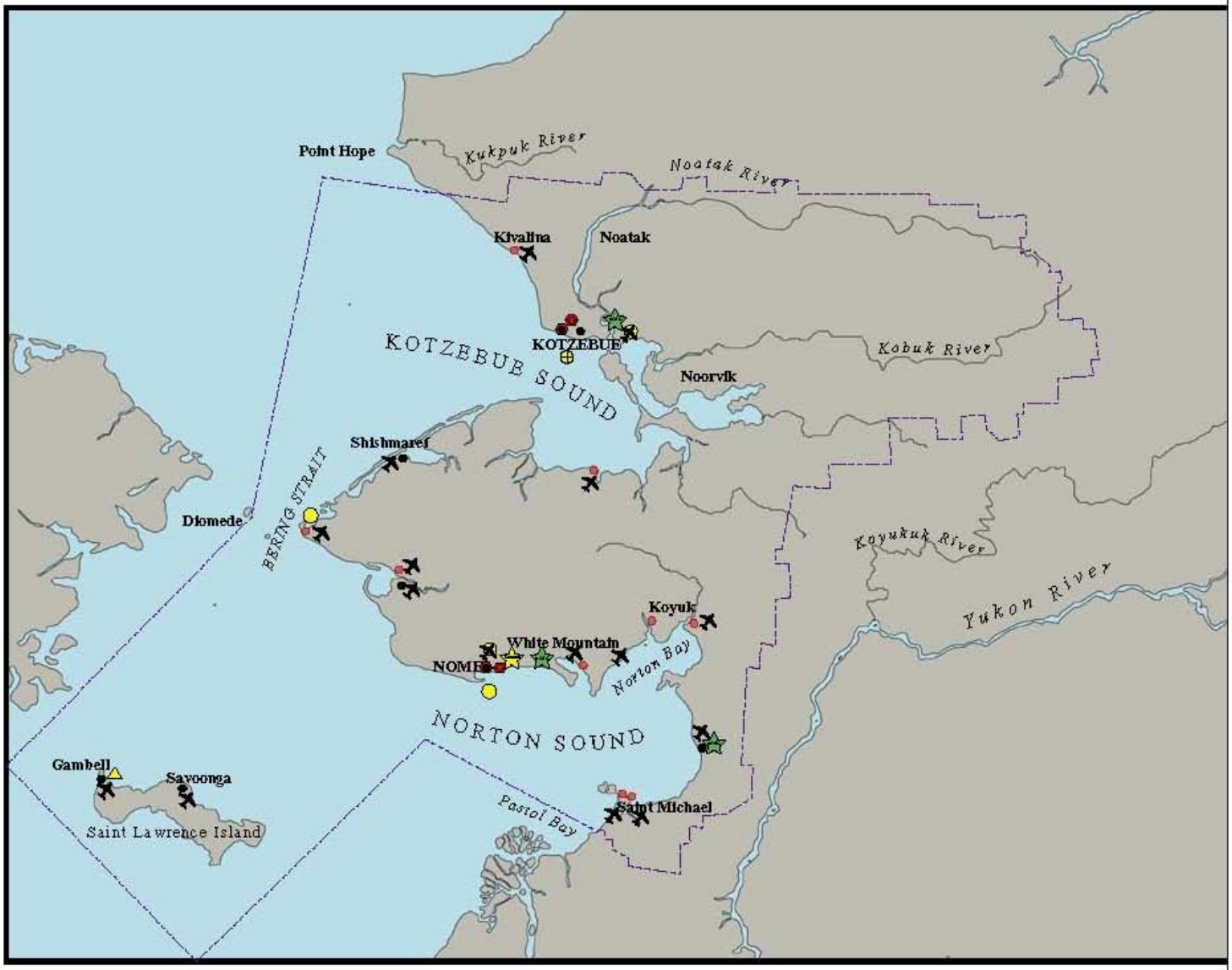
Northwest Arctic Subarea

Oil Spill Risk Assessment for Planning Purposes



June 17, 2004

Northwest Arctic, Alaska

RISK LAYERS for CANDIDATE SITES for GEOGRAPHIC RESPONSE STRATEGIES

RISK SYMBOLS

Response Equipment Depot

Airport
Airport, lighted

Dock
Crane
Abandoned Canneries

Frequent Fishing Vessel

Tramper Offload Activities
Primary (≥20 loads)
Secondary (≤20 loads)

Key Nearshore Fishing Grounds

Aleutian Subarea Noncrude Carrier Routes
= 227,272 Bbls (10 million gals)
= 2,272,727 Bbls (100 million gals)
> 18,181,818 Bbls (800 million gals)
=13 to14 million Bbls #6 Oil Traffic to Asia
6000+/- vessels

Bulk Fuel Storage Sites > 5,000 bbls
– 3k-9,999 bbl.
– 10k-39,999 bbl.
– 40k-99,999 bbl.
– 100k-299,999 bbl.
– 300K-500,000 bbl.

Aleutian Subarea Spills >24 barrels 1994-2004
= Persistent
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–24-71 bbl.
–72-142 bbl.
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–429-800 bbl.
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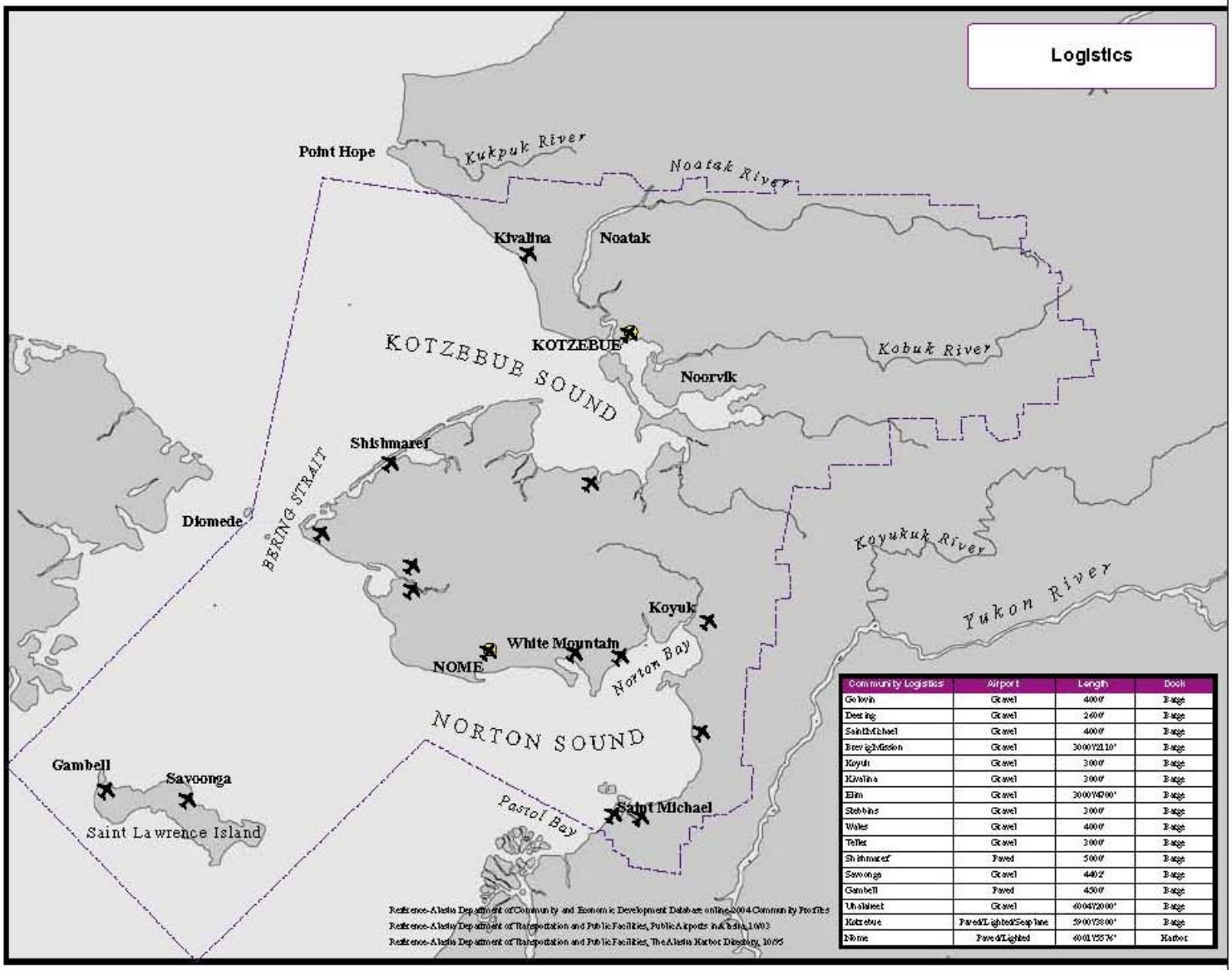
Cruise and AMHS Ship Traffic
Zone Boundary



Community Logistics	Airport	Length	Dock
Golwin	Gravel	4000'	Barge
Deering	Gravel	2600'	Barge
SaintMichael	Gravel	4000'	Barge
BreviigMission	Gravel	3000'/2110'	Barge
Koyuk	Gravel	3000'	Barge
Kivalina	Gravel	3000'	Barge
Elim	Gravel	3000'/4200'	Barge
Stebbins	Gravel	3000'	Barge
Wales	Gravel	4000'	Barge
Teller	Gravel	3000'	Barge
Shishmaref	Paved	5000'	Barge
Savoonga	Gravel	4402'	Barge
Gambell	Paved	4500'	Barge
Unalakleet	Gravel	6004'/2000'	Barge
Kotzebue	Paved/Lighted/Seaplane	5900'/3800'	Barge
Nome	Paved/Lighted	6001'/5576'	Harbor

Reference-Alaska Department of Community and Economic Development Database online 2004 Community Profiles
Reference-Alaska Department of Transportation and Public Facilities, Public Airports in Alaska, 1/03
Reference-Alaska Department of Transportation and Public Facilities, The Alaska Harbor Directory, 10/95

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Northwest Arctic, Alaska

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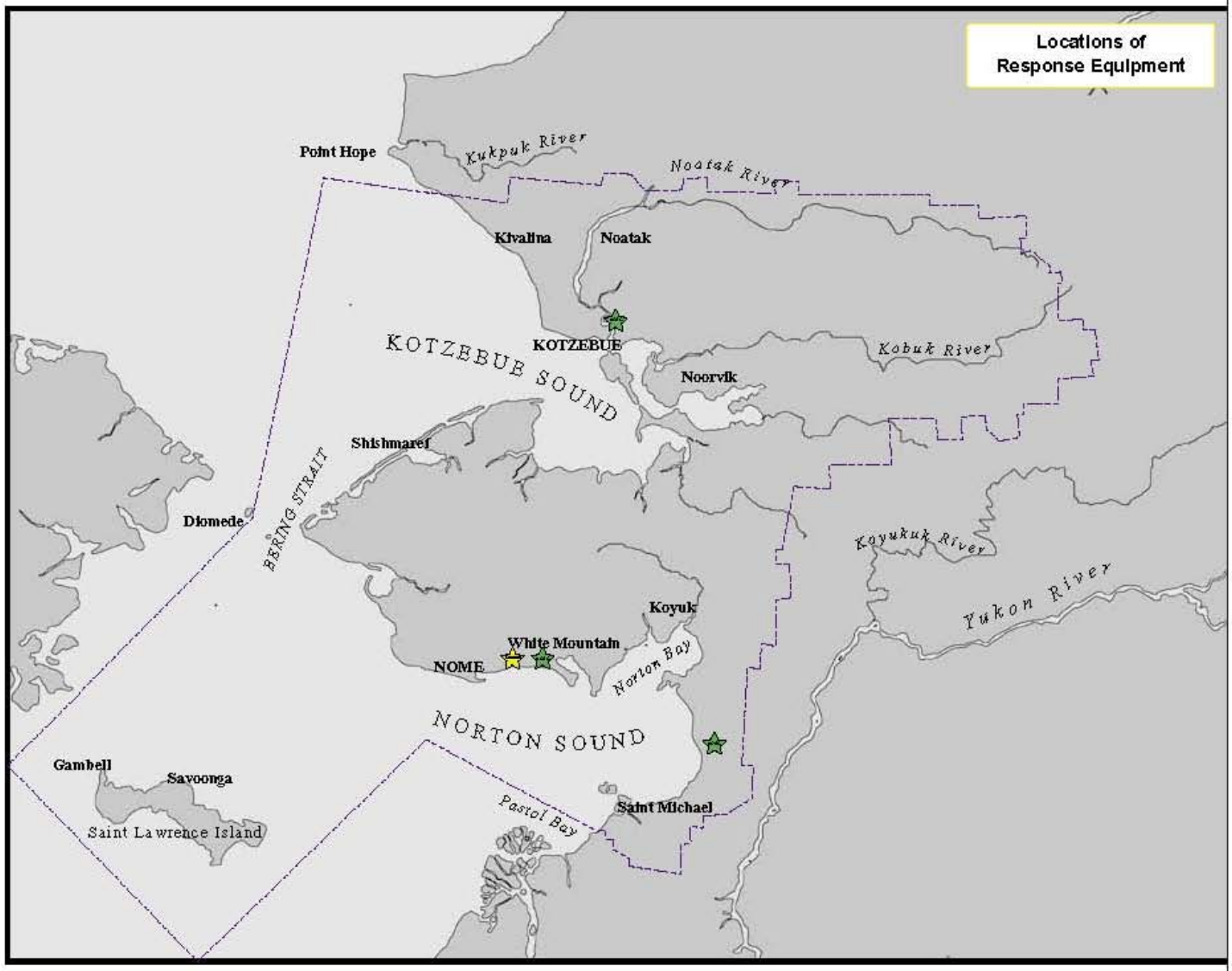

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Northwest Arctic, Alaska

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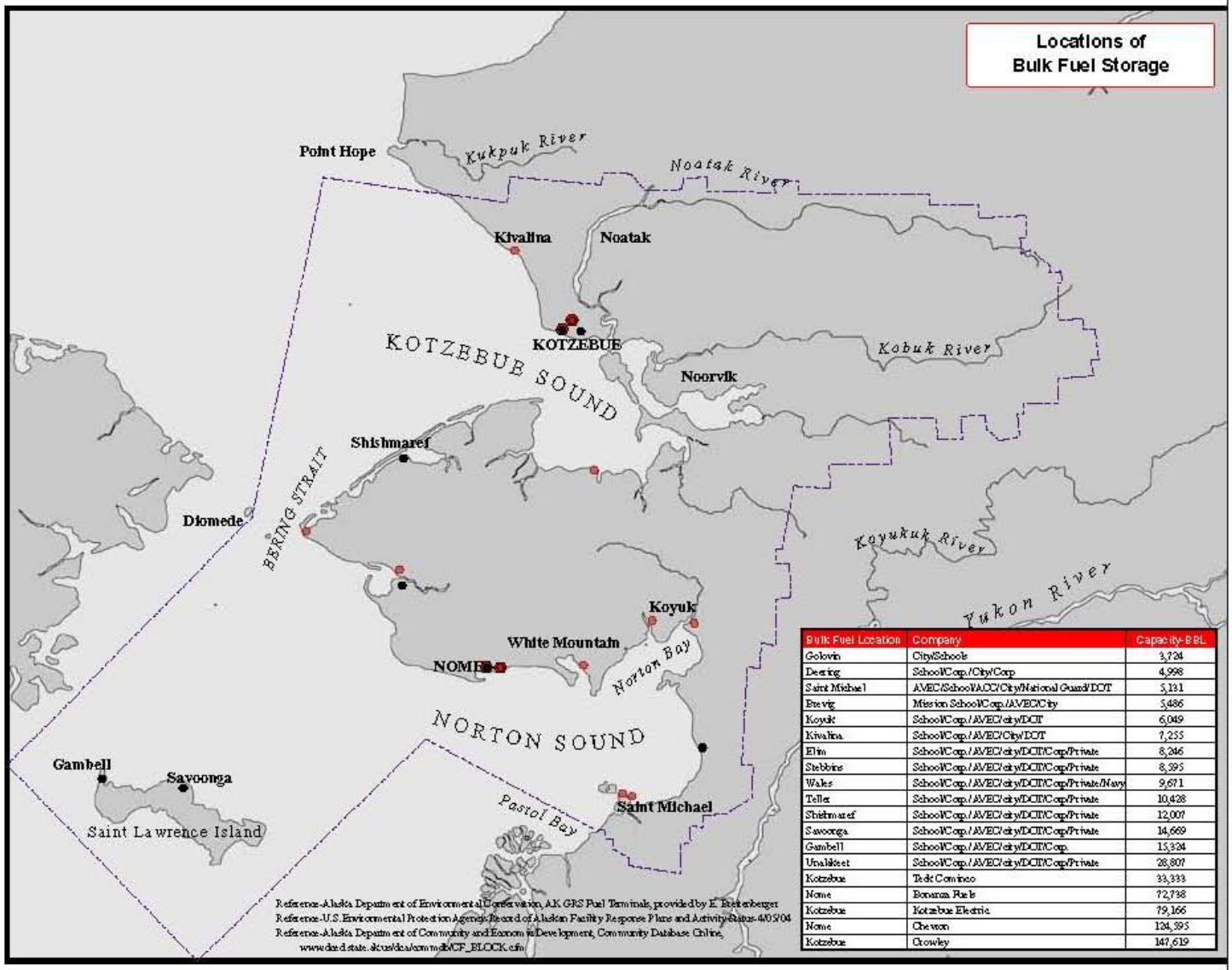

Bulk Fuel Location	Company	Capacity-BBL
Golovin	City/Schools	3,724
Deering	School/Corp./City/Corp	4,998
Saint Michael	AVEC/School/ACC/City/National Guard/DOT	5,131
Brevig	Mission School/Corp./AVEC/City	5,486
Koyuk	School/Corp./AVEC/city/DOT	6,049
Kivalina	School/Corp./AVEC/City/DOT	7,255
Elim	School/Corp./AVEC/city/DOT/Corp/Private	8,246
Stebbins	School/Corp./AVEC/city/DOT/Corp/Private	8,395
Wales	School/Corp./AVEC/city/DOT/Corp/Private/Navy	9,671
Teller	School/Corp./AVEC/city/DOT/Corp/Private	10,428
Shishmaref	School/Corp./AVEC/city/DOT/Corp/Private	12,007
Savoonga	School/Corp./AVEC/city/DOT/Corp/Private	14,669
Gambell	School/Corp./AVEC/city/DOT/Corp.	15,324
Unalakleet	School/Corp./AVEC/city/DOT/Corp/Private	28,807
Kotzebue	Tesoro Companies	33,333
Nome	Bonanza Fuels	72,798
Kotzebue	Kotzebue Electric	79,166
Nome	Chevron	124,595
Kotzebue	Crowley	147,619

Reference-Alaska Department of Environmental Conservation, AK GRS Fuel Terminals, provided by E. Breitenberger
Reference-U.S. Environmental Protection Agency-Record of Alaskan Facility Response Plans and Activity-Status-4/05/04
Reference-Alaska Department of Community and Economic Development, Community Database Online,
www.dced.state.ak.us/dca/commdb/CF_BLOCK.cfm

RISK SYMBOLS

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Airport, Airport, lighted

Dock, Crane, Abandoned Canneries

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Cruise and AMHS Ship Traffic

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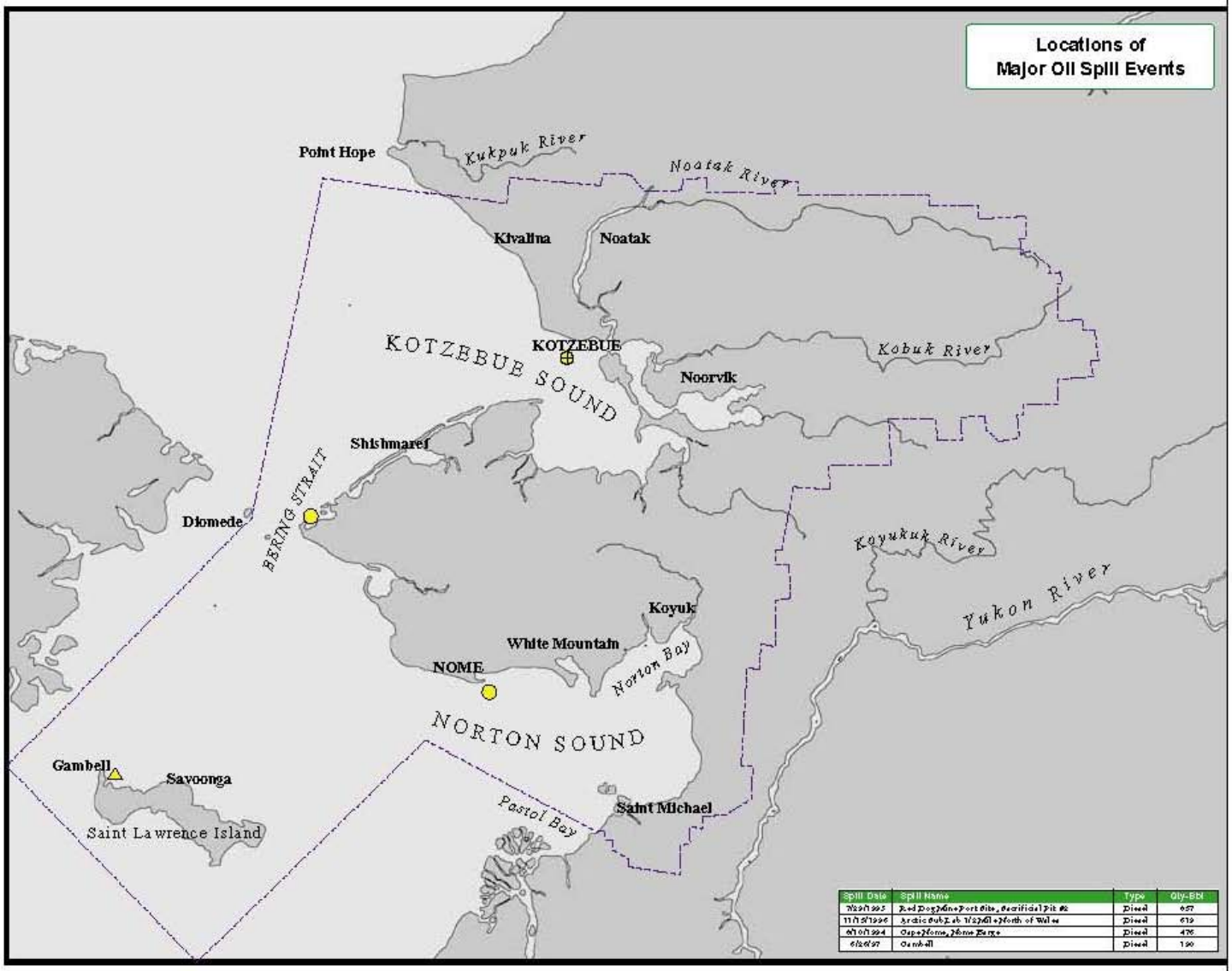

Spill Date	Spill Name	Type	Qty-Bbl
7/29/1995	Red Dog Mine Port Site, Sacrificial Pit #2	Diesel	657
11/15/1996	Arctic Sub Lab 1/2 Mile North of Wales	Diesel	619
6/10/1994	Cape Nome, Nome Barge	Diesel	476
6/26/97	Gambell	Diesel	190

June 17, 2004

Northwest Arctic, Alaska

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Cruise and AMHS Ship Traffic

Zone Boundary

Oil Spill History – NW Arctic Subarea

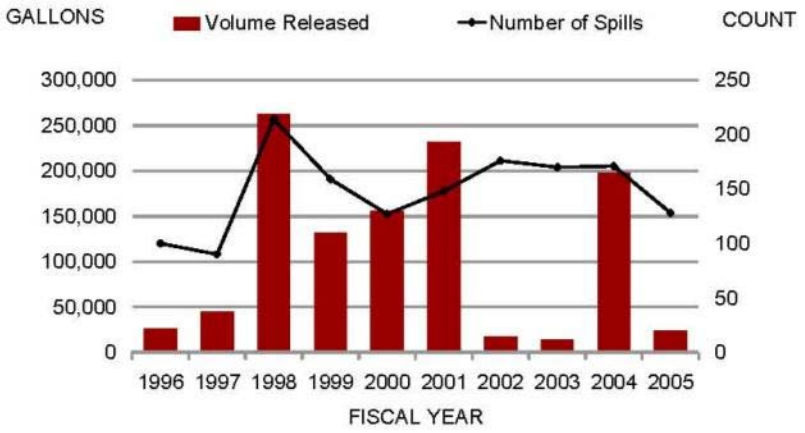
Top Ten Oil Spills – Northwest Arctic Subarea			
Date	**Location/Incident**	**Product Spilled**	**Quantity (gals)**
March 24, 2000	Unalakleet – Aviation Tank Farm	Gasoline	84,360
July 29, 1993	Cominco Red Dog Mine Port Site, Pit 2	Diesel	36,000
November,15 1996	Wales – Arctic Sub Lab	Diesel	26,000
August 10, 1994	Cape Nome – Vessel Grounding	Diesel	20,000
June 26, 1997	Gambell Tank Farm	Diesel	8,000
April 5, 2008	Buckland Tank Farm	Diesel	7,750
September 13, 1995	Elim Tank Farm	Gasoline	7,000
January 23, 2008	Selawik Tank Farm	Diesel	5,385
January 23, 1997	Savoonga Tank Farm	Diesel	5,000
February 15, 2003	Gambell Tank Farm	Diesel	4,600

Major Spills in the Northwest Arctic Subarea

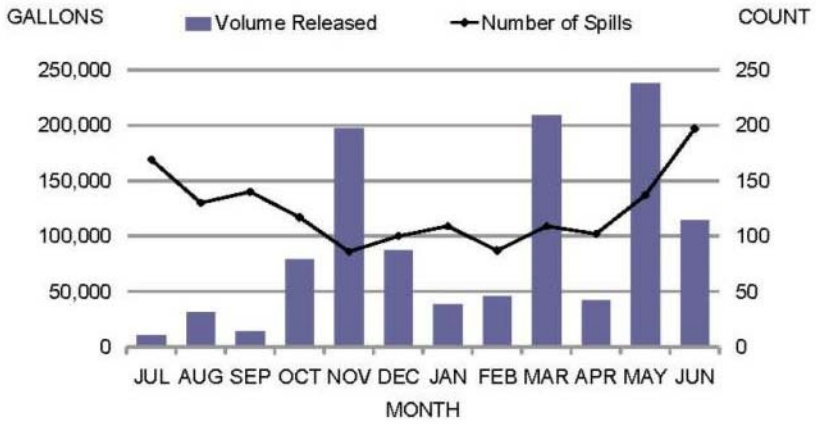
Date	Spill Name	Product	Gallons
5/31/1998	Red Dog Mine	Magnesium Oxide (Slurry)	200,000
11/24/2003	Red Dog Mine	Tailings	158,398
3/2/1999	Red Dog Mine	Gray Water	100,000
3/24/2000	West Coast Aviation Tank Farm Spill	Gasoline	84,360
12/28/2000	Red Dog Mine Port Road	Zinc Concentrate	80,000
10/9/2000	Red Dog Mine Port Road	Lead	60,000
7/29/93	Cominco Red Dog mine port site, pit #2	Diesel	36,000
4/13/1998	Red Dog Mine	Process Water	36,000
6/2/2001	Red Dog Mine	Reclaim Water	29,000
6/15/2000	Nome Airport Drums of Tar	Other	27,500
11/15/1996	Arctic Sub Lab	Diesel	26,000
1/24/2004	Red Dog Mine	Process Water	21,000
8/10/94	Nome Grounding	Diesel	20,000
2/13/1999	Red Dog Mine	Reclaim Water	20,000
3/6/2000	Red Dog Mine	Produced Water	20,000
8/3/2000	Red Dog Mine	Process Water	20,000
5/4/2005	Red Dog Mine	Process Water	13,500
2/16/2001	Red Dog Mine Port Road	Zinc Concentrate	12,000
6/3/1996	Red Dog Mine	Tailings	10,000
6/6/2001	Red Dog Mine	Reclaim Water	10,000
6/11/2004	Red Dog Mine	Process Water	10,000
9/13/1995	Elim Native Store	Gasoline	7,000
11/8/1999	Red Dog Mine	Process Water	6,500
1/23/1997	Savoonga Tank Farm	Diesel	5,000
1/29/2000	Red Dog Mine	Produced Water	5,000
5/14/2000	Red Dog Mine	WTP Sludge	5,000

Spill Data – NW Arctic Subarea

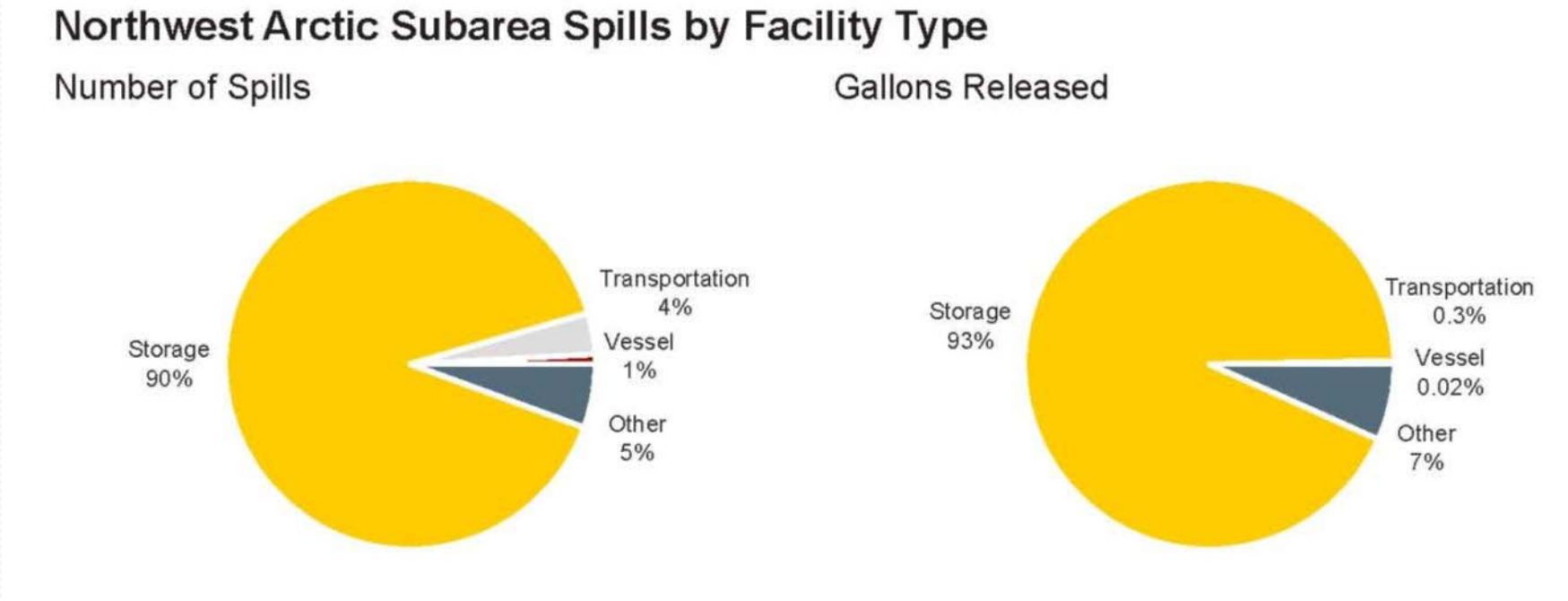
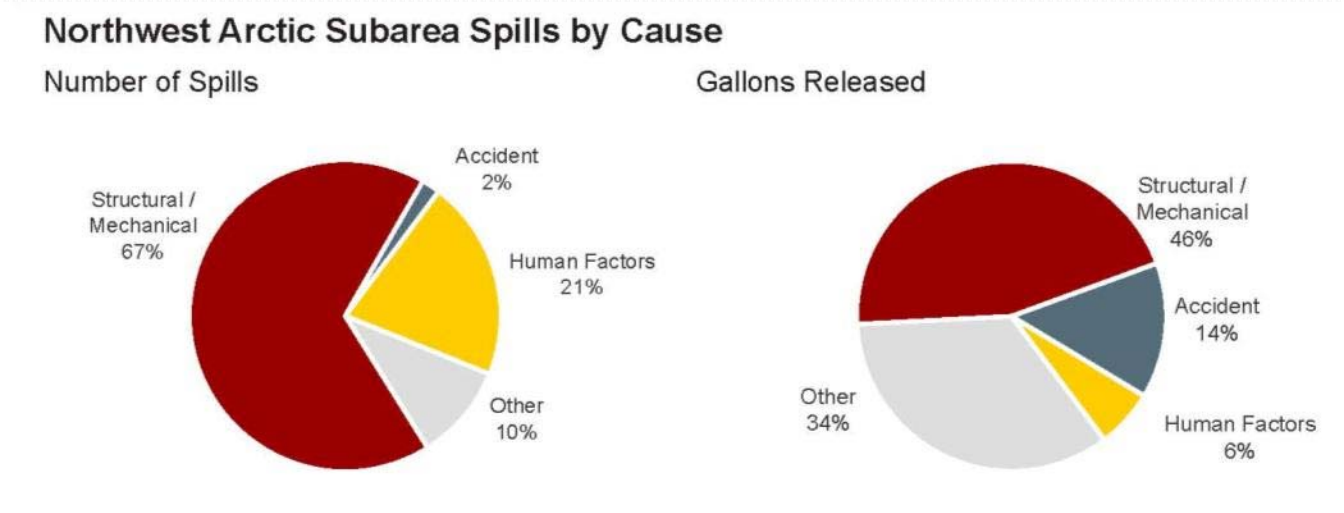
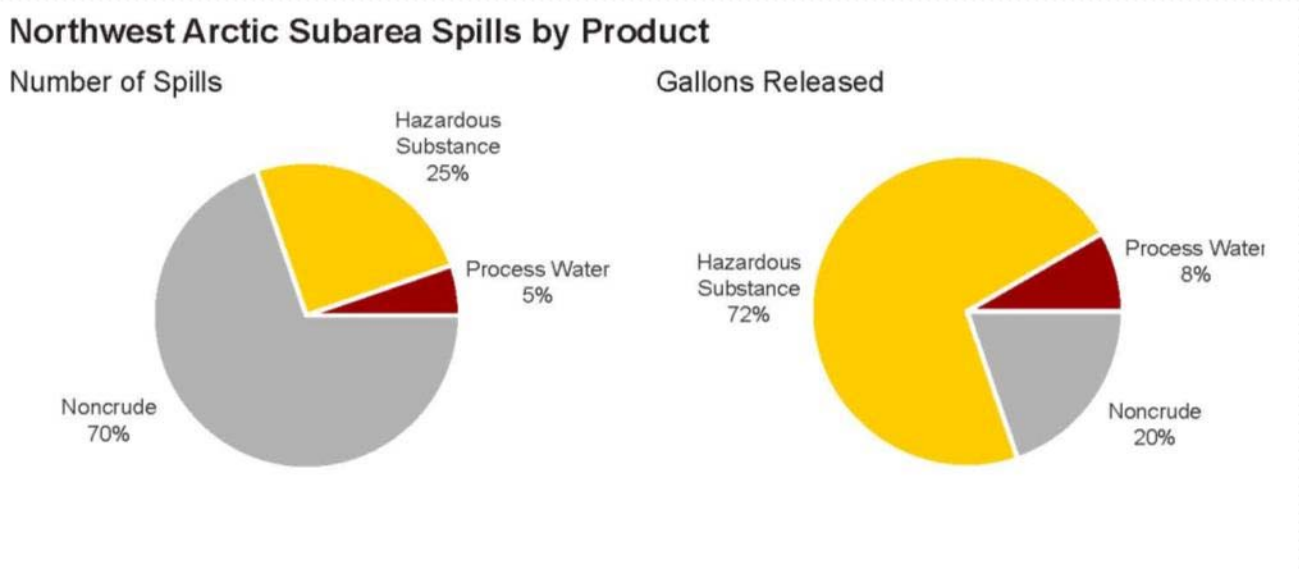
All Spills by Fiscal Year



All Spills by Month



Spill Data – NW Arctic Subarea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