

**NORTH SLOPE
SUBAREA CONTINGENCY PLAN**

**GEOGRAPHIC RESPONSE
STRATEGIES**

PART ONE - ACS TECHNICAL MANUAL- QUICK REFERENCE SECTION

NOTE: In the electronic version of this plan, hyperlinks have been created to allow the reader to quickly access appropriate sections of the ACS technical manual for use in a response or as a general reference document. This section provides the basic structure for the electronic file.

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PART TWO - STRATEGIES FOR OTHER LOCATIONS (to be developed)

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PART ONE: ACS TECHNICAL MANUAL – QUICK REFERENCE SECTION

SECTION 1: ACS TECHNICAL MANUAL, VOLUME 1: TACTICS DESCRIPTIONS

- A. HOW TO USE THE MANUAL (hyperlink to ACS Technical Manual)**
- B. LIST OF TACTICS (Sample Tactic – hyperlink to ACS Technical Manual)**
- C. SAFETY**

Tactic Reference No.	Tactic
S-1	Site Entry Procedures
S-2	Site Safety Plan Form
S-3	Identifying Required Personal Protection
S-4	Site Layout
S-5	Air Monitoring for Personal Protection
S-6 (pp. 1-2)	Decontamination
S-6 (pp. 3-4)	
S-6 (pp. 5-6)	
S-6 (pp. 7-8)	
S-6 (pp. 9-10)	

D. CONTAINMENT

Tactic Reference No.	Tactic
C-1	Containment Using Snow Berm
C-2	Deflection Booming at a Culvert
C-3	Culvert Blocking
C-4	Barriers on Land
C-5	Deflection or Exclusion Booming on Lake or Tundra
C-6	Underflow Dam
C-7	Deadarm Trench on River Bank
C-8 (pp. 1-2)	Deflection Booming in Stream
C-8 (pp. 3-4)	
C-8 (pp. 5-6)	
C-9	Exclusion Booming on River
C-10	Containment Using Ice-Road Ring
C-11	Containment on Ice with Trenches and Sumps
C-12	Trenching Ice to Direct Flow to a Containment Point
C-13	Deflection Booming in Open Water
C-14	Exclusion Booming in open Water
C-15	Intertidal Booming
C-16	Anchored W Deflection Boom

E. RECOVERY AND STORAGE

Tactic Reference No.	Tactic
R-1	Mechanical Recovery of Lightly Oiled Snow
R-2	Manual Recovery of Lightly Oiled Snow
R-3	Recovery of Oil-Saturated Snow
R-4	Flushing of Oil on Tundra Surface
R-5	Recovery of Embedded Oil
R-6	Recovery by Direct Suction
R-7	Recovery from Pit or Trench
R-8	Use of Portable Skimmers with Pumps (River and Lake)
R-9	Use of Sorbents
R-10	Fairchild Gate Weir Collection System
R-11	Decanting Separated Water in River
R-12	Aggressive Breakup in River
R-13	Cutting Ice Slots for Recovery
R-14 (pp. 1-2)	Recovery of Oil Under Ice
R-14 (pp. 3-4)	
R-15	Anchored V-Boom to Skimmer
R-16	Hook Boom to Skimmer and Storage
R-17	J-Boom to Skimmer and Mini-Barge
R-18	U-Boom to Skimmer and Mini-Barge
R-19	J-Boom to Transrec 250 and Large Barge
R-19A	Use of J-Booms in Broken Ice (<70%)
R-20	U-Boom with Open Apex to Skimmer and Mini-Barge
R-21	Hot-Water, High-Pressure Washing of Solid Surfaces
R-22	Temporary Storage Onshore
R-23	Tank on Trailer (CATCO Fuel Tanker)
R-24	Hose and Pumps in Series
R-25	Freighter Boat with Tank
R-26	Excavation and Storage of Oiled Gravel
R-27	Damaged Tank Transfer Procedures
R-28	Lightering
R-29	Ice Mining

F. TRACKING AND SURVEILLANCE

Tactic Reference No.	Tactic
T-1	Delineation of Oiled Snow or tundra
T-2	Mapping and Surveillance of Spill on Land
T-3	Detection and Delineation of Under-Ice Oil
T-4	Discharge Tracking in Open Water
T-5	Trajectory Calculations
T-6 (pp. 1-2)	Blowout Modeling
T-6 (pp. 3-4)	
T-7	Spill Volume Estimation

G. BURNING

Tactic Reference No.	Tactic
B-1	In-Situ Burning Plan
B-1A (pp. 1-2)	RRT In-Situ Burn Application Form
B-1A (pp. 3-4)	
B-2	Burning Oily Vegetation
B-3	In-Situ Burning with Heli-torch and Other Igniters
B-4 (pp. 1-2)	Deployment and Use of Fire Containment Boom
B-4 (pp. 3-4)	
B-5	Burning Oil Pools on any Solid Surface
B-6	Burn Residue Recovery
B-7	Burn Extinguishment on Water

H. SHORELINE CLEANUP

Tactic Reference No.	Tactic
SH-1	Shoreline Assessment
SH-2	Natural Recovery of an Oiled Shoreline
SH-3	Shoreline Cleanup Using Flooding and Flushing
SH-4	Shoreline Cleanup Using Steam Cleaning or Sand Blasting
SH-5	Shoreline Cleanup Using Manual Removal and Vacuum Methods
SH-6	Shoreline Cleanup Using Mechanical Removal
SH-7	Shoreline Cleanup Using Sorbents and Vegetation Cutting
SH-8	Shoreline Cleanup Using Mechanical Tilling/Aeration
SH-9	Shoreline Cleanup Using Sediment Reworking and Surf Washing
SH-10	Shoreline Cleanup Using Burning
SH-11	Biological/Chemical Shoreline Response Tactics
SH-12	Summary of Potential Impact of Shoreline Cleanup Techniques

I. WILDLIFE AND SENSITIVE AREAS

Tactic Reference No.	Tactic
W-1	Wildlife Protection Strategy and Permits
W-1A (pp. 1-2)	RRT Hazing Checklist
W-1A (pp. 3-4)	
W-1A (pp. 5-6)	
W-1A (pp. 7-8)	
W-1B (pp. 1-2)	RRT Capture/Transportation/Stabilization/Treatment Checklist
W-1B (pp. 3-4)	
W-1B (pp. 5-6)	
W-1B (pp. 7-8)	
W-1B (pp. 9-10)	
W-1B (pp. 11-12)	
W-2	Wildlife Hazing Equipment
W-2A	Mammal Hazing
W-2B	Bird Hazing
W-3	Wildlife Capture and Rehabilitation
W-4	Salvage of Dead Wildlife
W-5	Deployment of ACS Mobile Wildlife Stabilization Center
W-6 (pp. 1-2)	Identifying and Protecting Sensitive Areas
W-6 (pp. 3-4)	Identifying and Protecting Sensitive Areas (continued)

J. DISPOSAL

Tactic Reference No.	Tactic
D-1 (pp. 1-2)	Processing Recovered Liquids
D-1 (pp. 3-4)	
D-1 (pp. 5-6)	
D-2 (pp. 1-2)	Storage and Disposal of Non-Liquid Oily Wastes
D-2 (pp. 3-4)	
D-3 (pp. 1-2)	Disposal of Non-Oily Wastes
D-3 (pp. 3-4)	
D-4 (pp. 1-2)	Stockpiling Oiled Gravel
D-4 (pp. 3-4)	
D-5	Processing of Contaminated Snow/Ice

K. LOGISTICS AND EQUIPMENT

Tactic Reference No.	Tactic
L-1	Ice Road Construction for Access to Winter Tundra Spill
L-2 (pp. 1-2)	Staging Areas
L-2 (pp. 3-4)	
L-3 (pp. 1-2)	Deployment Strategies
L-3 (pp. 3-4)	
L-3 (pp. 5-6)	
L-4	Logistical Support
L-5 (pp. 1-2)	Communications
L-5 (pp. 3-4)	
L-5 (pp. 5-6)	
L-5 (pp. 7-8)	
L-6 (pp. 1-2)	ACS Response Equipment Specifications
L-6 (pp. 3-4)	
L-6 (pp. 5-6)	
L-7 (pp. 1-2)	Realistic Maximum Operating Limitations
L-7 (pp. 3-4)	
L-7 (pp. 5-6)	
L-7 (pp. 7-8)	
L-8	North Slope Mutual Aid
L-9	Accessing Contract Resources
L-10	Accessing Non-Obligated Resources
L-11	Best Available Technology (BAT) Analysis
L-11A (pp. 1-2)	BAT Analysis: ACS Communications
L-11A (pp. 3-4)	
L-11B	BAT Analysis: Trajectory Analyses
L-11C	BAT Analysis: Wildlife Protection
L-12	Logistical Support for On-Water Operations

L. ADMINISTRATION

Tactic Reference No.	Tactic
A-1	Emergency Action Checklist
A-2 (pp. 1-2)	Spill Reporting Procedures
A-2 (pp. 3-4)	
A-3	ACS Pre-Approved Permits
A-4 (pp. 1-2)	Training Requirements for Response Personnel
A-4 (pp. 3-4)	
A-5 (pp. 1-2)	ACS Certifications
A-5 (pp. 3-4)	
A-5 (pp. 5-6)	

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SECTION 2: ACS TECHNICAL MANUAL, VOLUME 2: MAP ATLAS

- A. HOW TO USE THE MAP ATLAS:** (hyperlink to ACS Technical Manual)
- B. MAPS AND MAP INDEX:** Each map has been hyperlinked to the ACS Technical Manual Map Atlas. To access a specific map, click on the appropriate map number on the Map Index. (See pages G-9 thru G-12 for the Basic Legend and Map Index)
- C. MAP LEGENDS:** (Each map legend number below has been hyperlinked to the ACS Technical Manual). Each map has a corresponding “Legend” page. To access the specific Map Legend, click on the appropriate map legend number below.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
19	20	21	21A	22	23	23A	23B	24	25	26	27	28	29	30	31	32	33
34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69
70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87
88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105

- D. NEARSHORE CIRCULATION** (hyperlinked to ACS Technical Manual)
(See pages G-13 thru G-16 for hard copy maps, or click on the below hyperlinks to access data)

Circulation	East Wind 1	East Wind 2	West Wind 1	West Wind 2
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Circulation in the 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 maps on pages G-10 through G-13 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.

- E. RRT SENSITIVITY DATA:** (hyperlinked to ACS Technical Manual. Click on the below hyperlinks to access data)

ARRT Sensitivity	Sensitivity 1	Sensitivity 2	Cultural
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INFRASTRUCTURE

- Canal Canal
- Pipeline
- Deep Water Port/Wharf
- Dredged Power Lines (Dredged Power Lines not not shown)
- Temporary Trenches or Minor Trenches (Not featured on map)

BIODIVERSITY

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

CULTURAL HERITAGE

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

HYDROGRAPHY

- Single/Multiple Confluence
- Single/Multiple Confluence
- Priority Protection Sites
- Approximate location of Pre-Stage Equipment in Current Alaska Ocean Desk
- Reported Oil Contam. Site

SEDIMENT, SOILS AND PLANT COMMUNITIES

(Updated April 1997)
 EMI, Environmental Mapping Ltd., Alexandria, BC and
 Ottawa Coastal Consultants, Stratford, Ontario, ON

- Sand-Mud (Silt) Deposits
- Pebbles-Cobbles Deposits
- Mixed Sand-Graed Deposits
- Sand Deposits
- Sand Flats
- Mud Flats
- Soft Mudflats
 Polygons were generated by photointerpretation from 1:62,500
 Off-Photography and 1:62,500 top maps. Coverage is limited
 to Pebbles, Sand on the west to Sand Flats on the east.
 Interpretation by GeoMap US.
- Post-Streamline
- Intertidal Low-Lying Tundra, Shrubland
- Tundra, Cilia Vegetated low banks

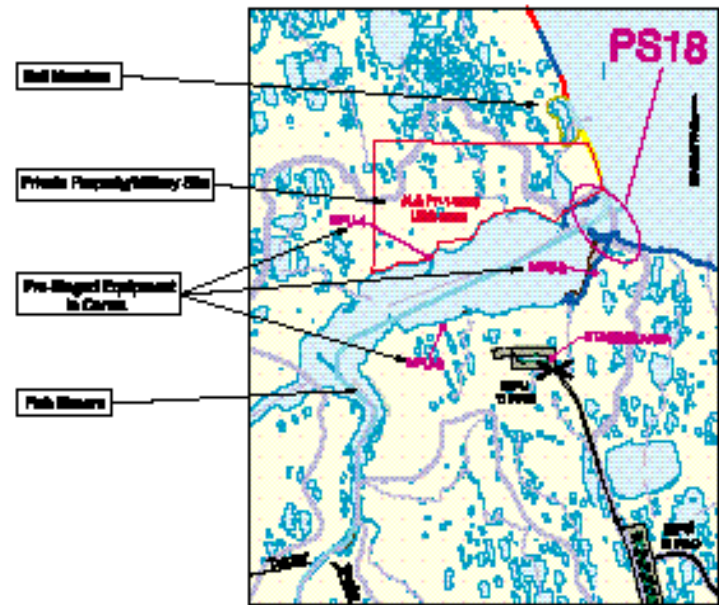
SOILS REGISTERED

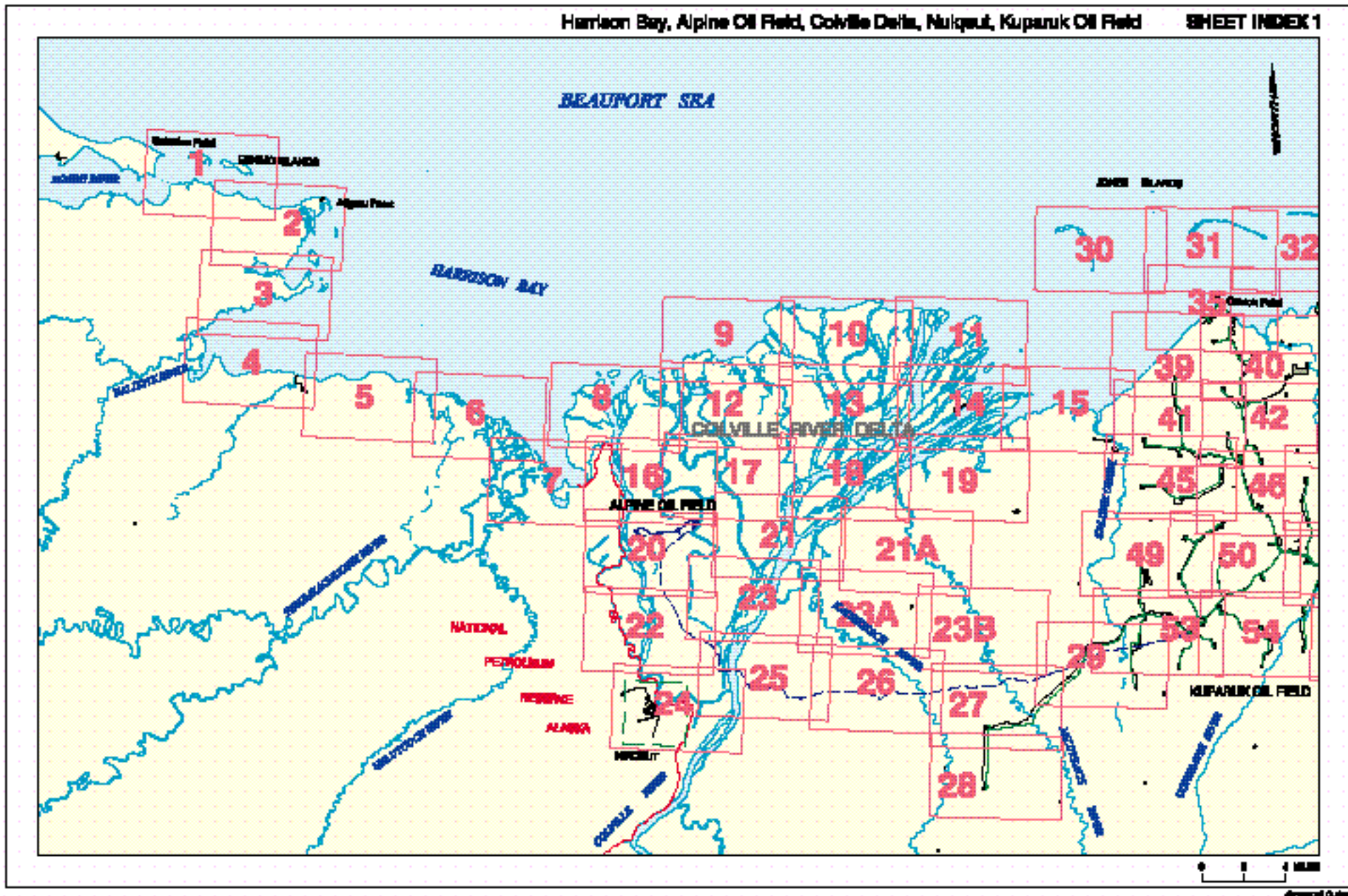
- Naturally Occurring Nonvegetated Areas (Gravel Bars, Beaches, and Mud Flats)
- Tidal Flats (Silt or Sand Flats, Saline Marsh, Sea Level)

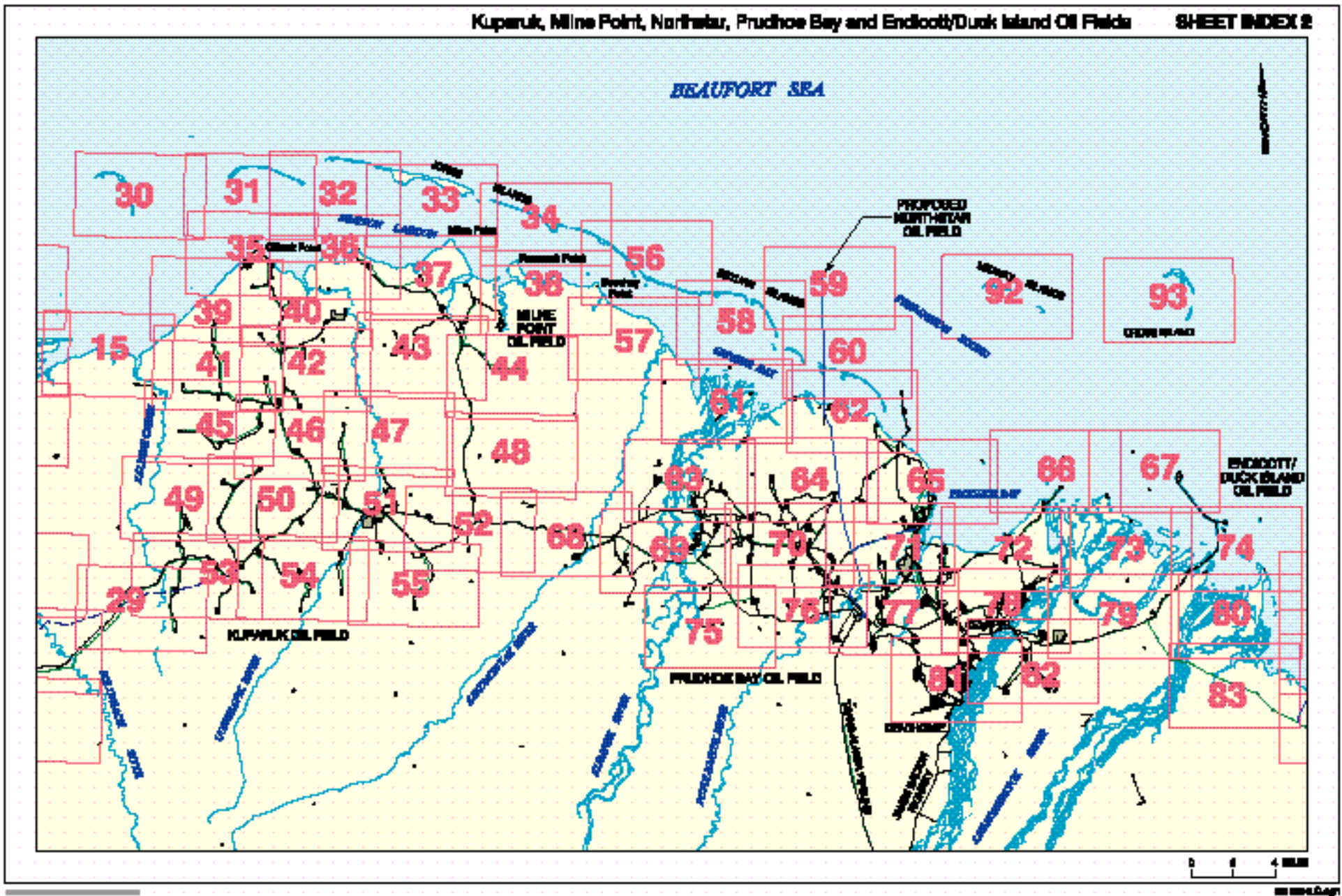
Grayscale to Maps (see Level 10) established by
 British Soil observations in 1973 at East Beach.

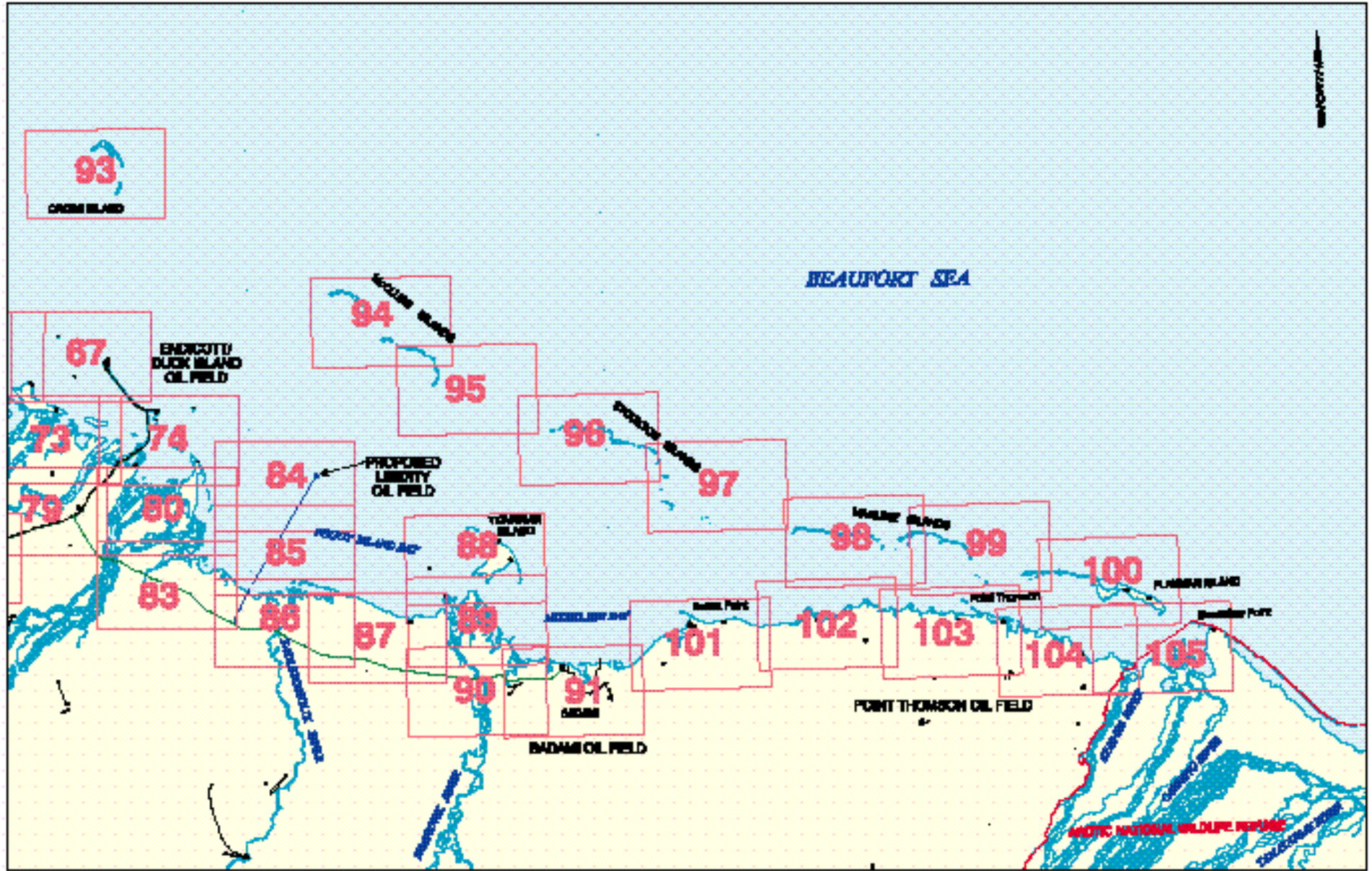
Reliability Interpolated from 1989-90 NOAA
 soundings, depth in feet.

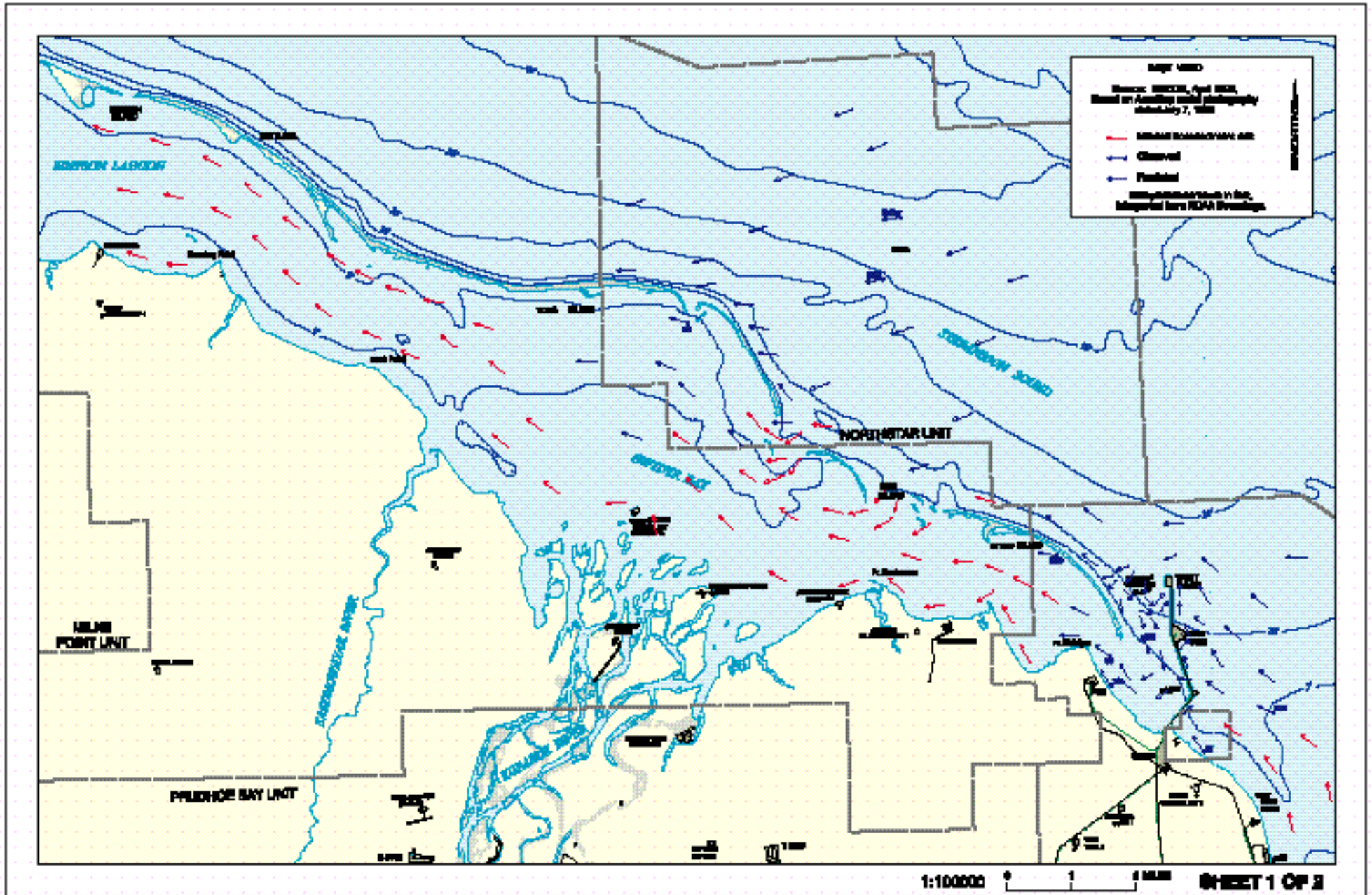
Map sheets 1 through 28 and 30 are based on LEGIS
 1:250,000 quad maps. Map sheets 29 through 30 are
 based on Arco Alaska Inc. and BP Exploration (Production) Inc.
 topographic maps 1:50,000.

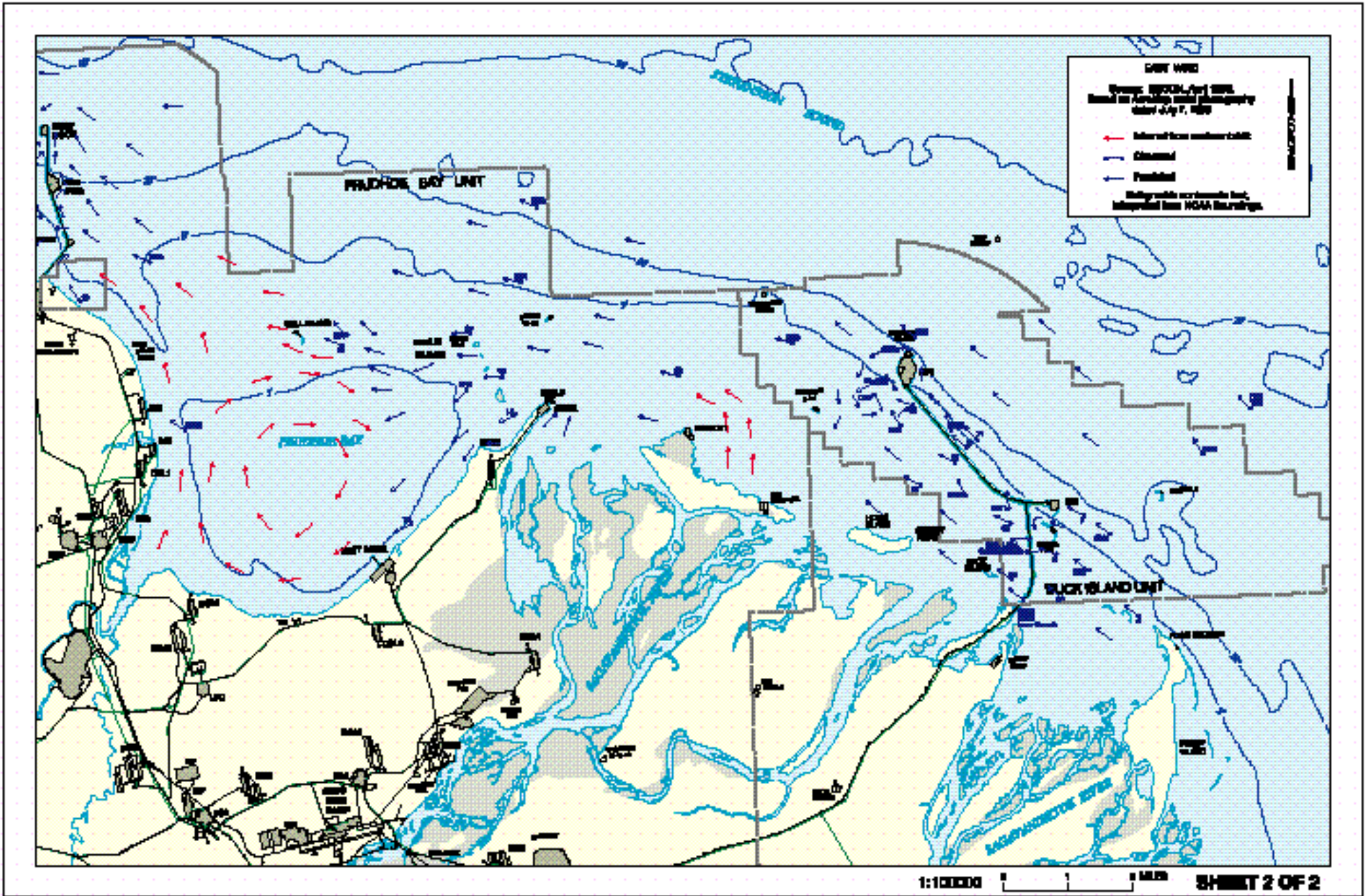


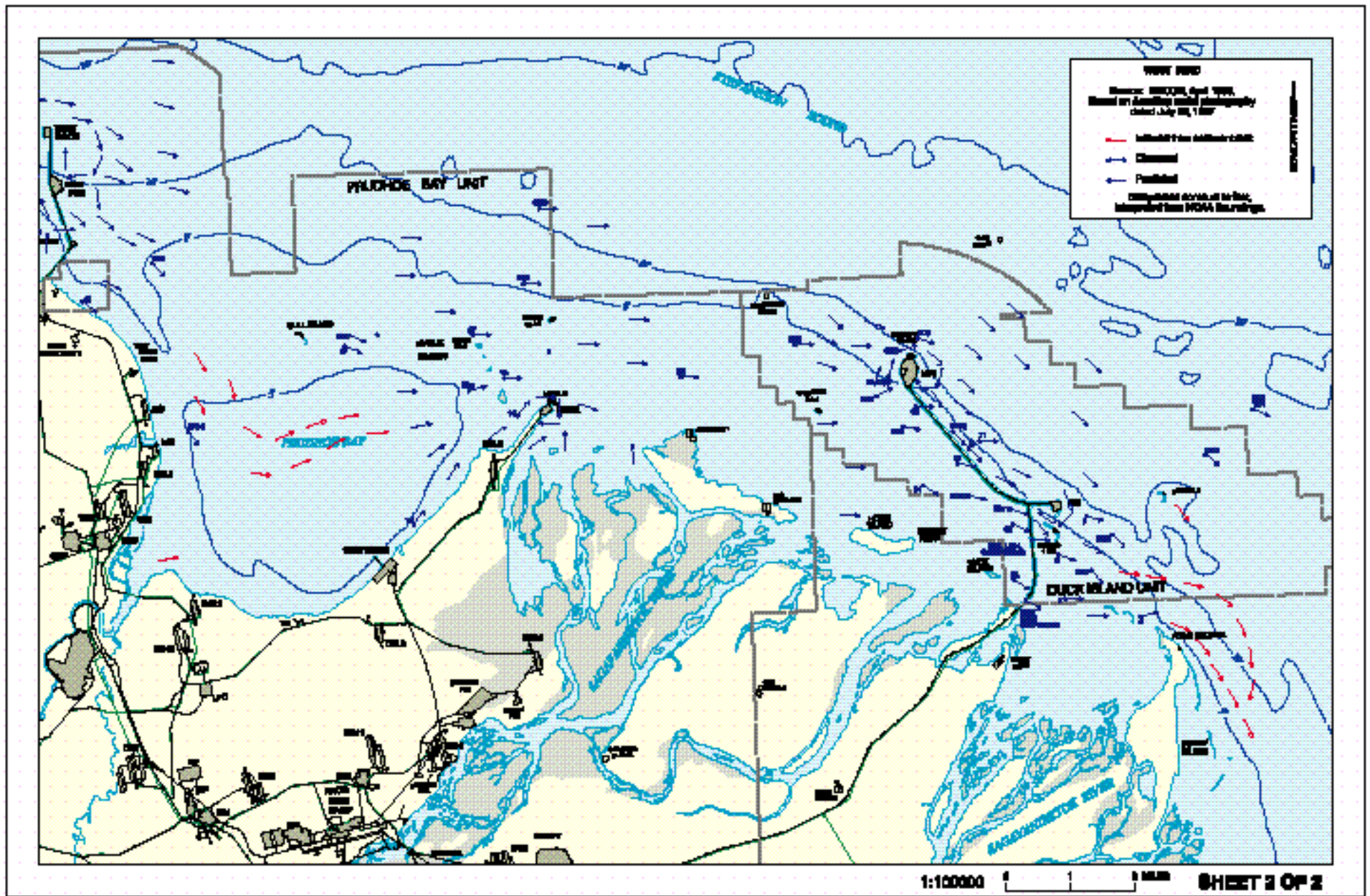












PART TWO – STRATEGIES FOR OTHER LOCATIONS

(This section to be developed at a later date)

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