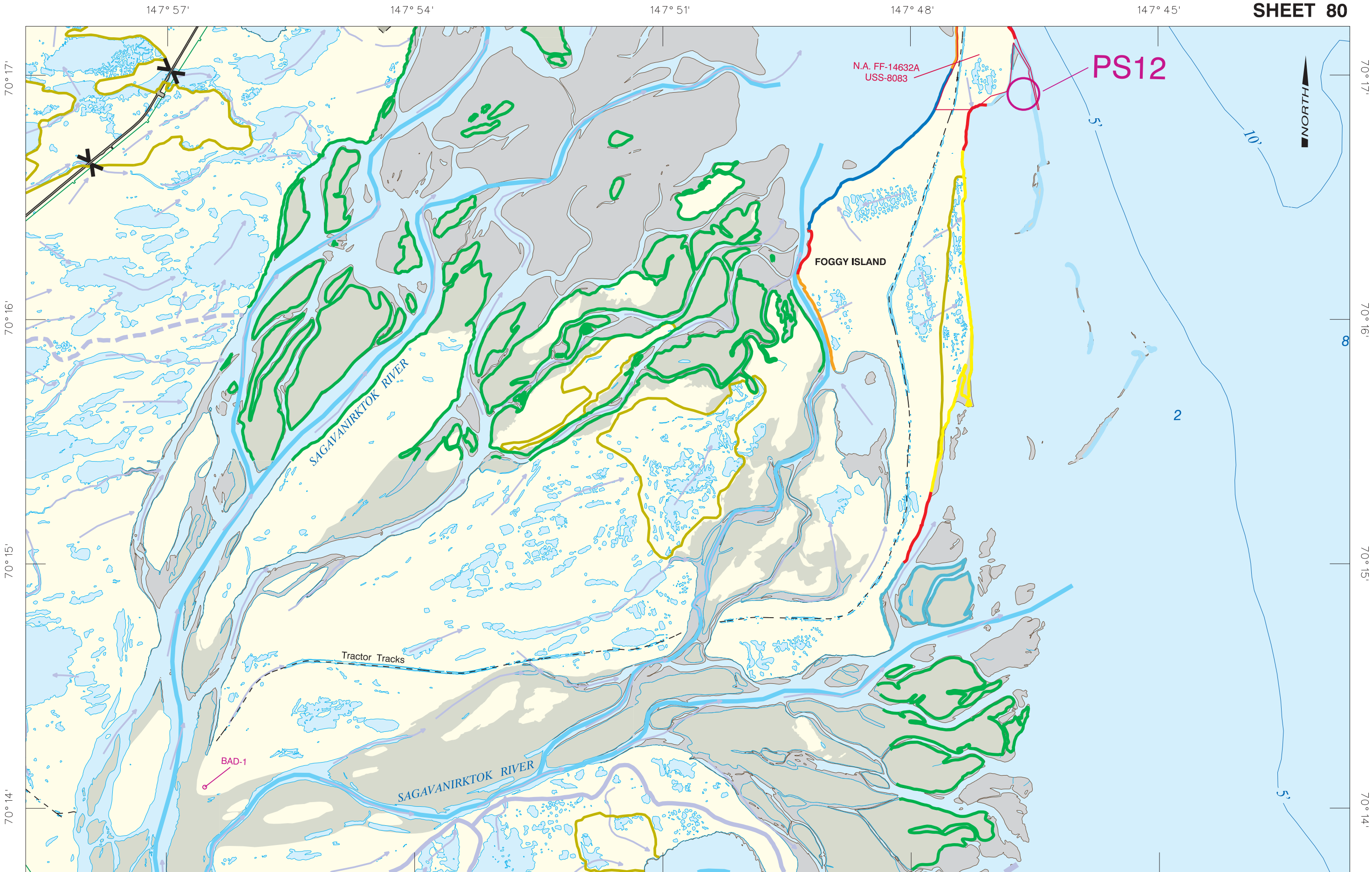
- Annual average flow rate of the Sagavanirktok River is 2,770 cfs. River discharge discolors seawater for many miles.

STAGING AREAS AND PRESTAGED EQUIPMENT

PRESTAGED EQUIP. AREA	LOCATION	ITEM	QUANTITY	TYPE
BAD-1	Between the two main channels of the Sagavanirktok River approx. 4.5 miles southwest of Foggy Island	Boom Pump Skimmer Skimmer Storage	3,225' 1 1 1 2	8" x 6" river 3" trash, diesel Disc, MI-30 Rope mop, Z14-E 500-gal bladder, liftable

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 79

Continue on sheet 84

Continue on sheet 85

1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- This is a Brant nesting area. Birds are present from May through July.
- Pairs of Spectacled Eiders have been found in this area.
- Plan to deploy bird-hazing systems during the open-water season.
- The Sagavanirktok River is a migratory corridor for arctic char and whitefish, and an overwintering area for a variety of whitefish, burbot, grayling, and sculpin.



AIR ACCESS*

- The Prudhoe Bay airport (Sheet 78) is approximately 4 miles north-northeast of the Deadhorse airport.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Deadhorse Airport	6,500-ft asphalt runway	VFR: 1 mi vis. clear of clouds IFR: 0.5 mi vis. (ILS)	100 octane avgas, Jet B, and Mogas	Deadhorse tower
Prudhoe Bay Airport	6,500-ft gravel runway	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Fuel available for emergencies only	Deadhorse tower

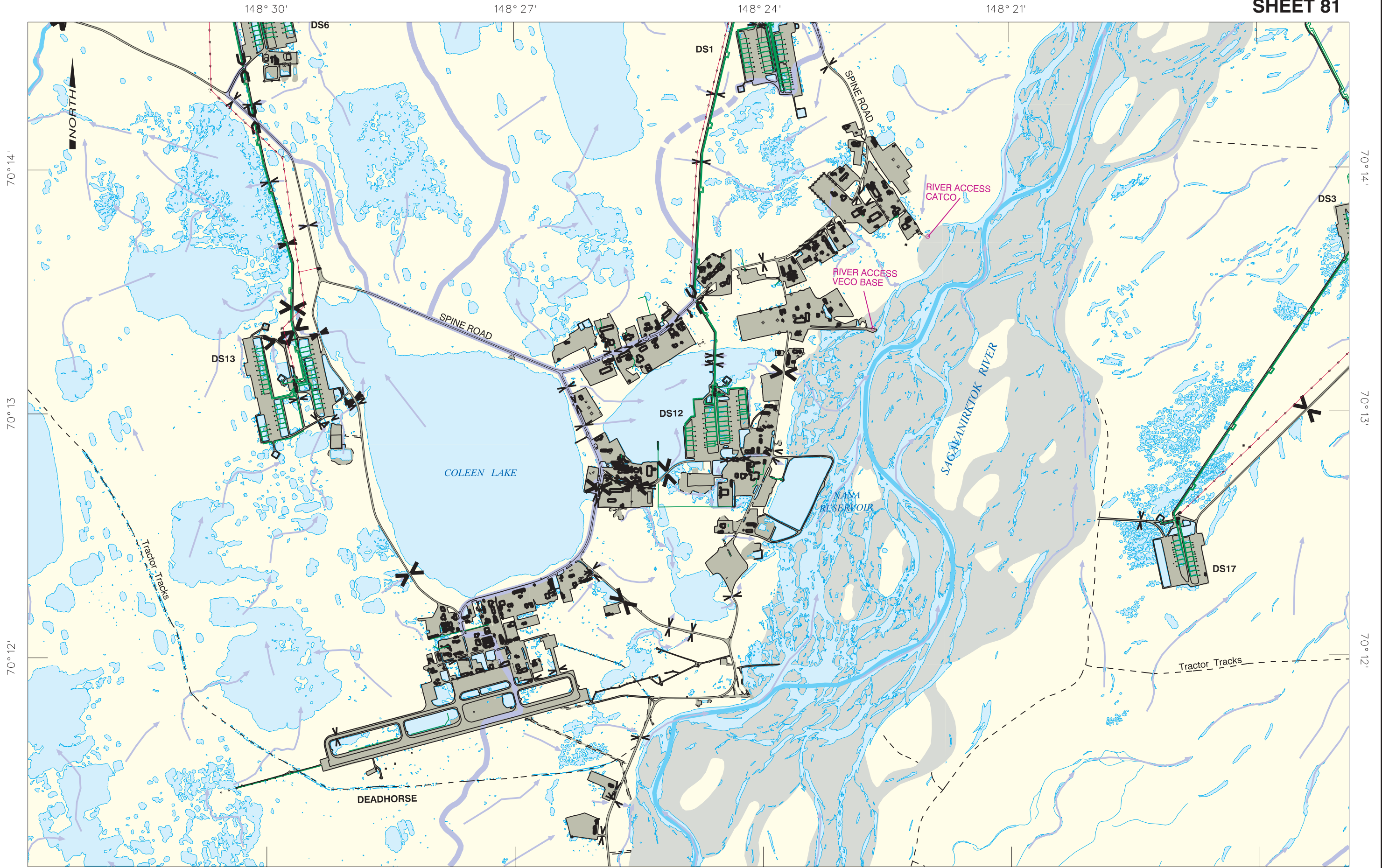
VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine shorelines or waters on this sheet.
- Annual average flow rate of the Sagavanirktok River is 2,770 cfs. River discharge discolors seawater for many miles.

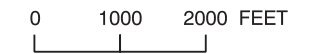
*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.



1:26000





PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- High concentrations of brood-rearing and molting Snow Geese are present in July and August.
- Pairs of Spectacled Eiders have been found in this area.
- Plan to deploy bird-hazing systems during the open-water season.
- The Sagavanirktok River is a migratory corridor for arctic char and whitefish, and an overwintering area for a variety of whitefish, burbot, grayling, and sculpin.
- There is a freshwater intake on the west bank of the west channel of the Sagavanirktok River east of the PBOC at approximately 10 to 12 ft below the surface. This intake is used from June to September.

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- The Deadhorse airport (Sheet 81) is approximately 5 miles southwest of the PBOC.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Deadhorse Airport	6,500-ft asphalt runway	VFR: 1 mi vis. clear of clouds IFR: 0.5 mi vis. (ILS)	100 octane avgas, Jet B, and Mogas	Deadhorse tower
Prudhoe Bay Airport	6,500-ft gravel runway	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Fuel available for emergencies only	Deadhorse tower

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine shorelines or waters on this sheet.
- Annual average flow rate of the Sagavanirktok River is 2,770 cfs.

STAGING AREAS AND PRESTAGED EQUIPMENT

- There is a possible staging area at the Duck Island Gravel Mine site.

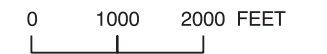
*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 81

1:26000





PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- The outer portion of the delta is an important migration staging area for shorebirds from July through September and a Pintail molting area in July and August.
- High concentrations of brood-rearing and molting Snow Geese are present in July and August.
- This is a Brant nesting, brood-rearing and molting area. Birds are present from May through August.
- Pairs of Spectacled Eiders have been found in this area.
- Plan to deploy bird-hazing systems during the open-water season.
- The Sagavanirktok River is a migratory corridor for arctic char and whitefish, and an overwintering area for a variety of whitefish, burbot, grayling, and sculpin.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XBP-020 on the east bank of the Sagavanirktok River
- XBP-021 on the east bank of the Sagavanirktok River
- XBP-023 on the coast east of the Sagavanirktok River delta

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- Deadhorse airport (Sheet 81) is about 13 miles to the west.
- Prudhoe Bay airport (Sheet 78) is approximately 11 miles to the east.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Deadhorse Airport	6,500-ft asphalt runway	VFR: 1 mi vis. clear of clouds IFR: 0.5 mi vis. (ILS)	100 octane avgas, Jet B, and Mogas	Deadhorse tower
Prudhoe Bay Airport	6,500-ft gravel runway	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Fuel available for emergencies only	Deadhorse tower

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Annual average flow rate of the Sagavanirktok River is 2,770 cfs. River discharge discolors sea water for many miles.

COUNTERMEASURES CONSIDERATIONS

- Mud flats at the eastern front of the Sagavanirktok River delta may have low load-bearing capacity.

STAGING AREAS AND PRESTAGED EQUIPMENT

PRESTAGED EQUIP. AREA	LOCATION	ITEM	QUANTITY	TYPE
BAD-1	Between the two main channels of the Sagavanirktok River approx. 4.5 miles southwest of Foggy Island	Boom Pump Skimmer Skimmer Storage	3,225' 1 1 1 2	8" x 6" river 3" trash, diesel Disc, MI-30 Rope mop, Z14-E 500-gal bladder, liftable

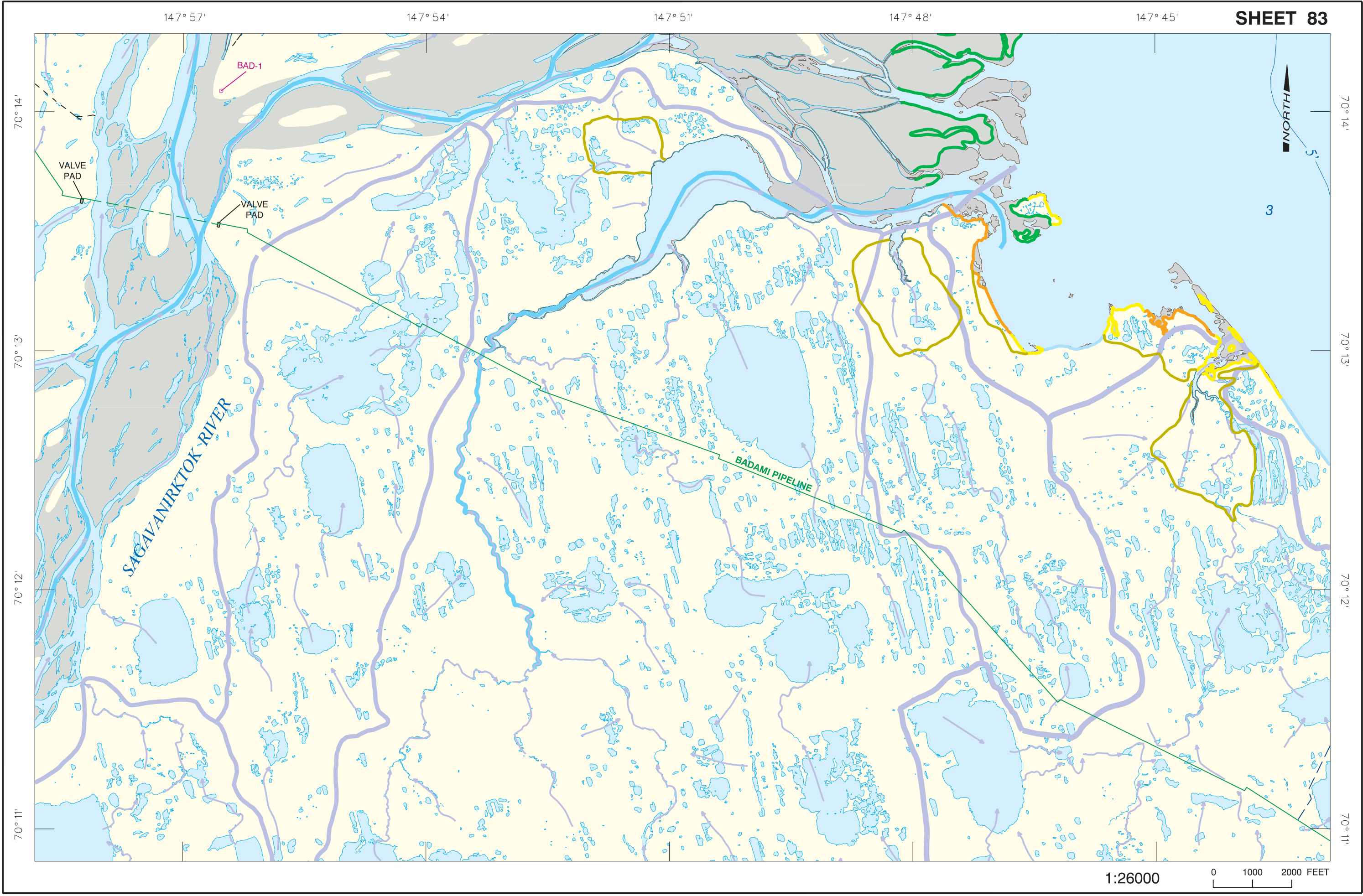
*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

Continue on sheet 79

Continue on sheet 85

Continue on sheet 86





PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- Plan to deploy bird-hazing systems during the open-water season.

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- Deadhorse airport (Sheet 81) is approximately 22 miles to the southwest.
- Prudhoe Bay airport (Sheet 78) is approximately 19 miles to the west.
- The Badami airstrip (Sheet 91) is approximately 15 miles to the southeast.

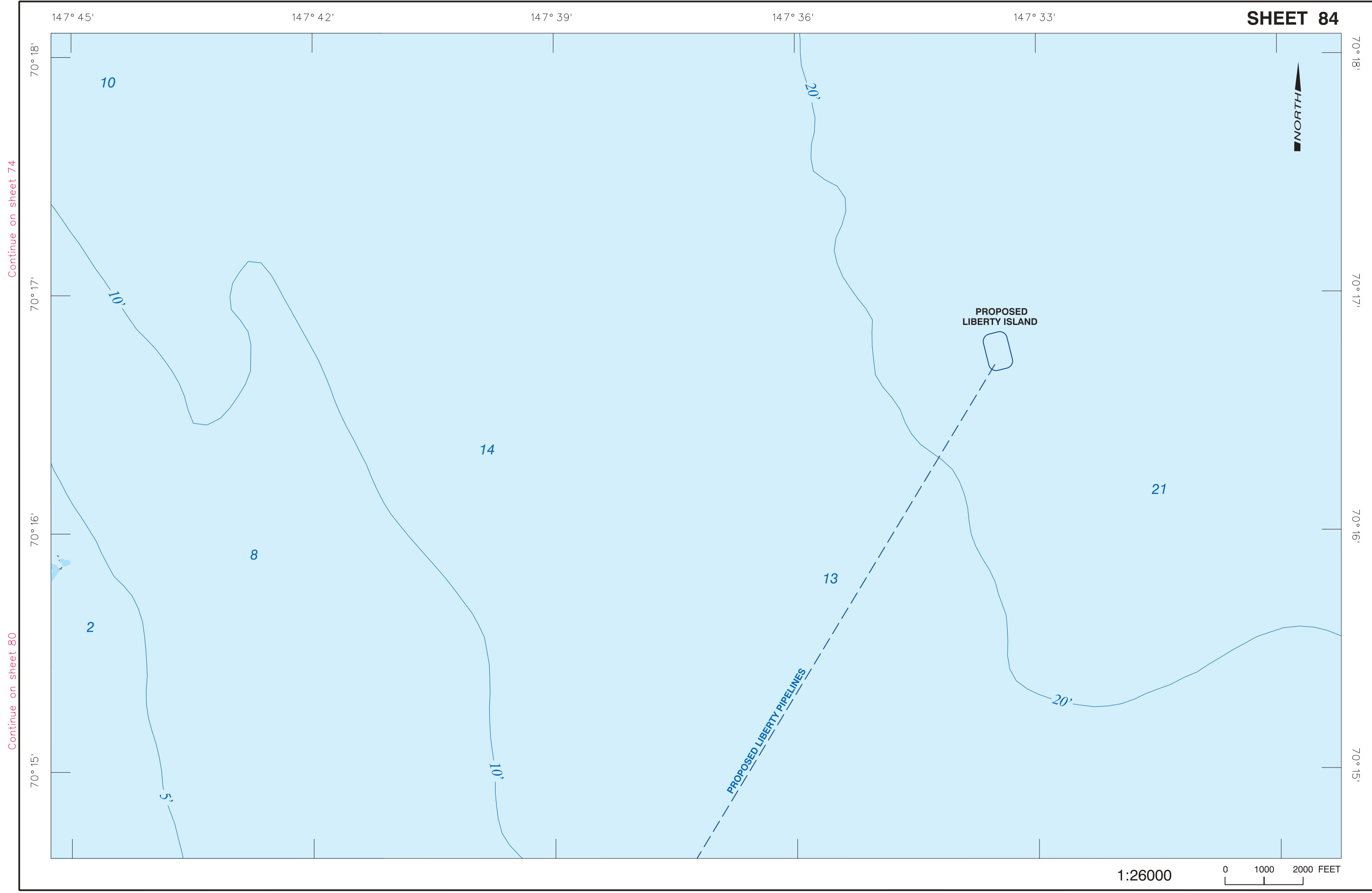
AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Deadhorse Airport	6,500-ft asphalt runway	VFR: 1 mi vis. clear of clouds IFR: 0.5 mi vis. (ILS)	100 octane avgas, Jet B, and Mogas	Deadhorse tower
Prudhoe Bay Airport	6,500-ft gravel runway	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Fuel available for emergencies only	Deadhorse tower
Badami Airstrip	5,100-ft gravel runway, unmanned	1 mile IFR and no VFR (carrier's decision); ceiling is uncontrolled	None	Notify 907-659-1215 of intention to land

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Annual average flow rate of the Sagavanirktok River is 2,770 cfs. River discharge discolors seawater for many miles.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 74

Continue on sheet 80

Continue on sheet 85



PRIORITY PROTECTION SITES

SITE NO.	DESCRIPTION	SENSITIVITY	TACTIC	EST. BOOM
PS4	Inlet mouth west of Kadleroshilik River delta	Most sensitive during open water season. Salt marsh and/or inundated low-lying tundra shorelines.	C-13 or C-14	1,000'

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- High concentrations of brood-rearing and molting Snow Geese are present in July and August.
- This is a Brant nesting, brood-rearing and molting area. Birds are present from May through August.
- Plan to deploy bird-hazing systems during the open-water season.
- The Kadleroshilik River provides habitat for anadromous char and for resident fish.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XBP-024 on the coast in the bottom left corner of the map

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- There is float plane landing in the lagoon east of the mouth of the Kadleroshilik River. Water depths range from 3 to 5 ft. There is a hard gravel beach on the spit. Campsite, firewood, and water are available at east end of the lagoon.
- Deadhorse airport (Sheet 81) is approximately 19 miles west of the Kadleroshilik River delta.
- Prudhoe Bay airport (Sheet 78) is approximately 17 miles west-northwest of Kadleroshilik River delta.
- The Badami airstrip (Sheet 91) is approximately 14 miles southeast of the Kadleroshilik River delta.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Deadhorse Airport	6,500-ft asphalt runway	VFR: 1 mi vis. clear of clouds IFR: 0.5 mi vis. (ILS)	100 octane avgas, Jet B, and Mogas	Deadhorse tower
Prudhoe Bay Airport	6,500-ft gravel runway	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Fuel available for emergencies only	Deadhorse tower
Badami Airstrip	5,100-ft gravel runway, unmanned	1 mile IFR and no VFR (carrier's decision); ceiling is uncontrolled	None	Notify 907-659-1215 of intention to land

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Water depths are shallow and changeable off the Kadleroshilik River delta.
- Annual average flow rate of the Sagavanirktok River is 2,770 cfs. River discharge discolors seawater for many miles.
- Average annual rate of flow of the Kadleroshilik River is 325 cfs. Sediment discharge is westward.

COUNTERMEASURES CONSIDERATIONS

- Access is very limited in areas of vegetated shorelines. Caution should be exercised to minimize erosion.

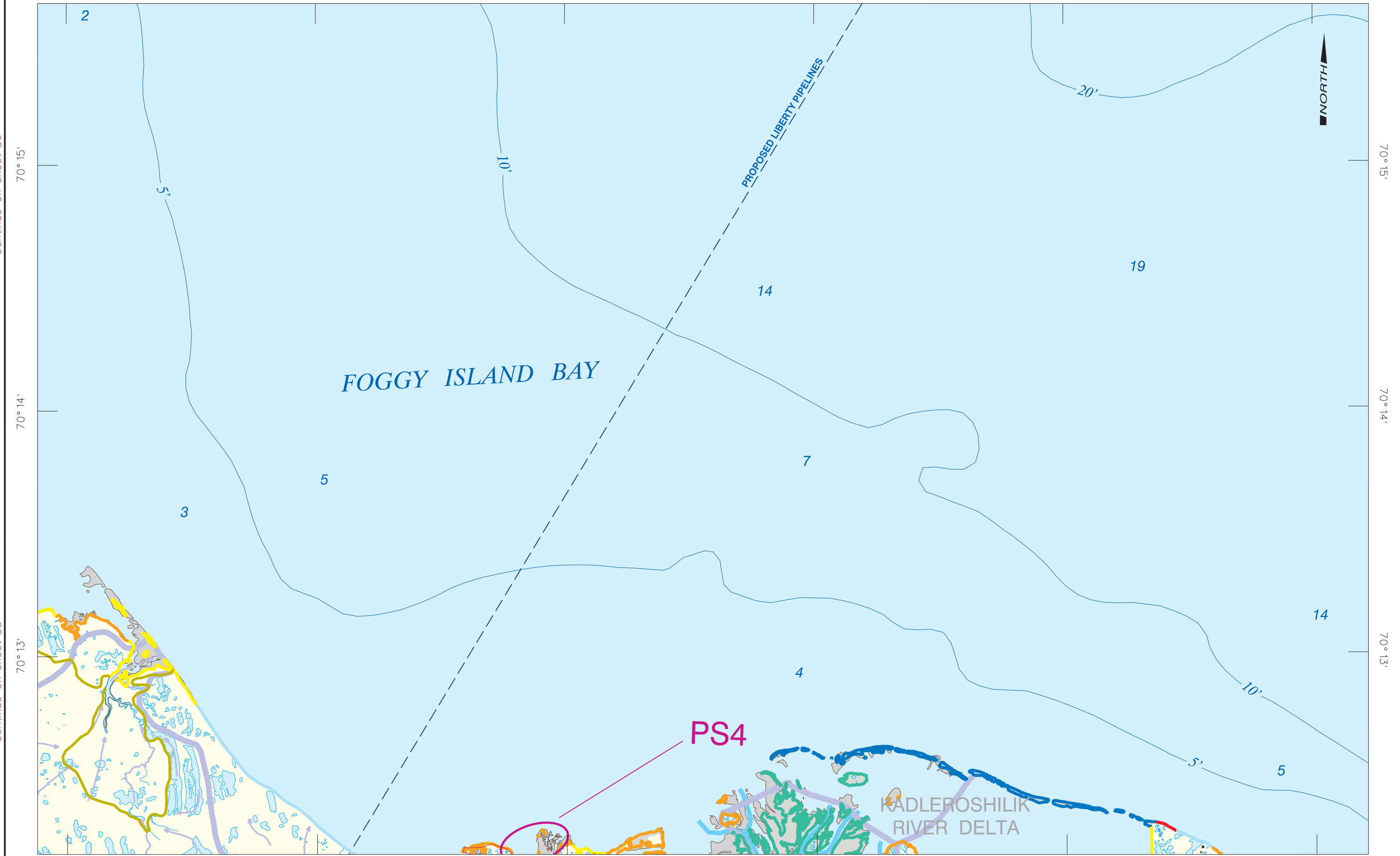
*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

147° 45' 147° 42' 147° 39' 147° 36' 147° 33'

Continue on sheet 80

Continue on sheet 83



PS4

KADLEROSHILIK RIVER DELTA

1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

SITE NO.	DESCRIPTION	SENSITIVITY	TACTIC	EST. BOOM
PS4	Inlet mouth west of Kadleroshilik River delta	Most sensitive during open water season. Salt marsh and/or inundated low-lying tundra shorelines.	C-13 or C-14	1,000'

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- High concentrations of brood-rearing and molting Snow Geese are present in July and August.
- This is a Brant nesting, brood-rearing, and molting area. Birds are present from May through August.
- Pairs of Spectacled Eiders have been found in this area.
- Plan to deploy bird-hazing systems during the open-water season.
- The Kadleroshilik River provides habitat for anadromous char and for resident fish.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XBP-024 on the coast west of the inlet on the left side of the map
- XBP-025 on the coast west of the Kadleroshilik River

NOTE: All values given on these pages are for planning purposes only.

AIR ACCESS*

- There is float plane landing in the lagoon east of the mouth of the Kadleroshilik River. Water depths range from 3 to 5 ft. There is a hard gravel beach on the spit. Campsite, firewood, and water are available at east end of the lagoon.
- Deadhorse airport (Sheet 81) is approximately 19 miles west of the Kadleroshilik River delta.
- Prudhoe Bay airport (Sheet 78) is approximately 17 miles west-northwest of the Kadleroshilik River delta.
- The Badami airstrip (Sheet 91) is approximately 14 miles southeast of the Kadleroshilik River delta.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Deadhorse Airport	6,500-ft asphalt runway	VFR: 1 mi vis. clear of clouds IFR: 0.5 mi vis. (ILS)	100 octane avgas, Jet B, and Mogas	Deadhorse tower
Prudhoe Bay Airport	6,500-ft gravel runway	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Fuel available for emergencies only	Deadhorse tower
Badami Airstrip	5,100-ft gravel runway, unmanned	1 mile IFR and no VFR (carrier's decision); ceiling is uncontrolled	None	Notify 907-659-1215 of intention to land

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Water depths are shallow and changeable off the Kadleroshilik River delta.
- Average annual rate of flow of the Kadleroshilik River is 325 cfs. Sediment discharge is westward.

COUNTERMEASURES CONSIDERATIONS

- Access is very limited in areas of vegetated shorelines. Caution should be exercised to minimize erosion.

STAGING AREAS AND PRESTAGED EQUIPMENT

PRESTAGED EQUIP. AREA	LOCATION	ITEM	QUANTITY	TYPE
BAD-2	Eastern side of Kadleroshilik River delta	Boom Skimmer Storage Storage	1,125' 1 1 2	8" x 6" river Drum or brush cassette 2,500-gal open top 500-gal bladder, liftable

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

147° 45'

147° 42'

147° 39'

147° 36'

147° 33'

SHEET 86

FOGGY ISLAND BAY

PS4

N.A. FF-012053
USS-8120

BAD-2

VALVE PAD

VALVE PAD

KADLEROSHILIK RIVER

PROPOSED LIBERTY PIPELINES

BADAMI PIPELINE



70° 12'

70° 12'

70° 11'

70° 11'

70° 10'

70° 10'

1:26000

0 1000 2000 FEET

Continue on sheet 83

Continue on sheet 87



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- High concentrations of brood-rearing and molting Snow Geese are present in July and August.
- This is a Brant nesting, brood-rearing, and molting area. Birds are present from May through August.
- Pairs of Spectacled Eiders have been found in this area.
- Plan to deploy bird-hazing systems during the open-water season.
- The Shaviovik River provides habitat for anadromous char and for resident fish.
- Polar bear dens have been found in this area. Dens may be in use from October through April.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XBP-026 on the coast west of the center of the sheet

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- Emergency small plane landing can be accommodated on gravel bar on north end of Tigvariak Island (Sheet 88).
- Bullen Point airstrip (Sheet 101) is approximately 13 miles east of West Mikkelsen State 1. This is an unattended, 2,900-ft gravel airstrip. The extreme west end of the strip reportedly tends to be soft.
- Deadhorse airport (Sheet 81) is located approximately 25 miles west of West Mikkelsen State 1.
- Prudhoe Bay airport (Sheet 78) is located approximately 23 miles west-northwest of West Mikkelsen State 1.
- The Badami airstrip (Sheet 91) is approximately 9 miles east-southeast of West Mikkelsen State 1.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Deadhorse Airport	6,500-ft asphalt runway	VFR: 1 mi vis. clear of clouds IFR: 0.5 mi vis. (ILS)	100 octane avgas, Jet B, and Mogas	Deadhorse tower
Prudhoe Bay Airport	6,500-ft gravel runway	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Fuel available for emergencies only	Deadhorse tower
Badami Airstrip	5,100-ft gravel runway, unmanned	1 mile IFR and no VFR (carrier's decision); ceiling is uncontrolled	None	Notify 907-659-1215 of intention to land

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Water depths are shallow and changeable off the Shaviovik River delta (to the east) and the Kadleroshilik River delta (to the west).
- Average annual rate of flow of the Kadleroshilik River is 325 cfs. Sediment discharge is westward.
- Average annual rate of discharge of the Shaviovik River is 800 cfs. Shoaling extends 2 miles northwest into Foggy Island Bay.

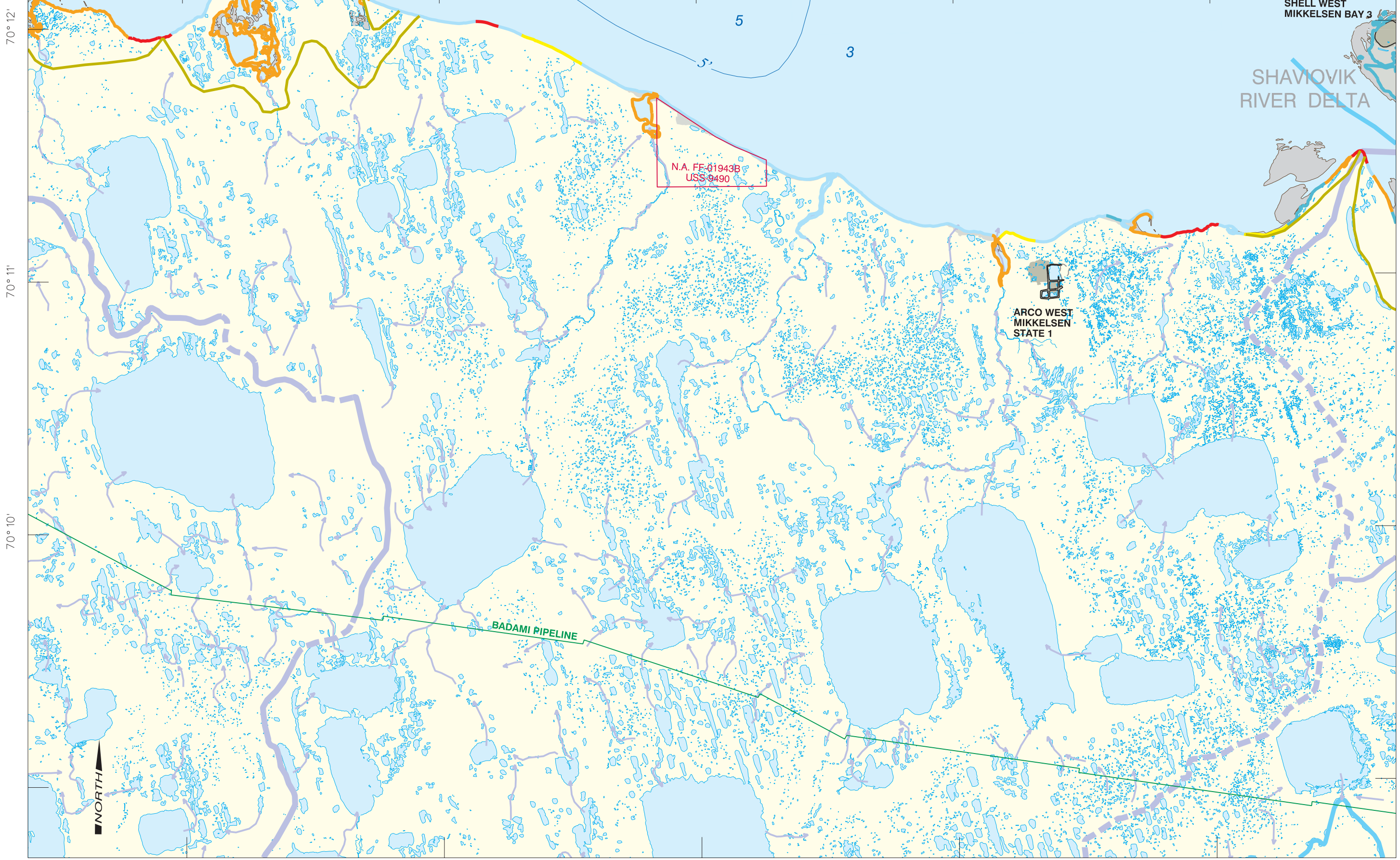
COUNTERMEASURES CONSIDERATIONS

- Access is very limited in areas of vegetated shorelines. Caution should be exercised to minimize erosion.

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

147° 33' 147° 30' 147° 27' 147° 24' 147° 21'



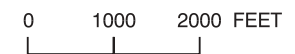
Continue on sheet 86

Continue on sheet 89

Continue on sheet 90



1:26000





PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- Shoreline and offshore areas support molting Oldsquaws and eiders, and brood-rearing eiders. This is also a staging area for migrating Phalaropes (shorebirds). Birds are present in June, July, and August.
- High concentrations of brood-rearing and molting Snow Geese are present in July and August.
- This is a Brant nesting, brood-rearing, and molting area. Birds are present from May through August.
- Plan to deploy bird-hazing systems during the open-water season.
- The Shaviovik River provides habitat for anadromous char and for resident fish.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XBP-027 on the island south of Tigvariak Island
- XBP-031 on Tigvariak Island

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- Emergency small plane landing can be accommodated on gravel bar on north end of Tigvariak Island.
- Bullen Point airstrip (Sheet 101) is approximately 9 miles west of Tigvariak Island. This is an unattended, 2,900-ft gravel airstrip. The extreme west end of the strip reportedly tends to be soft.
- Deadhorse airport (Sheet 81) is approximately 28 miles west of Tigvariak Island.
- Prudhoe Bay airport (Sheet 78) is approximately 25 miles west of Tigvariak Island.
- The Badami airstrip (Sheet 91) is approximately 7 miles southeast of Tigvariak Island.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Deadhorse Airport	6,500-ft asphalt runway	VFR: 1 mi vis. clear of clouds IFR: 0.5 mi vis. (ILS)	100 octane avgas, Jet B, and Mogas	Deadhorse tower
Prudhoe Bay Airport	6,500-ft gravel runway	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Fuel available for emergencies only	Deadhorse tower
Badami Airstrip	5,100-ft gravel runway, unmanned	1 mile IFR and no VFR (carrier's decision); ceiling is uncontrolled	None	Notify 907-659-1215 of intention to land

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

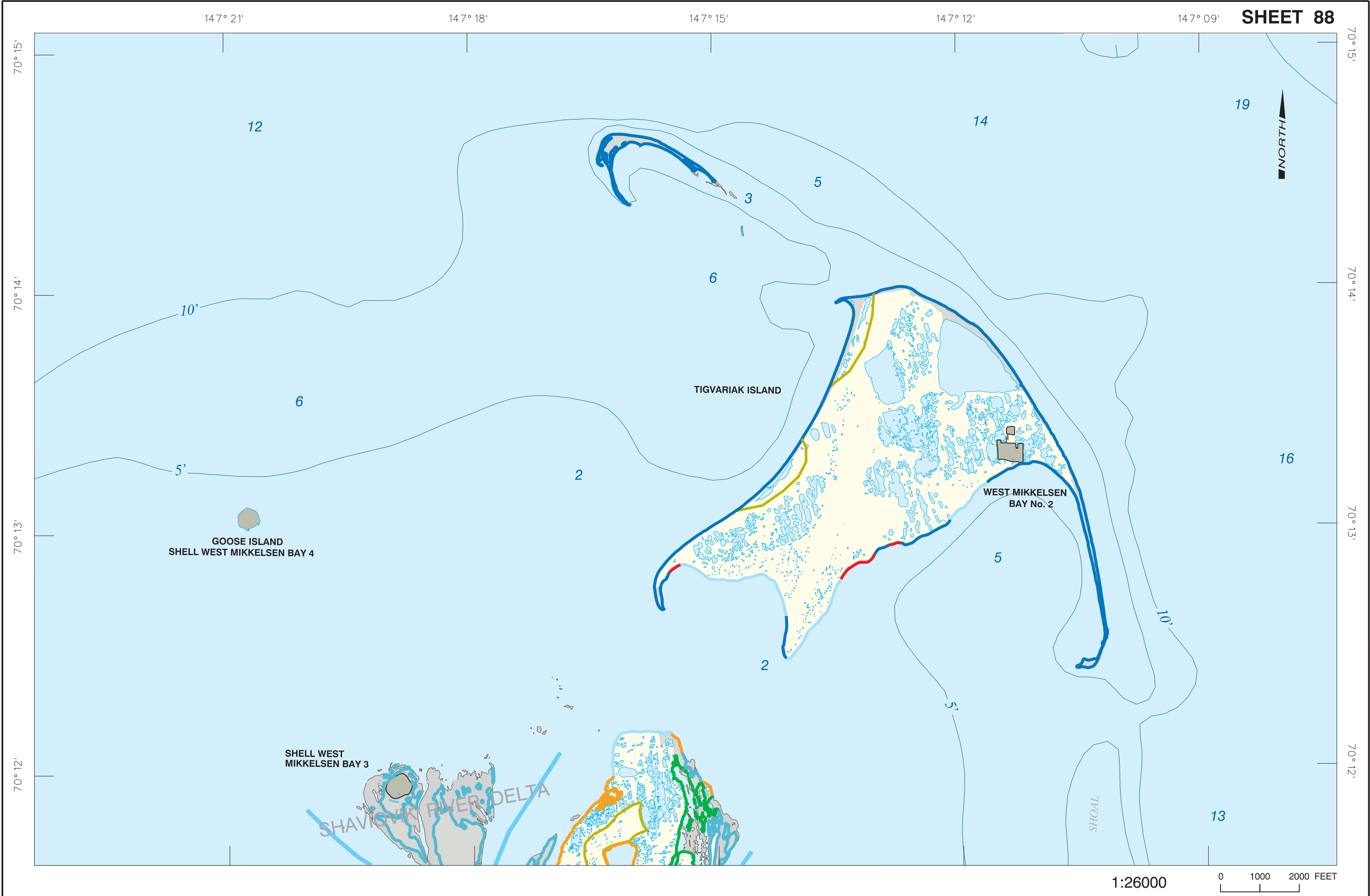
- Water depths are shallow and changeable off the Shaviovik River delta.
- Waters around Tigvariak Island are very shallow.
- Average annual rate of discharge of the Shaviovik River is 800 cfs. Shoaling extends 2 miles northwest into Foggy Island Bay.

COUNTERMEASURES CONSIDERATIONS

- Access is very limited in areas of vegetated shorelines. Caution should be exercised to minimize erosion.

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.





PRIORITY PROTECTION SITES

SITE NO.	DESCRIPTION	SENSITIVITY	TACTIC	EST. BOOM
PS3	River mouth channels of an unnamed river (referred to as No Name River) east of the Shaviovik River delta	Most sensitive during open water season. Salt marsh and/or inundated low-lying tundra shoreline.	C-13 or C-14	3,000'

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- Shoreline and offshore areas support molting Oldsquaws and eiders, and brood-rearing eiders. This is also a staging area for migrating Phalaropes (shorebirds). Birds are present in June, July, and August.
- High concentrations of brood-rearing and molting Snow Geese are present in July and August.
- This is a Brant nesting, brood-rearing, and molting area. Birds are present from May through August.
- Pairs of Spectacled Eiders have been found in this area.
- Plan to deploy bird-hazing systems during the open-water season.
- The Shaviovik River provides habitat for anadromous char and for resident fish.
- Polar bear dens have been found in this area. Dens may be in use from October through April.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XBP-027 on the largest of the islands in the Shaviovik River delta
- XBP-028 on the coast in the lower right portion of the map
- XBP-032 on the coast east of the Shaviovik River delta

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- Emergency small plane landing can be accommodated on gravel bar on north end of Tigvariak Island (Sheet 88).
- Bullen Point airstrip (Sheet 101) is approximately 13 miles east of West Mikkelsen State 1. This is an unattended, 2,900-ft gravel airstrip. The extreme west end of the strip reportedly tends to be soft.
- Deadhorse airport (Sheet 81) is located approximately 25 miles west of West Mikkelsen State 1.
- Prudhoe Bay airport (Sheet 78) is located approximately 23 miles west-northwest of West Mikkelsen State 1.
- The Badami airstrip (Sheet 91) is approximately 9 miles east-southeast of West Mikkelsen State 1.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Deadhorse Airport	6,500-ft asphalt runway	VFR: 1 mi vis. clear of clouds IFR: 0.5 mi vis. (ILS)	100 octane avgas, Jet B, and Mogas	Deadhorse tower
Prudhoe Bay Airport	6,500-ft gravel runway	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Fuel available for emergencies only	Deadhorse tower
Badami Airstrip	5,100-ft gravel runway, unmanned	1 mile IFR and no VFR (carrier's decision); ceiling is uncontrolled	None	Notify 907-659-1215 of intention to land

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Water depths are shallow and changeable off the Shaviovik River delta.
- There is small boat anchorage at the south end of Tigvariak Island. Water depths are limited at 2 to 4 ft.
- Average annual rate of discharge of the Shaviovik River is 800 cfs. Shoaling extends 2 miles northwest into Foggy Island Bay.

COUNTERMEASURES CONSIDERATIONS

- Access is very limited in areas of vegetated shorelines. Caution should be exercised to minimize erosion.
- Gravel beaches are generally wide (more than 30 ft), but are interrupted by numerous inlets and vegetated shorelines.
- Small embayments will collect oil during sustained west or northwest winds and storm surge.

STAGING AREAS AND PRESTAGED EQUIPMENT

PRESTAGED EQUIP. AREA	LOCATION	ITEM	QUANTITY	TYPE
BAD-3	West of Shaviovik River main channel near delta	Boom Pump Skimmer Storage Storage	1,650' 1 1 1 2	8" x 6" river 2" diaphragm, diesel Drum or brush cassette 2,500-gal open top 500-gal bladder, liftable

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

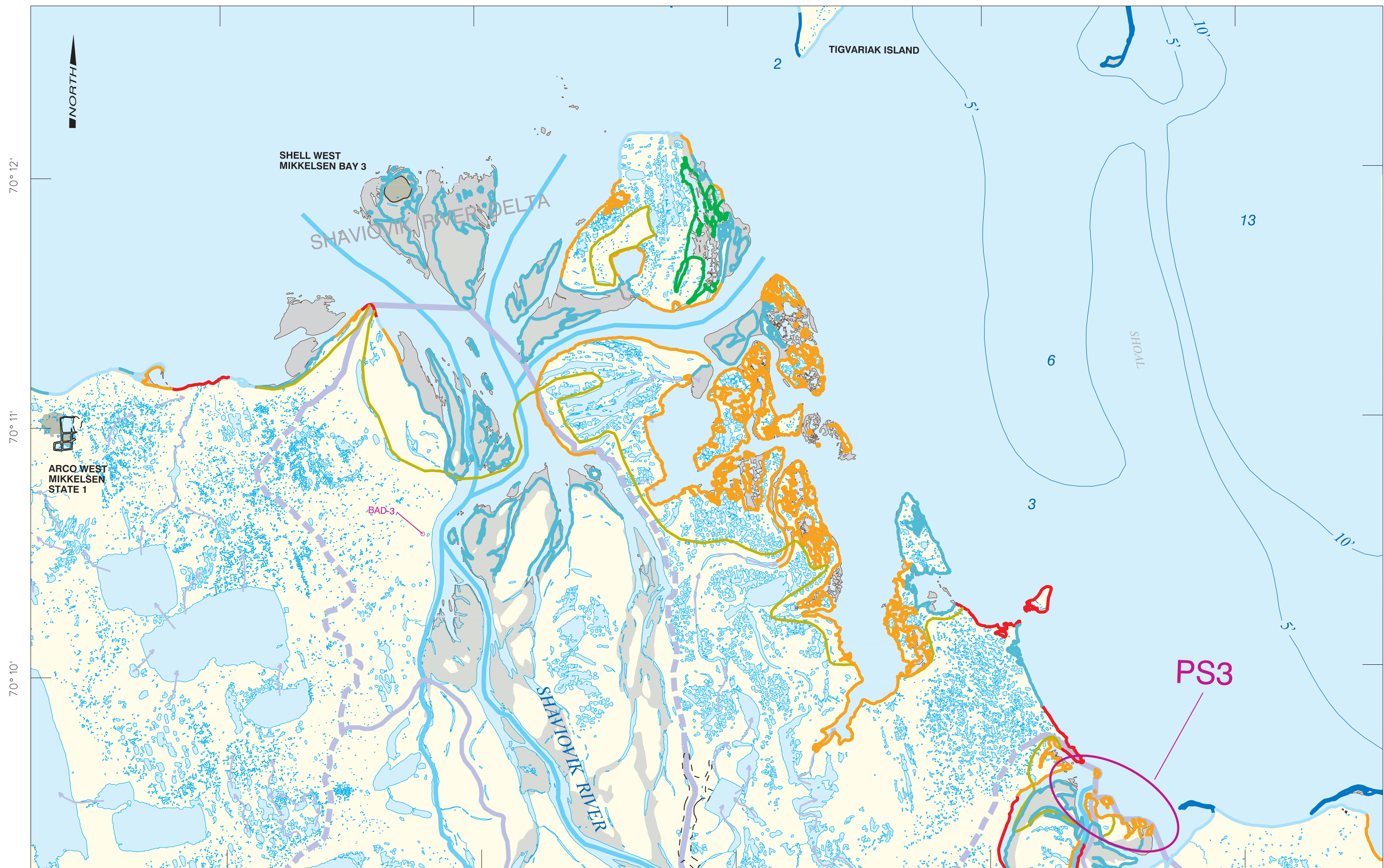
147° 21'

147° 18'

147° 15'

147° 12'

147° 09'



Continue on sheet 87

70° 12'

70° 11'

70° 10'

70° 12'

70° 11'

70° 10'

1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

SITE NO.	DESCRIPTION	SENSITIVITY	TACTIC	EST. BOOM
PS3	River mouth channels of an unnamed river (referred to as No Name River) east of the Shaviovik River delta	Most sensitive during open water season. Salt marsh and/or inundated low-lying tundra shoreline.	C-13 or C-14	3,000'

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- Shoreline and offshore areas support molting Oldsquaws and eiders, and brood-rearing eiders. This is also a staging area for migrating Phalaropes (shorebirds). Birds are present in June, July, and August.
- Pairs of Spectacled Eiders have been found in this area.
- Plan to deploy bird-hazing systems during the open-water season.
- The Shaviovik River and No Name River provide habitat for anadromous char and for resident fish.
- Polar bear dens have been found in this area. Dens may be in use from October through April.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XBP-028 on the coast in the upper right portion of the map

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- Bullen Point airstrip (Sheet 101) is approximately 8 miles northeast of Mikkelsen Bay State 1. This is an unattended, 2,900-ft gravel airstrip. The extreme west end of the strip reportedly tends to be soft.
- The Badami airstrip (Sheet 91) is approximately 4 miles east of Mikkelsen Bay State 1.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Badami Airstrip	5,100-ft gravel runway, unmanned	1 mile IFR and no VFR (carrier's decision); ceiling is uncontrolled	None	Notify 907-659-1215 of intention to land

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Water depths are shallow and changeable off the Shaviovik River delta.
- Average annual rate of discharge of the Shaviovik River is 800 cfs.

COUNTERMEASURES CONSIDERATIONS

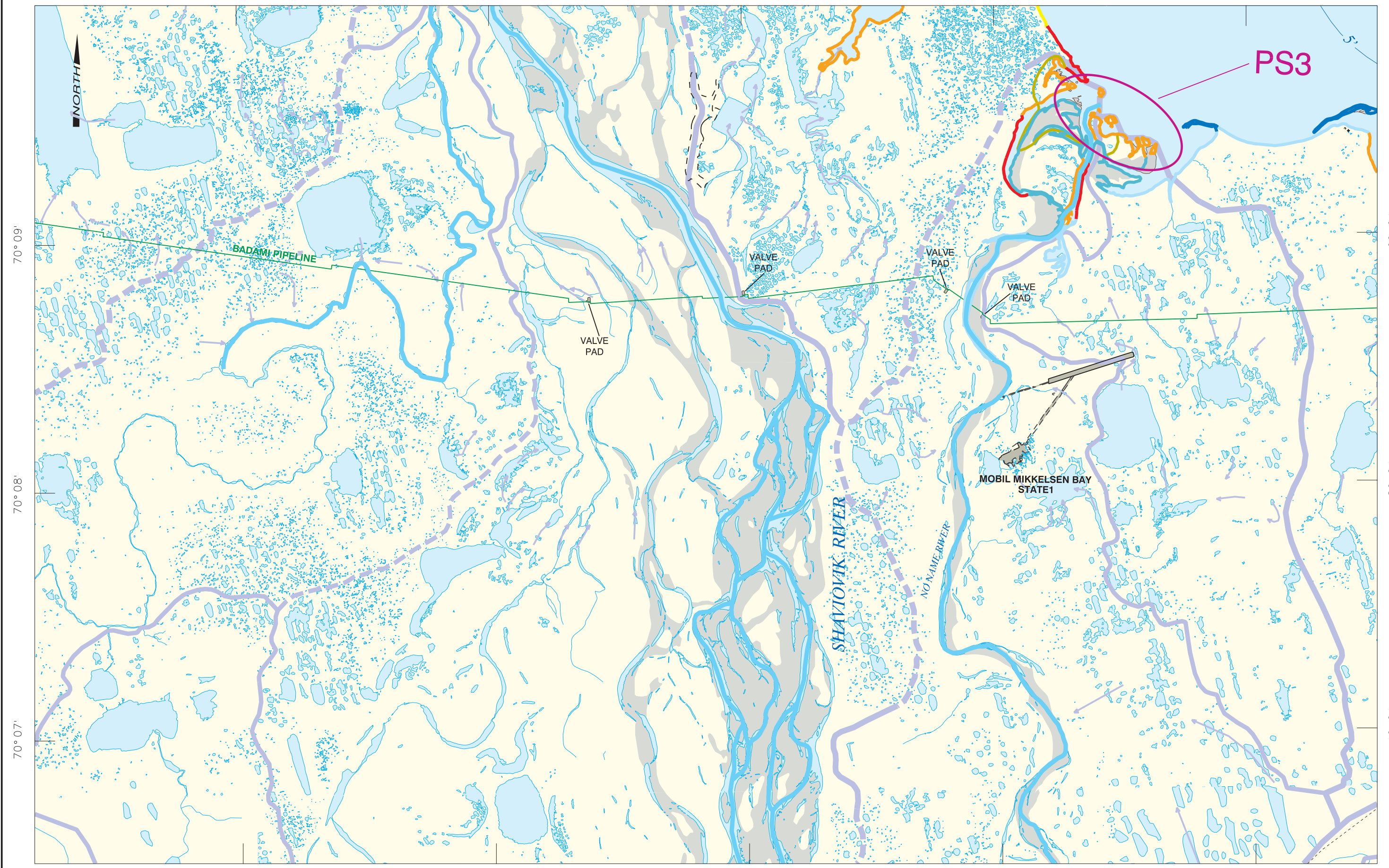
- Access is very limited in areas of vegetated shorelines. Caution should be exercised to minimize erosion.
- Gravel beaches are generally wide (more than 30 ft), but are interrupted by numerous inlets and vegetated shorelines.
- Small embayments will collect oil during sustained west or northwest winds and storm surge.

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

Continue on sheet 87

Continue on sheet 91





PRIORITY PROTECTION SITES

SITE NO.	DESCRIPTION	SENSITIVITY	TACTIC	EST. BOOM
PS2	Badami Creek mouth	Most sensitive during open water season. Keep oil from entering creek. Inundated low-lying tundra shoreline.	C-13 or C-14	1,200'
PS3	River mouth channels of an unnamed river (referred to as No Name River) east of the Shaviovik River delta	Most sensitive during open water season. Salt marsh and/or inundated low-lying tundra shoreline.	C-13 or C-14	3,000'

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- Shoreline and offshore areas support molting Oldsquaws and eiders, and brood-rearing eiders. This is also a staging area for migrating Phalaropes (shorebirds). Birds are present in June, July, and August.
- Pairs of Spectacled Eiders have been found in this area.
- Plan to deploy bird-hazing systems during the open-water season.
- East Badami Creek and No Name River provide habitat for anadromous char and for resident fish.
- Polar bear dens have been found in this area. Dens may be in use from October through April.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XBP-028 on the coast west of Badami CPU Pad

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- Bullen Point airstrip (Sheet 101) is approximately 8 miles northeast of Mikkelsen Bay State 1. This is an unattended, 2,900-ft gravel airstrip. The extreme west end of the strip reportedly tends to be soft.

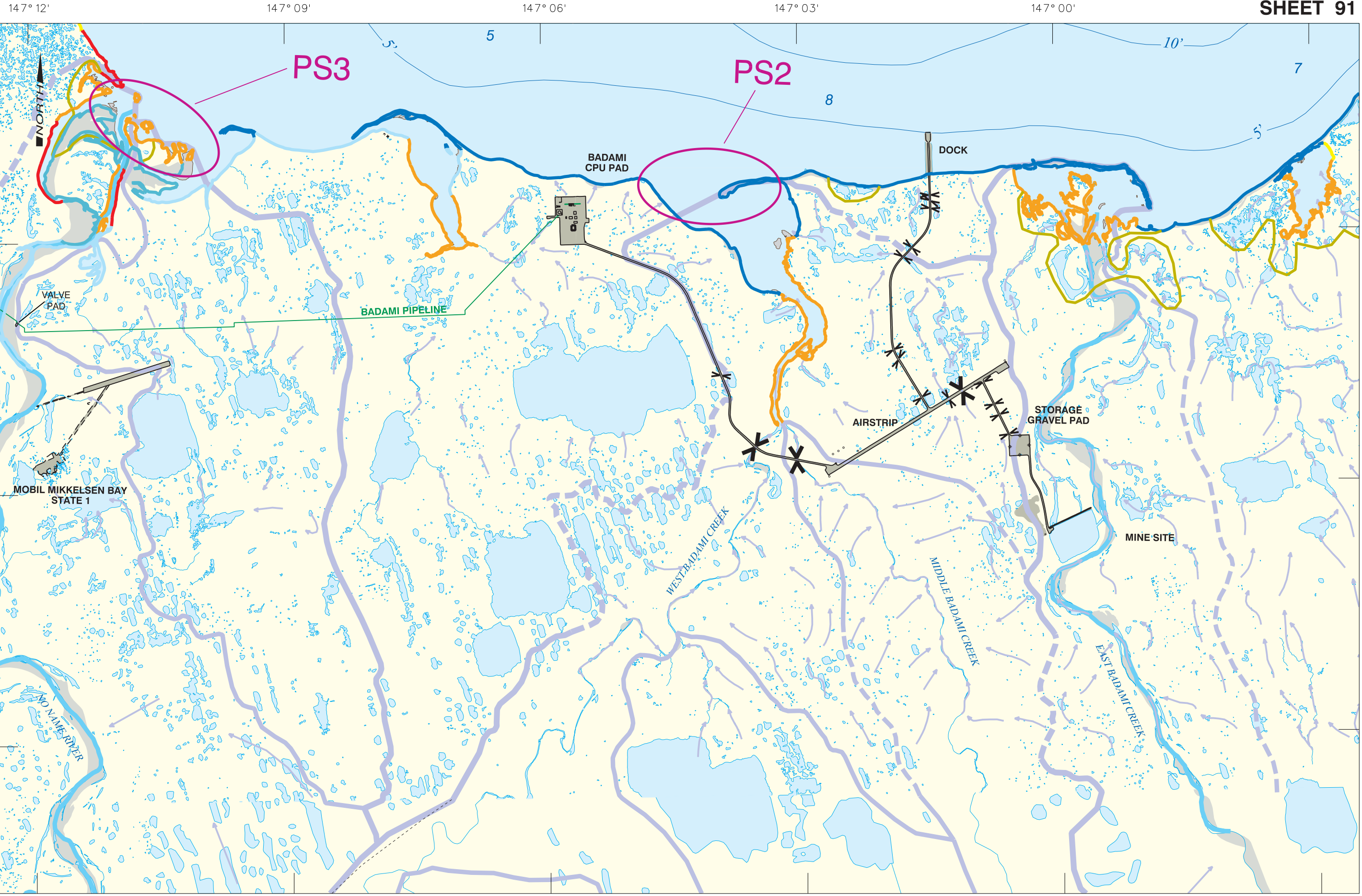
AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Badami Airstrip	5,100-ft gravel runway, unmanned	1 mile IFR and no VFR (carrier's decision); ceiling is uncontrolled	None	Notify 907-659-1215 of intention to land

COUNTERMEASURES CONSIDERATIONS

- Access is very limited in areas of vegetated shorelines. Caution should be exercised to minimize erosion.
- Gravel beaches are generally wide (more than 30 ft), but are interrupted by numerous inlets and vegetated shorelines.
- Small embayments will collect oil during sustained west or northwest winds and storm surge.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 90

Continue on sheet 101



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- Plan to deploy bird-hazing systems during the open-water season.



AIR ACCESS*

- The Deadhorse airport (Sheet 81) is located approximately 20 miles south of Reindeer Island.
- The Prudhoe Bay airport (Sheet 78) is located approximately 16 miles south of Reindeer Island.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Deadhorse Airport	6,500-ft asphalt runway	VFR: 1 mi vis. clear of clouds IFR: 0.5 mi vis. (ILS)	100 octane avgas, Jet B, and Mogas	Deadhorse tower
Prudhoe Bay Airport	6,500-ft gravel runway	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Fuel available for emergencies only	Deadhorse tower

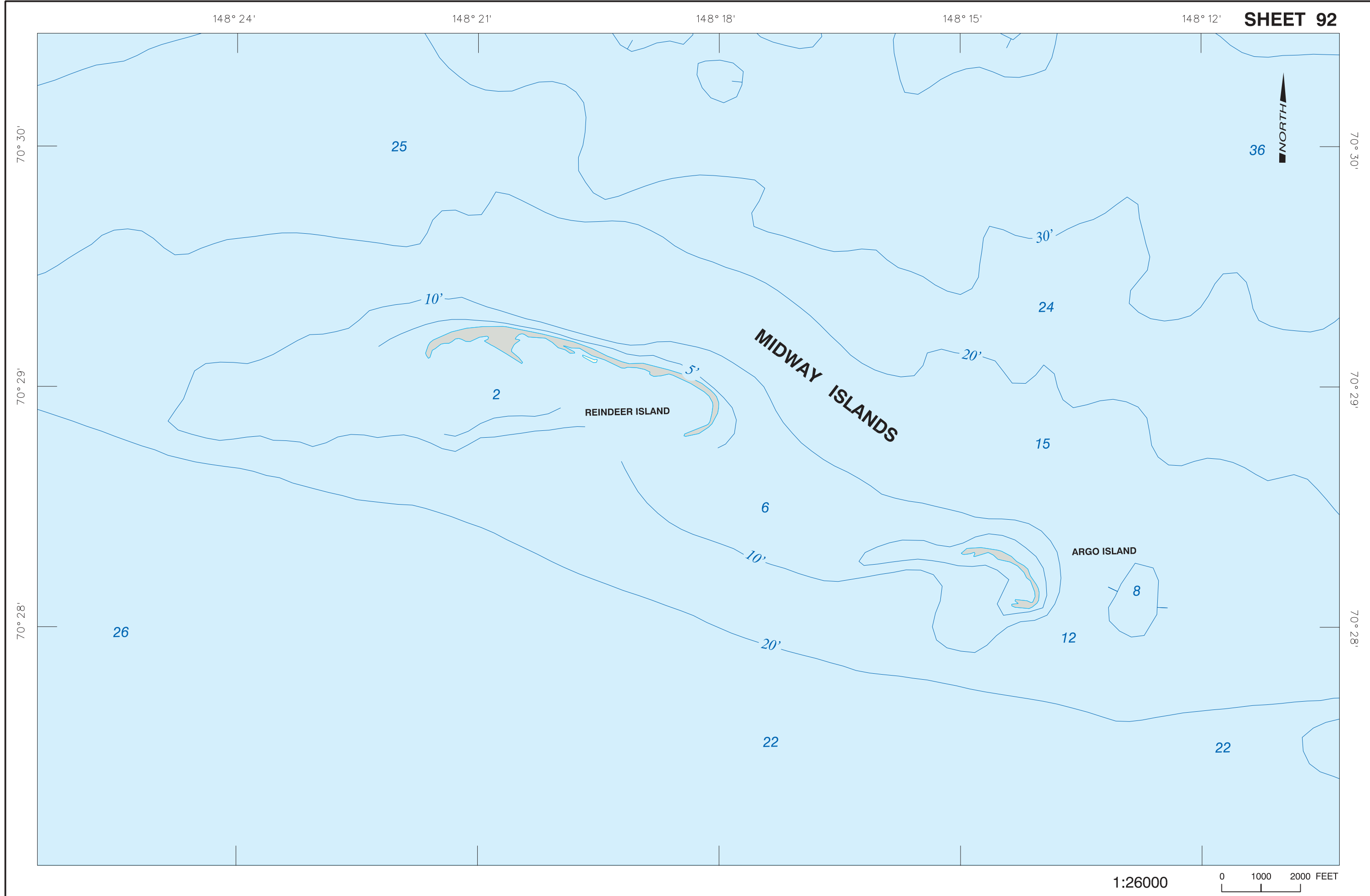
VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Water access is limited to shallow-draft vessels on the lagoon-facing shores of the barrier islands.
- The variability of bottom topography and the erosional nature of the islands may make navigation difficult.
- Water depths across Stefansson Sound range from 12 to 30 ft.
- Good anchorage for vessels drawing up to 6 ft can be found behind Reindeer Island.
- Gwydyr Bay surface currents are generally to the west at 10 to 30 cm/sec. Water depth is 2 to 7 ft.
- Annual average discharge rate of the Kuparuk River is 1,830 cfs. Much of sediment load is transported west in alongshore transport.
- Barrier islands may be awash during storm surges. The islands are migrating toward shore at 5 to 10 meters per year and westward 20 to 30 meters.

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.





PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- Common Eiders nest on offshore islands in June and July.
- The lee side of Cross Island is an important molting area for Oldsquaw in August.
- Plan to deploy bird-hazing systems during the open-water season.
- Polar bear dens have been found in this area. Dens may be in use from October through April.
- North Slope residents use Cross Island as a staging area for the annual fall whale hunt.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XBP-009 on Cross Island

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- The Deadhorse airport (Sheet 81) is located approximately 24 miles south-southwest of Cross Island.
- The Prudhoe Bay airport (Sheet 78) is located approximately 19 miles south-southwest of Cross Island.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Deadhorse Airport	6,500-ft asphalt runway	VFR: 1 mi vis. clear of clouds IFR: 0.5 mi vis. (ILS)	100 octane avgas, Jet B, and Mogas	Deadhorse tower
Prudhoe Bay Airport	6,500-ft gravel runway	VFR: 1 mi vis. clear of clouds IFR: 0.75 mi vis.	Fuel available for emergencies only	Deadhorse tower

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

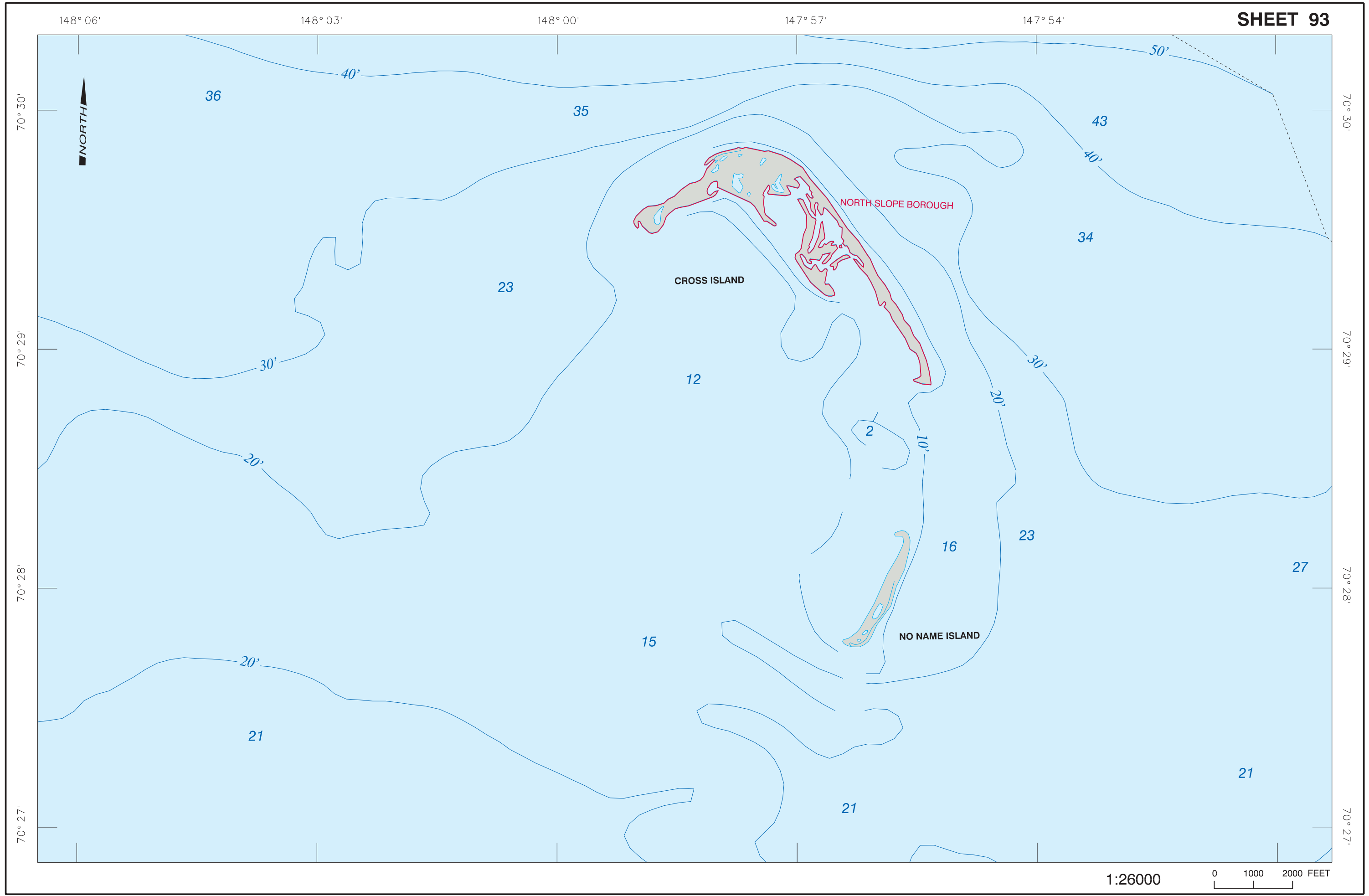
- Water depths across Stefansson Sound range from 12 to 30 ft.
- The variability of bottom topography and the erosional nature of the islands may make navigation difficult.
- There is somewhat protected anchorage for small vessels drawing up to 10 ft behind Cross Island and several small islands that extend to the south.

COUNTERMEASURES CONSIDERATIONS

- Large ice floes remain hinged to the north and east sides of Cross Island during open-water season.

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- Shoreline and offshore areas support molting Oldsquaws and eiders, and brood-rearing eiders. This is also a staging area for migrating Phalaropes (shorebirds). Birds are present in June, July, and August.
- Common Eiders nest on offshore islands in June and July.
- The lee side of the McClure Islands is an important molting and staging area for Oldsquaw and shorebirds.
- Plan to deploy bird-hazing systems during the open-water season.

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- The Badami airstrip (Sheet 91) is approximately 19 miles southeast of Narwhal Island.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Badami Airstrip	5,100-ft gravel runway, unmanned	1 mile IFR and no VFR (carrier's decision); ceiling is uncontrolled	None	Notify 907-659-1215 of intention to land

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Protected anchorage is available in depths of 15 ft south of the northwest end of Narwhal Island. Little ice is encountered during open-water season.
- Protected anchorage is available in depths of 9 to 15 ft south of Jeanette Island.
- Jeanette Island is exposed to vigorous ice and wind action, and there is continuous change in the shoreline and in shallower depths.
- Newport Entrance (Sheet 95), southeast of the McClure Islands, is 1 mile wide with depths of 16 to 18 ft. Two sand bars (1 mile and 2.3 miles south-southeast of Karluk Island, respectively) are a few yards in width and are awash during storm high waters. Water depth over the bars is 5 to 7 ft.

COUNTERMEASURES CONSIDERATIONS

- Due to the variability of bottom topography and erosional nature of these islands, access may be limited to helicopter-deployable equipment.

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 95

1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- Shoreline and offshore areas support molting Oldsquaws and eiders, and brood-rearing eiders. This is also a staging area for migrating Phalaropes (shorebirds). Birds are present in June, July, and August.
- Common Eiders nest on offshore islands in June and July.
- The lee side of the barrier islands is an important molting and staging area for Oldsquaw and shorebirds.
- Plan to deploy bird-hazing systems during the open-water season.



AIR ACCESS*

- The Badami airstrip (Sheet 91) is approximately 15 miles southeast of Karluk Island.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Badami Airstrip	5,100-ft gravel runway, unmanned	1 mile IFR and no VFR (carrier's decision); ceiling is uncontrolled	None	Notify 907-659-1215 of intention to land

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Protected anchorage is available in depths of 9 to 15 ft south of Karluk Island.
- Karluk Island is exposed to vigorous ice and wind action, and there is continuous change in the shoreline and in shallower depths.
- Newport Entrance, southeast of the McClure Islands, is 1 mile wide with depths of 16 to 18 ft. Two sand bars (1 mile and 2.3 miles south-southeast of Karluk Island, respectively) are a few yards in width and are awash during storm high waters. Water depth over the bars is 5 to 7 ft.

COUNTERMEASURES CONSIDERATIONS

- Due to the variability of bottom topography and erosional nature of these islands, access may be limited to helicopter-deployable equipment.

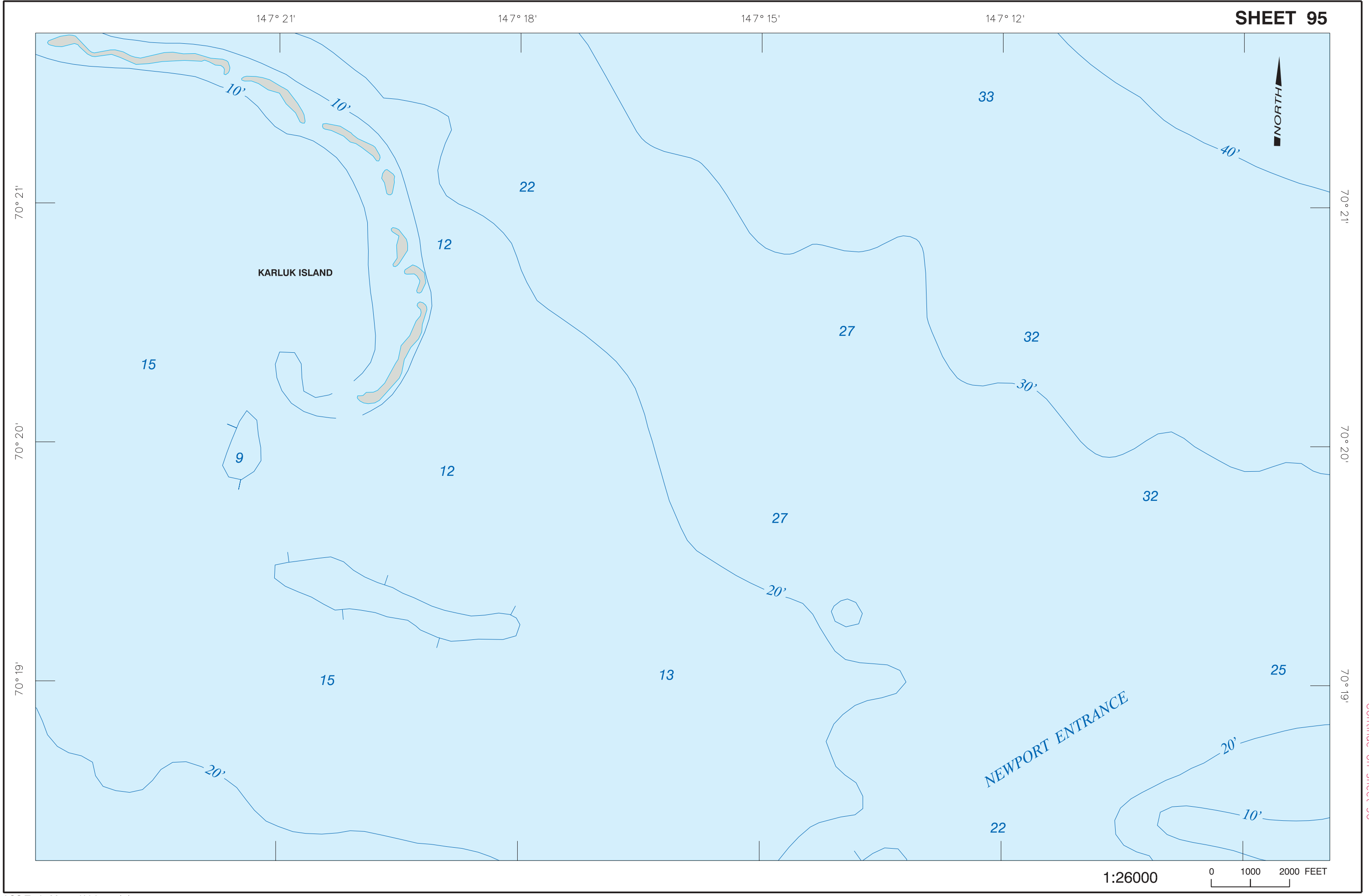
*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.

Continue on sheet 94

Continue on sheet 96



1:26000
0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- Shoreline and offshore areas support molting Oldsquaws and eiders, and brood-rearing eiders. This is also a staging area for migrating Phalaropes (shorebirds). Birds are present in June, July, and August.
- Common Eiders nest on offshore islands in June and July.
- The lee side of the Stockton Islands is an important molting and staging area for Oldsquaws in July and August.
- Plan to deploy bird-hazing systems during the open-water season.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XBP-029 on Pole Island

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- Bullen Point airstrip (Sheet 101) is located approximately 10 miles south-southeast of Pole Island. This is an unattended, 2,900-ft gravel airstrip. The extreme west end of the strip reportedly tends to be soft.
- The Badami airstrip (Sheet 91) is approximately 11 miles south of Pole Island.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Badami Airstrip	5,100-ft gravel runway, unmanned	1 mile IFR and no VFR (carrier's decision); ceiling is uncontrolled	None	Notify 907-659-1215 of intention to land

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Newport Entrance (Sheet 95) is 1 mile wide with depths of 16 to 18 ft. Two sand bars (1 mile and 2.3 miles south-southeast of Karluk Island, respectively) are a few yards in width and are awash during storm high waters. Water depth over the bars is 5 to 7 ft.
- Challenge Entrance (Sheet 97) is between Belvedere Island and Challenge Island (Sheet 98). The west side of the opening and the area immediately south of Belvedere Island are shallow and dotted with tiny islets and bare shoals. The best water is 0.8 miles west of Challenge Island where vessels drawing 10 ft or less can enter safely.

COUNTERMEASURES CONSIDERATIONS

- Due to the variability of bottom topography and erosional nature of these islands, access may be limited to helicopter-deployable equipment.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

147° 09'

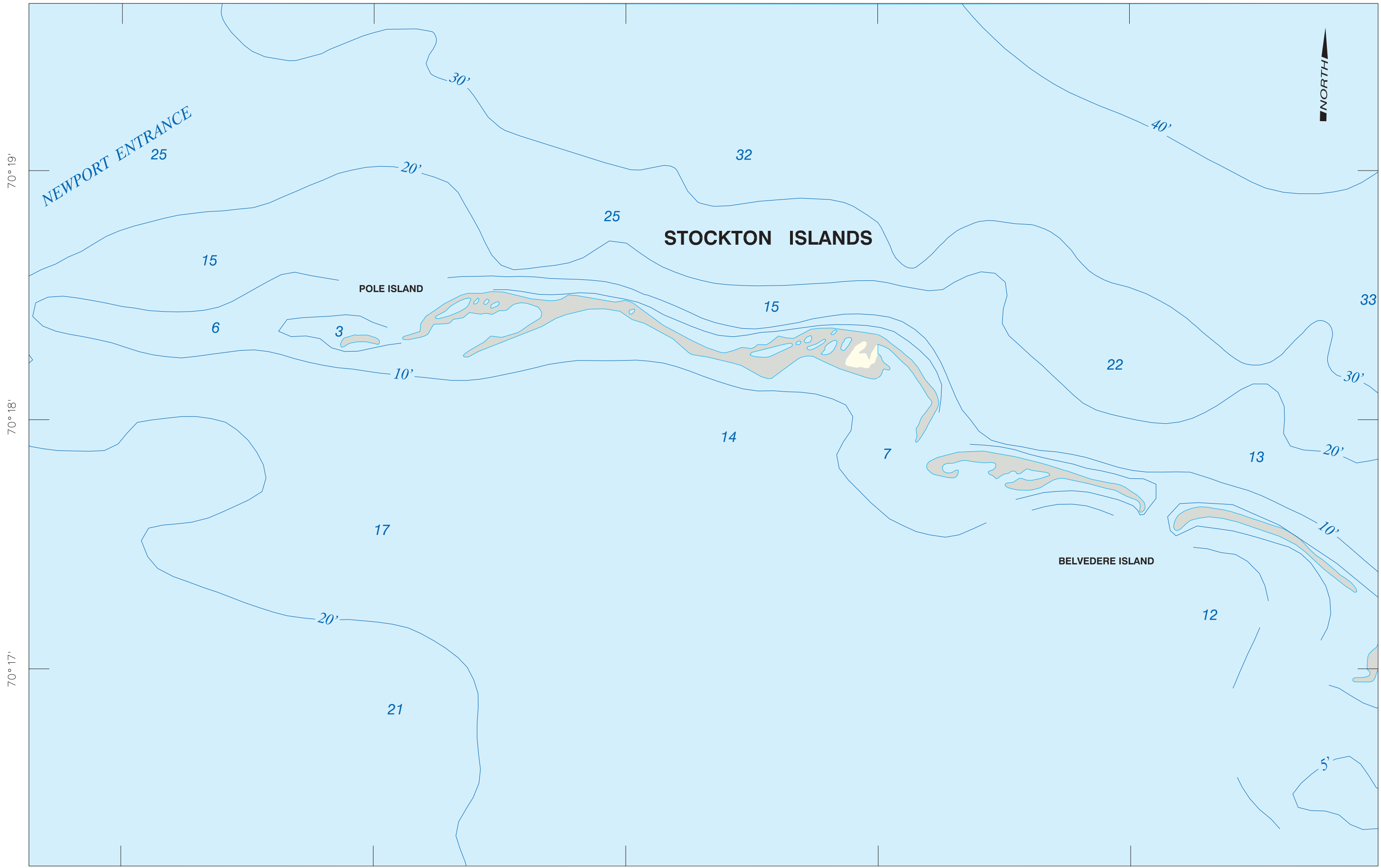
147° 06'

147° 03'

147° 00'

146° 57'

Continue on sheet 95



70° 19'

70° 18'

70° 17'

Continue on sheet 97

1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- Shoreline and offshore areas support molting Oldsquaws and eiders, and brood-rearing eiders. This is also a staging area for migrating Phalaropes (shorebirds). Birds are present in June, July, and August.
- The lee side of the barrier islands is an important molting and staging area for Oldsquaws in July and August.
- Plan to deploy bird-hazing systems during the open-water season.



AIR ACCESS*

- Bullen Point airstrip (Sheet 101) is located approximately 6 miles to the south. This is an unattended, 2,900-ft gravel airstrip. The extreme west end of the strip reportedly tends to be soft.
- The Badami airstrip (Sheet 91) is approximately 9 miles to the southwest.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Badami Airstrip	5,100-ft gravel runway, unmanned	1 mile IFR and no VFR (carrier's decision); ceiling is uncontrolled	None	Notify 907-659-1215 of intention to land

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Challenge Entrance is between Belvedere Island and Challenge Island (Sheet 98). The west side of the opening and the area immediately south of Belvedere Island are shallow and dotted with tiny islets and bare shoals. The best water is 0.8 miles west of Challenge Island where vessels drawing 10 ft or less can enter safely.

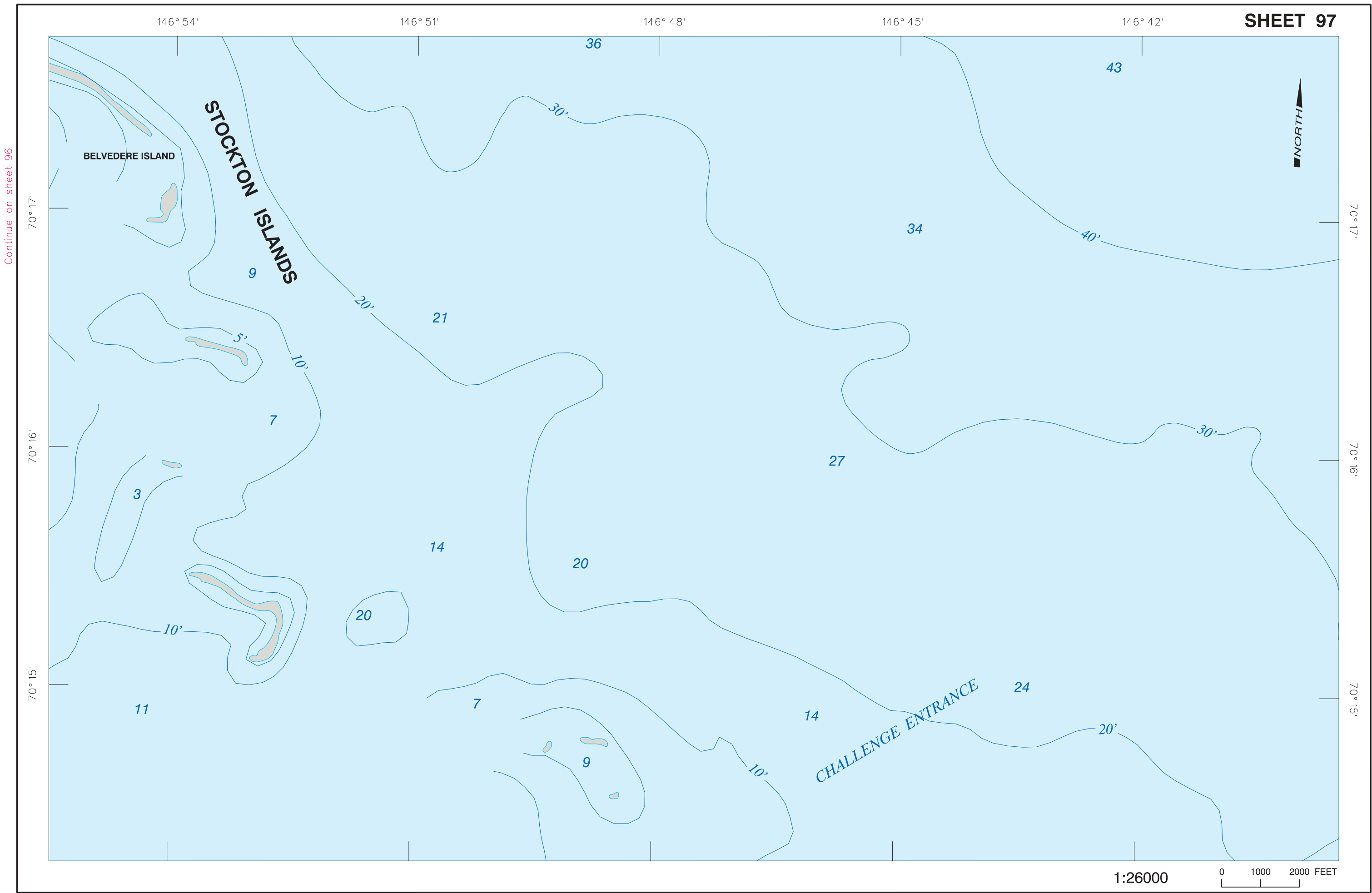
COUNTERMEASURES CONSIDERATIONS

- Due to the variability of bottom topography and erosional nature of these islands, access may be limited to helicopter-deployable equipment.

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.



1:26000 0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- Shoreline and offshore areas support molting Oldsquaws and eiders, and brood-rearing eiders. This is also a staging area for migrating Phalaropes (shorebirds). Birds are present in June, July, and August.
- This is the edge of a major molting and staging area for Oldsquaw in August and September. The area extends eastward on the lee side of the barrier islands.
- Common Eiders nest on offshore islands in June and July.
- Plan to deploy bird-hazing systems during the open-water season.



AIR ACCESS*

- Bullen Point airstrip (Sheet 101) is located approximately 6 miles southwest of Challenge Island. This is an unattended, 2,900-ft gravel airstrip. The extreme west end of the strip reportedly tends to be soft.
- The Badami airstrip (Sheet 91) is approximately 11 miles southwest of Challenge Island.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Badami Airstrip	5,100-ft gravel runway, unmanned	1 mile IFR and no VFR (carrier's decision); ceiling is uncontrolled	None	Notify 907-659-1215 of intention to land

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There is no channel between Challenge Island and Alaska Island.
- Channel between Alaska and Duchess islands averages 7 ft, but is meandering and not recommended for travel.
- Mary Sachs Entrance (Sheet 99) has extensive shoals to 3 ft on either side. Mid-channel depth is 10 ft.
- Challenge Entrance (Sheet 97) is between Belvedere Island (Sheet 96) and Challenge Island. The west side of the opening and the area immediately south of Belvedere Island are shallow and dotted with tiny islets and bare shoals. The best water is 0.8 miles west of Challenge Island where vessels drawing 10 ft or less can enter safely.
- Water depths near the mainland shore are shallow and changeable due to growth and change in bars and spits just offshore.

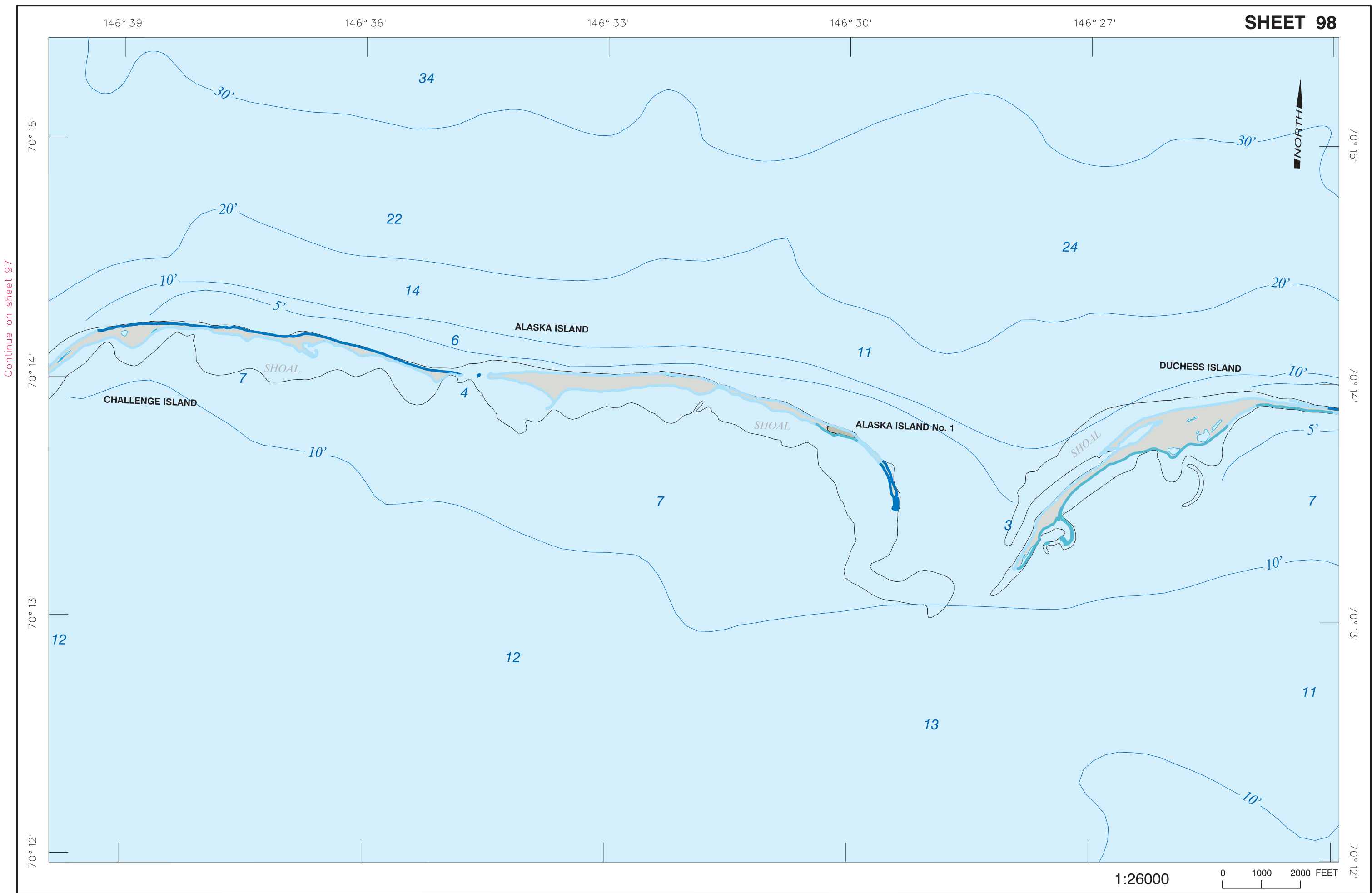
COUNTERMEASURES CONSIDERATIONS

- Gravel beaches are often "perched" on tundra vegetation, complicating response measures.
- Due to the variability of bottom topography and erosional nature of these islands, access may be limited to helicopter-deployable equipment.

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 97

Continue on sheet 99

Continue on sheet 102



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- Shoreline and offshore areas support molting Oldsquaws and eiders, and brood-rearing eiders. This is also a staging area for migrating Phalaropes (shorebirds). Birds are present in June, July, and August.
- This is the edge of a major molting and staging area for Oldsquaw in August and September. The area extends eastward on the lee side of the barrier islands.
- Common Eiders nest on offshore islands in June and July.
- Plan to deploy bird-hazing systems during the open-water season.

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- Flaxman Island airstrip (Sheet 100) is located approximately 7 miles east-southeast of Northstar Island. This is an 800-ft gravel strip atop 20-ft bluffs on the east end of the island. The runway reportedly is deteriorating, and the extreme west end should be avoided.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Water depths near the mainland shore are shallow and changeable due to growth and change in bars and spits just offshore.
- Channels at either end of Northstar Island are shallow and changing. They are not recommended for travel.
- Access on the lagoon side of Flaxman Island may be difficult due to shallow water depths.
- Mary Sachs Entrance has extensive shoals to 3 ft on both sides. Mid-channel depth is 10 ft.
- There is extensive shoaling on the south and southeast sides of Northstar Island.

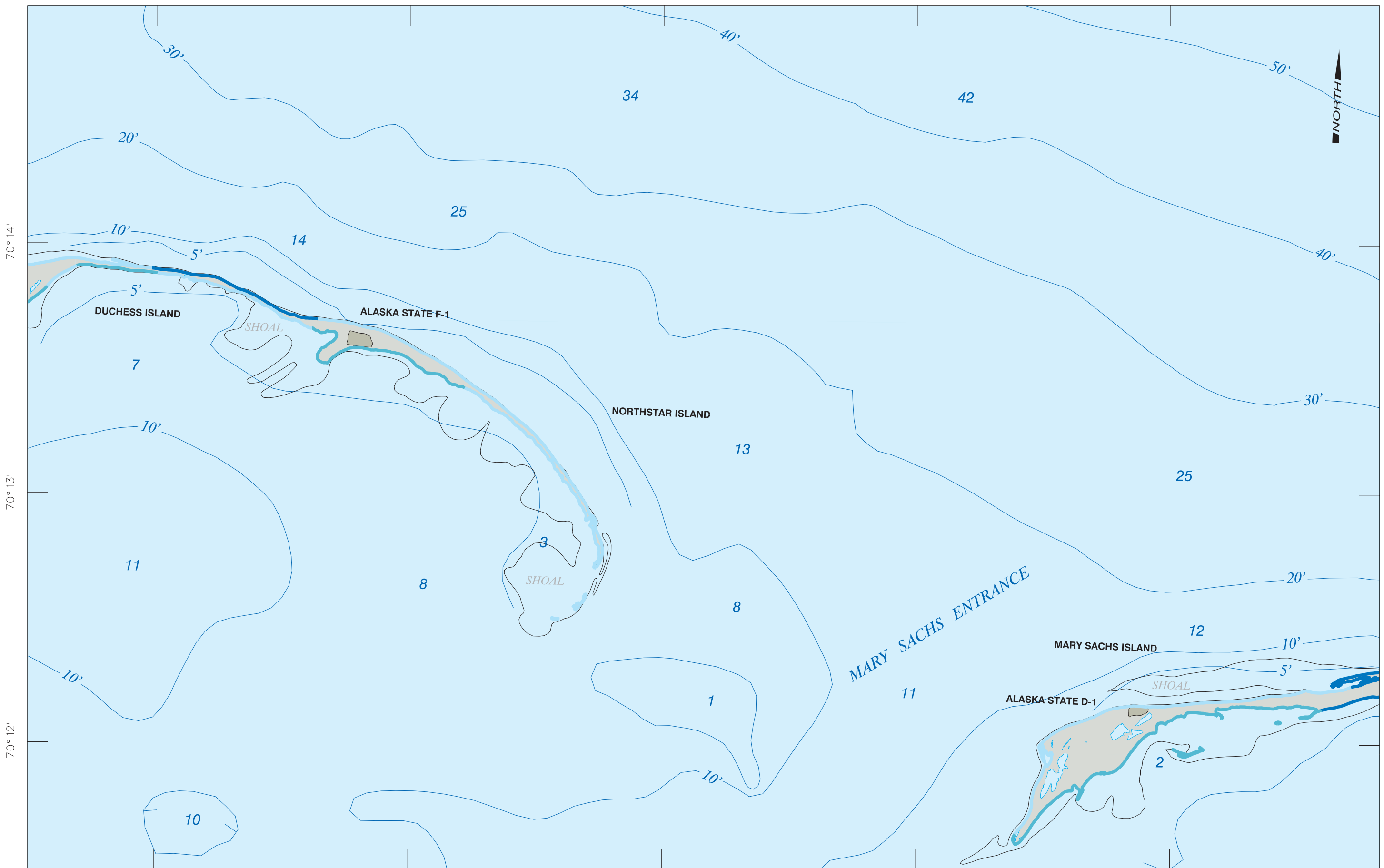
COUNTERMEASURES CONSIDERATIONS

- Gravel beaches are often "perched" on tundra vegetation, complicating response measures.

**See the latest Supplement, Alaska and United States Coast Pilot for current information on air and vessel access, respectively.*

NOTE: All values given on these pages are for planning purposes only.

146° 24' 146° 21' 146° 18' 146° 15' 146° 12'



Continue on sheet 98

Continue on sheet 100



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- Shoreline and offshore areas support molting Oldsquaws and eiders, and brood-rearing eiders. This is also a staging area for migrating Phalaropes (shorebirds). Birds are present in June, July, and August.
- This is the edge of a major molting and staging area for Oldsquaw in August and September. The area extends eastward on the lee side of Flaxman Island.
- Plan to deploy bird-hazing systems during the open-water season.
- Polar bear dens have been found in this area. Dens may be in use from October through April.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XFI-002 on Flaxman Island
- XFI-007 on Flaxman Island
- XFI-008 on Flaxman Island

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- Flaxman Island airstrip is an 800-ft gravel strip atop 20-ft bluffs on the east end of the island. The runway reportedly is deteriorating, and the extreme west end should be avoided.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

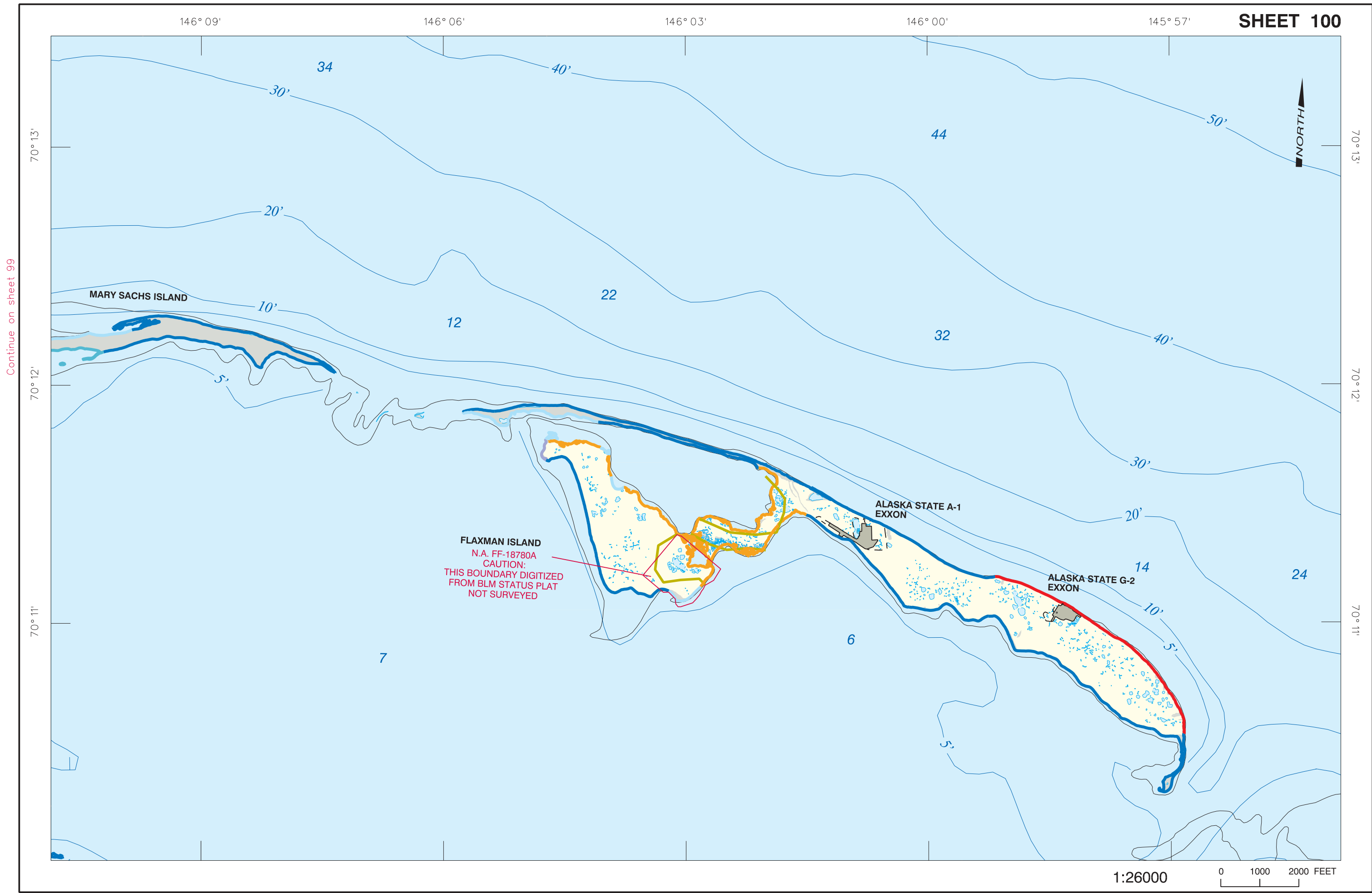
- Water depths near the mainland shore are shallow and changeable due to growth and change in bars and spits just offshore.
- Access on the lagoon side of Flaxman Island may be difficult due to shallow water depths.
- Mary Sachs Entrance (Sheet 99) has extensive shoals to 3 ft on either side. Mid-channel depth is 10 ft.
- There is passage between Flaxman Island and Brownlow Point to the southeast. The channel is close to the east end of the island and has depths of 8 ft, which shoal to 4 ft in the lagoon.
- There is extensive shoaling at the mouth of the west fork of the Canning River southeast of Flaxman Island.
- Annual average discharge of the Staines River is 14 cfs.

COUNTERMEASURES CONSIDERATIONS

- Island lagoon will trap oil during sustained west and southwest winds.

**See the latest Supplement, Alaska and United States Coast Pilot for current information on air and vessel access, respectively.*

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 99

Continue on sheet 104

Continue on sheet 105



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- Shoreline and offshore areas support molting Oldsquaws and eiders, and brood-rearing eiders. This is also a staging area for migrating Phalaropes (shorebirds). Birds are present in June, July, and August.
- Plan to deploy bird-hazing systems during the open-water season.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XFI-001 near Bullen Point

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- The Badami airstrip (Sheet 91) is approximately 4 miles southwest of the Bullen Point airstrip.
- The Bullen Point airstrip is an unattended, 2,900-ft gravel airstrip. The extreme west end of the strip reportedly tends to be soft.

AIRSTRIP	DESCRIPTION/ LOCATION	FIXED-WING MINIMUMS	FUEL/ SERVICES	TRAFFIC CONTROL
Badami Airstrip	5,100-ft gravel runway, unmanned	1 mile IFR and no VFR (carrier's decision); ceiling is uncontrolled	None	Notify 907-659-1215 of intention to land

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Waters around Bullen Point are very shallow.

COUNTERMEASURES CONSIDERATIONS

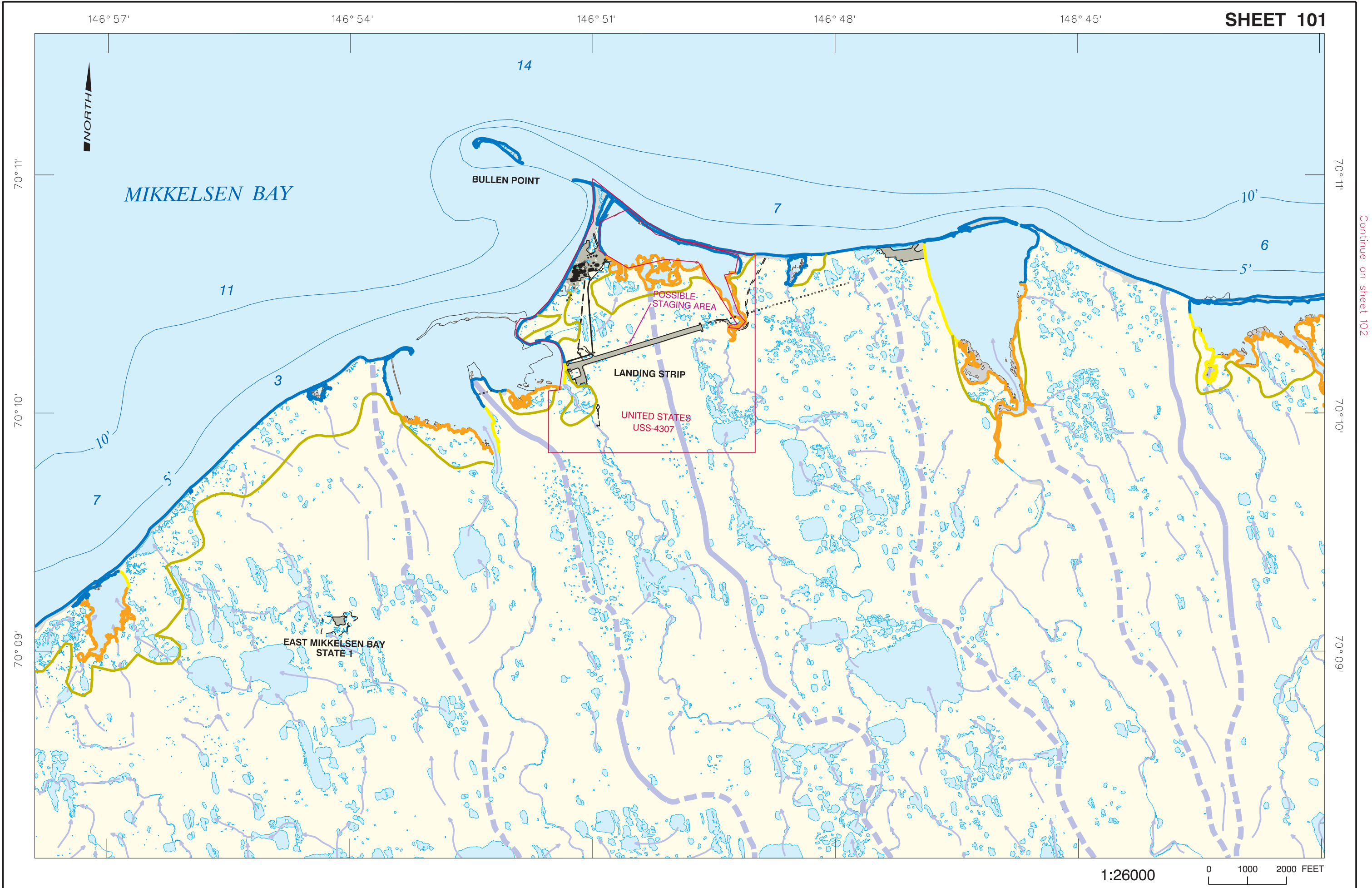
- Gravel beaches are generally wide (more than 30 ft), but are interrupted by numerous inlets and vegetated shorelines.
- Embayment at Bullen Point will collect oil during west or northwest sustained winds and storm surge.

STAGING AREAS AND PRESTAGED EQUIPMENT

- There is a possible staging area at the Bullen Point landing strip.

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 91

Continue on sheet 102

1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- Shoreline and offshore areas support molting Oldsquaws and eiders, and brood-rearing eiders. This is also a staging area for migrating Phalaropes (shorebirds). Birds are present in June, July, and August.
- Plan to deploy bird-hazing systems during the open-water season.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XFI-004 near Point Gordon
- XFI-005 near Point Hopson

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- The Bullen Point airstrip (Sheet 101) is located approximately 5 miles west of Point Gordon. This is an unattended, 2,900-ft gravel airstrip. The extreme west end of the strip reportedly tends to be soft.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Water depths near the mainland shore are shallow and changeable due to growth and change in bars and spits just offshore.

COUNTERMEASURES CONSIDERATIONS

- Gravel beaches are often "perched" on tundra vegetation, complicating response measures.
- Embayments and inlets on coast will collect surface oil during sustained west and northwest winds.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

146° 42' 146° 39' 146° 36' 146° 33' 146° 30'



70° 12'

70° 12'

70° 11'

70° 11'

70° 10'

70° 10'

70° 09'

70° 09'

1:26000 0 1000 2000 FEET

Continue on sheet 101

Continue on sheet 103



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- Shoreline and offshore areas support molting Oldsquaws and eiders, and brood-rearing eiders. This is also a staging area for migrating Phalaropes (shorebirds). Birds are present in June, July, and August.
- This is the edge of a major molting and staging area for Oldsquaw in August and September. The area extends eastward on the lee side of the barrier islands.
- Plan to deploy bird-hazing systems during the open-water season.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XFI-006 near Point Thomson

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- The Bullen Point airstrip (Sheet 101) is located approximately 9 miles west of Point Sweeney. This is an unattended, 2,900-ft gravel airstrip. The extreme west end of the strip reportedly tends to be soft.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Water depths near the mainland shore are shallow and changeable due to growth and change in bars and spits just offshore.

COUNTERMEASURES CONSIDERATIONS

- Gravel beaches are often "perched" on tundra vegetation, complicating response measures.
- Numerous embayments and inlets on the coastline will trap oil during sustained west and northwest winds.

STAGING AREAS AND PRESTAGED EQUIPMENT

- There is a possible staging area at Pt. Thomson Unit #3.

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

146° 27'

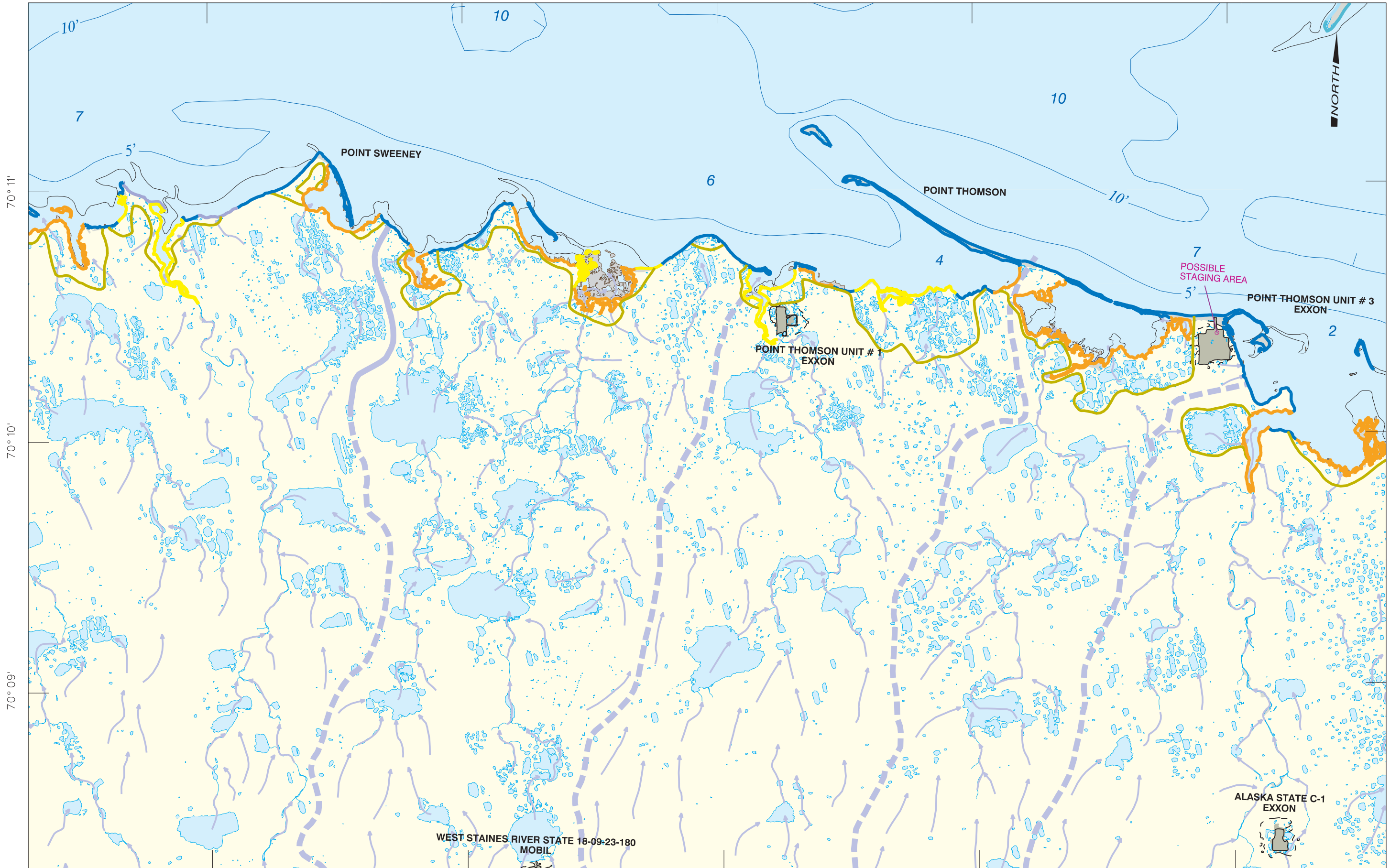
146° 24'

146° 21'

146° 18'

146° 15'

SHEET 103



Continue on sheet 102

Continue on sheet 104

70° 11'

70° 10'

70° 09'

70° 11'

70° 10'

70° 09'

WEST STAINES RIVER STATE 18-09-23-180
MOBIL

1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- Shoreline and offshore areas support molting Oldsquaws and eiders, and brood-rearing eiders. This is also a staging area for migrating Phalaropes (shorebirds). Birds are present in June, July, and August.
- This is the edge of a major molting and staging area for Oldsquaw in August and September. The area extends eastward on the lee side of the barrier islands.
- Plan to deploy bird-hazing systems during the open-water season.
- The Staines River provides habitat for anadromous char and for resident fish.



AIR ACCESS*

- Bullen Point airstrip (Sheet 101) is located approximately 14 miles west of Point Thomson Unit #3. This is an unattended, 2,900-ft gravel airstrip. The extreme west end of the strip reportedly tends to be soft.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Water depths near the mainland shore are shallow and changeable due to growth and change in bars and spits just offshore.
- Lagoon areas are very shallow. Sand-silt beaches are narrow (less than 20 ft wide) and often backed by ice-rich undercut scarps up to 5 ft high.
- There is extensive shoaling between the shoreline and Flaxman Island (Sheet 100). Water depths range from 3 to 6 ft.
- Annual average discharge of the Staines River is 14 cfs.

COUNTERMEASURES CONSIDERATIONS

- Gravel beaches are often "perched" on tundra vegetation, complicating response measures.
- River delta areas are complex shorelines with potentially unstable sand-silt and mud tidal flats present.
- Numerous embayments and inlets on the coastline will trap oil during sustained west and northwest winds.

STAGING AREAS AND PRESTAGED EQUIPMENT

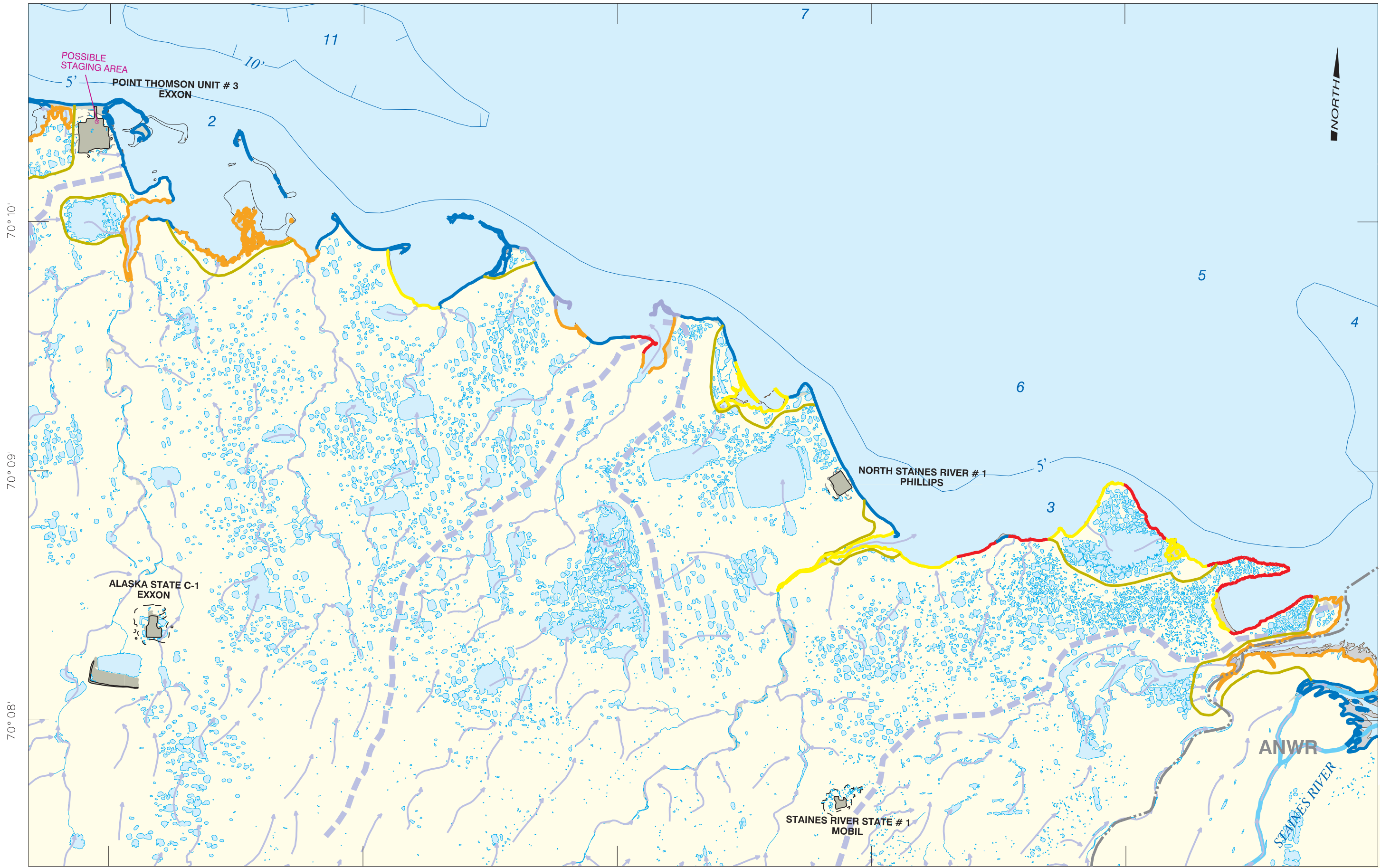
- There is a possible staging area at Pt. Thomson Unit #3.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.

146° 15' 146° 12' 146° 09' 146° 06' 146° 03'



Continue on sheet 103

Continue on sheet 105



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- Shoreline and offshore areas support molting Oldsquaws and eiders, and brood-rearing eiders. This is also a staging area for migrating Phalaropes (shorebirds). Birds are present in June, July, and August.
- This is the edge of a major molting and staging area for Oldsquaw in August and September. The area extends eastward on the lee side of the barrier islands.
- Plan to deploy bird-hazing systems during the open-water season.
- The Canning River is a migratory pathway for arctic char and a possible overwintering area.
- The Staines River provides habitat for anadromous char and for resident fish.
- Polar bear dens have been found in this area. Dens may be in use from October through April.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. This information is contained in the *North Slope Archaeological Data* document, copies of which are kept at the following offices: State Historical Preservation Officer (SHPO) (907-269-8721), ACS in Deadhorse (907-659-2405), North Slope Borough Lands Division (907-852-0322), North Slope Borough Lands Division (907-852-0322), BPXA Crisis Center in Anchorage (907-564-5243), and the ARCO Incident Command Center in Anchorage (907-265-1000). The following cultural site(s) are located in the area depicted on this sheet:

- XFI-008 on Flaxman Island
- XFI-009 near Brownlow Point

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- Bullen Point airstrip (Sheet 101) is located approximately 20 miles west of the mouth of the Staines River. This is an unattended, 2,900-ft gravel airstrip. The extreme west end of the strip reportedly tends to be soft.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Lagoon areas are very shallow. There is extensive shoaling between the shoreline and Flaxman Island. Water depths range from 3 to 6 ft.
- There is passage between Flaxman Island and Brownlow Point. The channel is close to the east end of the island and has depths of 8 ft, which shoal to 4 ft in the lagoon.
- Annual average discharge of the Staines River is 14 cfs.

COUNTERMEASURES CONSIDERATIONS

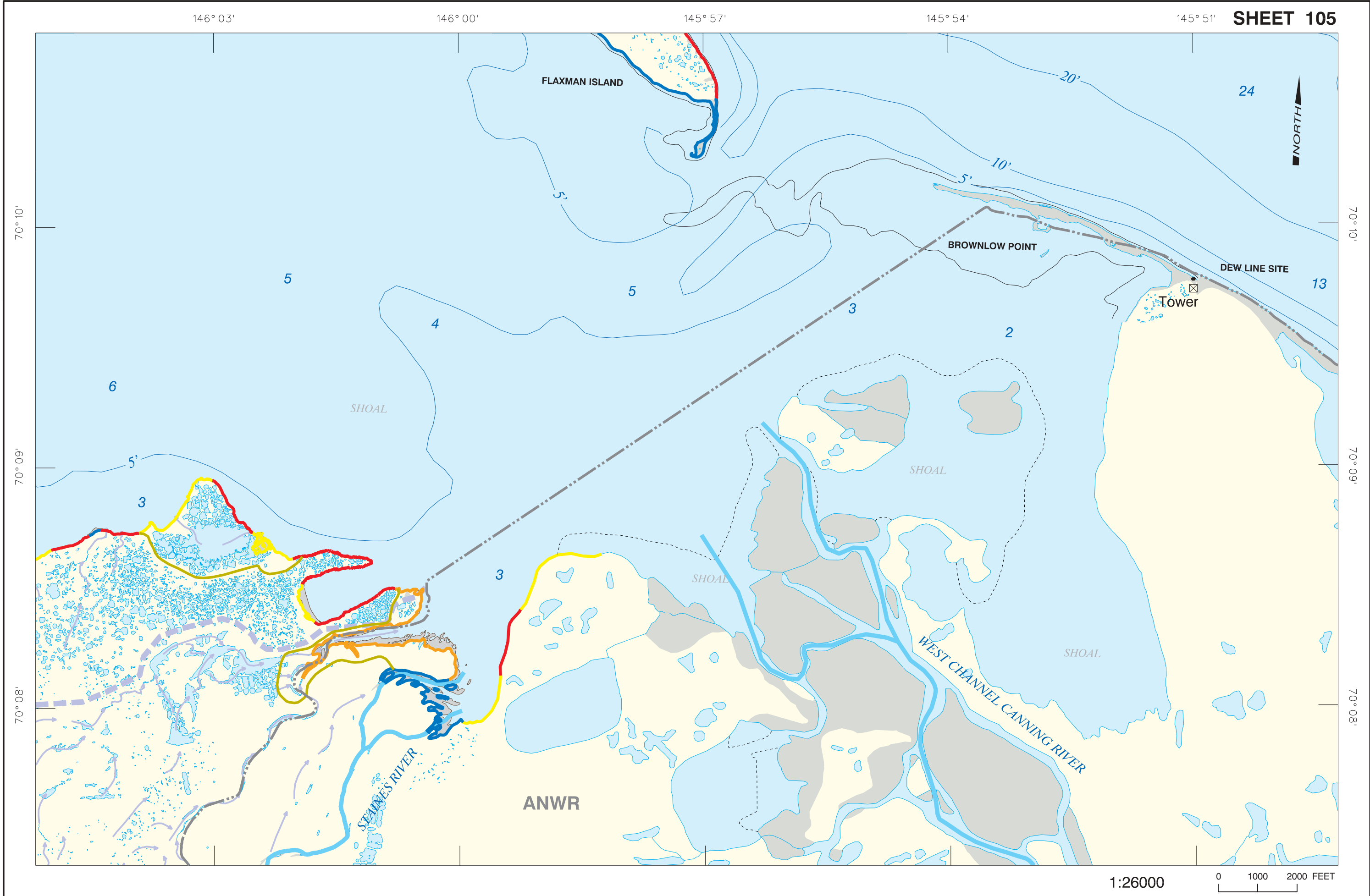
- Sand-silt beaches are narrow and often "perched" on tundra vegetation.
- River delta areas are complex shorelines with potentially unstable sand-silt and mud tidal flats present.
- Numerous embayments and inlets on the coastline will trap oil during sustained west and northwest winds.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

Continue on sheet 104

Continue on sheet 105





PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.



AIR ACCESS*

- There is a landing strip near the Kogru River inlet approximately 5 miles west of Saktuina Point (Sheet 1). (Landing strip is west of the area covered by Sheet 1).

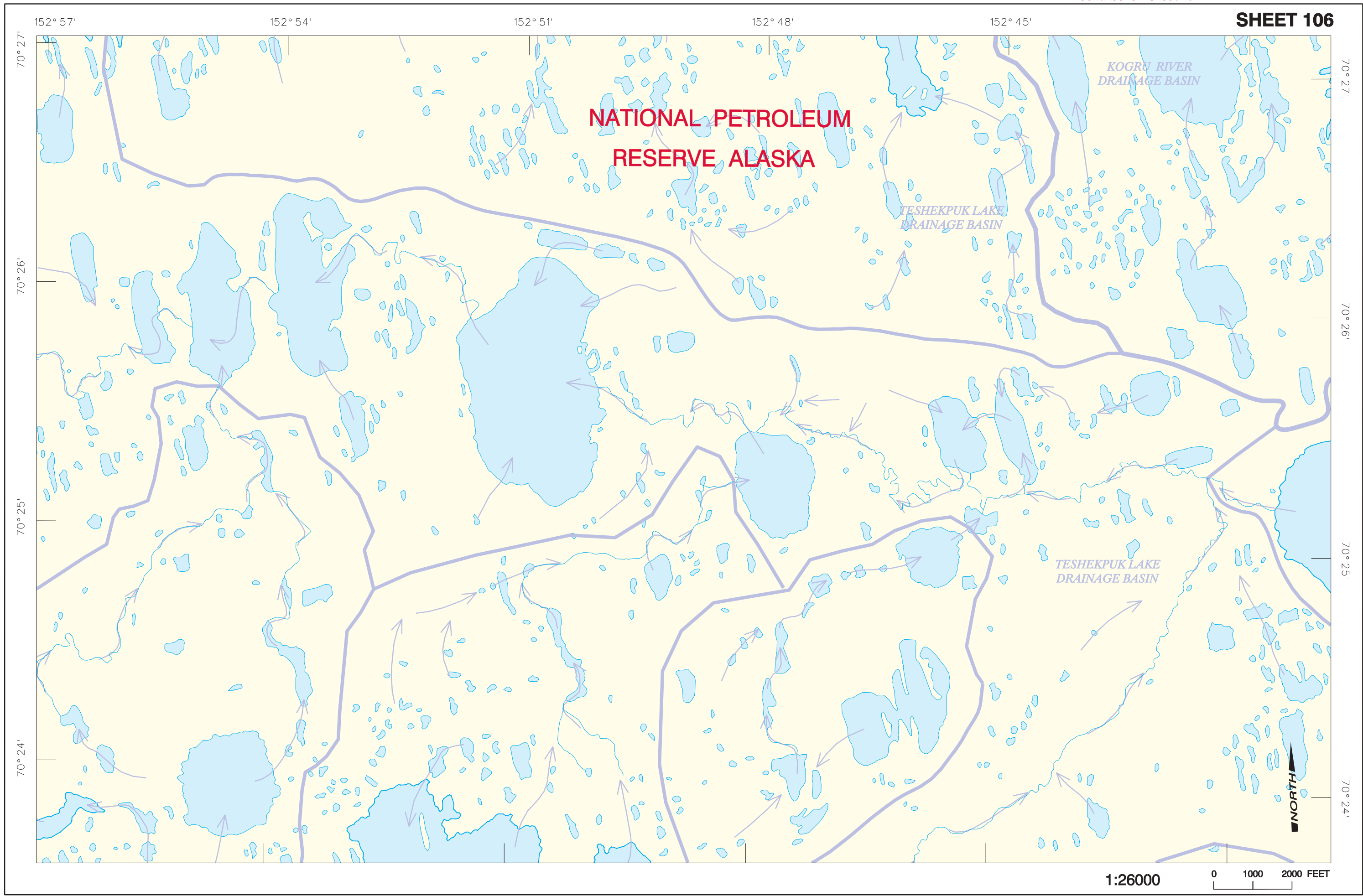
VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 107

Continue on sheet 110

1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.



AIR ACCESS*

- There is a landing strip near the Kogru River inlet approximately 5 miles west of Saktuina Point (Sheet 1). (Landing strip is west of the area covered by Sheet 1).

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.

152° 42'

152° 39'

152° 36'

152° 33'

152° 30'

SHEET 107

NATIONAL PETROLEUM RESERVE ALASKA

70° 27'

70° 26'

70° 25'

70° 27'

70° 26'

70° 25'

Continue on sheet 106

Continue on sheet 108

Continue on sheet 111

KOGRU RIVER DRAINAGE BASIN

KALIKPIK RIVER DRAINAGE BASIN

TESHEKPUK LAKE DRAINAGE BASIN



1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.



AIR ACCESS*

- There is a landing strip near the Kogru River inlet approximately 5 miles west of Saktuina Point (Sheet 1). (Landing strip is west of the area covered by Sheet 1).

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.

152° 27'

152° 24'

152° 21'

152° 18'

152° 15'

70° 28'

70° 27'

70° 26'

70° 25'

70° 28'

70° 27'

70° 26'

70° 25'

KOGRU RIVER
DRAINAGE BASIN

KALIKPIK RIVER
DRAINAGE BASIN

**NATIONAL PETROLEUM
RESERVE ALASKA**

Continue on sheet 107

Continue on sheet 109

1:26000

0 1000 2000 FEET

NORTH



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- Plan to deploy bird-hazing systems during the open-water season.
- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.



AIR ACCESS*

- There is a landing strip near the Kogru River inlet approximately 5 miles west of Saktuina Point (Sheet 1). (Landing strip is west of the area covered by Sheet 1).
- Emergency landing for fixed-wing aircraft is available on the sand flats near the mouth of the Tingmeachsiovik River and on the sand flats west of the Nechelik Channel (Sheet 7).

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- Extensive shoaling and high sediment transport limit or restrict navigation by sea. Water depths ranging from 2 to 3 ft restrict or preclude marine access.
- Water depths are very shallow in the nearshore areas.
- Kalikpik River annual average discharge rate is 55 cfs.

COUNTERMEASURES CONSIDERATIONS

- Sand-silt beaches are very narrow (less than 20 ft wide). Bluffs are often too high for backshore access.
- The delta of the Kalikpik River is a very complex polygonal tundra and sand-silt flats area. Access is uncertain.
- The west end of Harrison Bay and the mouth of the Kalikpik River will collect floating oil during sustained east or northeast winds.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.

152° 12' 152° 9' 152° 6' 152° 3' 152° 0'

70° 28'
70° 27'
70° 26'
70° 25'

70° 28'
70° 27'
70° 26'



**NATIONAL PETROLEUM
RESERVE ALASKA**

*KOGRU RIVER
DRAINAGE BASIN*

*KALIKPIQ RIVER
DRAINAGE BASIN*

KALIKPIQ RIVER

NORTH

1:26000
0 1000 2000 FEET

Continue on sheet 108

Continue on sheet 4



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. The site described below is being proposed for inclusion in the North Slope archaeological data maintained by the State Historical Preservation Officer (SHPO) (907-269-8721). The following site is located in the area depicted on this sheet:

- Proposed 49-HAR-047 near the lakes in the northeast quadrant of this sheet



AIR ACCESS*

- There is a landing strip near the Kogru River inlet approximately 5 miles west of Saktuina Point (Sheet 1). (Landing strip is west of the area covered by Sheet 1).

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.

152° 45' 152° 42' 152° 39' 152° 36' 152° 33'

Continue on sheet 106

70° 24'

70° 23'

70° 22'

70° 24'

70° 23'

70° 22'

Continue on sheet 111

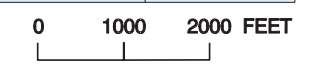
NATIONAL PETROLEUM RESERVE ALASKA

KALIKPIK RIVER DRAINAGE BASIN

TESHEKPUK LAKE DRAINAGE BASIN



1:26000





PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.



AIR ACCESS*

- There is a landing strip near the Kogru River inlet approximately 5 miles west of Saktuina Point (Sheet 1). (Landing strip is west of the area covered by Sheet 1).

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.

152° 30' 152° 27' 152° 24' 152° 21' 152° 18'

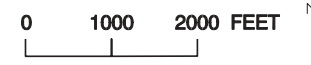
Continue on sheet 107

Continue on sheet 110

Continue on sheet 112



1:26000





PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Concentrations of swans, ducks, geese, and shorebirds are present here in June before open water is present elsewhere.
- Plan to deploy bird-hazing systems during the open-water season.
- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.



AIR ACCESS*

- There is a landing strip near the Kogru River inlet approximately 5 miles west of Saktuina Point (Sheet 1). (Landing strip is west of the area covered by Sheet 1).
- Emergency landing for fixed-wing aircraft is available on the sand flats near the mouth of the Tingmeachsiovik River and on the sand flats west of the Nechelik Channel (Sheet 7).

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

COUNTERMEASURES CONSIDERATIONS

- The delta of the Kalikpik River is a very complex polygonal tundra and sand-silt flats area. Access is uncertain.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.

152° 12'

152° 9'

152° 6'

152° 3'

70° 25'

70° 25'

70° 24'

70° 24'

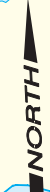
70° 23'

70° 23'

70° 22'

NATIONAL PETROLEUM RESERVE ALASKA

KALIKPIK RIVER



1:26000

0 1000 2000 FEET

Continue on sheet 111

Continue on sheet 113



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Polar bear dens have been found in this area. Dens may be in use from October through April.



AIR ACCESS*

- There is a landing strip near the Kogru River inlet approximately 5 miles west of Saktuina Point (Sheet 1). (Landing strip is west of the area covered by Sheet 1).
- Emergency landing for fixed-wing aircraft is available on the sand flats near the mouth of the Tingmeachsiovik River and on the sand flats west of the Nechelik Channel (Sheet 7).

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.

151° 57'

151° 54'

151° 51'

151° 48'

151° 45'

SHEET 113

HARRISON BAY 1

Continue on sheet 112

70° 25'

70° 24'

70° 23'

70° 25'

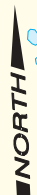
70° 24'

70° 23'

Continue on sheet 5

Continue on sheet 114

NATIONAL PETROLEUM RESERVE ALASKA



1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.
- Polar bear dens have been found in this area. Dens may be in use from October through April.



AIR ACCESS*

- Emergency landing for fixed-wing aircraft is available on the sand flats near the mouth of the Tingmeachsiovik River and on the sand flats west of the Nechelik Channel (Sheet 7).

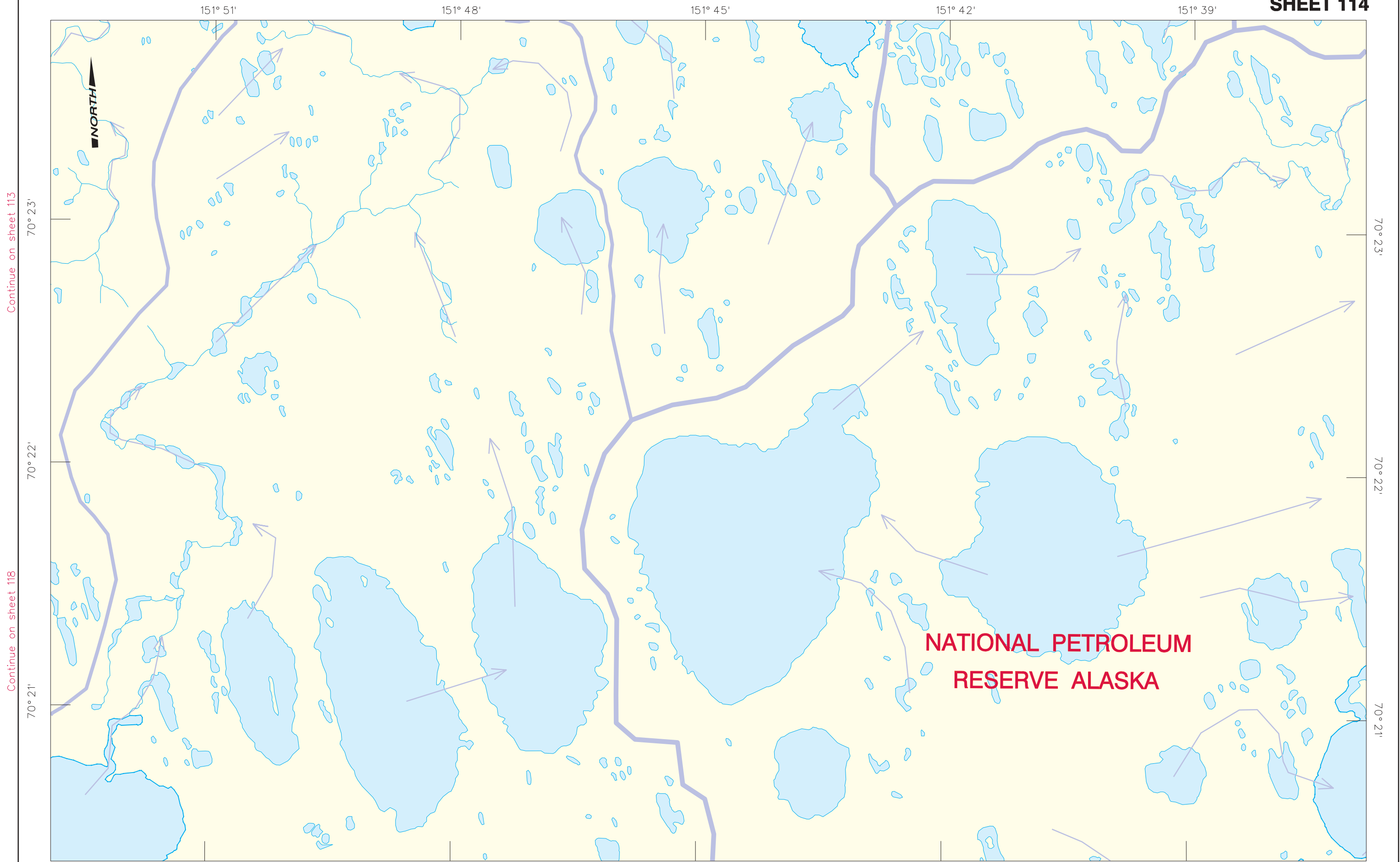
VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 113

Continue on sheet 118

Continue on sheet 115



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.



AIR ACCESS*

- Emergency landing for fixed-wing aircraft is available on the sand flats near the mouth of the Tingmeachsiovik River and on the sand flats west of the Nechelik Channel (Sheet 7).
- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 16 miles to the southeast. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.

151° 36'

151° 33'

151° 30'

151° 27'

151° 24'

70° 23'

70° 23'

70° 22'

70° 22'

70° 21'

70° 21'

NATIONAL PETROLEUM RESERVE ALASKA

TINGMEACHSIOVIK RIVER

1:26000

0 1000 2000 FEET

Continue on sheet 114

Continue on sheet 7





PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.



AIR ACCESS*

- There is a landing strip near the Kogru River inlet approximately 5 miles west of Saktuina Point (Sheet 1). (Landing strip is west of the area covered by Sheet 1).

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

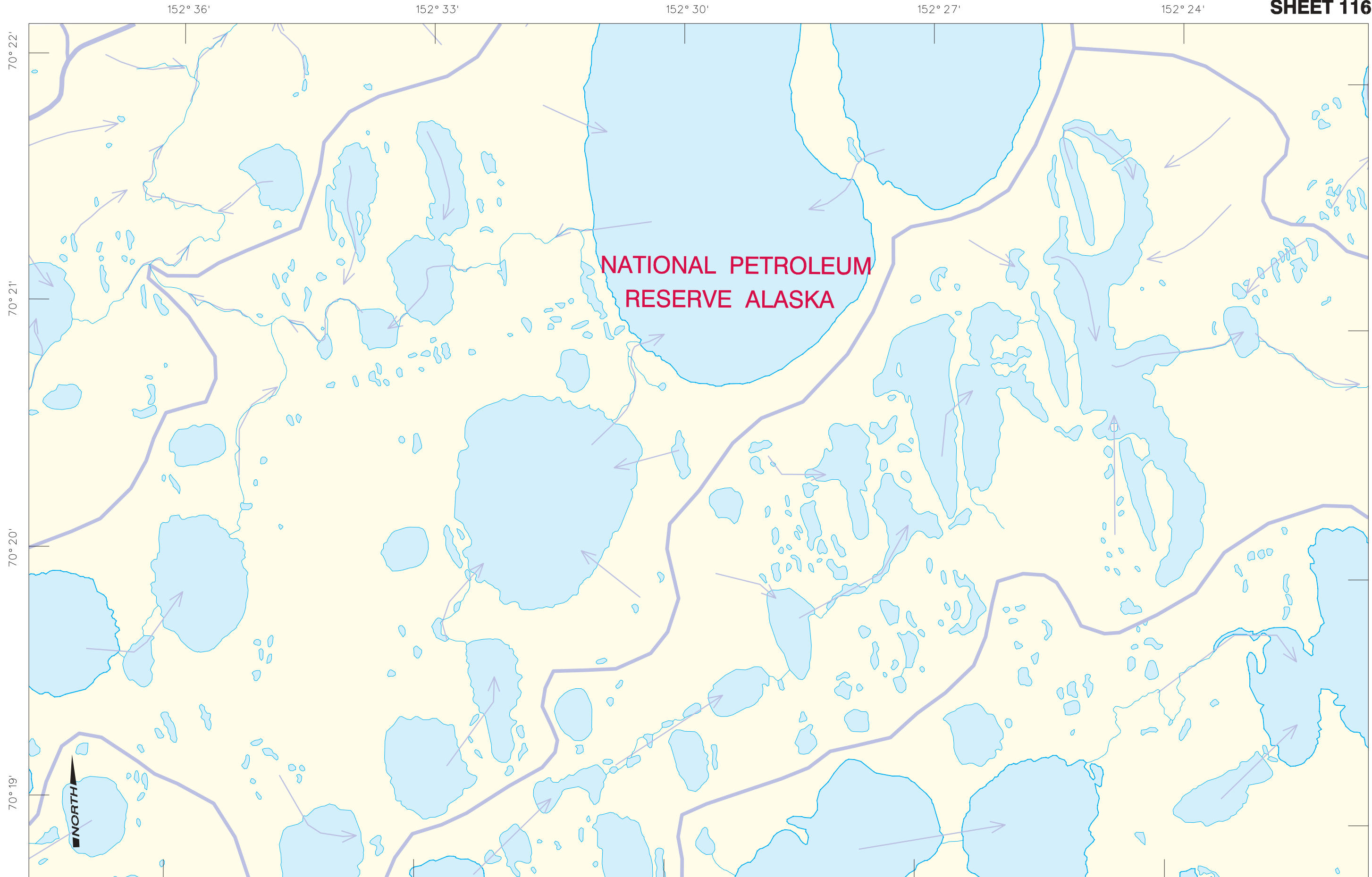
*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.

Continue on sheet 110

Continue on sheet 117



NATIONAL PETROLEUM RESERVE ALASKA



1:26000 0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.

CULTURAL SITES

Information on the exact locations of cultural sites is confidential. The site described below is being proposed for inclusion in the North Slope archaeological data maintained by the State Historical Preservation Officer (SHPO) (907-269-8721). The following site is located in the area depicted on this sheet:

- Proposed 49-HAR-048 near the southern portion of the large lake on the east side of this sheet

NOTE: All values given on these pages are for planning purposes only.



AIR ACCESS*

- There is a landing strip near the Kogru River inlet approximately 5 miles west of Saktuina Point (Sheet 1). (Landing strip is west of the area covered by Sheet 1).
- Emergency landing for fixed-wing aircraft is available on the sand flats near the mouth of the Tingmeachsiovik River and on the sand flats west of the Nechelik Channel (Sheet 7).

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NATIONAL PETROLEUM RESERVE ALASKA

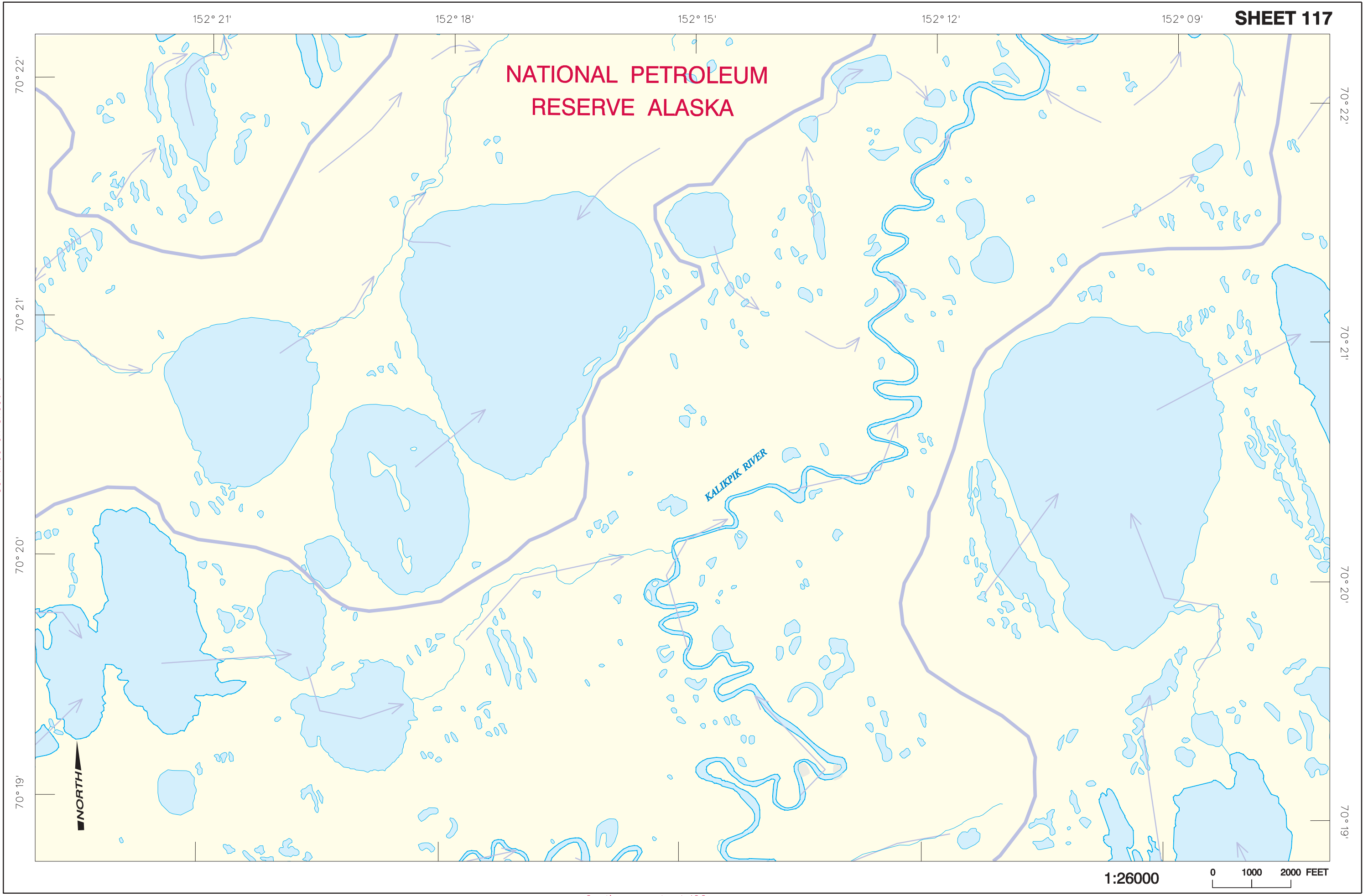
KALIKTIK RIVER



1:26000 0 1000 2000 FEET

Continue on sheet 116

Continue on sheet 118





PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.



AIR ACCESS*

- There is a landing strip near the Kogru River inlet approximately 5 miles west of Saktuina Point (Sheet 1). (Landing strip is west of the area covered by Sheet 1).
- Emergency landing for fixed-wing aircraft is available on the sand flats near the mouth of the Tingmeachsiovik River and on the sand flats west of the Nechelik Channel (Sheet 7).

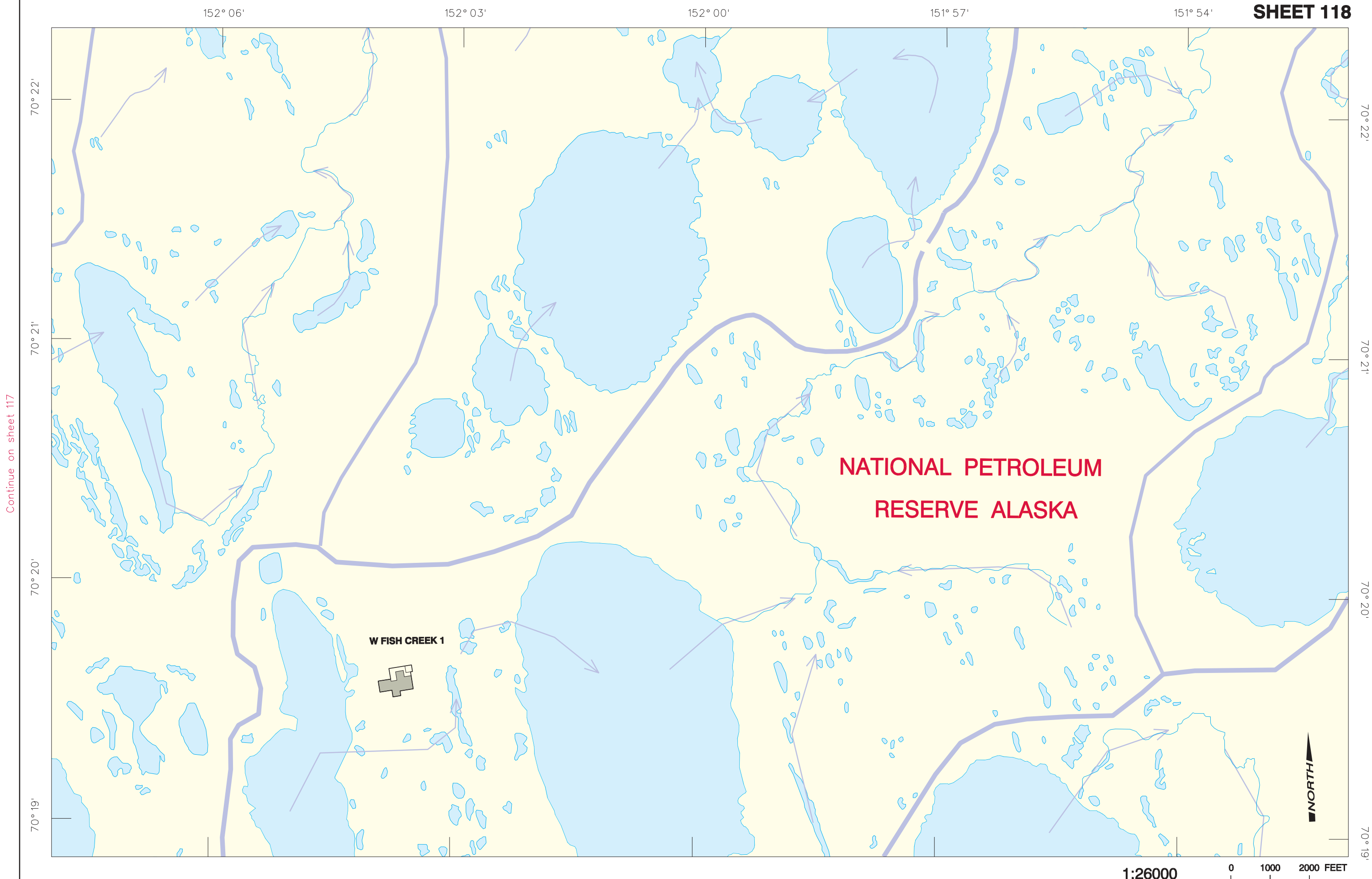
VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

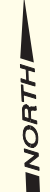
NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 117

Continue on sheet 114

Continue on sheet 119



1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.



AIR ACCESS*

- There is a landing strip near the Kogru River inlet approximately 5 miles west of Saktuina Point (Sheet 1). (Landing strip is west of the area covered by Sheet 1).
- Emergency landing for fixed-wing aircraft is available on the sand flats near the mouth of the Tingmeachsiovik River and on the sand flats west of the Nechelik Channel (Sheet 7).

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

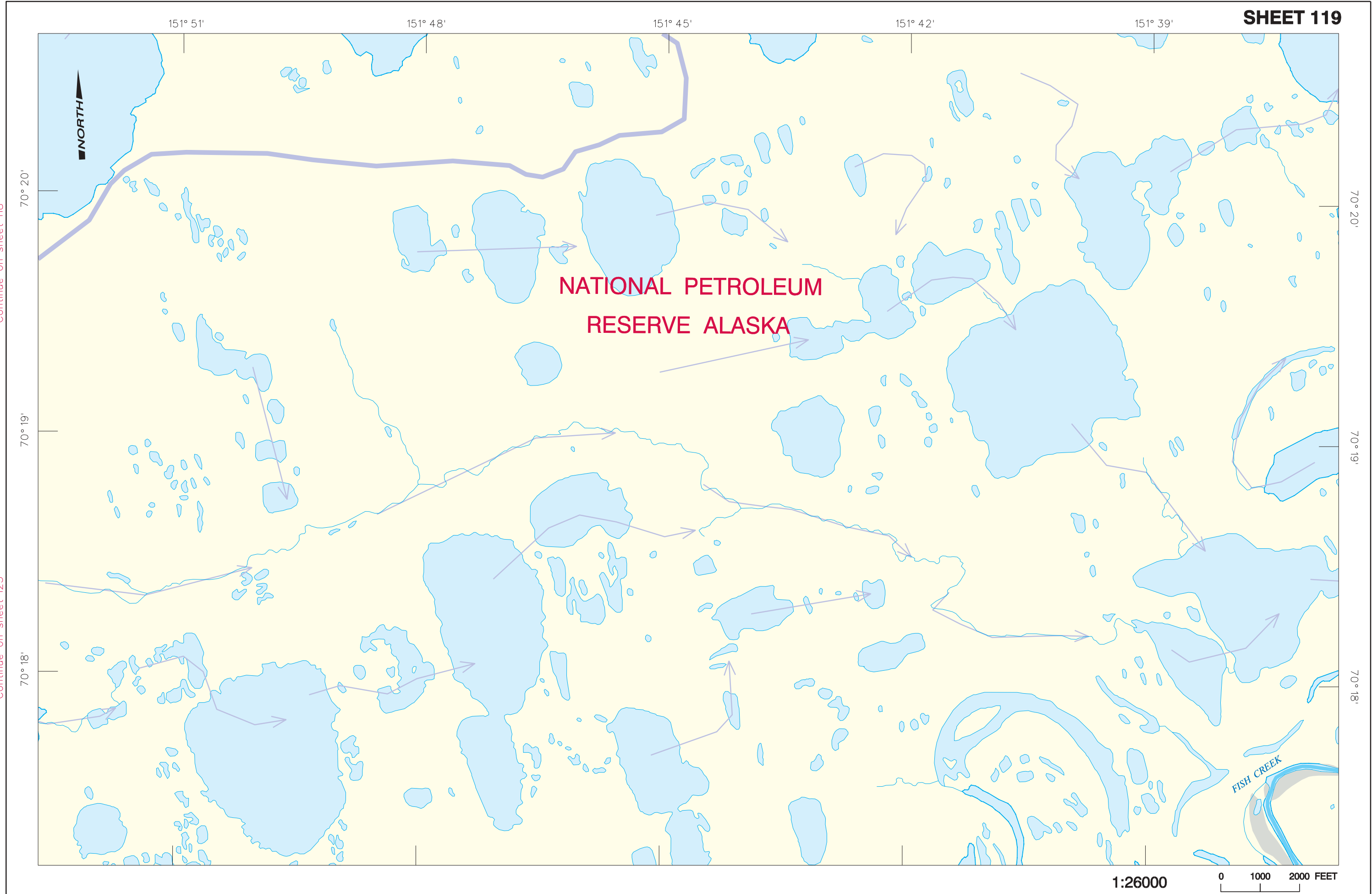
NOTE: All values given on these pages are for planning purposes only.

NATIONAL PETROLEUM
RESERVE ALASKA

Continue on sheet 118

Continue on sheet 123

Continue on sheet 120





PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.

CULTURAL SITES

Areas south of Fish Creek are subsistence use areas.



AIR ACCESS*

- Emergency landing for fixed-wing aircraft is available on the sand flats near the mouth of the Tingmeachsiovik River and on the sand flats west of the Nechelik Channel (Sheet 7).
- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 13 miles to the southeast. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.

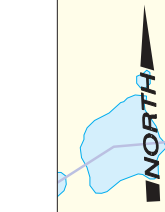
151° 36'

151° 33'

151° 30'

151° 27'

151° 24'



NATIONAL PETROLEUM RESERVE ALASKA

TINGMEACHSIOVIK RIVER

FISH CREEK

FISH CREEK

70° 20'

70° 20'

70° 19'

70° 19'

70° 18'

70° 18'

Continue on sheet 119

Continue on sheet 121

1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.

CULTURAL SITES

The area surrounding the Ublutuoch River is a subsistence use area.



AIR ACCESS*

- Emergency landing for fixed-wing aircraft is available on the sand flats near the mouth of the Tingmeachsiovik River and on the sand flats west of the Nechelik Channel (Sheet 7).
- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 9 miles to the southeast. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

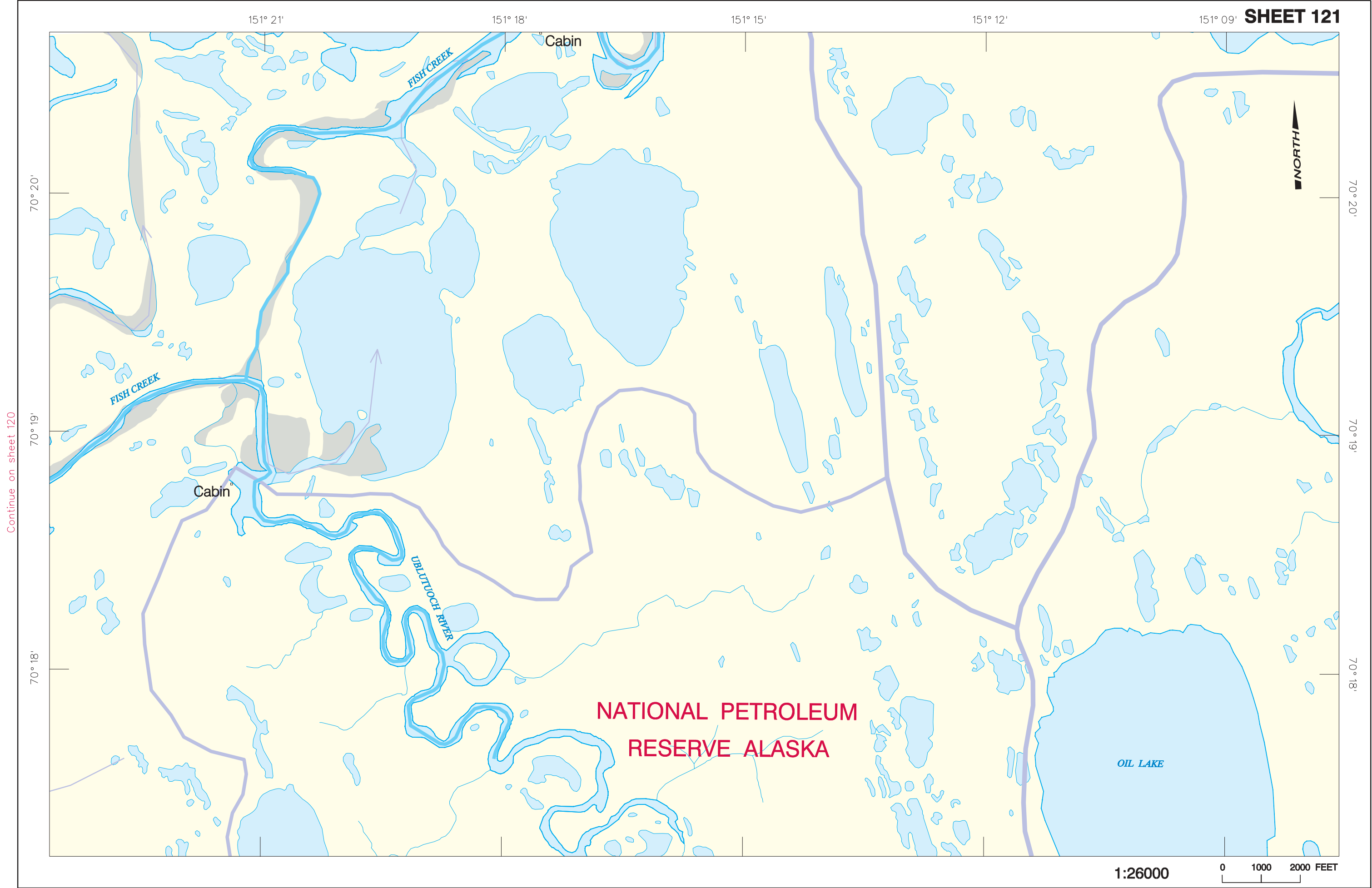
VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 120

Continue on sheet 20



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.



AIR ACCESS*

- There is a landing strip near the Kogru River inlet approximately 5 miles west of Saktuina Point (Sheet 1). (Landing strip is west of the area covered by Sheet 1).
- Emergency landing for fixed-wing aircraft is available on the sand flats near the mouth of the Tingmeachsiovik River and on the sand flats west of the Nechelik Channel (Sheet 7).

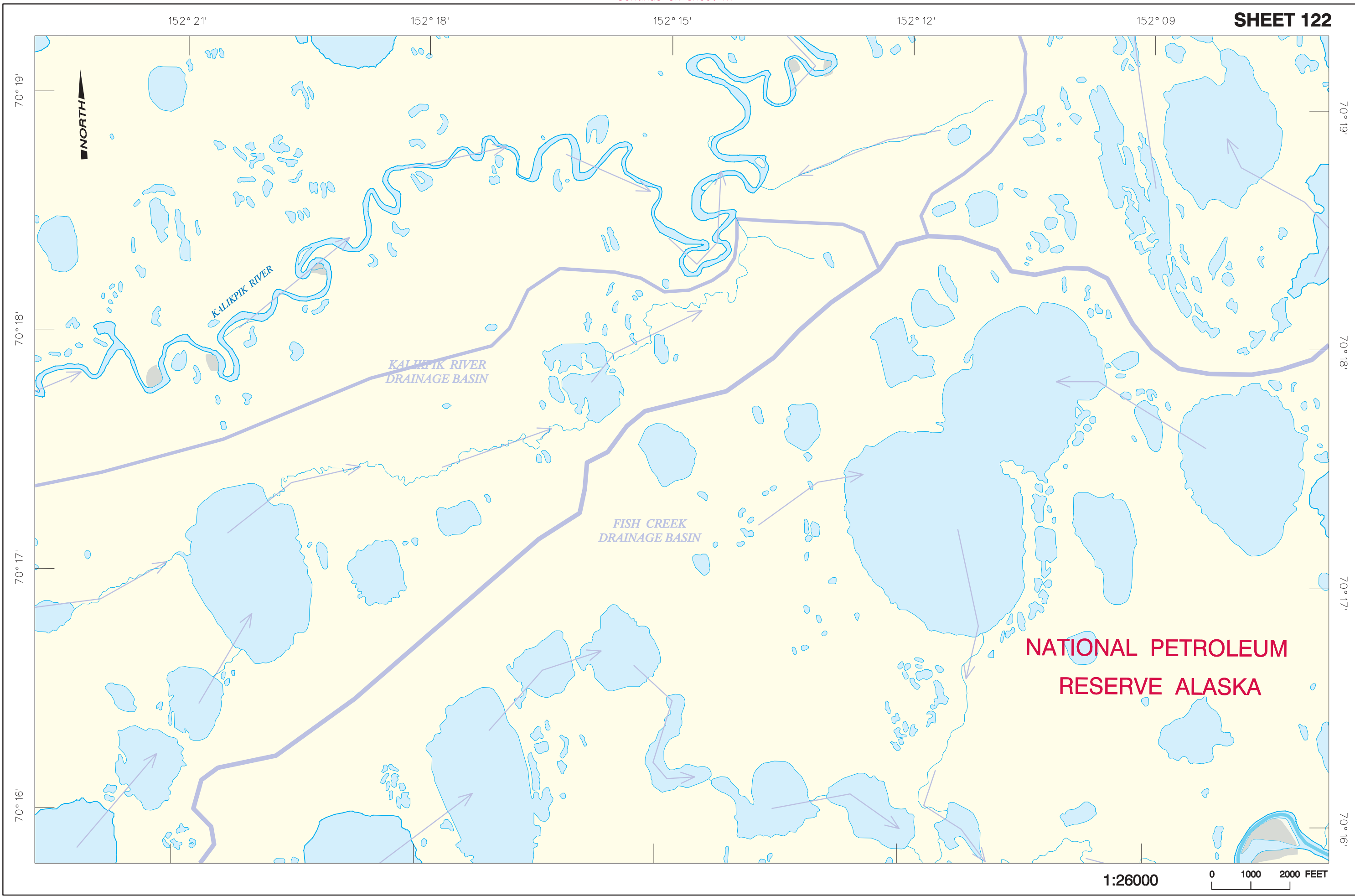
VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 123



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.



AIR ACCESS*

- Emergency landing for fixed-wing aircraft is available on the sand flats near the mouth of the Tingmeachsiovik River and on the sand flats west of the Nechelik Channel (Sheet 7).

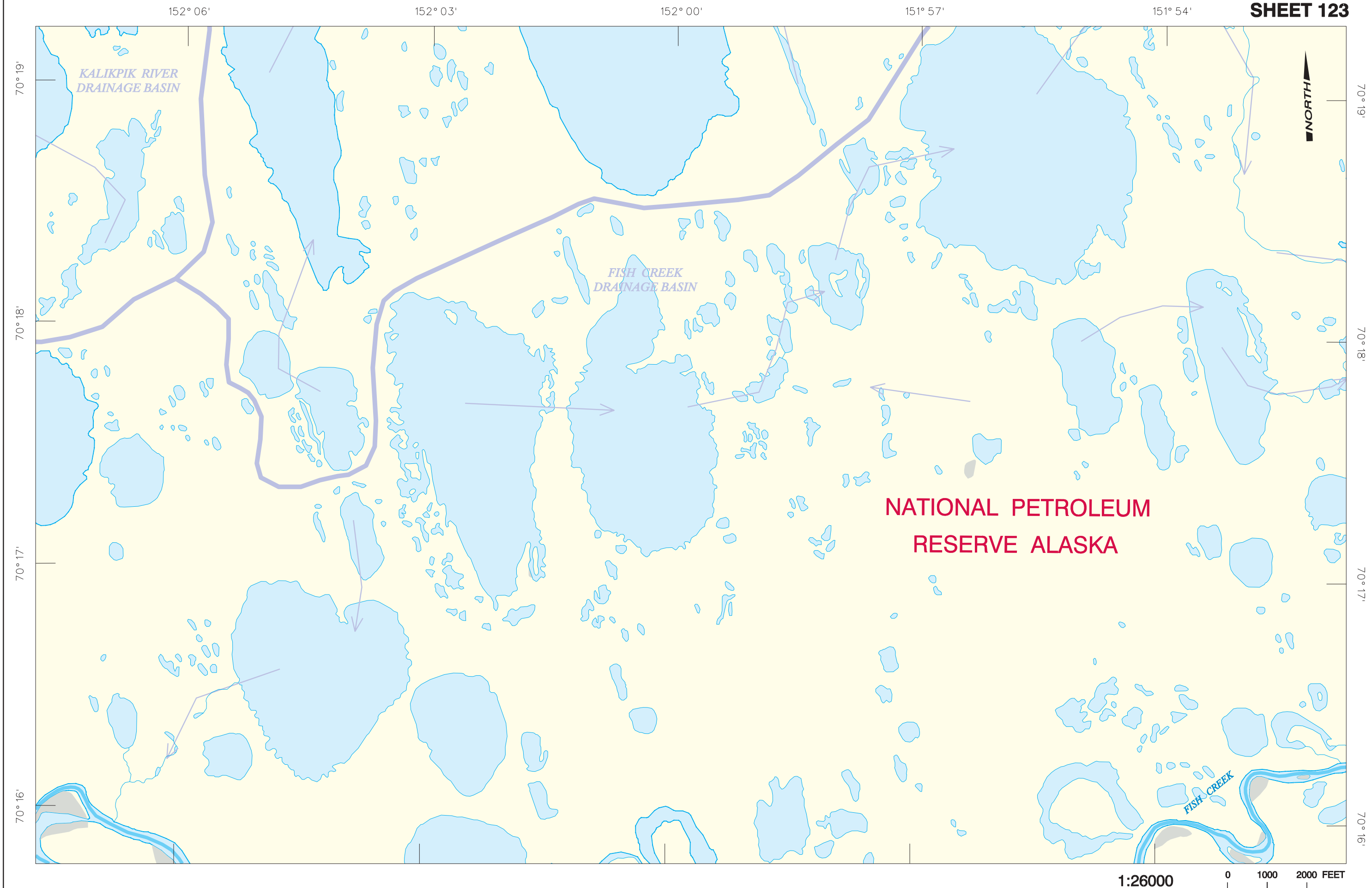
VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 122

Continue on sheet 119

Continue on sheet 124



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.

CULTURAL SITES

The area east of Judy Creek and south of Fish Creek is a subsistence use area.



AIR ACCESS*

- Emergency landing for fixed-wing aircraft is available on the sand flats near the mouth of the Tingmeachsiovik River and on the sand flats west of the Nechelik Channel (Sheet 7).

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

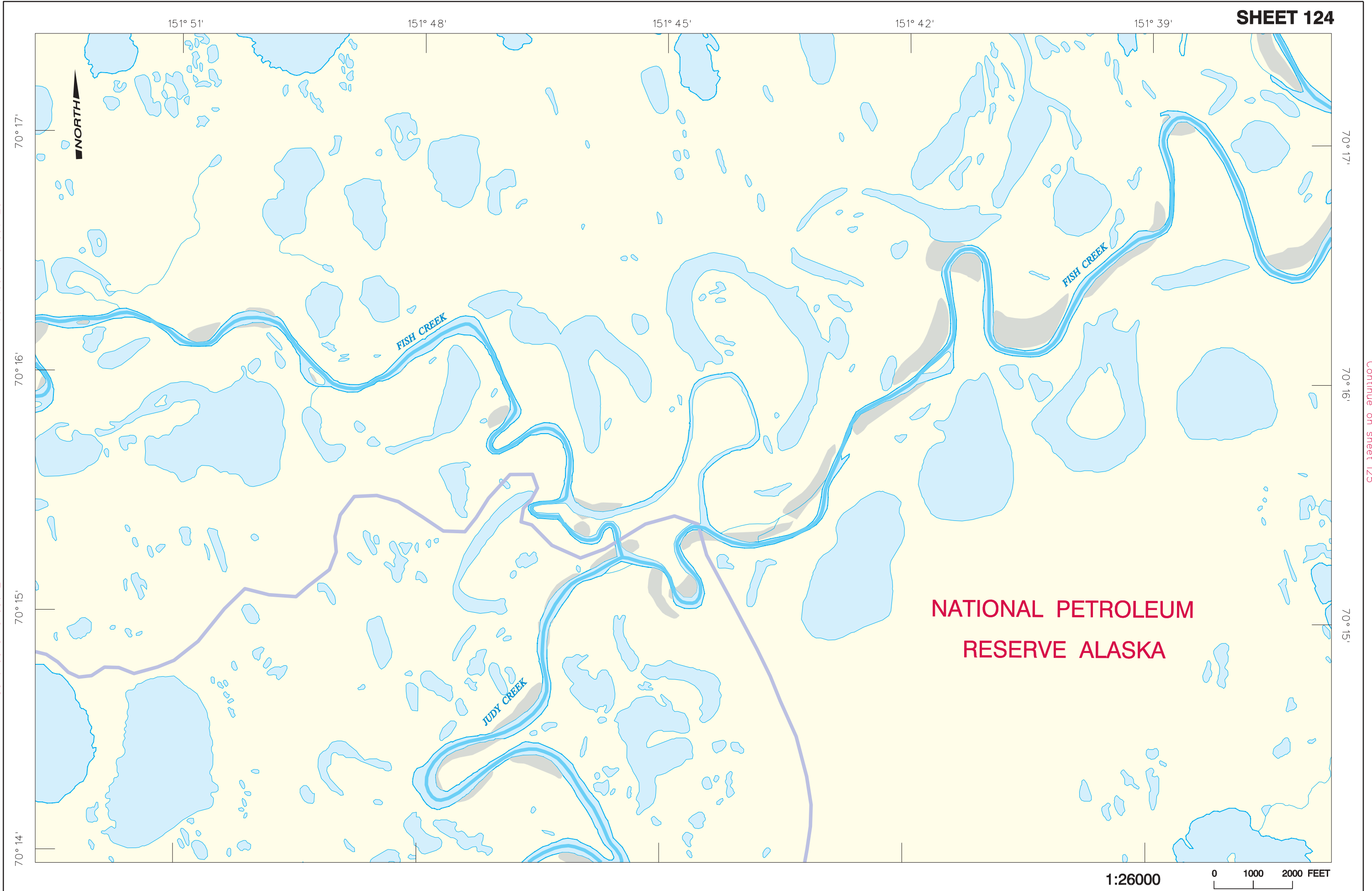
NOTE: All values given on these pages are for planning purposes only.

Continue on sheet 123

Continue on sheet 127

Continue on sheet 125

Continue on sheet 128





PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.



AIR ACCESS*

- Emergency landing for fixed-wing aircraft is available on the sand flats near the mouth of the Tingmeachsiovik River and on the sand flats west of the Nechelik Channel (Sheet 7).
- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 12 miles to the southeast. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.

151° 36'

151° 33'

151° 30'

151° 27'

151° 24'

70° 17'

70° 17'

70° 16'

70° 16'

70° 15'

70° 15'

NATIONAL PETROLEUM
RESERVE ALASKA

FISH CREEK



Continue on sheet 124

Continue on sheet 126

1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.



AIR ACCESS*

- Emergency landing for fixed-wing aircraft is available on the sand flats near the mouth of the Tingmeachsiovik River and on the sand flats west of the Nechelik Channel (Sheet 7).
- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 7 miles to the southeast. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

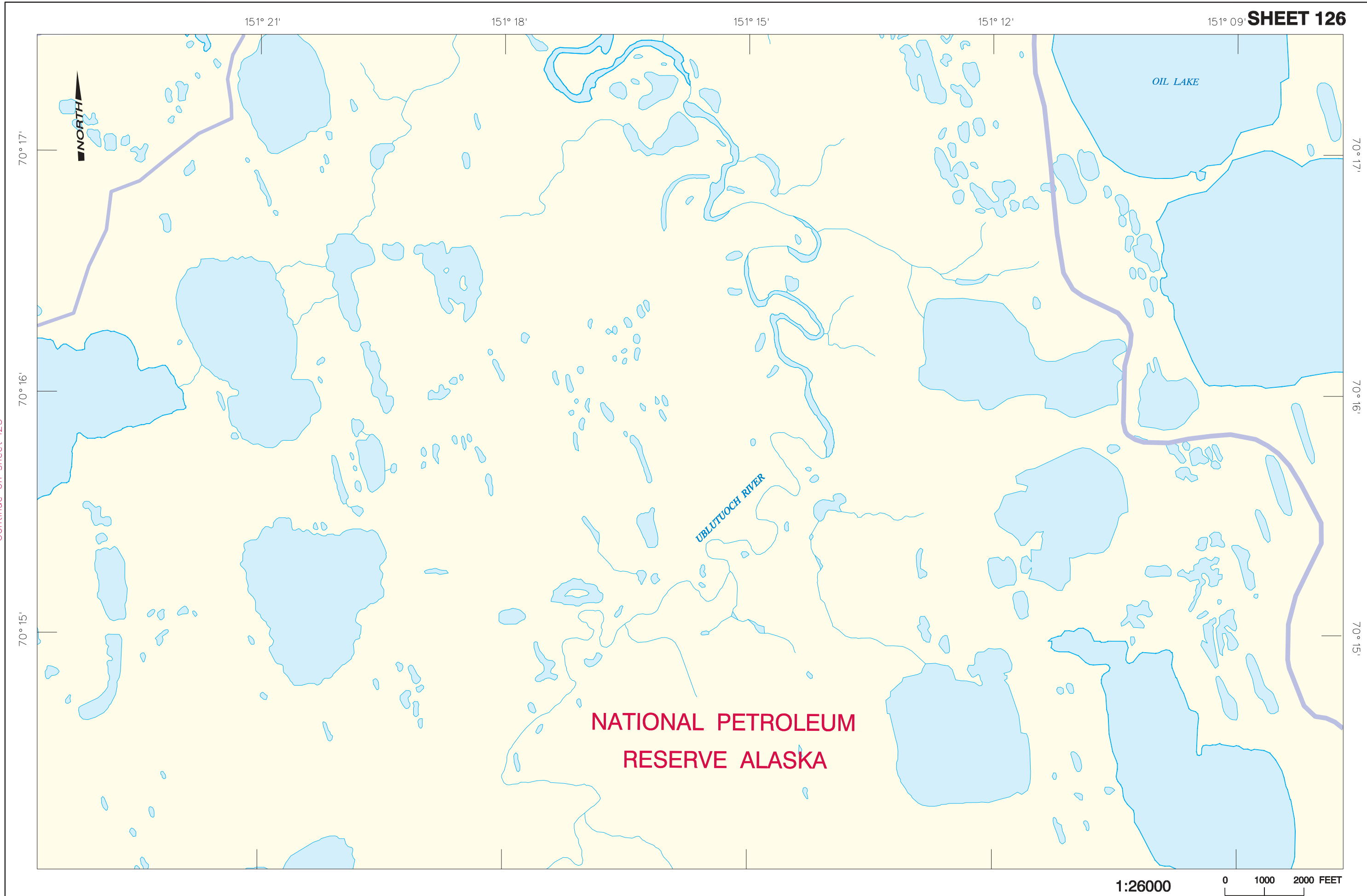
*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.

Continue on sheet 125

Continue on sheet 127





PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.



AIR ACCESS*

- Emergency landing for fixed-wing aircraft is available on the sand flats near the mouth of the Tingmeachsiovik River and on the sand flats west of the Nechelik Channel (Sheet 7).

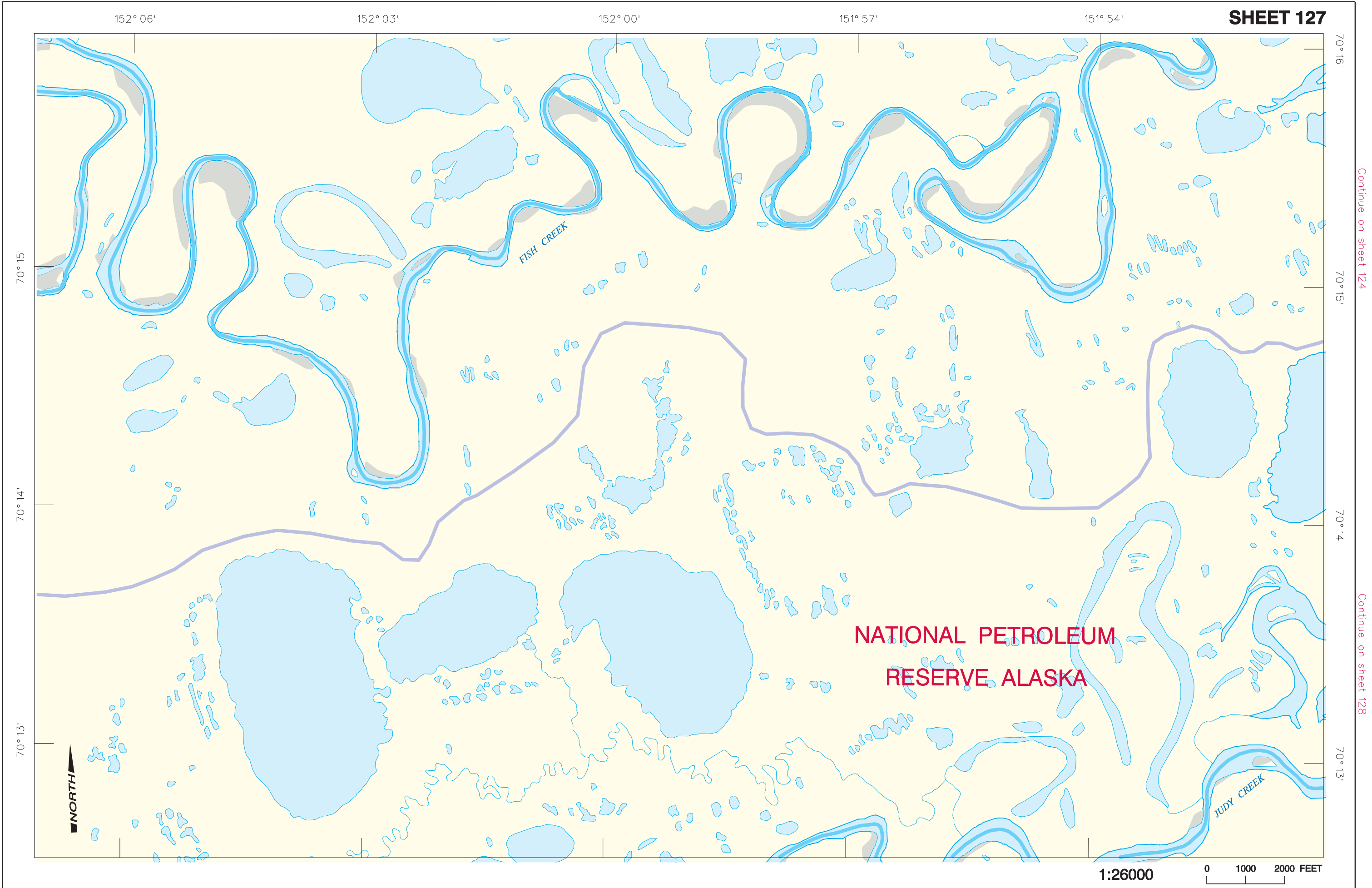
VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 124

Continue on sheet 128



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.

CULTURAL SITES

The area east of Judy Creek near the top of this sheet is a subsistence use area.



AIR ACCESS*

- Emergency landing for fixed-wing aircraft is available on the sand flats near the mouth of the Tingmeachsiovik River and on the sand flats west of the Nechelik Channel (Sheet 7).

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.

Continue on sheet 127

Continue on sheet 132

Continue on sheet 129

Continue on sheet 133

151° 51'

151° 48'

151° 45'

151° 42'

151° 39'

70° 14'

70° 13'

70° 12'

70° 11'

70° 14'

70° 13'

70° 12'

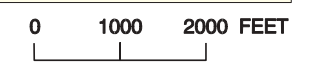
70° 11'



JUDY CREEK

NATIONAL PETROLEUM
RESERVE ALASKA

1:26000





PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.



AIR ACCESS*

- Emergency landing for fixed-wing aircraft is available on the sand flats near the mouth of the Tingmeachsiovik River and on the sand flats west of the Nechelik Channel (Sheet 7).
- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 11 miles to the east. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.

151° 36' 151° 33' 151° 30' 151° 27' 151° 24'



Continue on sheet 128

Continue on sheet 130

1:26000 0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.



AIR ACCESS*

- Emergency landing for fixed-wing aircraft is available on the sand flats near the mouth of the Tingmeachsiovik River and on the sand flats west of the Nechelik Channel (Sheet 7).
- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 5 miles to the east. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

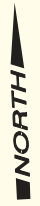
*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.

NATIONAL PETROLEUM RESERVE ALASKA

UBLUTUOCH RIVER



151° 21'

151° 18'

151° 15'

151° 12'

151° 09'

70° 14'

70° 13'

70° 12'

70° 14'

70° 13'

70° 12'

Continue on sheet 129

Continue on sheet 24

1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.



AIR ACCESS*

- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 25 miles to the east. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

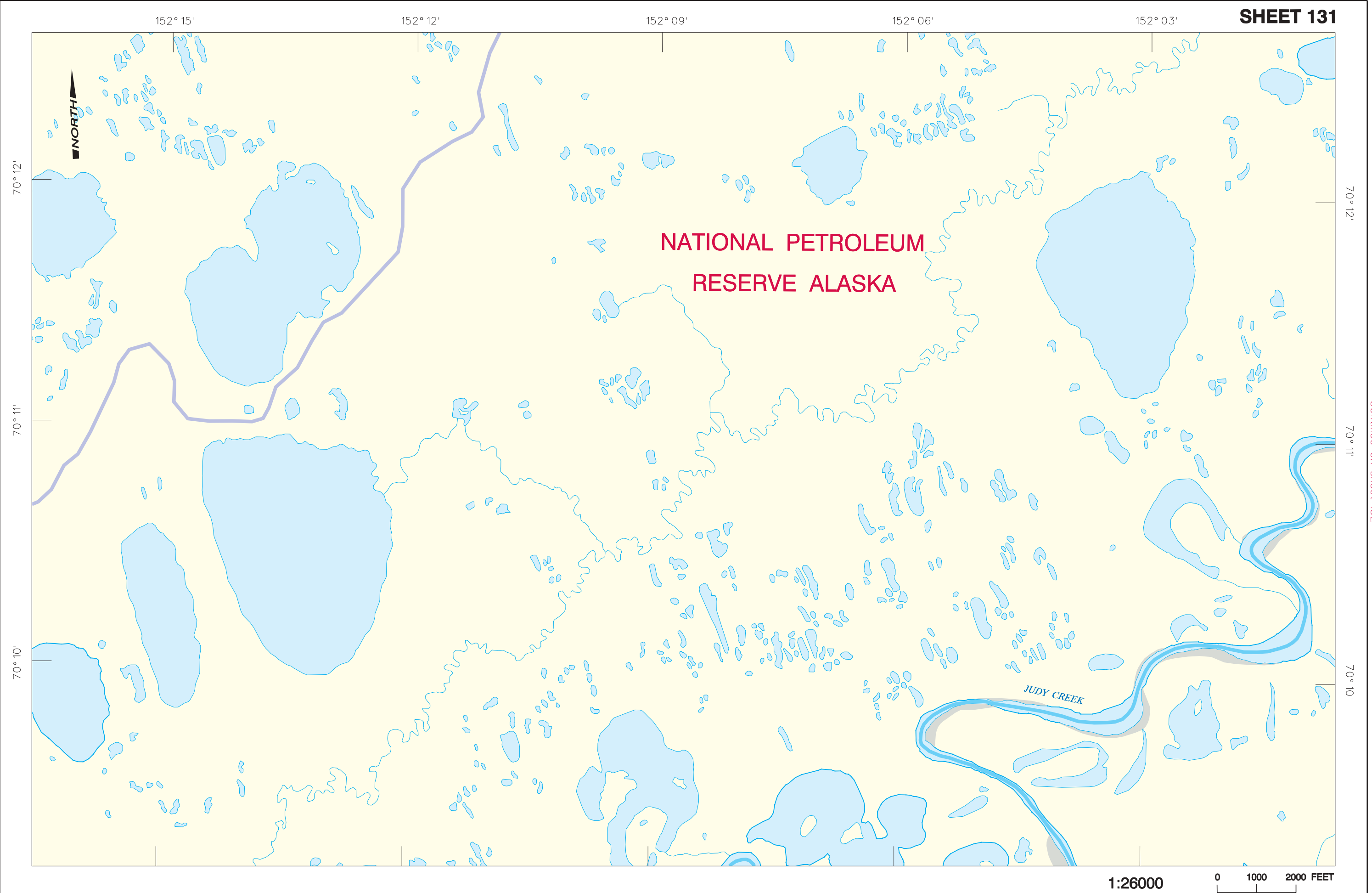
VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 132

1:26000

0 1000 2000 FEET



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.



AIR ACCESS*

- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 21 miles to the east. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.

152° 00'

151° 57'

151° 54'

151° 51'

151° 48'

70° 12'

70° 11'

70° 10'

70° 12'

70° 11'

70° 10'

JUDY CREEK

NORTH

NATIONAL PETROLEUM
RESERVE ALASKA

1:26000

0 1000 2000 FEET

Continue on sheet 131

Continue on sheet 128

Continue on sheet 133

Continue on sheet 135



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.



AIR ACCESS*

- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 15 miles to the northeast. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

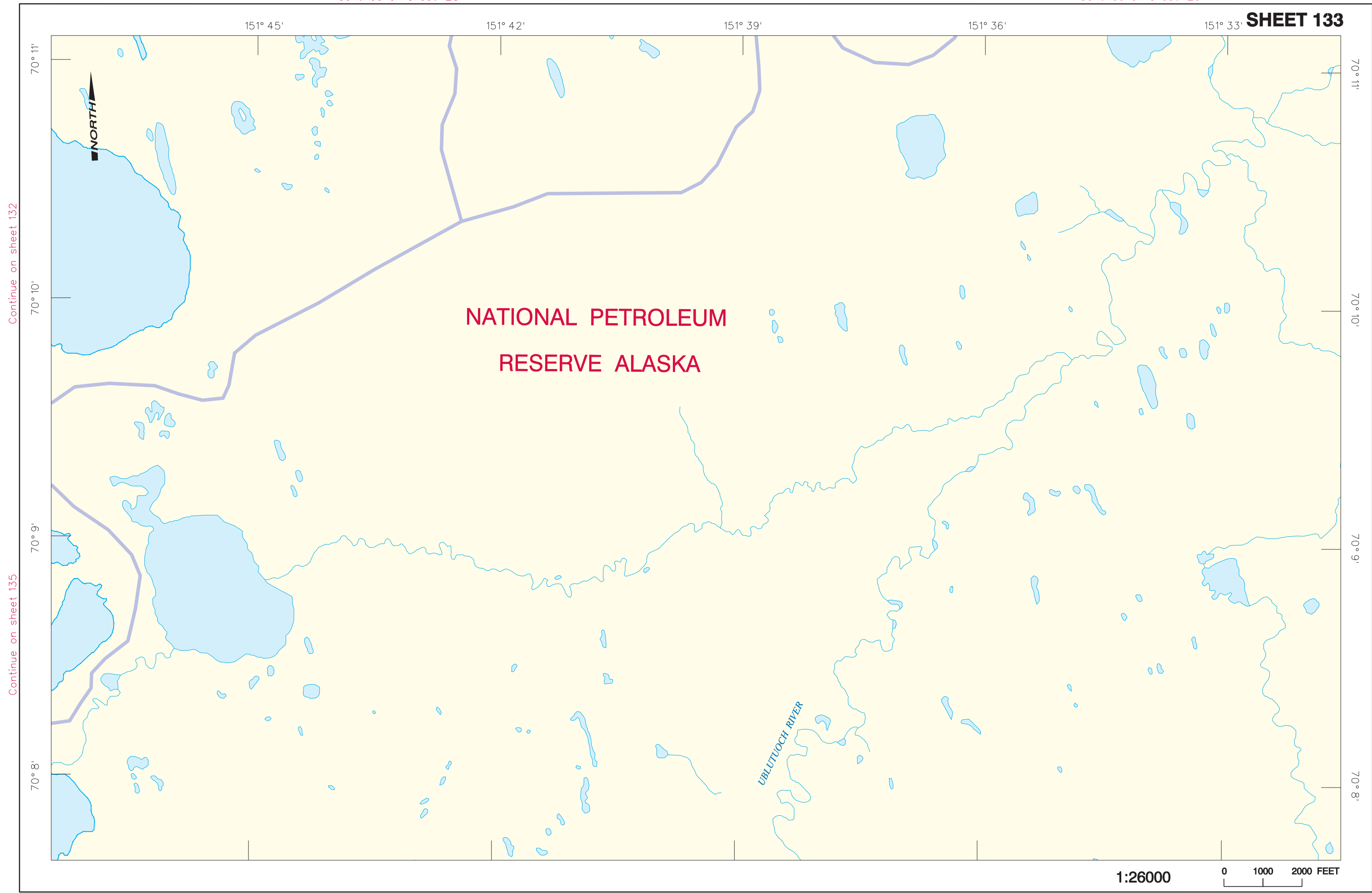
VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 132

Continue on sheet 135



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.



AIR ACCESS*

- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 27 miles to the northeast. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

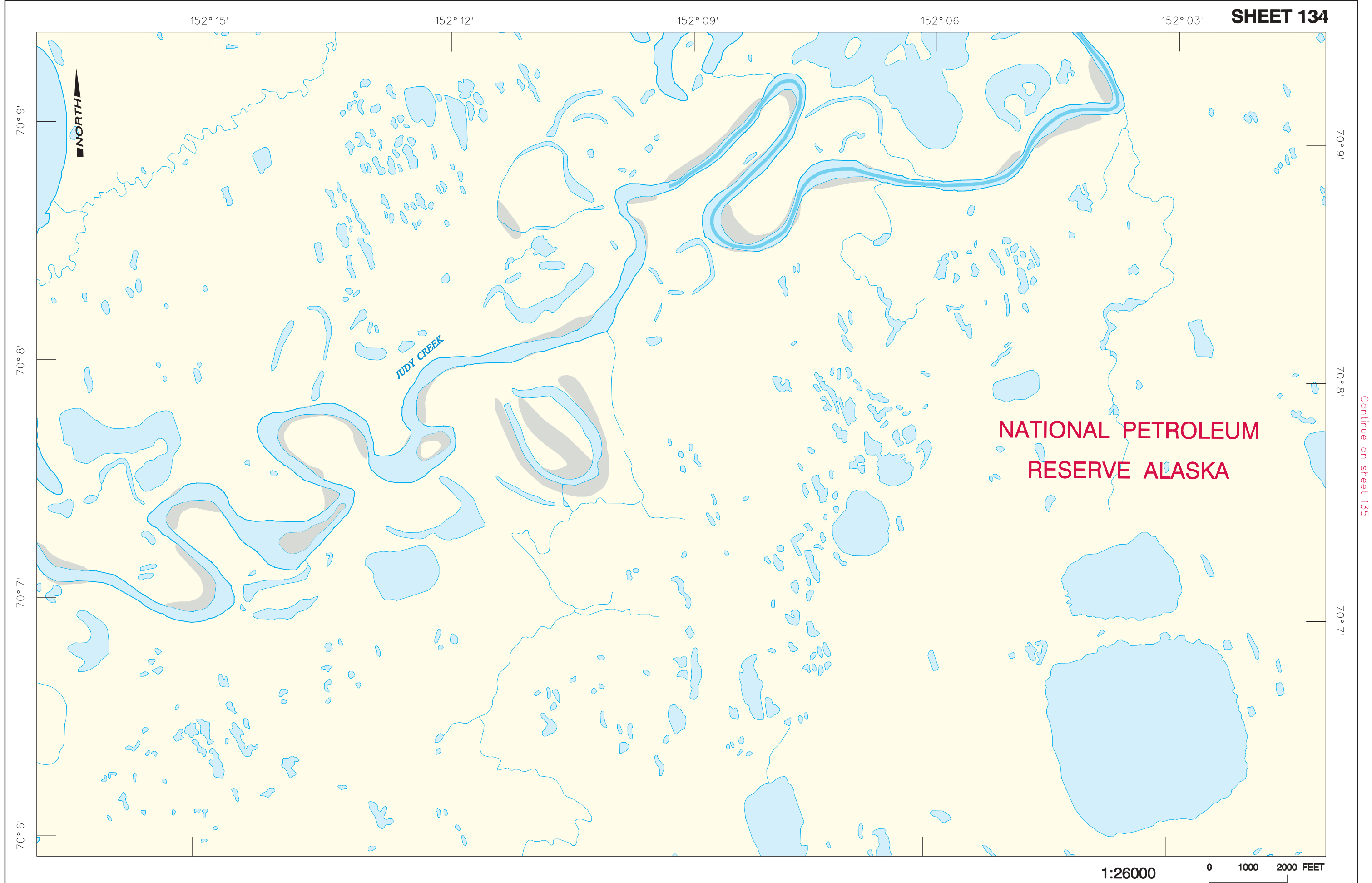
VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

*See the latest *Supplement, Alaska and United States Coast Pilot* for current information on air and vessel access, respectively.

NOTE: All values given on these pages are for planning purposes only.

NOTE: All values given on these pages are for planning purposes only.



Continue on sheet 135



PRIORITY PROTECTION SITES

- There are no priority protection sites on this sheet.

GENERAL SENSITIVITIES

- Coastal areas support high concentrations of breeding, nesting, brood-rearing, and molting waterbirds during the summer.



AIR ACCESS*

- Commercial and air freight services are available at the City of Nuiqsut airport (Sheet 24) approximately 22 miles to the northeast. This is a 4,300-ft, unattended gravel airstrip. Visual inspection prior to use is recommended.

VESSEL ACCESS* AND HYDROGRAPHIC CONDITIONS

- There are no marine waters or shoreline on this sheet.

*See the latest *Supplement, Alaska* and *United States Coast Pilot* for current information on air and vessel access, respectively.

152° 00'

151° 57'

151° 54'

151° 51'

151° 48'

70° 9'

70° 9'

70° 8'

70° 8'

70° 7'

70° 7'

NATIONAL PETROLEUM
RESERVE ALASKA



Continue on sheet 134

Continue on sheet 133

1:26000

