[Shoreline evaluations, 1989].

Volume 26
Kodiak section 4

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Kodiak
Scat
SECTION 4
SHORELINE CLEANUP PROGRAM

DATE  6/29/89   SHORELINE SEGMENT  NP-1

LOCATION: (see enclosed map)  NOISY PASSAGE BEACHES ON UGANIK ISLAND -KODIAK

ADEC NO. K 4 - 6  SHORELINE ASSESSMENT DATE:  6/19/89

Recommended Cleanup Activity(ies):
No cleanup recommended at this time, subject to FOSC approval. No oil observed.

Priorities Considerations:
KISCC considers this a sensitive area due to large seabird colonies on Noisy Island.

Ecological Constraints (from site survey):
No constraints. No cleanup is recommended for this segment.

Archeological Constraints (from site survey):
If cleanup is conducted and heretofore undiscovered cultural materials are uncovered, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION FORM - KODIAK

Date: 19/89 / Time: 10:00  Observer: Mike Miles

Surveyed From: Foot/Boat/Helio Plane  Weather: Sun / Cloud / Rain / Snow / Fog

LOCATION: Uganik Island:  SEGMENT I.D. K-6-6-NP-1

LOCATION: Noisy Passage

LENGTH OF SHORELINE SEGMENT: 4600 m

ACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane

SLOPE: High/Med/Low

Wave Exposure: High/Med/Low

Sediment: B & / C2 & / P2 & / C1 & / S1 & / M1 & / R90 &

Drift Debris on Beach: Yes / No  Supra/Upper/Mid/Lower Type

OIL

Degree of Oiling: Heavy/Moderate/Light / No Oil / Unobserved

Total Area of Beach Impact: SU / SP / H / M / L

OIL DISTRIBUTION

Continuous: Y / N  Segment 1  No. Bands  Width

Sporadic: Y / N  Segment 1  Min/Max Dia  Impact Width

Est. Oil Thickness where > 1cm: H / A cm  SU / SP / UP / MID / LO

Est. Oil Penetration: 0 cm  SU / SP / UP / MID / LO

Layers? Yes / No  No Layers  Oil Weathering

Drift Debris Oiled? Yes / No  Supra/Upper/Mid/Lower Amount: H / M / L / VL

OIL MORPHOLOGY

Pooled Oil  "Free" Oil  Spattered  H / M / L / VL Sheen

OIL WEATHERING (LOI)

Fresh Oil  SU / SP / VP / MID / LO  Choc Mousse  SU / SP / VP / MID / LO

Pancake Mousse  SU / SP / VP / MID / LO  Asphalt Mousse  SU / SP / VP / MID / LO

Tar Formation

Comments:

SEE ATTACHED SHEET

ACE 8707625
DOCUMENTATION:

Aerial photo marking segment boundaries  

VTR:  Y/N  Tape Number(s)  

Photography:  Y/N  Roll Number(s)  JT-2  

Sample Numbers Collected:  N/A
SHORELINE OIL EVALUATION

COMMENTS

This coastline has a steep rock backshore and a high angle rocky foreshore. A number of pebble/cobble/boulder pocket beaches occur in coastal indentations.

This shoreline was flown at 300 feet, approximately 300 m was walked and all sized pocket beaches were landed on in order to check sub-surface sediment characteristics.

No oil was found on any beach and no oil was observed on any rocky headland section. Clean-up activities are therefore not required.
ECOLOGICAL EVALUATION

LOCATION: Uganiak Island  SITE: Noisy Passage  OBSERVER: J. Tarpley
LOCATION PREFIX: KN/NP  SEG. NO.: K-6-6-NP-1  LENGTH: 4600 (M)
DATE: 6/19/89  TIME (HHMM): 0925  TIDE HT.: ~ 0.50 (M)
OILED ZONE: Splash  High  Medium  Low  δ
SUBSTRATUM: Rocks  Boulder  Cobble  Gravel  Sand  Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N  Contin. Y/N  Dense Y/N  Sparse Y/N  None Y/N

Mytilus (Mussels): Patchy Y/N  Contin. Y/N  Dense Y/N  Sparse Y/N  None Y/N

Balanus (Barnacles): Patchy Y/N  Contin. Y/N  Dense Y/N  Sparse Y/N  None Y/N

Littorina
Patchy Y/N  Contin. Y/N  Dense Y/N  Sparse Y/N  None Y/N

Limpets: Patchy Y/N  Contin. Y/N  Dense Y/N  Sparse Y/N  None Y/N

OTHER OBSERVATIONS: No oil seen. Rocky  ETI  rich  & diverse  with  healthy  birds.

CLEANUP PRECAUTIONS: None, since cleanup is not recommended.

MAMMALS: Otters  Harbor Seals  Sea Lions  Whales  Other

BIRDS: Gulls, Bald Eagles, Flying Tufted puffies, Cormorants, Gulls & seagulls

GENERAL OBSERVATIONS: Steep vertical rock faces with small boulder "bow
Very difficult access from land or water. No oil seen.
ULANIK ISLAND
(KODIAK)
K6-6-NP-1

HELIKOF STRAIT

KODIAK ISLAND

ULANIK NATIONAL MIGRATION REFUGE

5-6 5-7

5-6

ACE 8707630
SHORELINE CLEANUP PROGRAM

DATE 6/29/89 SHORELINE SEGMENT NP-2

LOCATION: (see enclosed map) ROCKY POINT AT NOISY PASSAGE ON UGANIK ISLAND-KODIAK

ADEC NO. K-6 SHORELINE ASSESSMENT DATE: 6/19/89

Recommended Cleanup Activity(ies):
Manual removal of oiled debris and very small puddles of mousse in bedrock cracks.
Wave action will eventually clean this beach, so no other cleanup recommended at this time. If it is decided that cleanup is to be undertaken, hot water and/or moderate to high pressure washing or other appropriate techniques will be required to remove the tar deposits on this beach.

Priorities Considerations: Class 4-A
KISCC considers this a sensitive area due to the close proximity of major seabird colonies on Noisy Island.

Ecological Constraints (from site survey):
Avoid contamination of lower intertidal zone.
Avoid trafficking through healthy mytilus and balanus areas.

Archeological Constraints (from site survey):
If cleanup is conducted and heretofore undiscovered cultural materials are uncovered, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
**SHORELINE OIL EVALUATION FORM - KODIAK**

**DATE:** 5/16/89  **TIME:** 11:26  **OBSERVER:** Mike Miles

**SURVEYED FROM:** Foot/Boat/Heli/Plane  **WEATHER:** Sun/Cld/Rain/Snow/Fog

**LOCATION:** Wasilk Island  **LOCATION:** Noisy Passage  **SEGMENT I.D.:** K-6-6 - NP-2

**LENGTH OF SHORELINE SEGMENT:** 450 m

**ACCESS:** Foot/Vehicle/Boat/Barge/Heli/Float Plane  **SLOPE:** Lang/Hang/Ver

**WAVE EXPOSURE:** High/Med/Low  **SEDIMENT:** 

<table>
<thead>
<tr>
<th>Type</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>30%</td>
<td>C10</td>
</tr>
<tr>
<td>30%</td>
<td>C10</td>
</tr>
</tbody>
</table>

**DRIFT DEBRIS ON BEACH:** Yes/No  **SUPRA/UPPER/MID/LOWER TYPE:** 

**OIL:** 

<table>
<thead>
<tr>
<th>Type</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy/Moderate/Light/No Oil/Unobserved 5 to 9 m²</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL AREA OF BEACH IMPACT:** SU/SP/H/M/L

**OIL DISTRIBUTION:** 

<table>
<thead>
<tr>
<th>Type</th>
<th>Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous: Yes 30 No. Bands Width 2m</td>
<td></td>
</tr>
<tr>
<td>Sporadic: Yes 20 MInd Max Dia 10 cm Impact Width 20 cm on various rock</td>
<td></td>
</tr>
</tbody>
</table>

**EST. OIL THICKNESS WHERE > 1cm:** H/A cm  **EST. OIL Penetration:** 0-20 cm  **LAYERS:** Yes/No  **OIL WEATHERING:** 

**OIL MORPHOLOGY:**

- Freckle Oil
- Spattered Oil
- H/L/VL Sheen

**OIL WEATHERING:**

- Fresh Oil
- SU/SP/VP/MID/LO Choc Mousse
- SU/SP/VP/MID/LO Pancake Mousse
- SU/SP/VP/MID/LO Asphalt Mousse
- SU/SP/VP/MID/LO Tar Formation

**COMMENTS:**

- See comment sheet and map

*These categories do not apply to this beach as the oil is less than 0.5 cm in thickness and therefore not "free oil" and (ii) the tar coats are nearly continuous in places (Hence > 5cm in diameter and not scattered oil). For the sake of this form assume the oil is 100% oil.*
DOCUMENTATION:

Map: Aerial photo marking segment boundaries see attached

VTR: Y/N Tape Number(s)

Photography: Y/N Roll Number(s) JT-2

Sample Numbers Collected: N/A
SHORELINE OIL EVALUATION

This shoreline consists of a steep rock backshore and a pebble/cobble/boulder beach situated in a relatively protected small cove.

A light coating of spotted tar occurs on much of the mid to upper ITZ. This coating is nearly continuous over a 10 m² area in the north corner of the beach and the oil contamination in this localized area could be considered as 'moderate'.

Clean-up
i) Manual removal of oiled debris and manual up of small volumes of mousse (< 0.3 cm) cracks.
ii) Relocation of oiled pebbles to lower portions of the ITZ. [However winter storms will accomplish the same objective.]
iii) Hot water or high pressure would likely be required to clean the more heavily oiled sections of cobbles, boulders and rock. Un-oiled boulders 1-1.5 m in diameter occur downslope of this more heavily oiled section of beach.
SHORELINE OIL EVALUATION

iii) Don't it would be difficult or impossible to boom this beach in a manner which would prevent washed oil from contaminating the un-oiled portions of the low to mid IRZ. Due to the porous nature of the beach sediments a significant percentage of oil would likely be carried down into the underlying material. Given these concerns, the small volume of oil on this beach, access difficulties due to the rocky high wave exposure coast, and biological constraints (discussed separately) - beach washing activities does not appear to be warranted.

Material oil oiled seaweed/drift, plus
Removal of foamed mousse in small cracks using oilophilic rags. Therefore appears to be the preferred option.
ECOLOGICAL EVALUATION

LOCATION: Uganik Island  SITE: Noisy Passage  OBSERVER: J. Tarpley
LOCATION PREFIX: Kl-NP  SEG. NO.: Kl-NP-2  LENGTH: 450 (M)
DATE: 6/19/89  TIME (HHMM): ~1045  TIDE HT.: ~ -0.25 (M)
OILED ZONE: Splash High  Medium Low
SUBSTRATUM: Rocks Boulder Cobble Gravel  Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
- Oiled Fucus appears dead but still attached. Fucus in lower ITZ not oiled - high

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
- Oiled mussels coated & slow to respond to stimulate. Lower ITZ mussels high

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
- Coated and slow to respond — In high ITZ oiled areas

Littorina
- Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
- Coated and slow to respond, many dead — In high ITZ oiled areas

Limpeta: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
- Coated and slow to respond — In high ITZ oiled areas

OTHER OBSERVATIONS: Lower ITZ boulders not oiled and rich with a healthy biota

CLEANUP PRECAUTIONS: Avoid contamination of lower ITZ. Avoid traffic through Mytilus and Balanus areas.

MAMMALS: Otters 2  Harbor Seals  — Sea Lions  — Whales

BIRDS:  Magpie on beach  — Gulls

GENERAL OBSERVATIONS: Oil concentrated into north side of pocket beach and along high tide line. No drift material on this beach.

Lower ITZ healthy and would be damaged by cleanup crews and beaching due to washing. There within the present amount of oil that will be washed out with storms.

ACE 8707637
UGANIK ISLAND
(KODIAK)
K6-6-NP-2

5-6 6-7

5-6

6-7

HELIX OF STRAIT

VIEKODA BAY

ACE 8707639 - 15

6-15
SHORELINE CLEANUP PROGRAM

DATE  6/29/89          SHORELINE SEGMENT  NP-3

LOCATION: (see enclosed map)  SANDY BEACH ON UGANIK ISLAND AT

NOISY PASSAGE-KODIAK

ADEC NO.  K6-6  SHORELINE ASSESSMENT DATE:  6/19/89

Recommended Cleanup Activity(ies):
Manual removal of oiled drift (seaweed) is currently taking place and no additional cleanup activities are required.

Priorities Considerations:
The KISCC considers this a sensitive area due to local seabird colonies on Noisy Island.

Ecological Constraints (from site survey):
Avoid vegetated areas and eroding hillside.

Archeological Constraints (from site survey):
If cleanup is conducted and heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer *

Date:  6/30/89

EXXON:  

Date:  7/1/89

FOSC:  

Date:  7/1/89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
Date: 89  Time: 12:20  Observer: MIKE Muckle

Surveyed From: (Foot/Boat/Helicopter/Plane)  Weather: Sunny/Cloud/Rain/Snow/Fog

LOCATION  LOCATION: NOSE PASSAGE  SEGMENT I.D. K-6-6-W-

LENGTH OF SHORELINE SEGMENT: 1400 m

ACCESS: Foot/Vehicle/Boat/Barge/Helicopter/Float Plane

SHORELINE:
Shoreline Type: SPI/BLA/COVER/HLG/STRT  Slope: LANV/HANG/VER

Wave Exposure:  High/Med/Low

Sediment: B__t / C___t / P___t / G___t / S___t / M___t / R___t

Drift Debris on Beach: Yes/No  Supra/Upper/Mid/Lower Type

OIL:
Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Total Area of Beach Impact: SU/SP/H/M/L

OIL DISTRIBUTION
Continuous: Y/[] Segment ___ No. Bands ___ Width ___

Sporadic: Y/[] Segment ___ Min/Max Dia ___ Impact Width ___

Est. Oil Thickness where > 1cm: H/F/cm  SU/SP/UP/MID/LO

Est. Oil Penetration: ___ cm  SU/SP/UP/MID/LO

Layers? Yes/No  No of Layers ___ Oil Weathering ___

Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H/M/L/VL

OIL MORPHOLOGY
Pooled Oil  "Free" Oil  Spattered  H/M/L/VL Sheen

OIL WEATHERING (SW)
Fresh Oil  SU/SP/VP/MID/LO Choc Mousse  SU/SP/VP/MID/LO

Pancake Mousse  SU/SP/VP/MID/LO Asphalt Mousse  SU/SP/VP/MID/LO

Tar Formation ___

ACE 8707641

Comments:
This segment consists of a steep gradient unconsolidated soil and a wide pebble beach.

No oil was found on the beach, however a clean-up crew had just finished removing 10 to 20 bags of lightly-oiled drifted debris.

No additional clean-up activities are required.
DOCUMENTATION:

Aerial photo marking segment boundaries [See attached]

VTR: Y/N Tape Number(s) 

Photography: Y/N Roll Number(s) JT-2

Sample Numbers Collected: N/A
No oil in berm or on pebble beach. Manual clean-up is currently being undertaken and no oiled weed

Discontinuous light oil accumulations up to depth of 15 cm

Localized area of light oil spatters. Very light spatters occur throughout the mid to high ITZ

ACE 87076+3
ECOLOGICAL EVALUATION

LOCATION: Uguaktak Island
SITE: Noisy Passage
LOCATION PREFIX: K6/NS
SEG. NO.: K6-6-NS-3
LENGTH: 1400 (M)

DATE: 6/19/89
TIME (HHMM): 1130
TIDE HT.: 0 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Sheels only

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Littorina Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS: high energy beach. Seaweed drift and wood in high ETZ. Splattered with oil.

CLEANUP PRECAUTIONS: Avoid vegetated areas and hillside.

MAMMALS: Otters Harbor Seals Sea Lions Whales Other Deer & Fox Tracks

BIRDS: Dead gull, magpie on beach

GENERAL OBSERVATIONS: 

ACE 3707644
Uganik Island (Kodiak)
K6-6-3-NP-3

5-6 6-7

5-6

5-6 6-7

5-16 6-15
SHORELINE CLEANUP PROGRAM

DATE 6/29/89 SHORELINE SEGMENT NP-4

LOCATION: (see enclosed map) BOULDER BEACH ON UGANIK ISLAND AT NOISY PASSAGE-KODIAK

ADEC NO. K6-6 SHORELINE ASSESSMENT DATE: 6/19/89

Recommended Cleanup Activity(ies):
Manual removal of oiled debris (in progress)
Natural processes will clean the spattered rocks and the spring tide berm over time. Beach washing is not recommended at this time. If cleanup activities were to be undertaken, the contaminated sections of the berm could be moved into the surf zone. Insufficient oil occurs on the spattered rocks on the lower sections of the intertidal zone to justify any cleanup.

Priorities Considerations: Class 4-A
The KISCC considers this a sensitive area due to local seabird colonies on Noisy Island.

Ecological Constraints (from site survey):
Avoid traffic on eroding hillside.
Avoid oil contamination of healthy lower intertidal zone.

Archeological Constraints (from site survey):
If cleanup is conducted and heretofore undiscovered cultural materials are uncovered, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer *

EXXON: * FOSC: *

Date: 6/30/89 Date: 7/1/89 Date: 7/4/89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION FORM - KODIAK

Date: 5/89  Time: 12:25  Observer: [illegible]
Surveyed From: Foot/Boat/Helio/Plane  Weather: Sun/Cloud/Rain/Snow/Fog
LOCATION: LIGANIK ISLAND  SEGMENT I.D. K-6-6 — [illegible]
LENGTH OF SHORELINE SEGMENT: 630 m
ACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane

SHORELINE:
Shoreline Type: SPI/BEACOVAR/HID/STRT  SLOPE: LANC/HANG/VER
Wave Exposure: [illegible]
Sediment: B/C/G/S/M/R
Drift Debris on Beach: Yes/No  Supra/Upper/Mid/Lower Type

OIL
Degree of Oiling: Heavy/Moderate/Light Unobserved
Total Area of Beach Impact: SU/SP/H/M/L

OIL DISTRIBUTION
Spotty: Y/N  Segment: ___  Min/Max Dia: ___  Impact Width: ___
Est. Oil Thickness where > 1cm: SU/SP/UP/MID/LO
Est. Oil Penetration: SU/SP/UP/MID/LO
Layers? Yes/No  Oil Weathering
Drift Debris Oiled? Yes/No  Supra/Upper/Mid/Lower Amount: H/M/L/VL

OIL MORPHOLOGY
Pooled Oil  "Free" Oil  Spattered Oil  H/M/L/VL Sheen

OIL WEATHERING
Fresh Oil  SU/SP/VP/MID/LO  Choc Mousse  SU/SP/VP/MID/LO
Pancake Mousse  SU/SP/VP/MID/LO  Asphalt Mousse  SU/SP/VP/MID/LO

Comments: ACE 8707648

This cobble beach has a pebble cobble spring line. The backshore consists of steep gradient unconsolidated glints 50-100 m high.

Very light tar spatter occurs throughout the mid to upper 17. The piles have a very light to light spattering of oil which may be buried up to 15 cm in some locations.

Clean-up: Manual removal of oiled debris (in progress)

Possibly move oiled berm to surf zone but natural pressure clean this beach over time.
DOCUMENTATION:

Map Aerial photo marking segment boundaries [See attached.]

VTR: Y [Tape Number(s)]

Photography: Y [Roll Number(s)] JT-2

Sample Numbers Collected: N/A
Mike Miles  
June 19/89

Liganik Island  
Noisy Passage

K6-6-NP-4

*No oil in berm or on pebble beach. Manual clean up is currently being undertaken and no oiled weed*

*Discontinuous light oil accumulations*  
*1.5 to 5 cm depth*  

*Localized area of light oil spatters. Very light spatters occur throughout the mid to high ITZ*

*Area up light to possibly moderate for cooking*  
*Light discontinuous for "spatters"*

ACE 8707050
LOCATION: Uganik Island
SITE: Noisy Passage
LOCATION PREFIX: K6/V1
SEG. NO.: K6-12-V1
LENGTH: 650 (M)
DATE: 6/19/85
TIME (HHMM): 12:15
TIDE HT.: ~ + 0.25 (M)
OILED ZONE: Splash
SUBSTRATUM: Rocks Boulder Cobble Gravel
LIVE BIOTA
Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Mid → high ITZ
Littorina Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Mid → high ITZ
Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
OTHER OBSERVATIONS: Low ITZ abundant and dense growth of Fucus, Mytilus, and Balanus. This area is not oiled.
CLEANUP PRECAUTIONS: Avoid oil contamination by low ITZ.

MAMMALS: Otters 1 Harbor Seals Sea Lions Whales
Other Swimming parallel to beach
BIRDS: 8 oystercatchers in low ITZ; Mergansers and Gulls flying over beach
GENERAL OBSERVATIONS: No oil seen in low ITZ; lightly oiled drift and drift wood. Splatter on mid → high ITZ rocks. Littorina and Balanus apparently not affected by oil splatter in mid-high ITZ.
SHORELINE CLEANUP PROGRAM

DATE 6/29/89  SHORELINE SEGMENT NP-5  

LOCATION: (see enclosed map) BOULDER BEACH ON UGANIK ISLAND
NORTH OF NOISY PASSAGE AND SOUTH OF CAPE UGANIK-KODIAK

ADEC NO. K-6-10  SHORELINE ASSESSMENT DATE: 6/19/89

Recommended Cleanup Activity(ies):
Wave action will eventually clean this beach, so no other recommended at this time. If it is decided that cleanup is to be undertaken, hot water and/or moderate to high pressure washing or other appropriate techniques will be required to remove the tar deposits on this beach.

Priorities Considerations: Class 4-A
KISCC considers this a sensitive area due to local seabird colonies on Noisy Island.

Ecological Constraints (from site survey):
Avoid oil contamination of healthy low intertidal zone.

Archeological Constraints (from site survey):
If cleanup is conducted and heretofore undiscovered cultural materials are uncovered, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer *  
EXXON:  
FOSC:  

Date: 6/30/89  Date: 7/1/89  Date: 7/4/89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION FORM - KODIAK

Date: 5/16/89  Time: 12:30  Observer: Mike Mel

Surveyed From: Foot/Boat/Helicopter  Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION: UGLANIK ISLAND  SEGMENT I.D. K-6-6 - NP-5

LENGTH OF SHORELINE SEGMENT: 350 m  Access: Foot/Vehicle/Boat/Barge/Helicopter/Float Plane

SHORELINE:
Shoreline Type: SPI/BEA/COW/MID/STRT  Slope: LANG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B80% / C10% / D5% / E% / F% / G% / H% / M% / R%  Drift Debris on Beach: Yes/No  Supra/Upper/Mid/Lower Type:

OIL:
Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Total Area of Beach Impact: SU/SP/H M/L  One small area: 2

30 m long

OIL DISTRIBUTION
Continuous: Y/N  Segment 4  No. Bands  Width

Sporadic: Y/N  Segment 4  30  Min/Max 60  Impact Width 50

Est. Oil Thickness where > 1 cm: A cm  SU/SP/UP/MID/LO

Est. Oil Penetration: cm  SU/SP/UP/MID/LO

Layers: Yes/No  No Oil Layers:  Oil Weathering:

Drift Debris Oiled?: Yes/No  Supra/Upper/Mid/Lower Amount: H/M/L/VL

OIL MORPHOLOGY
Pooled Oil  Free Oil  Spattered  SU/SP/VP/MID/LO

OIL WEATHERING:
Fresh Oil  SU/SP/VP/MID/LO  Choc Mousse  SU/SP/VP/MID/LO

Pancake Mousse  SU/SP/VP/MID/LO  Asphalt Mousse  SU/SP/VP/MID/LO

Tar Formation

Comments:

SEE MAP AND ATTACHED COMMENT SHEET

ACE 6727655
POOR QUALITY ORIGINAL
DOCUMENTATION:

- [X] Aerial photo marking segment boundaries  

VTR:  Y/N  Tape Number(s)  

Photography:  Y/N  Roll Number(s)  JT-2  

Sample Numbers Collected:  N/A  

ACE 8707556
This is a boulder beach backed by a vertical rocky cliff overlain by unconsolidated sediments.

Splattered oil occurs in localized areas of the mid backshore and as "splatter" or "cogheg" in the mid to upper ITZ. In localized areas the tar coating can be nearly continuous and a moderate oil contamination rating could be appropriate for these portions of the beach.

Manual removal of small quantities of oiled driftwood will likely occur as part of the clean-up process which is occurring on NP-7. While this will eventually remove the oil in the mid to upper ITZ and given the weathered/oxidized state of this oil, the low beach gradient and the comparatively small volumes of oil which could be recovered this is likely the preferred clean-up technique. If beach washing were to be undertaken, moderate to high pressure and/or hot water would likely be required for effective cleaning. (or other appropriate technology)
Mike Miles
June 19/89

UGANIK ISLAND
JOISY PASSAGE
K6-6-NP-5

house

STEEL UNDERSWIFT CLIFF
SALMON STREAM

No oil in basin or on
pebble beach. Manual clean up
is currently being undertaken
and no oiled weed

NP-2
NP-3

discontinuous light
oil accumulations
Camber depth:
\leq 15 cm

localizes
sea of light oil
pools, very 35-
faters occur
 overthrow the
mid to high ITZ

Cobbles and Boulders

rock
boulder cobbled
beach

NP-4
NP-5

area up light to possible
a moderate for cooking

light discontinuous for
"spatters"

ACE 8707658
ECOLOGICAL EVALUATION

LOCATION: Uganik Island
SITE: Nevy Passage
OBSERVER: J. Torpey

LOCATION PREFIX: KLNP
SEG. NO.: KL-4-NP-5
LENGTH: 350 (M)

DATE: 6/19/89
TIME (HHMM): 1250
TIDE HT.: +1.0 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Limpeta: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS: Appears that Balanus & Littorina are not adversely impacted in this high ET oiled zone.

CLEANUP PRECAUTIONS: Avoid contamination of healthy lower flora.

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other ___ None ___

BIRDS: Gulls ___

GENERAL OBSERVATIONS: Oil coated rocks (boulders) high T12 to 8 feet up rock face in splash zone. High energy beach.
Uganik Island
(Kodiak)
K6-6-6P-5

NOA

HELICOPTER STRAIT

VIKODA BAY

KODIAK ISLAND
NATIONAL WILDLIFE REFUGE

ACE 8707661-14-3-

Broken Pt
SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): K6-7

Includes Shoreline Segments: UG-50, UG-51, UG-52

Location: Uganik Island

Submitted: __________________________ Date: ______________

(for Exxon)

FOSC Approval: __________________________ Date: ______________

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. Requirements for safety and the protection of cultural material must be observed.

CC: KISCC
SHORELINE CLEANUP PROGRAM

DATE: 7/08/89

SHORELINE SEGMENT K6-7-UG-50

LOCATION: (see enclosed map) N and NE coast Uganik Island

ADEC NO. K6 SHORELINE ASSESSMENT DATE: 7/07/89

Recommended Cleanup Activity(ies):
-Cleanup already underway by local setnetters at locations 0, 1, 1a, 3, 4, 5, and 6 (see map). May consider supplementing efforts with low pressure/warm water wash to increase effectiveness.

Priorities/Considerations: Class 4-A
- Shallow intertidal area may restrict boats access.
- This segment is within the Alaska Maritime National Wildlife Refuge. Notify USF&WS Representatives prior to treatment.

Ecological Constraints (from site survey):
- Restrict access to lower intertidal, especially extensive tidal pools.
- Work at mid tide plus or take appropriate measures to protect intertidal zone.

Archaeological Constraints (from site survey):
- No access to the forest/upland zone by beach crews during cleanup.
- If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer *

EXXON: ___________________________ Date: ________________

FOSC: ____________________________ Date: ________________

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION FORM - KODIAK

Date: 7/1/89  Time: 12:00  Observer: G. MACDONALD
Surveyed From: Foot/Boat/Helio/Plane  Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION  UGANK ISL.  N. COAST  SEGMENT I.D.  UG-50

LENGTH OF SHORELINE SEGMENT: 14,200 ft
ACCESS: Foot/Vehicle/Boat/Barge/Plane
SHORELINE: Pocket

SHORELINE TYPE: SPICED BEACH/COV/HLG/STRB
Slope: LANG/HANG/VER-O'HANG
Wave Exposure: High/Med/Low 20
Sediment: B10t / C10t / P10t / G10t / S10t / M10t / R10t
Drift Debris on Beach: Yes/No  SUPR/UPPER/MID/LOWER Type SEEN/SEEED

OIL
Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved Very Light - TRACE
Total Area of Beach Impact: SU/(SP)/H/M/L

OIL DISTRIBUTION
Continuous: Y/N  Segment # _______ No. Bands _______ Width _______
Sporadic: Y/N  Segment # _______ Max Dia _______ Impact Width 3m. MAX

Est. Oil Thickness where > 1cm: _______ cm  SU/SP/UP/MID/LO
Est. Oil Penetration: ≤ 10 cm  SU/(SP)/UP/MID/LO
Layers? Yes/No  No Layers _______ Oil Weathering _______

Drift Debris Oiled? Yes/No  SUPR/UPPER/MID/LOWER Amount: H/M/L/V/L

OIL MORPHOLOGY
Pooled Oil _______  "Free" Oil _______  Spattered _______  H/M/L/V/L Sheen _______

OIL WEATHERING (COND)
Fresh Oil _______  SU/SP/VP/MID/LO Choc Mousse _______  SU/(SP)/VP/MID/LO
Pancake Mousse _______  SU/(SP)/VP/MID/LO Asphalt Mousse _______  SU/(SP)/VP/MID/LO
Tar Formation _______

Comments:
HIGH ENERGY EXPOSURE COAST  TREATMENT @

LOCATIONS 0, 1, 2, 3, 4, 5 IS CURRENTLY UNDERWAY
FROM LOCAL SITTINGS ON A DAY TO DAY BASIS.
DOCUMENTATION:
Map/Aerial photo marking segment boundaries: Attached

VTR: Y/N  Tape Number(s): Unknown
Photography: Y/N  Roll Number(s): 5MR3-18 (7/78)
Sample Numbers Collected: None

ACE 8707665
7/6 helicopter

12:10 56

Segments: 1G - 50

Exposed wave cut platform - central 1/2

meromix. boulders, other; rounded.

A cliff.

20 m wide beach, 20 m coated matrix

meromix. currently self clean.

"wet-p" undistra. of oil, hard - v. soft.

oil cnt. as soft asphalt, at base of bluffs

and (a) 120 m wide x 300 m bay

oil fades to trace 2-3 cm. dist. plate

and spots. 87

iron. choco. mousie, web, egg size; no

oil in gulf. of penetration; already corroded

X section A - A':

Till wave-cut flat

bedrock 120

boulders, other. exotics

oil under

boulders

120 m.
re-start SEGMENT UG 50
08:10 Horsetail Bay
LOCALS CLEANING HERE

Breed, low - med & gyl-pab beach,
boiled by steep rocky cliffs up some
bluffs, no sign of oil anywhere.
- schnitz repert - no oil here.
wide cur beach w/ stacks arches, nad
& gyl-pab pockets, hazardous to shifting
even at low tide.

09:00 V. Hi angle bedding throughout
this segment; absent vectors;
some basalt.

3) 20mx3m natural geyser spouting
- coating obs; gyl to 10 m;
esp. under side of obs;

11:00

4) 35m x 5m x 2 m of v. light
- 3 sandia spout w/ free moisture in
bedrock crevices w/ hull sp Zahl; loc.
about 20 x 100 m E of segment
marker 10; R. Hesston # 21687

X-sect B-B' no oil vis;

B trench across beach
hori - (no oil

1. 100 m x 50 m stratified section; cont
< 0.2mm flu.; 2 strata; quant.; marine;
under cabs.; < 5mm penetration in surface
gys; @ Hill & SL zone; ending -
2 Fr/yr.
+ 30 x 10 m = continuous
coast or geyser gyl @ la. 5m x 1m
thin coast on bedrock well

2. med L gyl-pab beach pocket; clean

1. Organic coast - 10 m high steep - o'lang
rocky wall; occurs. 2-mm. wide gyl.
pocket; pronounced raised beach @
cliff/top; no oil vis;

halt segment @ 16:00
5. 60m x 3m wide oil spill up some mouse, under cobs & bulls in bedrock crevices; c. 3 zone, asphaltum, cobs are beginning to self clean.

6. 10m x 10m oil film zone of free mouse on bitr. salt + bare in bedrock crevices. c. 3, cobs under small point in drift line. local saltden v. active in this segment.

14:00 END 1 SEGMENT.

Ak Monticole Nat. Wildlife Refuge.
ECOLOGICAL EVALUATION

LOCATION: Ugnik Bay  SITE:  Ugnik IS.  OBSERVER: SMBar
LOCATION PREFIX: K-6-7  SEG. NO.: U6-50  LENGTH: 14,200 (M)
DATE: 7/17/97  TIME (HHMM): 7/20-01/50  TIDE HT.: 0400 (M)

OILED ZONE: Splash High Medium Low
SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud
LIVE BIOTA: This segment is within the Alaska Maritime National Wildlife Refuge.

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Dense on boulder. Some remains on gravel banks - section
No other individuals. Also Alaska chondrus to water - unoi10
Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Very dense in some areas (esp. boulder crevices).

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Very dense spot throughout area. Scant also noted on help area.
No barnacles were oiled. Very few Musculum or Balanus.

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Dense in head pools. None oiled.

OTHER OBSERVATIONS:  Halichondrias  (with pink/green spp.) Many large females
(1/4") leisure. Dispersed along boulder, dense in head pools. Zostera sublata. Salicornia
in pools. Amphireia dense. Lithothamnion in head pools. Ophiura spp., etc.

CLEANUP PRECAUTIONS: Avoid good health cluered individuals. Removal
of oiled coasts even in rock crevices will not impact

HEALTHY HERDS OF SEALS ARE KEPT OUT OF COLDER 

MAMMALS: Otters  Inland Harbor Seals  Sea Lions  Whales
Other  Deer Tracks - bear scat

BIRDS: Magpies, eagles (5) gulls, cranes, oldsquaws, cormorants

GENERAL OBSERVATIONS: Oil is discontinuous throughout segment
and is found in rock crevices. Lithorenes have been
impacted. No other oiled area were observed.

Non-nichetial pools - many organisms. This pools must not be
SEGMENT UG - 50

CAPE UGANKIK

Rocks - Navigation Hazard

Gulf pockets; no oil

Gulf pocket; beach; no oil

Steep cliff; v. exposed rocky cliff; no oil visible.

10m high, overhangs common.

KEY

: v. light discol; splats.

x oiled debris

1 location ref. (see notes)

< Brook

→ segment boundary

* rock, submerged.

[A] X-section (see notes)

SCALE: 3/4" = 1 mile, 1:18,000

1 MILE

7/7a pm

CONTINUED

7/6 pm

ACE 8707671
Map 2 83
7/1/83 a.m.

Erosional coast w/ arches, stacks
and wave-cut platforms.

JETSET SITE
101: R. Nelson
2:087

Key:
- oil - v. light trace
- location (see notes)
- rock

3/2": 1 mile
1 mile

ACE 8707613
G. Macdonald.
WAVE-CUT PLATFORM

Hazards for displacement craft - shallow, submerged rocks, exposed.

Steep, exposed rocky coast of wave-cut platform, bold, overwash, no oil.

Gravelly beach on bedrock; no oil; bedrock exposed @ low; storm-basin embossed boulders.

END of SEGMENT

1 mile

1/2: 1 mile

Map 3-9-3
1/2/83 P.M.

G. Macdonald.
SHORELINE CLEANUP PROGRAM

DATE  7/09/89

LOCATION: (see enclosed map) Uganik Island, E coast

ADEC NO.  K6  SHORELINE ASSESSMENT DATE:  7/09/89

Recommended Cleanup Activity(ies):
- Cleanup currently underway at locations 1-6 (see map) by local setnetters.
- May consider supplementing effort with vacuum units to remove free oil from cracks and crevices.

Priorities/Considerations: Class 4-A
- Notify USFWS prior to cleaning.

Ecological Constraints (from site survey):
- Take appropriate measures to protect healthy lower intertidal, particularly tidal pools.
- Restrict access to anadromous streams.
- Keep teams small in number.

Archaeological Constraints (from site survey):
- No access to the forest/upland zone by beach crews during cleanup.
- If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer *  Date:  7/31/89

EXXON: __________________________  Date: __________________________

FOSC: __________________________  Date: __________________________

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION FORM - KODIAK

Date: 7/9/89
Time: 10:20
Observer: C. M. MacDonald

SURVEYED FROM: Foot/Boat/Helio/Plane

LOCATION: E. COAST USA W1K 1S.

LENGTH OF SHORELINE SEGMENT: 7,000 m

ACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane

SHORELINE:
- Shoreline Type: SPI (Bark/Cov/Hld) STRT
- Wave Exposure: High/Med/Low
- Sediment: B / C / D / F / G / S / E / R / S / F
- Drift Debris on Beach: Yes/No

OIL:
- Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved
- Total Area of Beach Impact: SU/SP/H/M/L

OIL DISTRIBUTION:
- Continuous: Y/N
- Segment: No. Bands
- Width

OIL MORPHOLOGY:
- Pooled Oil
- "Free" Oil
- Spattered
- Sheen
- Fresh Oil
- Pancake Mousse
- Asphalt Mousse
- Tar Formation

OIL WEATHERING (OW):
- Choc Mousse
- Asphalt Mousse

Comments:

LOCATIONS (1) - (6) ARE V. LIGHTLY OILED AND CURRENTLY BEING TREATED MANUALLY BY LOCAL TREATMENT HOLDERS.

ADDITIONAL SUPPORT TO FACILITATE TREATMENTS WOULD INCLUDE HIGH PRESSURE WASHING OF ASPHALT SLEETS AND DELIVERY OF PORTABLE VACUUM UNITS FOR LOCALS' USE.

THIS COASTLINE SUPPORTS A V. HIGH DENSITY OF SEINE NET HOLDERS.
DOCUMENTATION:
Map/Aerial photo marking segment boundaries Attached

VTR: Y N Tape Number(s) Unknown

Photography: Y N Roll Number(s) SMM-18 (7-8 to 7-9-89)

Sample Numbers Collected: None
2 small idlets; steep exposed rock walls
no oil
locals report most pockets empty or shallow
mod-steep - rock beach; some foot of bear
seen, abounds, driftwood in bear
holes; clean except for 1 x steam pipe test hole.
Peemantilie outline pocket;
Vert. boulder matrix sed, slight silt at top
contours. mudcrack from campsite.
area (2) dark, smooth block 200m
hard size; locals cleaning up.

- Hotel in rocky cliffside, house in
small town of Hi-Push,本地

- Bedrock outcrop of flat slab and boulders; asphalt is dark marine e.
 SL zone; spits 15m in water, esp. under bldg and in vehicles; report by schott, stream of oil.
burial here a adjacent pocket.
Salt segment 0 1749 hrs
trace grass-laden seaweed balls in
several zones.

- Bedrock hilltop?

- Bedrock hilltop.

- Bedrock hilltop.

- Bedrock hilltop.

- Bedrock hilltop.
ECOLOGICAL EVALUATION

LOCATION: Umik Island  SITE: E shore of Is.  OBSERVER: SM Bar
LOCATION PREFIX: K6-7  SEG. NO.: V6-51  LENGTH: 7,000 (M)
DATE: 7-29-89  TIME (HHMM): 7/9-1230  TIDE HT.: 7/9-1400 AM

OILED ZONE: Splash High Medium Low
SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud
LIVE BIOTA: This segment is within the Estink Nat. Wildlife Refuge

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Continuous on rock faces and boulders. Sparse on cobble
and gravel. Oil area on beach 4 contains Fucus (? m)

Mussel (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Dense on rocky headlands - and on some gravel beaches.
Beach 4 contains a patch (? m) of oil on individuals.

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Continuous along most of segment. Dense on several
gravel cobble beaches. Some individuals oiled at Beach 4.

Littorina

Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Very dense in boulder crevices. Patchy throughout intertidal. Some
patches on headlands boulders are oiled.

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

No oiled organisms observed.

OTHER OBSERVATIONS: Pickedeen, sea otters, rocks - alive, amphipods - dead

Many organisms in richly diverse tidal pools including Tubilium, Antheleura
Scaphidium, Nuttallina, etc. Also many sea urchins, tests and Macoma & Scrobilinus shells
on gravel beaches.

CLEANUP PRECAUTIONS: Restricted access to lower ZZ and anomalous streams
Use small teams of local searchers.

MAMMALS: Otters 3 Harbor Seals 1 Sea Lions 8 Whales 8
Other

BIRDS: Seagulls, eagles (Yakutat), Kittiwakes, gulls e clowns

GENERAL OBSERVATIONS: Oil is discontinuous, generally found on rocky
headlands and at tidal pools in strand line. White oiled grit material
(paraflin) also observed on water and in strand debris.
SHORELINE CLEANUP PROGRAM

DATE 7/10/89  SHORELINE SEGMENT K6-7-UG-52

LOCATION: (see enclosed map) Uganik Island, E coast

ADEC NO. K6  SHORELINE ASSESSMENT DATE: 7/10/89

Recommended Cleanup Activity(ies):
- No cleanup recommended due to apparent absence of oil. Subject to FOSC reassessment at a later date.

Priorities/Considerations:

Ecological Constraints (from site survey):

Archaeological Constraints (from site survey):
- If cleanup is planned, an archaeological monitor must be assigned in culturally sensitive areas of the segment.

State Historic Preservation Officer *

EXXON: Date:

FOSC: Date:

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
<table>
<thead>
<tr>
<th>Location</th>
<th>Uganik IS. E. Coast</th>
</tr>
</thead>
</table>

**Length of Shoreline Segment:** 22.7 m

**Access:** Foot/Vehicle/Boat/Barge/ Helio/Float Plane

**Shoreline:**
- Shoreline Type: SPI, BEA, COV, MLD, STRT
- Slope: LANG, HANG, VER, OVERHANG

**Wave Exposure:**
- High/Med/Low

**Sediment:**
- B20 / C / M2 / G / S / M / R

**Drift Debris on Beach:**
- Yes/No
- Supra/Upper/Mid/Lower Type: OCCASIONAL

**Oil:**
- Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved/Very Light

**Total Area of Beach Impact:**
- SU / SP / H / M / L

**OIL DISTRIBUTION:**
- Continuous: Y/N
- Segment: ______
- No. Bands: ______
- Width: ______

**Sporadic:**
- Y/N
- Segment: ______
- Min/Max Dia: ______
- Impact Width: ______

**Est. Oil Thickness where > 1 cm:**
- cm

**Est. Oil Penetration:**
- cm

**Layers:**
- Yes/No
- No. Layers: ______
- Oil Weathering: ______

**Drift Debris Oiled?**
- Yes/No
- Supra/Upper/Mid/Lower Amount: H / M / L / VL

**OIL MORPHOLOGY:**
- Pooled Oil: ______
- "Free" Oil: ______
- Spattered: ______
- H/M/L/VL Sheen: ______

**OIL WEATHERING (ON):**
- Fresh Oil: ______
- SU/SP/VP/MID/LO
- Choc Mousse: ______
- SU/SP/VP/MID/LO
- Pancake Mousse: ______
- SU/SP/VP/MID/LO
- Asphalt Mousse: ______
- SU/SP/VP/MID/LO
- Tar Formation: ______

**Comments:**
- ONLY OIL RECOVERED HERE IS S. A. SAGE
- AN OILED ANCHOR — (SETNTEGER PES. COM)

**ACE 8707687**
DOCUMENTATION:

Map/Aerial photo marking segment boundaries: Attached

VTR: Y N  Tape Number(s): Unknown

Photography: Y N  Roll Number(s): SMB-18 (7-9-89, 7-10-89)

Sample Numbers Collected: None
7/10/89 SEGMENT VG-52
11:35

Steep rocky coast, mild exposed
shelf and scree, graphitic slates
slabs; wave cut differential 10
15 m deep wave-cut platform
plains; small gull. pool, gravel
boulders; 2-4 meter bound grass
boulders m > 2 miles.

dean lagunan,

end of day 16:30 hrs
resting VG-52 12:00 7/10/89

Steep graphitic schist walls, ice ocean, pocket
beach; bedrock = 18" boulders pocket gulf;
no cleft or pits or any boulders in the
zone; light color; low < 1 mile fetch;
rock wall ending easily, wave-cut
scarp at 4 mile shelf zone; shallow cove;

14:35 end of segment
ECOLOGICAL EVALUATION

LOCATION: Uganik IS
SITE: SE shoal
LOCATION PREFIX: K-6-7
SEG. NO.: UG-52
LENGTH: 22,700 (M)
DATE: 7/10/89
TIME (HHMM): 210-440
TIDE HT.: +1/2 to +2 (M)
OILED ZONE: Splash High Medium Low No oil!
SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Dense throughout most of site - unipolar patches. Also Halosaccion in crevices. Alga etched and HSally along with other

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

B. dense, dense in lower ITZ below Mytilus band. Many barnacles

Mueller (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

B. dense in rock crevices - small individuals (spat) high in

Littorina: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Dense in rock crevices - small individuals (spat) high in

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Dense in tidal pools and crevices. Most at water level or

OTHER OBSERVATIONS: Canoe Fish, Pollock, and Pink Salmon in bay

Richly diverse tidal pool in lower ITZ. Geoduck/Ant Beach (limestone)

type of collection system for drift algae

CLEANUP PRECAUTIONS: No clean up - do not allow access
to lower intertidal or any part of this segment.

MAMMALS: Otters X Harbor Seals X Sea Lions Whales

Other  - Deer Tracks - Red Fox and Baby

BIRDS: Black-tailed Kittiwakes, immature adult, gulls, pigeon grilemots,

harlequin ducks, oldsquaw, black billed magpies, gulls

GENERAL OBSERVATIONS:

No oil was observed - this segment is within the Kadik National Wildlife Refuge, access to the area should be

restricted.

ACE 8707690
SEGMENT UG-52

Map 2-74
7/9/85 pm.

Steep, mod.
shattered rocky cliff
w/o oil. gul-pub.
pocket beach; cliff to
10m. vent-o'hanging - sheared & jumbled,
graphitic slate/schist. - no oil.

Gul-pub beach strand; gul
boulders and bedrock benches
@ M-L-WL. no oil, no trace

14:20 hrs
9 o'clock debris.

Low angle gul-pub; pocket beaches.

Lagoon w/ many
gorge cut (e), s
rock shelves (s)

Tidal lagoon

Mangrove lagoon
margins, muddy bottom.

Mod. strong flow.
thin gul. over wave-cut bedrock bench.

Clean gul. pub + slate gul. pocket
beaches; (no oil) set in steep
cliffs and channels of graphitic slate/schist.

Clean pockets

Wave cut scarps

no oil

7/9/85

7/9/85

7/9/85

7/9/85

7/9/85

7/9/85

7/9/85

7/9/85}

Deep rock
walls often
o'hanging;
spikes,
jumble, intertidal

Sheltered

Lace

ACE 87070795
Jumble boulders. Some jumble boulder beach. No oil.

Peb-gvyl pocket beaches, no oil. Mod. sheltered, no trace of oil.


Low angle. Cob-pyb-gvy+ j派 beach; no oil.

Peb-gvyl pocket beach. Rocky islet.

Segment - UG-52
Map 3.9.4
7/10/89 P.M.
G. MacDonald

KEY
- stream
* submerged rock.

Clean, gvyl pocket.
Clean, mod. gvyl pocket.
**Segments: UG-32**

Map 4 of 4

**ADFr Gr Notice**

mod. angle gnl-sand-
peb. beach; v. clean;
mod. sheared; no
drift debris.

**mod. angle peb-gnl. pocket
beach; no oil.**

**bidgy-rock Isabel.**

30-45° boulder jumble along oil hemorrhage
rock walls & occasional pocket beach.
no oil.

moderate exposed rocky
terrain; no oil.
SHORELINE CLEANUP PROGRAM

DATE 7/28/89  SHORELINE SEGMENT K6-15-MP-4B

LOCATION: (see enclosed map) Broken Point south to and including
           Campbell Lagoon, Kodiak Island

ADEC NO. __________ SHORELINE ASSESSMENT DATE: 7/09/89

Recommended Cleanup Activity(ies):
- No cleanup recommended due to very light oiling and ecological constraints discussed below. Subject to FOSC reassessment at a later date.

Priorities/Considerations: Class 5-A
- Local setnetters state that they completed cleanup of segment prior to this assessment.

Ecological Constraints (from site survey):
- This segment is too sensitive ecologically to warrant cleanup of very light oil.

Archaeological Constraints (from site survey):
- If cleanup is planned, a full archaeological assessment must be conducted due to the archaeologically sensitive nature of this segment.

[Signature]
State Historic Preservation Officer *
Date: __________

EXXON: __________________________ Date: __________

FOSC: __________________________ Date: __________

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
**SHORELINE OIL EVALUATION**

Date: 8 Jul 89 / Time: 1450

Observer: Rees, 12 pm
Weather: Sun/Cloud/Rain/Snow/Fog

**LOCATION**

Location: Rees Pt. S... CAPM. Lagoon E... Segment ID: K6-15 - MPnG
Segment Length: 3000 m. Access: Vehicle/Boat/Barge/Hi/Float Plane
Access Restrictions: None

**SHORELINE**

Shoreline Type: SPI/SEA/Cov/HLD/STRT
Slope: LO/med/HL/Vert
Average Exposure: High/med/low
Sediment: B-0% / C-10% / P-25% / G&S-5% / M-2% / R-30%

**IL**

Degree of Oiling: HEAVY / MODERATE / LIGHT / VERY LIGHT / NONE OBSERVED

**REA OF IMPACT**

SU/SP/H/M/L

**DISTRIBUTION**

Continuous % of Segment: SU/SP/H/M/L H/M/L/VL
Poradic % of Segment: SU/SP/H/M/L H/M/L/VL

**IL MORPHOLOGY**

Oiled Oil: SU/SP/H/M/L
Free Oil: SU/SP/H/M/L
Platered: 100% H/M/L/VL
Oated: SU/SP/H/M/L

**IL WEATHERING**

Resh: SU/SP/H/M/L
Ouss: SU/SP/H/M/L
Eathered Mousse: 100% SU/SP/H/M/L
Phal Mousse: SU/SP/H/M/L

**COMMENTS**

VERY LIGHT WEATHERED MOUSSE FOUND NORTH OF CAMPBELL LAGOON TO BROKEN PT. BEACH IS PREDOMINANTLY BOULDER/Cobble 2000 TO PEBBLE BEACH ADJACENT TO CAMPBELL LAGOON. CAMPBELL LAGOON IS A TIDAL FLAT LOW WAVE EXPOS.
DOCUMENTATION:

Aerial photo marking segment boundaries

Tape Number(s)

Photography: Roll Number(s)

Sample Numbers Collected:

ACE 8707703
Saturday

MP II 600 22/3 1300 General Location

1240 - CI 74

MVP/950/p - 111contact, C: 10

No oil observed. Heild, 0455

From Broken Point to location, 6D/1 found

Very light spot in Mousse Mitz. Reef

Holds 4 Pel Beach (B/C rubble holes)

From Training (MP: 3) to Broken Point

Pel. Bluff is the Roa 34. SC Bluffs (MP: 921)

No oil observed on flyby.

One landing - No oil seen

1315 - Lu for ADO

1545 - LAND ADO

1700 - Up MP Z12

1820 - SCAT Staff MTG.

- Finish MP write up

2030 - BUI Food for Sunday SCAT Pic

2100 - Roundback Cam (office)

- Unusual Unfriendliness

- 2200 - Movie! (good night)
## ECOLOGICAL EVALUATION

**LOCATION:** BAY AREA

**SITE:**

**SEG. NO.:** 48

**LENGTH:** 3200 (M)

**DATE:** 7/8/89

**TIME (HHMM):** 1450

**TIDE HT.:** +2.0 (M)

**OILED ZONE:** Splash

**HIGH**

**MED**

**LOW**

**SUBSTRATUM:** Rocks Boulder Cobble Gravel Sand Mud

### LIVE BIOTA

<table>
<thead>
<tr>
<th><strong>Fucus</strong> (algae):</th>
<th>Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mytilus</strong> (Mussels):</td>
<td>Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N</td>
</tr>
<tr>
<td><strong>Balanus</strong> (Barnacles):</td>
<td>Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N</td>
</tr>
<tr>
<td><strong>Littorina</strong></td>
<td>Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N</td>
</tr>
<tr>
<td><strong>Limpets</strong>:</td>
<td>Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N</td>
</tr>
</tbody>
</table>

### OTHER OBSERVATIONS:

- **Campbell Lagoon:** Eden Segments, dense mussel beds, Zacar marina, Port Graham - Sediment settling in front of Lagoon.

### CLEANUP PRECAUTIONS: None since cleanup is not recommended.

### MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___ Other ___

### BIRDS: Bald eagles (see map for approximate locations)

### GENERAL OBSERVATIONS: Very light layer of oil on boulder beach with Campbell Lagoon. No oil-injected pits observed.

**Note:** KG-13 MP4B and KG-16 MP4A were originally one segment (K-16.16/K-6.15 MP4)

The original segment was divided to fit into ADEC/USCG K sections (see original ACE 8707705)
SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): K6-15

Includes Shoreline Segments: MP-4B, MP-5, MP-6

Location: Broken Point south to and including Campbell Lagoon, Kodiak Island

Submitted: ____________________________ Date: ________________
(for Exxon)

FOSC Approval: ____________________________ Date: ________________

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. Requirements for safety and the protection of cultural material must be observed.

CC: KISCC
SHORELINE CLEANUP PROGRAM

DATE 7/09/89  SHORELINE SEGMENT K6-15-MP-5

LOCATION: (see enclosed map) South of Campbell Lagoon, Uganiq Bay, Kodiak Island

ADEC NO. SHORELINE ASSESSMENT DATE: 7/09/89

Recommended Cleanup Activity(ies):

Priorities/Considerations:
Class 5-A
- Local setnetter crews were cleaning the beach under VEECO supervision at time of this assessment.

Ecological Constraints (from site survey):
- None for manual cleanup.

Archaeological Constraints (from site survey):
- If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer *
Date: 7/31/89

EXXON: ___________________________ Date: ____________

FOSC: ___________________________ Date: ____________

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION

Date: 9 July 89 / Time: 1502
Observer: Bryan Trim

Surveyed From: Foot/Boat/Helicopter
Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION
Location: South of Campbell Lagoon, West Bay Komp. Segment ID: K6-15-MP5
Segment Length: 2870 m. Access: Vehicle/Boat/Barge/Helicopter/Float Plane
Access Restrictions: N/A

SHORELINE
Shoreline Type: SNI/BEN/C0V/HLD/STRT
Wave Exposure: High/Med/Low
Sediment: B 10% / C 20% / P 40% / G&S 10% / M 10% / R 20%

OIL
Avg. Degree of Oiling: HEAVY / MODERATE / LIGHT / VERY LIGHT / NONE OBSERVED
Area of Impact: SU/SP/H/M/L

OIL DISTRIBUTION
Continuous % of Segment: S
Sporadic % of Segment: S
Total Very light: Length (m) Width (m) Thickness >1 cm: cm
Light: Penetration/Rework: cm
Moderate: Burial Depth: cm
Heavy: 

Mobilization Potential: High/Medium/Low
rift Debris Oiled? Y/N Amount: H/M/L/VL

OIL MORPHOLOGY
Pooled Oil: % SU/SP/H/M/L
"Free" Oil: % SU/SP/H/M/L
Splattered: % H/M/L/VL SU/SP/H/M/L
Coated: % H/M/L/VL SU/SP/H/M/L
Pancakes/Balls: % SU/SP/H/M/L

OIL WEATHERING
Fresh: % SU/SP/H/M/L
Mousse: % SU/SP/H/M/L
Weathered Mousse: % SU/SP/H/M/L
Asphalt Mousse: % SU/SP/H/M/L
Tar: % SU/SP/H/M/L

COMMENTS
Cobble/Boulder Beach leading into People/Sand Beach to the south. The beach is generally 50 m wide with eroding unconsolidated bluffs buttressing against the splash (storm) zone. Very light splatter to medium splatter is found on the June High Tide Line (boundary between splash and high intertidal zones). No oil was observed on People/Sand Beach, while the splash area on the Cobble/Boulder Beach is discontinuous most of the time. Local setnet fishermen are presently "cleaning" beach under direction of UECO. Tidal state is tidal. The People/Sand Beach was "covered" by OECO flanked debris which they removed.

Preliminary Cleanup Est.
Total TYPE A: 200 m
Total TYPE B: ________ m
Total TYPE A/B: ________ m

ACE 8707711
DOCUMENTATION:

Aerial photo marking segment boundaries  

VTR:  YES  Tape Number(s)  

Photography:  YES  Roll Number(s)  D12C - 20  

Sample Numbers Collected:  N/A  

ACE 8707712
9 Jul '89

Sun

14:59
- CAME IN REA SOUTH OF WEST Pt
- TO CAMPBELL LAGOON

LAND CAMPBELL LAGOON, TALK TO
WORL CREW

SUN COMING OUT

502 LA
- K6-15-MPS

SOUTH OF CAMPBELL LAGOON TO WEST Pt

LA & BEACH 50-75M WIDE

SUNNY

REDUSING UC BLUFFS 5-15M HIGH

SP. AROUND BLUFFS

TALK TO LOCAL SET NETTER

MOSQUITO CAME IN ON EARLY JUNE 11TH

TIDE, SAME STAY AS BEFORE TO HERE

BEACH, SLIP/SUG BEACH

HITZ IN V, 1/4M WIDE DISC FISH

WEATHER MODERATE (35%) CLOUDY (25%)

PREVIOUSLY FISH CLEANED BY LOCAL FISHER-
OCCASIONALLY MEN. LT/MSD SPLAT (VLT OCCASIONALLY)

CHECK IN BETWEEN BARRACKS/CABINOS

LEVEL
<table>
<thead>
<tr>
<th>Date</th>
<th>Sunday</th>
<th>Monday</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 July 89</td>
<td>Local fishermen say oil is &quot;kelte&quot;</td>
<td>10 July 89</td>
</tr>
<tr>
<td></td>
<td>penetrated down below Dusky/Coast</td>
<td>OFFICE</td>
</tr>
<tr>
<td></td>
<td>PELAGIAN BEACH V.F. SPAT SEN. ALSO</td>
<td>WRITE UP MP-5</td>
</tr>
<tr>
<td></td>
<td>RESULTS OF SOME LOCALIZED SHEET</td>
<td>CALL GLENN ABOUT ROTATION</td>
</tr>
<tr>
<td></td>
<td>AT 111 TIME</td>
<td>0900 - LV FOR ADQ/EXON COMMAND</td>
</tr>
<tr>
<td></td>
<td>OBSERVED OILING TO 50M INTO PELAGIAN</td>
<td>Pat. John Tarpley - SCAT</td>
</tr>
<tr>
<td></td>
<td>SUBSTRATE</td>
<td>Debbie McCormick - SCAT</td>
</tr>
<tr>
<td></td>
<td>LV MP-5 TO START FLYOVER OF MP-6</td>
<td>Rick Knecht - SCAT</td>
</tr>
<tr>
<td></td>
<td>1642-16-15-16</td>
<td>Bryan Jenkins - SCAT</td>
</tr>
<tr>
<td></td>
<td>FLY-OUT 1348 15-15-15 40-FT</td>
<td>ADQ TO ALINCHAK BAY TO ADQ</td>
</tr>
<tr>
<td></td>
<td>[vertex] 1642 16-15-16</td>
<td>(1900) (1900)</td>
</tr>
<tr>
<td>1632</td>
<td>HEAD FOR ADQ</td>
<td>0939 LV ADQ 523 EN TO ALINCHAK BAY</td>
</tr>
<tr>
<td>1719</td>
<td>LD ADQ</td>
<td>(AK Peninsula)</td>
</tr>
<tr>
<td></td>
<td>WRITE UP MP5 KI-QI SECTIONS</td>
<td>1033 - STOP FLYOVER CARE KUBUACHKI</td>
</tr>
<tr>
<td>2000</td>
<td>Pick up John Tarpley - ADQ</td>
<td>35M ROCKY CLIFFS - LITTLE BEACH</td>
</tr>
<tr>
<td>2230</td>
<td>DINNER &amp; GOOD NIGHT</td>
<td>RUBBLE 0-10M WIDE BEACH</td>
</tr>
<tr>
<td>1635</td>
<td>AB IN</td>
<td>0035 ACROSS GB - VERIFY LOCATION</td>
</tr>
</tbody>
</table>
ECOLOGICAL EVALUATION

LENGTH: 2870 (M) DATE: 7/19/89 TIME (HHMM): 1520 TIDE HT.: +2.0 (M)
OILED ZONE: Splash High Medium Low
SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Littorina

Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS: Freshwater limnrose blue, pink, encrusting algae Direct current beds

CLEANUP PRECAUTIONS: No constraints for manual cleanup.

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___

Other

BIRDS:

GENERAL OBSERVATIONS: Oil present apparently merged in upper tidal
Set nets ready, possibly cleaning with ambient

ACE 8707715
SHORELINE CLEANUP PROGRAM

DATE 7/09/89 SHORELINE SEGMENT K6-15-MP-6

LOCATION: (see enclosed map) North of West Point Uganik Bay, Kodiak Island

ADEC NO. __________ SHORELINE ASSESSMENT DATE: 7/09/89

Recommended Cleanup Activity(ies):
- No observed oil at this time, thus no action recommended.

Priorities/Considerations:

Ecological Constraints (from site survey):
- No ecological assessment form is included in this report because segment was surveyed by helicopter only.
- No documentation page - no photos or video taken.

Archaeological Constraints (from site survey):
- If cleanup is planned a full archaeological assessment must be conducted due to the archaeologically sensitive nature of this segment.
- If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer *

EXXON: __________________________ Date: __________________

FOSC: __________________________ Date: __________________

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION

Date: 9 July 89 / Time: 1642
Observer: Brian
Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION
Location: North West Point, Umnak Bay, Kodos Island
Segment ID: K-15-MPC
Segment Length: 5000 m.
Access: Vehicle/Boat/Barge/Float Plane
Access Restrictions: Max. Low Head - Limited Helo Access

SHORELINE
Shoreline Type: SPI/SEA/COV/LLD/STRT
Wave Exposure: High/Med/Low
Slope: Lo/Med/Hi/Vert

OIL
Avg. Degree of Oiling: HEAVY / MODERATE / LIGHT / VERY LIGHT / NONE OBSERVED
Area of Impact: SU/SP/H/M/L

OIL DISTRIBUTION
Continuous % of Segment
Sporadic % of Segment
Total Very light Length(m) Width(m) Thickness >1cm, cm SU/SP/H/M/L
Light:
Moderate:
Heavy:

Mobilization Potential: High/Medium/Low

OIL MORPHOLOGY
Pooled Oil:
"Free" Oil:
Splattered:
Coated:
Pancakes/Balls:

OIL WEATHERING
Fresh:
Weathered Mousse:
Asphalt Mousse:
Tar:

COMMENTS
No oil observed at this time by helicopter survey. Flew 15 knots at 15 to 40 feet. Note: the lightly splattered oil on shoreline benches usually in between & under boulders. Thus not visible by air survey.

ACE 8707719
9 July 89  
**Local fisherman say oil has "melted"**
*Petroleum down below Boulder/coast*
*Pelagic see also*
*Result of some localized sheen at high tide*
*Observed piling to south into pelagic substance*
*MP's in start flyover of MP 6*

**1642**  1615 - MP-6
*Ferry zone line @ 15.40 ft*
*Next rocky hold w/small pod present*
*No oil observed*

**Isle**  
*Head for ADQ*

**Lodge**  
*Write up MP, K, G, I segments*
*1033 STOP flyover Cape Kubuskvik*
*35 M rocky cliffs, little Boulder*
*Dinner & Good Night*

**1035**  
*Upper beech, verify location*

Sunday 10 July 89  
1000 - Office*
*Write up MP-5*
*Call Glen about rotation*
*0900 - Lv for ADQ/Exxon command*

PAK. John Tarpely  SCAT
DEBBIE McCAIN  SCAT
RICK KNECHT  SCAT
BRYAN TEIMM  SCAT
? Satur  USCG
? Peckett  USF

ADQ -> ALINCHA BAY -> ADQ

1030 (1900)

0939 LV ADD 523 En to Alincha Bay
(AK Peninsula)
MAR 22 1990

KODIAK SCAT
K6-16

ACE 7963945
SHORELINE CLEANUP PROGRAM

DATE 7/15/89  SHORELINE SEGMENT K6-16-MP-1

LOCATION: (see enclosed map) Miner's Point

ADEC NO.  SHORELINE ASSESSMENT DATE: 6/29/89

Recommended Cleanup Activity(ies):
- Manual removal of contaminated drift material.
- Manually remove or clean contaminated sediments.

Priorities/Considerations: Class 4-A

Ecological Constraints (from site survey):
- Washing not recommended due to sensitivity of lower intertidal zone biota and low probability of recovering oil.
- Work at mid-tide plus or take appropriate measures to protect lower intertidal zone.

Archaeological Constraints (from site survey):
- If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
**Shoreline Oil Evaluation Form - Kodiak**

**Date:** 28/83  **Time:** 14:40  **Observer:** Mike Miles

**Surveyed From:** Foot/Boat/Helicopter **Weather:** Sun/Cloud/Rain/Snow/Fog

**Location**  **Segment ID:** K6-16-MP-1

**Surveyed From:** Boa/Boat/Plane

**Weather:** Sun/Cloud/Rain/Snow/Fog

**LENGTH OF SHORELINE SEGMENT:** __________

**ACCESS:** Foot/Vehicle/Boat/Barge/Helicopter/Float Plane

**LOCATION**  **MINERS POINT**

**Slope:** LANG/HANG/VER

**SHORELINE:**
- **Type:** SPI/BEA/COV/HLD/STRT
- **Wave Exposure:** High/Med/Low
- **Sediment:** B90 / C10 / P / G / S / M / R

**Drift Debris on Beach:** Yes/No

**Supra/Upper/Mid/Lower Type Losses:**

**OIL**
- **Degree of Oiling:** Heavy/Moderate/Light/No Oil/Unobserved/Very Light
- **Total Area of Beach Impact:** SU / SP / H / M / L

**OIL DISTRIBUTION**
- Continuous: Y/N  **Segment:** < 5  **No. Bands:** 1  **Width:** 2-4 m wide
- Sporadic: Y/N  **Segment:** < 20 min  **Max Dia:** cm  **Impact Width:** 10 m

**Est. Oil Thickness where > 1 cm:** 3-5 mm
- **Est. Oil Penetration:** < 2 cm
- **Layers:** Yes/No  **Oil Weathering:**

**Drift Debris Oiled?** Yes/No

**Supra/Upper/Mid/Lower Amount:** H / M / L /VL

**OIL MORPHOLOGY**
- **Pooled Oil:** "Free" Oil
- **Spattered:** 95%
- **H/M/B/V/L Sheen:**
- **Small Pellets of Mid:**

**OIL WEATHERING (ON)**
- **Fresh Oil:** SU/SP/VP/MID/LO
- **Choc Mousse:** 20%
- **SU/SP/VP/MID/LO:**

**Pancake Mousse:**
- **SU/SP/VP/MID/LO:**
- **Asphalt Mousse:**
- **Tar Formation:**

**Comments:**

This segment consists of a rocky headland. Field by field, gradients, boulders, beach and small rocky beach in middle shelf. Location:

- **Oil Contamination is visible.** Most of this oil in continuity.
- **Oil on boulder beach.**
- **Oil on wave action beach.**
- **Localized pools up to mid oil contamination occurs on same beach.**

P.O. QUALITY ORIGIN
DOCUMENTATION:

Map: Aerial photo marking segment boundaries *See Attached.*

VTR: Y/N  Tape Number(s) ________________

Photography: Y/N  Roll Number(s) DMC - 16

Sample Numbers Collected: N/A
This segment consists of a rocky headland flanked by discontinuous steep gradient boulder beaches and small pebbly beaches in more sheltered locations.

Oil contamination is variable. A helicopter survey indicates that most of this segment is un-oiled. A 10 m wide band of very light discontinuous tar spatters occurs on some boulder beaches (estimation distribution < 20% of the segment). Localized pockets of up to ‘moderate’ oil contamination due however occur on some beaches. These areas contain areas of nearly continuous tar spatters and free oozes to depths of 3-5 cm in crevices around the base of large boulders. We inspected the largest of these areas and it ranged between 2 to 4 m in width and 10 to 15 m in length.

Manual removal of gross oil contamination and dried weed is appropriate at the more heavily oiled portions of this segment. Moderate to high pressure
Mike Miles  
June 28/89  
Miners Point  
K6-16-MP-1

COMMENTS
SHORELINE OIL EVALUATION

Hot water washing would be required to remove the dried/oxidized tar, in these heavier oiled sections. However, this technique is likely to result in the contamination of presently un-oiled sections of the ITZ. Oil recovery ratios are also expected to be low due to the porous nature of the beach sediments and the difficulty in containing or recovering oil on boulder beaches.

A crew of 3 people are currently cleaning beach in the vicinity of Miners Point. The amount of oil on these beaches is apparently more than they can cope with and some assistance would be appreciated. The people on the beach are not familiar with the use of "wet ponioms" and some instruction in their use would therefore be beneficial.
**ECOLOGICAL EVALUATION**

**LOCATION:**
- **Point:**
- **SITE:**
- **LOCATION PREFIX:** K-46-
- **SEG. NO.:** 1
- **LENGTH:** 8.75 (N)

**DATE:** 6/28/89  **TIME (HHMM):** 1430  **TIDE Ht.:** 10.75 (N)

**OILED ZONE:**
- Splash
- High
- Medium
- Low

**SUBSTRATUM:**
- Rocks
- Boulder
- Cobble
- Gravel
- Sand
- Mud

**LIVE BIOTA**

<table>
<thead>
<tr>
<th>Biota</th>
<th>Patchy Y/N</th>
<th>Contin. Y/N</th>
<th>Dense Y/N</th>
<th>Sparse Y/N</th>
<th>None Y/N</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Fucus</em> (algae)</td>
<td></td>
<td></td>
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<td><em>Mytilus</em> (Mussels)</td>
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<td><em>Balanus</em> (Barnacles)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Littorina</em></td>
<td>Patchy Y/N</td>
<td>Contin. Y/N</td>
<td>Dense Y/N</td>
<td>Sparse Y/N</td>
<td>None Y/N</td>
</tr>
</tbody>
</table>

- 75% littorina population in high IT2 are oiled.

**OTHER OBSERVATIONS:**
- Treefauls: Seaweed, Echinocardia, Ulva

**CLEANUP PRECAUTIONS:**
- Avoid cross-contamination to clean lower IT2.

**MAMMALS:**
- Otters
- Harbor Seals
- Sea Lions
- Whales
- Other

**BIRDS:**
- Bald eagle nest in hilly vine brush - 2 eaglets

**GENERAL OBSERVATIONS:**
- This brewery beach has moderate oiling in the upper IT2 with pooled mouse in impressions and mostly splatter in the mid zone. Lower IT2 is clean. Pom-poms should be used in the most heavily oiled areas.
- Type B cleanup not recommended due to low-probability of oil scarcity and contamination risk to lower IT2.

ACE 8707728
MINERS POINT
K6-16-MP-1
SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): __K6-16____________________________

Includes Shoreline Segments: __MP-1, MP-2, MP-3, MP-4a____________

Location: __Miner's Point______________________________

Submitted: ___________________________ Date: ______________

(for Exxon)

FOSC Approval: ___________________________ Date: ______________

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. Requirements for safety and the protection of cultural material must be observed.

CC: KISCC
SHORELINE CLEANUP PROGRAM

DATE  7/08/89  SHORELINE SEGMENT K6-16-MP-2

LOCATION: (see enclosed map) Southeast of Miner's Point, Ugakik Bay, Kodiak Island

ADEC NO. ___________ SHORELINE ASSESSMENT DATE: 7/08/89

Recommended Cleanup Activity(ies):

Priorities/Considerations: Class 5-A
- Determine quality of present cleanup by local fisherman.

Ecological Constraints (from site survey):
- Avoid eagle nest sites and lower intertidal zone. (see map of eagle nest locations).

Archaeological Constraints (from site survey):
- No access to the forest/upland zone by beach crews during cleanup.
- If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer *

Exxon: ___________________________ Date: ___________________________

FOSC: ___________________________ Date: ___________________________

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

(Date 7/24/89)
SHORELINE OIL EVALUATION

Date: 2 July 89 / Time: 1131
Surveyed From: Foot/Boat/Plane
Observer: Bryan Trim
Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

Location: South of Point Uclueet, Ray 34.4, Segment ID: KG - 16 - MF 2
Segment Length: 2800 m. Access: Vehicle/Boat/Barge/Plane
Access Restrictions: Nho

SHORELINE

Shoreline Type: SPI/BEA/COV/HIL/STRT
Slope: Lo/Med/Hi/Vert
Wave Exposure: High/Med/Low
Sediment: B 20% / C 20% / P 25% / G&S 5% / M 4% / R 30%

OIL

Avg. Degree of Oiling: HEAVY / MODERATE / LIGHT / VERY LIGHT / NONE OBSERVED
Area of Impact: SU/SP/H/M/L

OIL DISTRIBUTION

Continuous % of Segment _______ SU/SP/H/M/L H/M/L/VL
Sporadic % of Segment _______ SU/SP/H/M/L H/M/L/VL

Total Length(m) | Width(m) | Thickness >1cm: _______ cm SU/SP/H/M/L
Very Light: 100 | | |
Light: | | Penetration/Rework: _______ cm SU/SP/H/M/L
Moderate: | | Burial Depth: 1.0 cm SU/SP/H/M/L
Heavy: | | |

Mobilization Potential: High/Medium/Low
Drift Debris Oiled? Y/N Amount: H/M/L/VL SU/SP/H/M/L Type:

OIL MORPHOLOGY

Pooled Oil: _______ % SU/SP/H/M/L
"Free" Oil: _______ % SU/SP/H/M/L
Splattered: 100% H/M/L/VL SU/SP/H/M/L
Coated: _______ % H/M/L/VL SU/SP/H/M/L
Pancakes/Balls: _______ % SU/SP/H/M/L

OIL WEATHERING

Fresh: _______ % SU/SP/H/M/L
Mousse: _______ % SU/SP/H/M/L
Weathered Mousse: 75 % SU/SP/H/M/L
Asphalt Mousse: _______ % SU/SP/H/M/L
Tar: _______ % SU/SP/H/M/L

COMMENTS

West Side of Beach Dominately Boulder/Cobble/Low Angle Bedrock with Very Light Splat
Both Fresh (Chocolate) and Weathered Mousse is Found. The Center Pebble/Sand Beach Has Very Lc
A Boulder/Cobble Beach with Very Light Splat of Weathered Mousse in the High
No Oil Found on Overflight of Far Western End of Segment
DOCUMENTATION:

Map/Aerial photo marking segment boundaries

VTR: Y/N  Tape Number(s)

Photography: Y/N  Roll Number(s)  112 - 19

Sample Numbers Collected:  N/A
7 July 89

Friday

7:00 - Dinner (Kodak Pizza - SEASH)

Bill & Good Night

8 July 89

Saturday

0730 - Make Flow Chart for Marty, KR2X

Give to Him in KISCH MTO

Show Rounda (Secr.) K2OEX/DEC

0830 Finish write-ups, VP-3

0945 LV for Airport

LV ADQ -> Miner's Pt. (Ugmic Is)

Weather fog near minimum at ADQ.
Try to get over to Inside Island

1021 - Delay - Engine Won't Start

1039 LV ADQ

1131 - Land East of Miner's Pt: (MP-2)

Cloudy & Cloud

MP-2 - East of Miner's Pt (Ugmic Passage)

B1C/PH Beach groving into 50/80

VLT HIZ-1 to VLT Cont. 60W, U. Minors/400, C. Miners

P/50 Beach HIZ Boom (10cm Deep VLT Split)

1 Clean PEO outof/Decaying E-WD

PEO/50 Beach 3 HIZ Terraces /1 SP - WU developed
ECOLOGICAL EVALUATION

LOCATION: UGAUK Bay
SITE: ________
LOCATION PREFIX: MP
SEG. NO.: __________
LENGTH: 3800 (M)
DATE: 7/8/89
TIME (HHMM): 1130
TIDE HT.: +1.0 (M)
OILED ZONE: Splash High Medium Low
SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Littorina: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS:

CLEANUP PRECAUTIONS:

MAMMALS: Otters Harbor Seals Sea Lions Whales

BIRDS:

GENERAL OBSERVATIONS:

ACE 870740
SHORELINE CLEANUP PROGRAM

DATE 7/08/89

SHORELINE SEGMENT X6-16-MP-3

LOCATION: (see enclosed map) Between Miner's Point and Broken Point, Uganik Point

ADEC NO. ___________ SHORELINE ASSESSMENT DATE: 7/08/89

Recommended Cleanup Activity(ies):
- Passive sorbent collection in front of heavy and moderate coatings of oil in storm(splash) and high intertidal zones.
- Manual removal of heavy and moderate oil coatings.
- Manual removal of oiled sediments to depths greater than one inch may be required to clean beach.

Priorities/Considerations: Class 4-A

Ecological Constraints (from site survey):
- No constraints for manual cleanup other than avoidance of clean lower intertidal zone.

Archaeological Constraints (from site survey):
- If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

[Signature]
State Historic Preservation Officer
Date: 7/31/89

EXXON: ____________________________ Date: ____________

FOSC: ____________________________ Date: ____________

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION

Date: 5 Jan 69 / Time: 1355
Surveyed From: Foot/Boat/Helio/Plane
Observer: __________
Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION
Location: ________________ Bay
Segment ID: ____________
Segment Length: __________ m.
Access: Vehicle/Boat/Barge/Helio/Float Plane
Access Restrictions: __________

SHORELINE
Shoreline Type: SPI/EA/COV/HLD/STRT
Slope: Lo/Med/Hi/Vert
Wave Exposure: High/Med/Low
Sediment: B __ C __ P __ G/S __ M __ R __

OIL
Avg. Degree of Oiling: HEAVY / MODERATE / LIGHT / VERY LIGHT / NONE OBSERVED
Area of Impact: SU/SP/H/M/L

OIL DISTRIBUTION
Continuous % of Segment 2 __________
Sporadic % of Segment 65 __________
Total Length (m) __________
Very light: __________
Light: __________
Moderate: __________
Heavy: __________

Mobilization Potential: High/Medium/Low
Debris Oiled? Y/N
Amount: H/M/L/VL
SU/SP/H/M/L Type: __________

OIL MORPHOLOGY
Pooled Oil: __________
"Free" Oil: __________
Splattered: __________
Coated: __________
Pancakes/Balls: __________

OIL WEATHERING
Fresh: __________
Mousse: __________
Weathered Mousse: __________
Asphalt Mousse: __________
Tar: __________

COMMENTS

SMALL ACCUMULATIONS OF HEAVY / MODERATE OILING IN THE SPLASH (STORM) ZONE AGAINST VEHICLE ROCKY HEADLANDS. CHECK CREEKS / CAVES / CREVICES (EGG SHELLS) AND IN BETWEEN BOULDERS. CHOCOLATE MOUSE COMPLIES THESE ZONE S. VERY LIGHT SPLATTER IS FOUND IN THE HIGH INTENSITY ZONE (SEE 3X 5). COMPOSED OF WEATHERED Mousse.
LOCAL FISHERMAN REPORT SHEEN COMING FROM OIL DEPOSITS AT HIGH TIDE, THERE THE HIGH MOBILIZATION CLASSIFICATION.

Preliminary Cleanup Est.

Total TYPE A: __________
Total TYPE B: __________
Total TYPE A/B: __________

ACE 8707745
DOCUMENTATION:

Map/Aerial photo marking segment boundaries

VTR: Y/N Tape Number(s)

Photography: Y/N Roll Number(s): 11-19

Sample Numbers Collected: N/Y
8 July 89  
Saturday

1300 - Lunch
1349 - Hop 9 Skip
1352 - Lo, no oil observed (see location map)
1354 - LD by set netters. Ask about oiling
    + Check beach.

1358 - Lo try tents (at Ocean Map boundaries)

LAP 5 SM project in very roacky mud B/C

Cloud 5 y 6m Med/ny coat of W mousse SP/HITZ

Local fisherman says it produces sheen

At High Tide

U LT spilt W Mousse in HITZ

Low wave, no drift in rock holes

Healthy + clean H/HTZ

Recommend hot, 2-3 wash + hang for small

area. Could place small sorbent boom to

catch sheen.

LT coat in crevice (Fissure) of up to 1m

Choc mousse. 15m long, slight smell

of hydrocarbons, even on cool day

No

LV MP -3

1450 Fly MP -4

Plane View, MP -3

8 July 91  
Saturday
ECOLOGICAL EVALUATION

LOCATION: KODIAK IS UGANIK BAY
LOCATION PREFIX: MP
SEG. NO.: 3
LENGTH: 200 (M)
DATE: 7/8/89
TIME (HHMM): 1355
TIDE HT.: +10 (M)
OILED ZONE: Splash
SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Littorina: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS:

OTHER OBSERVATIONS: 

MAMMALS: Otters Harbor Seals Sea Lions Whales Other

BIRDS: Eagle seal in segment (see map)

GENERAL OBSERVATIONS: 

ACE 8707748
SHORELINE CLEANUP PROGRAM

DATE 7/28/89

SHORELINE SEGMENT K6-16-MP-4A

LOCATION: (see enclosed map) West of Broken Point to Broken Point

ADEC NO. ___________ SHORELINE ASSESSMENT DATE: 7/08/89

Recommended Cleanup Activity(ies):
-No cleanup recommended due to apparent absence of oil. Subject to FOSC reassessment at a later date.

Priorities/Considerations:

Ecological Constraints (from site survey):
-Should this segment be oiled in the future, it is too sensitive ecologically to warrant cleanup of very light oil.

Archaeological Constraints (from site survey):
-If cleanup is planned, no access to the forest/upland zone by beach crews during cleanup.
-If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer * Date: 7/31/89

EXXON: ___________________________ Date: ________________

FOSC: ___________________________ Date: ________________

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION

Date: 6 July 89 / Time: 1450
Reported From: Foot/Boat/Helicopter/Plane
Observer: [Name]
Weather: Sun/Cloudy/Rain/Snow/Fog

LOCATION
Surveyed From: [Location]
Segment ID: [Segment ID]
Access Restrictions: [Access]

SHORELINE
Shoreline Type: SPI/REA/COV/HLO/STRT
Wave Exposure: High/Med/Low
Slope: Med/Hi/Vert
Sediment: [Sediment]

OIL
Avg. Degree of Oiling: HEAVY / MODERATE / LIGHT / VERY LIGHT / NONE OBSERVED
Area of Impact: SU/SP/H/M/L

OIL DISTRIBUTION
Continuous % of Segment—SU/SP/H/M/L H/M/L/VL
Poradic % of Segment—SU/SP/H/M/L H/M/L/VL

<table>
<thead>
<tr>
<th>Type</th>
<th>Length (m)</th>
<th>Width (m)</th>
<th>Thickness &gt;1cm</th>
<th>Penetration/Rework</th>
<th>Burial Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very light</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Light</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heavy</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Utilization Potential: High/Medium/Low
Of Debris Oiled? Y/N Amount: H/M/L/VL SU/SP/H/M/L Type:

OIL MORPHOLOGY
Poiled Oil: SU/SP/H/M/L
Free Oil: SU/SP/H/M/L
Splattered: H/M/L/VL
Soaked: H/M/L/VL
Pancakes/Balls: SU/SP/H/M/L

OIL WEATHERING
Fresh: SU/SP/H/M/L
Mousse: SU/SP/H/M/L
Weathered Mousse: SU/SP/H/M/L
Asphalt Mousse: SU/SP/H/M/L
Tar: SU/SP/H/M/L

COMMENTS
No oil was observed by Helico. Talked to local fisherman he stated that local clean up crews have removed 'very light mousse' deposits. Broken Point is a medium wave exposed rocky headland with pocket beaches.

Note originally K6-15-MPA4 & K6-16-MPA4 were one segment, this segment was divided to fit into ADE/USCG K SECTION MAP.
DOCUMENTATION:

Map/Aerial photo marking segment boundaries **See Attached**

VTR: Y/N  Tape Number(s)__________________________

Photography: Y/N  Roll Number(s) Dir. - 9

Sample Numbers Collected: N/A
8 July 69

MP 11:45 A.M. - Includes Campbell Lagoon

LARGEST MANTA

MP/54G/P - Occas. Luck C. 18

No oil observed - Helio, Log 5:50

From Broken Point to Lagoon, no oil found

Very light spot - Mousse Hitz. Rocky

Hold at Pad Beach (B/C rubble holds)

Few tints (MP) to Broken Point

Per bluffs w/ Rocky & UC Bluffs (Hold 2:00)

No oil observed on fly by

One landing - No oil seen

1315 - LV for ADQ

1545 - Land ADQ

- Lift up MP 2, 3

1820 - SCAT Staff Mtg

- Finish MP white sheet

2030 - Buy food for Sunday SCAT flt

2100 - Return back car (office)

- Unload furniture

2200 - Movie & Good Night
ECOLOGICAL EVALUATION

LOCATION: West of Broken Pt to Ecker Pt.

SITE: 

LOCATION PREFIX: KW-16.

SEG. NO.: 4A

LENGTH: 1800 (M)

DATE: 4/8/89

TIME (HHMM): 1450

TIDE HT.: +2.0 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Littorina

Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS: No other notes.

CLEANUP PRECAUTIONS: None, since no cleanup is recommended.

MAMMALS: Otters

Harbor Seals

Sea Lions +30

Whales

BIRDS: Mammals

GENERAL OBSERVATIONS: Walked only small portion of segment. No oil observed.

ACE 8707750

Note: K6-15 MP48 and K6-16 MP4A were originally one segment (K6-16/K6-15). The original segment was divided to fit into ADEC/USCG K sections (see...
SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): K6-17

Includes Shoreline Segments: MP-7

Location: Miner's Point

Submitted: ____________________________ Date: ____________
(for Exxon)

FOSC Approval: ____________________________ Date: ____________

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. Requirements for safety and the protection of cultural material must be observed.

CC: KISCC
SHORELINE CLEANUP PROGRAM

DATE 7/09/89

SHORELINE SEGMENT K6-17-MP-7

LOCATION: (see enclosed map) Miner's Point

ADEC NO. SHORELINE ASSESSMENT DATE: 7/09/89

Recommended Cleanup Activity(ies):

Priorities/Considerations: Class 4-A

Ecological Constraints (from site survey):
- No constraints for manual cleanup.

Archaeological Constraints (from site survey):
- No access to the forest/upland zone by beach crews during cleanup.
- If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

(State Historic Preservation Officer)

Date: 2/14/89

EXXON: Date:

FOSC: Date:

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
**SHORELINE OIL EVALUATION**

**Date:** 9 Jul 89  
**Time:** 1152  
**Surveyed From:** Foot/Boat/Plane  
**Observer:** Bryan Trim  
**Weather:** Sun/Cloud/Rain/Snow/Fog

### LOCATION

**Location:** Cape York to M.west Point  
**Segment:** KD-17 MAP  
**Segment ID:** KG-17-1  
**Segment Length:** 12300 m  
**Access:** Vehicle/Barge/Float Plane  
**Access Restrictions:** Limited Access to land

### SHORELINE

**Shoreline Type:** SPI/BEA/COV/HLD/STRT  
**Slope:** Lo/Med/Hi/Vert  
**Wave Exposure:** High/Med/Low  
**Sediment:** B 25% / C 25% / P 10% / G&S ___% / M ___% / R ___%

### OIL

**Avg. Degree of Oiling:** HEAVY / MODERATE / LIGHT / VERY LIGHT / NONE OBSERVED  
**Area of Impact:** SU/SP/H/M/L

### OIL DISTRIBUTION

<table>
<thead>
<tr>
<th>Category</th>
<th>% of Segment</th>
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<tbody>
<tr>
<td>Continuous</td>
<td>SU/SP/H/M/L</td>
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<tr>
<td>Sporadic</td>
<td>H/M/L/VL</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total</th>
<th>SU/SP/H/M/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very light:</td>
<td>H/M/L/VL</td>
</tr>
<tr>
<td>Light:</td>
<td>H/M/L/VL</td>
</tr>
<tr>
<td>Moderate:</td>
<td>H/M/L/VL</td>
</tr>
<tr>
<td>Heavy:</td>
<td>H/M/L/VL</td>
</tr>
</tbody>
</table>

**Mobilization Potential:** High/Med/Low (See Comments Below)

**Debris Oiled?** Y  
**Amount:** H/M/L/VLU  
**Type:** SU/SP/H/M/L

### OIL MORPHOLOGY

**Pooled Oil:** SU/SP/H/M/L  
**"Free" Oil:** SU/SP/H/M/L  
**Splattered:** SU/SP/H/M/L  
**Coated:** SU/SP/H/M/L  
**Pancakes/Balls:** SU/SP/H/M/L

### OIL WEATHERING

**Fresh:** SU/SP/H/M/L  
**Mousse:** SU/SP/H/M/L  
**Weathered Mousse:** SU/SP/H/M/L  
**Asphalt Mousse:** SU/SP/H/M/L  
**Tar:** SU/SP/H/M/L

### COMMENTS

Cape Light has set net fishermen cleaning very light to moderate (medium) coating of Mousse (both chocolate! weathered) from Cape to Beach A (available map & segment location map). Tarp (not spelling) removed about 20% of weathered mousse off granite rock. Greatest accumulations in between boulders, rocks, & in cracks. Feable pocket beaches are narrow with undercut solidified cliffs against the Storm (splash) zone. Segment is dominated by rocky headlands with occasional stormy pocket beaches. Very light splatter is found on boulders next to several (but not all) pocket beaches. Very light splatter could not be seen in air, thus one may want to extrapolate the very light splatter to all boulder/rock beaches. I did this; thus the 8000 m length for very light. Locals report sheen from oiled areas at high tide. I wonder if the hand cleanup is increasing the mobility of oil.

ACE 8707761
DOCUMENTATION:

Map/Aerial photo marking segment boundaries See Attached

VTR: Y/N Tape Number(s) 

Photography: Y/N Roll Number(s) DMC-20

Sample Numbers Collected: NA
SUNDAY 9 JULY 89

REST TEAM WILL JOIN ME WHEN THEY
FINISH KALVIN IS.

1109 FLY OVER QUEEN IS (557-01-1)
TO OUTFLOWS 5D PIC BIG ROCKERY
FLYING AT 320KNOTS 20FT
NO OBSERVED OILING! CAN SEE MANY
LAYMAN CONFUSE GLOSSY BLACK BROWN
ROCKS WITH OIL
ANOTHER NOS C

1116 PICK UP REST OF TEAM GOTO
CAMPBELL LAGOON & MILES POINT

152 KG-17 ME-7 CAPT UGAT TO MUGASPT
CLOUDY FLY OVER
CAPT UGAT ROCKY VERT HOLD
FLYING 20FT &
PTA CLEAN UP HITZ BEACH
ID ABOVE CLEAN UP TALK TO THEM

SUNDAY 9 JULY 89

LAND BY NET NET SITE THEY ARE CLEANING
THIS SEGMENT WITH TIPS & SPILLING
USCG SUPPLIED THEM EFFECTIVELY REMOVED
WEATHER & CHOC MOUSE (25% REMOVAL)
FROM ROCK FACES.

BOUNDARY CIRCLE PELO BEACH HAD A 2 TO
3M WIDE ZONE OF IMPACT IN HITZ
WEATHER 55% & CHOC 50% MOUSE
FOUND TREM LT SPILT TO MEDDAR
GREATEST ACCUMULATIONS IN BETWEEN.
BOUNDARIES IN CRACKS & CREVICES

EVEN ON COLD CLOUDY DAY A SLIGHT
HYDROCARBON SMELL APPARENT (YES - I'M
FAR FROM THE HELICOPTER).

PENETRATION TO 5 CM, NO REFUSE/BURIAL
MOUSE UP TO 2.5 CM THICK (IN BETWEEN)
BOUNDARIES.

SEE NETTER'S REPORT A WAXY/SOAPY SUBSTANCE
IN H2O THEY WILL TRY TO GIVE US SAMPLE
BEFORE WE LEAVE THEIR SITE.
9 July 89

SETNETTERS HAVE CLEANED OR ARE IN THE

PROCESS OF CLEANING THIS BEACH.

Using Type 1 spelling?

O - LT COAT CHUCK MOUTH FLAT & ROCK
10M x 2M M TOURS PEK BEACH

N - LT COAT IN CREVICE 100% MOUSLE
15M x 1M

No observed oil

Segment predominantly rocky west

Rock

No oil observed in FLT

End KL37 - MP 7

1350 ELY TO CAMPBELL LAGOON

FLOP TO CAMPBELL LAGOON

CAMPBELL LAGOON SOUTH ALONG BEACH TIL

ROCKY HOOK - WEST Pt. - WORK CREW

CLEANING BEACH. FLY OVER & PAST

WEST Pt.

1408 N PED - LUNCH (5S, 0E WEST Pt.)

5S (WEST Pt. - CABIN (Topo Map)
WHERE T27S 19 § 30 MEET THE BAY

FOUND 953 BMT SE FACE OF Pt. has

LT 1M W/DEO BAND (ATT H27/30) OF CREW

NO OIL BETWEEN ANGULAR COBBLE/PEBBLE.

W OULD HAVE SCUT CHECK THIS OUT?

THIS IS IN ADEC SEGMENT KG-14

LEVEL
9 July 87

Plane View, MP 7
Beach A

NORTH

WATER
Low Energy

No oil observed near MP 7

LT Temco Cat
Chronosse + Weathered Mousse
Nit 2 - 3 m wide zone

LEVEL
ECOLOGICAL EVALUATION

LOCATION: CAPT. UGAT to MINER'S POINT
SITE: KG-17
SEG. NO.: 7
LENGTH: 12300 (M)
DATE: 7/19/89
TIME (HHMM): 1200
TIDE HT.: +1.5 (M)

OILED ZONE: Splash High Medium Low
SUBSTRATUM: Rocks Boulder Cobble Pebble Sand Mud

LIVE BIOTA

**Fucus** (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

**Mytilus** (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

**Balanus** (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

**Littorina**

Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Tide removed at wet site - not dead

**Limpets**: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N


CLEANUP PRECAUTIONS: Manual cleanup - no constraints

MAMMALS: Otters Harbor Seals Sea Lions Whales Other

BIRDS: Le Bold eagle nests (see Togo map for approximate locations)

GENERAL OBSERVATIONS: Set redless cleaning highly boulders at import. Litterman and others included three boulders - not dead. Oil onPocket zone is splatter (cracked nearly asphalt).

ACE 8707766
SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): CAPE KULIUK SOUTH BLOCK

Includes Shoreline Segments: CK-1, CK-2, CK-3

Submitted: _____________________________ Date: __________
(for Exxon)

ISCC Approval: ____________________________ Date: __________

FOSC Approval: ____________________________ Date: __________

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

Distribution:
Exxon Shoreline Coordinator
Exxon Shoreline Supervisor
Exxon SCAT file

FOSC
CDFU
NOAA
EPA
USDA (FS)
USFW
A. DEC
A. FG
A. DNR
CAC
PWSCA
USFS
SHPO

ACE 8707768
SHORELINE CLEANUP PROGRAM

DATE 5/00/87  SHORELINE SEGMENT CK-1

LOCATION: (see enclosed map) Cape Kulik

ADEC NO. __________ SHORELINE ASSESSMENT DATE: 5/20/89

Recommended Cleanup Activity(ies):

- Use high-temperature flooding to clean boulder/cobble beach (see below)
- Use rake & shovel to remove any piled seaweed drift at high tide line.

Priorities Considerations:

- Heavily oiled boulder/cobble beach 250 m south of East of Cape

Ecological Constraints (from site survey):

- Avoid areas of healthy vegetation in lower ITZ and on rocks at north end of segment.

Archeological Constraints (from site survey):

If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer * Date:

EXXON: _______________________________ Date:

FOSC: _______________________________ Date:

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION

Date: 20 May 1989  Time: 11:26  Observer: Bryan Trim

Surveyed From: Foot/Boat/Helio/Plane  Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

LOCATION Cap Kuliak South 4,000 m (Long Beach?) SEGMENT NUMBER CK-1

LENGTH OF SHORELINE SEGMENT: 1000 m

ACCESS: Foot/Boat/Barge/Helio/Float Plane

SHORELINE:

Shoreline Type: SPI/BEA/COV/HLD/STRT  Slope: HANG/HANG/VER

Wave Exposure: HIGH/Med/Low

Sediment: B 17.5% / C 15% / P 5% / G 2% / S 3% / M 1% / R 1%

Drift Debris on Beach: Yes/No  Type: Supra/Upper/Mid/Lower

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Area of Beach Impact: SU / SP / H / M / L

Continuous: No  % of Segment 85  Width of Band: 3-10 m

Sporadic: Yes  % of Segment

Est. Oil Thickness where > 1cm: ___ cm  Est. Oil Penetration: ____ cm

Pooled Oil: ___%  "Free" Oil: ___%  Coated: H 7.5% / M 25% / L ___%

Fresh ___%  Mousse 100%  Tar Formation: ___%

Drift Debris Oiled? Yes/No  Type: Supra/Upper/Mid/Lower

Amount: H/L/M

Comments:

Heavy coated Boulder Beach needs to be washed with high-temperature spray. Remove oily at MITZ.

Seaweed Drift, with pitch fork & shovel. Check to make sure only drift is not covered by clean seaweed drift. Long shore currents push drift into area that is heavily oiled. Catch basin & mousse was almost "fresh" oil. Area beach may be oiled more than once.
DOCUMENTATION:

Map/Aerial photo marking segment boundaries

VTR: Y/N Tape Number(s) None

Photography: Y/N Roll Number(s) Kodak - 13T-1

Sample Numbers Collected: None
LOCATION: Cape Kuluk  SITE: S. of Cape  Song Beach  OBSERVER: SMBn
LOCATION PREFIX: CK  SEG. NO. : CK1  LENGTH: 1000 (M)
DATE: 5/20/89  TIME (HHMM): 1124  TIDE HT.: +1/2 (M)
OILED ZONE: Splash  High  Medium  Low
SUBSTRATUM: Rocks  Boulder  Cobble  Gravel  Sand  Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N  Contin. Y/N  Dense Y/N  Sparse Y/N  None Y/N
Healthy dense patches in lower ITZ and N. part of seg

Mytilus (Mussels): Patchy Y/N  Contin. Y/N  Dense Y/N  Sparse Y/N  None Y/N
Dense patches in lower ITZ; none gaping

Balanus (Barnacles): Patchy Y/N  Contin. Y/N  Dense Y/N  Sparse Y/N  None Y/N
Healthy dense on rocks in lower ITZ and N. part of seg

Littorina
Patchy Y/N  Contin. Y/N  Dense Y/N  Sparse Y/N  None Y/N
Several healthy indiv. observed

Limpets: Patchy Y/N  Contin. Y/N  Dense Y/N  Sparse Y/N  None Y/N
Several healthy indiv. observed

OTHER OBSERVATIONS: Many spiders seen on beach; one
cloud juvenile penguin and (not cited) one eagle with seagull

CLEANUP PRECAUTIONS: Avoid healthy areas in lower ITZ
and clean rocks at N. end of segment

MAMMALS: Otters  Harbor Seals  Sea Lions  Whales
Other  Fox seen on beach

BIRDS: Gulls.

GENERAL OBSERVATIONS: Heavy oil on cobbles
No organisms inhabiting oiled areas
SHORELINE CLEANUP PROGRAM

DATE _5/26/89_   SHORELINE SEGMENT _CK-1_

LOCATION: (see enclosed map) _CAPE KULIUK_

ADEC NO. _SHORELINE ASSESSMENT DATE: _5/20/89_

Recommended Cleanup Activity(ies):
- It may be necessary to use high temperature flooding to clean boulder/cobble beach (see below)
- Manually remove any oiled seaweed drift at high tide line.

Priorities Consideration:
- Heavily oiled boulder/cobble beach 250m south and east of Cape.

Ecological Constraints (from site survey):
- Avoid areas of healthy vegetation in lower intertidal zone and on rocks at north end of segment.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer *

EXXON: ___________________________ Date: _______________

FOSC: ___________________________ Date: _____________

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE CLEANUP PROGRAM

DATE: 5/02/89

SHORELINE SEGMENT:

LOCATION: (see enclosed map) Cape Kulik

ADEC NO. ___________ SHORELINE ASSESSMENT DATE: 5/20/89

Recommended Cleanup Activity(ies):
May be necessary to remove any oil from the beach (see below)
Use bulldozer to remove any oiled seaweed drift at high tide line

Manually

Priorities Considerations:
Heavily oiled beach, 250 m South of Cape

Ecological Constraints (from site survey):
Avoid areas of healthy vegetation in intertidal zone lower 4 ft and on rocks at north end of segment.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer: __________________________

EXXON: __________________________

POS: __________________________

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8707778
SHORELINE OIL EVALUATION

Date: 20 May 1985 Time: 1126
Surveyed From: Foot/Boat/Helio/Plane
Observer: Bevan Trimm
Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

Location Code: Long Beach?
Segment Number: CK-1
Length of Shoreline Segment: 1000 m

ACCESS: Foot/Vehicle/Boat/Barge/Helio/Float-Plane

SHORELINE:
Shoreline Type: SPI/SEA/COV/HLD/STRT
Wave Exposure: HIGH/ME/LOW
Sediment: B 75 / C 15 / P 5 / G 2 / S 3 / M 1 / R 1

Drift Debris on Beach: Yes/No
Supra/Upper/Mid/Lower Type: Seaweed/Loss

OIL:
Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved
Area of Beach Impact: SU / SP / H / M / L
Continuous: Y/N % of Segment: 85
Sporadic: Y/N % of Segment: _____

Est. Oil Thickness where > 1 cm: _____ cm
Est. Oil Penetration: ______ cm
Pooled Oil: _____ "Free" Oil: ______ Coated: B 75 / H 25 / M 1 / L 1

Fresh: _____ Mousse: 100____ Tar Formation: ______
Drift Debris Oiled?: Yes/No
Supra/Upper/Mid/Lower Amount: H/M/L

Comments:

Heavily coated. Beach needs to be washed with hot-temperature spray. Remove oily
at once.

Seaweed drift with pitchfork & shovel. Check to make sure oily drift is not blocked covered
by current seaweed drift. Longshore currents push drift into area that is heavily oiled. Catch
beach. Mousse was almost "Free" oil. Area Beach has been oiled more than once.
DOCUMENTATION:
Map/Aerial photo marking: segment boundaries Attached

VTR: Y/N Tape Number(s) None
Photography: Y/N Roll Number(s) Kodak - BT-1
Sample Numbers Collected: None
**LOCATION**: Cape Kuliuk  SITE: S. of Cape  
**LOCATION PREFIX**: CK  SEG. NO.: CK 1  LENGTH: 100  (M)  
**DATE**: 5/22/87  TIME (HDDD): 1124  TIDE HT.: +1  (M)  
**OILED ZONE**: Splash High Medium Low  
**SUBSTRATUM**: Rocks Boulder Cobble Gravel Sand Mud  

### LIVE BIOTA

**Fucus (algae)**: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N  
- Healthy dense patches in lower ITZ and N. part of seg  

**Kytilus (Mussels)**: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N  
- Dense patches in lower ITZ, none gaping  

**Balanus (Barnacles)**: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N  
- Healthy dense on rocks in lower ITZ and N. part of seg  

### Litorina

**Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N**  
- Several healthy ind. observed  

### Littorina

**Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N**  
- Several healthy ind. observed  

### OTHER OBSERVATIONS:  
- Many spiders seen on beach, one  
- Dead juvenile common eider (presum. 1 explodes with oil)  

### CLEANUP PRECAUTIONS:  
- Avoid healthy areas in lower ITZ  
- Clean rocks at N. end of segment  

### MAMMALS: Otters  Harbor Seals  Sea Lions  Whales  
- Otters  
- Other  
- For seen on beach  

### BIRDS:  
- Gulls  

### GENERAL OBSERVATIONS:  
- Heavy oil on cobbles  
- No organisms inhabiting oiled areas  

ACE 8707781
SHORELINE CLEANUP PROGRAM

DATE 5/20/89

SHORELINE SEGMENT CK-2

LOCATION: (see enclosed map) S. of Cape Kulik

ADEC NO. __________________ SHORELINE ASSESSMENT DATE: 5/20/89

Recommended Cleanup Activity(ies):

Raise & shovel debris material from high tide line. Check to make sure oilied debris is not buried in terrace.

Priorities Considerations:

None

Ecological Constraints (from site survey):

Avoid stream margin and areas of healthy faunal exposed at low tide

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer *

Date:_____________________

EXXON: ____________________________

Date:_____________________

FOSC: ____________________________

Date:_____________________

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION

Date: 20 May 1989  Time: 1237  Observer: Brian Trim
Surveyed From: Foot/Boat/Helio/Plane  Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

LOCATION So Cape Kettle + So 8CK-1  SEGMENT NUMBER C K - 2
LENGTH OF SHORELINE SEGMENT: 1750 m
ACCESS: Foot/vehicle/Boat/Barge/Helio/Float Plane

SHORELINE:

Shoreline Type: SPI/BEA/COV/HLD/STRT  Slope: HANG/HANG/VER
Wave Exposure: High/Med/Low
Sediment: B_% / C_% / P_% / G_% / S_% / M_% / R_%
Drift Debris on Beach: Yes/No  Supra/Upper/Mid/Lower Type Locs/SKr-550

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved
Area of Beach Impact: SU / SP / H / M / L
Continuous: Y/N  % of Segment  Width of Band: ___ m
Sporadic: Y/N  % of Segment_____
Est. Oil Thickness where > 1cm: ____ cm  Est. Oil Penetration: ___ cm
Pooled Oil: ____ % "Free" Oil: ____ % Coated: H_% / M_% / L/100 %
Fresh ____ %  Mousse  ___ %  Tar Formation: ____ %
Drift Debris Oiled?  Yes/No Supra/Upper/Mid/Lower Amount: H/M/L
Comments:

Well sorted beach filled with tarballs created by high tides. The lightly oiled seaweed plant.
Peabars on the tarballs are reworked, thus burying some of the oil on peabars.
Seaweed debris, longshore currents and drift northward along beach into C K - 1 segment.
This is a low priority beach cleanup.

ACE 8707785
DOCUMENTATION:
Map/Aerial photo marking segment boundaries: Attached

VTR: Y/N  Tape Number(s): None
Photography: Y/N  Roll Number(s): Kodiak - BT-1
Sample Numbers Collected: None
ECOLOGICAL EVALUATION

LOCATION: Cape Kuliuk  SITE: Long Beach  OBSERVER: SM Ban
LOCATION PREFIX: CK  SEG. NO.: CK-2  LENGTH: 1750 (M)
DATE: 5/30/89  TIME (HHMM): 1235  TIDE HT.: + 1/2 (M)
OILED ZONE: Splash  High  Medium  Low
SUBSTRATUM: Rocks  Boulder  Cobble  Gravel  Sand  Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N  Contin. Y/N  Dense Y/N  Sparse Y/N  None Y/N
Sparse to dense clumps in lower ITZ  Not impacted

Mytilus (Mussels): Patchy Y/N  Contin. Y/N  Dense Y/N  Sparse Y/N  None Y/N
Same as above

Balanus (Barnacles): Patchy Y/N  Contin. Y/N  Dense Y/N  Sparse Y/N  None Y/N
Same as above

Littorina
Patchy Y/N  Contin. Y/N  Dense Y/N  Sparse Y/N  None Y/N
Healthy ind. in lower ITZ

Limpets: Patchy Y/N  Contin. Y/N  Dense Y/N  Sparse Y/N  None Y/N
Healthy ind. in lower ITZ

OTHER OBSERVATIONS: Dead Dungeness juvenile on beach not oiled

CLEANUP PRECAUTIONS: Avoid stream and cobble/boulder zone with healthy veg. in lower ITZ

MAMMALS: Otters  Harbor Seals  Sea Lions  Whales
Other  None

BIRDS: Eagle with oiled heat seen, ducks in water offshore

GENERAL OBSERVATIONS: Light oiling off debris
CAPE K  CK-2  1237

X-SEC A7  N END OF SEGMENT

LOGDT (CLAY)

VEIL LIME DUNED TO 6CM

HITZ

HITZ / LITZ - 103  COA  15%  25/24  25/34
SHORELINE CLEANUP PROGRAM

DATE 5/26/89  SHORELINE SEGMENT CK-2

LOCATION: (see enclosed map) South of CAPE KULIUK

SHORELINE ASSESSMENT DATE: 5/20/89

Recommended Cleanup Activity(ies):

- Manually remove oiled drift material from high tide line. Check to make sure oiled debris is not buried in terrace.

Priorities Considerations:

- Low priority.

Ecological Constraints (from site survey):

- Avoid stream margin and areas of healthy fucus exposed at low tide.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Douglas R. Regan
State Historic Preservation Officer *

EXXON: ____________________________ Date: __________

FOSC: ____________________________ Date: __________

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
DATE: 5/30/89

SHORELINE SEGMENT: (see enclosed map) S. of Cape Kulik

ADEC NO.: SHORELINE ASSESSMENT DATE: 5/30/89

Recommended Cleanup Activity(ies):

Manually remove oiled debris. Avoid material from high tide line. Check to make sure oiled debris is not buried in terrace.

Priorities Considerations:

Low priority.

Ecological Constraints (from site survey):

Avoid stream margin and areas of healthy flora exposed at low tide.

Archaeological Constraints (from site survey):

If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer *

EXXON: 

Date: 

POSC: 

Date: 

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION

Date: 20 May 1989  Time: 23:27  Observer: [signature]
Surveyed From: [Coax/Boat/Helio/Plane]  Weather: [Rain/Cloud/Snow/Rain/Fog]

LOCATION

LOCATION [Coax]  Surveyed From: [Coax/Boat/Helio/Plane]  Weather: [Rain/Cloud/Snow/Rain/Fog]
LENGTH OF SHORELINE SEGMENT: 1500 m
ACCESS: Foot/Vehicle/Boat/Coax/Helio/Float Plane

SHORELINE:

Shoreline Type: SPI/BA/COV/HLD/STRT  Slope: HANG/HANG/VER
Wave Exposure: High/Med/Low
Sediment: B_2 / C_2 / P_3 / G_3 / S_2 / M_2 / R_3
Drift Debris on Beach: CA/No  Supra/Upper/Mid/Lower Type: LOO/SWMOO

OIL:

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved
Area of Beach Impact: SU / SP / M / L
Continuous: Y/N  % of Segment: 50  Width of Band: 1 m
Sporadic: Y/N  % of Segment:

Est. Oil Thickness where > 1 cm: ___ cm  Est. Oil Penetration: ___ cm
Pooled Oil: ___ t  "Free" Oil: ___ t  Coated: H_2 / M_3 / L_003
Fresh: ___ t  Mouse: 100 t  Tar Formation: ___ t
Drift Debris Oiled? [Yes/No]  Supra/Upper/Mid/Lower Amount: H/M/0

Comments:

Well eroded beach with terraces created by high tides. Tar slightly oiled seaward of shore. Drift debris on terraces are enlarged, thus forming mounds of the oiled debris. Seaweed debris, low, shore currents and wind northwest along beach towards Coax segment. This is a low priority beach cleanup.

ACE 8707795
DOCUMENTATION:
Map/Aerial photo marking segment boundaries [Attached]

VTR: Y/N Tape Number(s) [None]

Photography: Y/N Roll Number(s) Kodiak - GT-1

Sample Numbers Collected: [None]
ECOLOGICAL EVALUATION

LOCATION: Cape Kumuk
SITE: Long Beach
OBSERVER: SM Brown

LOCATION PREFIX: CK
SEG. NO.: CK-2
LENGTH: 1750 (M)

DATE: 5/20/89
TIME (MM): 1235
TIDE HT.: + 1/6 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Phacelia (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Sparse to dense, clumps: in lower ITZ not impacted

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Same as above

Balanus (Saracnes): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Same as above

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Healthy indiv. in lower ITZ

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Healthy indiv. in lower ITZ

OTHER OBSERVATIONS: Dead Dungeness juvenile on beach not oiled

CLEANUP PRECAUTIONS: Avoid stream and cobble/boiler zone with healthy veg in lower ITZ

MAMMALS: Otters
Harp Seal
Harbor Seal
Sea Lion
Whale
None

BIRDS: Eagle with oiled beak seen, ducks in water offshore

GENERAL OBSERVATIONS: Light oiling of debris

ACE 8707797
**ACE 8707799**

<table>
<thead>
<tr>
<th>CAP E K</th>
<th>CK-2</th>
<th>12.37</th>
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<tr>
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<td>N END OF SEGMENT</td>
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**H172 Terrace**
- 75% Per 5% Cont
- H172 / L172 - 10% Cont 45% Per 25%

**Diagram:**
- H172
- L172
- Terrace
- Slope
- Measurements

**Notes:**
- Detailed annotations on the diagram for measurement and location.
(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE: 5/22/89

SHORELINE SEGMENT: CK-3

LOCATION: (see enclosed map) South of Cape Kulik

ADEC NO. _______ SHORELINE ASSESSMENT DATE: 5/22/89

Recommended Cleanup Activity(ies):

No cleanup recommended

Priorities Considerations:

None

Ecological Constraints (from site survey):

No ecological constraints since no cleanup is recommended. An ecological evaluation form is not included. Should this recommendation change, ecological constraints must be re-evaluated.

Archeological Constraints (from site survey):

If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon’s Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

__________________________________________ Date: ____________
State Historic Preservation Officer *

EXXON: ________________________________ Date: ____________

FOSC: ________________________________ Date: ____________

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION

Date: 22 May 1989  Time: 12:10  Observer: Bryan Trimm
Surveyed From: Boat/Helicopter Plane  Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

LOCATION 2 km South of Cape Kuliak SEGMENT NUMBER CK-3
LENGTH OF SHORELINE SEGMENT: 3700 m
ACCESS: Foot/Vehicle/Boat/Barge/Hello/Float Plane

SHORELINE:

Shoreline Type: SPI/BEA/Cov/HLD/STRT  Slope: L/ANG/HANG/VER
Wave Exposure: High/Med/Low
Sediment: B _% / C _% / P _% / G _% / S _% / M _% / R _%
Drift Debris on Beach: Yes/No  Supra/Upper/Mid/Lower Type

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved
Area of Beach Impact: SU / SP / H / M / L
Continuous: Y/N  % of Segment 60  Width of Band: _/4___ m
Sporadic: Y/N  % of Segment ______
Est. Oil Thickness where > 1 cm: _ _ cm  Est. Oil Penetration: ______ cm
Pooled Oil: _ _ %  "Free" Oil: _ _ %  Coated: H _% / M _% / L _% / O _%
Fresh: _ _ %  Mousse: _ _ %  Tar Formation: _ _ %
Drift Debris Oiled?: Yes/No Supra/Upper/Mid/Lower Amount: H/M/L

Comments:

Very Light Oiling at High Intertidal Zone of Seaweed drift. Seaweed debris has such a light coating, it is only a thin band on the top of the high intertidal zone. Recommend no action.
SHORELINE CLEANUP PROGRAM

DATE 5/27/89

SHORELINE SEGMENT SB-6

LOCATION: (see enclosed map) Cove North of Chief Point

ADEC NO. K1-9 SHORELINE ASSESSMENT DATE: 5/22/89

Recommended Cleanup Activity(ies):
- It may be necessary to use high pressure warm to hot water flooding on the lightly coated, 10m wide area on the north side of the segment.
- Manually remove the oiled seaweed drift along the high tide line.

Priorities Considerations:
- Manually remove the oiled seaweed drift along the high tide line.

Ecological Constraints (from site survey):
- Do not disturb banks or stream channel. Avoid healthy vegetation in lower intertidal zone.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer *

Date: 5/29/89

EXXON: ____________________________ Date: ____________

FOSC: ____________________________ Date: ____________

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION

Date: 22 May 1989          Time: 1110          Observer: Bryan Trim
Surveyed From: Foot/Boat/Helio/Plane          Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

LOCATION: North of Chief Cove & Spiral Bay          SEGMENT NUMBER: S8-6
LENGTH OF SHORELINE SEGMENT: 300 m
ACCESS: Foot/Vehicle/Boat/Helio/Plane

SHORELINE:

Shoreline Type: SPI/BEA/COV/HLD/STRT          Slope: (ANG/HANG/VER)
Wave Exposure: High/Low
Sediment: B 5% / C 10% / P 20% / G 30% / S 30% / M 5% / R 5%
Drift Debris on Beach: Yes/No          Supra/Upper/Mid/Lower Type: Log/Seaweed

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved
Area of Beach Impact: SU / SP / H / M / L

Continuous: O/N % of Segment: 90          Width of Band: 10 m
Sporadic: O/N % of Segment: 10

Est. Oil Thickness where > 1 cm: ___ cm Est. Oil Penetration: ___ cm
Pooled Oil: ___ "Free" Oil: ___ Coated: H 10% / M 20% / L 70%
Fresh ___ Mousse (0) ___ Tar Formation: ___
Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H/M/L

Comments:

Lightly oiled seaweed at top of high intertidal zone & along the whole length of beach. The intertidal zone by the stream outlet has a little splattering of chocolate mousse & by the grasses. A 75 meter band that is 10 meters wide (thus heavy in ADEC classification) is lightly coated to moderately coated. This is found against the northern headland. Another small patch of lightly coated mousse is found on the southern headland.

ACE 8707807
DOCUMENTATION:
Map/Aerial photo marking segment boundaries  

VTR: Y/N  Tape Number(s)  

Photography: Y/N  Roll Number(s)  

Sample Numbers Collected:  

ACE 8707808
LOCATION: Spithead Bay  SITE: Chief Point  OBSERVER: SMBan
LOCATION PREFIX: SB  SEG. NO.: 6  LENGTH: 300 (M)
DATE: 5/23/89  TIME (HHMM): 1105  TIDE HT.: 0 - +1 (M)
OILED ZONE: Splash  High  Medium  Low
SUBSTRATUM: Rocks  Boulder  Cobble  Gravel  Sand  Mud

LIVE BIOTA
Fucus (algae): Patchy Y/N  Contin. Y/N  Dense Y/N  Sparse Y/N  None Y/N
Dense and healthy at northern end of seg. Healthy in lower ERZ. Some oiled Fucus high in ERZ.

Mytilus (Mussels): Patchy Y/N  Contin. Y/N  Dense Y/N  Sparse Y/N  None Y/N
Dense in boulder areas  None oiled

Balanus (Barnacles): Patchy Y/N  Contin. Y/N  Dense Y/N  Sparse Y/N  None Y/N
Same comment as above

Litterine
Patchy Y/N  Contin. Y/N  Dense Y/N  Sparse Y/N  None Y/N
Healthy

Limneta: Patchy Y/N  Contin. Y/N  Dense Y/N  Sparse Y/N  None Y/N
Healthy

OTHER OBSERVATIONS: Large anomalous stream in center of center of seg. Weave in stream but several clumps of mussels on seaweed stream. Grass is oiled on stream edge in high ERZ.

CLEANUP PRECAUTIONS: Audio stream  Audio healthy lower ERZ

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other ___ None

BIRDS: None

GENERAL OBSERVATIONS: Moderate oiling
SHORELINE CLEANUP PROGRAM

DATE: 5/26/89  SHORELINE SEGMENT: CK-3

LOCATION: (see enclosed map) South of CAPE KULIUK

ADEC NO. _________  SHORELINE ASSESSMENT DATE: 5/22/89

Recommended Cleanup Activity(ies):
- No cleanup recommended due to light, restricted oiling and medium wave exposure.

Priorities Considerations:
- None.

Ecological Constraints (from site survey):
- No ecological constraints since no cleanup is recommended. An ecological evaluation form is not included. Should this recommendation change, ecological constraints must be re-evaluated.

Archeological Constraints (from site survey):
Cultural resource evaluation not completed, no oil. If cleanup is planned, cultural resource constraints should be evaluated.

 Douglas L. Regan
State Historic Preservation Officer

EXXON: ___________________________  Date: ______________

FOSC: ___________________________  Date: ______________

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
(Version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 5/22/89  SHORELINE SEGMENT

LOCATION: (see enclosed map) South of Cape Kukish

ADEC NO. _______ SHORELINE ASSESSMENT DATE: 5/22/89

Recommended Cleanup Activity(ies):

No cleanup recommended due to light restricted oiling and medium wave exposure.

Priorities Considerations:

None

Ecological Constraints (from site survey):

No ecological constraints since no cleanup is recommended.

Archaeological evaluation form is not included. Should this recommendation change, ecological constraints must be re-evaluated.

Archaeological Constraints (from site survey):

If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Cultural resource evaluation not completed, no oil. If cleanup is planned, cultural resource constraints should be re-evaluated.

State Historic Preservation Officer * Date:

EXXON: ____________________________ Date:

FOSC: ____________________________ Date:

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 3707814
SHORELINE CLEANUP PROGRAM

DATE 5/22/89        SHORELINE SEGMENT CK-3
LOCATION: (see enclosed map) South of Cape Kulik

ADEC NO. SHORELINE ASSESSMENT DATE: 5/22/89

Recommended Cleanup Activity(ies):

No cleanup recommended because oil is light and wave action will probably induce natural cleaning

Priorities Considerations:

None

Ecological Constraints (from site survey):

No ecological constraints since no cleanup is recommended. An ecological evaluation form is not included. Should this recommendation change, ecological constraints must be re-evaluated.

Archeological Constraints (from site survey):

If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer *

Date: __________________________

EXXON: __________________________ Date: __________________________

FOSC: __________________________ Date: __________________________

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION

Date: 27 May 89  Time: 12:10  Observer: Bryan Thomas
Surveyed From: Boat/Heli/Plane  Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

LOCATION 2km South of Cape Kulluk  SEGMENT NUMBER CK-3
Adjacent to Cl. 2
LENGTH OF SHORELINE SEGMENT: 3700 m
ACCESS: Foot/Vehicle/Boat/Heli/Plane

SHORELINE:

Shoreline Type: SPI/BEA/COV/HLD/STRT  Slope: LANG/HANG/VER
Wave Exposure: High/Med/Low
Sediment: E / C / P / S / M / R
Drift Debris on Beach: Yes/No

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved
Area of Beach Impact: SU / SP / M / L
Continuous: O/N % of Segment 60  Width of Band: 1/4 m
Sporadic: Y/N % of Segment
Est. Oil Thickness where > 1 cm: cm  Est. Oil Penetration: cm
Pooled Oil:  "Free" Oil:  Coated: H / M / L (no)  Fresh
Mousse  Tar Formation:  Drift Debris Oiled?: Yes/No Supra/Upper/Mid/Lower Amount: H/L

Comments:

Very light oiling at high intertidal zone of seaweed drift. Seaweed debris has such a light coating of oil only a thin band on the top of the high intertidal zone. Recommend no action.
KODIAK SCAT
K6-20

COMPLETE

ACE 7963948

DEC 15 1989
SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): SPIRIDON BAY WEST BLOCK

Includes Shoreline Segments: SB-1, SB-2, SB-3, SB-4, SB-5, SB-6

Submitted: __________________________ Date: __________ (for Exxon)

ISCC Approval: __________________________ Date: __________

FOSC Approval: __________________________ Date: __________

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

Distribution:

Exxon Shoreline Coordinator
Exxon Shoreline Supervisor
Exxon SCAT file

FOSC
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A.FG
A.DNR
CAC
PWSCA
USFS
SHPO
TYPE B SHORELINE CLEANUP WORK ORDER

Date: 6/20/89       Shoreline Segment: SB-5

Location: (see map) NORTH SHORE OF SPIRIDON BAY (WESTERN BOUNDARY OF SEGMENT)

ADEC No. K6-20     Shoreline Assessment Date: 5/22/89

Recommended Cleanup Activity(ies):
Warm water washing at western boundary of segment (against headland)

Priority Considerations:
Cleanup west end (against headland)

Ecological Constraints (from site survey):
Avoid areas of healthy vegetation in lower intertidal zone.

Archaeological Constraints (from site survey):
See attached Cultural Resource Evaluation.

Submitted by: Jack A. Rickmeyer

Date: 20 June 89

Recommend Approval: See Attachment

State Historic Preservation Officer

Date: 5/29/89

Recommend Approval: Interagency Shoreline Committee Representative

Date: ____________

Approved: Federal On-Scene Coordinator

Date: ____________
Kodiak Shoreline Cleanup Program
"Hot Water Wash" - Team 9

The "Hot Water Wash" cleanup technique is a type B cleanup activity which employs mechanical equipment to wash the target area. It is moderately effective on rock faces & large to medium boulder areas. The equipment consists of U.S. Air Force decontamination units (hot water wash sys.) with hand wands to wash the rocks with hot (130°-150°F) sea water. Washed oil is picked up with absorbents placed at the area prior to & during wash activity. Absorbent boom & containment boom is employed at the target area to protect against any sheen from the wash. Absorbents are collected in trash bags for disposal. *(Wash PSI is 150 max.)*

The team will consist of 8 VECO workers, 1 VECO Foreman, & 1 Exxon Supv. to deploy & maintain equip. Local work teams will be added as needed to handle the wands & absorbents (waste). Target area size determines # of units & workers used. (10 units available)

**WASH AREA**

(Rock Faces, Boulder)

Absorbents (Ads, PomPoms) as needed

Hand Wand (2 per unit)

**CONTAINMENT BOOM**
SHORELINE CLEANUP PROGRAM

DATE 5/27/89  SHORELINE SEGMENT SB-1

LOCATION: (see enclosed map) North Shore Spiridon Bay west of Hook Point

ADEC NO. SHORELINE ASSESSMENT DATE: 5/20/89

Recommended Cleanup Activity(ies):
- See Below.
- Manually remove oiled seaweed at high intertidal zone line. Note: seaweed is being reworked into the beach. Use rake to get buried seaweed.

Priorities Considerations:
- Remove thick patch of oiled seaweed drift against cliffs on west cove. Check underlying beach for oil contamination. (re-evaluation.)

Ecological Constraints (from site survey):
- Avoid healthy vegetation on rocks near water.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION

Date: 30 May 1987 Time: 0845
Observer: Bryan Trim

Surveyed From: Foot/Boat/ Helio/ Plane
Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

LOCATION N. Shore, Spiridon Bay, W of Hook Pt, Kodiak Is.

SEGMENT NUMBER SB-1

LENGTH OF SHORELINE SEGMENT: 150 m

ACCESS: Vehicle/Boat/Barge/ Helio/ Float Plane

SHORELINE:

Shoreline Type: SPI/CST/COV/MLD/STRT

Slope: LANG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B-1/ C-1/ P-35%/ G-1/ S-1/ M-1/ R-1

Drift Debris on Beach: Yes/No
Supra/Upper/Mid/Lower Type Loose/Seaweed

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Area of Beach Impact: SU/SP/H/L

Continuous: Y/N % of Segment 75

Width of Band: _ m

Sporadic: Y/N % of Segment

Est. Oil Thickness where > 1 cm: ___ cm

Est. Oil Penetration: 20 cm

Pooled Oil: ___ % "Free" Oil: ___ % Coated: H 20 % / M 30 % / L 50 %

Fresh ___ % Mousse 100 ___ % Tar Formation: ___ %

Drift Debris Oiled?: Yes/No Supra/Upper/Mid/Lower Amount: H/M/L/

Comments:

Remove thick patch (15 cm wide) of 20 cm thick oiled seaweed on West Cove. Also remove the thin (up to 10 cm wide) band of oiled seaweed at the top of the high intertidal zone.

Access to thicker cover of seaweed by landing on East Cove or hiking over.
DOCUMENTATION:
Map/Aerial photo marking segment boundaries  Attached

VTR:  Y/N  Tape Number(s)  None

Photography:  Y/N  Roll Number(s)  Kodiak - BT-1

Sample Numbers Collected:  None
LOCATION: Spireden Bay
SITE: Spireden Bay
LOCATION PREFIX: SB
SEG. NO.: 1
LENGTH: 350 150 (M)
DATE: 5/30/87
TIME (HHMM): 0845
TIDE HT.: 0 (M)
OILED ZONE: Splash High Medium Low
SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Dense on rocks near water, some patches coated-dead

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Several patches coated - most coated indiv. not gaping

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Coated patches may be dead or dying

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Found in healthy Fucus zone near water

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Healthy

OTHER OBSERVATIONS:
Dense red algae on rocks in lower TIZ
Oiled debris 8-12" deep in boulders on Beach 2

CLEANUP PRECAUTIONS:
Avoid healthy lower TIZ

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___ Other ___

BIRDS: Nine dead birds, gulls - eagles flying overhead

GENERAL OBSERVATIONS:
Heavy oil (mousse) and deep oily detritus in boulders on Beach 2

ACE 8707825
(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 5/27/89  SHORELINE SEGMENT SB-2

LOCATION: (see enclosed map) North Shore Spirodon

ADEC NO. SHORELINE ASSESSMENT DATE: 5/20/89

Recommended Cleanup Activity(ies):

- Manually remove oiled seaweed drift at top of high tide line. Ensure that oiled seaweed is not worked into beach or covered by non-oiled seaweed drift.

Priorities Considerations:

- None.

Ecological Constraints (from site survey):

- Avoid healthy community in lower intertidal zone. Avoid stream boundaries.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer *

EXXON: Date:

FOSC: Date:

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
Date: 20 May 1987  Time: 0945  Observer: Bryan Trimm
Surveyed From: Foot/Boat/Helio/Plane  Weather: Sun/Cloud/Rain/Snow/Fog
LOCATION
LOCATION  N. Shore Spurion Is. 1/2 of SB.1  SEGMENT NUMBER SB-2
LENGTH OF SHORELINE SEGMENT: 250 m
ACCESS: Boat/Vehicle/Boat/Barge/Helio/Float Plane
SHORELINE:
Shoreline Type: SPI/BEA/COV/HLD/STRT  Slope: LAN/HANG/VER
Wave Exposure: High/Med/Low
Sediment: B- % / C 25% / P 75% / G- % / S- % / M- % /R- %
Drift Debris on Beach: Yes/No  Supra/Upper/Mid/Lower Type Seaweed
OIL
Degree of Oiling: Heavy/Mod/Light/No Oil/Unobserved
Area of Beach Impact: SU / SP /H/ M / L
  Continuous: Y/N % of Segment 85 Width of Band: 1/2 - 4 m
  Sporadic: Y/N % of Segment
Est. Oil Thickness where > 1cm: _____ cm  Est. Oil Penetration: _____ cm
Pooled Oil: _____ % "Free" Oil: _____ % Coated: H- % / M- % / L/IDO %
Fresh: _____ %  Mousse: 100 %  Tar Formation: _____ %
Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H/ID/L/
Comments:
At top of High Intertidal Zone is a continuous (1' to 4m?) wide band of lightly coated seaweed drift. It is being worked into the People dominant beach by tidal action. The smaller Headland DEM Pocket Beaches were inaccessible to us, thus the work crews.
DOCUMENTATION:

Map/Aerial photo marking segment boundaries: Afton

VTR: Y/N Tape Number(s): None

Photography: Y/N Roll Number(s): Kodak - BT-1

Sample Numbers Collected: None
ECOLOGICAL EVALUATION

LOCATION: Spirited Bay  SITE: N. shore  OBSERVER: SM Gen
LOCATION PREFIX: SB  SEG. NO.: 2  LENGTH: 250 (M)
DATE: 5/20/89  TIME (HHMM): 0945  TIDE HT.: -1.00 (M)
OILED ZONE: Splash High Medium Low
SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Dense on rocks in lower TZ, not impacted, healthy

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Patchy dense on rocks, not impacted in lower TZ

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Patchy dense on rocks, healthy in lower TZ

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Healthy

Limpeta: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Healthy

OTHER OBSERVATIONS: Splatter on rocks, healthy
Oiled debris, splatter on rocks

CLEANUP PRECAUTIONS: Avoid healthy, lower TZ, Annex
Stream margins

MAMMALS: Otters  Harbor Seals  Sea Lions  Whales
Other: None

BIRDS: 10 dead mussels

GENERAL OBSERVATIONS: Light oil in some areas, moderate oil in others.
The small pockets / beaches / headlands E of this beach are inaccessible. From S to 10m high cliffs, the dominant Boul/Cob beaches looked lightly / v. lightly oiled.
SHORELINE CLEANUP PROGRAM

DATE 22 May 1989

LOCATION: (see enclosed map) Spiridon Bay North Shore of the Bay

SHORELINE SEGMENT SB 4

ADEC NO. SHORELINE ASSESSMENT DATE: 22 May 1989

Recommended Cleanup Activity(ies):
- Use rake & shovel to remove oiled seaweed drift at the top of the high intertidal zone. Check & make sure that the oiled seaweed is not buried at the top of the high intertidal zone (½ foot deep).

Priorities Considerations:
Heavy (7 x 10 meter) against eastern segment boundary.

Ecological Constraints (from site survey):

None

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer *

EXXON: ___________________________ Date:________________________

FOSC: ___________________________ Date:________________________

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION

Date: 22 May 89
Time: 0842
Observer: [Name]

Surveyed From: Foot/Boat/Helio/Plane
Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION
LOCATION 1700 a East of SB-4 Sparidon Bay
SEGMENT NUMBER SB-4

LENGTH OF SHORELINE SEGMENT: 250 m

ACCESS: Foot/Vehicle/Boat/Barge/Float Plane

SHORELINE:
Shoreline Type: SPI/BEA/COV/HLD/STRT
Slope: LANG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B 5% / C 3% / P 10% / G 60% / S 20% / M 4% / R 5%

Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type Lags/Spewed

OIL
Degree of Oiling: Heavy/Moderate/No Oil/Unobserved

Area of Beach Impact: SU / SP / [ ] / M / [ ]

Continuous: [ ] % of Segment Width of Band: 180 m
Sporadic: [ ] % of Segment Width of Band: [ ] m

Est. Oil Thickness where > 1 cm: [ ] cm

Est. Oil Penetration: [ ] cm

Pooled Oil: [ ] "Free" Oil: [ ] % Coated: [ ] H / M [ ] L / [ ]

Fresh [ ] % Mousse 100 % Tar Formation: [ ]

Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H/M/L

Comments:
A heavy deposit at the east end of segment SB-4 against the headland covers the
boulders and rocks in the high-intertidal zone. The chocolate mousse is coating
(light to moderate) an area of 7 x 10 meters. A light gray mousse coated
1/4 to 1/2 m seaweed drift at the top of the high-intertidal zone is about 1 wide and is continuously
deposited on the beach. The drift logs on above the intertidal zone is clean.
DOCUMENTATION:
Map/Aerial photo marking segment boundaries

VTR: Y/N Tape Number(s) None

Photography: Y/N Roll Number(s) SMB-9

Sample Numbers Collected: None
LOCATION: Spindon Bay  SITE:  Spindon Bay  OBSERVER:  Joe Ram
LOCATION PREFIX: SB  SEG. NO.:  4  LENGTH:  250 (M)
DATE:  5/22/89  TIME (HHMM):  0835  TIDE Ht.:  +1  (M)
OILED ZONE:  splash  High  Medium  Low
SUBSTRATUM:  Rocks  Boulder  Cobble  Gravel  Sand  Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N  Contin. Y/N  Dense Y/N  Sparse Y/N  None Y/N
Sparsely covered sand-gravel areas, but healthy. Thick patches on boulders to east are MOD. OILED - dead.

Mytilus (Mussels): Patchy Y/N  Contin. Y/N  Dense Y/N  Sparse Y/N  None Y/N
Several clumps on boulders to east are contamined - many.

Balanus (Barnacles): Patchy Y/N  Contin. Y/N  Dense Y/N  Sparse Y/N  None Y/N
Dense barnacles on boulders, several areas oiled, barnacle unresponsive.

Littorina
Patchy Y/N  Contin. Y/N  Dense Y/N  Sparse Y/N  None Y/N
Dense among barnacles - oiled but alive.

Limpets: Patchy Y/N  Contin. Y/N  Dense Y/N  Sparse Y/N  None Y/N
None seen.

OTHER OBSERVATIONS: Oiled debris and oiled band of gravel high in TRZ. Most biota is located on rocks to west. This is oiled in high TRZ. Alive in lower TRZ.

CLEANUP PRECAUTIONS: None.

MAMMALS: Otters  Harbor Seals  Sea Lions  Whales  Other  None

BIRDS: None alive  6 dead murres, 1 thick-billed

GENERAL OBSERVATIONS: Most of seg. is slightly oiled, but east end of seg. has oiled boulder zone.
SHORELINE CLEANUP PROGRAM

DATE  5/27/89  SHORELINE SEGMENT  SB-3

LOCATION: (see enclosed map) North Shore Spiridon Bay

ADEC NO. _______ SHORELINE ASSESSMENT DATE: 5/20/89

Recommended Cleanup Activity(ies):
- Manually remove contaminated seaweed.
- It may be necessary to use warm water/pressure wash to remove oil from boulders.

Priorities Considerations:
- Remove oil coated seaweed at high tide line.

Ecological Constraints (from site survey):
- Avoid streams and areas of healthy vegetation in lower intertidal zone.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer

Date: 5/29/89

EXXON: ____________________________ Date: ______________

FOSC: ____________________________ Date: ______________

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION

Date: 20 May 89 / Time: 1015
Observer: Bryan Trimm

Surveyed From: Foot/Boat/Helio/Plane
Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

LOCATION N Shore of St. John Bay, W of SB-2
SEGMENT NUMBER SB-3

LENGTH OF SHORELINE SEGMENT: 250 m

ACCESS: Vehicle/Boat/Barge/Helio/Float Plane

SHORELINE:

Shoreline Type: SPI/BEA/COV/HLD/STRT
Slope: LANG/HANG/VER

Wave Exposure: High/Med/Low
Sediment: BS% / C40% / P10% / G-% / S-% / M-% / R-%

Drift Debris on Beach: Yes/No
Supra/Upper/Mid/Lower Type Seaweed

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Area of Beach Impact: SU / SP / (H) M / L
Continuous: N % of Segment 10 Width of Band: 1 to 2 m
Sporadic: N % of Segment __

Est. Oil Thickness where > 1 cm: __ cm Est. Oil Penetration: ___ cm

Pooled Oil: ___ % "Free" Oil: ___ % Coated: H___ % / M___ % / L___ %

Fresh ___ % Mousse ___ % Tar Formation: ___ %

Drift Debris Oiled?: Yes/No
Supra/Upper/Mid/Lower Amount: H/M/L

Comments:

At east end of segment, a patch of light to moderate coating of mousse (3m by 5m) on the rocky point. Also, a 1 to 2 m continuous band of lightly coated seaweed at the top of the high intertidal zone extends west of from the oily patch described above. Recommend diving sand on oil coated rocks. This may allow the oil to adhere to the sand and be washed out by the high tide.

ACE 8707844
DOCUMENTATION:
Map/Aerial photo marking segment boundaries  Attached

VTR:  Y/N  Tape Number(s)  None

Photography:  Y/N  Roll Number(s)  Kodiak - BT-1

Sample Numbers Collected:  None
ECOLOGICAL EVALUATION

LOCATION: Spiridon Bay  SITE: N. Shore Spiridon Bay  OBSERVER: SMBan
LOCATION PREFIX: SB  SEG. NO.: 3  LENGTH: 250 (M)
DATE: 5/20/89  TIME (HHMM): 10:15  TIDE HT.: 0 +1 (M)
OILED ZONE: Splash  High  Medium  Low
SUBSTRATUM: Rocks  Boulder  Cobble  Gravel  Sand  Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N  Contin. Y/N  Dense Y/N  Sparse Y/N  None Y/N
Healthy in lower ITZ

Mytilus (Mussels): Patchy Y/N  Contin. Y/N  Dense Y/N  Sparse Y/N  None Y/N
Healthy in lower ITZ

Balanus (Barnacles): Patchy Y/N  Contin. Y/N  Dense Y/N  Sparse Y/N  None Y/N
Healthy in lower ITZ

Littorina
Patchy Y/N  Contin. Y/N  Dense Y/N  Sparse Y/N  None Y/N
Several seen in areas of healthy vegetation

Limpets: Patchy Y/N  Contin. Y/N  Dense Y/N  Sparse Y/N  None Y/N
Several healthy indiv. seen

OTHER OBSERVATIONS: Cyanaceae (?) washed ashore, algae healthy polychaete (sp.?)
orchestia and spider crab in areas of healthy Fucus

CLEANUP PRECAUTIONS: Avoid & clean lower ITZ

MAMMALS: Otters  —  Harbor Seals  —  Sea Lions  —  Whales  —
Other  —  None

BIRDS: 7 dead mutes. one sub-adult eagle with oil/soot on

GENERAL OBSERVATIONS: Moderate oil

ACE 8707840
(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE__5/27/89___ SHORELINE SEGMENT__SB-5____

LOCATION: (see enclosed map) North Shore of Spiridon Bay

ADEC NO._______ SHORELINE ASSESSMENT DATE: 5/22/89

Recommended Cleanup Activity(ies):

- It may be necessary to use high pressure warm/hot water washing at the western boundary of segment (against headland).

- Manually remove oiled seaweed drift at high tide. Ensure oiled seaweed is not buried (reworked) at the high tide line.

Priorities Considerations:

- Cleanup west end (against headland).

Ecological Constraints (from site survey):

- Avoid areas of healthy vegetation in lower intertidal zone.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer *

Date: 5/29/89

EXXON: ______________________________ Date: ____________

FOSC: ______________________________ Date: ____________

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION

Date: 22 May 1988  
Time: 0930  
Observer: Bryan Trim

Surveyed From: Foot/Boat/Helicopter/Plane  
Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

LOCATION North Shore Sleepy Hollow Bay  
SEGMENT NUMBER SB-5

LENGTH OF SHORELINE SEGMENT: 3600 m

ACCESS: Vehicle/Boat/Sarge/ Helicopter/Plane

SHORELINE:

Shoreline Type: SPI/BEACH COVE/HLD/STRT  
Slope: LIGHT/HANG/VERTICAL

Wave Exposure: High/Med/Low

Sediment: B30% / C30% / P20% / G10% / SLOPE/M bid / R

Drift Debris on Beach: Yes/No  
Supra/Mid/Lower Type Log/Sea Grass

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Area of Beach Impact: SU / SP / (H) / L

Continuous: Yes / % of Segment 6.7  
Width of Band: 8 m

Sporadic: Yes / % of Segment

Est. Oil Thickness where > 1 cm: 2 cm  
Est. Oil Penetration: 2 cm

Pooled Oil:  
"Free" Oil:  
Coated: Heavy / Medium / Light / No

Fresh Oil:  
Mousse: 100%

Drift Debris Oiled?: Yes/No  
Supra/Mid/Lower Amount: Heavy

Comments:

West End of Segment: A heavy band (continuous) 1 meter wide  

East

The middle and upper intertidal zone. The band extends from the western boundary

(Headland) and gradually lightens to nil for 400m. The eastern portion is dominated

by no to very light seaweed drift oiling at the high tide line. The central portion has an increasingly gradation (up to moderate) of oiling.
DOCUMENTATION:
Map/Aerial photo marking segment boundaries

VTR: Y/ N  Tape Number(s)  None
Photography: Y/ N  Roll Number(s)  SMB-9
Sample Numbers Collected: None
LOCATION: Spurion Bay  SITE: N. Shore SPurion Bay  OBSERVER: SMBan
LOCATION PREFIX: SB  SEG. NO.: 5  LENGTH: 3000 (M)
DATE: 5/22/89  TIME (HHMM): 0920  TIDE HT.: 0 + 1 (M)
OILED ZONE: Splash High Medium Low
SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud
LIVE BIOTA
Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
healthy in lower 2/3, some oiled patches of focus throughout se.
Hytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Several oiled patches at west end of seg. in heavily oiled area of cobbles.
Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Same comment as above
Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Y/N dense in west end of seg. most are oiled, not sure if they are alive or dead.
Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Several healthy organisms seen
OTHER OBSERVATIONS: Helio first run, light 2 oil on strand zone. 2 ft of segment was walked, heaviest oil on cobble at west end of segment.
CLEANUP PRECAUTIONS: Avoid healthy Fucus community at lower 50’.
MAMMALS: Otters  —  Harbor Seals  —  Sea Lions  —  Whales  —  None
BIRDS: Five Black oystercatchers (2) seen. 7 dead murrels (dead aves)
GENERAL OBSERVATIONS: Concenrate cleanup in western boulder area — may need steam cleaning. Remove oiled debris from rest of segment.
TYPE B SHORELINE CLEANUP WORK ORDER

<table>
<thead>
<tr>
<th>Date</th>
<th>Shoreline Segment</th>
<th>Location</th>
<th>ADEC No.</th>
<th>Shoreline Assessment Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/20/89</td>
<td>SB-5</td>
<td>NORTH SHORE OF SPIRIDON BAY</td>
<td>K6-20</td>
<td>5/22/89</td>
</tr>
</tbody>
</table>

Recommended Cleanup Activity(ies):
Warm water washing at western boundary of segment (against headland)

Priority Considerations:
Cleanup west end (against headland)

Ecological Constraints (from site survey):
Avoid areas of healthy vegetation in lower intertidal zone.

Archaeological Constraints (from site survey):
See attached Cultural Resource Evaluation.

Submitted by: Jack A Reddick
Date: 20 June 89

Recommend Approval:
See Attachment
State Historic Preservation Officer
Date: 5/29/89

Recommend Approval:
Signed by J. Callahan 6/1/89 (USCG has original)
Interagency Shoreline Committee Representative
Date:

Approved:
Federal On-Scene Coordinator

Date: ACE 8707657
Kodiak Shoreline Cleanup Program
"Hot Water Wash" - Team 9

The "Hot Water Wash" cleanup technique is a type 'B' cleanup activity which employs mechanical equipment to wash the target area. It is moderately effective on rock faces & large to medium boulder areas. The equipment consists of U.S. Air Force decontamination units (hot water wash sys.) with hand wands to wash the rocks with hot (130-150°F) sea water. Washed oil is picked up with absorbents placed @ the area prior to & during wash activity. Absorbent boom & containment boom is employed at the target area to protect against any 'sheen' from the wash. Absorbents are collected in trash bags for disposal. *(Wash P.S.I. is 150 max.)*

The team will consist of 8 VECO workers, 1 VECO Foreman, & 1 Exxon Supr. to deploy & maintain equip. Local work teams will be added as needed to handle the wands & absorbents (waste). Target area size determines # of units & workers used. (20 units available)

WASH AREA

(Rock Faces, Boulder)

Absorbents (Ads, PomPoms)

As needed

Hand Wand
(2 per unit)

AF DECON Unit

Diesel Fuel Drum

SS Gal. Drum

WATER RESERVOIR

2" Centrifugal Pump

WATER LEVEL

Absorbent Boom

Containment Boom
KODIAK SCAT
KL-34

COMPLETE DEC 5 1980

ACE 7963949
TYPE A SHORELINE CLEANUP WORK ORDER

Date: 21 June 89  Shoreline Segment: SL-7

Location: (Attach map) Sturgeon Slough

ADEC No. K6-34  Shoreline Assessment Date: 6/04/89

Recommended Cleanup Activity(ies):

Type A cleanup, manual removal of surface oil, see attachment
Do not remove more than 2" of sediment and only that when required. Upon completion of surface cleanup, reevaluation of beach condition will be conducted.

Priority Considerations:

Type B cleanup is already underway - this is Sec but also need type B
work order

Archaeological Constraints:
If any archaeological or historical remain undisturbed and the Exxon "Guideline for Shoreline Cleanup" possible.

Submitted by: Jack A. Reiner Exxon

State Historic Preservation Officer Telephone Approval (Required)

Approved: Assistant OSC Western Alaska (if appropriate)

Approved: Federal On-Scene Coordinator

4/30/89

ACE 87078591/F

POOR QUALITY ORIGINAL
SHORELINE CLEANUP PROGRAM

DATE 6/09/89

SHORELINE SEGMENT SL-7

LOCATION: (see enclosed map) Sturgeon Lagoon-Northwest side of lagoon entrance, lagoon side of Cobble Spit.

ADEC NO. SHORELINE ASSESSMENT DATE: 6/04/89

Recommended Cleanup Activity(ies):
- Manually remove surface oil by appropriate means. Emphasis of cleanup should be placed on the upper margin of the band where oil is concentrated. (see ecological constraints below)

Priorities Considerations: This bay is designated sensitive, due to sockeye, pink and chum salmon runs.

Ecological Constraints (from site survey): During manual cleanup of oil-coated rocks, avoid cross-contamination to lower intertidal zone and clean lagoon channel.

Archeological Constraints (from site survey): If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
CONTOUR INTERVAL 100 FEET
DASHED LINES REPRESENT 50 FOOT CONTOURS
NATIONAL GEODETIC VERTICAL DATUM OF 1929
DEPTH CURVES IN FEET - DATUM IS MEAN LOWER LOW WATER
MORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER
THE AVERAGE RANGE OF TIDE IS APPROXIMATELY 11 FEET

FOR SALE BY U.S. GEOLOGICAL SURVEY

EAGLE POINT, ALASKA 99701 ADD OR COLORADO 80420 DD 120100 5091 115 4 77
SHORELINE CLEANUP PROGRAM

DATE  6/09/89             SHORELINE SEGMENT  SL-9

LOCATION: (see enclosed map) Sturgeon Lagoon - Extreme northeast end of Cobble Spit at lagoon entrance.

ADEC NO. ___________ SHORELINE ASSESSMENT DATE:  6/04/89

Recommended Cleanup Activity(ies):
- No cleanup recommended at this time. Segment is short, there are ecological constraints (anadramous stream) and segment should be subject to wave action. Impossible to clean without removing gravel or by mechanical means, which is inappropriate for the site.

Priorities Considerations: This bay is designated sensitive, due to sockeye, pink and chum salmon runs.

Ecological Constraints (from site survey): Avoid oil contamination to clean mid and lower intertidal, if any cleanup is conducted.

Archeological Constraints (from site survey):
If cleanup is conducted and heretofore undiscovered cultural materials are uncovered, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

[Signature]
State Historic Preservation Officer *

EXXON: 

FOSC: 

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8707862
Date: June 4/89  Time: 15:25  Observer: D. Haynes

Surveyed From: Foot/Boat/Helio/Plane  Weather: Sunny/Calm/Partly Cloudy/Showery

LOCATION

LOCATION: St. George Island South End  SEGMENT: I.D. SL-9

LENGTH OF SHORELINE SEGMENT: ______ 45 m

ACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane

SHORELINE:

Shoreline Type: SPI/BEA/COV/MID/SFT  Slope: Low\High\Medium\High

Wave Exposure: High Med Low

Sediment: B / C / D1 / F2 / G / H / M / N / P / Q

Drift Debris on Beach: Yes/No  Super/Upper/Mid/Lower  Type Logs

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Total Area of Beach Impact: SU / SP / H / M / Y / L

OIL DISTRIBUTION


Sporadic: Y/N  Segment: ______  Min/Max Dia: ______  Impact Width: ______

Est. Oil Thickness where > 1 cm: 5 - 25 cm  SU / SF / UP / MID / LO

Est. Oil Penetration: 45 - 50 cm (Depth)  SU / SP / UP / MID / LO

Layers? Yes/No  No# Layers: ______  Oil Weathering

Drift Debris Oiled? Yes/No  Super/Upper/Mid/Lower Amount: H / M / Y / V

OIL MORPHOLOGY

Pooled Oil  "Free" Oil  95% Spattered  5% H/M/Y/V/L Churned

OIL WEATHERING (ON)

Fresh Oil  SU/SP/VP/MID/LO  Choc Mousse  LO  SU/SP/VP/MID/LO

Pancake Mousse  SU/SP/VP/MID/LO  Asphalt Mousse  SU/SP/VP/MID/LO

Tar Formation

Comments:

"FRESH" OR RECENT CHOC Mousse DEPOSIT; OIL HAD PENETRATED THE SEDIMENTS UP TO AT LEAST 50 CM (FILLED SOME OF THE JOINS BETWEEN PARTICLES) SEDIMENT IS TOUGH / CRAGGY TEXTURED
DOCUMENTATION:

☑ Aerial photo marking segment boundaries See Attached

VTR: Y/N Tape Number(s)

Photography: Y/N Roll Number(s) DMC-12

Sample Numbers Collected: J/A

ACE 8707864
STURGEON LAGOON
LOCATION: extreme NE end of cobble
LOCATION PREFIX: SL
SEG. NO.: 9
LENGTH: 45 (M)
DATE: 6/4/89
TIME (HHMM): 1525
TIDE HT.: 2.5 (M)
OILED ZONE: Splash High Medium Low
SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA
Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Littorina: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS: 2 red foxes spotted in log debris, 3 healthy looking sea lions 1/4 mi offshore

CLEANUP PRECAUTIONS: Avoid contaminating mid and lower ITZ

MAMMALS: Otters Harbor Seals Sea Lions Whales
Other

BIRDS:

GENERAL OBSERVATIONS: This segment at the mouth of lagoon was most heavily oiled for the bay's relatively high energy area which may clean itself

ACE 8707500
SHORELINE CLEANUP PROGRAM

DATE 6/09/89          SHORELINE SEGMENT  SL-1

LOCATION: (see enclosed map) Sturgeon Lagoon-Northeast shore

ADEC NO._________SHORELINE ASSESSMENT DATE: 6/04/89

Recommended Cleanup Activity(ies):
- Manually remove surface oil by appropriate means.

Priorities Considerations: This area is priority for salmon-
sockeye, chum and pink.

Ecological Constraints (from site survey): None. Manual cleanup
of oiled band at mid-high zone will not adversely impact lower,
uncontaminated intertidal zone.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered
during cleanup, contact Exxon's Archeological Field Director and
take actions prescribed in the Operational Guidelines for
Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer *

Date: June 10, 1989

EXXON: Date: 14 June 89

FOSC: __________________________

Date: ______________

* Signature required to satisfy stipulations in Alaska DNR land
use permits for tide and submerged lands.
Date: JUNE 4/89 Time:____  Observer: ___ D. Howes

Surveyed From: Foot/Boat/Air/Plane  Weather: S/Cld.

LOCATION LOCATION: STURGEON LAGOON EAST SIDE  SEGMENT I.D. : SL-1

LENGTH OF SHORELINE SEGMENT: 440 m

ACCESS: Foot/Vehicle/Boat/Barge/Helico/Float Plane

SHORELINE:
Shoreline Type: SPI BEACH/SHR/MID/STRF  Slope: LA/Q/W/SHG/VER

Wave Exposure: High/Med/Low

Sediment: BS/L / C____ / D / G / S / A / M____ / P____

Drift Debris on Beach: Yes/No  Supra/Upper/Mid/Lower  Type: LOSS/SCOUR

OIL:
Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Total Area of Beach Impact: SU / SP / H / M / L

OIL DISTRIBUTION
Continuous: Y/N  Segment #:____  No. Bands #:____  Width:____

Sporadic: Y/N  Segment #:____  Min/Max Dia.:____  Impact Width

Est. Oil Thickness where > 1 cm:____ cm  SU / SF / VP / MID / LO

Est. Oil Penetration: _____ cm  SU / SP / H / MID / LO

Layers? Yes/No  No. Layers:____  Oil Weathering:____

Drift Debris Oiled? Yes/No  Supra/Upper/Mid/Lower  Amount:____

OIL MORPHOLOGY
Pooled Oil:_____ % "Free" Oil  96 % Splattered:_____ % H/VER/L Sheen:_____ %

OIL WEATHERING (OW)
Fresh Oil:_____ % SU/SP/VP/MID/LO  Choc. Mousse/0%  100% SHEEN:

Pancake Mousse:_____ % SU/SP/VP/MID/LO  Asphalt Mousse:_____ % SU/SP/VP/MID/LO

Tar Formation:_____ %

Comments:

- BAND OF OIL THAT OCCASIONALLY SPLITS INTO TWO SINGLE BANDS, GENERALLY 2-3 METERS WIDE. OIL CHOC. MOUSEE HAS PENETRATED UP TO 2 CM.  - OIL SPATTER ON THE DEBRIS/CABLES USUALLY ABOVE BAND IN TIDAL ZONE

ACE 8707870
DOCUMENTATION:

Map/Aerial photo marking segment boundaries

VTR: Y/N Tape Number(s) ____________

Photography: Y/N Roll Number(s) DMC-11

Sample Numbers Collected: N/A
SITE SL-1

- Scattered patches of oil on surface of pebbles (ca. 8 cm x 25 cm)
- Cliff unconsolidated 15-18 m in height
- Occasional drift log with patches of gross
- Mixed gravel/sand beach
- CSB beach
- Beach texture:
  - Cobble: 5-7%
  - Sand: 25-35%
  - Pebble: 55-65%

Oil beach
- Width variable
- 1-3 m wide

Sandy low-tide terrace

Cliff
- Occasional log
- Mixed gravel beach
- Sandy low-tide terrace

Area of occasional splatter on pebble

Estimated cross segment in 1 mile
LOCATION: Sturgeon Lagoon
SITE: ___________________________ OBSERVER: D. McCauley
LOCATION PREFIX: SL SEG. NO.: 1 LENGTH: 440 (M)
OILED ZONE: Splash High-Medium Low
SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Existing strand line 20% filled

Nymphaea (mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Shells only

Balanus (barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Mid to low ITZ; unfiled, healthy

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Low to subtidal ITZ

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS: A deep casemate; lots of amphipods subtidally feeding
on algae and at strand line in increased debris; disc grounds and shells, bull kelp

CLEANUP PRECAUTIONS: None. Manual cleanup of oil band will not
impact lower, uncontaminated ITZ.

MAMMALS: Otters Harbor Seals Sea Lions Whales Other

BIRDS:

GENERAL OBSERVATIONS: Lagoon channels are unheavily oiled. The narrow band
of oil here is not impacting the sensitive lower ITZ.
SHORELINE CLEANUP PROGRAM

DATE 6/09/89  SHORELINE SEGMENT  SL-2

LOCATION: (see enclosed map) Sturgeon Lagoon—Northeast shore

ADEC NO.  SHORELINE ASSESSMENT DATE: 6/04/89

Recommended Cleanup Activity(ies):
- Manually remove surface oil by appropriate means. This area
  has a lower priority than SL-1 segment, but could be cleaned when
  SL-1 is.

Priorities Considerations:
- Sensitivity has been designated to this bay due to sockeye,
  chum and pink salmon runs.

Ecological Constraints (from site survey): You may rake dune
grass to clear oil debris, however, do not remove the grass.

Archeological Constraints (from site survey):
Archaeological monitor required during cleanup of some parts of
the segment. If heretofore undiscovered cultural materials are
uncovered during cleanup, contact Exxon's Archeological Field
Director and take actions prescribed in the Operational
Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer *  Date: June 10, 1989

EXXON:  Date: 14 June 85

FOSC:  Date:

* Signature required to satisfy stipulations in Alaska DNR land
  use permits for tide and submerged lands.
SHORELINE OIL EVALUATION FORM - MONTAUK

Date: June 89  Time: 10:30  Observer: J. Hennes

Surveyed From: Foot/Boat/ Helicopter/ Plane  

LOCATION

LENGTH OF SHORELINE SEGMENT: 860 m

ACCESS: Foot/Vehicle/ Boat/ Barge/ Helicopter/ Float Plane

SHORELINE:
Shoreline Type: SPI/ BEA/ COV/ HLH/ STFT  
Slope: L4D/ UNRECOGNIZED

Wave Exposure: High/Med./Low

Sediment: D5-7t  
Drift Debris on Beach: Yes/No

OIL
Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Total Area of Beach Impact: SU/ SP/ M/ L

OIL DISTRIBUTION
Continuous: Y/N  Segment 1.  66  No. Bands 1  Width 15-20 cm

Sporadic:  Y Segment 2  Min/Max Dia.  Impact Width

Est. Oil Thickness where > 1 cm:  cm  

Est. Oil Penetration:  cm  SU/ SP/ VP/ MID/ LO

Layers? Yes/No  No Layer(s)  

Oil Weathering

Drift Debris Oiled? Yes/No

OIL MORPHOLOGY
Pooled Oil  "Free" Oil  Tar

OIL WEATHERING (CM)
Fresh Oil  SU/SP/VP/MID/LO  Choc Mousse  100  

Pancake Mousse  SU/SP/VP/MID/LO  Asphalt Mousse  100  

Tar Formation

Comments:

2/3 of unit is a continuous band ≥ 15-20 cm wide - oil has not penetrated 4" slits on the surface.

Northern 1/3 of unit above stream, no evidence of band - splash on the periwinkle/oborines (see sketch)

ACE 8707877
DOCUMENTATION:

Map/Aerial photo marking segment boundaries  see attached

VTR: Y/N Tape Number(s) ____________________________________________

Photography: Y/N Roll Number(s) Time:

Sample Numbers Collected: ________
LOCATION: Sturgeon Bay  SITE: Ne shve     OBSERVER: J. A. J.
LOCATION PREFIX: SL   SEG. NO.: 2   LENGTH: 73.00 (M)
DATE: 6/1/89   TIME (HHMM): 1030   TIDE HT.: -0.75 (M)
OILED ZONE: Splash High   Medium Low
SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA
Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
       Healthy Low ITZ below oil line

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
       Healthy Low ITZ below oil line

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
       Healthy Low ITZ below oil line

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS: Mytilus shell debris throughout segment

CLEANUP PRECAUTIONS: None

MAMMALS: Otters Harbor Seals Sea Lions Whales
            Other None

BIRDS: None

GENERAL OBSERVATIONS: Oil bank in mid tidal band wider than six
not much eviscerated impact. Oil in clump grass at base of
grass slope. Oiled tunicates don't present at high tide line.
SHORELINE CLEANUP PROGRAM

DATE 6/09/89  SHORELINE SEGMENT SL-3
LOCATION: (see enclosed map) Sturgeon Lagoon-East shore of north lagoon
ADEC NO. __________ SHORELINE ASSESSMENT DATE: 6/04/89

Recommended Cleanup Activity(ies):
- Manually remove surface oil by appropriate means.

Priorities Considerations: This bay has been designated a sensitive area due to sockeye, pink and chum salmon runs.

Ecological Constraints (from site survey): Do not remove live grass from oiled grass areas. Avoid low intertidal zone mussel beds.

Archeological Constraints (from site survey): Cleanup crews anchored in the northeast arm of the lagoon should be restricted in the active beach. If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Charles E. Holmes  Date: June 10, 1989
State Historic Preservation Officer *

EXXON:  Date: 14 June 89

FOSC:  Date: ________

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION FORM - MONDAY

Date: JUNE4/89/ Time: 11:25
Observer: D. HArrIS

LOCATION
LOCATION STYMED (ACAD) - EAST SHORE SEGMENT I.D. SL-3

LENGTH OF SHORELINE SEGMENT: 875 m

ACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane

SHORELINE:
Shoreline Type: SPL/BLA/COV/HLD/STFT Slope: DRY/HARD/SLIP

Wave Exposure: High/Med/Low

Sediment: S / S5 / P / S5 / G 35 / S 35 / M 35 / R 35

Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type (occasional)

OIL
Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved/LIGHT

Total Area of Beach Impact: SU / SP / H / M / L

OIL DISTRIBUTION
Continuous: Y/N Segment % No. Bands Width

Sporadic: Y/N Segment % Min/Max Dia 5-25 cm Impact Width 5-64 cm

Est. Oil Thickness where > 1 cm: _____ cm SU / SP / UP / MID / TO

Est. Oil Penetration: _____ cm SU / SP / UP / MID / TO

Layers? Yes/No No# Layers Oil Weathering

Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H / M / L

OIL MORPHOLOGY
Pooled Oil % "Free" Oil % Spattered % H/H/L/VL Sheen %

OIL WEATHERING (OW)
Fresh Oil % SU/SP/VP/MID/LO Choc Mousse /% % SU/SP/VP/MID/LO

Pancake Mousse % SU/SP/VP/MID/LO Asphalt Mousse % SU/SP/VP/MID/LO

Tar Formation %

Comments:

NO OBSERVED PENETRATION OF OIL

TEXTURE OF BEACH CHANGES TO DIRT (SEE SKETCH)

OIL PATCH OF SHELL OBSERVED

SMALL SPATTERED/PROV OIL ON ROCKS/CORAL/BOULDERS AND ON BEACH SURFACE

OIL COATING ON DUNE GRASS (SOME)

ACE 8707584
DOCUMENTATION:

Map/Aerial photo marking segment boundaries see attached

VTR: Y/N Tape Number(s) 

Photography: Y/N Roll Number(s) Dmc - 11

Sample Numbers Collected: Y/A

ACE 8707885
SL-3

Cliff - Uncorroded, 15 ft - Low Height

1. Beach (1) Cobble Beach
2. Cobble Sand-Pebble Beach

Upper portions of Fucus Cordell (sanded) in oil

CLIFF - Occasional Logs + Grass

Approximate Zone of Oil Splatter

Estimated Cross-Profile of Segment
LOCATION: Hurricane Bay  SITE: East shore  OBSERVER: J Tappony
LOCATION PREFIX: SL  SEG. NO.:  2  LENGTH: 775 (M)
DATE: 6/4/88  TIME (HHMM): 1:25  TIDE HT.: 0.75 (M)
OILED ZONE: Splash High Medium Low
SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA
Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Littorina (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Littorina (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS: Fucus Mytilus Balanus Low ITZ every channel

CLEANUP PRECAUTIONS: If there is any cleanup, avoid low ITZ

MAMMALS: Otters Harbor Seals Sea Lions Whales

BIRDS: None

GENERAL OBSERVATIONS: Oil in dune grass, and a little oiled drift algae high ITZ at base of grass slope

ACE 8/7687
SHORELINE CLEANUP PROGRAM

DATE 6/09/89  SHORELINE SEGMENT  SL-4

LOCATION: (see enclosed map) Southwest side of Sturgeon Lagoon

ADEC NO.  SHORELINE ASSESSMENT DATE: 6/04/89

Recommended Cleanup Activity(ies):
- No cleanup recommended at this time due to no oil.

Priorities Considerations:

Ecological Constraints (from site survey): None, since no oiling was observed anywhere along this segment and cleanup is not recommended.

Archeological Constraints (from site survey):
If cleanup is conducted, an archaeological monitor should be present during cleanup of the northwest 1/3 of the segment. If cleanup is conducted and heretofore undiscovered cultural materials are uncovered, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer *

EXXON:  

FOSC:  

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION FORM - PORT AR.

Date: June 4/89  Time: _____  Observer: D. Howe

Surveyed From: ( ) Foot/Boat/ Helio/ Plane  ( ) Weather: Rain/ Snow/Hail

LOCATION

LOCATION: STARGEDN BAY = WEST SIDE  SEGMENT I.D. SL-4

LENGTH OF SHORELINE SEGMENT: 2390 m

ACCESS: ( ) Foot/Vehicle/Boat/Barge/ Helio/ Plane

SHORELINE:

Shoreline Type: SPI/BEA/COV/HLD/STET  Slope: [ ] HANG/ HANG/ HANG

Wave Exposure: ( ) High/ ( ) Med/ ( ) Low

Sediment: ( ) B.O. / ( ) Cl. / ( ) P.T. / ( ) G-1 / ( ) S202k / ( ) M. / ( ) R  

Drift Debris on Beach:   ( ) Yes/ ( ) No  Supra/Upper/ Mid/ Lower Type: Log/Segment

OIL

Degree of Oiling: ( ) Heavy/ ( ) Moderate/ ( ) Light/ ( ) No Oil/ Unobserved

Total Area of Beach Impact:  ( ) SU/ ( ) SP/ ( ) H/ ( ) M/ ( ) L

OIL DISTRIBUTION

Continuous: Y/N  Segment: _____ No. Pools: _____ Width: _____

Sporadic: Y/N  Segment: _____ Min/Max Dia: _____ Impact Width: _____

Est. Oil Thickness where > 1cm: _____cm  SU/ SP / UP / MID / LO

Est. Oil Penetration: _____ cm  SU/ SP / UP / MID / LO

Layers? Yes/No  No. Layers: _____ Oil Weathering: _____

Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower:  ( ) Y/ ( ) N

OIL MORPHOLOGY

Pooled Oil  ( ) "Free" Oil  ( ) Spattered:  ( ) H/M/L/T/L Check:_____  

OIL WEATHERING (OW)

Fresh Oil:  ( ) SU/SP/VP/MID/LO  Choc Mousse:  ( ) RU/SP/VP/MID/LO

Pancake Mousse:  ( ) SU/SP/VP/MID/LO  Asphalt Mousse:  ( ) SU/SP/VP/MID/LO

Tar Formation:  ( )

Comments:

NO OIL OBSERVED — 100% OF SEGMENT SURVEYED BY HELICOPTER

30% OF SEGMENT TRAVELLED BY TOBY

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ACE 8707891
DOCUMENTATION:
Map/Aerial photo marking segment boundaries  See Attached

VTR:  Y/N  Tape Number(s) 

Photography:  Y/N  Roll Number(s)  DMC-11 - DMC-12

Sample Numbers Collected:  N/A.
SL-4 (Segment Walked)

MIXED BEACH

Texture varies from:
1. cobble pebble beach
2. cobble sand pebble beach

ESTIMATE CROSS-UNIT PROFILE
LOCATION: SW Side of
LOCATION PREFIX: SL
SEG. NO.: 4
LENGTH: 2390 (M)
DATE: 6/4/89 TIME (HHMM): 12:40 TIDE HT.: -1.5 (M)
OILED ZONE: Splash High Medium Low
SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA
Fucua (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Live at Low ITZ - in debris strand at high ITZ

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Shell only

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Dense only on large boulders

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS: large tidal pools; crab shells, dense algal mat
at lower ITZ - clean

CLEANUP PRECAUTIONS: None

MAMMALS: Otters Harbor Seals Sea Lions Whales

Other

Largest: (Haulout - Cove Location) Matelake

BIRDS: eagles, gulls, sandpipers, terns

GENERAL OBSERVATIONS: No beach tar, no oil

ACE 8707894
SHORELINE CLEANUP PROGRAM

DATE 6/09/89 SHORELINE SEGMENT SL-5

LOCATION: (see enclosed map) Sturgeon Lagoon-West side at east end of Cobble Spit

ADEC NO. SHORELINE ASSESSMENT DATE: 6/04/89

Recommended Cleanup Activity(ies):
- Manually remove surface oil by appropriate means. This segment may be a lower priority than SL-7.

Priorities Considerations: This bay is designated sensitive due to sockeye, pink and chum salmon runs.

Ecological Constraints (from site survey): During manual cleanup of oil coated rocks, avoid cross-contamination to lower intertidal zone and clean lagoon channel.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION FORM - PORTFOLIO

Date: July 4/89  Time: 14:00  Observer: B. HOWES

Surveyed From: Foot/Boat/Helio/Plane  Weather: Sunny/Cloudy/Rain/Sunny

LOCATION
LOCATION STURGEON LAGOON - NORTH END  SEGMENT I.O. SL-5

LENGTH OF SHORELINE SEGMENT: 75 m
ACCESS: Foot/Boat/Barge/Helio/Float Plane

SHORELINE:
Shoreline Type: SPI/BEA/COV/HID/STRT  Slope: LAND/HILLS/UP

Wave Exposure: High/Med/Low
Sediment: B2S1 / C6O1 / P1S1 / C1S1 / S1S1 / M1S1 / B1S1

Drift Debris on Beach: Yes/No  Supra/Upper/Mid/Lower Type Seaweed

OIL
Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Total Area of Beach Impact: SU / SP / H / M / L

OIL DISTRIBUTION
Continuous: Y/N  Segment % 100  No. Bands 1 Width: 15-20 cm
Sporadic: Y/N  Segment % 100  Min/Max Dia. Impact Width

Est. Oil Thickness where > 1 cm: ___ cm  SU / SP / UP / MID / LO

Est. Oil Penetration: 4-9 cm  SU / SP / UP / MID / LO

Layers? Yes/No  No# Layers  Oil Weathering

Drift Debris Oiled? Yes/No  Supra/Upper/Mid/Lower Amount: H / M / L / L

OIL MORPHOLOGY
Pooled Oil  "Free" Oil  Spattered  H/H/VL Sheet

OIL WEATHERING (OW)
Fresh Oil  SU/SP/VP/MID/LO  Choc Mousse /OD  SU/SP/VP/MID/LO
Pancake Mousse  SU/SP/VP/MID/LO  Asphalt Mousse  SU/SP/VP/MID/LO

Tar Formation

Comments:

NO GUIDANCE OF OIL ON DRIFT DEBRIS

OIL PENETRATION UP TO ABOUT 10 CM. OIL ON PLANTS, HERBS AND STONES.
OIL - CONTINUOUS BAND / MOUSE / CHOCOLATE

SPLATTER ON THE COASTLINE
DOCUMENTATION:
Map/Aerial photo marking segment boundaries

VTR: Y/N Tape Number(s)

Photography: Y/N Roll Number(s) DMC-12

Sample Numbers Collected: N/A
LOCATION: MD side of Lagoon
LOCATION PREFIX: SL SEG. NO.: 5 LENGTH: 75 (M)
DATE: 6/4/89 TIME (HHMM): 1400 TIDE HT.: -1.0 (M)
OILED ZONE: Splash High Medium Low
SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Palmaria (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Littorina: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

In stream channel

OTHER OBSERVATIONS: Sponges in debris line at high ITZ; very dense population of (presumably) salmon fry associated with dismissed pat the in lagoon channel, clam shells

CLEANUP PRECAUTIONS: During annual cleanup, oiled rocks stay away from clean lower ITZ.

MAMMALS: Otters Harbor Seals Sea Lions 3 Whales

BIRDS: Semipalmated plover

GENERAL OBSERVATIONS: This area is very sensitive due to salmon populations. Any cleanup should moved away from lower ITZ to screws contamination from oiled bond at high ITZ does not take place.
(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/09/89 SHORELINE SEGMENT SL-6

LOCATION: (see enclosed map) Inside hook of southwest Spit of Sturgeon Lagoon

ADEC NO. ___________ SHORELINE ASSESSMENT DATE: 6/04/89

Recommended Cleanup Activity(ies):
- Manually remove surface oil by appropriate means.

Priorities Considerations: This bay has been designated sensitive, due to sockeye, pink and chum salmon runs.

Ecological Constraints (from site survey): Stay out of lower intertidal zone. Do not allow oil to get into water channels.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Charles E. Holdway
State Historic Preservation Officer *

Date: June 10, 1989

EXXON: Jack A. Ricken

Date: 14 June 85

FOSC: ____________________________

Date: __________

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION FORM - MONTAR

Date: JUN 4/89  Time: 14:20  Observer: D. HONE

Surveyed From: Foot/Boat/Helio/Plane  Weather: Sunny/Cloudy/Partly Sunny

LOCATION
LOCATION  STURGEON LAKE - NORTH END  SEGMENT I.D. SL-6

LENGTH OF SHORELINE SEGMENT: 50 m

ACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane

SHORELINE:
Shoreline Type: SPL/BEA/COV/HID/STR  Slope: LAMS/HAMS/VFR

Wave Exposure: High/Med/Low

Sediment: B/OTA / C/OTA / P/OTA / G/OTA / S/OTA / M/OTA / L/OTA

Drift Debris on Beach: Yes/No  Supra/Upper/Mid/Lower  Type: Seaweed

OIL
Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Total Area of Beach Impact: SU/SP/H M/L

OIL DISTRIBUTION
Continuous: Y/N  Segment #: No. Bands  Width:

Sporadic: Y/N  Segment #: Min/Max Diameter Impact Width - Z M

Est. Oil Thickness where > 1 cm: cm  SU/SP/VP/HID/L0

Est. Oil Penetration: 2-4 cm  SU/SP/VP/HID/L0

Layers? Yes/No  No Layer  Oil Weathering

Drift Debris Oiled? Yes/No  Supra/Upper/Mid/Lower  Amount: H/H/L/L

OIL MORPHOLOGY
Pooled Oil  'Free' Oil  Spattered  H/W/V/VP Sheen

OIL WEATHERING (GW)
Fresh Oil  SU/SP/VP/HID/L0  Choc Mousse  IDO  Physic Oil: HID/L0

Pancake Mousse  SU/SP/VP/HID/L0  Asphalt Mousse  SU/SP/VP/HID/L0

Tar Formation

Comments:

- OIL - SPATTERED (H) BOULDERS/COAGLES
- FREE OIL SPLATS ON BEACH SEGMENTS
- MOST OIL APPEARS TO BE ON THE NEWER SURFACE 2-4 CM PENETRATION

ACE 8707905
DOCUMENTATION:

Map/Aerial photo marking segment boundaries [ ] See attached [ ]

VTR:  [ ] Y/N  Tape Number(s) ___________________________________________

Photography:  [ ] Y/N  Roll Number(s) DMC 12 ____________________________

Sample Numbers Collected:  N/A ________________________________________

ACE 8707906
SL-5, 6, 7, 8, 9

Oil Band
Width: Up 2 km
Penetration: Up to 12-15 cm

Sandy Low-Tide Terrace

Pebble Cobble Beach Spit

Thin Ritches of Oil in Linear Path
(10-15 cm deep)

Continuous Oil Band
Width: 15 cm
Penetration: 4-10 cm

Cobble Beach Spit with Minor Boulders

Oil Spatter of Pebbles

OIL BAND

Approx. Zone Impact

Estimated Cross-profile
SL-8

Approx. Zone Impact

Estimated Cross-profile
SL-7

Approx. Zone Impact

Estimated Profile
SL-6

Approx. Zone Impact

Estimated Profile
SL-5

Approx. Zone Impact

Estimated Profile
SL-9
LOCATION: Sturgeon Bay
SITE: Inside Harbor SW Spit
LOCATION PREFIX: SL
SEG. NO.: C
LENGTH: 50 m (M)
DATE: 6/4/89
TIME (HHMM): 1410
TIDE HT.: +0.80 (M)
OILED ZONE: Splash High Medium Low
SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud
LIVE BIOTA
Phalangia (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Kytherea (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N Shell Debris
Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Litorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Limpeta: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
OTHER OBSERVATIONS:
CLEANUP PRECAUTIONS: None
MAMMALS: Otters Harbor Seals Sea Lions Whales Other None
BIRDS: None
GENERAL OBSERVATIONS: Drift is oiled in places. Cleanup procedures already taking place along this segment. HUD 11:00 7/2.
If oil gets into stream flows may have impact on salmon.
SHORELINE CLEANUP PROGRAM

DATE 6/09/89

SHORELINE SEGMENT SL-8

LOCATION: (see enclosed map) Sturgeon Lagoon-Southwest end of Cobble Spit on lagoon side of beach.

ADEC NO. ___________ SHORELINE ASSESSMENT DATE: 6/04/89

Recommended Cleanup Activity(ies):
- No cleanup recommended at this time, due to very light oiling and minimum anticipated environmental impact.

Priorities Considerations:

Ecological Constraints (from site survey): None, since no cleanup is recommended. Oiling is primarily confined to grassy areas in high intertidal zone, which cannot be cleaned. If cleanup is conducted, ecological constraints must be reconsidered.

Archeological Constraints (from site survey):
If cleanup is conducted and heretofore undiscovered cultural materials are uncovered, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer *

EXXON: Jack A. Rainier

FOSC: ____________________

Date: June 10, 1989

Date: __________

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION FORM - MONTEF

Date: JUNE 4/89  Time: 15:00  Observer: D. Howes

Surveyed From: Foot/Boat/Hello/Plane  Weather: Sun/Clear/Blue/Plain/Showery

LOCATION
LOCATION: SURGEON ACRE - NORTHEND  SEGMENT I.D. SL-B

LENGTH OF SHORELINE SEGMENT: 75 m

ACCESS: Foot/Vehicle/Boat/Barge/Hello/Float Plane

SHORELINE:
Shoreline Type: SPI/BEA/COV/HIN/STFT  Slope: L/A/SH/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B / C / D + / PE / PT / G / S / T / M / T / P

Drift Debris on Beach: Yes/No

SUPRA/Uppermid/lower Type

OIL
Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved/LIGHT

Total Area of Beach Impact: SU / SP / HR / M / L

OIL DISTRIBUTION
Continuous: Y/N  Segment 1  No. Bands  Width

Sporadic: Y/N  Segment 1  Min/Max Dia  Impact Width 1-2

Est. Oil Thickness where > 1cm: cm  SU / SP / VP / MID / LO

Est. Oil Penetration: cm  SU / SP / VP / MID / LO

Layers? Yes/No  No# Layers  Oil Weathering

Drift Debris Oiled? Yes/No  SUPRA/Uppermid/lower Amount: H / M / L

OIL MORPHOLOGY
Pooled Oil  Free Oil  Splattered Oil  H/Y T/YL Shredded Oil

OIL WEATHERING (ON)
Fresh Oil  SU/SP/VP/MID/LO  Choc Mouse Oil  LO  CHOC VP H/L M/L

Pancake Mousse  SU/SP/VP/MID/LO  Asphalt Mousse  LO  SU/SP/VP/LO

Tar Formation  

Comments:

LIGHT CHOCO MOUSE SPLITTERSON GRAYERS
OIL COAT ON GRASS

ACE 8707912
DOCUMENTATION:

Map/Aerial photo marking segment boundaries  [See Attached]

VTR:  Y/N  Tape Number(s) ________________________________

Photography:  Y/N  Roll Number(s) ________________________________

Sample Numbers Collected:  N/A

ACE 8707913
STURGEON LAGOON

ECOLOGICAL EVALUATION

LOCATION: on Logan side
SITE: __________
LOCATION PREFIX: SL
SEG. NO.: 8
LENGTH: 75 (M)
DATE: 6/4/89
TIME (HHMM): 1500
TIDE HT.: 20 (M)
OILED ZONE: Splash High Medium Low
SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

**Fucus** (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

**Mytilus** (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

**Balanus** (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

**Littorina**

Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

**Limpets**

Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS: Oiled grass in High ITZ, crab carapaces

CLEANUP PRECAUTIONS: None, since oiling is confined to grass primarily. Do not remove.

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___

OTHER

BIRDS:

GENERAL OBSERVATIONS: Patchy oiled seaweed in oiled band at High ITZ - mostly a school mussel with some splatter on lower end of band.
SHORELINE CLEANUP PROGRAM

DATE __6/09/89_________ SHORELINE SEGMENT ______SL-10____

LOCATION: (see enclosed map) ______East side Sturgeon Lagoon____

ADEC NO. _______ SHORELINE ASSESSMENT DATE: _______6/05/89_____

Recommended Cleanup Activity(ies):
- No cleanup recommended at this time due to very light oiling and minimal anticipated environmental impact.

Priorities Considerations:

Ecological Constraints (from site survey): None, since no cleanup is recommended. If cleanup is conducted, ecological constraints must be reconsidered.

Archeological Constraints (from site survey):
No access above the active beach zone. If cleanup is conducted and heretofore undiscovered cultural materials are uncovered, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.


State Historic Preservation Officer *

EXXON: ___________________________ Date: ______14 June 89_____

FOSC: ________________________________ Date: ________________

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION FORM - MONTAR

Date: JUNE 29/ Time: 0930
Surveyed From: (Foot/Boat/ Helicopter) Plane
Weather: Sun/Cloud/Rain/Snow/Gray:

LOCATION
LOCATION: STRUGGED LACON - EAST SIDE
SEGMENT #: SL-10

LENGTH OF SHORELINE SEGMENT: 2840 m
ACCESS: Foot/Vehicle/Boat/Barge/Helicopter/Float Plane

SHORELINE:
Shoreline Type: SPI/BEA/COV/HLD/STFT
Slope: LAND/HANG/VER
Wave Exposure: High/Med/Low
Sediment: BSL / E3 / PELT / G _ / SPT / M _ / R ___
Drift Debris on Beach: Yes/No
Supra/Upper/Mid/Lower: Type

OIL
Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved
Total Area of Beach Impact: SU / SP / H / M / L

OIL DISTRIBUTION
Continuous: Y/N
Segment #: No. Bands Width
Sporadic: Y/N Segment #: Min/Max Dia 25 cm
Impact Width: 25 cm
Est. Oil Thickness where > 1 cm: cm
SU / SF / UF / MID / LO
Est. Oil Penetration: cm
SU / SP / UP / MID / LO
Layers? Yes/No
No. Layers Oil Weathering

Drift Debris Oiled?: Yes/No
Supra/Upper/Mid/Lower: Amount: H / M / L / W

OIL MORPHOLOGY
Pooled Oil "Free" Oil Spattered 100%

OIL WEATHERING (OW)
Fresh Oil SU/SP/VP/MID/LO Choc Mousse 100%

Pancake Mousse SU/SP/VP/MID/LO Asphalt Mousse

Tar Formation

Comments:

THIS SEGMENT IS ESSENTIALLY FREE OF OIL - ONLY TWO SMALL SPATTER

PATTERNS OF CHOC MOUSSE WERE OBSERVED - NO PENETRATION OF THE OIL
- 60% OF UNIT TRaversed ON FOOT. 100% HELICOPTER SURVEY INCLUDING TWO
SPOT LANDINGS

ACE 8707919
DOCUMENTATION:

Map/Aerial photo marking segment boundaries [See Attached]

VTR: Y/N  Tape Number(s) ________________________________

Photography: Y/N  Roll Number(s) DMC 12

Sample Numbers Collected: N/A
Mixed Sandy/Gravel Beach

- Elevations 10-20 dm high
- Blue Grass
- Sandy Gravel Beach
- Sand Low Tide Terrace
- Cobble 10-30 dm sand beach at point
- Small splatter
- Grass
- Sandy Gravel Beach Face Low Mud
- Est. Cross Unit Profile

% C: 5-10 % D: 50-60
% B: 2-3 % S: 30-40
ECOLOGICAL EVALUATION

LOCATION: STURGEON LAGOON
SITE: ____________________________ OBSERVER: D. McCormick

LOCATION PREFIX: SL SEG. NO.: 10 LENGTH: 2840 (M)

DATE: 6/5/89 TIME (HHMM): 0930 TIDE HT.: -1.4 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Littorina: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS: Crab shells; only a few marine patches seen on this entire
stretch of beach.

CLEANUP PRECAUTIONS: None.

MAMMALS: Otters ______ Harbor Seals ______ Sea Lions ______ Whales ______

BIRDS: Bald Eagle

GENERAL OBSERVATIONS: No cleanup.
(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE  6/09/89  SHORELINE SEGMENT  SL-11

LOCATION: (see enclosed map)  East side Sturgeon Lagoon

ADEC NO.  _____  SHORELINE ASSESSMENT DATE:  6/05/89

Recommended Cleanup Activity(ies):
- No cleanup recommended at this time due to no oil.

Priorities Considerations:

Ecological Constraints (from site survey):  None, since no oil was observed.

Archeological Constraints (from site survey):
If cleanup is planned, a cultural resource assessment should be completed. If cleanup is conducted and heretofore undiscovered cultural materials are uncovered, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Charles 3. Holmes  Date:  June 10, 1989
State Historic Preservation Officer *

EXXON:  Jack A. Ruston  Date:  16 June 89

FOSC:  __________________________

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION FORM - MONTEP

Date: JUNE/89  Time: 10:15  Observer: D. HOBBS

Surveyed From: (Foot/Boat/Heli/Plane)  Weather: Sunny

LOCATION
LOCATION  SUXEGUW LAGOON - EAST SIDE  SEGMENT L.D. SL-11

LENGTH OF SHORELINE SEGMENT: 875 m

ACCESS: Foot/Boat/Vehicle/Plane

SHORELINE:
Shoreline Type: SPI/BEA/COV/HIL/STFT  Slope: LAND/HANG/VER

Wave Exposure: High/Med/Low

Sediment: BS-Z% / C-% / P% / S% / M-% / R-%

Drift Debris on Beach: Yes/No

OIL
Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Total Area of Beach Impact: SU / SP / H / M / L

OIL DISTRIBUTION
Continuous: Y/N  Segment %  No. Bands  Width

Sporadic: Y/N  Segment %  Min/Max Dia  Impact Width

Est. Oil Thickness where > 1cm: ______cm  SU / SP / VP / MID / LO

Est. Oil Penetration: ______ cm  SU / SP / VP / MID / LO

Layers? Yes/No  No Layers  Oil Weathering

Drift Debris Oiled? Yes/No  Supra/Upper/Mid/Lower  Amount: H / M / L / U

OIL MORPHOLOGY
Pooled Oil  "Free" Oil  Spattered  H/W/L/VL Cheek

OIL WEATHERING (OW)
Fresh Oil  SU/SP/VP/MID/LO  Choc Mousse

Pancake Mousse  SU/SP/VP/MID/LO  Asphalt Mousse

Tar Formation

Comments:

30% TRAVELED BY FOOT, REST OF SEGMENT SURVEYED BY HELICOPTER

NO OIL OBSERVED

COMMENTS:

ACE 8707925
DOCUMENTATION:

Map/Aerial photo marking segment boundaries

VTR: Y/N Tape Number(s)

Photography: Y/N Roll Number(s)

Sample Numbers Collected: A/A

See Utopia
ECOLOGICAL EVALUATION

LOCATION: EAST SIDE of STUBSON LAGUNA
SITE: ____________ OBSERVER: D McCaughn
LOCATION PREFIX: SL SEG. NO.: 11 LENGTH: 875 (M)
DATE: 6/5/89 TIME (HMM): 1015 TIDE HT.: -1.0 (M)
OILED ZONE: Splash High Medium Low None
SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
   Fucus at strand line

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
   Shells only

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
   Mud to low ITZ, unlined, healthy

Littorina
   Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
   Low to subtidal ITZ

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS: Amphipods subtidally feeding on algae - at strand
   line in seaweed debris; Dungeness crab shells, bull kelp

CLEANUP PRECAUTIONS: None

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
   Other

BIRDS:

GENERAL OBSERVATIONS: No cleanup - no oil.
SHORELINE CLEANUP PROGRAM

DATE 6/09/89  SHORELINE SEGMENT SL-12

LOCATION: (see enclosed map) Sturgeon Lagoon-East lagoon

(Estuary)

ADEC NO. SHORELINE ASSESSMENT DATE: 6/05/89

Recommended Cleanup Activity(ies):
- No cleanup recommended due to no oil.

Priorities Considerations: This area has been declared sensitive due to sockeye, pink and salmon runs.

Ecological Constraints (from site survey): None, since no oil was observed and cleanup is not recommended.

Archeological Constraints (from site survey):
If cleanup is planned, a cultural resource assessment should be completed.

State Historic Preservation Officer *

EXXON: Jack A. Rasmussen  Date: June 10, 1987

FOSC: ___________________________  Date: 14 June 69

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8707932 -/
SHORELINE OIL EVALUATION FORM - MONTEREY

Date: JUNE/89/ Time:______
Observer: D. HOWES

Surveyed From: Foot/Boat/Helic/Plane
Weather: Sun/Cloud/Rain/Sunny

LOCATION
LOCATION Stuck/PA Location = EAST SIDE
SEGMENT No. SL-12

LENGTH OF SHORELINE SEGMENT: 3500 m

ACCESS: Foot/Vehicle/Boat/Barge/Helic/Float Plane

SHORELINE:
Shoreline Type: SPI/BEA/COV/HLD/STK
Slope: LAN/SLLE/VER

Wave Exposure: High/Med/Low

Sediment: B % / C % / P % / G % / S % M % / R %

Drift Debris on Beach: Yes/No
Supra/Upper/Mid/Lower Type

OIL
Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Total Area of Beach Impact: SU / SP / H / M / L

OIL DISTRIBUTION
Continuous: Y/N Segment % No. Bands __ Width ______

Sporadic: Y/N Segment % Min/Max Dia ___ Impact Width

Est. Oil Thickness where > 1 cm: ___ cm

SU / SP / UP / MID / LO

Est. Oil Penetration: ___ cm

SU / SP / UP / MID / LO

Layers? Yes/No No# Layers ___ Oil Weathering ___

Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H / M / L / V

OIL MORPHOLOGY
Pooled Oil ___ "Free" Oil ___ Spotted ___ H/H/L/VL Sheen ___

OIL WEATHERING (OW)
Fresh Oil ___ % SU/SP/VP/HLD/LO Choc Mousse ___ % SU/SP/VP/HLD/LO

Pancake Mousse ___ % SU/SP/VP/HLD/LO Asphalt Mousse ___ % SU/SP/VP/HLD/LO

Tar Formation ___ %

Comments:

ACE 8707933

THIS UNIT IS A DELTA/ESTUARY WITH CHANNEL + BARS

NO OIL OBSERVED ON BARS OR SEDIMENT ALONG PRINCE
DOCUMENTATION:

Map/Aerial photo marking segment boundaries [See attached]

VTR: Y/N  Tape Number(s) ________________________________

Photography: Y/N  Roll Number(s) DMC-12 ________________________

Sample Numbers Collected: N/A ________________________________
SL-12 - ESTUARY/DELTACROSS-PROFILE

DELTASURFACE
GRASS
SANDY GRAVEL
ORGANIC CLIFF
RIVER CHANNEL
PROFILE
SANDY GRAVEL
-bars

ESTIMATED CROSS-PROFILE
OF UNIT

ACE 8707935
LOCATION: Sturigin Bay
SITE: East Entrance
LOCATION PREFIX: SL
SEG. NO.: 12
LENGTH: 3500 (M)
DATE: 6/5/89
TIME (HHMM): 1030
TIDE HT.: -0.96 (M)
OILED ZONE: Splash High Medium Low
SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud
LIVE BIOTA
Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Shells only

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS: Algal debris high in excess of estuary
Marsh grass extensive throughout this segment.

CLEANUP PRECAUTIONS: None

MAMMALS: Otters Harbor Seals Sea Lions Whales

Other None

BIRDS: None

GENERAL OBSERVATIONS: No oil observed. This whole segment is
an estuary and borders part of lagoon. Could smell
trace of anoxic muds.

ACE 8707930
SHORELINE CLEANUP PROGRAM

DATE 6/09/89 SHORELINE SEGMENT SL-13

LOCATION: (see enclosed map) Sturgeon Lagoon-Ocean side of spit near mouth.

ADEC NO. ___________ SHORELINE ASSESSMENT DATE: 6/05/89

Recommended Cleanup Activity(ies):
- No cleanup recommended at this time, due to light oiling and high energy environment.

Priorities Considerations:

Ecological Constraints (from site survey): None, since no cleanup is recommended. If cleanup is conducted, ecological constraints should be reconsidered.

Archeological Constraints (from site survey):
If cleanup is conducted and heretofore undiscovered cultural materials are uncovered, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Charles Z. Holmes
State Historic Preservation Officer

EXXON: Jack D. Putnam

FOSC: ________________________________

Date: ______________ Date: ______________

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION FORM - MONTEREY

Date: June 5/89  Time: 10:40  Observer: D. Howes

Surveyed From: Foot/Boat/Helio/Plane  Weather: Sun/Cloud/Drain/Shower

LOCATION

LOCATION: Sturceon Lagoon - North End  SEGMENT I.D. SL-13

LENGTH OF SHORELINE SEGMENT: 660 m

ACCESS: Foot/Boat/Police/Plane

SHORELINE:
Shoreline Type: SP/BEACH/OIL/111/FLAT  Slope: LANG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: LESS / C/3t / R/5 / S/3 / M/3 / R/3

Drift Debris on Beach: Yes/No  Type: LOGS/SEAWEED

OIL
Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Total Area of Beach Impact: SU/SP/H/M/L

OIL DISTRIBUTION
Continuous: Y/N  Segment 1/100  No. Bands 1 Width 1-2 m

Sporadic: Y/N  Segment 1  Min/Max Dia  Impact Width

Est. Oil Thickness where > 1 cm: cm  SU/SP/UP/H/M/L

Est. Oil Penetration: 1 cm  SU/SP/UP/H/M/L

Layers? Yes/No  No.m Layers  Oil Weathering

Drift Debris Oiled? Yes/No  Type: Upper/Mid/Low  Amount: H/H/L

OIL MORPHOLOGY
Pooled Oil  "Free" Oil  Spattered

OIL WEATHERING (ON)
Fresh Oil  SU/SP/UP/H/M/L

Pancake Mousse  SU/SP/UP/H/M/L

Tar Formation

Comments:

ACE 8707940

AREA HAS BEEN SUBJECT TO SUCCESSIVE IMPACTS AS THE MOUSE WEATHERING VAPES PRODUCED (CHOCO. TO ASPHALT). THE HOLE AT THE BEACH FACE (UPPER LIT.) IS "RECENT". IT IS SPATTERED + FREE OIL IN POCKETS. OIL HERE HAS PENETRATED THE SURFACE COAL. COAL LAYER ELSEWHERES OIL OCCURS AS A LIGHT SPATTER ON THE SURFACE COAL/BOULDER LAYER. PUMMELING PEBBLE AND ASPHALT MOUSE NEWS HAD NO ELEVANT EFFECT AND MORE MECHANICAL (BEING SPATTERED) TRAUGHT AIR TO HARM ABLE WEATHERING (SMALL SHORE). ALSO, HIGH NATURAL SENTRY, SPATTER ELEVATION PROCESS AND MECHANICAL (BLACK SMUDGE) SHOULD CAUSE MOUSES BELOW, NO CLEANING REQUIRED FOR SITE.
DOCUMENTATION:

Map/Aerial photo marking segment boundaries

VTR: Y/N Tape Number(s) __________________________

Photography: Y/N Roll Number(s) DMC-12

Sample Numbers Collected: N/A

ACE 8707941
ECOLOGICAL EVALUATION

LOCATION: Sturgeon Bay  SITE: Owenside Spit  OBSERVER: J. Temple
LOCATION PREFIX: SL  SEG. NO.: 13  LENGTH: 660 (M)
DATE: 6/5/87  TIME (HHMM): 20:05  TIDE HT.: -0.80 (M)
OILED ZONE: Splash High Medium Low
SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Located in low ITZ - not oiled

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Shell dense. High ITZ: Located in low ITZ - not oiled

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Located in low ITZ - not oiled

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS: All biota primarily at low ITZ. Biota separated into:
- Substrate zone: mytilus/balanus/littorina zone; Fucus/Balanus zone; Kelp zone. These zones were
  25-25 m wide at the entire length of the segment.

CLEANUP PRECAUTIONS: None

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other ___

BIRDS: ___________

GENERAL OBSERVATIONS: Splattered mussel found from high ITZ down
To kelp of Mytilus/Balanus zone.
SHORELINE CLEANUP PROGRAM

DATE 6/09/89  SHORELINE SEGMENT  SL-14

LOCATION: (see enclosed map) Sturgeon Lagoon-North end ocean side

ADEC NO. __________ SHORELINE ASSESSMENT DATE: 6/05/89

Recommended Cleanup Activity(ies):
No cleanup recommended at this time, due to very light oiling, high wave exposure and ecological constraints.

Priorities Considerations:

Ecological Constraints (from site survey): This segment contains very dense mussel beds. Damage to mussel beds from cleanup activity would likely occur.

Archeological Constraints (from site survey):
If cleanup is conducted heretofore undiscovered cultural materials are uncovered, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Charles F. Homan
State Historic Preservation Officer

EXXON: ____________________________ Date: __________

FOSC: ____________________________ Date: __________

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
Date: June 5/89  Time: 12:00 AD  Observer: D. Howes

Surveyed From: Foot/Boat/ Helio/ Plane

LOCATION
Location: Sturgeon Lagoon - Northend
Segment: SL - 14

Length of Shoreline Segment: 1536 m

Access: Foot/ Vehicle/ Boat/ Barge/ Helio/ Float Plane

Shoreline:
Type: Sand/ Mix / Mud/ Rock / Rip / Low

Wave Exposure: High/ Med/ Low

Sediment: Big/ Clot / P / S / SQ / Ll / LM / F / R

Drift Debris on Beach: Yes/ No

Supra/ Upper/ Mid/ Lower Type: Log/ Wooded

Oil:
Degree of Oiling: Heavy/ Moderate/ Light/ No Oil/ Unobserved

Total Area of Beach Impact: SU / SP / H / M / L

Oil Distribution:
Continuous: Y / N  Segment: 100
No. Bands: 0
Width: 0

Sporadic: Y / N  Segment: 150
Min/ Max Dia: 0
Impact Width: 0

Est. Oil Thickness where > 1 cm: 0 cm

Est. Oil Penetration: 0 cm

Layers: Yes/ No

No. Layers: 0

Oil Weathering:

Drift Debris Oiled: Yes/ No

Supra/ Upper/ Mid/ Lower Amount: H / M / L / U

Oil Morphology:
Pooled Oil: % "Free" Oil: % Spattered: % H / U / VL Sheen: %

Oil Weathering (OW):
Fresh Oil: % SU / SP / VP / MID / LO Choc Mousse: %
Pancake Mousse: % SU / SP / VP / MID / LO Asphalt Mousse: %

Tar Formation: %

Comments:

No Fresh Choc Mousse in this Segment
Spattered is Uncommon / Occasional
Spattered is Distributed from High - Mid.

1/14 of Total Unit: Oil Occurs as Spattered by Surface Objects/ Boulders

ACE 8707947
DOCUMENTATION:

Map/Aerial photo marking segment boundaries See Attached

VTR: Y/N Tape Number(s) ____________________________

Photography: Y/N Roll Number(s) DMC-12

Sample Numbers Collected: N/A

ACE 8707948
ECOLOGICAL EVALUATION

LOCATION: North End
SITE: Sturgeon Lagoon

LOCATION PREFIX: SL
SEG. NO.: 14
LENGTH: 1.532 m

DATE: 6/5/89
TIME (HHMM): 1100
TIDE HT.: -0.5 m

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Very dense at low tide zone

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Very dense mussel beds along whole of segment

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Dense on larger boulders

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Moderately dense, become more dense going South

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Moderately dense in patches

OTHER OBSERVATIONS: This beach rich in biota: primarily help at low ITZ, then
fucus/balanus/mussels/balanus toward mid ITZ. Biotic not affected
by the light splatter

CLEANUP PRECAUTIONS: None - no cleanup is recommended

MAMMALS: Otters ______ Harbor Seals ______ Sea Lions ______ Whales ______
Other

BIRDS:

GENERAL OBSERVATIONS: Oil occurs as splatters on rocks at high zone to
edge of mussel beds at mid zone
SHORELINE CLEANUP PROGRAM

DATE: 6/09/89  SHORELINE SEGMENT: SL-15

LOCATION: (see enclosed map) Sturgeon Lagoon-Northwest side of northern lagoon

ADEC NO. _______ SHORELINE ASSESSMENT DATE: 6/05/89

Recommended Cleanup Activity(ies):
- No cleanup recommended at this time, due to very light oiling and minimum anticipated environmental impact.

Priorities Considerations: This area has been designated sensitive, due to sockeye, pink, chum and salmon runs.

Ecological Constraints (from site survey): None, since no cleanup occurs, ecological constraints must be reconsidered.

Archeological Constraints (from site survey):
If cleanup is planned, a cultural resource assessment should be completed.

Date: June 19, 1989

State Historic Preservation Officer *

EXXON: Jack Kin

Date: 11 June 89

FOSC: __________________________

Date: ______________

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION FORM - MONITA

Date: June 5/89  Time: 11:40  Observer: 

Surveyed From: Foot/Boat/Helicopter  Weather: Sunny/Cloud/Rain/Snow/Flurry

LOCATION

LOCATION: Mulgrave Lagoon  NORTHERN  SEGMENT I.D. SC-15

LENGTH OF SHORELINE SEGMENT: 1302 m

ACCESS: Foot/Vehicle/Boat/Helicopter/Boat Plane

SHORELINE:

Shoreline Type: SPI/BEA/COV/HLD/STET  Slope: LAUG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B___t / C___t / D___t / E___t / M___t / R___t

Drift Debris on Beach: Yes/No  Supra/Upper/Mid/Lower Type

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Total Area of Beach Impact: SU / SP / M / L

OIL DISTRIBUTION

Continuous: Y/N  Segment ___ No. Bands ___ Width ___

Sporadic: Y/N  Segment ___ No. Bands ___ Width ___

Est. Oil Thickness where > 1cm: ___ cm  SU / SP / VP / HLD / LO

Est. Oil Penetration: ___ cm  SU / SP / VP / HLD / LO

Layers? Yes/No  No. Layers ___ Oil Weathering

Drift Debris Oiled? Yes/No  Supra/Upper/Mid/Lower Amount: H / M / L / LO

OIL MORPHOLOGY

Pooled Oil ___  "Free" Oil ___  Spattered ___  Spotted ___  PHM/VL/SMear ___

OIL WEATHERING (OW)

Fresh Oil ___  SU/SP/VP/HLD/LO  Choc Mousse ___  CORK/PEL / HLD / LO

Pancake Mousse ___  SU/SP/VP/HLD/LO  Asphalt Mousse ___  SU/SP/VP/HLD/LO

Tar Formation ___

Comments:

DISCONTINUOUS BANDS OF SPATTER (4 10 cm Width) ON THE COAST

FRAGMENTS (Pebbles, Cobble)

THIS BAND IS DISCONTINUOUS & PATCHY, <1% TOTAL UNIT AFFECTED

PANCAKE MOUSSE

ACE 8707954
DOCUMENTATION:

(a) Aerial photo marking segment boundaries

VTR: Y/N Tape Number(s)

Photography: Y/N Roll Number(s) DMC-12

Sample Numbers Collected: N/A

ACE 8707955
**ECOLOGICAL EVALUATION**

**LOCATION:** Sturgeon Bay  
**SITE:** Nws 1 N. Upper  
**OBSERVER:** J. Thiele

**LOCATION PREFIX:**  
**SEG. NO.:** 15  
**LENGTH:** 1300 (M)

**DATE:** 6/5/79  
**TIME (HHMM):** 0135  
**TIDE HT.:** -0.46 (M)

**OILED ZONE:** Splash  
**High**  
**Medium**  
**Low**

**SUBSTRATUM:** Rocks  
**Boulder**  
**Cobble**  
**Gravel**  
**Sand**  
**Mud**

**LIVE BIOTA**

<table>
<thead>
<tr>
<th>Species</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fucus (algae)</td>
<td>Patchy Y/N  Contin. Y/N Dense Y/N Sparse Y/N None Y/N</td>
</tr>
<tr>
<td>Mytilus (Mussels)</td>
<td>Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N</td>
</tr>
<tr>
<td>Balanus (Barnacles)</td>
<td>Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N</td>
</tr>
<tr>
<td>Littorina</td>
<td>Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N</td>
</tr>
<tr>
<td></td>
<td>Become denser closer towards the bay</td>
</tr>
<tr>
<td>Limpets</td>
<td>Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N</td>
</tr>
<tr>
<td></td>
<td>Become closer closer towards the bay</td>
</tr>
<tr>
<td>OTHER OBSERVATIONS:</td>
<td>Benthiic invertebrates present, polychaete worms present</td>
</tr>
<tr>
<td></td>
<td>Sand dollar shells present</td>
</tr>
<tr>
<td></td>
<td>Fish (3-10cm) in stream</td>
</tr>
<tr>
<td></td>
<td>Eggs found on surface of mud flats</td>
</tr>
<tr>
<td></td>
<td>Treatment</td>
</tr>
</tbody>
</table>

**CLEANUP PRECAUTIONS:**  
None  

**STAY AWAY FROM OILED AREA**

**MAMMALS:**  
**Otters**  
**Harbor Seals**  
**Sea Lions**  
**Whales**  
**Other**  
None

**BIRDS:**  
Terrestrial birds amongst marsh grass

**GENERAL OBSERVATIONS:**  
Bench Flies abundant  
Pancake moss in mid ETZ  
Very light

ACE 8707957
Recommended Cleanup Activity(ies):
- No cleanup recommended at this time, due to no oil.

Priorities Considerations:

Ecological Constraints (from site survey): No ecological evaluation form is included because this segment was surveyed from the helicopter only.

Archeological Constraints (from site survey):
If cleanup is planned, a cultural resource assessment should be completed. If cleanup is conducted and heretofore undiscovered cultural materials are uncovered, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION FORM - KONTAR

Date: JUNE 1989 Time: 16:40 Observer: _

Surveyed From: Foot/Boat/Plane Weather: Sun/Cloud/Rain/Snow/Drq

LOCATION
LOCATION: STURGEON LAGOON - EAST SIDE SEGMENT I.D. CL: 16

LENGTH OF SHORELINE SEGMENT: 1550 m

ACCESS: Foot/Vehicle/Boat/Helicopter/Float Plane

SHORELINE:
Shoreline Type: SPI/BEA/COV/HLD/STFF Slope: LAUG/UNHG/VER

Wave Exposure: High/Low

Sediment: B / C / D / E / S / M / R

Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type

OIL
Degree of Oiling: Heavy/Moderate/Light (No Oil/Unobserved)

Total Area of Beach Impact: SU/SP/H/M/L

OIL DISTRIBUTION
Continuous: Y/N Segment t No. Bands Width

Sporadic: Y/N Segment t Min/Max Diameter Impact Width

Est. Oil Thickness where > 1 cm: cm

Est. Oil Penetration: cm

Layers? Yes/No No# Layers Oil Weathering

Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H/H/L/L

OIL MORPHOLOGY
Pooled Oil "Free" Oil Spattered Amount: H/H/L/L

OIL WEATHERING (OW)
Fresh Oil SU/SP/VP/MID/LD Choc Mousse

Pancake Mousse SU/SP/VP/MID/LD Asphalt Mousse

Tar Formation

Comments:

NO OIL OBSERVED IN LOW HELICOPTER ASSESSMENT
DOCUMENTATION:
Map/Aerial photo marking segment boundaries [See Attached]

VTR: Y/N Tape Number(s) ________________________________

Photography: Y/N Roll Number(s) ________________________________

Sample Numbers Collected: [ ]

ACE 8707961
SL-16 / 17

- Sand Dune (supra zone)
- Sandy Beach
- Sandy tidal flat with channels
- Log + Grass
- Uncconsolidated cliff (4-15 m high)
- Pebble sand beach and cobble

ESTIMATED CROSS SECTION

SL-16

SL-17
SHORELINE CLEANUP PROGRAM

DATE 6/09/89
SHORELINE SEGMENT SL-17

LOCATION: (see enclosed map) Sturgeon Lagoon-East shore

ADEC NO. SHORELINE ASSESSMENT DATE: 6/05/89

Recommended Cleanup Activity(ies):
- No cleanup recommended at this time, due to no oil.

Priorities Considerations:

Ecological Constraints (from site survey): No ecological evaluation form is included here since this segment was surveyed by helicopter only.

Archeological Constraints (from site survey):
If cleanup is planned, a cultural resource assessment should be completed.

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION FORM - FOOTPLANE

Date: JUNE 19 / Time: 12:05
Observer: D. HUNTS

Surveyed From: Boat/Helicopter/Plane
Weather: Sun/Cloud/Rain/Snow/Drizzle

LOCATION
LOCATION Sturgeon Bay - East Side
SEGMENT ID. SL-17

LENGTH OF SHORELINE SEGMENT: 875 m

ACCESS: Foot/Vehicle/Boat/Barge/Float Plane

SHORELINE:
Shoreline Type: SPI/BEA/COV/HIL/STFT
Slope: LABG/HANG/VER

Wave Exposure: High/Med/Low


Drift Debris on Beach: Yes/No
Supra/Upper/Mid/Lower Type Logs/Segments

OIL
Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Total Area of Beach Impact: SU / SP / H / M / L

OIL DISTRIBUTION
Continuous: Y/N Segment 
No. Bands 
Width

Sporadic: Y/N Segment 
Min/Max Dia. 
Impact Width

Est. Oil Thickness where > 1 cm: cm

Est. Oil Penetration: cm
SU / SP / UP / MID / LO

Layers? Yes/No
No Layers
Oil Weathering

Drift Debris Oiled? Yes/No
Supra/Upper/Mid/Lower
Amount: H / M / L / V

OIL MORPHOLOGY
Pooled Oil
"Free" Oil
Spattered
Mousse

Tar Formation

OIL WEATHERING (ON)
Fresh Oil
SU/SP/VP/MID/LO Choc Mousse
SU/SP/VP/MID/LO

Pancake Mousse
SU/SP/VP/MID/LO Asphalt Mousse

Tar Formation

Comments:

ACE 8707966

NO OIL OBSERVED ON LOW HELICOPTER FLIGHT AND 20% OF AREA

ASSESSED BY FOOT

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DOCUMENTATION:

Map/Aerial photo marking segment boundaries [See Attached]

VTR: Y/N Tape Number(s) __________________________

Photography: Y/N Roll Number(s) __________________________

Sample Numbers Collected: N/A
SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): K7-1

Includes Shoreline Segments: LC-12, LC-13

Location: Bumble Bay

Submitted: _____________________________ Date: ______________ 
(for Exxon)

FOSC Approval: _____________________________ Date: ______________ 

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. Requirements for safety and the protection of cultural material must be observed.

CC: KISCC
SHORELINE CLEANUP PROGRAM

DATE 7/15/89    SHORELINE SEGMENT K7-1-LC-13

LOCATION: (see enclosed map) West end of Gurney Bay south to north end of Bumble Bay

ADEC NO. ________ SHORELINE ASSESSMENT DATE: 6/24/89

Recommended Cleanup Activity(ies):
- No cleanup recommended at this time (subject to FOSC reassessment at a later date).
- No oil observed.

Priorities/Considerations: Class 5-A

Ecological Constraints (from site survey):
- No ecological constraints.

Archaeological Constraints (from site survey):
- If cleanup is conducted and heretofore undiscovered cultural materials are uncovered contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer *

Date: 7/20/89

EXXON: ___________________________ Date: ________________

FOSC: ___________________________ Date: ________________

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
**SHORELINE OIL EVALUATION FORM - KODIAK**

**Date:** 2/24/93  
**Time:** 4:00  
**Observer:** Mike Milz

**Surveyed From:** Foot/Boat/Helio/Plane  
**Weather:** Sun/Cloud/Rain/Snow/Fog

**LOCATION**  
Rocky Headland Between  
Bumble Bay and Gurney Bay  
SEGMENT I.D. K-7-1-LC-13

**LENGTH OF SHORELINE SEGMENT:** 9,500 m

**ACCESS:** Foot/Vehicle/Boat/Barge/Helio/Float Plane

**SHORELINE:**  
Shoreline Type: SPI/BEA/COV/MLD/STRT  
Slope: LANG/HANG/VER

**Wave Exposure:** High/Med/Low

**Sediment:** B/C/S/G/S3/ML/R

**Drift Debris on Beach:** Yes/No  
**Supra/Upper/Mid/Lower Type**  
- Small logs  
- Small pocket beaches only - rock shores drift free

**OIL Degree of Oiling:** Heavy/Moderate/Light/No Oil/Unobserved/Very Light

**Total Area of Beach Impact:** SU / SP / H / M / L

**OIL DISTRIBUTION**

Continuous: Y/N  
Segment #:  No. Bands Width

Sporadic: Y/N  
Segment #: Min/Max Dia Impact Width

**Est. Oil Thickness where > 1 cm:** A cm  
**SU / SP / UP / MID / LO**

**Est. Oil Penetration:**  
**cm**  
**SU / SP / UP / MID / LO**

**Layers?** Yes/No  
**No. Layers**  
**Oil Weathering**

**Drift Debris Oiled?** Yes/No  
**Supra/Upper/Mid/Lower Amount:** H / M / L / VL

**OIL MORPHOLOGY**

Pooled Oil  
"Free" Oil  
Spattered Oil  
H/M/L/ VL Sheen

**OIL WEATHERING (CW)**

Fresh Oil  
**SU/SP/VP/MID/LO**  
Choc Mousse  
**SU/SP/VP/MID/LO**

Pancake Mousse  
**SU/SP/VP/MID/LO**  
Asphalt Mousse  
**SU/SP/VP/MID/LO**

**Tar Formation**

Comments:

This exposed rocky coast contains steep cliffs a number of areas with a discontinuous bouldery veneer and a few small sandy, pebbly pocket beaches. No oil was observed during a low level helicopter overflight and clean-up activities are not required.
DOCUMENTATION:

Map/Aerial photo marking segment boundaries See Attached

VTR: Y/N Tape Number(s) ________________________________

Photography: Y/N Roll Number(s) 110: C - 15

Sample Numbers Collected: N/A

ACE 8707975
ECOLOGICAL EVALUATION

LOCATION: West End Cause,
SITE: Northerly Barge
LOCATION PREFIX: K7-1, K9-3
SEG. NO.: 13
LENGTH: 9500 (M)
DATE: 6/24/89
TIME (HHMM): 1400
TIDE HT.: +1 0 (M)

OILED ZONE: Splash High Medium Low None

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Dense fishermen on some boulders

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Dense

Littorina

Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS: Entericia and green seaweed, green seaweed in mud, hermit crabs, sea lions;

CLEANUP PRECAUTIONS: None

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___

OTHER

BIRDS:

GENERAL OBSERVATIONS: We observed in this area. Harbor seals were

ACE 8707970
HEADLAND BETWEEN GURNEY BAY AND BUMBLE BAY
SEGMENT K6-37-LC-13
K7-1 - LC-13
SHORELINE CLEANUP PROGRAM

DATE 7/15/89  SHORELINE SEGMENT K7-1-LC-12

LOCATION: (see enclosed map) East side Bumble Bay

ADEC NO. _______ SHORELINE ASSESSMENT DATE: 6/24/89

Recommended Cleanup Activity(ies):
- No cleanup recommended at this time (subject to FOSC reassessment at a later date).
- No oil observed.

Priorities/Considerations: Class 5-B

Ecological Constraints (from site survey):
- No ecological constraints.

Archaeological Constraints (from site survey):
- If cleanup is conducted and heretofore undiscovered cultural materials are uncovered contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

EXXON: ___________________________ Date: __________________

FOSC: ____________________________ Date: __________________

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION FORM - KODIAK

Date: 1989/Time: 13:42 Observer: Mike Miles
Surveyed From: Foot/Boat/Helio/Plane Weather: Sun/Cloud/Rain/Snow/Fog
LOCATION EAST SIDE OF BUMBLE BAY SEGMENT I.D. K-7-1 - LC-12

LENGTH OF SHORELINE SEGMENT: 2200 m
ACCESS: Foot/Vehicle/Boat/Barge/Plane

SHORELINE:
Shoreline Type: SPI/BEA/COV/HLD/STRT Slope: LANG/HANG/VER
Wave Exposure: High/Med/Low
Sediment: B/Lt / C/Lt / P/Lt / H/Lt / M/Lt / R/Lt
Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type

OIL
Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved/Very Light
Total Area of Beach Impact: SU / SP / H / M / L

OIL DISTRIBUTION
Continuous: Y/N Segment No. Bands Width
Sporadic: Y/N Segment No. Bands Min/Max Dia Impact Width
Est. Oil Thickness where > 1cm: cm SU / SP / UP / MID / LO
Depth below top seds
Est. Oil Penetration: cm SU / SP / UP / MID / LO
Layers? Yes/No No. Layers Oil Weathering

Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H / M / L / VL

OIL MORPHOLOGY
Pooled Oil "Free" Oil Spattered H/M/L/VL Sheen

OIL WEATHERING (OW)
Fresh Oil Choc Mousse SU/SP/VP/MID/LO
Pancake Mousse Asphalt Mousse SU/SP/VP/MID/LO
Tar Formation

Comments:

This Segment consists of a wide sandy beach located between 2 rocky headlands.

ACE 8707980

No oil or oiled debris was found on this beach and no cleanup activities are required at this time.
DOCUMENTATION:

Aerial photo marking segment boundaries

VTR: Y/N Tape Number(s)

Photography: Y/N Roll Number(s) DMC-15

Sample Numbers Collected: N/A
ECOLOGICAL EVALUATION

LOCATION: Bumble Bay

SITE: 

LOCATION PREFIX: LC
SEG. NO.: 12
LENGTH: 2200 (M)

DATE: 6/24/89
TIME (HHMM): 1330
TIDE HT.: +0.5 (M)

OILED ZONE: Splash High Medium Low None

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Littorina Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS: No abnormally low, dead, and contracted cod, fish, and mussels observed.

CLEANUP PRECAUTIONS: None.

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___ Other ___

BIRDS: ___________ offshore - herring, puffins, and gulls.

GENERAL OBSERVATIONS: Algae, barnacles reported to exist here; only few seen.

ACE 3707982
EAST END OF BUMBLE BAY
SEGMENT K7-1-LC-12
SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): K7-2

Includes Shoreline Segments: LC-8, LC-9, LC-10, LC-11

Location: Bumble Bay

Submitted: [Signature] Date: ______________
(for Exxon)

FOSC Approval: [Signature] Date: ______________

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. Requirements for safety and the protection of cultural material must be observed.

CC: KISCC
(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/15/89

SHORELINE SEGMENT K7-2-LC-11

LOCATION: (see enclosed map) East of Bumble Bay

ADEC NO. _______________ SHORELINE ASSESSMENT DATE: 6/24/89

Recommended Cleanup Activity(ies):
- No cleanup recommended at this time (subject to FOSC reassessment at a later date).
- No oil observed.

Priorities/Considerations: Class 4-B

Ecological Constraints (from site survey):
- No ecological constraints.

Archaeological Constraints (from site survey):
- If cleanup is conducted and heretofore undiscovered cultural materials are uncovered contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer *

EXXON: ______________________ Date: ______________

FOSC: ______________________ Date: ______________

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
Date: 1989/ Time: 12:10
Observer: MIKE MILES
Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION
Rocky Headland South
SEGMENT I.D. K7-2 - LC-11

LENGTH OF SHORELINE SEGMENT: 5,500 m
difficult but possible on
a calm day.

ACCESS: Foot/Vehicle/Boat/Barge/Helicopter/Float Plane

SHORELINE:
Shoreline Type: SPI/BEA/COV/HLD/STRT
Slope: LANG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B_0 / C_ ? / P_5 / G_ ? / S_ ? / M_ ? / R_75 ?

Drift Debris on Beach: Yes/No
Supra/Upper/Mid/Lower Type ______

OIL:
Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved/Very Light
Total Area of Beach Impact: SU / SP / H / M / L

OIL DISTRIBUTION
Continuous: Y/N Segment _ No. Bands ______ Width ______

Sporadic: Y/N Segment _ Min/Max Dia ______ Impact Width ______

Est. Oil Thickness where > 1 cm: K/A cm: SU / SP / UP / MID / LO
Depth below top sedi

Est. Oil Penetration: 0 cm SU / SP / UP / MID / LO

Layers? Yes/No
No$_ 1$ Layers ______ Oil Weathering ______

Drift Debris Oiled? Yes/No
Supra/Upper/Mid/Lower Amount: H / M / L / VL

OIL MORPHOLOGY
Pooled Oil 0 _ "Free" Oil 0 _ Spattered 0 _ H/M/L/VL Sheen ___

OIL WEATHERING (CW)
Fresh Oil 0 _ SU/SP/VP/MID/LO Choc Mousse 0 _ SU/SP/VP/MID/LO

Pancake Mousse 0 _ SU/SP/VP/MID/LO Asphalt Mousse 0 _ SU/SP/VP/MID/LO

Tar Formation 0 _

Comments:

This rocky headland contains a number of small beaches and embayments. A discontinuous boulder sector occurs approximately 20% of this segment.

No oil was observed during a low level helicopter flight and no clean-up is required at this time.
DOCUMENTATION:

Map: Aerial photo marking segment boundaries See Attached

VTR: Y/N  Tape Number(s) ________________________________

Photography: Y/N  Roll Number(s) ________________________________

Sample Numbers Collected: N/A ________________________________
ECOLOGICAL EVALUATION

LOCATION: Bumble Bay
SITE: 
LOCATION PREFIX: LC
SEG. NO.: 11
LENGTH: 5500 (M)
DATE: 6/24/89
TIME (HHMM): 1320
TIDE HT.: +0.2 (M)
OILED ZONE: Splash High Medium Low
SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

**Fucus (algae):** Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

**Mytilus (Mussels):** Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

**Balanus (Barnacles):** Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

**Littorina**
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

**Limpets:** Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

**Unknown**

OTHER OBSERVATIONS:
Not surveyed from ground - focus mytilus + shore
Whales from air

CLEANUP PRECAUTIONS: None

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales _____

BIRDS: Murres puffins common albatross

GENERAL OBSERVATIONS: had no GPS at observed site, did not use telemeter
This segment surveyed by Ken only, no oil observed
Rocky Headland South of Bumble Bay

Segment K7-2-LC-11
SHORELINE CLEANUP PROGRAM

DATE 7/15/89

SHORELINE SEGMENT K7-2-LC-10

LOCATION: (see enclosed map) Kodiak Island, north of Ayakulik River to south of Bumble Bay

ADEC NO. _______ SHORELINE ASSESSMENT DATE: 6/24/89

Recommended Cleanup Activity(ies):
- No cleanup recommended at this time (subject to FOSC reassessment at a later date).
- No oil observed.

Priorities/Considerations: Class 3-1

Ecological Constraints (from site survey):
- No ecological constraints.

Archaeological Constraints (from site survey):
- If cleanup is conducted and heretofore undiscovered cultural materials are uncovered contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

[Signature]
State Historic Preservation Officer *

Date: 7/20/89

EXXON: ___________________________ Date: __________________

FOSC: ___________________________ Date: __________________

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION FORM - KODIAK

Date: 6/24/89 Time: 13:05 Observer: Mike M...

Surveyed From: Foot/Boat/Helicopter/Plane Weather: Sun/Clear/Cloud/Rain/Snow/Fog

LOCATION
AYAKULIK RIVER TO HEADLAND SOUTH OF BUMBLE BAY SEASONAL WATER LEVEL:

SEGMENT I.D.: K7-2-LC-10

LENGTH OF SHORELINE SEGMENT: 6900 m

ACCESS: Foot/Boat/Barge/Plane

SHORELINE:

Shoreline Type: SPI/BEA/COV/MSR/STR
Slope: LANG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: D2t / C8t / P15t / C20t / S20t / M5t / R...

Drift Debris on Beach: Yes/No (Supra) Upper/Mid/Lower Type

OIL:

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Total Area of Beach Impact: SU / SP / H / M / L

OIL DISTRIBUTION:

Continuous: Y/N Segment 1. No. Bands Width

Sporadic: Y/N Segment 1. Min/Max Dia. Impact Width

Est. Oil Thickness where > 1cm: H/A cm SU / SP / UP / MID / LO

Est. Oil Penetration: O2. cm SU / SP / UP / MID / LO

Layers? Yes/No No. Layers Oil Weathering

Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H / M / L / VL

OIL MORPHOLOGY:

Pooled Oil O % "Free" Oil O % Spattered O % H/M/L/VL Sheen

OIL WEATHERING (OW):

Fresh Oil O % SU/SP/VP/MID/LO Choc Mousse O % SU/SP/VP/MID/LO

Pancake Mousse O % SU/SP/VP/MID/LO Asphalt Mousse O % SU/SP/VP/MID/LO

Tar Formation O %

Comments:

SEE ATTACHED COMMENT SHEET
DOCUMENTATION:

Map Aerial photo marking segment boundaries [See Attached]

VTR: Y/N Tape Number(s) 

Photography: Y/N Roll Number(s) DMC-15

Sample Numbers Collected: N/A
This long beach is backed by a 10 to 20 m high unconsolidated cliff. Beach sediments on the southern end of this segment consist principally of sand but include cobble, boulders and fine textured sediments which have been eroded from the backshore. On the northern end of the segment, the cliff face is not being actively eroding and the beach sediments consist almost entirely of sand/gravules.

No oil was found in this segment and the beach driftwood is un-oiled/seaweeded.

No clean up or activity is required at this time.
ECOLOGICAL EVALUATION

LOCATION: To South of Buoy 11-1 SITE: _________________________
LOCATION PREFIX: LC SEG. NO.: 10 LENGTH: 6900 (M)
DATE: 6/24/89 TIME (HHMM): 1235 TIDE HT.: -0.2 (M)
OILED ZONE: Splash High Medium Low None
SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA
Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

M. Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Shells only

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS: Blue mussel shells, algae in debris line dead tissues

CLEANUP PRECAUTIONS:

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other ___

BIRDS: offshore: immatures, puffins (Tufted and Horned), gulls

GENERAL OBSERVATIONS: No oil was observed in this segment.
AYAKULIK RIVER TO HEADLAND SOUTH OF BUMBLE BAY
SEGMENT K7-2-LC-10
SHORELINE CLEANUP PROGRAM

DATE  7/15/89          SHORELINE SEGMENT K7-2-LC-9

LOCATION: (see enclosed map) Ayakulik River, Kodiak Island

ADEC NO. ___________ SHORELINE ASSESSMENT DATE: 6/24/89

Recommended Cleanup Activity(ies):
- No cleanup recommended at this time (subject to FOSC reassessment at a later date).
- No oil observed.

Priorities/Considerations: Class 3-5

Ecological Constraints (from site survey):
- No ecological constraints.

Archaeological Constraints (from site survey):
- If cleanup is conducted and heretofore undiscovered cultural materials are uncovered contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

EXXON: ___________________________ Date: __________________

FOSC: ___________________________ Date: __________________

State Historic Preservation Officer *

Date: 7/20/89

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
**SHORELINE OIL EVALUATION FORM - KODIAK**

**Date:** June 24, 1989  
**Time:** 11:30  
**Observer:** Mike Miles

**Surveyed From:** Foot/Boat/Plane  
**Weather:** Sun/Cloud/Rain/Snow/Fog

**LOCATION**  
**LOCATION:** Anchor River  
**SEGMENT I.D.:** K1-2 - LC-9

**LENGTH OF SHORELINE SEGMENT:** 400 m

**ACCESS:** Foot/Vehicle/Boat/Barge/Helicopter/Float Plane

**SHORELINE:**  
**Shoreline Type:** SPI/DEA/COV/HIL/STRT  
**Slope:** LANG/HANG/VER

**Wave Exposure:** High/Med/Low

**Sediment:**  
- D30% / C30% / D50% / M30% / R...

**Drift Debris on Beach:** Yes/No  
- Supra/Upper/Mid/Lower Type logs

**OIL**  
**Degree of Oiling:** Heavy/Moderate/Light/No Oil/Unobserved

**Total Area of Beach Impact:** SU / SP / H / M / L

**OIL DISTRIBUTION**  
- **Continuous:** Y/N  
  - Segment t. ______  
  - No. Bands ______  
  - Width ______
  
- **Sporadic:** Y/N  
  - Segment t. ______  
  - Min/Max Dia. ______  
  - Impact Width ______

**Est. Oil Thickness where > 1cm:** N/A cm  
**SU / SP / UP / MID / LO**

**Est. Oil Penetration:** ______ cm  
**SU / SP / UP / MID / LO**

**Layers?** Yes/No  
- No Layers ______  
- Oil Weathering ______

**Drift Debris Oiled?** Yes/No  
- Supra/Upper/Mid/Lower ______  
- Oil Weathering ______

**OIL MORPHOLOGY**  
- Pooled Oil Q  
- "Free" Oil Q  
- Spattered Q  
- H/M/L/VL Sheen Q

**OIL WEATHERING (OW)**  
- Fresh Oil Q  
  - SU/SP/VP/MID/LO  
  - Choc Mousse Q  
  - SU/SP/VP/MID/LO

- Pancake Mousse Q  
  - SU/SP/VP/MID/LO  
  - Asphalt Mousse Q  
  - SU/SP/VP/MID/LO

- Tar Formation Q

**Comments:**  
SEE ATTACHED COMMENT SHEET
DOCUMENTATION:
Map/Aerial photo marking segment boundaries See Attached

VTR: Y/N Tape Number(s) ________________________________

Photography: Y/N Roll Number(s) DMC - 15

Sample Numbers Collected: N/A

ACE 3796002
Representative beach cross-section

Terrace with house
Flood plain
Ayakulik River
Storm beach and logs
Sands, pebbles and cobbles beach

400 m ← 15 m ← 60 m ← 750 m →
Mike Miles  
June 24/87

AYAKULIK RIVER  
SEGMENT K7-2-LC-9

COMMENTS  
AYAKULIK RIVER

This segment consists of a wide sandy, pebbly, cobbly beach and berm at the mouth of Ayakulik River.

No oil was observed on these beach sediments. The Alaska Department of Fish and Game has 2 fish biologists/technicians living at this site. They reported that a 1 to 3 m wide band of 'spotted tar' was on this beach approximately 3 weeks ago. None of this oil is now evident on the beach.

Small quantities of spotted tar occurs on pieces of driftwood located along the high tide line. This oil is now dry and firmly attached or soaked into the driftwood and this material has no potential for causing any re-oiling problems.

No clean-up activities are recommended at this time since balls of tar are < 1 cm in diameter and occur at low densities.
ECOLOGICAL EVALUATION

LOCATION: NAKULKE KF-7-2- SITE: OBSERVER: D. McCORMICK
LOCATION PREFIX: LC SEG. NO.: 9 LENGTH: 800 (M)
DATE: 6/24/89 TIME (HHMM): 1100 TIDE HT.: +0.5 (M)
OILED ZONE: Splash High Medium Low None
SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS: 2 sets bear tracks going N, 1 set going S. I saw a ruficollis
aboriginal, not shells. Deer tracks in mud.

CLEANUP PRECAUTIONS: No cleanup recommended due to scarcity of seals

MAMMALS: Otters Harbor Seals Sea Lions Whales
Other all species of marine use (e.g. seal)

BIRDS: 16 eagles observed at river mouth, gulls and puffins off shore, a wild turkey
GENERAL OBSERVATIONS: The ADFG field camp set up here to monitor or keep an eye on

Ducks in high ETZ. Very lightly oiled. DNR staff sail area became sandbars (2/7/89)
approximately 3 weeks ago, but little evidence of this remains (this is a high
energy beach).

ACE 8708005
SHORELINE CLEANUP PROGRAM

DATE 7/15/89  SHORELINE SEGMENT K7-2-LC-8

LOCATION: (see enclosed map) Kodiak Island, low cape to Ayakulik River

ADEC NO.  SHORELINE ASSESSMENT DATE: 6/24/89

Recommended Cleanup Activity(ies):
- No cleanup recommended at this time (subject to FOSC reassessment at a later date).
- No oil observed.

Priorities/Considerations: Class S-I

Ecological Constraints (from site survey):
- No ecological constraints.

Archaeological Constraints (from site survey):
- If cleanup is conducted and heretofore undiscovered cultural materials are uncovered contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer *
Date: 7/20/89

EXXON:
Date:

FOSC:
Date:

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION FORM - KODIAK

Date: 6/24/93 Time: 10:00 to 11:00 Observer: MIKE MILES

Surveyed From: Foot/Boat/Helicopter Plane Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION
Location: Low Cape to Amakulik River

LENGTH OF SHORELINE SEGMENT: 2200 m

ACCESS: Foot/Vehicle/Boat/Barge/Helicopter/Float Plane

SHORELINE:
Shoreline Type: SPI/BEACH/OILY/HLG/STRP

Wave Exposure: High/Med/Low

Sediment: BV/CL/PC/SP/M/R

Drift Debris on Beach: Yes/No

OIL
Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved/Very Light

Total Area of Beach Impact: SU/SP/H/M/L

OIL DISTRIBUTION
Continuous: Y/N Segment #: No. Bands Width

Sporadic: Y/N Segment #: Min/Max Dia Impact Width

Est. Oil Thickness where > 1cm: H/L cm: SU/SP/UP/MID/LO

Est. Oil Penetration: cm SU/SP/UP/MID/LO

Layers? Yes/No

Oil Weathering:

Drift Debris Oiled? Yes/No

OIL MORPHOLOGY

Pooled Oil "Free" Oil Spattered Oil H/M/L/OL Sheen

Fresh Oil SU/SP/VP/MID/LO Choc Mousse

Pancake Mousse SU/SP/VP/MID/LO Asphalt Mousse

Tar Formation

Comments:

SEE ATTACHED COMMENT SHEET

ACE 8708009
DOCUMENTATION:

Map/Aerial photo marking segment boundaries

VTR:  Y/N  Tape Number(s)  

Photography:  Y/N  Roll Number(s)  

Sample Numbers Collected:  /n/
Low Cape to Ayakulik River
Segment K7-2-LC-8

Mike Miles
June 24, 1989

Comment
Shoreline Oil Evaluation

This long segment consists of a sand/pebble/cobble beach backed by a 15 to 30 m high unconsolidated continuous cliff.

No oil was observed in this segment except for a few small (< 3 cm diameter) tar splatters on the occasional large boulder. Occasional pieces of drift wood with small spots of tar at the base of the cliff face. The total amount of oil on this beach on June 24/89 is so small that this segment has been coded as having no oil.

No cleanup activities are required at this time.

*1 Total number observed is < 5 over 22 km
*2 Total number observed in is < 10 over 22 km
ECOLOGICAL EVALUATION

LOCATION: Avatilik R.  
SITE:  
SEG. NO.: 8  
LENGTH: 2200 m

DATE: 6/24/89  
TIME (HMM): 1000  
TIDE HT.: +1.0 m

OILED ZONE: Splash High Medium Low  
NO OIL

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Littorina  
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS:  
Sewage in water, fish in water,  
Sewer pipes (app unknown), 2 bird eagles

CLEANUP PRECAUTIONS:  

MAMMALS: Otters  
Harbor Seals  
Sea Lions  
Whales  
Other (specify)

BIRDS:  
Eagles, Owls

GENERAL OBSERVATIONS:  
No oiled areas, assessment incomplete. Fish were only  
Noted above were observed from helicopter.

ACT 8700312
Low Cape to Ayatulik River

Segment K-7.2-LC-8
LOW CAPE TO
AYATULIK RIVER
SEGMENT K-7-2-LC-8
Sheet 2 of 2

Δ areas where subsurface excavations were undertaken

ACE 8708015-1-1
SHORELINE CLEANUP PROGRAM

DATE  6/29/89
SHORELINE SEGMENT  LC-1

LOCATION: (see enclosed map)  LOW CAPE-KODIAK ISLAND

ADEC NO.  ______  SHORELINE ASSESSMENT DATE:  6/18/89

Recommended Cleanup Activity(ies):
Recommend letting natural processes clean this segment. However, if cleanup is to be undertaken, appropriate techniques include:
Hot water and/or high pressure washing.
Manual removal of tar with sorbent rags on a warm day.
Other approved techniques as appropriate.

Priorities Considerations:  Class 4-B
Critical resources not immediately present, however KISCC considers this a sensitive area due to local salmon use areas and pinniped haulouts.

Ecological Constraints (from site survey):
Avoid contamination of lower intertidal zone during cleanup.

Archeological Constraints (from site survey):
If cleanup is conducted and heretofore undiscovered cultural materials are uncovered, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE CLEANUP PROGRAM

DATE __6/29/89__  SHORELINE SEGMENT __LC-1__

LOCATION: (see enclosed map) __LOW CAPE-KODIAK ISLAND__

ADEC NO. ___________  SHORELINE ASSESSMENT DATE: __6/18/89__

Recommended Cleanup Activity(ies):
Recommend letting natural processes clean this segment. However, if cleanup is to be undertaken, appropriate techniques include:
- Hot water and/or high pressure washing.
- Manual removal of tar with sorbent rags on a warm day.
- Other approved techniques as appropriate.

Priorities Considerations: Class 4-B
Critical resources not immediately present, however KISCC considers this a sensitive area due to local salmon use areas and pinniped haulouts.

Ecological Constraints (from site survey):
Avoid contamination of lower intertidal zone during cleanup.

Archeological Constraints (from site survey):
If cleanup is conducted and heretofore undiscovered cultural materials are uncovered, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup, dated 4/21/89 as amended.

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION FORM - KODIAK

Date: 18/09
Time: 09:45
Observer: Mike Moore

Surveyed From: Foot/Boat/Helio/Plane
Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION
LOCATION: K-7-2
CAPE SEGMENT I.D.: LC-1

LENGTH OF SHORELINE SEGMENT: 2000 m

ACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane

SHORELINE:
Shoreline Type: SPA/BEA/COV/HLD/STRF
Slope: LAND/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B / C / P / S / M / R

Drift Debris on Beach: Yes/No
Supra/Upper/Mid/Lower Type

OIL
Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Total Area of Beach Impact: SU / SP / H / M / L

OIL DISTRIBUTION
Continuous: Y/N
Segment #: No. Bands: Width:

Sporadic: Y/N
Segment #: Min/Max Diag: Impact Width: 50-100 cm

Est. Oil Thickness where > 1 cm: [ ] cm
Est. Oil Penetration: [ ] cm

Layers: Yes/No
No. Layers: Oil Weathering:

Drift Debris Oiled?: Yes/No
Supra/Upper/Mid/Lower Amount: H / M / L / V

OIL MORPHOLOGY
Pooled Oil: "Free" Oil: % Spattered: % II/H/L/ML Sheen: %

OIL WEATHERING (OW)
Fresh Oil: % SU/SP/VP/MID/LO Choc Mousse: % SU/SP/VP/MID/LO
Pancake Mousse: % SU/SP/VP/MID/LO Asphalt Mousse: % SU/SP/VP/MID/LO
Tar Formation: %

Comments:

See attached Comment sheet and map.

ACE 8708010
The backshore along this segment consists of an un-consolidated 8 to 10 m high fine-textured cliff. A cobble-boulder
skeletal/shelf bench, with a sand veneer, occurs at the cliff base. The low to upper 11Z consists of a wide
low gradient cobble/boulder beach. The site is situated in a high wave energy environment.

All oil contamination on this segment consists of dried/oxidized tar "spots" which range in diameter from 1 to 5 cm. The density of spots in contaminated areas range from 1 or 2 per 30 m of
coast to 1 or 2 spots/m² of beach. Due to the
low beach gradient and the large size of
many of the boulders, the oiled section of beach
is essentially up to 50-100 meters.

Due to the dried/oxidized nature of the oil, and
high pressure hot water would likely be required for
effective cleaning. However, given the small volumes of
weathered

oil on the beach, and the difficulty in working on a
low gradient boulder beach, oil recovery rates are likely to be
Given the high wave exposure environment, natural processes are expected to clean this beach over a comparatively short time period (possibly 1 winter). If clean-up were to be undertaken, hand application of sorbents on a hot day would likely be most effective. However this process is expected to take a great deal of effort and the recovery of very little oil.

Representative cross-section:

- 3-10 m high cliff composed of unconsolidated fine textured sediments
- cobble boulder spring tide beach
- sand pebble beach
- low angle cobble boulder beach

13 m, 8 m -> 300-400 m ±
Mike Miles
Jun. 18/39
10:15

\[ \text{K-7-3} \]
\[ \text{K-7-2} \] \{ LC-1 \}
LOW CAPE

\[ \text{Water line at low tide} \]

Unconsolidated fine textured cliff up 5-13 m high

\[ \text{occasional tar spots on mid to upper ITZ} \]

Cobble Boulder berm with a sand veneer

width 300 m \pm 100 m

ACE 8708021
POOR QUALITY ORIGINAL
DOCUMENTATION:
☑ Aerial photo marking segment boundaries  See Attached

VTR: Y/N  Tape Number(s) ________________________________

Photography: Y/N  Roll Number(s)  JT - 2

Sample Numbers Collected: N/A ________________________________
ECOLOGICAL EVALUATION

LOCATION: Low Cape  SITE: Low Cape  OBSERVER: J. Tooley
LOCATION PREFIX: K7/4C-1  SEG. NO.: K7-3C-1  LENGTH: 2000 (M)
DATE: 6/19/89  TIME (HHMM): 0915  TIDE HT.: - 0.25 (M)
OILED ZONE: Splash High Medium Low
SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Shells present also

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Continuous cover but dense in most places and sparse in few others

Littorina

Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Limpets:

Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS:

Clean shells are abundant. Clean but in sandy substrate
beyond boulder beach, higher T-Z area.

CLEANUP PRECAUTIONS:

Avoid oiling lower T-Z

MAMMALS: Otters  Harbor Seals  Sea Lions  Whales

Other  Fox on beach  Deer Ticks

BIRDS: Swallows over cliffs. Gulls over T-Z

GENERAL OBSERVATIONS:

High T-Z were oil is present is primarily
on sandy areas and adjacent boulders. Some patches of algae and
Littorina in pools only. These pools do not appear to be oiled.
Moderate amount of drift material on sandy beach (not oiled).
SHORELINE CLEANUP PROGRAM

DATE __________________ SHORELINE SEGMENT K-7-3-LC-1
LOCATION: (see enclosed map) Low Cape, Kukak Island

ADEC NO. _______ SHORELINE ASSESSMENT DATE: 6/19/89

Recommended Cleanup Activity(ies):
Let natural processes clean this segment. However, if cleanup is to be undertaken, appropriate techniques are:
- hot water /or high pressure washing
- manual removal of tar with solvent on a warm day
- other techniques as appropriate

Priorities Considerations: [A - B]
- Critical resources not immediately present, however KISC considers this a sensitive area due to local salmon use and frequented by humans.

Ecological Constraints (from site survey):
Avoid contamination of lower ITZ during cleanup.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer * Date: __________________

EXXON: ___________________________ Date: __________________

FOSC: ____________________________ Date: __________________

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): KODIAK-CAPE ALITAK BLOCK

Includes Shoreline Segments: LC-6, LC-7

Submitted: ___________________________ Date: __________
(for Exxon)

ISCC Recommendation: ___________________________ Date: __________

FOSC Approval: ___________________________ Date: __________

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

Distribution:
Exxon Shoreline Coordinator
Exxon Shoreline Supervisor
Exxon SCAT file

K15CC:
ACE 8703027

ACE 8703027 -
(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 6/21/89  SHORELINE SEGMENT LC-7

LOCATION: (see enclosed map) CAPE ALITAK-KODIAK ISLAND

ADEC NO. SHORELINE ASSESSMENT DATE: 6/18/89

Recommended Cleanup Activity(ies):
- No cleanup recommended at this time (subject to FOSC approval).
  See archaeological constraints below.

Priorities Considerations:
KISCC considers this a sensitive area due to pinniped haulouts.

Ecological Constraints (from site survey):
Avoid traffic through mytilus and bolanus growth areas.
Avoid grassy hillsides and f/w ponds as much as possible.

Archeological Constraints (from site survey):
Because of the nature and significance of the cultural resources in this area, it is recommended that this segment not be cleaned.

State Historic Preservation Officer *
Date: June 23, 89

ISCC: 
Date: 

EXXON: 
Date: 7/7/89

FOSC: 
Date: 

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION FORM - KODIAK

Date: 1989/10/20  
Time: 15:00  
Observer: MIKE MILES

Surveyed From: Foot/Boat/Heli/Plane  
Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION
KODIAK ISLAND: ALITAK  
SEGMENT I.D. K7-3-LC-7

LENGTH OF SHORELINE SEGMENT: 440 m

ACCESS:  Foot/Boat/Heli/Plane  
 calms during only

SHORELINE:
Shoreline Type: SPI/BEA/COV/HL/STRT  
Slope: LANG/HANG/VER

Wave Exposure: High/Mod/Low

Sediment: D20 / C10 / P / G / S / M / R / J0

Drift Debris on Beach: Yes/No  
Supra/Upper/Mid/Lower Type

OIL
Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Total Area of Beach Impact: SU/SP/H/M/L

OIL DISTRIBUTION
Continuous: ( )  
Segment: 15 No. Hands) Width: 6-8 m

Sporadic: ( )  
Segment: 5 Min/Max Dia: 5-6 m Impact Width: 6-8 m

Est. Oil Thickness where > 1 cm: H/A cm  
SU/SP/UP/MID/LO

Est. Oil Penetration: ≤ 1 cm  
SU/SP/UP/MID/LO

Layers: Yes/No  
No/Layers: Oil Weathering

Drift Debris Oiled?: Yes/No  
Supra/Upper/Mid/Lower Amount: [H/M/L/V]

OIL MORPHOLOGY
Pooled Oil [ ] 4 "Free" Oil [ ]  
Spattered [ ] 4 H/H/L/VL Sheen [ ]

OIL WEATHERING (OW)
Fresh Oil [ ]  
SU/SP/VP/MID/LO Choc Mouse [ ]  
SU/SP/VP/MID/LO

Pancake Mouse [ ]  
SU/SP/VP/MID/LO Asphalt Mouse [ ]  
SU/SP/VP/MID/LO

Tars Formation [ ]

Comments:

This rocky section of beach contains 3 covers with boulders.  
If possible, see mound for details of oil contamination.

This peak is high.  Pressure not your would be issues  
for effective cleaning.  Average geology constant.  Most warrant limit.

ACE 8703029
DOCUMENTATION:

Map: Aerial photo marking segment boundaries see attached.

VTR: Y/N Tape Number(s): ________________________________

Photography: Y/N Roll Number(s): 3T-2

Sample Numbers Collected: N/A ________________________________
Beach 4:
Boulder beach. > 5 cm diameter tar "splatters" on top surface of boulders. Near continuous tar/mousse coatings between and under boulders. Contaminated band 6-8 m wide. Beach length 15 to 20 m. High pressure hot water would be required to effectively clean this area.

Beach 5:
Cobble boulder beach 25 m long. Dried tar splatters < 5 cm diameter. Over 30% of mud to high tar. No penetration. Oil generally on larger cobbles and boulders. Mud to high pressure hot water required to effectively clean this area.

Beach 6:
Boulder Beach. 15 m wide. 50% coverage of tar and mousse. Some oiled drifted seaweed. No oiled logs. Most exposed sections of beach have been partially cleaned by wave action. Mud to high pressure hot water would be required to effectively clean this area.
ECOLOGICAL EVALUATION

LOCATION: Low Cape
SITE: Cape Albatross

LOCATION PREFIX: K7/16
SEG. NO.: K-7-3-6-7
LENGTH: 440 (M)

DATE: 6/19/89
TIME (HH:MM): 1345
TIDE HT.: +2.2

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS: The above description is for pocket Boulder benches. Adjacent to Mussels benches are rocky outcrops rich & diverse in intertidal area which are not oiled.

CLEANUP PRECAUTIONS: Avoid traffic through Mytilus and Balanus areas. Avoid grazsy willows and F/I meshes as much as possible.

MAMMALS: Otters Harbor Seals Sea Lions Whales

BIRDS: Gulls

GENERAL OBSERVATIONS: Perch KBK mossy splatter covering rocks & rock faces.
Littorina abundant and living on oiled rock. Oiled littorina, limpet, & Mytilus slow to respond.

ACE 8706032
The prudent mariner on any single aid to navigation is not provided. See U.S. List and U.S. Coast Pilot.
SHORELINE CLEANUP PROGRAM

DATE______6/29/89______ SHORELINE SEGMENT____LC-2____

LOCATION: (see enclosed map)____LOW CAPE-KODIAK ISLAND____

ROCKY BEACH SOUTH EAST OF LOW CAPE

ADEC NO.__________SHORELINE ASSESSMENT DATE: 6/18/89______

Recommended Cleanup Activity(ies):
Recommend letting natural processes clean this segment. However, if cleanup is to be undertaken, appropriate techniques include:
Hot water and/or high pressure washing.
Manual removal of tar with sorbent rags.
Other approved techniques as appropriate.

Priorities Considerations: Class 5-B
Critical resources not immediately present, however KISCC considers this a sensitive area due to local salmon use areas and pinniped haulouts.

Ecological Constraints (from site survey):
Avoid contamination of lower intertidal zone during cleanup.

Archeological Constraints (from site survey):
If cleanup is conducted and heretofore undiscovered cultural materials are uncovered, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer *

EXXON:________________________________________ Date: 7/1/89

FOSC:______________________________ acknowledged Date: 7/20/89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION FORM - KODIAK

Date: June 18, 1989  Time: 11:37  Observer: Mike Miles

Surveyed From: Foot/Boat/Helix Plane  Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

LENGTH OF SHORELINE SEGMENT: 7900 m

ACCESS: Foot/Vehicle/Boat/Barge/Helix/Floating Plane

SHORELINE:

Wave Exposure: High/Med/Low

Sediment: B80 / C15t / PS1 / C.t / S.t / M.t / R.t

Drift Debris on Beach: Yes/No  Supra/Upper/Mid/Lower Type Lost + Sec

OIL:

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Total Area of Beach Impact: SU / SP (H / M) / L

OIL DISTRIBUTION

Continuous: Y/N  Segment #: ______ No. Bands Width ______

Sporadic: Y/N  Segment #: ______ Min/Max Dia. ______ Impact Width ______

Est. Oil Thickness where > 1 cm: ______ cm  SU / SP / UP / MID / LO

Est. Oil Penetration: ______ cm  SU / SP / UP / MID / LO

Layers? Yes/No  No Layers ______ Oil Weathering ______

Drift Debris Oiled? Yes/No  Supra/Upper/Mid/Lower Amount: H / M / L / VI

OIL MORPHOLOGY

Pooled Oil  ______ "Free" Oil  ______ Spattered  ______ H/M/L/VI Sheen ______

OIL WEATHERING (OW)

Fresh Oil  ______ SU/SP/VP/MID/LO  Choc Mousse  ______ SU/SP/VP/MID/LO

Pancake Mousse  ______ SU/SP/VP/MID/LO  Asphalt Mousse  ______ SU/SP/VP/MID/LO

Tar Formation  ______

Comments:

See attached comment sheet.  ACE 8708039
The backshore in this segment consists of a 30 m high cliff composed of unconsolidated sediments. The foreshore consists of a low angle cobble boulder beach with a sand pebble veneer/berm at the high tide line.

This segment was flown over 4 times in a helicopter - once at 3 to 5 m off the beach at a very slow speed. The only oil observed was adjacent to a poorly defined headland area (see location map) which projects further out than the surrounding portions of this segment. The oil consists of a very light concentration of tar "spills" at the mid to upper ITZ. Spots are generally 0.2 to 3 cm in diameter and occur preferentially on the larger boulders.

Given the weathered state of this oil, hot water +/a high pressure washing will possibly be required for effective clean-up. However, can't wait.
COMMENTS
SHORELINE OIL EVALUATION

Given the size of the boulders on this beach and the low gradient of the shoreline, recovery of the small amount of oil on this beach will be difficult. Manual oil removal using sorbent towells on a hot day might also be an effective treatment. However, substantial effort would be required in order to pick up a comparatively small quantity of oil. The best alternative is likely to let the remaining oil portion alone; this beach—which will likely occur over a relatively short time period [2-7 years].

Mike Miles
June 18/89
Page 2 of 2
DOCUMENTATION:

Map/Aerial photo marking segment boundaries  

VTR:  Y/N  Tape Number(s)  

Photography:  Y/N  Roll Number(s)  ST-2  

Sample Numbers Collected:  N/A  

ACE 8708042
LOCATION: Low Cape  SITE: Rocky beach  SEG. NO.: K-7-1C-2  OBSERVER: J. Tarpley
LOCATION PREFIX: K-7/1C-2  SEG. NO.: K-7-3/1C-2  LENGTH: 7870 (M)
DATE: 6/11/89  TIME (HHMM): 11/15  TIDE HT.: + 0.25 (M)
OILED ZONE: Splash (High) Medium Low
SUBSTRATUM: Rocks (Boulder Cobble Gravel) Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS: Clamshells. All biota concentrated in higher ITZ pools. Moderate amount of drift high on beach.

CLEANUP PRECAUTIONS: Avoid oil contamination of lower ITZ.

MAMMALS: Otters Harbor Seals Sea Lions Whales
Other Fox Tracks

BIRDS: Gulls

GENERAL OBSERVATIONS: Pancake splatter on rocks, little if any apparent effect on organisms.

ACE 8708043
SHORELINE CLEANUP PROGRAM

DATE____________________  SHORELINE SEGMENT K-7-3-LE-2

LOCATION: (see enclosed map) Rocky Beach St. Of Low Cape

Kodiak Island

ADEC NO. ___________ SHORELINE ASSESSMENT DATE: 6/18/89

Recommended Cleanup Activity(ies):

Let natural process clean this beach. However if cleaning is required, appropriate techniques include:

1) High pressure water washing
2) Manual removal of tar with solvent vapors

See Comment Sheet

Priorities Considerations:

- Critical resources not immediately present however KESC considers this a sensitive area due to local salmon use near and pinned haulouts.

Ecological Constraints (from site survey):

- Avoid contamination of lower ITZ during cleanup.

Archeological Constraints (from site survey):

If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer * Date: __________________

EXXON: ___________________________ Date: __________________

FOSC: ____________________________ Date: __________________

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE CLEANUP PROGRAM

DATE 6/29/89

SHORELINE SEGMENT LC-3

LOCATION: (see enclosed map) LOW CAPE-KODIAK ISLAND

SANDY BEACH SOUTH EAST OF LOW CAPE TO SOUTH SIDE OF SUKHOI BAY

ADEC NO. SHORELINE ASSESSMENT DATE: 6/18/89

Recommended Cleanup Activity(ies):
No cleanup recommended at this time, subject to FOSC approval. Very small quantities of oil occur on this segment and there is high potential for wave action to clean this area.

Priorities Considerations: Class 5-A
KISCC considers this a sensitive area due to salmon runs in Sukhoi Bay.

Ecological Constraints (from site survey):
Should oiling occur and cleanup take place. Avoid contamination of Sukhoi Bay. Stay out of grassy areas.

Archeological Constraints (from site survey):
If cleanup is planned, archaeological constraints must be reconsidered.

State Historic Preservation Officer

EXXON

FOSC

Date: 6/29/89

Date: 7/1/89

Date: 7/15/89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE CLEANUP PROGRAM

DATE  6/29/89

SHORELINE SEGMENT LC-3

LOCATION: (see enclosed map) LOW CAPE-KODIAK ISLAND

SANDY BEACH SOUTH EAST OF LOW CAPE TO SOUTH SIDE OF SUKHOI BAY

ADEC NO. ___ SHORELINE ASSESSMENT DATE: 6/18/89

Recommended Cleanup Activity(ies):
No cleanup recommended at this time, subject to FOSC approval. Very small quantities of oil occur on this segment and there is high potential for wave action to clean this area.

Priorities Considerations: Class 5-A
KISCC considers this a sensitive area due to salmon runs in Sukhoi Bay.

Ecological Constraints (from site survey):
Should oiling occur and cleanup take place. Avoid contamination of Sukhoi Bay.
Stay out of grassy areas.

Archeological Constraints (from site survey):
If cleanup is planned, archaeological constraints must be reconsidered.

State Historic Preservation Officer

EXXON: Jack A. Peterson

FOSC: ________

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
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**SHORELINE OIL EVALUATION FORM - KODIAK**

**Date:** 1/3/89  
**Time:** 16:45  
**Observer:** Mike Miles  
**Surveyed From:** Foot/Boat/Helicopter/Plane  
**Weather:** Sun/Cloud/Rain/Snow/Fog

**LOCATION**  
**Kodiak Island**  
**SEGMENT I.D.:** K-7-3-1

**LENGTH OF SHORELINE SEGMENT: 5250 m**

**ACCESS:** Foot/Vehicle/Boat/Barge/Helicopter/Float Plane

**SHORELINE:**

- **Shoreline Type:** SPI (Beach)  
- **Slope:** High/Hang/Ver  
- **Wave Exposure:** High/Med/Low

**Sediment:**
- **Silt:**  
- **Clay:**  
- **Sand:**  
- **Gravel:**

**Drift Debris on Beach:** (Yes/No)  
- **Type:** Supra/Upper/Mid/Lower

**OIL**

- **Degree of Oiling:** Heavy/Moderate/Light/No Oil/Unobserved
- **Total Area of Beach Impact:** SU/SP/H/M/L

**OIL DISTRIBUTION**

- **Continuous:** Y/N  
- **Segment:**     
- **No. Bands:**     
- **Width:**

- **Sporadic:** Y/N  
- **Segment:**     
- **Min/Max Dia.:**  
- **Impact Width:**

**Est. Oil Thickness where > 1 cm:**
- **4 cm**  
- **SU/SP/UP/MID/LO**

**Est. Oil Penetration:**
- **2 cm**  
- **SU/SP/UP/MID/LO**

**Layers? Yes/No**  
- **No. Layers:**

**Drift Debris Oiled? Yes/No**  
- **Supra/Upper/Mid/Lower**

**OIL MORPHOLOGY**

- **Pooled Oil:**
- **"Free" Oil:**
- **Spattered Oil:** H/M/L/VI

**OIL WEATHERING (OW)**

- **Fresh Oil:**
- **SU/SP/VP/MID/LO**  
- **Choc Mousse:**
- **SU/SP/VP/MID/LO**

- **Pancake Mousse:**
- **SU/SP/VP/MID/LO**  
- **Asphalt Mousse:**

**Tar Formation:**

**Comments:**

---

See attached comment sheet  
ACE 8708050
Mike Miles
June 18/89

Kodiak Island
Entrance to Sukhoi Bay
K-7-3-LC-3

COMMENTS

SHORELINE EVALUATION

This segment consists of the entrance to Sukhoi Bay and the section of narrow pebble/cobble beach to the north.

No oil was found on the outer exposed section of coast. Occasional small (1-3 mm) dried tar "spots" occur on pebbles and cobbles in more sheltered locations in the bay entrance. This material, which does not have the potential to be remobilized, can be expected to be cleaned during the next few high tide storms.

No clean-up activities are recommended.
ECOLOGICAL EVALUATION

LOCATION: Le Conte Point
SITE: Sand beach North of Selden Bay
LOCATION PREFIX: K7/LC
SEG. NO.: K7-3-LC-3
LENGTH: 5250 (M)

DATE: 6/17/73
TIME (HHMM): 1100-1115
TIDE HT.: +2.0 (M)

OILED ZONE: Splash
High Medium Low

SUBSTRATUM: Rocks Boulder (Cobble Gravel Sand) Mud

LIVE BIOTA

Ptilon (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Limpeta: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS:
With algae & woody scattered along high tide line

Coaster Crab crabs also abundant in drift.

CLEANUP PRECAUTIONS: None

MAMMALS: Otters __ Harbor Seals __ Sea Lions __ Whales __
Other __

BIRDS:

GENERAL OBSERVATIONS:
At 1100h fly over to inspect beach. At 1115 land on south point 2 entrance to Selden Bay. No debris. High energy break.
DOCUMENTATION:

- Aerial photo marking segment boundaries: see attached

VTR: Y/N Tape Number(s) ________________

Photography: Y/N Roll Number(s) JT-2

Sample Numbers Collected: NA

ACE 8708055
SHORELINE CLEANUP PROGRAM

DATE ____________________ SHORELINE SEGMENT K-7-3-LE-3

LOCATION: (see enclosed map) Sandy beach N.E. of low Cape
to South side of Sutkori Bay, Kodiak Island

ADEC NO. __________ SHORELINE ASSESSMENT DATE: 6/18/89

Recommended Cleanup Activity(ies):

- Clean-up activities are not recommended due to the very small quantities of oil on this segment and the high risk of wave action to clean this area.

Priorities Considerations: 5-A
- KISC considers this a sensitive area due to salmon runs in Sutkori Bay.

Ecological Constraints (from site survey):
- Should oiling occur and cleanup take place, avoid contamination of Sutkori Bay.
- Stay out of gassy areas.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer * Date:______________

EXXON: ______________________________ Date:______________

FOSC: ______________________________ Date:______________

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708056
KODIAK ISLAND:
NORTH OF SUKHOI BAY
SEGMENT K7-3-LC-3
(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6/29/89   SHORELINE SEGMENT LC-4

LOCATION: (see enclosed map) ROCKY BEACH SOUTH OF SUKHOI BAY
          BETWEEN LOW CAPE AND CAPE ALITAK, KODIAK ISLAND

ADEC NO.   SHORELINE ASSESSMENT DATE:  6/18/89

Recommended Cleanup Activity(ies):
No cleanup recommended at this time, subject to FOSC approval. No oil observed.

Priorities Considerations:
Critical resources not immediately present. However, the KISCO considers this a sensitive area due to local pinniped haulouts.

Ecological Constraints (from site survey):
No constraints. Cleanup is not recommended at this time, due to lack of oil. Should cleanup be initiated, an ecological evaluation should be performed.

Archeological Constraints (from site survey):
If cleanup is planned, additional archaeological evaluation is recommended.

State Historic Preservation Officer *
Date: 6/29/89

EXXON:
Date: 7/1/89

FOSC:
Date: 7/5/89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
DATE: 6/29/89

SHORELINE CLEANUP PROGRAM

LOCATION: (see enclosed map) ROCKY BEACH SOUTH OF SUKHOI BAY
BETWEEN LOW CAPE AND CAPE ALITAK, KODIAK ISLAND

ADEC NO. SHORELINE ASSESSMENT DATE: 6/18/89

Recommended Cleanup Activity(ies):
No cleanup recommended at this time, subject to FOSC approval. No oil observed.

Priorities Considerations:
Critical resources not immediately present. However, the KISCC considers this a sensitive area due to local pinniped haulouts.

Ecological Constraints (from site survey):
No constraints. Cleanup is not recommended at this time, due to lack of oil. Should cleanup be initiated, an ecological evaluation should be performed.

Archeological Constraints (from site survey):
If cleanup is planned, additional archaeological evaluation is recommended.

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
(version 5/16/89)

**SHORELINE OIL EVALUATION FORM - KODIAK**

Date: 1989/Time: 11:00
Observer: MIKE MILES

Surveyed From: Foot/Boat/Plane
Weather: Sun/Cloud/Rain/Snow/Ice

**LOCATION**
KODIAK 154°35'7" N, 148°25'0" W NORTHERN SEGMENT I.D. K-7-3-LC-4
NORTH OF NORRIE FOLDER ONLY

**LENGTH OF SHORELINE SEGMENT:** 44.00 m

ACCESS: Foot/Vehicle/Boat/Barge/Plane

**SHORELINE:**
Shoreline Type: SPI/BEA/COV/HID/STRK
Slope: LAIC/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B45 / C45 / P50 / P90 / M... / R...

Drift Debris on Beach: Yes/No

**OIL**
Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Total Area of Beach Impact: SU / SP / H / M / L

**OIL DISTRIBUTION**
Continuous: Y/N Segment #: No. Bands ___ Width___

Sporadic: Y/N Segment #: Min/Max Dia ___ Impact Width ___

Est. Oil Thickness where > 1 cm: N/A cm

Est. Oil Penetration: ___ cm

Layers: Yes/No

Drift Debris Oiled?: Yes/No

**OIL MORPHOLOGY**
Pulled Oil ___ "Free" Oil ___ Spattered ___ H/H/L/I Sentino ___

**OIL WEATHERING (OW)**
Fresh Oil ___ SU/SP/VP/HID/LO Choc Mousse ___ SU/SP/HID/LO

Pancake Mousse ___ SU/SP/VP/HID/LO Asphalt Mousse ___ SU/SP/VP/HID/LO

Tar Formation ___

Comments:
This segment consists of a cobble boulder beach with sand pebble veneer/sand tidal basin in the Northern ITZ. The backshore is formed by a 5 m high cliff composed of unconsolidated sediments.

This beach was shown 4 times, once at 3:50 m from the beach. Surface at very slow speed. A number of touch and go stops.
DOCUMENTATION:

Map/Aerial photo marking segment boundaries  see attached

VTR:    Y/N    Tape Number(s) ________________________________

Photography:    Y/N    Roll Number(s)  55-7  ________________________________

Sample Numbers Collected:   N/A  ________________________________

ACE 8708061
ECOLOGICAL EVALUATION

LOCATION: Lae Cape to Cape All.
SITE: Subhio Bay South to Cape All.

LOCATION PREFIX: K7/LE SEG. NO.: K-7-3-LE-4 LENGTH: 4375 M

DATE: 6/18/89 TIME (HHMM): 1100 TIDE HT.: +0.25 M

OILED ZONE: Splash High Medium Low
SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS:

CLEANUP PRECAUTIONS:

MAMMALS: Otters Harbor Seals Sea Lions Whales
Other Grizzly Bear in area

BIRDS: 

GENERAL OBSERVATIONS: Fly over close to ground - Do oil spotted
Therefore did not get out of chopper to survey beach.

ACE 8708062
SHORELINE CLEANUP PROGRAM

DATE ___________________  SHORELINE SEGMENT K-7-3-1C-4

LOCATION: (see enclosed map) Rocky beach south of Sukikoi Bay

between low cape and Cape Alitak, Kodiak Island.

ADOC NO. ___________ SHORELINE ASSESSMENT DATE: 6/18/89

Recommended Cleanup Activity(ies):

No oil was observed and no clean-up activities are required.

Priorities Considerations:

Critical Resources not immediately present. However, the KISC considers this area sensitive due to local pineapple haulouts.

Ecological Constraints (from site survey):

None, since cleanup is not recommended at this time due to lack of oil. Should cleanup be initiated, an ecological evaluation should be performed.

Archeological Constraints (from site survey):

If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended. No. No cleanup recommended at this time.

State Historic Preservation Officer *

Date:

EXXON: ___________________________ Date:

FOSC: ___________________________ Date:

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE CLEANUP PROGRAM

DATE 6/29/89  SHORELINE SEGMENT LC-5
LOCATION: (see enclosed map) LOW CAPE-BEACH PARALLEL TO ALITAK
LAGOON BETWEEN LOW CAPE TO CAPE ALITAK, KODIAK ISLAND
ADEC NO. K-1-3 SHORELINE ASSESSMENT DATE: 6/18/89

Recommended Cleanup Activity(ies):
No cleanup recommended at this time, subject to FOSC approval. No oil observed.

Priorities Considerations:
Critical resources not immediately present. However, KISCC considers this a sensitive area due to local pinniped haulouts.

Ecological Constraints (from site survey):
None, since cleanup is not required. Should this site become oiled and cleanup become necessary, ecological evaluations must be performed at that time.

Archeological Constraints (from site survey):
If cleanup is planned, additional archaeological evaluation is recommended.

[Signature]
State Historic Preservation Officer
Date: 6/29/89

EXXON:
Date: 7/1/89

FOSC: [Signature] Revd 7/15/89
Date: 7/15/89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE CLEANUP PROGRAM

DATE 6/29/89  SHORELINE SEGMENT LC-5
LOCATION: (see enclosed map) LOW CAPE-BEACH PARALLEL TO ALITAK
LAGOON BETWEEN LOW CAPE TO CAPE ALITAK, KODIAK ISLAND
ADEC NO. SHORELINE ASSESSMENT DATE: 6/18/89

Recommended Cleanup Activity(ies):
No cleanup recommended at this time, subject to FOSC approval. No oil observed.

Priorities Considerations:
Critical resources not immediately present. However, KISCC considers this a sensitive area due to local pinniped haulouts.

Ecological Constraints (from site survey):
None, since cleanup is not required. Should this site become oiled and cleanup become necessary, ecological evaluations must be performed at that time.

Archeological Constraints (from site survey):
If cleanup is planned, additional archaeological evaluation is recommended.

EXXON: Jack Rehme
FOSC: 

Date: 6/29/89  Date: 7/20/89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708067
SHORELINE OIL EVALUATION FORM - KODIAK

Date: 1989/06/18 Time: 11:00 Observer: MIKE MILES

Surveyed From: Foot/Boat/Helicopter Plane Weather: Sunny/Cloudy/Rain/Snow/Tap

LOCATION
LOCATION KODIAK ISLAND: LAGOON SEGMENT I.D. K-7-3-1C-5

LENGTH OF SHORELINE SEGMENT: 7200 m
ACCESS: Foot/Vehicle/Boat/Barge/Helicopter/Float Plane Calm day only

SHORELINE:
Shoreline Type: SPI/BEAV/COV/HMD/STRT Slope: LNG/HNG/VER

Wave Exposure: High/Med/Low

Sediment: B-1 / C-1 / P70-1 / G-1 / S30-1 / M-1 / R-1

Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type logs and some drift - reversed

OIL
Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Total Area of Beach Impact: SU / SP / H / M / L

OIL DISTRIBUTION
Continuous: Y/N Segment ___ No. Bands ___ Width ___

Sporadic: Y/N Segment ___ Min/Max Dia ___ Impact Width ___

Est. Oil Thickness where > 1 cm: NA cm SU / SF / UP / MID / LO

Est. Oil Penetration: ___ cm SU / SP / UP / MID / LO

Layers? Yes/No No! Layers ___ Oil Weathering ___

Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H / M / L / V

OIL MORPHOLOGY
Pooled Oil O/"Free" Oil O/Spattered O/ H/H/V/VL Sheen O/

OIL WEATHERING (OW)
Fresh Oil O/ SU/SP/VP/MID/LU Choc Mousse O/ SU/SP/VP/HID/LO

Pancake Mousse O/ SU/SP/VP/MID/LU Asphalt Mousse O/ SU/SP/VP/HID/LO

Tar Formation O/ This segment consists of a sandy-pebbly barrier beach extending along the front of Atikak Lagoon

Comments: ACE 8708929

This segment of coast was flown 4 times on one day at slow speed 3 to 5 m above the beach surface. A number of ship and barge landings were made in inspecting sub-surface material.

No oil was observed and clean-up activities are not regular.
ECOLOGICAL EVALUATION

LOCATION: Low Cope to Cope
SITE: Beach north of Atikik
OBSERVER: J. Tarpley

LOCATION PREFIX: K-7/LC
SEG. NO.: K-7-3/LC-5
LENGTH: 7220 (M)

DATE: 4/24/89
TIME (HHMM): 1100
TIDE HT.: 0.25 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS:

CLEANUP PRECAUTIONS:

Mammals: Otters ______ Harbor Seals ______ Sea Lions ______ Whales ______
Other ______

Birds: Gulls in Atikik Lagoon

GENERAL OBSERVATIONS: This segment was surveyed from the air with short stops to check for oil. No oil was seen, therefore evaluations were not performed.
KODIAK ISLAND
ALITAK LAGOON
SEGMENT K7-3-LC-5
DOCUMENTATION:

Map/Aerial photo marking segment boundaries [See attached]

VTR: Y/N Tape Number(s) ________________

Photography: Y/N Roll Number(s) JT-7

Sample Numbers Collected: N/A
SHORELINE CLEANUP PROGRAM

DATE ___________________ SHORELINE SEGMENT K-7-3-EC-5

LOCATION: (see enclosed map) Beach parallel to Alitak Lagoon between Low Cape to Cape Alitak, Kodiak Island.

ADEC NO. _______ SHORELINE ASSESSMENT DATE: 6/18/89

Recommended Cleanup Activity(ies):

-No oil was observed and no clean up activities are recommended.

Priorities Considerations:

-Critical Resources not immediately present. However, KISC considers this a sensitive area due to local pinniped haulouts.

Ecological Constraints (from site survey):

-None, since clean up is not required.

Should this site become oiled and cleanup be necessary, ecological evaluations must be performed at that time.

Archeological Constraints (from site survey):

If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer  
Date: ___________________

EXXON: _______________________________  
Date: ___________________

FOSC: _______________________________  
Date: ___________________

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
TYPE A SHORELINE CLEANUP WORK ORDER

Date: 7-2-89  Shoreline Segment: LC-6
Location: (Attach map) Cape ALITAK-KODIAK ISLAND

ADEC No.  Shorline Assessment Date: 6-18-89

Recommended Cleanup Activity(ies):
Manually remove small quantities of contaminated debris
and patches of mousse.

Priority Considerations:
Class A: The NISCC consider this a sensitive area due to
potential habitat.
Class 4: Lightly oiled

Ecological Constraints (from site survey):
Keep off dune and sublittoral vegetation.

Archaeological Constraints:
If any archaeological or historical sites or artifacts are discovered during the cleanup activity, they must
remain undisturbed and the Exxon archaeologist C. Mobley contacted (as per procedures in the
"Guide line for Shoreline Cleanup") and the State historic Preservation Office notified as soon as
possible.

Submitted by: Date: 7-7-89
Exxon

State Historic Preservation Officer Telephone Approval (Required) Date:

Approved: Date: 7/1/89
Assistant OSC Western Alaska (if appropriate)

Approved: Date: 7/1/89
Federal On-Scene Coordinator

4/30/89

ACE 708074
SHORELINE CLEANUP PROGRAM

DATE 6/21/89       SHORELINE SEGMENT LC-6

LOCATION: (see enclosed map) CAPE ALITAK-KODIAK ISLAND

ADEC NO. K7-3     SHORELINE ASSESSMENT DATE:  6/18/89

Recommended Cleanup Activity(ies):
- Manually remove small quantities of contaminated debris and patches of mousse.
  Use other approved methods as appropriate.

Priorities Considerations:
Class A: The KISCC considers this a sensitive area due to pinniped haulouts.
Class 4: Lightly oiled.

Ecological Constraints (from site survey):
Keep off dune and hillside vegetation.

Archeological Constraints (from site survey):
Archeological monitor required during cleanup. Cleanup crews should be restricted to the active beach. If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer *

Date: June 23, 89

ISCC: ___________________________    Date: ___________________________

EXXON: ___________________________    Date: 7/7/89

FOSC: ___________________________    Date: 7/1/89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION FORM - KODIAK

Date: 1989
Time: 13:27
Observer: MIKE MUES

Surveyed From: Foot/Boat/Helicopter Plane
Weather: Sunny, Cloudy, Rain, Snow, Fog

LOCATION
KODIAK ISLAND
CAPE ALITAK

SEGMENT ID: K7-3-LC-6

LENGTH OF SHORELINE SEGMENT: 1530 m

ACCESS: Foot/Vehicle/Boat/Barge/Helicopter/Float Plane

SHAPELINE:
Shoreline Type: SPI/BEA/COV/HLA/STET
Slope: Land/Flat/Hang/Ver

Wave Exposure: High/Med/Low

Sediment: 0.5 ft / 0.5 ft / Past / 0.5 ft / 0.5 ft / 0.5 ft / R.5 ft

Drift Debris on Beach: Yes / No
Supra/Upper/Mid/Lower Type: 
Seaweed

OIL
Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Total Area of Beach Impact: SU / SP / H / M / L

OIL DISTRIBUTION
Continuous: Yes / Segment 20 No. Bands: 
Width ≤ 8 m

Sporadic: Yes / Segment 20 Min/Max Dia. ≤ 6 cm Impact Width ≤ 8 m

Est. Oil Thickness where > 1 cm: H/A cm

Est. Oil Penetration: ≤ 30 cm

Layers: Yes / No
No Layers

Oil Weathering: 

Drift Debris Oiled?: Yes / No

Supra/Upper/Mid/Lower Amount: H / M / L / V

OIL MORPHOLOGY
Pooled Oil: "Free" Oil: Spattered: Spent: H/M/L/VL Sheen

OIL WEATHERING (OW)
Fresh Oil: SU/SP/VP/MID/LO
Choc Mousse: AS:
SU/SP/VP/MID/LO
Pan Cake Mousse: SU/SP/VP/MID/LO
Asphalt Mousse: SU/SP/VP/MID/LO

Tar Formation: O

ACE 8708076

Comments:
This section of coast consists of a series of rocky headlands with small caves containing pebbles, gravel and boulder beaches.
See map for details of oil contamination.

Clean-up: Manual removal.
DOCUMENTATION:

Map/Aerial photo marking segment boundaries see attached

VTR: Y/N Tape Number(s) ____________________________

Photography: Y/N Roll Number(s) 51-2

Sample Numbers Collected: ________________________________
MAP 1 OF 2
CAPE ALTAK
LC-6

MAP 2 - LC-6
MAP 1 - LC-6

MIKE MILES
June 18/89
13:37

No oil on rock

Rock

Beach 2

Very light concentrations
dried tar 'splatters' or
boulder beach in on 8 m
wide band. Thin pebble
veneer on surface of bould
is unin-oiled. One small
is very lightly contamino
with oil.

No oil on rock

Rock

Beach 1

Tar 'Spattered' pebbles. Light

to depths of ≤30 cm in a
2-3m wide band. Light
surface expression. Sm.
amounts of oiled wree

driftwood in mid to

Lags in pebble storm berm

old mine

foundations

ACE 8708078
Mike Miles
June 18/89
14:07

Map 2 of 2

LC-5

LC-6

LC 6

Sand pebble beach

Eolian sand

Lagoon

Occasional mousse

Lake

Logs on mid high ITZ

Beach 4

No oil

No oil on headlands

A few tor splitters 1 cm in diameter occur occasionally on cobbles. No oil percolator. Driftwood un-oiled or very lightly oiled. Some small patches of oiled weed could be hand removed.

ACE 8708079

Steep gradient boulder beach light concentration of <5 cm spots over an 8 m wide area. Oiled debris located some meters offshore. Low concentration of oil concentrations about the base of large boulders
ECOLOGICAL EVALUATION

LOCATION: Low Cape to Capitola
SITE: Capitola

LOCATION PREFIX: K-7/LC
SEG. NO.: K-7-3- LC-4
LENGTH: 1530 (M)

DATE: 6/18/79
TIME (HHMM): 1310
TIDE HT.: +2.0 (M)

OILED ZONE: Splash
SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS: Lightly oiled drift material in high strand line. Amphipods present on beach.

CLEANUP PRECAUTIONS: Stay off of oiled areas and hillside vegetation.

MAMMALS: Otters Harbor Seals Sea Lions Whales Other Deer Tracks

BIRDS: Gulls, Bald Eagle

GENERAL OBSERVATIONS: Rocky outcroppings rich in plant and animal life (intertidally) separate gravel beaches. High energy beaches.
ACE 7963953
SHORELINE CLEANUP PROGRAM

DATE 8/07/89 SHORELINE SEGMENT K7-4-LB-1

LOCATION: (see enclosed map) Lazy Bay, Rodman Beach, Alitak
Lagoon and Tanner Head

ADEC NO. ______________ SHORELINE ASSESSMENT DATE: 8/05/89

Recommended Cleanup Activity(ies):
- No cleanup recommended due to essential absence of oil
  (only one log with one small tar splash). Subject to FOSC
  reassessment at a later date.

Priorities/Considerations:

Ecological Constraints (from site survey):
- If cleanup recommendation is modified at a later date the
  ecological constraints must be reconsidered.

Archaeological Constraints (from site survey):
- If cleanup is planned, a full archaeological assessment
  of this segment is required.

[Signature]
State Historic Preservation Officer
Date: 8/12/89

EXXON: ___________________________ Date: ________________

FOSC: ____________________________ Date: ________________

*Signature required to satisfy stipulations in Alaska DNR land
use permits for tide and submerged lands.
SHORELINE OIL EVALUATION

A. General
1. Date: 7/5/89
2. Time: 9:30 - 12:30
3. Observer: R. M. M.
4. Surveyed From: Foot/Boat/Plane
5. Weather: Sun/Cloud/Rain/Snow/Fog
6. Location: Bay, Red Man Reach
7. Segment #: K7-4 LB-1
8. Length of shoreline segment: 4,000 yds
9. Tidal Stage: ±0.4 ft.
10. Access: Foot/Vehicle/Boat/Barge/Plane
11. Total Percentage of Segment Accessible: 95%
12. Access Restrictions: Some Vertical Cliff, Shallow In Lagoon, High Wave Energy In Tan/Yuk

B. Shoreline
13. Shoreline Type: SPI: BEACON, HLD, STRT, CLF, DAF
14. Slope: LANG/HANG/VERT
15. Wave Exposure: High/Med/Low
17. Drift Debris on Beach: Yes/No

C. Oil Summary
18. Degree of Oiling: Heavy/Moderate/Light/Very Light/No Oil Observed
19. Area of Beach Impact: Width of Band: 601 yds
   Continuous: Total % of Segment 0
   Sporadic: Total % of Segment 20,000
   No Oil: Total % of Segment 100
20. Est. Oil Thickness where >1 in: 0 in
21. Est. Oil Penetration: 0 in
22. Pooled Oil: 0 % "Free" Oil: 0 % Coated: H, M, L
23. Fresh Mousse: 0 % Tar Formation: 100%
24. Drift Debris Oiled? Yes/No

Comments:
Segment consist of 3 Morphologic Units: Lazy Bay, Milliken Lagoon, and Tan/Yuk Mud. Since no oil was observed except for one drift log in Zone 3 (Ma'na One Small Spanish) these units were considered 0 % Oil - Segment for Oil Purposes - Field Notes

See page 2 for supplemental information
25. Oil Type

<table>
<thead>
<tr>
<th>Type</th>
<th>Fresh</th>
<th>Mousse</th>
<th>Weathered</th>
<th>Tar</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
</tbody>
</table>

26. Total Oil Coverage

<table>
<thead>
<tr>
<th>Length (yd)</th>
<th>Width (yd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Light:</td>
<td>0</td>
</tr>
<tr>
<td>Light:</td>
<td></td>
</tr>
<tr>
<td>Moderate:</td>
<td></td>
</tr>
<tr>
<td>Heavy:</td>
<td></td>
</tr>
</tbody>
</table>

27. Oil Distribution

pooled/continuous coating/splat cracks/crevices patties (>10cm diameter) balls (<10cm diameter) asphalt pavement

28. Preliminary Cleanup Est.

<table>
<thead>
<tr>
<th>Total TYPE A</th>
<th>yds.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Total TYPE B</td>
<td>yds.</td>
</tr>
<tr>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Total TYPE A/B</td>
<td>yds.</td>
</tr>
<tr>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

29. Remobilization Potential: [ ] High [ ] Medium [ ] Low

DOCUMENTATION:

Map/Aerial photo marking segment boundaries

VTR: [Y/N] Tape Number (s) 

Photography: [Y/N] Roll Number (s) A1-15-24

FIELD NOTES: Map of degree of oiling

Additional Comments:

ACE 3708085
SEGMENTS HAVE BEEN MARKED FOR EXCLUSION AS SHOWN.

LOCATION 0
CHASE GO WESTWARD WITH OUTCROPPING ROCKS TO SOUTH.
SOME ROCK OUTCROPPING SHOULDN'T HAVE BEEN THERE.
REALIZE (HIT J 168) LOOK FOR GULLIES 10/10.
SOMETHING COMING OUT
LONELY DEL.

LOCATION 3
BEGIN 75 FT EAST OF MINERAL.
TEIL C/F REACH ON MINERAL.

INDEX

See Index.

ACE 870888

POOR QUALITY ORIGINAL
K-3-1

LOG IN GT - X 2002 - 1/11/21 - 1 1 P.M. III C

K-3

1100 2 - 1 1 P.M. II C

3 FL SECTIONS OF TRASH

EXCEPT FOR WASTE IT IS ONLY SANDING SOME
- FOCUS ON 3

SHIPMENT 1 - GAN - II COLD GOING I ON ONE
SHORT OF THERMAL - 14 LITTLE - LIE UP

RELOAD IS 1 - FOCUS ON 2 ON 5

LOG IN - 5 - FOCUS ON

- NO VALVE - 1 CONNECT - NOT TOO SMALL

LOCATION ON 3 - ONLY CONNECT TO 1 IN 2

G-SEARCH 1 - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

START - NOW CALL TO COLD GAIN - CONNECT SCAFFOLDING

NEXT

RE-START

DECEIT - SUDDENLY - STOP

FOUR HUNDRED - RESTART WITH COLD-GI COLD-SIDE

COUPLE IN TEMPS

LOAD IN 3}

MID-BOAT WAS N T THE IN IN 1 IN 2 - WILL
HEAVEN IN SERVICE EASTION

ACE 6708068

POOR QUALITY ORIGINAL
FLY: CECF

LOCATION

LOG 1/1/17
200N - SOUTH SQ/ CENTRE
NOTE: DUNQ FIELD WITH RTH IN SKY
LOG 2 - 1/18
DUE IN SKY - RTH IN SKY - 200N - SOUTH SQ/ CENTRE

ACE 8708089

FUEL FOR NEXT SEGMENT

POOR QUALITY ORIGINAL
LOCATION: KODIAK  SITE: LAZY BAY-CAB MURAK  OBSERVER: MEYER
LOCATION PREFIX: K7-4  SEG. NO.: LA-1  LENGTH: 46,000 (N)
DATE: 08/03/89  TIME (HOUR): 0630  TIDE HT.: -0.2 to +4 FT
OILED ZONE: Splash High Medium Low
SUBSTRATUM: Rocks Boulder Pebble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
- No oil -
  Fucus patchy on boulder, boulder/rock outcrops, sparse or absent on sand/mud. Abundant - Algae, Barnacles, Helianthemum, Ulva, Ectocarpus
Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
- No oil -
  Mytilus, thickest segment; patches of dense beds along boulder/rock, also in small clumps in lagoon
Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
  Fairly continuous band on cobble, boulder, rock with some areas of dense new recruits. No oil

Littorina

Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
- No oil -
  Occasional dense beds of Littorina in lagoon, otherwise scattered throughout intertidal cobble, focus
  Occasional pockets of kelp on Tanner-Head lower coast. No oil

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
  Limpets scattering, mostly at low/mid tidal or under kelp, alone. No oil

OTHER OBSERVATIONS:

On lower coast of Tanner Head: scattered Ectocarpus, Lepidaria under fucus and Algae;
Eelpatches thin at Alitak Lagoon, crab crossings in eelpatches thick; Mid of Lagoon Bay and east segment
with many shells: Oysters, Butter Clams, Whelk, Eel Grabs, Squid. Hermit crab under Fucus, Whelk very common on bowls
(Crasiodromas, Scaphechinus, Psalmopoea, Littorina, Algae)

CLEANUP PRECAUTIONS:

Alitak Lagoon is a particularly sensitive habitat; however, only 2 small spots of oil were seen in this segment and no cleanup is recommended; thus no cleanup precautions are necessary at this time.

MAMMALS: Otters  Harbor Seals  Sea Lions  Whales
   Other - 9 foxes; 8 Black-tailed Deer (9 reg of 5); many duck tracks along Tanner-Head.

BIRDS: 7 Eagles (potential nest sites on mud); head of Alitak Lagoon - thousands of Western Sandpipers (mostly juv.); also
  Red Knots, Semipalmated Plovers, Red-necked Phalarope, Plovers, Glanis - wingspan 1000+ Glanis - wingspan 500; by Cannon

GENERAL OBSERVATIONS:

- Basically no oil in segment (2 small spots observed). Several habitat types present in this
  Segment: Boulder beach, Lagoon, Sandy beaches; some areas very low energy. Surveyed by
  helicopter with chort a dozen set-downs for foot surveys.

ACE 8738690
CULTURAL RESOURCE EVALUATION

Date       8/5/89  Location    LAZY BAY - CAPE ALITAK Site
Location Prefix    K7-4  Segment       LB-1  Length  76,000 METERS

Survey Method:
Air  97%  (A - indicate on map) Boat       (A - indicate on map)
Ground  3%  (G - indicate on map)

Known cultural resources (AHRS #: XTI - OLI, XTI - OLE Data Source DATA FILES
Oil conditions / beach visibility  NO OIL OBSERVED / EXCEPT A SINGLE TAR SPEAKER
Width of beach zone surveyed  10.20 m  Tree fringe surveyed  10.20 ON BLUFF TOPS

Cultural resources observed in beach zone (AHRS code) HTI
Cultural resources observed in tree fringe (AHRS code)

General observations justifying survey method and segment's site probability:
Shore Profile  INCLUDED CLIFFS, MODERATE SLOPES, AND SAND DUNES
Fresh Water Sources  STREAMS, PONDS
Sea Exposure  OPEN ENERGY ON OUTER ALITAK SPIT & TANNER HEAD; BEACH, AT LAZY BAY ROOM
Access / Safety  BOAT, HELICOPTER

Probability of undiscovered sites in beach zone (circle one) 1 2 3 4 5
Monitoring during cleanup needed  yes / no  Collection  yes / no
Photos:  Color Roll  Frames
B/W Roll  Frames  15 - 24
Observer(s)  A. CROWELL

Time survey started  0830  Time survey ended  1230

Cultural resource considerations / restraints:
STANDARD CONSTRAINTS IF ANY CLEAN-UP UNDERTAKEN
SHORELINE CLEANUP PROGRAM

DATE 7/21/89

SHORELINE SEGMENT K7-13-TI-1

LOCATION: (see enclosed map) Tugidak Island - East end

ADEC NO. SHORELINE ASSESSMENT DATE: 7/21/89

Recommended Cleanup Activity(ies):
- Manual removal of mousse patties in upper intertidal zone.
  (see note map #1)

Priorities/Considerations: Class 5-A
- Permit required by AK department of Fish & Game.
- See attached memo from ADF&G for cleanup considerations.
- Boat access may be restricted to calm days.

Ecological Constraints (from site survey):
If mousse pads extend north from the area of note Map #1 into Shoreline observed to be seal haul out area or west into bird nesting area proceed with manual removal of mousse pads; do not use mechanical equipment in these areas and follow ADF&G guidelines.
- Remain below storm tide line.
- Complete cleanup before 8/15/89.

Archaeological Constraints (from site survey):
- Archaeological monitor required prior to and during clean-up. No access to forest/upland zone by beach crews during cleanup.

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION

Date: 7/21/99  Time: 09:30  Observer: M. Acton
Surveyed From: Foot/Boat/ heli/Plane  Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

Location: Tugleak Island - East end  Segment ID: 77-13-TT-1
Segment Length: 15 km  m. Access: Vehicle/Boat/Barge/Plane/Float Plane
Access Restrictions:  Seals have not, birds nesting, boat access during low wave periods

SHORELINE

Shoreline Type: SPI/BEY/COV/HLD/STRT  Slope: Lo/Med/Hi/Vert
Wave Exposure: High/Med/Low
Sediment: B____% / C____% / P____% / G&S____% / M____% / R____%

OIL

Avg. Degree of Oiling: HEAVY / MODERATE / LIGHT / VERY LIGHT / NONE OBSERVED
Area of Impact: SU/SP/H/M/L

OIL DISTRIBUTION

Continuous % of Segment  SU/SP/H/M/L  H/M/L/VL
Sporadic % of Segment  SU/SP/H/M/L  H/M/L/VL

Total Length (m)  Width (m)  Thickness >1 cm: cm  Penetration/Rework: cm  Burial Depth: cm

Mobilization Potential: High/Medium/Low
Drift Debris Oiled?  Y N  Amount: H/M/L/VL  SU/SP/H/M/L Type: Dr. Item

OIL MORPHOLOGY

Pooled Oil:  SU/SP/H/M/L
"Free" Oil:  SU/SP/H/M/L
Splattered:  H/M/L/VL  SU/SP/H/M/L
Coated:  H/M/L/VL  SU/SP/H/M/L
Pancakes/Balls:  100

OIL WEATHERING

Fresh:  SU/SP/H/M/L
Mousse:  SU/SP/H/M/L
Weathered Mousse:  SU/SP/H/M/L
Asphalt Mousse:  SU/SP/H/M/L
Tar:  SU/SP/H/M/L

COMMENTS

Segment surveyed by helicopter. Approx 2 km section of shoreline surveyed on foot.

Mal section was not surveyed due to seal herds or nesting. SW section of segment was not surveyed due to nesting birds. See Note map.

See segment map for location of note map.
DOCUMENTATION:

Map/Aerial photo marking segment boundaries  See Attached Map

VTR:  Y/N  Tape Number(s) ________________________________

Photography:  Y/N  Roll Number(s)  MA3

Sample Numbers Collected: ________________________________

ACE 8708095
3 m band in SP zone, very light mousse pads
mosses pads on surface to 5-15 cm BS
This 3 m band of mousse pads extended the length of the shoreline surveyed on 0930 hrs - Tides approx +1'

Manual removal of mousse pads recommended
MEMORANDUM

State of Alaska

TO

Distribution

DATE 7-24-89

FILE NO

TELEPHONE NO 486-5033

SUBJECT Requirements for Tugidak Island Oil spill shore clean-up

FROM

Edward W Weiss
Fisheries Technician III
Habitat Division
Alaska Department of Fish and Game

After discussing the matter with Wayne Dolezal our Habitat Biologist in Anchorage, the department has developed the following requirements for the oil spill treatment effort on Tugidak Island. We recommend that the Kodiak Interagency Shoreline Clean-up Committee transmit the following information to Exxon so that Exxon may more completely prepare plans for shoreline treatment on Tugidak Island.

A. OPERATIONAL CONSTRAINTS/CONCERNS

1. Clean-up effort needs to be completed or terminated on most of the island by August 15, 1989, unless an extension is authorized by the Alaska Department of Fish and Game and the National Marine Fisheries Service.

2. The current 1500-foot minimum for aircraft operations is maintained in areas being used by seals. Recommended island approach traffic patterns are found on the attached map.

3. We suggest that clean-up efforts be maximized in the lagoon area, around the north of the island and down the west side, first (see enclosed map). In this way critical harbor seal use areas will be cleaned by the deadline. An extension, should it be needed, may be granted for the remainder of the island.

4. We prefer medium to large crew size so the clean-up will be completed quickly and disturbance to wildlife species will be short termed.

5. Clean-up crews will restrict activity to areas below storm tide lines. Crews are to avoid upland and marsh areas.

6. All oil and oil contaminated debris that is collected during the clean-up effort must be removed from Tugidak Island prior to September 30, 1989. We prefer that bags be removed daily if operationally possible.

B. PERMIT REQUIREMENTS: A Special Area Permit issued by ADF&G is required prior to shoreline treatment related activities on Tugidak Island. The Special Area Permit Application must be completed and forwarded to ADF&G at least five days prior to anticipated start date. As an advisory the
following conditions are included for your planning purposes.

1. ADF&G will authorize the use of ATVs for transport of oil contaminated debris and personnel from work areas, provided:
   + Use of ATVs is restricted to areas below storm tide lines.
   + Only ATVs of the 3 and 4 wheeler size are used. No full sized vehicles.

2. Land based camps will be permitted provided:
   + Human waste and garbage that is created as a result of the clean-up activities must be removed from the island. Campsite areas are to be left as clean as they were prior to use.
   + We prefer that campsites are set up on the East or Gulf of Alaska side of the island, south of the lagoon area. If necessary other locations will be evaluated on a case by case basis.
   + Areas used are left as clean or cleaner than they were found.

C. Justifications:

The time period between August 15 and September 30 is a critical time for harbor seal haulouts. During this period harbor seals are hauled out on the beaches for molting into their winter coats. Undue exposures to the cold waters and stress from disturbances can cause abnormalities in coat formation resulting in mortalities.

The area of the island above the storm tide lines (the upland and marsh areas) and the lagoon area at the northeast end of the island are extremely important habitat areas. These areas are used extensively by nesting and migrating birds. Undue disturbances may cause increased mortality. The sand and gravel beaches in and around the lagoon are important haulout and use areas for harbor seals. This is the reasoning behind the restrictions on use above the storm tide zones and the lagoon area.

The necessary permits may be obtained through the ADF&G Anchorage office, Habitat Division. These can be FAX to Kodiak. If you have any further questions you can contact either myself at 486-5033, or Wayne Dolezal or Don McKay at 267-2285. Thank you.

Enclosures.
Special Area Permit Application
Tugidik Island Critical Habitat Area advisory notice
Distribution.
Gary Penn  Marine Ecologist  SCAT
Mark Kuwanda  ADF&G Habitat Division
Ken Middleton  ADF&G Habitat Division
Kodiak Interagency Shoreline Clean-up Committee
Attention: To avoid disturbance of pupping and molting marine mammals, all beaches (shown with the pattern) should be avoided during the period May 1 to October 1. In addition, aircraft overflights of these beaches from May 1 to October 1 should be made at a minimum altitude of 1,500 feet above ground level. Likewise, overflights of the lagoon from October 1 to April 30 should be made at a minimum altitude of 1,500 feet above ground level to avoid disturbing wintering waterfowl. Suggested boat and aircraft access corridors are depicted with a pattern. Prior to operation of an off road vehicle within the Tugidak Island Critical Habitat Area a permit must first be obtained from the Alaska Department of Fish and Game.

Note: Tugidak Island Critical Habitat Area consists of all state land above the mean high tide line and the land and water below the mean high tide line in the lagoon at the northeast end of the island.

For further information and permits contact the Alaska Department of Fish and Game, Division of Habitat, 333 Raspberry Road, Anchorage, Alaska, 99518. Phone 907-267-2284.
ALASKA DEPARTMENT OF FISH AND GAME
SPECIAL AREAS PERMIT APPLICATION

(For approval of a project or activity within a state game refuge, game sanctuary or critical habitat area)
Pursuant to 5 AAC 95

This application must be completely filled out in order for the department to consider approval of a proposed project or activity. Use type or print clearly in ink. If a question is not applicable to your project, or you do not know the answer, please so indicate on appropriate line.

APPLICANT

Name: ____________________________
Company: _________________________
Address: __________________________
Phone (day): ______________________

Name of Responsible Party in the Field: __________________________

LOCATION OF PROJECT SITE

Name of Special Area: TUGIAK ISLAND CRITICAL HABITAT AREA
Specific project location: ALL OIL IMPACTED BEACHES BELOW STORM TIDE LINE
Township: 41 N, Range: 33 W, Section: 34
Quarter Section: __ USGS Map: TRINITY ISLANDS 82,83, C2, C3
Is the project on: private land ___ state land ___ federal land ___ municipal land ___ ownership unknown ___

Waterbodies crossed or otherwise affected: TUGIAK ISLAND LAGOON

Is the project in the coastal zone? Yes ___ No ___
If yes, attach a completed Coastal Project Questionnaire to this application. COASTAL PROJECT QUESTIONNAIRE WAIVED

DESCRIPTION OF THE PROJECT

On separate, attached sheets provide complete plans and specifications and all other details necessary to fully describe the scope of the proposed project or activity. Include, at a minimum, the following information:

The purpose of the project or activity.

If you are uncertain as to whether your proposed project lies
ALASKA DEPARTMENT OF FISH AND GAME
SPECIAL AREAS PERMIT APPLICATION

(For approval of a project or activity within
a state game refuge, game sanctuary or critical habitat area)
Pursuant to 5 AAC 95

This application must be completely filled out in order for the department to consider approval of a proposed project or activity. Please type or print clearly in ink. If a question is not applicable to your project, or you do not know the answer, please so indicate on an appropriate line.

APPLICANT

Name: ____________________________

Company: _________________________

Address: __________________________

_________________________________ Phone (day): _________

Name of Responsible Party in the Field: _______________________

LOCATION OF PROJECT SITE

Name of Special Area ____________________________

Specific project location ____________________________

Township ______ Range ______ Meridian _____ Section _____

Quarter Section ______ USGS Map ______

Is the project on: private land _____ state land _____

federal land _____ municipal land _____ ownership unknown _____

Waterbodies crossed or otherwise affected: _______________________


Is the project in the coastal zone?* Yes _____ No ______

If yes, attach a completed Coastal Project Questionnaire to this application.

DESCRIPTION OF THE PROJECT OR ACTIVITY

On separate, attached sheets provide complete plans and specifications and all other details necessary to fully describe the scope of the proposed project or activity. Include, at a minimum, the following information:

The purpose of the project or activity.

*If you are uncertain as to whether your proposed project lies...
The timeframe for the project or activity, including the specific time periods for any inwater work or other activities which may disturb fish or wildlife.

A description of construction methods, types and quantities of equipment and number of people involved.

A description of water use including methods of withdrawal, rate of withdrawal, and the total quantity of water required.

A list of fill and excavation quantities including the types of material and the source.

A map and description showing how access will be gained to the project area (use USGS 1:63,360 scale maps where available).

A detailed map or plan view, drawn to scale, and any cross-sectional views necessary to show project features and local topography including the location of all facilities and project dimensions.

A current aerial photograph of the project location (if available).

D. OTHER PERMITS

Identify other state or federal permits or authorizations obtained or applied for:

MITIGATION: As a condition of project approval, applicants will be required to compensate fully for damage to fish and wildlife and their habitat by employing the most appropriate techniques. Where determined necessary by the department, a mitigation plan pursuant to 5 AAC 95 will be required.

I HEREBY CERTIFY THAT ALL INFORMATION PROVIDED ON OR IN CONNECTION WITH THIS APPLICATION IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

________________________________________
Signature of Applicant

________________________________________
Date

Name of Applicant (please print)

SUBMIT APPLICATION BY MAIL OR IN PERSON TO THE APPROPRIATE DEPARTMENT OF FISH AND GAME HABITAT DIVISION OFFICE.

Habitat Division Addresses:

JUNEAU (Southeast Alaska - Region I)
P.O. Box 20, Douglas, AK 99824-0020 (465-4230)

ANCHORAGE (Southcentral, Southwest and Western Alaska - Regions II and IV)
333 Raspberry Rd., Anchorage, AK 99518-1599 (344-0541)

FAIRBANKS (Interior and Arctic Alaska - Region III)
1565 University Avenue, Fairbanks, AK 99701 (479-3104)
ECOLOGICAL EVALUATION

LOCATION: Kodiak
SITE: Trinity Islands - Tagish
LOCATION PREFIX: K7-13
SEG. NO.: TI-1
LENGTH: 15 km
DATE: 07/21/89
TIME (HH:MM): 09:15
TIDE HT.: 0.3

OILED ZONE: Splash [High] Medium Low
SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS: Generally sand/Gravel Beach w/ occasional muck

CLEANUP PRECAUTIONS: Remove clean of grossed areas - use no motorized vehicles on beach. If seals encountered, complete prior to Aug 15, 89. Avoid rookery nest areas (see maps)

MAMMALS: Otters Harbor Seals Sea Lions Whales
Other Fur Seals

BIRDS:

GENERAL OBSERVATIONS:

* See attached AF6 Summary, maps, restrictions

ACE 8708105
Tuqidak Island Fish and Wildlife Resources

Tuqidak Island is unique in the Gulf of Alaska not only because of its unusual number of extremely productive and diverse fish and wildlife habitats but also because those habitats have remained in a relatively natural, undisturbed state. To date very little human disturbance has occurred on the island to threaten the vulnerable groundnesting birds, harbor seal pupping areas, and rich lagoon environment.

Marine mammals: Tuqidak is most renowned for its harbor seal population. Tuqidak Island has historically supported one of the largest harbor seal populations in the world, estimated at 15,000 to 20,000 animals with peak concentrations of hauled out seals reaching 14,000 at a time. Tuqidak Island is also a major pupping area for harbor seals in the Gulf of Alaska with annual production once estimated at a high of 5,500 pups. That population is now substantially depressed but remains one of the largest known. Seals haul, pup, and molt on beaches found along the west and northeast side of the island and in the vicinity of the mouth of the lagoon.

Sea otters are common in the nearshore waters around Tuqidak Island. Approximately 400 to 700 sea otters are found in the vicinity of Tuqidak Island, with medium to high densities along the south side of the island.

Birds: The interspersion of many different habitat types on Tuqidak Island associated with cliff and bluff shores; sand and rocky beaches; spits, bars and tidalflats; freshwater streams and lakes; saltwater marshes and lagoons; vast eelgrass beds; freshwater wetlands; and uplands attracts some of the greatest diversity of bird life known to nest on and visit any one island in the Gulf of Alaska.

The island serves as a valuable spring and fall resting and feeding area and as a production area for birds migrating from the Pacific coast of North America. Because Tuqidak Island is low, treeless, and free of introduced predators, all birds nest on the ground and are particularly susceptible to habitat destruction, predation, and trampling.
Tugidak Island

- At least 56 species of birds occur on Tugidak Island. Thirty-eight species are known to nest there, and 26 of these species are considered common or abundant.
- Wetland habitats throughout the island provide nesting habitat for waterfowl, shorebirds, tundra swans and loons, with wetlands habitats along the south shore supporting nesting concentrations of mallards, pintails, gadwalls, green-winged teal and wigeon.
- Snow geese concentrate on the island during spring migration to rest and feed.
- The lagoon supports spring and fall concentrations of ducks and shorebirds. Black brant and white-fronted geese also concentrate in the lagoon in the fall to rest and feed. The lagoon area provides winter habitat for emperor geese, a species that has recently experienced a serious population decline.
- The coastal waters surrounding Tugidak Island are a major overwintering area for waterbirds, primarily seaducks.
- Five seabird colonies are documented on Tugidak Island, totalling nearly 4,000 nesting birds. Glaucus-winged gulls are the most abundant seabird, followed by arctic terns, mew gulls, and cormorants.
- Of particular significance are records of ground nesting bald eagles. These bald eagle nests are located on bluffs or slight rises in the terrain throughout the island.
- Peregrine falcons are also reported to nest on the island's bluffs.
- Several thousand ptarmigan nest in upland areas of the island.

Fish and Shellfish: The lagoon and nearshore waters of Tugidak provide a productive marine environment for several species of fish and shellfish. The island's stream systems provide habitat for anadromous fish.
- There are three documented salmon stream systems on the island supporting chum and/or coho salmon.
- The lagoon is a productive rearing and feeding area for large numbers of Pacific herring.
Known razor clam concentrations occur along the bars at the mouth of the lagoon.

Based upon frequent observations of small Dungeness crab carapaces and exoskeletons washed up along the lagoon's shores and large commercial catches of Dungeness crab directly offshore of the lagoon, the shallow waters and large eelgrass beds found in the lagoon are thought to provide an important nursery rearing area for Dungeness crab.

Archaeological Sites: Eight archaeological sites have been documented on the island. Although largely unexplored, they appear to indicate abundant prehistoric use of the island, with a majority of the sites located along the lagoon.
TUGIDAK ISLAND CRITICAL HABITAT AREA

ADVISORY NOTICE
(July 1988)

Attention: To avoid disturbance of pupping and molting marine mammals, all beaches (shown with the pattern) should be avoided during the period May 1 to October 1. In addition, aircraft overflights of these beaches from May 1 to October 1 should be made at a minimum altitude of 1,500 feet above ground level. Likewise, overflights of the lagoon from October 1 to April 30 should be made at a minimum altitude of 1,500 feet above ground level to avoid disturbing wintering waterfowl. Suggested boat and aircraft access corridors are depicted with a pattern. Prior to operation of an off road vehicle within the Tugidak Island Critical Habitat Area a permit must first be obtained from the Alaska Department of Fish and Game.

Note: Tugidak Island Critical Habitat Area consists of all state land above the mean high tide line and the land and water below the mean high tide line in the lagoon at the northeast end of the island.

For further information and permits contact the Alaska Department of Fish and Game, Division of Habitat, 333 Raspberry Road, Anchorage, Alaska, 99518. Phone 907-267-2284.
Area of very light oil impact - masses pooled in 3° zone

Area surveyed on foot (see Note Map #1).
SHORELINE CLEANUP PROGRAM

DATE  7/21/89  

LOCATION: (see enclosed map) Tugidak Island - west shore

ADEC NO.  K7  

SHORELINE SEGMENT K7-14-TI-2  

SHORELINE ASSESSMENT DATE:  7/21/89

Recommended Cleanup Activity(ies):
- Manual removal of mousse patties (see map #1 for typical location of patties along beach profile).

Priorities/Considerations:  Class 5-A
- Permit required by AK department of Fish & Game.
- See attached memo from ADF&G for cleanup considerations.
- Boat access may be restricted to calm days.

Ecological Constraints (from site survey):
- If northern portion of segment is impacted by oil, proceed with manual cleanup; do not use mechanical equipment in this seal haul out area and follow ADF & G guidelines.
- Remain below storm tide line.
- Avoid eagle nests.
- Complete cleanup before 8/15/89.

Archaeological Constraints (from site survey):
- Archaeological monitor required prior to and during cleanup. No access to forest/upland zone by beach crews during cleanup.

State Historic Preservation Officer

Date:  7/23/89

EXXON:__________________________  

Date:__________________________

FOSC:__________________________  

Date:__________________________

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE CLEANUP PROGRAM

DATE 7/21/89

SHORELINE SEGMENT K7-14-TI-2

LOCATION: (see enclosed map) Tugidak Island- west shore

ADEC NO. K7 SHORELINE ASSESSMENT DATE: 7/21/89

Recommended Cleanup Activity(ies):
- Manual removal of mousse patties (see map #1 for typical location of patties along beach profile).

Priorities/Considerations: Class 5-A
- Permit required by AK department of Fish & Game.
- See attached memo from ADF&G for cleanup considerations.
- Boat access may be restricted to calm days.

Ecological Constraints (from site survey):
- If northern portion of segment is impacted by oil, proceed with manual cleanup; do not use mechanical equipment in this seal haul out area and follow ADF & G guidelines.
- Remain below storm tide line.
- Avoid eagle nests.
- Complete cleanup before 8/15/89.

Archaeological Constraints (from site survey):
- Archaeological monitor required prior to and during clean-up. No access to forest/upland zone by beach crews during cleanup.

State Historic Preservation Officer * Date: 7/7/89

EXXON: __________________________ Date: __________________

FOSC: __________________________ Date: __________________

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION

Date: 7/21/89  Time: 1430  Observer: M. Acton
Surveyed From: Foot/Boat/Plane  Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION
Location: Tuguk Island - West shore  Segment ID: 16-7-14-T1-2
Segment Length: 3.5 km  Access: Vehicle/Boat/Barge/Plane
Access Restrictions: Boat access during low energy periods

SHORELINE
Shoreline Type: SPI/BEA/COV/HLD/STRT  Slope: Lo/Med/Hi/Vert
Wave Exposure: High/Med/Low
Sediment: B ¼ / C ½ / P ¼ / G & S ½ / M ¾ / R 10

OIL
Avg. Degree of Oiling: HEAVY / MODERATE / LIGHT / VERY LIGHT / NONE OBSERVED
Area of Impact: SU/SP/H/M/L

OIL DISTRIBUTION
Continuous % of Segment  SU/SP/H/M/L  H/M/L/VL
Sporadic % of Segment  SU/SP/H/M/L  H/M/L/VL

Total
Very light: Length(m) | Width(m)  | Thickness >1cm: cm  | Penetration/Rework: cm  | Burial Depth: cm  |
| 15 km | 3-7 | SU/SP/H/M/L |
Light:  |  | SU/SP/H/M/L |
Moderate:  |  | SU/SP/H/M/L |
Heavy:  |  | SU/SP/H/M/L |

Mobilization Potential: High/Medium/Low
Drift Debris Oiled?  Y/N  Amount: H/M/L/V  SU/SP/H/M/L Type: Driftwood, Driftwood

OIL MORPHOLOGY
Pooled Oil:  %  SU/SP/H/M/L
"Free" Oil:  %  SU/SP/H/M/L
Splattered:  %  H/M/L/V  SU/SP/H/M/L
Coated:  %  H/M/L/VL
Pancakes/Balls:  %  SU/SP/H/M/L

OIL WEATHERING
Fresh:  %  SU/SP/H/M/L
Mousse:  %  SU/SP/H/M/L
Weathered Mousse:  %  SU/SP/H/M/L
Asphalt Mousse:  %  SU/SP/H/M/L
Tar:  %  SU/SP/H/M/L

COMMENTS
Shoreline south of Red Bluff is narrow sand beach with limited SP zone at base of bluffs. Very little oil was observed west of Red Bluff.
Shoreline north of Red Bluff is wide (50m) sand beach with very light oil impact consisting of mousse pods and oil/sand pods in a 5m band in the SP zone, see Note Map #1.
Shoreline north of Note Map #1 area is a seal haul out and was not surveyed.
See Segment maps for location of Note Map.
DOCUMENTATION:

Map/Aerial photo marking segment boundaries ___________ See Attached Maps ______

VTR: Y/N Tape Number(s) __________________________

Photography: Y/N Roll Number(s) M43

Sample Numbers Collected: __________________________
$5 \text{m (3-7m) band in SP zone of m auise pods and oil/sand pools on surface down to approx 5cm Baf.$}

$\text{Band extends from approx 0.5 cm W of at Real Diutt to 2 km east of Real Diutt.}$

$\text{Seaweed oiled in driftline.}$

$\text{1400 hrs} \quad \text{Tide approx +4'}$
1115 Set down
0.1/sand pack L-15m on X-mom
5m band N & O-N.
Sandy beach w/ gravel

1310, 1311 VL marline at driftline-
3m band marline up to 15m down on A

1325 - one patch visible

1330 oil visible

1340 2 small patches in driftline
max 25 m

1345 No
1350 No

1355 Shift down max 27 cm up of marline pad &
28m W

prop 3-4m band of oil/sand pad & marline pad
in S-Zone
Light impact in 3-4m band
VL spilt on debris in S-Zone
on surface around 1355

approx band width approx 6-7m on progress to E

Surface to approx 6cm

Secondary current- drift

Debris zone

Band of high oil/sand
marline

A

From:

AE 870 0117

4/35

Walter 1935
1440 - 2m band v/h receive near SW line
1455 - 7m band in SP mode
1505 - V1 split almost high on 7m - Tugil, 09:00
1510 - V1 split v/1 main, plus 2.5m in ch/k
1515 - split v/1 main
1530 - cruise along SW shore near natural sand/wet sand belt
1715 - Arrive Akinaq

7/22 security: Aachen, 3km/5km
08:00 departure: Port
21 Tugil, 17:30
Tugil - 09:00
09:00 start vig by K8-9-UB-8.
Start at Gull Pt.
01st packet sent N at Gull Pt 09:05
sand/gravel | posey/v-1
packet beam - approx 1200m long

\[ \text{Diagram of areas labeled: Mass, 3km, 5km, etc.} \]

- 5m band in 7km
- V1 split: main
- V1 "Grave Point" split
- 2m split: main
- V1 off/1 band split
- Anon...
MEMORANDUM

State of Alaska

DATE 7-24-89

FILE NO

TELEPHONE NO 486-5033

SUBJECT Requirements for Tugidik Island Oil spill shore clean-up

TO Distribution

FROM Edward W Weiss
Fisheries Technician III
Habitat Division
Alaska Department of Fish and Game

After discussing the matter with Wayne Dolezal our Habitat Biologist in Anchorage, the department has developed the following requirements for the oil spill treatment effort on Tugidak Island. We recommend that the Kodiak Interagency Shoreline Clean-up Committee transmit the following information to Exxon so that Exxon may more completely prepare plans for shoreline treatment on Tugidak Island.

A. OPERATIONAL CONSTRAINTS/CONCERNS

1. Clean-up effort needs to be completed or terminated on most of the island by August 15, 1989, unless an extension is authorized by the Alaska Department of Fish and Game and the National Marine Fisheries Service.

2. The current 1500 foot minimum for aircraft operations is maintained in areas being used by seals. Recommended island approach traffic patterns are found on the attached map.

3. We suggest that clean-up efforts be maximized in the lagoon area, around the north of the island and down the west side, first (see enclosed map). In this way critical harbor seal use areas will be cleaned by the deadline. An extension, should it be needed, may be granted for the remainder of the island.

4. We prefer medium to large crew size so the clean-up will be completed quickly and disturbance to wildlife species will be short term.

5. Clean-up crews will restrict activity to areas below storm tide lines. Crews are to avoid upland and marsh areas.

6. All oil and oil contaminated debris that is collected during the clean-up effort must be removed from Tugidak Island prior to September 30, 1989. We prefer that bags be removed daily if operationally possible.

B. PERMIT REQUIREMENTS: A Special Area Permit issued by ADF&G is required prior to shoreline treatment related activities on Tugidak Island. The Special Area Permit Application must be completed and forwarded to ADF&G at least five days prior to anticipated start date. As an advisory the
following conditions are included for your planning purposes.

1. ADF&G will authorize the use of ATVs for transport of oil contaminated debris and personnel from work areas, provided:
   + Use of ATVs is restricted to areas below storm tide lines.
   + Only ATVs of the 3 and 4 wheeler size are used. No full sized vehicles.

2. Land based camps will be permitted provided:
   + Human waste and garbage that is created as a result of the clean-up activities must be removed from the island. Campsite areas are to be left as clean as they were prior to use.
   + We prefer that campsites are set up on the East or Gulf of Alaska side of the island, south of the lagoon area. If necessary other locations will be evaluated on a case by case basis.
   + Areas used are left as clean or cleaner than they were found.

C. Justifications:

The time period between August 15 and September 30 is a critical time for harbor seal haulouts. During this period harbor seals are hauled out on the beaches for molting into their winter coats. Undue exposures to the cold waters and stress from disturbances can cause abnormalities in coat formation resulting in mortalities.

The area of the island above the storm tide lines (the upland and marsh areas) and the lagoon area at the northeast end of the island are extremely important habitat areas. These areas are used extensively by nesting and migrating birds. Undue disturbances may cause increased mortality. The sand and gravel beaches in and around the lagoon are important haulout and use areas for harbor seals. This is the reasoning behind the restrictions on use above the storm tide zones and the lagoon area.

The necessary permits may be obtained through the ADF&G Anchorage office, Habitat Division. These can be FAX to Kodiak. If you have any further questions you can contact either myself at 486-5033, or Wayne Dolezal or Don McKay at 267-2285. Thank you.

Enclosures.
Special Area Permit Application
Tugidik Island Critical Habitat Area advisory notice
Distribution.
Gary Penn  Marine Ecologist  SCAT
Mark Kuwanda  ADF&G Habitat Division
Ken Middleton  ADF&G Habitat Division
Kodiak Interagency Shoreline Clean-up Committee
Attention: To avoid disturbance of pupping and molting marine mammals, all beaches (shown with the \_\_\_\_\_\_\_ pattern) should be avoided during the period May 1 to October 1. In addition, aircraft overflights of these beaches from May 1 to October 1 should be made at a minimum altitude of 1,500 feet above ground level. Likewise, overflights of the lagoon from October 1 to April 30 should be made at a minimum altitude of 1,500 feet above ground level to avoid disturbing wintering waterfowl. Suggested boat and aircraft access corridors are depicted with a \_\_\_\_\_\_\_ pattern. Prior to operation of an off road vehicle within the Tugidak Island Critical Habitat Area a permit must first be obtained from the Alaska Department of Fish and Game.

Note: Tugidak Island Critical Habitat Area consists of all state land above the mean high tide line and the land and water below the mean high tide line in the lagoon at the northeast end of the island.

For further information and permits contact the Alaska Department of Fish and Game, Division of Habitat, 313 Raspberry Road, Anchorage, Alaska, 99518. Phone 907-267-2284.
ALASKA DEPARTMENT OF FISH AND GAME
SPECIAL AREAS PERMIT APPLICATION

(For approval of a project or activity within a state game refuge, game sanctuary or critical habitat area)

Pursuant to 5 AAC 95

This application must be completely filled out in order for the department to consider approval of a proposed project or activity. Use type or print clearly in ink. If a question is not applicable to your project, or you do not know the answer, please so indicate on appropriate line.

APPLICANT

Name: ____________________________

Company: ____________________________

Address: ____________________________

Phone (day): ____________________________

Name of Responsible Party in the Field: ____________________________

LOCATION OF PROJECT SITE

Name of Special Area TUGIAK ISLAND CRITICAL HABITAT AREA

Specific project location ALL OIL IMPACTED BEACHES BELOW STORM HIGH LINE

Township 41 42 43 Range 33 34 35 Meridian Seward Section ___

Quarter Section ___ USGS Map TRINITY ISLANDS B2, C1, C2, C3

Is the project on: private land ___ state land ___

federal land ___ municipal land ___ ownership unknown ___

Waterbodies crossed or otherwise affected: TUGIAK ISLAND LAKE

Is the project in the coastal zone? Yes ___ No ___

If yes, attach a completed Coastal Project Questionnaire to this application. COASTAL PROJECT QUESTIONNAIRE WAIVED

DESCRIPTION OF THE PROJECT

On separate, attached sheets provide complete plans and specifications and all other details necessary to fully describe the scope of the proposed project or activity. Include, at a minimum, the following information:

The purpose of the project or activity.

If you are uncertain as to whether your proposed project lies

ACE 8708133
ALASKA DEPARTMENT OF FISH AND GAME
SPECIAL AREAS PERMIT APPLICATION

(For approval of a project or activity within
a state game refuge, game sanctuary or critical habitat area)
Pursuant to 5 AAC 93

This application must be completely filled out in order for the
department to consider approval of a proposed project or activity.
Please type or print clearly in ink. If a question is not applicable
to your project, or you do not know the answer, please so indicate on
the appropriate line.

APPLICANT

Name: ____________________________

Company: ____________________________

Address: ____________________________

Phone (day): ________________________

Name of Responsible Party in the Field: ____________________________

LOCATION OF PROJECT SITE

Name of Special Area ____________________________

Specific project location ____________________________

Township ______ Range ______ Meridian ______ Section ______

Quarter Section ______ USGS Map ______

Is the project on: private land ______ state land ______
federal land ______ municipal land ______ ownership unknown ______

Waterbodies crossed or otherwise affected: ____________________________

Is the project in the coastal zone?* Yes ______ No ______

If yes, attach a completed Coastal Project Questionnaire to this
application.

DESCRIPTION OF THE PROJECT OR ACTIVITY

On separate, attached sheets provide complete plans and
specifications and all other details necessary to fully describe
the scope of the proposed project or activity. Include, at a
minimum, the following information:

The purpose of the project or activity.

*If you are uncertain as to whether your proposed project lies
The timeframe for the project or activity, including the specific time periods for any inwater work or other activities which may disturb fish or wildlife.

A description of construction methods, types and quantities of equipment and number of people involved.

A description of water use including methods of withdrawal, rate of withdrawal, and the total quantity of water required.

A list of fill and excavation quantities including the types of material and the source.

A map and description showing how access will be gained to the project area (use USGS 1:63,360 scale maps where available).

A detailed map or plan view, drawn to scale, and any cross-sectional views necessary to show project features and local topography including the location of all facilities and project dimensions.

A current aerial photograph of the project location (if available).

D. OTHER PERMITS

Identify other state or federal permits or authorizations obtained or applied for: __________________________

MITIGATION: As a condition of project approval, applicants will be required to compensate fully for damage to fish and wildlife and their habitat by employing the most appropriate techniques. Where determined necessary by the department, a mitigation plan pursuant to 5 AAC 95 will be required.

I HEREBY CERTIFY THAT ALL INFORMATION PROVIDED ON OR IN CONNECTION WITH THIS APPLICATION IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

__________________________  __________________________
Name of Applicant (please print)  Date

SUBMIT APPLICATION BY MAIL OR IN PERSON TO THE APPROPRIATE DEPARTMENT OF FISH AND GAME HABITAT DIVISION OFFICE.

Habitat Division Addresses:

JUNEAU (Southeast Alaska - Region I)
P.O. Box 20, Douglas, AK 99824-0020 (465-4290)

ANCHORAGE (Southcentral, Southwest and Western Alaska - Regions II and IV)
333 Raspberry Rd., Anchorage, AK 99518-1599 (344-0541)

FAIRBANKS (Interior and Arctic Alaska - Region III)
1565 University Avenue, Fairbanks, AK 99701 (479-3104)
ECOLOGICAL EVALUATION

LOCATION: Kodiak  SITE: Trinity Island  OBSERVER: G. Pearl
LOCATION PREFIX: K7-15  SEG. NO.: II-2  LENGTH: 30K
DATE: 6/7/21  TIME (HHMM): 14:00  TIDE HT.: 1.2
OILED ZONE: Splash  SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud
LOCATION PREFIX:

LIVE BIOTA
Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS: Generally sand/Gravel (not erodible)

*CLEANUP PRECAUTIONS: Road clear of ground areas - Use no material

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___

OTHER OBSERVATIONS:

BIRDS: Eagles

GENERAL OBSERVATIONS:

*See published AFO maps, restrictions

ACE 8708136
Tugidak Island Fish and Wildlife Resources

Tugidak Island is unique in the Gulf of Alaska not only because of its unusual number of extremely productive and diverse fish and wildlife habitats but also because those habitats have remained in a relatively natural, undisturbed state. To date very little human disturbance has occurred on the island to threaten the vulnerable groundnesting birds, harbor seal pupping areas, and rich lagoon environment.

Marine mammals: Tugidak is most renowned for its harbor seal population. Tugidak Island has historically supported one of the largest harbor seal populations in the world, estimated at 15,000 to 20,000 animals with peak concentrations of hauled out seals reaching 14,000 at a time. Tugidak Island is also a major pupping area for harbor seals in the Gulf of Alaska with annual production once estimated at a high of 5,500 pups. That population is now substantially depressed but remains one of the largest known. Seals haul, pup, and molt on beaches found along the west and northeast side of the island and in the vicinity of the mouth of the lagoon.

Sea otters are common in the nearshore waters around Tugidak Island. Approximately 400 to 700 sea otters are found in the vicinity of Tugidak Island, with medium to high densities along the south side of the island.

Birds: The interspersion of many different habitat types on Tugidak Island associated with cliff and bluff shores; sand and rocky beaches; spits, bars and tidalflats; freshwater streams and lakes; saltwater marshes and lagoons; vast eelgrass beds; freshwater wetlands; and uplands attracts some of the greatest diversity of bird life known to nest on and visit any one island in the Gulf of Alaska.

The island serves as a valuable spring and fall resting and feeding area and as a production area for birds migrating from the Pacific coast of North America. Because Tugidak Island is low, treeless, and free of intestinal predators, all birds nest on the ground and are particularly susceptible to habitat destruction, predation, and trampling.
Tugidak Island

At least 56 species of birds occur on Tugidak Island. Thirty eight species are known to nest there, and 26 of these species are considered common or abundant.

Wetland habitats throughout the island provide nesting habitat for waterfowl, shorebirds, tundra swans and loons, with wetlands habitats along the south shore supporting nesting concentrations of mallards, pintails, gadwalls, green-winged teal and wigeon.

Snow geese concentrate on the island during spring migration to rest and feed.

The lagoon supports spring and fall concentrations of ducks and shorebirds. Black brant and white-fronted geese also concentrate in the lagoon in the fall to rest and feed. The lagoon area provides winter habitat for emperor geese, a species that has recently experienced a serious population decline.

The coastal waters surrounding Tugidak Island are a major overwintering area for waterbirds, primarily seaducks.

Five seabird colonies are documented on Tugidak Island, totalling nearly 4,000 nesting birds. Glaucous-winged gulls are the most abundant seabird, followed by arctic terns, mew gulls, and cormorants.

Of particular significance are records of ground nesting bald eagles. These bald eagle nests are located on bluffs or slight rises in the terrain throughout the island.

Peregrine falcons are also reported to nest on the island's bluffs.

Several thousand ptarmigan nest in upland areas of the island.

Fish and Shellfish: The lagoon and nearshore waters of Tugidak provide a productive marine environment for several species of fish and shellfish. The island's stream systems provide habitat for anadromous fish.

- There are three documented salmon stream systems on the island supporting chum and/or coho salmon.
- The lagoon is a productive rearing and feeding area for large numbers of Pacific herring.
Known rasp clam concentrations occur along the bars at the mouth of the lagoon.

Based upon frequent observations of small Dungeness crab carapaces and exoskeletons washed up along the lagoon's shores and large commercial catches of Dungeness crab directly offshore of the lagoon, the shallow waters and large eelgrass beds found in the lagoon are thought to provide an important nursery rearing area for Dungeness crab.

Archaeological Sites: Eight archaeological sites have been documented on the island. Although largely unexplored, they appear to indicate abundant prehistoric use of the island, with a majority of the sites located along the lagoon.
Attention: To avoid disturbance of pupping and molting marine mammals, all beaches (shown with the pattern) should be avoided during the period May 1 to October 1. In addition, aircraft overflights of these beaches from May 1 to October 1 should be made at a minimum altitude of 1,500 feet above ground level. Likewise, overflights of the lagoon from October 1 to April 30 should be made at a minimum altitude of 1,500 feet above ground level to avoid disturbing wintering waterfowl. Suggested boat and aircraft access corridors are depicted with a pattern. Prior to operation of an off road vehicle within the Tugidak Island Critical Habitat Area a permit must first be obtained from the Alaska Department of Fish and Game.

Note: Tugidak Island Critical Habitat Area consists of all state land above the mean high tide line and the land and water below the mean high tide line in the lagoon at the northeast end of the island.

For further information and permits contact the Alaska Department of Fish and Game, Division of Habitat, 113 Raspberry Road, Anchorage, Alaska, 99518. Phone 907-267-2284.
(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE  7/24/89    SHORELINE SEGMENT K7-15-TI-3

LOCATION: (see enclosed map) Tugidak Island- East shore

ADEC NO. K7    SHORELINE ASSESSMENT DATE: 7/24/89

Recommended Cleanup Activity(ies):
- Manual removal of mousse patties (see map #1) along approximate 16 km section of segment.

Priorities/Considerations: Class 5-A
- Permit required by AK department of Fish & Game.
- See attached memo from ADF&G for cleanup considerations.
- Boat access may be restricted to calm days.

Ecological Constraints (from site survey):
- Remain below storm tide line.
  If seals present, use no mechanical equipment.
- Avoid eagle nests.
- Complete cleanup before 8/15/89.

Archaeological Constraints (from site survey):
- Archaeological monitor required prior to and during cleanup. No access to forest/upland zone by beach crews during cleanup.

State Historic Preservation Officer *    Date: 7/28/89

EXXON: ___________________________    Date: __________________

FOSC: ___________________________    Date: __________________

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
SHORELINE OIL EVALUATION

Date: 7/14/89  Time: 1020  Observer: M. Acion
Surveyed From: Foot/Boat/Hello/Plane  Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

Location: Tuesday Island - East shore  Segment ID: k-7
Segment Length: 28 km  m. Access: Vehicle/Boat/Barge/Hello/Float Plane
Access Restrictions: Boat access during low wave energy periods

SHORELINE

Shoreline Type: SPI/BEA/COV/HLD/STRT  Slope: Lo/Med/Hi/Vert
Wave Exposure: High/Med/Low
Sediment: B %% / C % / P % / G&S % / M % / R %

OIL

Avg. Degree of Oiling: HEAVY / MODERATE / LIGHT / VERY LIGHT / NONE OBSERVED
Area of Impact: SU/SP/H/M/L

OIL DISTRIBUTION

Continuous % of Segment SU/SP/H/M/L  H/M/L/VL
Sporadic % of Segment 60 SU/SP/H/M/L  H/M/L/VL

Very light: 10 km  Width(m)  Thickness >1cm: cm SU/SP/H/M/L
Light: Penetration/Rework: cm SU/SP/H/M/L
Moderate: Burial Depth: cm SU/SP/H/M/L
Heavy: 

Mobilization Potential: High/Medium/Low
If Debris Oiled? Y/N Amount: H/M/L/V SU/SP/H/M/L Type: Wood, Seaweeds

IL MORPHOLOGY

ooled Oil: % SU/SP/H/M/L
Free" Oil: % SU/SP/H/M/L
plattered: % H/M/L/V D
oated: % H/M/L/VL
ancakes/Balls: % SU/SP/H/M/L

Preliminary Cleanup Est.

IL WEATHERING

resh: % SU/SP/H/M/L
ouss: % SU/SP/H/M/L
eathered Mousses: % SU/SP/H/M/L
phalt Mousses: % SU/SP/H/M/L
ar: % SU/SP/H/M/L

OILLS

Approx 4m wide band of very light oil impact consisting of oil/sand pads was observed in the 2D zone for approx 10 km of the segment (see Note Map 1).

Band of very light oil impact was observable from here.

See segment maps for locations of Note Map.

ACE 8703158
DOCUMENTATION:

Map/Aerial photo marking segment boundaries ____________ See Attached

VTR: Y/N Tape Number(s) _________________________________

Photography: Y/N Roll Number(s) MA-4 _____________________

Sample Numbers Collected: _______________________________
Note Map #1

Photo MA4-5 to N 6 to S

- Shore Area
- 1.5 m Scarp
- Grass

- Storm Tide Line
- High Tide Line
- Large accumulation of driftwood

A - A' 40m

4 m band of very light oil impact, oil/sand pads on surface
band is just below driftwood line

Manual removal recommended
7/24
Depart Kodik Oya for Trinco
Arrive Trinco
1935 ve. Spirea 1 bandi
1035 no. o1 sand band

1075 approx.
Spoke w. M. Garber

Grass

15m scarp

a

1130 same band of oil/sand

bud

Sand

ACE 8708161

From Lady's camp to cake flat around same band of oil/sand puds - ve._import
After discussing the matter with Wayne Dolezal our Habitat Biologist in Anchorage, the department has developed the following requirements for the oil spill treatment effort on Tugidak Island. We recommend that the Kodiak Interagency Shoreline Clean-up Committee transmit the following information to Exxon so that Exxon may more completely prepare plans for shoreline treatment on Tugidak Island.

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3. We suggest that clean-up efforts be maximized in the lagoon area, around the north of the island and down the west side, first (see enclosed map). In this way critical harbor seal use areas will be cleaned by the deadline. An extension, should it be needed, may be granted for the remainder of the island.

4. We prefer medium to large crew size so the clean-up will be completed quickly and disturbance to wildlife species will be short termed.

5. Clean-up crews will restrict activity to areas below storm tide lines. Crews are to avoid upland and marsh areas.

6. All oil and oil contaminated debris that is collected during the clean-up effort must be removed from Tugidak Island prior to September 30, 1989. We prefer that bags be removed daily if operationally possible.

B. PERMIT REQUIREMENTS: A Special Area Permit issued by ADF&G is required prior to shoreline treatment related activities on Tugidak Island. The Special Area Permit Application must be completed and forwarded to ADF&G at least five days prior to anticipated start date. As an advisory the
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   + Use of ATVs is restricted to areas below storm tide lines.
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C. Justifications:

The time period between August 15 and September 30 is a critical time for harbor seal haulouts. During this period harbor seals are hauled out on the beaches for molting into their winter coats. Undue exposures to the cold waters and stress from disturbances can cause abnormalities in coat formation resulting in mortalities.

The area of the island above the storm tide lines (the upland and marsh areas) and the lagoon area at the northeast end of the island are extremely important habitat areas. These areas are used extensively by nesting and migrating birds. Undue disturbances may cause increased mortality. The sand and gravel beaches in and around the lagoon are important haulout and use areas for harbor seals. This is the reasoning behind the restrictions on use above the storm tide zones and the lagoon area.

The necessary permits may be obtained through the ADF&G Anchorage office, Habitat Division. These can be FAX to Kodiak. If you have any further questions you can contact either myself at 486-5033, or Wayne Dolezal or Don McKay at 267-2285. Thank you.

Enclosures.
Special Area Permit Application
Tugidik Island Critical Habitat Area advisory notice
Distribution.
Gary Penn  Marine Ecologist SCAT
Mark Kuwanda  ADF&G Habitat Division
Ken Middleton  ADF&G Habitat Division
Kodiak Interagency Shoreline Clean-up Committee
TUGIDAK ISLAND CRITICAL HABITAT AREA

ADVISORY NOTICE
(July 1988)

Attention: To avoid disturbance of pupping and molting marine mammals, all beaches (shown with the \_\_\_\_ pattern) should be avoided during the period May 1 to October 1. In addition, aircraft overflights of these beaches from May 1 to October 1 should be made at a minimum altitude of 1,500 feet above ground level. Likewise, overflights of the lagoon from October 1 to April 30 should be made at a minimum altitude of 1,500 feet above ground level to avoid disturbing wintering waterfowl. Suggested boat and aircraft access corridors are depicted with a \_\_\_\_\_ pattern. Prior to operation of an off road vehicle within the Tugidak Island Critical Habitat Area a permit must first be obtained from the Alaska Department of Fish and Game.

Note: Tugidak Island Critical Habitat Area consists of all state land above the mean high tide line and the land and water below the mean high tide line in the lagoon at the northeast end of the island.

For further information and permits contact the Alaska Department of Fish and Game, Division of Habitat, 133 Raspberry Road, Anchorage, Alaska, 99518. Phone 907-267-2284.
AUXA Dn'tt'l'l'tt' OF FISH AND GAME

PEtM!lt' APPLICATION

Pursuant to AAC 95

A application must be completly

If you are uncertain as to whether your proposed project lies

The purpose of the project or activity:

On separate sheets provide complete plans and specifications and all other details necessary to fully describe the scope of the proposed project or activity. Include, at a minimum, the following information:

Company:

Address:

Name of Responsible Party in the Field:

LOCATION OF PROJECT SITE

Name of Special Area

USGS Map

Tuznik Island Coastal Habitat Area

Specific Project Location

Quarter Section

Township 42 Ranges 23 34 35 Meridian Second Section

Ownership unknown

Turnagain Arm

X

Tuznik Island

Location:

Phone (day):

APPLICANT

Sample

FOR APPROVAL OF A PROJECT OR ACTIVITY WITHIN THE STATE GAME SANCTUARY OR CRITICAL HABITAT AREA.

a state game range, game sanctuary, or critical habitat area

Pursuant to AAC 95

If you do not indicate on your project, or application, the appropriate line, you may be denied approval. In order for the project or activity to be considered approved, you must provide plans and specifications and all other details necessary to fully describe the scope of the proposed project or activity in order for the project or activity to be considered approved.
ALASKA DEPARTMENT OF FISH AND GAME
SPECIAL AREAS PERMIT APPLICATION

(For approval of a project or activity within
a state game refuge, game sanctuary or critical habitat area)
Pursuant to 5 AAC 95

This application must be completely filled out in order for the
department to consider approval of a proposed project or activity.
Type or print clearly in ink. If a question is not applicable
your project, or you do not know the answer, please so indicate on
an appropriate line.

APPLICANT

Name: ________________________________
Company: ______________________________
Address: ________________________________
Phone (day): ____________________________
Name of Responsible Party in the Field: ________________________________

LOCATION OF PROJECT SITE

Name of Special Area ________________________________
Specific project location ________________________________
Township _____ Range _____ Meridian _____ Section _____
Quarter Section _____ USGS Map _____

Is the project on: private land _____ state land _____
federal land _____ municipal land _____ ownership unknown _____
Waterbodies crossed or otherwise affected: ________________________________

Is the project in the coastal zone?* Yes _____ No _____
If yes, attach a completed Coastal Project Questionnaire to this
application.

DESCRIPTION OF THE PROJECT OR ACTIVITY

On separate, attached sheets provide complete plans and
specifications and all other details necessary to fully describe
the scope of the proposed project or activity. Include, at a
minimum, the following information:

The purpose of the project or activity.

*If you are uncertain as to whether your proposed project lies
The timeframe for the project or activity, including the specific time periods for any inwater work or other activities which may disturb fish or wildlife.

A description of construction methods, types and quantities of equipment and number of people involved.

A description of water use including methods of withdrawal, rate of withdrawal, and the total quantity of water required.

A list of fill and excavation quantities including the types of material and the source.

A map and description showing how access will be gained to the project area (use USGS 1:63,360 scale maps where available).

A detailed map or plan view, drawn to scale, and any cross-sectional views necessary to show project features and local topography including the location of all facilities and project dimensions.

A current aerial photograph of the project location (if available).

D. OTHER PERMITS

Identify other state or federal permits or authorizations obtained or applied for: ____________________________

MITIGATION: As a condition of project approval, applicants will be required to compensate fully for damage to fish and wildlife and their habitat by employing the most appropriate techniques. Where determined necessary by the department, a mitigation plan pursuant to 5 AAC 95 will be required.

I HEREBY CERTIFY THAT ALL INFORMATION PROVIDED ON OR IN CONNECTION WITH THIS APPLICATION IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

____________________________  __________________________
Signature of Applicant                  Date

Name of Applicant (please print)

SUBMIT APPLICATION BY MAIL OR IN PERSON TO THE APPROPRIATE DEPARTMENT OF FISH AND GAME HABITAT DIVISION OFFICE.

Habitat Division Addresses:

JUNEAU (Southeast Alaska - Region I)
P.O. Box 20, Douglas, AK 99824-0020 (465-4290)

ANCHORAGE (Southeastcentral, Southwest and Western Alaska - Regions II and IV)
333 Raspberry Rd., Anchorage, AK 99518-1599 (344-0541)

FAIRBANKS (Interior and Arctic Alaska - Region III)
1565 University Avenue, Fairbanks, AK 99701 (479-3104)
ECOLOGICAL EVALUATION

LOCATION: Kodiak
SITE: Trinity Islands
LOCATION PREFIX: K7-15
SEG. NO.: T2-3
LENGTH: 28 km

DATE: 01/23/89
TIME (HHMM): 10:30
TIDE HT.: 1.2

OILED ZONE: Splash

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS: Generally sand/gravel beach = erosion
          1 Low lying gravel/pebbles not conducive
          to rich intitial emergent flora
          * CLEANUP PRECAUTIONS: Remain clear of ground area. Use no
               motorized vehicles on beach if seals encountered. Complete prior
               to Aug. 15, 1989. Avoid Eagle Nest area. (See Map)
          Mammals: Otters Harbor Seals Sea Lions Whales

          Birds: Eagles

GENERAL OBSERVATIONS:

* See attached AFO Summary map restrictions

ACE 8708169
Tugidak Island Fish and Wildlife Resources

Tugidak Island is unique in the Gulf of Alaska not only because of its unusual number of extremely productive and diverse fish and wildlife habitats but also because those habitats have remained in a relatively natural, undisturbed state. To date very little human disturbance has occurred on the island to threaten the vulnerable groundnesting birds, harbor seal pupping areas, and rich lagoon environment.

Marine mammals: Tugidak is most renowned for its harbor seal population. Tugidak Island has historically supported one of the largest harbor seal populations in the world, estimated at 15,000 to 20,000 animals with peak concentrations of hauled out seals reaching 14,000 at a time. Tugidak Island is also a major pupping area for harbor seals in the Gulf of Alaska with annual production once estimated at a high of 5,500 pups. That population is now substantially depressed but remains one of the largest known. Seals haul, pup, and molt on beaches found along the west and northeastern side of the island and in the vicinity of the mouth of the lagoon.

Sea otters are common in the nearshore waters around Tugidak Island. Approximately 400 to 700 sea otters are found in the vicinity of Tugidak Island, with medium to high densities along the south side of the island.

Birds: The interspersion of many different habitat types on Tugidak Island associated with cliff and bluff shores; sand and rocky beaches; spits, bars and tidelands; freshwater streams and lakes; saltwater marshes and lagoons; vast eelgrass beds; freshwater wetlands; and uplands attracts some of the greatest diversity of bird life known to nest on and visit any one island in the Gulf of Alaska.

The island serves as a valuable spring and fall resting and feeding area and as a production area for birds migrating from the Pacific coast of North America. Because Tugidak Island is low, treeless, and free of introduced predators, all birds nest on the ground and are particularly susceptible to habitat destruction, predation, and trampling.

ACE 8708170
At least 56 species of birds occur on Tugidak Island. Thirty eight species are known to nest there, and 16 of these species are considered common or abundant.

Wetland habitats throughout the island provide nesting habitat for waterfowl, shorebirds, tundra swans and loons, with wetlands habitats along the south shore supporting nesting concentrations of mallards, pintails, gadwalls, green-winged teal and wigeon.

Snow geese concentrate on the island during spring migration to rest and feed.

The lagoon supports spring and fall concentrations of ducks and shorebirds. Black brant and white-fronted geese also concentrate in the lagoon in the fall to rest and feed. The lagoon area provides winter habitat for emperor geese, a species that has recently experienced a serious population decline.

The coastal waters surrounding Tugidak Island are a major overwintering area for waterbirds, primarily seaducks.

Five seabird colonies are documented on Tugidak Island, totalling nearly 4,000 nesting birds. Glaucous-winged gulls are the most abundant seabird, followed by arctic terns, mew gulls, and cormorants.

Of particular significance are records of six ground nesting bald eagles. These bald eagle nests are located on bluffs or slight rises in the terrain throughout the island.

Peregrine falcons are also reported to nest on the island's bluffs.

Several thousand ptarmigan nest in upland areas of the island.

Fish and Shellfish: The lagoon and nearshore waters of Tugidak provide a productive marine environment for several species of fish and shellfish. The island's stream systems provide habitat for anadromous fish.

There are three documented salmon stream systems on the island supporting chum and/or coho salmon.

The lagoon is a productive rearing and feeding area for large numbers of Pacific herring.
\textbf{Tugidak Island} \hspace{1cm} \textbf{-3-}

\begin{itemize}
  \item Known razor clam concentrations occur along the bars at the mouth of the lagoon.
  \item Based upon frequent observations of small Dungeness crab carapaces and exoskeletons washed up along the lagoon's shores and large commercial catches of Dungeness crab directly offshore of the lagoon, the shallow waters and large eelgrass beds found in the lagoon are thought to provide an important nursery rearing area for Dungeness crab.
\end{itemize}

\textbf{Archaeological Sites:} Eight archaeological sites have been documented on the island. Although largely unexplored, they appear to indicate abundant prehistoric use of the island, with a majority of the sites located along the lagoon.
LEGEND

- Known Black Brant and White-Fronted Goose Fall Concentration Area
- Known Snow Goose Spring Concentrations (Entire Island)
- Known Tundra Swan Nesting Concentrations (Entire Island)
- Known Spring and Fall Duck Concentrations
- Known Duck Nesting Concentrations
- Known Bald Eagle Nests ▲ Additional Bald Eagle Nests found during 1988
- Seabird Colony
- Known Harbor Seal Haul-out Concentrations
- Known Pacific Herring Rearing and Feeding Area
- Anadromous Fish Stream
  - Anadromous Fish Streams identified during 1988

[Map Legend with symbols and areas labeled]
Attention: To avoid disturbance of pupping and molting marine mammals, all beaches (shown with the pattern) should be avoided during the period May 1 to October 1. In addition, aircraft overflights of these beaches from May 1 to October 1 should be made at a minimum altitude of 1,500 feet above ground level. Likewise, overflights of the lagoon from October 1 to April 30 should be made at a minimum altitude of 1,500 feet above ground level to avoid disturbing wintering waterfowl. Suggested boat and aircraft access corridors are depicted with a pattern. Prior to operation of an off road vehicle within the Tugidak Island Critical Habitat Area a permit must first be obtained from the Alaska Department of Fish and Game.

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