[Shoreline evaluations, 1989].

Volume 25
Kodiak section 3

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Kodiak
Scat
Section 3
(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/19/89 SHORELINE SEGMENT K2-6-BI-4

LOCATION: (see enclosed map) Ban Island (S. shore to E most tip) off west side of Afognak Island

ADEC NO._________SHORELINE ASSESSMENT DATE: 7/19/89

Recommended Cleanup Activity(ies):

Priorities/Considerations: Class 5-A

Ecological Constraints (from site survey):

Archaeological Constraints (from site survey):
- No access to the grass/upland zone by beach crews during cleanup in this segment.
- 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 21 April, 1989 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

A. General
1. Date: 7/18/89
2. Time: 12:15-1300
3. Observer: C. Dillon
4. Surveyed From: Foot/Boat/Helio/Plane
5. Weather: Sun/Cloud/Rain/Snow/Fog

B. Location
6. Location: Banana Island (S. Shore)
7. Segment #: K-2-6-BI-4

8. Length of shoreline segment: 3500 m


C. Shoreline
10. Shoreline Type: SPI/BAR/BEA/COV/HLD/STRT/CLF/EST/DAF
11. Slope: "LANG/HAND/VER
12. Wave Exposure: High/Med/Low
13. Sediment: B % / C % / P % / G & S % / M % / R %
14. Drift Debris on Beach: Yes/No
15. Type: Supra/Upper/Mid/Lower

D. Oil Summary
16. Degree of Oiling: Heavy/Moderate/Light/Very Light/No Oil/Unobserved
17. Area of Beach Impact: Width of Band: W cm

   Continuous: Y/N % of Segment _____ 
   Sporadic: Y/N % of Segment _____

18. Est. Oil Thickness where >1 cm: D cm
19. Est. Oil Penetration: E cm

20. Pooled Oil: _____ % "Free" Oil: _____ % Coated: H % / M % / L %
21. Fresh: _____ % Mousse: _____ % Tar Formation: _____ %

22. Drift Debris Oiled? Yes/No
   Supra/Upper/Mid/Lower Amount: Very Small
   Comments: Segment is entirely un-oiled except for a very small amount of oil covered algae along the upper and Supra ITZ on beach 750 m long.

Rifle is attached map for location. Page 2 of oil evaluation form attached blank since it is not applicable.
DOCUMENTATION:  K-3.6.BI-4

Map/Aerial photo marking segment boundaries: Attached

VTR:  Y  Tape Number(s): None

Photography:  Y  Roll Number(s): None

Sample Numbers Collected: None

ACE 8702003
### SHORELINE OIL EVALUATION

#### 22. Oil Type

<table>
<thead>
<tr>
<th>Type</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh</td>
<td></td>
</tr>
<tr>
<td>Mousse</td>
<td></td>
</tr>
<tr>
<td>Weathered</td>
<td></td>
</tr>
<tr>
<td>Tar</td>
<td>100</td>
</tr>
</tbody>
</table>

#### 23. Stabilized or "Free"

#### 24. Oil Character (Location)

<table>
<thead>
<tr>
<th>Character</th>
<th>Type</th>
<th>% of Segment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thick</td>
<td>SU</td>
<td>H/M/L</td>
</tr>
<tr>
<td>Continuous</td>
<td>SP</td>
<td>H/M/L</td>
</tr>
<tr>
<td></td>
<td>H/M/L/VL</td>
<td></td>
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<tr>
<td>Coating</td>
<td>SU/SP</td>
<td>H/M/L</td>
</tr>
<tr>
<td>on B/BD/Wood/Rock</td>
<td></td>
<td>H/M/L/VL</td>
</tr>
<tr>
<td>Cracks &amp; crevices on bedrock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patties (&gt;10cm diameter)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balls (&lt;10cm diameter)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asphalt pavement</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 25. Oil Distribution:

<table>
<thead>
<tr>
<th>Type</th>
<th>Length (m)</th>
<th>Width (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sporadic</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 26. Preliminary Cleanup Est.

<table>
<thead>
<tr>
<th>Type</th>
<th>Length (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very light</td>
<td></td>
</tr>
<tr>
<td>Light</td>
<td></td>
</tr>
<tr>
<td>Moderate</td>
<td></td>
</tr>
<tr>
<td>Heavy</td>
<td></td>
</tr>
<tr>
<td>Buried</td>
<td></td>
</tr>
</tbody>
</table>

Mobilization Potential: High/Medium/Low

Comments:

Not applicable.

ACE 8702004
**ECOLOGICAL EVALUATION**

**LOCATION:** Ben Island
**SITE:** South shore
**LOCATION PREFIX:** BI
**SEG. NO.:** 4
**LENGTH:** 3500 (M)
**DATE:** 7/19/89
**TIME (HHMM):** 12:15-13:00
**TIDE HT.:** +0.6 to +1.6 (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**
- **Limpets**

**OTHER OBSERVATIONS:** Light bits of oil in wrack above steep gravel beach at west end of segment.

**CLEANUP PRECAUTIONS:** None — little or no macro-flora or fauna present near oiled area.

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

**BIRDS:** Pigeon, guillemots, gulls, ravens

**GENERAL OBSERVATIONS:** Steep gravel beach at west end of segment, then small protected cove. Rest of segment rock faces & boulders/cobbles.
<table>
<thead>
<tr>
<th>Predominant Sediment</th>
<th>Degree of Oiling</th>
<th>Amount of Debris</th>
<th>CLYDES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pebble</td>
<td>Moderate</td>
<td>Moderate</td>
<td>31</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Length (yds)</th>
<th>Width (yds)</th>
<th>% Oiled</th>
<th>Penetration (In)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1308</td>
<td>1</td>
<td>50</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gross Contamination Removal</th>
<th>Assessment Done By</th>
<th>Pre-Assessment Approval Date</th>
<th>Recommended Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Started</td>
<td>Completed</td>
<td>% Complete</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

05AUG89  m.m.
NO SIGNED SCAT
SHORELINE CLEANUP PROGRAM

DATE 5/20/89
SHORELINE SEGMENT BI-1

LOCATION: (see enclosed map) West Shore of Ban Island

ADEC NO. SHORELINE ASSESSMENT DATE: 5/19/89

Recommended Cleanup Activity(ies):
- See below
- Use high temperature flooding/spray to remove mousse from coated boulders/cobbles.

Priorities Considerations:
- Remove by shovel the one (1) meter wide continuous band of contaminated seaweed drift at the top of the high intertidal zone.

Ecological Constraints (from site survey):
- Avoid healthy community in low 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 *

EXXON: ________________________ Date: ________________

FOSC: ________________________ Date: ________________

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

date: 19 May 1989 Time: 0800 Hrs
Surveyed From: Foot/Boat/Helic/Plane
Weather: Sun/Cloud/Rain/Snow/Fog
Observer: Bryan Trimm

LOCATION

LOCATION West Coast Raz Is. Paramour Bay SEGMENT NUMBER BI-1
LENGTH OF SHORELINE SEGMENT: 1200 m (3912 yds)
ACCESS: Foot/Boat/Helic/Plane

SHORELINE:

Shoreline Type: SPI/BEA/COV/HLD/STRT
Slope: LANG/HANG/VER
Wave Exposure: High/Med/Low
Sediment: B 25% / C 25% / P 35% / G 15% / S - / M - / R -
Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type Logs/Sea Lace

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved
Area of Beach Impact: SU / SP / (H) M / L
Continuous: Ø/N % of Segment 750 Width of Band: ______ m
Sporadic: Ø/N % of Segment 5
Est. Oil Thickness where > 1 cm: ______ cm Est. Oil Penetration: ______ cm
Pooled Oil: ______ % "Free" Oil: 50 % Coated: H ______ / M 50 % / L ______
Fresh ______ % Mousse ______ % Tar Formation: ______ %
Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H/M/L/
Comments:

Each photo is a wide continuous band of oiled seaweed drift at the top of the high intertidal zone. A 6 m wide, moderate coating of cobbles/boulders beach in the high intertidal zone has an unknown depth of penetration. High-temperature flooding may clean the boulder/cobble beach. Removal of the seaweed drift (oiled) will prevent animals from contamination.

ACE 8702011
DOCUMENTATION:
Map/Aerial photo marking segment boundaries  Attached

IR:  Y/N  Tape Number(s)  None
Photography:  Y/N  Roll Number(s)  SMB-9
Sample Numbers Collected:  None

ACE 8702012
ECOLOGICAL EVALUATION

LOCATION: Ben Island  SITE: W. Har Bom IS.  OBSERVER: Son Ben
LOCATION PREFIX: BT  SEG. NO.: 1  LENGTH: 1200 (M)
DATE: 5/19/89  TIME (HHMM): 0800  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
Dense on rocks, healthy in lower ITZ, none oiled

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Dense on rocks and healthy in lower ITZ

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Dense in lower ITZ, not impacted

Torton

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Healthy on rocks in lower ITZ, also Y/N

OTHER OBSERVATIONS: Two deep clean up areas prior to landing
Most oils mixed with debris at strandline decreases as moving down the beach.

CLEANUP PRECAUTIONS: Avoid healthy communities in lower ITZ

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

BIRDS: Gulls & Eagles

GENERAL OBSERVATIONS: Light to moderate oiling, boulder
at cobble areas have been oiled and may need to
be steam cleaned

ACE 8702013
SHORELINE PRE CLEANUP REASSESSMENT

DATE 7/19/89  SHORELINE SEGMENT K2-6-BI-2R REASSESSMENT DATE 7/19

Observers: OC C. Dillon  BIO M. Fawcett  ARCH S. Ludwig

Reason for Reassessment: K2-6-BI-2R

Revised Recommended Cleanup Activity(ies):

-K2-6-BI-1 and K2-6-BI-2 (as reported on 5/19/89) were reassessed and evaluated entirely on 7/19/89. See segment report K2-6-BI-1 dated 7/19/89.

Revised Ecological Constraints:
- Avoid trampling highly developed community of lower intertidal zone or allowing run-off of oily wastes into lower intertidal zone.

Revised Archaeological Constraints:
- No access to the forest/upland zone by beach crews during cleanup in this segment.
- 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:  
FOSC:  

Date: 7/26/89  Date:  

Date:  

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

ADEC # K2-6 Shoreline Segment: BI-2

Shoreline Treatment Process(es) Completed for this Segment

- [ ] Hot water wash
- [ ] Mechanical
- [ ] Warm water wash
- [x] Non-mechanical
- [ ] Water deluge
- [ ] Other

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Exxon Comments:

[Blank Space]

Signature: [Signature]
Date: 8/8/89 Time: 1700

Printed Name: Gayle Cannon

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil

Percent Degree of Oiling

- [ ] Heavy
- [ ] Medium
- [ ] Light
- [ ] Very Light

100%

Subsurface Oil

- [ ] Yes
- [ ] No

Comment Below

[Blank Space]

Reassessment

- [ ] Yes - Necessary

[Blank Space]

ADEC Rep Comments

XCE K2-6 BI-1 Comments

Signature: [Signature]
Date: 8/28/89 Time: 5:45 PM

Printed Name: Stalin Shefah

FOSC Rep: Demobilization approved/disapproved

Comments: Same comment for BI-1

Signature: [Signature]
Date: 8/22/89 Time: [Blank Space]

Printed Name: E M Maddox

Copy: Exxon ADEC FOSC ISCC Return All Signed Originals to Exxon

ACE 8702018
SHORELINE CLEANUP PROGRAM

DATE 7/20/89  
SHORELINE SEGMENT K2-7-PA-1

LOCATION: (see enclosed map) Paramanof Bay (2 arms at head of Bay) on NW side of Afognak Island.

ADEC NO. ________ SHORELINE ASSESSMENT DATE: 7/20/89

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

Priorities/Considerations: Class

Ecological Constraints (from site survey):

Archaeological Constraints (from site survey):
- If cleanup is planned, there must be no access to the forest/upland zone in the south arm of the segment 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: 7/26/89  

EXXON: ____________________________ Date: __________________

FOSC: ____________________________ Date: __________________

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
A. General
1. Date: 7/30/89  2. Time: 0805-0955  3. Observer: C. Dillon
B. Location
6. Location: Head of Paramour Bay  7. Segment #: K-2-7-P-1
8. Length of shoreline segment: 20,000 m
C. Shoreline
10. Shoreline Type: SPI/BAR/BEA/COV/HLD/STR/CLF/EST/DAF
11. Slope: LANG/HAND/VER
12. Wave Exposure: High/Med/Low
13. Sediment: BS % / CSA % / PSH % / G & S % / M % / RS %
14. Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type
D. Oil Summary
15. Degree of Oiling: Heavy/Moderate/Light/Very Light/No Oil/Unobserved
16. Area of Beach Impact: Width of Band: m
   Continuous: Y/N % of Segment SU/SP/H/M/L
   Sporadic: Y/N % of Segment SU/SP/H/M/L
17. Est. Oil Thickness where >1cm: cm Est. Oil Penetration: cm
18. Pooled Oil: % "Free" Oil: % Coated: H % / M % / L %
19. Fresh % Mousse % Tar Formation: %
20. Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: %

Comments:


ACE 8702020
DOCUMENTATION: K-2-7-PA-1
Map/Aerial photo marking segment boundaries Attached

VTR: Y/N  Tape Number(s) None  ? No camera available
Photography: Y/N  Roll Number(s) None
Sample Numbers Collected: None
SHORELINE OIL EVALUATION

22. Oil Type

<table>
<thead>
<tr>
<th>Type</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh</td>
<td></td>
</tr>
<tr>
<td>Mousse</td>
<td></td>
</tr>
<tr>
<td>Weathered</td>
<td></td>
</tr>
<tr>
<td>Tar</td>
<td></td>
</tr>
<tr>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

23. Stabilized or "Free"

24. Oil Character (Location)

<table>
<thead>
<tr>
<th>Character</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>thick (&gt; 1cm) + continuous (&gt; 1sq.m.)</td>
<td>coating on B/BD/Wood/Rock</td>
</tr>
<tr>
<td>cracks &amp; crevices on bedrock</td>
<td>patty (&gt; 10cm diameter)</td>
</tr>
<tr>
<td>balls (&lt; 10cm diameter)</td>
<td>asphalt pavement</td>
</tr>
</tbody>
</table>

25. Oil Distribution:

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

Total

<table>
<thead>
<tr>
<th>Type</th>
<th>Length (m)</th>
<th>Width (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very light</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heavy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buried</td>
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<td></td>
</tr>
</tbody>
</table>

26. Preliminary Cleanup Est.

<table>
<thead>
<tr>
<th>Type</th>
<th>Total Length (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
</tr>
<tr>
<td>A/B</td>
<td></td>
</tr>
</tbody>
</table>

Mobilization Potential: High/Medium/Low

Comments:

No oil observed
ECOLOGICAL EVALUATION

LOCATION: K2-7 SITE: Fremont-4-3b OBSERVER: Faucci
LOCATION PREFIX: SEG. NO.: 1 LENGTH: 20,000 (M)
DATE: 7/26/87 TIME (HHMM): 0846-1< TIDE HT.: -0.9 to +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

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: Erratic growth of fish streams, small and opposite each other - Many ?eye ?, eye, and other starfish: Echinoderms, Echinoderms, etc.

CLEANUP PRECAUTIONS: No cleanup needed at this time

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

BIRDS: 9 eagles

GENERAL OBSERVATIONS: Most of segment is steep rock and talus, with protected, with small cover, cobble/sand beaches, some muddy
SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): K2-8

Includes Shoreline Segments: PA-2, PA-3

Location: Paramanof 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 ______________  SHORELINE SEGMENT K2-8-PA-2

LOCATION: (see enclosed map) Paramanof Bay (across from S. shore
of Ban Island) on NW shore of Afognak Island.

ADEC NO. _______ SHORELINE ASSESSMENT DATE: ______________

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

Priorities/Considerations: Class

Ecological Constraints (from site survey):

Archaeological Constraints (from site survey):
- If cleanup is planned, a full archaeological assessment
  must be conducted in this segment.
- If heretofore undiscovered cultural materials are uncovered
  during cleanup, contact Exxon's Archeological Field Direc-
  tor and take actions prescribed in the Operational Guide-
  lines 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.
A. General
1. Date: 7/20/89
2. Time: 10:55-13:30
3. Observer: C. Dillon
4. Surveyed From: Foot/Boat/Helio/Plane
5. Weather: Sun/Cloud/Rain/Snow/Fog

B. Location
6. Location: Paramont Bay (crossing S shore of San Blaz) Segment #: K-2-8-P-2
8. Length of shoreline segment: 30,000 m

C. Shoreline
11. Shoreline Type: SPI/BAR/BEA/COV/HLD/STR/CLP/EST/DAF
12. Slope: LANG/HAND/VER
13. Wave Exposure: High/Med/Low
14. Sediment: B35% / C20% / P15% / G & S5% / M% / R25%
15. Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type/Size/Large

D. Oil Summary
16. Degree of Oiling: Heavy/Moderate/Light/Very Light/No Oil/Unobserved
17. Area of Beach Impact: Width of Band: X m
   Continuous: Y/N % of Segment
   Sporadic: Y/N % of Segment
18. Est. Oil Thickness where >1cm: ___ cm Est. Oil Penetration: ___ cm
19. Pooled Oil: ___ % "Free" Oil: ___ % Coated: H__% / M__% / L__%
20. Fresh ____% Mousse ______% Tar Formation: ______%
21. Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: ____%

Comments:

ACE 8702030
DOCUMENTATION: K-2-8-PK-V

Map/Aerial photo marking segment boundaries Attached

VTR: Y/N Tape Number(s) None / No camera

Photography: Y/N Roll Number(s) None / available

Sample Numbers Collected: None
**SHORELINE OIL EVALUATION**

22. Oil Type

- Fresh: _______ %
- Mousse: _______ %
- Weathered: _______ %
- Tar: _______ %
- 100 %

23. Stabilized or "Free"

24. Oil Character (Location)

<table>
<thead>
<tr>
<th>Oil Character</th>
<th>SU</th>
<th>SP</th>
<th>H</th>
<th>M</th>
<th>L</th>
<th>Buried</th>
<th>Length(m)</th>
<th>Width(m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>thick (&gt;1cm) + continuous (&gt; 1sq.m.)</td>
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<tr>
<td>coating on B/BD/Wood/Rock</td>
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<td>cracks &amp; crevices on bedrock</td>
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<tr>
<td>patties (&gt;10cm diameter)</td>
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<td>balls (&lt;10cm diameter)</td>
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<td>asphalt pavement</td>
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</tbody>
</table>

25. Oil Distribution:

<table>
<thead>
<tr>
<th>Type</th>
<th>Continuous % of Segment</th>
<th>SU/SP/H/M/L</th>
<th>Sporadic % of Segment</th>
<th>SU/SP/H/M/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very light:</td>
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<tr>
<td>Light:</td>
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<tr>
<td>Moderate:</td>
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<tr>
<td>Heavy:</td>
<td></td>
<td></td>
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<tr>
<td>Buried:</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

26. Preliminary Cleanup Est.

- Total Type A: _______ m
- Total Type B: _______ m
- Total Type A/B: _______ m

Mobilization Potential: High/Medium/Low

Comments:

*No oil observed*
ECOLOGICAL EVALUATION

LOCATION: 
SITE: 
LOCATION PREFIX: 
SEG. NO.: 
LENGTH: 
DATE: 7/26/89 
TIME (HHMM): 1139-1326 
TIDE HT.: 6.9 to +1.5 (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: many starfish especially Pteraster 

CLEANUP PRECAUTIONS: no cleanup needed

MAMMALS: Otters 

BIRDS: 2 eakes 2 puffin 3 harlequin duck 3 oystercatcher

GENERAL OBSERVATIONS: mostly steep rock shore interspersed with some shale cobble gravel beaches and sand/mud flats

ACE 8702033
SHORELINE CLEANUP PROGRAM

DATE 7/21/89

LOCATION: (see enclosed map) Paramanof Bay (across from S. shore of Ban Island) on NW shore of Afognak Island.

ADEC NO. ___________ SHORELINE ASSESSMENT DATE: 7/21/89

Recommended Cleanup Activity(ies):
- Manual removal (scraping/wiping) of oil spots from larger logs.
- No cleanup recommended at beach 1 due to ecological constraints listed below. Subject to FOSC reassessments at a later date.

Priorities/Considerations: Class 5-A

Ecological Constraints (from site survey):
- No cleanup of beach 1 due to high, ecosystem sensitivities, diversities and abundances.
- Rocky convaluted shorelines generally contain locally sensitive ecosystems and should be avoided.

Archaeological Constraints (from site survey):
- Archaeological monitor is required during cleanup in beach 5 area at west end of segment. An archaeological monitor is also required in beach 1 area if cleanup is planned in this area of the segment. No access to forest/upland zone by beach crews during cleanup.

State Historic Preservation Officer *
Date: 7/26/89

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: 7/24/89
2. Time: 0845-1350
3. Observer: C. Dillon
4. Surveyed From: Foot/Boat/Helio/Plane
5. Weather: Sun/Cloud/Rain/Snow/Fog

B. Location
6. Location: Paramanof Bay
7. Segment #: K-2-F-B2
8. Length of shoreline segment: 9000 m
10. 

C. Shoreline
11. Shoreline Type: SPI/BAR/BEA/COV/HLD/STRY/CLF/EST/DAF
12. Slope: [ ] LANG/HAND/VER
13. Wave Exposure: [ ] High/Med/Low
14. Sediment: [ ] B,% / [ ] C,% / [ ] P,% / [ ] G & S,% / [ ] M,% / [ ] R,%
15. Drift Debris on Beach: [ ] Yes/No
Supra/Upper/Mid/Lower Type

D. Oil Summary
16. Degree of Oiling: Heavy/Moderate/Light/Very Light/No Oil/Unobserved
17. Area of Beach Impact: Width of Band: N/A m
Continuous: Y/N % of Segment [ ] SU / SP / H / M / L
Sporadic: Y/N % of Segment 2/5 [ ] SU / SP / H / M / L
18. Est. Oil Thickness where >1cm: ___ cm Est. Oil Penetration: ___ cm
19. Pooled Oil: ___ % "Free" Oil: [ ] A% Coated: H___ / M___ / L___
20. Fresh [ ] ___ % Mousse [ ] ___ % Tar Formation: [ ] ___ %
21. Drift Debris Oiled? [ ] Yes/No
Supra/Upper/Mid/Lower Amount: Very Small

Comments: Extent of oiling: Beach 3 has a few tar balls/patties and a small amount of splattered fog on the upper storm kerm 2/5 east of the stream. Beach 4 has a few tar balls/patties among debris on Supra ITZ strand within 100 m west of the rocks at the east end of the strand. Beach 5 has several tar balls/patties along debris strand.
DOCUMENTATION: K-2-8-88-2

Map/Aerial photo marking segment boundaries  Attached

VTR: Y/N  Tape Number(s)  None

Photography: Y/N  Roll Number(s)  None

Sample Numbers Collected:  None
SHORELINE OIL EVALUATION

22. Oil Type

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh</td>
<td></td>
</tr>
<tr>
<td>Mouse</td>
<td></td>
</tr>
<tr>
<td>Weathered</td>
<td>100%</td>
</tr>
<tr>
<td>Tar</td>
<td>100%</td>
</tr>
</tbody>
</table>

23. Stabilized or "Free"

24. Oil Character (Location)

- thick (> 1cm) + continuous (> 1sq. m.)
- coating on B/BD/Wood/Rock cracks & crevices on bedrock
- patties (> 10cm diameter)
- balls (< 10cm diameter)
- asphalt pavement

25. Oil Distribution:

- Continuous % of Segment
- Sporadic % of Segment

<table>
<thead>
<tr>
<th>Distribution</th>
<th>Length (m)</th>
<th>Width (m)</th>
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<tbody>
<tr>
<td>Very light</td>
<td></td>
<td></td>
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<tr>
<td>Light</td>
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<tr>
<td>Moderate</td>
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<tr>
<td>Heavy</td>
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<tr>
<td>Buried</td>
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</tbody>
</table>

26. Preliminary Cleanup Est.

- Total TYPE A: m
- Total TYPE B: m
- Total TYPE A/B: m

Mobilization Potential: High/Medium/Low

Comments:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

ACE 8702039
LOCATION: AFKANIK ISLAND  
SITE: SOUTH/WEST SHORE TO CAPE  
SHORELINE  
LENGTH: 9,000 (M)  
DATE: 7/12/89  
TIME (HHMM): 1135-1605 TIDE Ht.: -06 TO 2.3 (M)  
OILED ZONE: Splash High Medium Low (very light tar balls and sparse splat)  
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  
Locally dense, abundant growth in rocky site headland areas, sparse to none on sandy crenulated beach faces. Does not appear growth in LITE. Possibly an: endemical sp. in M/LITE. Local sparse to locally, more dense in LITE.  

Nymphaea (Mussles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N  
M.M. mollusks limited to rocky overhangs that form headlands and promontories. 
Locally abundant in M/LITE.  

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N  
Locally abundant in headland areas. Balanus found in LITE. 
Barnacles found in M/LITE. rocky headland areas in variable.  

Littorina  
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N  
Locally abundant in western areas of PB-2, on Boulder beaches (high energy)  

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N  
Locally found in L-LITE tide pools on rock and Boulder areas. 
Limpets dominant.  

OTHER OBSERVATIONS:  
Few sand dollars sp. values found on sandy beaches.  
Local kelp beds sp. (canaries) and anemones (Anemonea sp.) and Tectaria.  

CLEANUP PRECAUTIONS:  
High diversity and abundances in rocky headlands  
Areas. Access would be a problem in these ecosystems due to submerged  
Reefs and shore fasts  

MAMMALS: Otters Harbor Seals Sea Lions Whales  
Other  

BIRDS:  
Bald Eagles Cormorants Larus BULLS, etc.  

GENERAL OBSERVATIONS:  
Abundant off-shore, subtidal reef and any other  
Communities. Steep beaches or cliff supersaline zones: High energy  
Environments.

ACE 8702040
COMPLETE  JAN 26 1990

ACE 8643505
SHORELINE CLEANUP PROGRAM

DATE 7/22/89  SHORELINE SEGMENT K2-9-PA-7

LOCATION: (see enclosed map) W side of Afognak Island north of Tonaak Cape.

ADEC NO. K2-9  SHORELINE ASSESSMENT DATE: 7/22/89

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

Priorities/Considerations: Class

Ecological Constraints (from site survey):

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

A. General
1. Date: 7/30/89  
2. Time: 1:00-1:45  
3. Observer: C. Dillon  
4. Surveyed From: Foot/Boat/Helio/Plane  
5. Weather: Sun/Cloud/Rain/Snow/Fog  

B. Location
6. Location: North of Tadoussac Cape  
7. Segment #: K-2-9-PB-F  

C. Shoreline
8. Length of shoreline segment: 3500 m  

D. Oil Summary
10. Degree of Oiling: Heavy/Moderate/Light/Very Unobserved  
11. Area of Beach Impact: Width of Band:  
   Continuous: Y/N % of Segment  
   Sporadic: Y/N % of Segment  
12. Est. Oil Thickness where >1cm: ___ cm  
13. Est. Oil Penetration: ___ cm  
14. Pooled Oil: ___ %  
   "Free" Oil: ___ %  
   Coated: H___ % / M___ % / L___ %  
15. Mousse: ___ %  
   Tar Formation: ___ %  
16. Drift Debris Oiled? Yes/No  
   Supra/Upper/Mid/Lower Amount: ___ %  

Comments:

ACE 8702045
DOCUMENTATION: K-2-9-78-4
Aerial photo marking segment boundaries Attached

VTR: Y/N Tape Number(s) None
Photography: Y/N Roll Number(s) None
Sample Numbers Collected: None
### SHORELINE OIL EVALUATION

#### 22. Oil Type

<table>
<thead>
<tr>
<th></th>
<th>%</th>
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<tbody>
<tr>
<td>Fresh</td>
<td></td>
</tr>
<tr>
<td>Mouse</td>
<td></td>
</tr>
<tr>
<td>Weathered</td>
<td></td>
</tr>
<tr>
<td>Tar</td>
<td>100</td>
</tr>
</tbody>
</table>

#### 23. Stabilized or "Free"

#### 24. Oil Character (Location)

<table>
<thead>
<tr>
<th>Description</th>
<th>SU</th>
<th>SP</th>
<th>H</th>
<th>M</th>
<th>L</th>
<th>Buried</th>
<th>Length(m)</th>
<th>Width(m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>thick (&gt; 1 cm) + continuous (&gt; 1 sq. m.) coating on B/BD/Wood/Rock</td>
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<td>cracks &amp; crevices on bedrock</td>
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<tr>
<td>patties (&gt; 10 cm diameter)</td>
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<tr>
<td>balls (&lt; 10 cm diameter)</td>
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<tr>
<td>asphalt pavement</td>
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</table>

#### 25. Oil Distribution:

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

#### 26. Preliminary Cleanup Est.

<table>
<thead>
<tr>
<th>Description</th>
<th>Length(m)</th>
<th>Width(m)</th>
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</thead>
<tbody>
<tr>
<td>Very light</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light</td>
<td></td>
<td></td>
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<tr>
<td>Moderate</td>
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<td>Heavy</td>
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<tr>
<td>Buried</td>
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</table>

Mobilization Potential: High/Medium/Low

Comments:

No oil observed.
**ECOLOGICAL EVALUATION**

**LOCATION:** Cape Bight North

**SITE:** Of Townes Cape

**DATE:** 7/22/89

**TIME (HOUR):** 1200-1300

**TIDE HT.:** -0.33 to +0.33 (M)

**OILED ZONE:** Splash High Medium Low N/A

**LENGTH:** 3500 (M)

**SEG. NO.:** Y7

**LOCATION PREFIX:** EB

**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

*Phytoplankton present in great abundance upon kelp.*

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

*Found on kelp in LITZ.*

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

*Generically B. glandula seen as a band in M-UITZ.*

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

*Limited to M-UITZ pools.*

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

*Found in LITZ only.*

**OTHER OBSERVATIONS:**

*Steep cliff faces; high rate of erosion.*

**SEA CAVES AND ISLETS CREATE UNIQUE SUB-INTERMEDIATE COMMUNITY**

**CLEANUP PRECAUTIONS:**

*Access could be difficult; highly diverse community.*

**MAMMALS:**

- Otters X
- Harbor Seals
- Sea Lions X
- Whales

**BIRDS:**

- Bald Eagle
- Cormorants
- Larus sp Gulls (roosting)

**GENERAL OBSERVATIONS:**

*High energy environment. Broad winter fetch.*

ACE 5702048
SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): K2-9

Includes Shoreline Segments: PA-4, PA-5, PA-6, PA-7

Location: Paramanof 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
Block K2-9

AFOGNAK (B-4), ALASKA
NS815-W15300/15X20

1952
MINOR REVISIONS 1973

ROAD CLASSIFICATION
No roads or trails in this area

LOW WATER
MEAN HIGH WATER
12 FEET
OVER LOW WATER \nAN MIGHT \nREET WATER \nSURVEY 25. OR RESTON, VIRGINIA 22092 ON REQUEST

QUADRANGLE LOCATION
ROAD CLASSIFICATION
No roads or trails in this area

AFOCNAK (B-4), ALASKA
N5815-W15300/15x20
1952
MINOR REVISIONS (1973)

L SURVEY
25. OR RESTON, VIRGINIA 22092
SOLS IS AVAILABLE ON REQUEST

-15
ACE 8702053
SHORELINE CLEANUP PROGRAM

DATE 7/22/89  SHORELINE SEGMENT K2-9-PA-4

LOCATION: (see enclosed map) Paramanof Bay

ADEC NO.  SHORELINE ASSESSMENT DATE: 7/22/89

Recommended Cleanup Activity(ies):
- Manual removal (scrape/wipe) oil spots off of large logs.
- Relocate oily berm sediments into the surf zone.

Priorities/Considerations: Class 3-A

Ecological Constraints (from site survey):
- Cleanup should be restricted to the oiled cobble beach upper/drift line, where semi-buried oiling is found.
- Cleanup is not recommended in rocky headlands.

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.

David McLean
State Historic Preservation Officer

EXXON: Date: 7/26/89

FOSC: Date: 

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
A. General
1. Date: 7/28/89
2. Time: 0920-1025
3. Observer: C. Dillon
4. Surveyed From: Foot/Boat/Helio/Plane
5. Weather: Sun/Cloud/Rain/Snow/Fog
B. Location
6. Location: Paraman of Bay (W of Cape Paramaribo)
7. Segment #: K-2-9-PA-1
8. Length of shoreline segment: 1200 m
10. 
C. Shoreline
11. Shoreline Type: SPI/BAR/BEA/COV/HLD/STRT/CLF/EST/DAF
12. Slope: LANG/HAND/VER
13. Wave Exposure: High/Med/Low
14. Sediment: B/E / C55% / P32% / G & S _% / M _% / R _%
15. Drift Debris on Beach: Yes/No
16. Degree of Oiling: Heavy/Moderate/Light/Very Light/No Oil/Unobserved
17. Area of Beach Impact: Width of Band: 1-4 m
   Continuous: Y/N % of Segment <= 30 (SU) SP / H / M / L
   Sporadic: Y/N % of Segment ______ SU / SP / H / M / L
18. Est. Oil Thickness where >1cm: <= 1 cm
19. Pooled Oil: % "Free" Oil: % Coated: H % / M 90% / L 5% / VL 5%
20. Fresh 90% Mousse ________% Tar Formation: 10%
21. Drift Debris Oiled? Yes/No
   Supra/Upper/Mid/Lower Amount: Moderate

Comments: The beach is approx. 1200 m long at the water line and 6000 m long along the Super II and storm surf zone. The center of the beach is all cobbles and pebbles and the ends of the beach are boulders. The boulders at the North corner of the beach are very tightly packed and the cobbles and pebbles in the center.
DOCUMENTATION: K-2-9 RB-1 PA-4

Map/Aerial photo marking segment boundaries Attached

VTR: Y/N Tape Number(s) Name

Photography: Y/N Roll Number(s) Name

Sample Numbers Collected: Name

ACE 6702056
SHORELINE OIL EVALUATION

22. Oil Type

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh</td>
<td></td>
</tr>
<tr>
<td>Mousse</td>
<td></td>
</tr>
<tr>
<td>Weathered</td>
<td>90%</td>
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<tr>
<td>Tar</td>
<td>10%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

23. Stabilized or "Free"

24. Oil Character (Location)

- thick (> 1cm) + continuous (> 1 sq. m.
- coating on B/BD/Wood/Rock
- Storm berm
- cracks & crevices on bedrock
- patties (>10 cm diameter)
- balls (<10 cm diameter)
- asphalt pavement

25. Oil Distribution:

<table>
<thead>
<tr>
<th>Continuous</th>
<th>% of Segment</th>
<th>30</th>
<th>SU SP H M L Buried</th>
<th>Length (m)</th>
<th>Width (m)</th>
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</thead>
<tbody>
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</tbody>
</table>

26. Preliminary Cleanup Est.

- Total TYPE A: __________ m
- Total TYPE B: __________ m
- Total TYPE A/B: __________ m

Mobilization Potential: High/Medium/Low

Comments:

- Between the boulders are lightly oiled - no penetration. Area of impact is 10m long by 4m wide, and the oil is a dried stain.
- The debris, sand above the storm berm has a moderate amount of oiled logs + algae plus scattered for patties/balls. The cobble/pebble storm berm is moderately coated and penetrated up to 15 cm with 4 cm or more clean sediments on top. The oiled berm sediments either fall off or become so deeply buried by the center of the beach. Not generally considered.

(Version July 18, 1989)
ECOLOGICAL EVALUATION

LOCATION: ANCHORAGE ISLAND
SITZ: MANAGER BY WEST END
OBSERVER: S. BUESON

LOCATION PREFIX: R. SEG. NO.: 4 LENGTH: 1200 (M)

DATE: 7/22/89 TIME (HHMM): 0715-1030AST TIDE MT.: +0.5 TO -0.17 (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

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

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

OTHER OBSERVATIONS: Very high diversity in M-LITZ. Rock ends of section

CLEANUP PRECAUTIONS: Very sensitive ecological community; access NIT

MAMMALS: Otters X Harbor Seals Sea Lions Whales

BIRDS: "Other"

GENERAL OBSERVATIONS: Buried objects become progressively higher energy towards west/south end of section. Greater diversity of intertidal flora/fauna in rocky headland areas.
SHORELINE CLEANUP PROGRAM

DATE 7/22/89  SHORELINE SEGMENT K2-9-PA-5

LOCATION: (see enclosed map) Paramanof Bay on W side of Afognak Island (between cape Paramanof and Tanoak Cape)

ADEC NO. _________ SHORELINE ASSESSMENT DATE: 7/22/89

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

Priorities/Considerations: Class

Ecological Constraints (from site survey):

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 *

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: 7/22/89
2. Time: 10:35-11:00
3. Observer: C. DILLON
4. Surveyed From: Foot/Boat/Helio/Plane
5. Weather: Sun/Cloud/Rain/Snow/Fog

B. Location
6. Location: Paramus Bay (S of Cape Paramus)
7. Segment #: K-2-9-72-2
8. Length of shoreline segment: 4000 m
10. ________________________________

C. Shoreline
11. Shoreline Type: SPI/BAR/BEA/COV/HLD/STRT/CLF/EST/DAF
12. Slope: LANG/HAND/VER
13. Wave Exposure: High/Med/Low
14. Sediment: B/30% / C/10% / P/10% / G & S / M / R 50%
15. Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type

D. Oil Summary
16. Degree of Oiling: Heavy/Moderate/Light/Very Light/No Oil/Unobserved
17. Area of Beach Impact: Width of Band: __________________________ m
   Continuous: Y/N % of Segment _____ SU / SP / H / M / L
   Sporadic: Y/N % of Segment _____ SU / SP / H / M / L
18. Est. Oil Thickness where >1 cm: _____ cm Est. Oil Penetration: _____ cm
19. Pooled Oil: _____ % "Free" Oil: _____ % Coated: H _____ % M _____ / L _____ %
20. Fresh _____ % Mousse _____ % Tar Formation: _____ %
21. Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: _____ %

Comments: ________________________________

______________________________

______________________________

______________________________

______________________________

______________________________

ACE 8702062
DOCUMENTATION: K-2-97B2

Map/Aerial photo marking segment boundaries Attached

VTR: Y/N Tape Number(s) None

Photography: Y/N Roll Number(s) None

Sample Numbers Collected: None
SHORELINE OIL EVALUATION

22. Oil Type

<table>
<thead>
<tr>
<th></th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh</td>
<td></td>
</tr>
<tr>
<td>Mousse</td>
<td></td>
</tr>
<tr>
<td>Weathered</td>
<td></td>
</tr>
<tr>
<td>Tar</td>
<td>100</td>
</tr>
</tbody>
</table>

23. Stabilized or "Free"

24. Oil Character (Location)

- thick (>1cm) + continuous (>1sq.m.)
- coating on B/BD/Wood/Rock
- cracks & crevices on bedrock
- patties (>10cm diameter)
- balls (<10cm diameter)
- asphalt pavement

25. Oil Distribution:

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

Total Length (m) | Width (m) |
Very light:       |
Light:            |
Moderate:         |
Heavy:            |
Buried:           |

26. Preliminary Cleanup Est.

<table>
<thead>
<tr>
<th></th>
<th>Length (m)</th>
<th>Width (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total TYPE A:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total TYPE B:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total TYPE A/B:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mobilization Potential: High/Medium/Low

Comments:

No oil observed
ECOLOGICAL EVALUATION

LOCATION: c. 4 miles E of BG 2531 SEG. 3 (K-2-4)  SITE: BG 2531 SEG. 3 (K-2-4)  OBSERVER: SBM
LENGTH: 75 (M)  DATE: 7/22/84  TIME (MM/HH): 1030-1105  TIDE HT.: -0.5 to -0.33 (M)

OILED ZONE: Splash High Medium Low N/A (NONE VISIBLE)

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
ABUNDANT, DIVERSE PHYTOPLANKTON, INCLUDING (FROM LITZ ON): A. longissima, A. laminar, Fucus, Halosaccus, and Ulva

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Present above numerous near-shore rocks and rocky intertidal reefs in LITZ. (MODULUS) Abundant on cobble crevicular beaches.

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
B. glandula abundant throughout in LITZ; B. cavusus common in LITZ

Littorina
Patches Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Found sparse populations in tidepools of rocky crevicular beaches.

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Limited to LITZ tidepools.

OTHER OBSERVATIONS:
Slopes, rocky beaches, backed by bedrock cliffs & lichen-encrusted, high rate of erosion. Well-developed subtidal communities w/ abundance of phytoes & fish

CLEANUP PRECAUTIONS: Tough access, well-developed ecosystem (6 clin. & Fauna). Also, offshore reef communities.

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

Other: Grey Fox

BIRDS: Numerous Lays, gulls (roosting), eagle sighting

GENERAL OBSERVATIONS: 
Slopes, rocky beaches, submerged rocks immediately offshore.
SHORELINE CLEANUP PROGRAM

DATE 7/22/89

SHORELINE SEGMENT K2-9-PA-6

LOCATION: (see enclosed map) W side of Afognak Island between Cape Paramanof and Tanaak Cape.

ADEC NO. K2-9 SHORELINE ASSESSMENT DATE: 7/22/89

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

Priorities/Considerations: Class 5-A

Ecological Constraints (from site survey):
- No cleanup due to very sensitive intertidal habitat with great floral and faunal diversity and abundance. Additionally, anadromous stream present and nesting bald eagles.

Archaeological Constraints (from site survey):
- If cleanup is planned, there must be no access to the forest/upland zone in the north end of the segment 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

A. General
1. Date: 7/2/89
2. Time: 1100-1200
3. Observer: [Handwritten: C. Dillon]
4. Surveyed From: [Handwritten: Foot] Boat/Helio/Plane
5. Weather: [Handwritten: Sun] Cloud/Rain/Snow/Fog

B. Location
6. Location: [Handwritten: Side Afiak Island (between Cape Paulland & Tanack Cape)]
7. Segment #: K-2-9-PR-B
8. Length of shoreline segment: 1500 m

C. Shoreline
10. Shoreline Type: SPI/BAR/BEA/COV/HLD/STRT/CLF/EST/DAF
11. Slope: [Handwritten: Lang/Handy/Ver]
12. Wave Exposure: [Handwritten: High/Med/Low]
13. Sediment: B% / C% / P% / G & S% / M% / R%
14. Drift Debris on Beach: Yes/No [Handwritten: Supra/Upper/Mid/Lower]

D. Oil Summary
15. Degree of Oiling: Heavy/Moderate/Light/Very Light/No Oil/Unobserved
16. Area of Beach Impact: Width of Band: _____ m
   Continuous: Y/N % of Segment: SU / SP / H / M / L
   Sporadic: Y/N % of Segment: 25 SU / SP / H / M / L
17. Est. Oil Thickness where >1cm: _____ cm
   Est. Oil Penetration: _____ cm
18. Pooled Oil: _____% "Free" Oil: _____% Coated: H% / M% / L% / VL% [Handwritten: VL 10%]
19. Fresh Mousse: _____% Tar Formation: _____%
20. Drift Debris Oiled? Yes/No [Handwritten: Supra/Upper/Mid/Lower]

Comments:
[Handwritten: Debris and pebble/cobble term. at North 300m of beach
between anadromous stream and English meet are very
lightly splattered and there are a few tar balls along
the strand line. A 150m long section of boulders and
cobble on the Supra 177 in the middle of the beach
was impacted with dispersed oil spots.]
DOCUMENTATION: K-2-9.7B-3

Map/Aerial photo marking segment boundaries Attached

VTR: Y/N Tape Number(s) None

Photography: Y/N Roll Number(s) None

Sample Numbers Collected: None

ACE 8702070
**SHORELINE OIL EVALUATION**

### 22. Oil Type

<table>
<thead>
<tr>
<th>Type</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh</td>
<td></td>
</tr>
<tr>
<td>Mousse</td>
<td></td>
</tr>
<tr>
<td>Weathered</td>
<td>85</td>
</tr>
<tr>
<td>Tar</td>
<td>15</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100</td>
</tr>
</tbody>
</table>

### 23. Stabilized or "Free" - Splatters are stabilized, tar balls are free.

### 24. Oil Character (Location)

<table>
<thead>
<tr>
<th>Character</th>
<th>Location</th>
<th>SU</th>
<th>SP</th>
<th>H</th>
<th>M</th>
<th>L</th>
<th>Buried</th>
<th>Length(m)</th>
<th>Width(m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thick</td>
<td>Continuous</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Buried</td>
<td>4&lt;0</td>
<td>1-4</td>
</tr>
<tr>
<td></td>
<td>Splatting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coating</td>
<td>on B/BD/Wood/Rock</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4&lt;5</td>
<td>1&lt;4</td>
</tr>
<tr>
<td>Cracks</td>
<td>&amp; crevices on bedrock</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4&lt;5</td>
<td>1-4</td>
</tr>
<tr>
<td>Patties</td>
<td>(&gt;10cm diameter)</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balls</td>
<td>(&lt;10cm diameter)</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asphalt</td>
<td>Pavement</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1&lt;4</td>
<td>1-4</td>
</tr>
</tbody>
</table>

### 25. Oil Distribution:

<table>
<thead>
<tr>
<th>Type</th>
<th>% of Segment</th>
<th>SU/SP/H/M/L</th>
<th>H/M/L/VL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sporadic</td>
<td>85%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Very light:</th>
<th>Length(m)</th>
<th>Width(m)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4&lt;0</td>
<td>1-4</td>
</tr>
<tr>
<td>Light:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderate:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heavy:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buried:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 26. Preliminary Cleanup Est.

<table>
<thead>
<tr>
<th>Type</th>
<th>Length(m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total TYPE A:</td>
<td></td>
</tr>
<tr>
<td>Total TYPE B:</td>
<td></td>
</tr>
<tr>
<td>Total TYPE A/B:</td>
<td></td>
</tr>
</tbody>
</table>

Mobilization Potential: High/Medium/Low

Comments:

---

ACE 8702071
ECOLOGICAL EVALUATION

LOCATION: 49.4547, -123.5754
SITE: 1.0
OBSERVER: S. B. C. S.

LOCATION PREFIX: 28
SEG. NO.: 7
LENGTH: 1500 (M)

DATE: 7/28/89
TIME (HHMM): 1105-1200
TIDE HT.: -0.33 (M)

OILED ZONE: Splash High Medium Low (VERY LIGHT SPUR)
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

Localy, very well developed physical community, Great abundances and diversity.

Fucus sp., kelps, Polysiphonia, Corallina sp., Laminaria, Codium, Alaria i Ulva

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

Locally, found Pseudulus in site and locally in MITE.

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

Found in good abundance throughout section, B. glandula dominant
some B. ciliata in lower MITE.

Littorina

Locally, limited in range to cobble/boulder MITE tide pools, found in clusters

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

Greater abundance than 18-2003 yet still sparse

OTHER OBSERVATIONS:
Greater abundance of Tegula, Katharina and Nassa sp. visible Strandline spp. seen in Subtidal creeks

CLEANUP PRECAUTIONS: Extremely well developed ecosystem in MITE
Also near stream drains across section

MAMMALS: Otters X Harbor Seals X Sea Lions CON Whales

Other FOX (RED)

BIRDS:
3 BIRD EAGLES (JUVENILES) SITTED, AMUSE LOCALI

GENERAL OBSERVATIONS: DELICATE COMMUNITY: NO CLEAN UP

RECOMMENDED

ACE 8702072
ADEC Post-Treatment Survey Form

SEGMENT SURVEY (Scat PA-9)

Date: [Redacted]
Time: 1330
Location: Southside Cape Paramount to Cape Pancake

Team members:
J.R. Hopkins, Jeff Giralis

Survey type: boat / helicopter / floatplane

WEATHER / SEA CONDITIONS

Low tide: (time/height) 1051 1.2
High tide: (time/height) 1708 9.8
Weather: (sunny - cloudy - rain - fog - snow)
Sea: (rough - moderate - calm)
Wave height: 4 - (in ft)
Wind direction: (N-NE-E-SE-S-SW-W-NW)
Knots: (0-15 16-30 (30+)

SHORELINE DESCRIPTION

Type: (headland - low lying rocky - beach - cove - lagoon - marsh)
Exposure to Waves: (high - medium - low)
Sediment type: (bedrock - boulder - cobble - gravel - sand - silt)

OIL CHARACTERISTICS

Degree of oiling:
Heavy = > 50% coverage of the intertidal zone
Moderate = 10 - 50%
Light = < 10%
Very light = < 1%
None

Area of impact: (supratidal - high - mid - low - subtidal)

Surface coverage, continuous: (Y/N) No

Max. thickness: 2 mm
Max. penetration: H cm M 15 cm L cm

Average oil coverage: 10 %
Oiled drift debris: (Y/N)

Oil type: pooled - mousse - sticky - tarry - asphalt - stain

BIOLOGICAL DAMAGE

Fucus (algae): (oiled - damaged - cooked - normal)
Mytilus (mussels): (dead/live - oiled - tarred - stained - normal)
Balanus (barnacles): (dead/live - oiled - tarred - stained - normal)
Mammals: (dead) None

Birds: (dead) None

SOLID WASTE LEFT ON SHORE:

(Non - one locality - few localities - many localities)

(Boom-cleanup debris - garbage - signs - paint marks - other)

Number of bags collected:

ACE 8702075
SAMPLE INFORMATION
Station #(i.e., KN012/01) Knight Island, segment 012, sample 1
((oss = oil surface sediment obs = oil bulk sediment))
1. ________________ (oss-obs)
2. ________________ (oss-obs)
3. ________________ (oss-obs)
4. ________________ (oss-obs)

PHOTO INFORMATION
Station #(i.e., KN012/01) 89//who//a/p//roll#/frame(89GPS11/1-9)
1. ________________
2. ________________
3. ________________
4. ________________
5. ________________
6. ________________
7. ________________
8. ________________
9. ________________
10. ________________
11. ________________
12. ________________
13. ________________
14. ________________
15. ________________
16. ________________
17. ________________
18. ________________
19. ________________
20. ________________

COMMENTS (Be specific, where, what, etc.)
Direction walking along segment: Water on (left - right)
Distance: (if pacing - who, and #)
K020901
Gravel beach with a southwest exposure - heavy drift wood deposit.
High surf beach. Band of oil continuous along length of beach
(~200 yds). This is one of the few beach areas in K2-9.
Most of the rest of the section is headlands and large rock
shore areas or very narrow bands along the headlands.
This is not a good site for Winter 212 helicopter landings; the beach
is too narrow and full of drift wood.

Signature: [Signature]
Date: 19 Sept 89

Included: [Include to inch maps marked up?]
Hand drawn detail of important observations?
SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map):  K2-10

Includes Shoreline Segments: MB-1, MB-2, MB-3, MB-4, MB-5, MB-6, MB-7, MB-8, MB-9, MB-11, MB-13

Location: Malina 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
DATE 7/25/89  SHORELINE SEGMENT K2-10-MB-1 REASSESSMENT DATE 7/25

Observers: OG B. Trimm BIO D. McCormick ARCH J. Erlandson

Reason for Reassessment: Dramatic change in oiling

Revised Recommended Cleanup Activity(ies):
- Manual removal of oiled sediments may require excavation of more than 1 inch material. If boulders are moved to recover oil, replace afterworks to prevent erosion.
- Limited access to calm days for boats and calm days and low tide for helicopters.
- Due to the significant increase in oiling a full assessment was completed for this segment.

Revised Ecological Constraints:
- No constraints for manual removal.

Revised Archaeological Constraints:
No access to the forest/upland zone by beach crews during cleanup in this segment.
- 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 submerged lands.
(version July 05, 1989)  

**REASSESSMENT**  
**SHORELINE OIL EVALUATION**

**Date:** 25 July 89  
**Time:** 14:00  
**Surveyed From:** Boat/Plane/Helio/Plane  
**Observer:** Bryan Trimm  
**Weather:** Sun/CLOUD/Rain/Snow/Fog

**LOCATION**  
**Location:** South Access to Point Arena on Main Bay Access drilled: 
**Segment ID:** K2-10-MB-1  
**Segment Length:** 250 m.  
**Access:** Vehicle/Boat/Barge/Helio/Float Plane  
**Access Restrictions:** Boat Limited to Calm Days / Helio Limited to Low Tide & Calm Days

**SHORELINE**  
**Shoreline Type:** SPL/BEACH/COV/HL/STRT  
**Slope:** Lo/Med/Hi/Vert  
**Wave Exposure:** High/Med/Low  
**Sediment:** B 10% / C 20% / P 10% / G & S 10% / M 1% / 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 20**  
**Sporadic % of Segment 10**  
**Total**  
**Very light:** 0%  
**Light:** 50%  
**Moderate:** 50%  
**Heavy:** 40%

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

**OIL MORPHOLOGY**

<table>
<thead>
<tr>
<th><strong>Oiled Oil</strong></th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free* Oil:</td>
<td>20</td>
</tr>
<tr>
<td>Plattered:</td>
<td>30</td>
</tr>
<tr>
<td>Oiled:</td>
<td>50</td>
</tr>
<tr>
<td>Pancakes/Balls:</td>
<td>30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>IL WEATHERING</strong></th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resh:</td>
<td>30</td>
</tr>
<tr>
<td>Weathered Mousse:</td>
<td>50</td>
</tr>
<tr>
<td>Asphalt Mousse:</td>
<td>20</td>
</tr>
<tr>
<td>Tar:</td>
<td>50</td>
</tr>
</tbody>
</table>

**COMMENTS**

The beach is boulder rubble. At the base of vertical rocky cliffs, weathered oil and fresh (chocolate) mousse is found in the Hitz & Splash Zone for 50% of the segment length. The fresh mousse (1 thickets accumulation, 10 cm) is found in between the boulders. The oiling band varies from 0 to 7 m wide. The exposed surfaces have weathered mousse only between the boulders (protected). There are any fresh mousse left. Oil seems to be decaying.

**Preliminary Cleanup Est.**

| **TOTAL TYPE A:** | 200 m |
| **TOTAL TYPE B:** | m |
| **TOTAL TYPE A/B:** | m |

AGE 8702080
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
29 July 89

1345 FLY OVER TAMAR CASE
ROCKY HEADLANDS & WELLS ROUNDED
B/C, H, ENERGY WAVE NO OIL
OBSERVED FROM HELICOPTER LIMITED
ACCESS NO RECOMMENDED
CLEANUP

1410 MB-1 Clody
OILFLOOD - FOUND WORKING CLEANSING
AT PRESENT TIME, GENERALLY 10-30
WIDE B/C/P BEACH FT ENERGY ROCKY
CLIFFS (VECT)
ACCESS BOAT ONLY

17 CADET 0-7 FT WIDE WET-RED MOUTBE
OIL WEATHERING FROM EXPOSED SURFACES
LOW 3F REEMLY NO PERCOLATION
MAYBE TO 30CM - COARSE GRAINED BEACH
HEAVIER + (ALSO LEAST WORN) IN BETWEEN
BOULDER/COREICIES
SHEEN SEEN BY OIL
20% CHIC MOUNT, 80% WET-RED MOUTBE
ECOLOGICAL EVALUATION

LOCATION: KFO6M AK IS [K-3-10-] SITE: ________ OBSERVER: L. N. McCannick
LOCATION PREFIX: M3 SEG. NO.: 1 LENGTH: 250 (M)
DATE: 7/25/89 TIME (HHMM): 1410 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

Haliotis (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: Alaria, Laminaria, Clathria, Heianthus, Kallarik
Entedonia, Sertulariidae, Enteromorphs, Epiactis, Scoloplos tenuis

CLEANUP PRECAUTIONS: None. Cleanup should proceed as is.

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

Other ___

BIRDS: Gulls, Kittiwakes

GENERAL OBSERVATIONS: Oiling varies from very light splatter to
moderate and heavy in area that clean-up crew is already working
in. Very little oil-stressed birds seen in this segment and clean-up efforts
does not appear to be impacting clean, healthy areas of the FTZ.

Note: Clean-up crew working on boundary between MB-13 MB-14 MB-15

ACE 8702083
SHORELINE CLEANUP PROGRAM

DATE 5/20/89 SHORELINE SEGMENT MB-1

LOCATION: (see enclosed map) South of Tanqqaq Cape in Malina Bay

ADEC NO. SHORELINE ASSESSMENT DATE: 5/19/89

Recommended Cleanup Activity(ies):

No cleanup recommended.

Priorities Considerations:

None.

Ecological Constraints (from site survey):

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

Archeological Constraints (from site survey):
If cleanup is planned, a cultural resource evaluation must be completed.

Charles E. Holmes
State Historic Preservation Officer *

Date: May 21, 1989

EXXON:________________________  Date:______________

FOSC:________________________   Date:______________

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

**Date:** 19 May 1989  **Time:** 10:12  
**Surveyed From:** Foot/Boat/Plane  **Observer:** Bryan Trimn

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

### LOCATION

**LOCATION**  
Segment Number: MB-1

**Length of Shoreline Segment:** 250 m

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

### SHORELINE:

**Shoreline Type:** SPI/BEA/COV/LDL/STRT  
**Slope:** HANG/HANG/VER

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

**Sediment:** B 25% / C 25% / P 25% / G 25% / S 25% / M 25% / R 25%

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

### OIL

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

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

**Continuous:** Y/N  
**% of Segment:** 10  
**Width of Band:** 2 m

**Sporadic:** Y/N  
**% of Segment:** 15

**Est. Oil Thickness where > 1 cm:** 1 cm  
**Est. Oil Penetration:** 0 cm

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

**Fresh Oil:**  
**Mousse:** 1 cm  
**Tar Formation:**

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

**Comments:**  

*MB-1 IS INACCESSIBLE TO REALLY ANY CLEAN-UP CREW. NO CLEAN-UP RECOMMENDED.*

---

ACE 8702086
DOCUMENTATION:

Map/Aerial photo marking segment boundaries

TR: Y/N  Tape Number(s) None

Photography: Y/N  Roll Number(s) None

Sample Numbers Collected: None
(version July 23, 1989)

SHORELINE PRE CLEANUP REASSESSMENT

DATE 7/25/89  SHORELINE SEGMENT K2-10-MB-2  REASSESSMENT DATE 7/25

Observers: OG B. Trimm  BIO D. McCormick  ARCH J. Erlandson

Reason for Reassessment: Significant time lapse since original assessment

Revised Recommended Cleanup Activity(ies):
- No revisions to original recommendation of no cleanup. Subject to FOSC reassessment at a later date.

Revised Ecological Constraints:

Revised Archaeological Constraints:
- If cleanup is planned, cultural resource evaluation must be completed.

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 submerged lands.
SHORELINE CLEANUP PROGRAM

DATE 5/20/89 SHORELINE SEGMENT MB-2

LOCATION: (see enclosed map) North shore of Malina Bay

ADEC NO. SHORELINE ASSESSMENT DATE: 5/19/89

Recommended Cleanup Activity(ies):

No cleanup activities recommended.

Priorities Considerations:

None.

Ecological Constraints (from site survey):

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

Archeological Constraints (from site survey):
If cleanup is planned, cultural resource evaluation must be completed.

Charles E. Holmes
State Historic Preservation Officer *

Date: May 21, 1989

EXXON: __________________________ Date: ______________

FOSC: __________________________ Date: ______________

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

**Date:** 19 May 1989  
**Time:** 1020  
**Observer:** Bryan Trim

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

**LOCATION**

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>SEGMENT NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>N. Shore Malma Bay</td>
<td>MB 2</td>
</tr>
</tbody>
</table>

**LENGTH OF SHORELINE SEGMENT:** 100 m

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

**SHORELINE:**

- **Shoreline Type:** SPI/BEA/COV/STRT  
- **Slope:** F/S/H/A/VER
- **Wave Exposure:** High/Med/Low
- **Sediment:** B50% / C50% / P50% / G50% / S50% / M50% / R50%
- **Drift Debris on Beach:** Yes/No  
- **Supra/Upper/Mid/Lower Type**

**OIL**

- **Degree of Oiling:** Heavy/Moderate/Light/Unobserved
- **Area of Beach Impact:** SU/SP/H/M/L
  - Continuous: Y/N  
  - Sporadic: Y/N

- **% 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 Tar:** _______  
- **Mousse:** _______  
- **Tar Formation:** _______  
- **Drift Debris Oiled?** Yes/No  
- **Supra/Upper/Mid/Lower Amount:** H/M/L

**Comments:**

- **Dropped on beach for 2 minutes. Did not see any oiling. No oil, no clean-up!**

---

ACE 8702092
DOCUMENTATION:

Map/Aerial photo marking segment boundaries  Attached

VTR: Y/N  Tape Number(s)  None

Photography: Y/N  Roll Number(s)  None

Sample Numbers Collected:  None
(version July 23, 1989)

SHORELINE PRE CLEANUP REASSESSMENT

DATE 7/25/89 SHORELINE SEGMENT K2-10-MB-3 REASSESSMENT DATE 7/26

Observers: OG B. Trimm BIO D. McCormick ARCH J. Erlandson

Reason for Reassessment Significant time lapsed since original assessment.

Revised Recommended Cleanup Activity(ies):
- Helicopter overflight revealed only very light splatter on boulders.
- Manual removal of oil from boulders, if required, and between boulders should oil be present there.
- Boulder beach and exposure may restrict access to calm days.

Revised Ecological Constraints:
- Avoid cleanup near stream.
- Avoid reoiling of lower intertidal zone when cleaning.

Revised Archaeological Constraints:
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 required to satisfy stipulations in Alaska DNR land use permits for tide submerged lands.
SHORELINE CLEANUP PROGRAM

DATE 6/29/89  
SHORELINE SEGMENT MB-3

LOCATION: (see enclosed map) MALINA BAY, NORTH SHORE-KODIAK

ADEC NO. SHORELINE ASSESSMENT DATE: 6/16/89

Recommended Cleanup Activity(ies):
Hot washing with wands and vacuum to clean the oiled boulder/cobble beach.
Manual removal of oiled debris and if possible, pancake mousse patches.
High pressure washing to remove oil from boulders.
Use other approved methods as appropriate.

Priorities Considerations:
Seabird colonies located within Malina Bay.

Ecological Constraints (from site survey):
Avoid cleanup near stream.
Avoid reoiling of lower intertidal zone when cleaning.

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 FORM - MONTAK**

**Date:** 6-16-91  **Time:** 0917  **Observer:** S. Pealand  **Weather:** Sun/Cloudy Rain/Snow

**LOCATION**

**LOCATION** Maline Bay  **SEGMENT I.D.:** K-2-10-MO-3  **LENGTH OF SHORELINE SEGMENT:** 175 m

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

**SHORELINE:**

**Shoreline Type:** SPI/BEA/COV/HID/STRT  **Slope:** LANG/HANG/VER

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

**Sediment:** B32.3 / C32.3 / P12.3 / G22.3 / S12.3 / M... / R...  **Drift Debris on Beach:** Yes/No  **Supra/Upper/Mid/Lower:** Type Log / kelp

**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:** 1  **Width:**

**Sporadic:** Y/N  **Segment:** 10C  **Min/Max Dias:** 10 m  **Impact Width:** 10 m

**Est. Oil Thickness where > 1cm:** < 1 cm  **SU / SP / UP / HIL / TO**

**Est. Oil Penetration:** 0 cm  **SU / SP / UP / HIL / TO**

**Layers?** Yes/No  **No Layers:** 1  **Oil Weathering:**

**Drift Debris Oiled?** Yes/No  **Supra/Upper/Mid/Lower:** Amount: H / TO

**OIL MORPHOLOGY**

**Pooled Oil** 4  **"Free" Oil** 4  **Spattered** 5  **H/VL Shown:** 6

**OIL WEATHERING (OW)**

**Fresh Oil** 3  **SU/SP/VF/MID/LO Choc Mousse** 3  **SU/SP/VF/HIL/TO**

**Pancake Mousse** 5  **SU/SP/UP/LO/LO Asphalt Mousse** 5  **SU/SP/SP**

**Tar Formation**

**Comments:**

K-2-10-MO-3  a heckler/a. Sleek backed by moderate. eagle chiks. The OEC oil is mixed with the debris. The impact has been written off as a natural spill due to the depth of weathering. — ACE 6702098
DOCUMENTATION:

- Map/Aerial photo marking segment boundaries  See attached

VTR: Y/N  Tape Number(s)  ____________

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

Sample Numbers Collected: N/A

ACE 8702099
ECOLOGICAL EVALUATION

LOCATION: Malibu Bay SITE: North Shore OBSERVER: J. Tarpley
LOCATION PREFIX: K-2/MB SEG. NO.: K-2-10-MB-3 LENGTH: 1755 (M)
DATE: 6/16/89 TIME (HHMM): 0920 TIDE HT.: 0.0 (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
    In low ITZ
Hytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
    In low ITZ
Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Litterina
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: Biota all located just NE of stream.
Sandy beaches had little flora or fauna. Very little drift mark.
CLEANUP PRECAUTIONS: Avoid cleanup near stream. Avoid washing oil into low ITZ.
MAMMALS: Otters Harbor Seals Sea Lions Whales Other Deer, Fox, Bear Tracks
BIRDS: None
GENERAL OBSERVATIONS: 

ACE 8702100
DATE 7/25/89 SHORELINE SEGMENT K2-10-MB-4 REASSESSMENT DATE 7/26

Observers: OG B. Trimm  BIO D. McCormick  ARCH J. Erlandson

Reason for Reassessment: Significant time lapsed since original assessment.

Revised Recommended Cleanup Activity(ies):
- Overflight in helicopter reveals only very light splatter on boulders.
- If required, manually remove splatters from boulders and, if present, oil between boulders.
- Manual removal of oiled sediments to depths greater than 1 inch may also be required. Replacements of boulders moved to access oiled sediments will minimize erosion.

Revised Ecological Constraints:
- Avoid contamination of lower intertidal zone.

Revised Archaeological Constraints:
- 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 required to satisfy stipulations in Alaska DNR land use permits for tide submerged lands.
SHORELINE CLEANUP PROGRAM

DATE 6/29/89  SHORELINE SEGMENT MB-4

LOCATION: (see enclosed map) MALINA BAY NORTH SHORE

ADEC NO.  SHORELINE ASSESSMENT DATE:  6/16/89

Recommended Cleanup Activity(ies):
- Hot washing with wands and vacuum to clean the oiled boulder/cobble/gravel beach.
- Manual removal of oiled debris and mousse patches, where possible.
- High pressure washing to remove oil from boulders.
- Use other approved methods as appropriate.

Priorities Considerations:
- Sea bird colonies and otters in bay.

Ecological Constraints (from site survey):
- Avoid washing oil down into lower intertidal zone. This site is densely covered with barnacles, limpets and mussels. Large cleanup crews would damage these organisms which are now alive and healthy.

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: 6-16-89 / Time: 09:45
Surveyed From: Foot/Boat/Helicopter/Plane
Weather: Sun/Cloud/Rain/Snow

LOCATION
LOCATION: Meline
SEGMENT I.D.: K-2-10-MG-4
LENGTH OF SHORELINE SEGMENT: 1875 m
ACCESS: Foot/Vehicle/Boat/Barge/Helicopter/Float Plane

SHORELINE:
Shoreline Type: SPI/SENV/LOW/HP/STRT
Slope: LANG/HANG/VER
Wave Exposure: High/Med/Low
Sediment: D22 / C22 / P22 / S22 / M22 / R22
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 / W / L

OIL DISTRIBUTION
Continuous: Y/N
Segment: _____ No. Bands: _____ Width: _____
Sporadic: Y/N
Segment: _____ Min/Max Distance: _____ Impact: Width: _____
Est. Oil Thickness where > 1cm: < 1 cm
Est. Oil Penetration: 0 - 2.5 cm
Layers: Yes/No
No Oil Layers: _____ Oil Weathering: _____
Drift Debris Oiled?: Yes/No
Supra/Upper/Mid/Lower Amount: H / W / L

OIL MORPHOLOGY
Pooled Oil: "Free" Oil SO: Spattered SO: SU/SF/UH/L
OIL WEATHERING (OW)
Fresh Oil: SU/SP/VP/MID/LU
Choc Mousse: __________________
Pancake Mousse: SO
Asphalt Mousse: SO
Tar Formation: __________

Comments:
K-2-10-MG-4 unit is a bolden/sand/gravel beach backed by high cliffs. Oil occurs in a high to medium sized gulf and appears quite weathened spreading asphalt. DM area of concern exits. No oil in water. The oil is expected to be removed by natural processes.
DOCUMENTATION:

Map/Aerial photo marking segment boundaries [ ] See attached [ ]

VTR: Y/N Tape Number(s)

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

Sample Numbers Collected: N/A

ACE 8702106
ECOLOGICAL EVALUATION

LOCATION: Malina Bay  SITE: North Shore  OBSERVER: J. Torpey
LOCATION PREFIX: K2/18  SEG, NO.  K2/18-004  LENGTH: 1875 (M)
DATE: 6/16/89  TIME (HHMM): 0945  TIDE HT.: 0.0 (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
On rocky boulder beach — Healthy

Mytilus (Mussels): Patchy Y/N  Contin. Y/N  Dense Y/N  Sparse Y/N  None Y/N
Low ITZ on boulder beach

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

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: Sandy beach devoid of life. However, rock boulder areas are densely colonized by flora & fauna.

CLEANUP PRECAUTIONS: Avoid washing oil into lush growth of low ITZ. Large number of people in cleanup crew would damage barnacles & mussels & limpets throughout the area

MAMMALS: Otters  Harbor Seals  Sea Lions  Whales  Deer  Bear

BIRDS: Kittiwakes  Off beach

GENERAL OBSERVATIONS: Oil coated at base of rocks. Little of the biota is affected although where it has been affected has been killed. Areas of rock not oiled, organisms appear healthy.
SHORELINE PRE CLEANUP REASSESSMENT

DATE 7/18/89  SHORELINE SEGMENT K2-10-MB-5 REASSESSMENT DATE 7/18

Observers: OG B. Trimm  BIO D. McCormick  ARCH J. Erlandson

Reason for Reassessment: Significant time lapsed since original assessment.

Revised Recommended Cleanup Activity(ies):
- No revisions to original recommendation of no cleanup. Subject to FOSC reassessment at a later date.

Revised Ecological Constraints:
- No revisions

Revised Archaeological Constraints:
If cleanup is conducted and heretofore undiscovered cultural materials are uncovered, contact Exxon's Archaeological 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 submerged lands.
7/18 K2-10 Re-assessments
Melville Bay, N of Maller B

0.1
11:00
Lyke beach: low pocket b, no oil; eroded talc, barnacle; trec
spilled crhpail; low beech
sandy gulf; no oil. v. exposed -
east - silt scours - wave cut scarp.

2. med.-lux. pebble beach - 2.3 m. pits in berm to 2.2 m - no oil

3. low - mid. pebble beach; low beech; coastal "wood to becheck;
upper berm face 1 m. high; exposed
small cr.; logs exposed in berm face.
5 on top; nice trace of oil stain on logs;
back berm lagoon.

4. med. sandy pebble pocket over backrock; sandy bottom; sand
0.3 m uck

- monser timo, logs.
- coastal rock
- 5 cm asphalt
- line on rock
- well.
- sandy pebble beach.

12:10 hrs.
- rough is self cleaning of gulf. scouring;
v. exposed but slightly in lee of
"gull rookery island."
7/18/89 Malina Bay, Afognak Island

"Eike Bay" reassessment

4 beaches examined

1st beach had light bits of oil in wrack above high energy sand beach - Boulder field at west end with dense barnacle cover, patchy mussels, algae etc. - Small stream (no fish

Beach No. 2 - small, passed by

Beach No. 3

sand beach - stream bisects beach - Anadromous stream. Saw 30 or 40 adult pink salmon in pool above mouth, also many salmon fry and juveniles. Oil buried in sand bar right next to pool with fish in it. Cleanup not recommended - water in pool clean, fish ok, oil probably will be removed in winter or spring runoff. Some oily wrack above sand beach east of stream, no constraint re: cleanup there, but probably difficult to keep crew away from stream so cleanup not advised.

Beach No. 4

sand/gravel beach, cliffs at each end

1 eagle

Some light oil remains on rock at either end, +16-12 ft. Some oiled fucus, a few dead limpets, mussels ok. Gull Rockery on nearby island (200-300 birds) would be disturbed by cleanup.
MANNA BAY REASSESSMENTS
(KZ-10 ADEC)
Pocket beaches N. of Manka Bay.

MAP: base: USGS topo.
Enlargement.

ACE 8702113

MB-5
C/16/89

MB-6
C/16/89

Conspicuous light coloured rock strips.
(felsic dyke)
SHORELINE CLEANUP PROGRAM

DATE 6/29/89

SHORELINE SEGMENT MB-5

LOCATION: (see enclosed map) MALINA BAY NORTH SHORE

ADEC NO. SHORELINE ASSESSMENT DATE: 6/16/89

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 local seabird nesting colonies.

Ecological Constraints (from site survey):
No ecological constraints. Cleanup treatment is not recommended or necessary.

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: 6-16-87 Time: 10:10
Observer: S. Probst
Surveyed From: Boat/Plane

Location
Location: Melina Bay (code: 125)
Segment I.D.: K-2-10-MQ-5

Length of Shoreline Segment: 900 m

Access: Foot/Boat/Helio/Plane

Shoreline:
Shoreline Type: SPI/LE/COV/HLD/STRT
Slope: LMG/HMG/VR
Wave Exposure: High/Med/Low

Sediment: L25 / C25 / P25 / C25 / S... / M... / R ...

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

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 Yes/No Bands Width

Sporadic: Y/N Segment 1 Yes/No Min/Max Dia Impact Width

Est. Oil Thickness where > 1 cm: 0.0 cm

Est. Oil Penetration: 0.0 cm

Layers? Yes/No
No/layers Oil Weakening

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

OIL MORPHOLOGY
Pooled Oil Yes/No "Free" Oil Yes/No Spattered
H/W/V/L Sheen

OIL WEATHERING (OW)
Fresh Oil SY/SP/VF/MID/LO Choc Mousse Yes/No SY/SP/VF/MID/LO
Pancake Mousse Yes/No SY/SP/VF/MID/LO Asphalt Mousse Yes/No SY/SP/VF/MID/LO

Tar Formation

Comments:

ACE 8702115
DOCUMENTATION:

Map/Aerial photo marking segment boundaries see attached

VTR: Y/N
Tape Number(s) ________________________________

Photography: Y/N
Roll Number(s) JT-1 ____________________________

Sample Numbers Collected: N/A ____________________
ECOLOGICAL EVALUATION

LOCATION: Melina Bay  SITE: North Shore  OBSERVER: S. Tapley
LOCATION PREFIX: K-2/mB  SEG. NO.: K-2-10-mB-5  LENGTH: 900 (M)
DATE: 6/16/89  TIME (HHMM): 1030  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

OTHER OBSERVATIONS: Little scummed slop, Sandy beach devoid of life. All organisms located on cobble and boulder beach areas.

CLEANUP PRECAUTIONS: None since no oil was found.

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

BIRDS: None

GENERAL OBSERVATIONS: 

ACE 8702117
(version July 23, 1989)

SHORELINE PRE CLEANUP REASSESSMENT

DATE 7/18/89 SHORELINE SEGMENT K2-10-MB-6 REASSESSMENT DATE 7/18

Observers: OG B. Trimm  BIO D. McCormick  ARCH J. Erlandson

Reason for Reassessment: Significant time lapsed since original assessment.

Revised Recommended Cleanup Activity(ies):

- No cleanup recommended due to apparent rapid natural cleaning in process and ecological constraints listed below. Subject to FOSC reassessment at a later date.

Revised Ecological Constraints:

- Avoid fertile salmon stream on Beach #3.
- Large gull rookery on Beach #4. No cleanup recommended.

Revised Archaeological Constraints:
If cleanup is conducted and heretofore undiscovered cultural materials are uncovered, contact Exxon's Archaeological 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 submerged lands.
Gr. MACONHALD

7/18 KZ-10 Re-assessments
Malmaø Bay, N. of Malmaø B.

1. 11:00
  dry beach; low pocket b. no oil; eroded pebb. bench; steep asphaltly spotted debris; lace beach; sandy gull; no oil; v. exposed -
  case - Silt scour - wave cut scarps.

2. mod.-hil pebble-sand beach - 2.4 ft. +
in bench to 1.2 ft. - no oil

3. low-mid det-sand beach; low;
  beach curbed u. to lobehead;
  upper bench face 'in fall'; v. exposed
  small cr. logs exposed in bench face
  3' on left; trace of oil stain on logs;
  back bench: eroded

4. mod. Sandy-peb. pocket and bench;
  sandy bottom; Pond
  ~ 0.3 m. wide
  monster plank
  control rock
  5 cm. offshore
  l. on rock
  wall
  sandy pebble beach
  12:10 hrs,
  * trough is s. e. eroding Oil gull scouring;
  v. exposed but slightly in lee of
  "gull rookery island."
7/18/89 Malma Bay, Afognak Island  
"Eike Bay" reassessment

4 beaches examined

1st beach had light bits of oil in wrack above high energy sand beach - Boulder field at west end with dense barnacle cover, patchy mussels, algae etc. - small stream (no fish

Beach No. 2 - small, passed 6-1

Beach No. 3.

Sand beach - stream directs beach - anadromous stream: saw 30 or 40 adult pink salmon in pool above mouth, also many salmon fry and juveniles, Oil buried in sand bar right next to pool with fish in it.

Cleanup not recommended - water in pool clean, fish ok, oil probably will be removed in winter or spring runoff. Some oily wrack above sand beach east of stream, no constraint: cleanup there, but probably difficult to keep oil away from stream, so cleanup not advised.

Beach No. 4

Sand/gravel beach, cliffs at each end. 1 eagle
7/18/89
G. Macdonald

MANUA BAY REASSESSMENTS
(K2-10 ADEC)

Pocket beaches N. & Malua Bay.

Map base: U.S.G.S K&P.
Enlargement.

ACE 8702123
SHORELINE CLEANUP PROGRAM

DATE  6/29/89  SHORELINE SEGMENT  MB-6

LOCATION: (see enclosed map) MALINA BAY, NORTH SHORE-KODIAK
          SMALL COVE ACROSS FROM MALKA BAY

ADEC NO.  SHORELINE ASSESSMENT DATE:  6/16/89

Recommended Cleanup Activity(ies):
Hot washing with wands and vacuum to clean the oiled
boulder/cobble beach.
Manual removal of contaminated debris and mousse patches, if
possible.
High pressure washing to remove oil from boulders.
Removal of oiled driftwood.
Use other approved methods as appropriate.

Priorities Considerations:
KISCC considers this to be a sensitive area due to local
marine wildlife.

Ecological Constraints (from site survey):
Avoid damaging healthy organisms at moderately oiled clefts
in cliffs.
Avoid washing oil into stream.

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]
State Historic Preservation Officer  Date:  6/30/89

EXXON:  Date:  

FOSC:  Date:  

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

Date: 6-16-79  Time: 1750  Observer: S. Pineland

Surveyed From: [ ] Foot/Boat/Helina/Plane  Weather: Sun/Gold/Sw/Cloudy

LOCATION
Location

LENGTH OF SHORELINE SEGMENT: 1000 m

ACCESS: [ ] Foot/Vehicle/Boat/Helina/Plane/Float Plane

SHORELINE:
Shoreline Type: [ ] SPI/DE/CA/ML/STET  Slope: [ ] LAHG/LHAG/LEHG

Wave Exposure: [ ] High/Med/Low


Drift Debris on Beach: [ ] Yes/No  Supra/Upper/Mid/Lower Type [ ] Leg/Bag

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

Total Area of Beach Impact: [ ] SU / [ ] SP / [ ] IP / [ ] LI

OIL DISTRIBUTION
Continuous: [ ] Y/N  Segment 1 / [ ] Y/N  No. Bands 1 / [ ] Width 910 m

Sporadic: [ ] Y/N  Segment 2 / [ ] Y/N  Min/Max Dia. / [ ] Impact Width

Est. Oil Thickness where > 1 cm: [ ] cm  SU / [ ] SP / [ ] IP / [ ] LI / [ ]

Est. Oil Penetration: [ ] cm  SU / [ ] SP / [ ] IP / [ ] LI / [ ]

Layers? Yes/No  No Layers  Oil Weathering

Drift Debris Oiled? [ ] Yes/No  Supra/Upper/Mid/Lower Segment: [ ]

OIL MORPHOLOGY
Pooled Oil  "Free" Oil  [ ] Spotted Oil  [ ] H/L V/L Sheen

OIL WEATHERING (OW)
Fresh Oil  [ ] SU/SP/VF/MID/LU  Choc Moussage  [ ] SU/SP/VF/MID/LU

Pancake Moussage  [ ] SU/SP/PVF/MID/LU  Asphalt Moussage  [ ] SU/SP/PVF/MID/LU

Tar Formation  [ ]

Comments:

K-2-10-MG-16 on the beach front was observed...

ACE 8702125
DOCUMENTATION:

Map/Aerial photography marking segment boundaries

VTR: Y/N  Tape Number(s) ________________

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

Sample Numbers Collected: N/A
ECOLOGICAL EVALUATION

LOCATION: Malina Bay
SITE: North Shore
OBSERVER: J. Turpely

LOCATION PREFIX: K-2/MB
SEG. NO.: K-2-19-MB-6
LENGTH: 1000 (M)

DATE: 6/14/89
TIME (HHMM): 1100
TIDE HT.: 10.2 (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

OTHER OBSERVATIONS: Oiled drift at mouth of stream
No organisms on gravel/sand beach

CLEANUP PRECAUTIONS: Avoid washing oil into stream
Avoid healthy unoiled life.

MAMMALS: Otters Harbor Seals Sea Lions Whales
Other Reefshark (200a)

BIRDS: Seagull nesting colony on offshore Island

GENERAL OBSERVATIONS: Oiled drift material at mouth of stream. North Bank of stream also oiled. Cliff in cliff is moderately coated with oil (1 north of stream & 1 south of stream) sessile organisms & algae are dead.

ACE 8702128
DATE 7/26/89  SHORELINE SEGMENT K2-10-MB-7 REASSESSMENT DATE 7/26

Observers: OG B. Trimm  BIO D. McCormick  ARCH J. Erlandson

Reason for Reassessment: Significant time lapsed since original assessment.

Revised Recommended Cleanup Activity(ies):

- No revisions to original recommendation of no cleanup. Subject to FOSC reassessment at a later date.

Revised Ecological Constraints:

Revised Archaeological Constraints:
If cleanup is planned, a 250 m portion of the segment may be excluded from cleanup depending on the degree of oiling.

EXXON: __________________________ Date: ____________

FOSC: __________________________ Date: ____________

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

DATE 6/22/89  SHORELINE SEGMENT MB-7

LOCATION: (see enclosed map) NORTH SHORE OF MALINA BAY

KODIAK

ADEC NO. ___________ SHORELINE ASSESSMENT DATE: 6/16/89

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

Priorities Considerations:
KISCC considers this is a sensitive area due to the abundance of local marine birds and mammals.

Ecological Constraints (from site survey):
No ecological constraints. No cleanup is recommended at this time.

Archeological Constraints (from site survey):
If oiling occurs in the future and cleanup is planned, a 250m portion may be excluded from cleanup depending on the degree of oiling. Additional archaeological/oil evaluation would be necessary.

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 - KONTAK

Date: 6-6-99 / Time: 1900
Surveyed From: Foot/Boat/ Helip/Plane
Weather: Sun/Cloud/Pct	Observer: S. Pringle

LOCATION
LOCATION N.M. Sheet: A	Melina
SEGMENT I.D. K-2-10-MAG-7

LENGTH OF SHORELINE SEGMENT: 5000 m
ACCESS: Foot/Vehicle/Boat/Helip/Float/Plane

SHORELINE:
Shoreline Type: SPI/DE/COV/HL/STET
Slope: LANG/MAE/EP
Wave Exposure: High/Med/Low

Sediment: D20% / C50% / P2% / C2% / S1% / M_5 % / R 

Drift Debris on Beach: Yes/No
Supr./Upper/Mid/Lower Type Low / k/l

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. Days Width
Sporadic: Y/N
Segment 2 Min/Max Dia. Impact Width

Est. Oil Thickness where > 1cm: cm
Est. Oil Penetration: cm
Layers? Yes/No
No of Layers
Oil Weathering

Drift Debris Oiled? Yes/No Supr./Upper/Mid/Lower Segment: H / M / L

OIL MORPHOLOGY
Pooled Oily
"Free" Oil
Spattered

OIL WEATHERING (OW)
Fresh Oily
Choc Mousse

Pancake Mousse
Asphalt Mousse
Tar Formation

Comments:

ACE 8702133

No oil observed
DOCUMENTATION:

Map/Aerial photo marking segment boundaries see attached

VTR: Y/N  Tape Number(s) ____________________________

Photography: Y/N  Roll Number(s) 5T - 1

Sample Numbers Collected: N/A
ECOLOGICAL EVALUATION

LOCATION: Malina Bay  SITE: North Shore  OBSERVER: S. Tarpley
LOCATION PREFIX: K-2/MA  SEG. NO.: K-2-10-MB-7  LENGTH: 5000 (M)
DATE: 6/14/89  TIME (HHMM): 1800  TIDE HT.: +1.0 (M)
OILED ZONE: Splash  High  Medium  Low  Ø
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

Heavy recruit settlement

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, Mytilus shells

CLEANUP PRECAUTIONS: None - Since no cleanup is recommended.

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

BIRDS: ___

GENERAL OBSERVATIONS: Small ITZ at base of steep cliffs.  No oil observed

ACE 8702135
(version July 23, 1989)

**SHORELINE PRE CLEANUP REASSESSMENT**

DATE 7/26/89 SHORELINE SEGMENT K2-10-MB-8 REASSESSMENT DATE 7/26

Observers: OG B. Trimm BIO D. McCormick ARCH J. Erlandson

Reason for Reassessment: Significant time lapsed since original assessment.

Revised Recommended Cleanup Activity(ies):
- Manual removal of small oiled drift debris and mousse patches.

Revised Ecological Constraints:

Revised Archaeological Constraints:
Inspection by an archaeological monitor is required while cleanup is conducted.

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

DATE 6/29/89

LOCATION: (see enclosed map) NORTH SHORE OF MALINA BAY

ADEC NO. SHORELINE ASSESSMENT DATE: 6/16/89

Recommended Cleanup Activity(ies):
Manual removal of contaminated debris, driftwood and mousse patches.
Use other approved methods as appropriate.

Priorities Considerations:
KISCC considers this to be a sensitive area due to abundance of local seabirds and marine mammals.

Ecological Constraints (from site survey):
Avoid reoiling lower intertidal zone.

Archeological Constraints (from site survey):
Inspection by an archaeological monitor is recommended while cleanup is conducted. 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]
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: 6/16/89  Time: 12:00  River:  
Surveyed From: Boat/Boat/Heli/Plane  Weather: Sun/Cloudy/Snowflakes  

LOCATION  
Location: No./Yes  Segment:  
Length of Shoreline Segment: 2500  
Access: Boat/Boat/Heli/Plane  

SHORELINE:  
Shoreline Type: SPI/SEA/OIL/HLEG/STET  
Slope: LARG/HEAD/VER  
Wave Exposure: High/Med/Low  
Sediment: B___/C___/P25___/C35___/S1___/M1__/R___  
Drift Debris on Beach: Yes/No  

OIL:  
Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved  
Total Area of Beach Impact: SU/SP/UP/MID/Lower Type Log/10'  

OIL DISTRIBUTION:  
Continuous: Yes/No  
Sporadic: Yes/No  
Est. Oil Thickness where >1cm: _______ cm  
Est. Oil Penetration: _______ cm  
Layers? Yes/No  

OIL MORPHOLOGY:  
Pooled Oil  "Free" Oil  Spattered Yes/No  

OIL WEATHERING:  
Fresh Oil: SU/SP/VP/MID/UP  
Pancake Mousse: SU/SP/VP/MID/UP  
Asphalt Mousse: SU/SP/VP/MID/UP  

Tar Formation:  

Comments:  

ACE 8702140
DOCUMENTATION:

Map/Aerial photo marking segment boundaries  See attached

VTR: Y/N  Tape Number(s)  

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

Sample Numbers Collected: N/A
**ECOLOGICAL EVALUATION**

**LOCATION:** Malibu Pier  
**SITE:** North shore  
**OBSERVER:** J. Torpey  

**LOCATION PREFIX:** K-2/mB  
**SEG. NO.:** K-2-10-m8-B  
**LENGTH:** 2500 (M)  

**DATE:** 6/16/79  
**TIME (HHMM):** 1820  
**TIDE HT.:** +1.0 (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:** No life on sandy beaches. Flora & Fauna  
found in abundance on rocky cobble boulder area. Cleaned Mytilus & Fucus.  

**CLEANUP PRECAUTIONS:** Clean up mussels, pacakers, avoid oiling tower.  

**MAMMALS:** Otters ___  
Harbor Seals ___  
Sea Lions ___  
Whales ___  
Other Deer antlers  

**BIRDS:** 3 Gulls on beach  

**GENERAL OBSERVATIONS:** Shingle beach  

ACE 8702142
SHORELINE PRE CLEANUP REASSESSMENT

DATE 7/26/89 SHORELINE SEGMENT K2-10-MB-9 REASSESSMENT DATE 7/26

Observers: OG B. Trimm BIO D. McCormick ARCH J. Erlandson

Reason for Reassessment: Significant time lapsed since original assessment.

Revised Recommended Cleanup Activity(ies):
- Manual removal of small oiled drift debris and mousse patches.

Revised Ecological Constraints:
- Limit work crew size to 10 and use some path from beach to prevent damage of biota (muscles, barnacles, etc.) in lower intertidal zone.

Revised Archaeological Constraints:
- 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

EXXON: ___________________________ Date: ________________
FOSC: ___________________________ Date: ________________

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

DATE 6/29/89                                SHORELINE SEGMENT  MB-9

LOCATION: (see enclosed map) NORTH SHORE OF MALINA BAY

ADEC NO. _______ SHORELINE ASSESSMENT DATE:  6/16/89

Recommended Cleanup Activity(ies):
Manual removal of contaminated debris and mousse patches.
Removal of oiled driftwood.
Use other approved methods as appropriate.

Priorities Considerations:
KISCC considers this a sensitive area due to local seabirds and marine mammals.

Ecological Constraints (from site survey):
Avoid putting large cleanup crews on rocky boulder areas due to balanus and mytilus shell breakage from human traffic.

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]
State Historic Preservation Officer *

Exxon: ________________________________ Date: 6/30/89

FOSC: ________________________________ Date: ____________

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
Date: 12-24/1989 Time: 19:00
Surveyed From: Foot/Boat/Helicopter/Plane
Observer: S. Peck

LOCATION
LOCATION NE 1/4 / SW 1/4 SEGMENT I.D. K-2-2

LENGTH OF SHORELINE SEGMENT: 150 m
ACCESS: Foot/Vehicle/Boat/Helicopter/Float/Plane

SHORELINE
Shoreline Type: SP/LEA/COP/HINO/STET
Slope: LA/UL/DIW/VER
Wave Exposure: High/Med/Low
Sediment: D / C25 / F251 / C251 / S25 / M... / R...
Drift Debris on Beach: Yes/No
Supra/Upper/Mid/Lower Type Log / k/'

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

OIL DISTRIBUTION
Continuous: Y/N Segment 1 No. Bands Width

Sporadic: Y/N Segment 1/2 Min/Max Dia. Impct. Width 10-15

Est. Oil Thickness where > 1 cm: < 1 cm

Est. Oil Penetration: < 1 cm

Layers? Yes/No No Layers Oil Weathering

Drift Debris Oiled? Yes/No

OIL MORPHOLOGY
Pooled Oil Yes "Free" Oil Yes Spattered Yes / No / Y Sheen

OIL WEATHERING (OW)
Fresh Oil Yes SU/SP/VP/NID/LU Choc Moussae Yes SU/SP/VP/HID/LU
Pancake Moussae Yes SU/SP/VP/HID / LU Asphalt Moussae Yes SU/SP/VP/HID

Tar Formation

Comments:

The oil occurrence is k-2-2 on the surface.
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 8702148
ECOLOGICAL EVALUATION

LOCATION: Melina Bay  SITE: North shore  OBSERVER: J. Tarpley
DATE: 6/1/89  TIME (HHMM): 1900  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

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:  Clam shells, Mytilus shells.

CLEANUP PRECAUTIONS:  Do not put larger numbers of cleanup personnel on rocky areas rich with organisms. Human traffic is crash dense Balanidae & Mytilus beds.

MAMMALS:  Otters  Harbor Seals  Sea Lions  Whales  Other  Deer Tracks

BIRDS:  Gulls  Offshore in bay

GENERAL OBSERVATIONS:  Algal shift at high tide line is oiled. Splattered mousse in area ITS.
SHORELINE CLEANUP PROGRAM

DATE 7/17/89  SHORELINE SEGMENT K2-10-MB-11

LOCATION: (see enclosed map) Malina Bay

ADEC NO. SHORELINE ASSESSMENT DATE: 7/17/89

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

Priorities/Considerations: Class

Ecological Constraints (from site survey):

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.
SHORELINE OIL EVALUATION FORM - KODIAK

Date: 7/17/89  Time: 19.00  Observer: G. MACKENNA
Surveyed From: Foot/Boat/Helio/Plane  Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION
LOCATION    N. SHORE MARINA-BAY  SEGMENT I.D. K2-10, MB-11

LENGTH OF SHORELINE SEGMENT: 5,000 m

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

SHORELINE:
Shoreline Type: SPI/BEACH/MUD/STRAT  Slope: Lang/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/Very Light
Total Area of Beach Impact: SU / SP / H / M / L NOT APPLICABLE

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

Depth below top sed

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 ____; 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:

AN OIL FREE SEGMENT, VERY EXPOSED WITH HI. FETCH & HIGH WIND TUNNEL GUSTS FROM THE NORTHWEST.

ACE 8702153

NO PHOTO: BROKEN CAMERA
7/17  SEGMENT  MB-11
19:00 hrs

outcrop, low 2 cob-gul beach, trace
≤ 2 cm dia. asphalt, mussel spots & MUC;
baywater lagoon - no oil;
bluff cob-gul, bold-gul, outcrop
beach, no oil, mud, exposed
becoming more rocky, craggy to W;
outcrop/clip to 30m; occas gul pocket
no oil; see scoured rock
some massive boulder jumble @
base of clip.

21:15  END 1/ SEGMENT
SEGMENT: Maluca Bay

Scale 1:70,000 (1" = 1.23 miles)

BASE MAP: NOAA Nautical Chart #16604, 7th Ed; 9/10/83

7/16 & 7/17/89
G. Macdonald

7/17 pm: K2-10, MB-11
**ECOLOGICAL EVALUATION**

**LOCATION:** Afognak-Is1  
**SITE:** Malina Bay  
**OBSERVER:** M. Fauze

**LOCATION PREFIX:**  
**SEG. NO.:** 11  
**LENGTH:** 5,000 (M)

**DATE:** 7/17/89  
**TIME (HHMM):** 1915  
**TIDE HT.:** +1.5 (M)

**OILED ZONE:** Splash  
**SUBSTRATUM:** Rocks  
**LIVE BIOTA**

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

**OTHER OBSERVATIONS:**  
Anadromous stream at end of main beach - squ  
10 crsc. pink salmon in it

**CLEANUP PRECAUTIONS:**  
Keep away from stream - avoid damaging low intertidal zone

**MAMMALS:** Otters  
**BIRDS:** Arctic terns  
**GENERAL OBSERVATIONS:** Cormorants & gulls on small island

**Mammals:** Harbor Seals  
**Sea Lions**  
**Whales**  
**Other**  

**Birds:** Eagles with nest, pigeon guillemot, oystercatchers

ACE 8702156
SEGMENT: Malina Bay

SCALE: 1:70,000 (1" = 1.23 miles)

BASE MAP: NOAA Nautical Chart # 16634, 9th Ed; 9/10/83

7/16 to 7/17/89
G. MACDONALD

REF. MAP
SHORELINE CLEANUP PROGRAM

DATE 7/17/89       SHORELINE SEGMENT K2-10-MB-13

LOCATION: (see enclosed map) Malina Bay

ADEC NO. __________ SHORELINE ASSESSMENT DATE: 7/25/89

Recommended Cleanup Activity(ies):
- Manual removal of thicker accumulations of fresh mousse in
  between boulders and rock crevices.
- Manual removal of oiled sediments. Excavation to depths
  greater than one inch may be necessary to clean beach.
  Replacement of boulders if moved to excavate oiled
  sediments will minimize erosion.

Priorities/Considerations: Class 4-A
- Access may be limited to calm days, very exposed beach and
  high vertical cliffs.

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

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: 7/21/89

EXXON: ____________________________ Date: ________________

FOSC: ____________________________ Date: ________________

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

Date: 25 July 89 / Time: 1505
Surveyed From: Poop/Boat/Hello/Plane
Observer: Benca Tenum
Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

Location: K - 10 - M 3 - 3
Segment ID: K 10 M 3
Segment Length: 1500 m
Access: Vehicle/Boat/Barge/Hello/Float Plane
Access Restrictions: None - at low tide, boats in calm days - use fenders at cliffs
c

SHORELINE

Shoreline Type: SPI/BEA/COV/HLD/STRT
Wave Exposure: High/Med/Low
Slope: Lo/Med/Hi/Vert
Sediment: B 40% / C 20% / P 10% / G&S 10% / M10% / RZ0%

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

Very light:
Length (m) 150
Width (m) 3
Thickness >1cm: __ cm SU/SP/H/M/L

Light:
Penetration/Rework: 2 cm SU/SP/H/M/L

Moderate:
Burial Depth: __ cm SU/SP/H/M/L

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: __ SU/SP/H/M/L
"Free" Oil: __ SU/SP/H/M/L
Splattered: __ H/M/L/VL
Coated: __ H/M/L/VL
Pancakes/Balls: __ SU/SP/H/M/L

Preliminary Cleanup Est.

Preliminary Cleanup Est.

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

Advice: Surveyed area is the SW - W ofvertical cliffs. The northern side of the
storm was the easiest part. At the left, between two cliffs, the oil was completely
covered. Access is limited to cliff at low tide in calm days (wind against cliffs) or boats
on calm days. At north boundary (left side) fresh mousse found. At west side boulevard,
removal was completed. Oil on rocks and surfaces. All is an extension of the

ACE 8702160
DOCUMENTATION:

Map/Aerial photo marking segment boundaries: [CHECKED]

VTR: Y/N  Tape Number(s) ________________________________

Photography: Y/N  Roll Number(s) ________________________________

Sample Numbers Collected: [NO]

ACE 8702161
25 July 89

- Work crew removed 3.15m of oiled substrate
- Very slight sent of oil
- 2500 bags removed to date (1500 - Zone)
- Present manual methods - though slow and tedious is removing a good
- Bit of the oil

MB 13 - Board skiff, go to landing zone drop off USCG - 2 and run skiff to pocket
- Beach adjacent to the east - no oil
- Lost T/P - call 352-24th - board 3
- Go to ENO MP-9

1530 - MP 9 West - Flyover - Give Rick Gillie idea of beaches to reassess (if needed)

1605 - Finish Flyover - Long Day
- LV for ADQ via Pt. Bailey
- Pick up Exxon key

Tuesday 25 July

- Comments on Flyover - saw only U-LT splat to no visible oiling
- Recommend a more detailed report
- No action for those beaches since overmix found little to no oil

1627 - LV Pt Bailey, wait to pick up 1 new member

1633 - LV Pt Bailey to ADQ
1653 - LD ADQ
1740 - LV ADQ to SCAT office
1800 - SHOTGUN TRAINING CLASS
2030 - SCAT STAFF MTG
2100 - Get material to write up segments - Cast to Mary Moseley to write up.
2130 - Start writing up.
2300 - Good night
No oil observed

- - - V. Light
- - Light
- - - - Moderate
- - - - - Heavy
ECOLOGICAL EVALUATION

LOCATION: [illegible]   SITE:          OBSERVER: D. McCormick
LOCATION PREFIX: [illegible]   SEG. NO.: 13   LENGTH: 1600 (M)
DATE: 7/25/89   TIME (HHMM): 1505   TIDE HT.: +1.5 (M)
OILED ZONE: Splash High Medium Low  
SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud
LIVE BIOTA

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

Hytilus (Mussels): Patchy Y/N Cont. Y/N Dense Y/N Sparse Y/N None Y/N

Palanus (Barnacles): Patchy Y/N Cont. Y/N Dense Y/N Sparse Y/N None Y/N

Littorina

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

Spets: Patchy Y/N Cont. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS: [illegible]

CLEANUP PRECAUTIONS: None were no cleanup conducted

MAMMALS: Otters 2 Harbor Seals Sea Lions Whales

BIRDS:

GENERAL OBSERVATIONS: [illegible]
No oil observed

V. Light

Light

Moderate

Heavy
SEGMENT INSPECTION RECORD

ADEC #: A7-0

Shoreline Segment: K2-10

Shoreline Treatment Process(es) Completed for this Segment

- Hot water wash
- Warm water wash
- Mechanical
- Water deluge
- Non-mechanical
- Other

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Exxon Comment

Maline Bay cleaned except for the boulder area at Tanaah Cape. Cleaning crews anticipate 4 days to clean that area. Request inspection of the remaining bay area.

Signature: Jack A. Rickner
Date: Aug 2, 1977
Time: 0818

Printed Name: Jack Rickner

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil

Percent Degree of Oiling

<table>
<thead>
<tr>
<th>&lt; 1%</th>
<th>Heavy</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1%</td>
<td>Medium</td>
</tr>
<tr>
<td>100%</td>
<td>Light</td>
</tr>
<tr>
<td>100%</td>
<td>Very Light</td>
</tr>
</tbody>
</table>

Subsurface Oil

- Yes
- No

Comment Below

Reassessment

- Yes - Necessary
- No - Not necessary unless re-oiled

ADEC Rep Comments

Pls. see reverse.

Signature: Clarke A. Pelz
Date: 8-7-67
Time: 1:30 PM

Printed Name: Clarke A. Pelz

FOSC Rep Comments

Demobilization approved/disapproved

Signature:
Date:
Time:

Printed Name:

Copy: Exxon

ACE 8702169
Only Segments MB-5, MB-6, MB-7, MB-8, and MB-9 were inspected. Segments MB-3 and MB-4 were not complete - Clump Crews were on scene and will commence cleanup in Part MB-1. A small pocket area in the non-tarred headland at MB-5+6 had been burned. Clump Crews were working the area and had removed the house. Pooled oil, and died debris/keel. The worst performed, accomplished the Type A work order requirement. Accordingly, Segment MB-5 through MB-5 the documentary for Type A treatment. It is recommended Part B be executed for Type B cleanup.

AOEC Only MB-5+6 were inspected from the ground. MB-7 was partially inspected from the air. The remaining segments to the back of the bay are unlikely to have received any significant hits. Type A treatment seems to have been well down and it appears the team working on site has done a good job. Gross surface oil has been removed from the pocket between MB 6+5. This would be a good candidate for Type B treatment. MB-4+5 should be inspected when treatment is complete. - Charlie Rely
COMPLETE JAN - 9 1990
ACE 8643507
KODIAK SCAT
K2-1
called Joe Bernice @ feather norm. he sent 4 bags of 100 ea. q-tips inside. will send down 9 more bags.
SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): K2-11

Includes Shoreline Segments: MB-10, MB-12

Location: Malina 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  7/18/89  SHORELINE SEGMENT K2-11-MB-12

LOCATION: (see enclosed map) S. Coast of Malina Bay - Steep Cape to Malka Bay.

ADEC NO. K2-11 SHORELINE ASSESSMENT DATE: 7/18/89

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

Priorities/Considerations:
-If oiling does occur, highly exposed shoreline may restrict access.

Ecological Constraints (from site survey):

Archaeological Constraints (from site survey):
-If cleanup is planned, an archaeological monitor will have to be assigned in archaeologically sensitive portions of the segment.

State Historic Preservation Officer *

Date: 7/20/89

EXXON:  Jack A. Richardson

Date: 7/28/89

FOSC:

Date:

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

Date: 7/18/89  Time: 08:00  Observer: G. MARDONAD

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

LOCATION
Location: S. Shore of MALINA BAY  Segment I.D.: K2-11, MB-12

LENGTH OF SHORELINE SEGMENT: 10,300 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  S/A
Sediment: B/C/P/G/I/M/R
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  Not Applicable

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/UP/MID/LO
Depth below top sed __
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 __ 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:
A highly exposed, high energy, eroding coast segment.

ACE 8702173

No Photo Doc.

Camera Broken.
7/18/89 SEGMENT MB-12
Muko Bay - Steep Cape
08:00 hrs

1. Steep, exposed rock walls to ~
75m; v. exposed; high tick ditch;
stacks, pillows, rounded boulder;
strata between o.c.; occasional beach;
anchitic; no oil; sl. alt. dikes.

2. Broad, rounded boulder-patch w/ trees
sand/granite; glacial till & outwash
sills to 10m thick, small stream;
fining upbeach; no oil.

3. Steep, high, rugged, shattered granite,
pronounced; and, boulder, low angle
behind; base of cliff - morze.

4. Dimic contact w/ metased.; hi-sheared
folded, sl. foliated.

5. Low, boulder-beach, breccia, bench;
rounded boulders; capped up till in valley.
Sectarian; no oil.
(6) Low-walled flat-guy beach over wave-cut bench; 10m till cap; adjacent massed outcrop point to E; no oil; granite thrust contact/metamorphics/dykes;
50m altered drusite cliff of massive bita o. brown

(7) contact of thermal alter; 1 massed
3. altered; limestone; no oil

(8) massive boulder over beach

(9) rounded flat-cobble pocket beach;
country rocks altered to qtz-chlor-bio
contact in places; no oil.

(10) low-walled flat-sand beach; 1-
plunges qtz-rich matrix; no oil;
graystone & massed; still exposed;
low relief steep rock walls 4-5m;
till cap (2-3m th); no oil.

(11) low < wave-cut bench of Jesse's
head; cobble-sands; no oil;
sands < LWL

(12) flat-sand pocket/beddies over beach
in 10-30m th; no oil.

(13) steep hi cliff (300); exposed; no oil.
10.35 no end of segment
SEGMENT MB-12

KEY

1. LOCATION - SEE NOTES
2. STORM
3. GENERAL STRIKE AND DIP OF ROCKS
4. GRANITIC ROCKS; GRANITES, DIORITES,
5. SHEARED METASEDIMENTS
6. QTZ-CHLOR-BIOT SCHIST & COLLATED
7. METAMORPHICS
8. ALTERED METASEDMS, GREENSTONES, LAVAS,
PILLOW BASALTS

Map base: NOAA
Nautical Chart 16604
Scale 1:78,000

7/10/89 a.m.
G. Macdonald
ECOLOGICAL EVALUATION

LOCATION: Afognak IS SITE: Malina Bay OBSERVER: M. Fauzett
LOCATION PREFIX: MB SEG. NO.: 12 LENGTH: 10,300 (M)
DATE: 7/18/89 TIME (HHMM): 0807 TIDE HT.: -0.3 (M)
OILED ZONE: Splash High Medium Low
SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud mostly cliffs

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

Hytilus (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:
Small steep streams (unc-identified) - abundant

Thalas emarginata T. Imo T. canaliculata in some areas - also Katharina,
Mopalia muscosa, leptosternas, hecricia, pycnopodia, fischer

CLEANUP PRECAUTIONS: no cleanup needed, access unlikely

MAMMALS: Otters 28 Harbor Seals Sea Lions Whales
Other 7 deer near beach

BIRDS: Eagles (1 pair w. nest), gulls puffins, piper guillemot, eider, magpies

GENERAL OBSERVATIONS: Mainly high energy cobble beaches and
cliffs - access rare because of surf
SHORELINE CLEANUP PROGRAM

DATE 7/18/89

SHORELINE SEGMENT K2-11-MB-10

LOCATION: (see enclosed map) Malina Bay

ADEC NO. __________ SHORELINE ASSESSMENT DATE: 7/17/89

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

Priorities/Considerations:
- None

Ecological Constraints (from site survey):
- If reoiling occurs and cleanup is advised, avoid damaging healthy lower intertidal zone through trampling or allowing run-off of oily wastes.

Archaeological Constraints (from site survey):
- If cleanup is planned, an archaeological monitor will have to be assigned in archaeologically sensitive portions of the segment.

State Historic Preservation Officer *

Date: 7/18/89

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: 7/17/89 Time: 07:30 Observer: G. MACDONALD
Surveyed From: Foot/Boat/Helio/Plane Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION
MALUKA BAY, SOUTHEAST. SEGMENT I.D. K2-11, MD-10

LENGTH OF SHORELINE SEGMENT: 1650 m

ACCESS: Foot/Vehicle Boat Barge Helio Float Plane calm only.

SHORELINE:
Inlet
Wave Exposure: High/Med/Low
Slope: Lang/Hang/Ver beach rock wall

Sediment: B30% / C5% / P10% / G10% / S5% / M5% / R40%

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 NOT APPLICABLE.

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 / 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 _______ H/M/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:
S. SHORE MALUKA BAY + MALUKA BAY — OIL FREE

< 10 Mousse coated grass clumps noted in entire segment.

NO PHOTO: CAMERA FAILURE G.
7/14. SEGMENT K2-11, MB -10
1900 hrs S. Melita Bay

barren steep - mud - pub - gel - beach;
grades into lowly cob - bld - gel then
boulder - pub - gel - beachrock shelf
2 mum - coarse grass clumps

long boulder - pub - gel - bedrock - bld - pub -
gel - shelf; occ. rock outcrop
terminates at glacial drift norm.

pub / cob - gel - sand long even, bulk
shelf of occur. rock outcrop; no oil

inter weeds down to v. shallow sedgrass
bay, then muddy bottom tidal
shallow / flats

check head of inter - hr of black
dried cob - gel - no oil

2 dessicated / pancake mud / mats
C 4172. in 300m. 9 - week,
exposed "and shelf"

halt segment 2 11.00 hrs
October MB-10; 11:1 am; 07:30

Steep bedrock walls; v. exposed.
 altered Pilamado; Malena-Bay.
gvl.-pck; gvl.-blkr; v. exposed pockets.
31 m; slightly oiled debris balls.
2 gvl.-end-pck beards; no oil, but.
v. exposed; rimmed by steep rocky cliffs.

Total flats; gassy expanse of kelpfield;
glac. stranded boulders;

Out for-
6 round-oolit-flat flats,
rock; blkr.; alga.

Total 12 m.

10:30 END OF SEGMENT
10.970 m.
SEGMENT MB-10

7/16/89 P.M.
S.E. Maluwa Bay, S. shore
G. Macdonald.

293

- steep, low relief
  - bedrock
  - mod. hkl. well md. fab
  - gvl. beach
  - 2 mounds -coated
  - debris balls in 300 m

- cob. bldvy-gvl. shear; low angle
- bldvy-cob-gvl. shear
- bedrock bldvy-gvl. shear

- low cob-
  - fab beach

- moraine
  - till

ACE 87U2184
ECOLOGICAL EVALUATION

LOCATION: Akgnaq Is.  SITE: Malna Bay  OBSERVER: M. Faureitt
LOCATION PREFIX: MB  SEG. NO.: 10  LENGTH: 16,500 (M)
DATE: 7/16/79  TIME (HHMM): 1915-2100 hrs  TIDE HT.: 1.5 (1/4) (M)
continued 7/17/79  C20 hrs - 1025 hrs  -0.3 to +0.4 (7/7)
OILED ZONE: Splash  High  Medium  Low  rare traces of oil in 12-13 small mousse patches or streaks in entire seg.
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
some dense beds of mussels on mud flats near head of bay

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Barnacles spot dense on all hard surfaces

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
Caliscella digitalis, streptella, pelta, Acmaea sentum

OTHER OBSERVATIONS: Katharina Megalis, mussella common in
some areas several Tachnodon sp (osperil?) seen
Thais (Nucella) emarginta common - many clams near head of Bay; also
Bungeness & helmet crabs

CLEANUP PRECAUTIONS: no cleanup advised at this time - if reco
occurs cleanup is advised, avoid run off of wastes into low intertidal

MAMMALS: Otters  Harbor Seals  Sea Lions  Whales

BIRDS: gull, seagull, magpies, numerous oystercatchers, 2 pairs eagles with nests

GENERAL OBSERVATIONS: vast eelgrass beds near heads of Bays

(6) starfish seen: Pycnopodia, Selaster, Hermastereis, Leptasteris, Eupistocirrus
Disaster - two small, probable anadromous fish streams at heads
of Bay - jacks or Polly's drain seen in bigger on
ACE 8702186
SEGMENTS: K2-11, MB-10
Malina Bay

MALINA BAY

MB-11

MB-10

Malka Bay

Scale 1:70,000 (1" = 1.23 miles)
Base Map: NOAA Nautical Chart # 16624, 9th Ed, 9/10/83

REF. MAP
KODIAK SCAT
K2-12

ACE 8643508
SHORELINE CLEANUP PROGRAM

DATE  5/26/89

LOCATION: (see enclosed map)  South of STEEP CAPE, near entrance
to Raspberry Straight

SHORELINE SEGMENT  SC-1

ADEC NO.  __________  SHORELINE ASSESSMENT DATE:  5/19/89

Recommended Cleanup Activity(ies):
- Remove oiled coated seaweed drift in the high intertidal zone.
- Check to make sure that the clean seaweed does not cover any
  contaminated seaweed drift.

Priorities Considerations:
See Above.

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

Archeological Constraints (from site survey):
No access above the active beach. Site should be monitored
during cleanup. The restraints for type A cleanup should be
applied to 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  
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: 19 May 1989  Time: 1050 hrs
Observer: Bryan Trim

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

LOCATION

LOCATION 1 mile (1.5 km) S. of Steep Cape on
Apolaqu, Is (Entrance to Raspberry Sta).

LENGTH OF SHORELINE SEGMENT: 1500 m

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

SHORELINE:

Shoreline Type: SPI/SPA/COV/HLD/STRT
Slope: LANG/HANG/VER
Wave Exposure: High/Med/Low

Sediment: B25% / C25% / P25% / G25% / S-% / M-% / R-%

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

OIL

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

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

Continuous: Yes % of Segment 25 Width of Band: \( \frac{1}{2} \) m

Sporadic: Yes % of Segment 35

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:

- Light chocolate mousse coating on Boulder/Cobble Beach. No cleanup recommended (too thin a coating).
- Remove the 1 m band of oiled seaweed drift at the top of the high-intertidal zone.
- Note: Make sure work crews check & make sure clean seaweed drift does not overlap any oiled seaweed drift.

ACE 8702190
ECOLOGICAL EVALUATION

LOCATION: Abogast Is SITE: S of St. Cape OBSERVER: Sm Ban
LOCATION PREFIX: SC SEG. NO.: 1 LENGTH: 1500 (M)
DATE: 5/19/89 TIME (HHMM): 1050 TIDE HT.: + 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
Dense in lower 1/2; some coated at beginning of seg.

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
Dense spat in lower 1/2

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

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Healthy; Thais also

OTHER OBSERVATIONS: Amphipods alive in debris, debris very
dense in areas; lightly oiled

CLEANUP PRECAUTIONS: Avoid healthy mussel community
in lower 1/2 and on boulders

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other ___ deep tracks

BIRDS: None seen

GENERAL OBSERVATIONS: Over ice, slight coating of beach
DOCUMENTATION:

Map/Aerial photo marking segment boundaries  

VTR: Y/N  Tape Number(s)  None

Photography: Y/N  Roll Number(s)  SmA-8

Sample Numbers Collected: None

ACE 8702192
SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): STEEP CAPE BLOCK

Includes Shoreline Segments: SC-1

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
KODIAK SCAT
K3-1

COMPLETE

01/22/90

ACE 8643509
1-10 called Ron about status of dig site. His supply
guy said they are getting limited merchandise because
of volcano activity. Will contact Butch or I when
pad is in Anchorage.
Date 7/23/89  Shoreline Segment IB-9

Location (see map)
From Pillar Cape NW into Izhut Bay

ADEC No. K3-1  Shoreline assessment date 7/15/89

Recommended Cleanup Activities
Manual removal of mousse patties and tar balls from high tide line.
Clean oiled driftwood if found in tidal area.

Priority Considerations
Class 5
Oil contamination light
Resources absent

Ecological Constraints
None

Archaeological Constraints (from site survey)
If any archaeological or historical sites or artifacts are discovered during the clean up activity, they must remain undisturbed and the Exxon archaeologist Jim Haggarty contacted (486-5680) (take action prescribed in the "Guideline for Shoreline Cleanup" dated 4/21/89 as amended) and the State Historic Preservation Office notified as soon as possible.

Submitted by: Jack A. Perdue  Exxon

Approved:  Federal On-Scene Coordinator Representative

Date 7/24/89  Date 7/26/89

ACE 6702198 4/5
SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): K3-1

Includes Shoreline Segments: IB-9

Location: From Pillar Cape NW into Izhut Bay

Afoqnak (Al) quadrangle

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 7/16/89    SHORELINE SEGMENT K3-1-IB-9

LOCATION: (see enclosed map) From Pillar Cape NW into Izhut Bay

Afognak (Al) quadrangle

ADEC NO. ShORELINE ASSESSMENT DATE: 7/15/89

Recommended Cleanup Activity(ies):
- Manual removal of mousse patties and tar balls from high
tide line.
- Clean oiled driftwood if found in tidal area.

Priorities/Considerations: Class 5
- Oil contamination light
- Resources absent

Ecological Constraints (from site survey):
- None

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: 7/21/89

EXXON: ____________________________ Date: __________________

FOSC: ____________________________ Date: __________________

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

Date: 7/15/89 / Time: 1435 - 1715
Observer: M. Acton

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

LOCATION

Location: Pillar Cape NW into Intake Bay
Segment ID: K3-1-18-9
Segment Length: 6 miles
Access: Vehicle/Boat/Barge/Float Plane

Access Restrictions: Park landing during low energy periods only

SHORELINE

Type: SPI/BEA/COV/HLD/STRT
Slope: Lo/Me/Hi/Vel
Wave Exposure: High/Med/Low

Sediment: B 20% / C 15% / P 10% / G&S 15% / M 8% / R 40%

IL

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

IL DISTRIBUTION

- Continuous % of Segment
- Poradic % of Segment

- Total Length (m) | Width (m) | Thickness > 1cm: 8 cm | Penetration/Rework: 5 cm | Burial Depth: 3 cm

- Very light: 50 | 5 | SU/SP/H/M/L | H/M/L/VL
- Light: | | Penetration/Rework: | | SU/SP/H/M/L
- Moderate: | | Burial Depth: | | SU/SP/H/M/L
- Heavy: | | | | SU/SP/H/M/L

obilization Potential: High/Medium/Low

T Debris Oiled? Y/No Amount: H/M/L/VL SU/SP/H/M/L Type:

MORPHOLOGY

-oiled Oil: % SU/SP/H/M/L
-Free Oil: % SU/SP/H/M/L
-plattered: % H/M/L/VL SU/SP/H/M/L
-oated: % H/M/L/VL SU/SP/H/M L
-ancakes/Balls: 100 % SU/SP/H/M/L

WEATHERING

-resh: % SU/SP/H/M/L
-ourse: % SU/SP/H/M/L
-athered Mousse: 90 % SU/SP/H/M/L
-phalt Mousse: % SU/SP/H/M/L
-ar: % H/M/L/VL

MENTS

Segment consists of 3 beaches, with the remainder being rock cliff/headland/rock platforms, and large boulders (see attached map 1-3 for beach descriptions).

Entire segment flown by helicopter, 3 beaches by foot. No landing spots on non-beach areas.

Very light oiling consisting primarily of mousse patchy w/ some tar balls observed on one beach (see map 2).

No oil observed from helicopter on non-beach areas.

ACE 8702202
DOCUMENTATION:

Map/Aerial photo marking segment boundaries [ ] See Attached [ ]

JTR: Y/N Tape Number(s) ________________________________

Photography: Y/N Roll Number(s) ________________

Sample Numbers Collected: N/A

ACE 8702203
Map *1

No oil observed
Walked beach at approx 1645, tide +4. (7/12)
area of discontinuous
V. H. oiling - mouse
patches up to 15 cm diameter
and tar balls up to 3 cm diameter
All oil observed on surface, none
observed in subsurface.

A-A' 30m

Grass
terrace

2m erosion
scarp

Very H. oiling observed
mouse patties, tar balls
spat

Worked beach at approx 0900, tide at +1. (7/16)
Washed beach at approx 1030, tide at +3. (7)10
Did not walk extreme ends of beach.

No oil observed.
7/11 Day

Action: From Luke's Land

0820 To Luke

0845 Land at Ichetuckney Bay

12 Split NW of last step yesterday

MA-3-15 to NW
17 to SE toward Pt. 1

From beach yesterday - SE side of point - shore

Rock cliffs NW side of point - border

- beavers at base of vertical cliffs

- few musky today 1-2" diameter at high tide base

- 11-14 musky split at high tide base

- Musky panicles - up to 1-4" clin.

- 17-18 musky + tar - very light oil input

Some tar balls - 1" clin.

dry debris looks in 1' - an evidence of n.s. on surface cobble/sand - none observed before on the

oil appears to just have come in

1745 (loosen, go quicker)

1715 quicker

1145 to south

- tar balls and oil

Quick tendons at SE end of point

no evidence of oil observed with brush under center.
ECOLOGICAL EVALUATION

LOCATION: Kodiak  SITE: AFH-1  OBSERVER: G. Pen
LOCATION PREFIX: K3-1  SEG. NO.: I B - 7  LENGTH: ____________ (M)
DATE: 07/15/89  TIME (HHMM): 16:35  TIDE HT.: _______ (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

Limpets:

OTHER OBSERVATIONS:

CLEANUP PRECAUTIONS: _______ (1) "CAUTION____________

MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales _______

BIRDS: Eagles  Nest  - Ducks, ___ 30___ 40__ 50___ 60___ 70___ 80___ 90___ 100___

GENERAL OBSERVATIONS: Intertidal habitat poor in macro- and micro-bio.

ACE 8702210
KODIAK SCAT
K3-2

COMPLETE JAN - 9 1990

ACE 8643510
SHORELINE CLEANUP PROGRAM

DATE: 6/27/89  SHORELINE SEGMENT: IB-1

LOCATION: (see enclosed map) IZHUT BAY—WEST SHORE
NEAR HEAD OF BAY, AFONAK ISLAND

ADEC NO.: SHORELINE ASSESSMENT DATE: 6/17/89

Recommended Cleanup Activity(ies):
Manual removal of mousse patties and contaminated drift
material.
Use other approved techniques as appropriate.

Priorities Considerations: 5-B classification on the beach.
KISCC considers this a sensitive area due to local seabird
colonies and pinniped haulouts within the bay.

Ecological Constraints (from site survey):
Caution must be used not to erode spring and storm berms to
a point where waves could cut into forest.
Avoid rocky areas adjacent to beach.

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: Douglas Reget]  Date: 6/29/89
State Historic Preservation Officer

ISCC: ___________________________ Date: ____________
EXXON: ___________________________ Date: ____________
FOSC: ___________________________ Date: ____________

* 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:** June 1989  **Observer:** Mike Miles
**Time:** 04:30  **Weather:** Sun/Cloud/Rain/Snow/ Fog
**Surveyed From:** (Foot/ Boat/ Helio/ Plane**

**LOCATION**
- Alaskan Island
- Zephyr Bay

**SEGMENT I.D.** Y-3-2 - IF-1

**LENGTH OF SHORELINE SEGMENT:** 2850 m

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

**SHORELINE:**
- Shoreline Type: SPI/ BEA/ COY/ M/H/ STRT
- Slope: LAND/HANG/VER
- Wave Exposure: High/Med/Low
- Sediment: B/ D 1 / C < 1 / D < 1 / G < 1 / S 1 / M 1 / R 0.3

**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
- Scm Impact Width
- Est. Oil Thickness where > 1 cm: 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
- Suprat/ Upper/ Mid/ Lower Amount: H / M / L / V

**OIL MORPHOLOGY**
- Pooled Oil
- "Free" Oil
- Spattered Oil
- 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**

**ACE 8702215**

**Comments:**
- This section of coast consists of rocky headlands which contain cobble/ boulder/ pebble beaches in small caves.
- A very small number of islands. Rather narrow twisted rocky fiords. or in sheltered coves.

**Clean-up:** Manual Removal; however, the amount of oil within will be removed in very small areas of major spill area.
DOCUMENTATION:

Aerial photograph marking segment boundaries see attached

VTR: Y/N Tape Number(s) __________________________

Photography: Y/N Roll Number(s) JT-1 ____________

Sample Numbers Collected: N/A ____________________

ACE 8702216
**ECOLOGICAL EVALUATION**

**LOCATION:** Nehalem Bay  
**SITE:** West shore sandy beach  
**LOCATION PREFIX:** K3/1B  
**SEG. NO.:** K32-1B-1  
**LENGTH:** 2850 (M)

**DATE:** 6/12/77  
**TIME (HHMM):** 0930  
**TIDE HT.:** 0.0 (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:**  
- Bull Kelp tufts thick patches  
- Moderate amount of drift seaweed material on high beach, spruce  
- Rose-babbits in drift  
- No other biota living on beach.

**CLEANUP PRECAUTIONS:**  
- Cleanup crews must be careful cut to ecolos berm to the point where waves will not cut into forest.

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

**BIRDS:**  
- None

**GENERAL OBSERVATIONS:**  
This segment is a combination of steep rocky cliffs and pocket beaches. Beaches are lacking any biota whereas the rocky cliff is rich and diverse with marine life. * See p.2 of Ecological evaluation of rocky cliff portions of segment.

ACE 8702217
ECOLOGICAL EVALUATION

LOCATION: Fathar Bay
SITE: West shore towel head
OBSERVER: J. Trepsey

LOCATION PREFIX: K3/EB SEG. NO.: K-3-2-EB-1 LENGTH: 2350 (M)

DATE: 6/17/89 TIME (HHMM): 0930 TIDE HT.: 0.0 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud Cliff & Beaches

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: Bull Kelp (Nereocystis) forests offshore. All plant and animal life rich & diverse and healthy

CLEANUP PRECAUTIONS:

MAMMALS: Otters — Harbor Seals — Sea Lions — Whales —
Other

BIRDS: None

GENERAL OBSERVATIONS: This rocky cliff portion alternates wet sandy pocket beaches. See attached for Ecological Evaluation of beach.
SHORELINE CLEANUP PROGRAM

DATE _______ 6/27/89 _______  SHORELINE SEGMENT _______ IB-1 _______

LOCATION: (see enclosed map) _______ IZHUT BAY-WEST SHORE _______

NEAR HEAD OF BAY, AFOGNAK ISLAND

ADEC NO. 11111 SHORELINE ASSESSMENT DATE: _______ 6/17/89 _______

Recommended Cleanup Activity(ies):
Manual removal of mousse patties and contaminated drift material.
Use other approved techniques as appropriate.

Priorities Considerations: 5-B classification on the beach.
KISCC considers this a sensitive area due to local seabird colonies and pinniped haulouts within the bay.

Ecological Constraints (from site survey):
Caution must be used not to erode spring and storm berms to a point where waves could cut into forest.
Avoid rocky areas adjacent to beach.

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.

Date: 6/29/89

State Historic Preservation Officer *
Date: 5/16/89  Time: 09:53  Observer: Mike Miles

Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION: AFognak Island
SEGMENT I.D.: x-3-2 - 1R-1

LENGTH OF SHORELINE SEGMENT: 2850 m

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

Wave Exposure: High/Med/Low

Sediment: Bi/Co/Ps/Si/Mf/Rso

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 Dia. Impact Width
Est. Oil Thickness where > 1 cm: NA cm  SU / SP / UP / MID / IO
Est. Oil Penetration:
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/ML Sheen

OIL WEATHERING (GW)
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:
This section of coast consists of rocky headlands with cobble/pebble beaches in small coves.
A very small number of mouse 'patties' occur in sheltered rocky areas.

Clean-up: Manual Removal. However, the amount of oil which will be recovered is very small and access will present serious difficulties to working on much of this segment.

ACE 8702222
DOCUMENTATION:

Map/Aerial photo marking segment boundaries [See attached]

VTR: Y/N Tape Number(s) ________________________________

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

Sample Numbers Collected: N/A

ACE 8702223
**ECOLOGICAL EVALUATION**  
* Sandy Beach Portion of Segment (Oiled)*

**LOCATION:**  
[Territorial Bay](#)  
**SITE:** West shore toward beach  
**OBSERVER:** S. Tarrell

**LOCATION PREFIX:** K3/TB  
**SEG. NO.:** K32 T8-1  
**LENGTH:** 2850 (m)

**DATE:** 6/17/79  
**TIME (HHMM):** 0930  
**TIDE HT.:** 0.0 (m)

**OILED ZONE:** Splash  
**SUBSTRATUM:** Rocks Boulder Cobble Gravel Sand Mud

### LIVE BIOTA

<table>
<thead>
<tr>
<th>Taxon</th>
<th>Status</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fucus</strong> (algae)</td>
<td>Patchy Y/8</td>
<td>Contin. Y/8 Dense Y/8 Sparse Y/8 None D/N</td>
</tr>
<tr>
<td><strong>Mytilus</strong> (Mussels)</td>
<td>Patchy Y/8</td>
<td>Contin. Y/8 Dense Y/8 Sparse Y/8 None D/N</td>
</tr>
<tr>
<td><strong>Balanus</strong> (Barnacles)</td>
<td>Patchy Y/8</td>
<td>Contin. Y/8 Dense Y/8 Sparse Y/8 None D/N</td>
</tr>
<tr>
<td><strong>Littorina</strong></td>
<td>Patchy Y/8</td>
<td>Contin. Y/8 Dense Y/8 Sparse Y/8 None D/N</td>
</tr>
<tr>
<td><strong>Limpets</strong></td>
<td>Patchy Y/8</td>
<td>Contin. Y/8 Dense Y/8 Sparse Y/8 None D/N</td>
</tr>
</tbody>
</table>

### OTHER OBSERVATIONS:

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bull</td>
<td>Eating thick algae. Moderate amount of drift</td>
</tr>
<tr>
<td>Seaweed</td>
<td>Marine plants growing on the beach.</td>
</tr>
<tr>
<td>Kelp</td>
<td>Phorophytes in drift</td>
</tr>
<tr>
<td>No other biota living on beach.</td>
<td></td>
</tr>
</tbody>
</table>

### CLEANUP PRECAUTIONS:

Cleanup crews must be careful not to cause erosion to the point where waves will cut into forest.

### MAMMALS:

- Otters  
- Harbor Seals  
- Sea Lions  
- Whales  
- Other  

### BIRDS:

- None

### GENERAL OBSERVATIONS:

- This segment is a combination of steep rocky cliff and pocket beaches. Beaches are lacking any biota, whereas the rocky cliff is rich and diverse with marine life.  
- See p. 2 of Ecological evaluation of rocky cliff portions of segment.
ECOLOGICAL EVALUATION

LOCATION: Ichijii Bay  SITE: West shore toward head  OBSERVER: J. Tarpley
LOCATION PREFIX: K-3/IB  SEG. NO.: K-3-2-IB-1  LENGTH: 2850 (M)
DATE: 6/17/89  TIME (HHMM): 0930  TIDE HT.: 0.0 (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: Bull Kelp (Nereocystis) covers offshore. All plant and animal life rich & diverse and healthy

CLEANUP PRECAUTIONS: None since no cleanup recommended for this part of the segment

MAMMALS: Otters Harbor Seals Sea Lions Whales

BIRDS:

GENERAL OBSERVATIONS: This rocky cliff portion alternates w/sandy pocket beaches. See attached for Ecological Evaluation of beach.
(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 6/27/89

SHORELINE SEGMENT IB-2

LOCATION: (see enclosed map) AFognak Island - West Shore of

IZHUT BAY

ADEC NO. K3 - 2 SHORELINE ASSESSMENT DATE: 6/17/89

Recommended Cleanup Activity(ies):
Manual removal of mousse patties, oiled seaweed and heavily
oiled logs.
After the fall bird migration, a reassessment of the
remaining oil and additional cleaning techniques (such as
relocation of the oiled splash zone beach material into the
active surf zone) may be appropriate.
Other techniques may be used as appropriate.

Priorities Considerations: 4B to locally 3B
Resources not immediately present on beach, however, KISCC*
considers this a sensitive area due to local seabird
colonies and pinniped haulouts within the bay.

Ecological Constraints (from site survey):
Caution must be used not to erode spring and storm berms
during cleanup to a point where waves could cut into forest.

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: 6/29/89

State Historic Preservation Officer *

Date: 7/1/89.

ISCC: Date: 7/3/89

EXXON: FOSC:

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

Date: 3/9    Time: 2:35    Observer: MIKE

Surveyed From: Foot/Boat/Helicopter/Plane

Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION: AFognak Island

LENGTH OF SHORELINE SEGMENT: 450 m

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

SHORELINE:

Shoreline Type: SPI/BEACH/COV/HLD/STRT

Slope: LANG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B / C / D / P60 / S1 / 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: 2-4 m

Est. Oil Thickness where > 1 cm: N/A cm

Est. Oil Penetration: in 10-20 cm

Layers: Yes/No

No. Layers: N/A

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: (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: ________ SEE ATTACHED COMMENT SHEET

Comments:
COMMENTS  K-3-2-1B-2
SHORELINE OIL EVALUATION FORM

This pebble beach has a pebble/cobble storm berm. A small number of 5-10 cm diameter mousse 'patties' occur in the mid to upper ITZ throughout the length of this segment. The storm berm on the north end of this beach contains buried mousse 'patties' up to at least 30cm below the beach surface. This oil contamination has very little surface expression. Log and drifted sea-weed overlie this oil but this drift material is generally not oiled. The width of contaminated berm is 2 to 4m. Isolated mousse patties do however occur sporadically over a wider area.

Clean-up should include manual removal of mousse patties, oiled seaweed and the more heavily contaminated driftwood. Relocation of clean pebbles and cobbles in the spring tide storm berm would assist natural cleaning processes but would result in oil contamination of the ITZ.
DOCUMENTATION:
\(\square\) Aerial photo marking segment boundaries \underline{see attached}\n
VTR: \(\square\) Y/N Tape Number(s) ____________________________
Photography: \(\square\) Y/N Roll Number(s) JT-1 ____________________________
Sample Numbers Collected: NA
ECOLOGICAL EVALUATION

LOCATION: Izembay  SITE: West shore  OBSERVER: J. Tarpsey
LOCATION PREFIX: K-3-YB  SEG. NO.: K-3-2-18-2  LENGTH: 450 (M)
DATE: 6/17/79  TIME (HHMM): 0820  TIDE HT.: 0.0 (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: Amphipods in algal drift at spring term  High tide line and also in gravel. No biota lower on beach. FTZ. Moderate amount of seaweed drift.

CLEANUP PRECAUTIONS: Cleanup crews must be careful not to pile
berms on beach to the point where waves will cut into forest.
Avoid unoiled rocky areas adjacent to beach.

MAMMALS: Otters  Harbor Seals  Sea Lions  Whales  Other

BIRDS: Terrestrial birds at Forest/Beach interface.

GENERAL OBSERVATIONS: Sandy beach bounded on each side by rocky
cliffs covered with rich and diverse biota. This area is not oiled.
SHORELINE CLEANUP PROGRAM

DATE 6/27/89

SHORELINE SEGMENT IB-2

LOCATION: (see enclosed map) AFOGNAK ISLAND—WEST SHORE OF
IZHUT BAY

ADEC NO. SHORELINE ASSESSMENT DATE: 6/17/89

Recommended Cleanup Activity(ies):
Manual removal of mousse patties, oiled seaweed and heavily
oiled logs.
After the fall bird migration, a reassessment of the
remaining oil and additional cleaning techniques (such as
relocation of the oiled splash zone beach material into the
active surf zone) may be appropriate.
Other techniques may be used as appropriate.

Priorities Considerations: 4B to locally 3B
Resources not immediately present on beach, however, KISCC
considers this a sensitive area due to local seabird
colonies and pinniped haulouts within the bay.

Ecological Constraints (from site survey):
Caution must be used not to erode spring and storm berms
during cleanup to a point where waves could cut into forest.

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: 6/29/89

ISCC: ________________________________

Date: ______________

EXXON: ______________________________

Date: ______________

FOSC: ________________________________

Date: ______________

* Signature required to satisfy stipulations in Alaska DNR land
use permits for tide and submerged lands.
DATE: ___________ TIME: ___________ OBSERVER: ___________ 

SURVEYED FROM: Foot/Boat/ Helio/ Plane
WEATHER: Sun/Cloud/Rain/Snow/Fog

LOCATION AFognak Island
SEGMENT I.D. K-3-2-1P

LOCATION: 12HaT Bay

LENGTH OF SHORELINE SEGMENT: 450 m

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

SHORELINE:
SHORELINE Type: SPI/BEAYCOV/HID/STRT
Slope: LAXG/HAXG/VER

WAVE EXPOSURE: High/Med/Low

SEDIMENT: B-S / C-I / P-60 / G-9 / S-2 / M-8 / R-6

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. Width ___ Impact Width Width ___

EST. OIL THICKNESS WHERE > 1cm: ___/___ cm

EST. OIL PENETRATION: ___/___ cm

LAYERS?: Yes/No

OIL PENETRATION: ___/___ cm

OIL WEATHERING: ___/___

OIL MORPHOLOGY

POOLED OIL: ___/___ Free Oil ___/___ Spattered ___/___ Matted ___/___ Viscous ___/___ Sheen ___/___

OIL WEATHERING (OW)

FRESH OIL: ___/___ SU/SP/VP/MID/LO Choc Mousse ___/___ SU/SP/VP/MID/LO

PANCAKE MOUSE: ___/___ SU/SP/VP/MID/LO Asphalt Mousse ___/___ SU/SP/VP/MID/LO

TAR FORMATION: ___/___

COMMENTS: SEE ATTACHED COMMENT SHEET

ACE 8702236
This pebble beach has a pebble/cobble storm berm. A small number of 5-10 cm diameter mousse "patties" occur in the mid to upper ITZ throughout the length of this segment. The storm berm on the north end of this beach contain buried mousse "patties" up to at least 30 cm below the beach surface. This contamination has very little surface expression. Logs and drifted sea-weed overlie this oil but this drifted material is generally not oiled. The width of contaminated berm is 2 to 4 m. Isolated mousse patties do however occur sporadically over a wider area.

Clean-up should include manual removal of mousse patties, oiled seaweed and the more heavily contaminated driftwood. Relocation of contaminated pebbles and cobbles in the spring tide/spring beam might assist natural cleaning processes but would likely result in oil contamination of the ITZ.

ACE 8702237
DOCUMENTATION:

Map/Aerial photo: marking segment boundaries see attached

VTR: Y/N Tape Number(s) 

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

Sample Numbers Collected: N/A
ECOLOGICAL EVALUATION

LOCATION: [Illegible] SITE: west shore OBSERVER: J. Torpely
DATE: 6/17/99 TIME (HHMM): 0220 TIDE HT.: 0.0 (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: Amphipods in algal drift at spring low/low tide line and also in gravel. No biota lower on beach. ETZ. Moderate amount of seaweed drift.

CLEANUP PRECAUTIONS: Cleanup crews must be careful not to erode 1" rocks or rocky areas that will be washed into forest.

MAMMALS: Otters Harbor Seals Sea Lions Whales Other Deer Tracks on beach

BIRDS: Terrestrial birds at forest/beach interface

GENERAL OBSERVATIONS: Sandy beach bounded on each side by rocky cliffs covered with rich and diverse biota. This area is not oiled.

ACE 6702239
SHORELINE CLEANUP PROGRAM

DATE 6/27/89 SHORELINE SEGMENT IB-3

LOCATION: (see enclosed map) IZHUT BAY-WEST SHORE, AFOGNAX ISLAND

ADEC NO. K3-2 SHORELINE ASSESSMENT DATE: 6/17/89

Recommended Cleanup Activity(ies):
After the fall bird migration, a reassessment of the remaining oil and additional cleaning techniques (such as relocation of the oiled splash zone beach material into the active surf zone) may be appropriate.
Other techniques may be used as appropriate.

Priorities Considerations: Class 3-4B
Critical resources not immediately present on this beach, however KISCC considers this a sensitive area due to local seabird colonies and pinniped haulouts in the bay.

Ecological Constraints (from site survey):
Caution must be used not to erode spring and winter berms during cleanup to a point where waves could cut into the forest.
Keep away from stream at north end of beach #1.

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.

[Signatures and dates]
State Historic Preservation Officer *
ISCC:
EXXON:
FOSC:

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

**Date:** 17/39  **Time:** 10:15 -> 10:35  **Observer:** [Signature]

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

**LOCATION**  **SEGMENT I.D.:** K-3-2-1B-3

**LENGTH OF SHORELINE SEGMENT:** 1400 m  **Total Segment Length:** [Measurement]

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

**SHORELINE:**
- **Shoreline Type:** SPI/DEA/COV/HLD/STRT
- **Slope:** LANG/HANG/VER
- **Wave Exposure:** High/Med/Low
- **Sediment:** B/C/P/O/S/M/R
- **Drift Debris on Beach:** Yes/No
- **Supra/Upper/Mid/Lower Type:** 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:** 
- **Sporadic:** Y/N  **Segment:** 
- **Min/Max Dia:** 6 cm
- **Impact Width:** 10 cm
- **Est. Oil Thickness where > 1 cm:** N/A
- **Est. Oil Penetration:** 20 cm
- **Layers:** Yes/No  **No# Layers:**
- **Oil Weathering:**
- **Drift Debris Oiled:** Yes/No
- **Amount:** H/M/L/VL

**OIL MORPHOLOGY**
- **Pooled Oil:** Free Oil
- **Spattered Oil:** H/M/L/VL
- **Choc Mouse:**

**OIL WEATHERING (OV)**
- **Fresh Oil:** SU/SP/VP/MID/LO
- **Pancake Mouse:** SU/SP/VP/MID/LO
- **Asphalt Mouse:**
- **Tar Formation:**

**Comments:**

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ACÉ 8702243
Afognak Island
Izhut Bay
Segment K3-2-18-3
Beach 1

Comments
Oil Evaluation Form

This shoreline consists of rocky headlands and small coves containing pebble/cobble/boulder beaches.

The spring tide/storm berm on Beach 1 is contaminated with buried oil, oiled seaweed, or other debris. Small numbers of ≤10 cm diameter mouse "patties" occur on the beach surface. Logs on mid to supra ITZ are not significantly oiled.

Clean-up: Manual removal

Relocation to surf zone, however, this could result in contamination of present clean portions of the ITZ.

- Storm
- Spring Tide Berm
- 6 m contaminated
- Logs and pebble/cobble
- Pebbles
- Pebbles and boulder

ACE 8702244

Mike Miles
June 17/89
SHORELINE OIL EVALUATION FORM - KODIAK

Date: 10/6/89    Time: 10:53    Observer: [signature]
Surveyed From: [Foot/Boat/Helicopter/Plane]    Weather: [Sun/Cloud/Rain/Snow/Fog]

LOCATION
LOCATION ____________________________ SEGMENT I.D. K-3-2-18-3

LENGTH OF SHORELINE SEGMENT: 1400 Total Segment

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

SHORELINE:
Shoreline Type: SPI/BEACH/OIL/STRT    Slope: [LANG/HANG/VER]

Wave Exposure: [High/Med/Low]


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

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 Impact Width: _______ Impact Width: _______ mL

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 Amount: [H/M/L/VL]

OIL MORPHOLOGY
Pooled Oil: _______ "Free" Oil: _______ Spattered: _______ 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

Tar Formation: _______}

Comments:

SEE ATTACHED SHEET
This is a cobble/pebble beach situated between rocky headlands. The spring tide/lower storm berm contains buried mousse to depths of > 10 cm. Significant quantities of oiled seaweed occur on the surface of the small spring tide berm. Number of mousse "patties" ≤ 5 cm in length have been thrown up onto the los debris.

CLEAN UP
- Manual removal of oiled debris
- The contaminated berm could be rolled up slope into areas which are receiving wave action - however wave action is expected to clean these sediments over time.

CROSS- SECTION

```
<table>
<thead>
<tr>
<th>Storm BERM</th>
<th>Spring Tide BERM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cobble with some pebbles</td>
<td>Pebbles with some cobble</td>
</tr>
</tbody>
</table>

Buried mousse |
```
SHORELINE OIL EVALUATION FORM - KODIAK

Date: June 17 1989  Time: 12:00 - 14:00  Observer: MIKE MILES

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

LOCATION
AFognak Island

LOCATION 12HUT BAY  SEGMENT I.D. K-3.2-1B-3

LENGTH OF SHORELINE SEGMENT: 400 m  TOTAL SEGMENT ROCKY COA
ACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane

SHORELINE:
Shoreline Type: SPI/BEA/OVF/HLD/STRT  Slope: LNG/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

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 > 1 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  H/M/L/VL Sheen

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

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

Tar Formation

Comments:

This form covers the portion of segment K-3.2-1B-3 between and adjacent to Beaches 1 and 2.

This area of shoreline consists of rocky tidal flat.

This area was surveyed by helicopter and small portion adjacent to Beaches 1 and 2 were walked. No oil was observed in the clean-up is not required.

ACE 8702247
DOCUMENTATION:

Map/Aerial photo marking segment boundaries  See attached

VTR:  Y/N  Tape Number(s)  

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

Sample Numbers Collected:  N/A  

ACE 8702248
ECOLOGICAL EVALUATION

LOCATION: Elkhorn Bay  SITE: West shore toward
LOCATION PREFIX: K-3/EB  SEG. NO.: K-3-2-TB-3  LENGTH: 1400 (M)
DATE: 6/17/89  TIME (HHMM): 1015  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

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: Moderate amount of seaweed drift material high IT
Amphipods in drift and cobble at high IT1. No living biota observed
in lower IT2. Fish (tidalpool sunpliers and salmonids) in F/W stream.

CLEANUP PRECAUTIONS: Cleanup crews must be careful not toccd
burns or the point where waves will cut into forest. Avoid

MAMMALS: Otters  Harbor Seals  Sea Lions  Whales  Other

OTHER  Deer tracks and scat.

BIRDS: Terrestrial birds at beach/forest interface.

GENERAL OBSERVATIONS: Drift material oiled in high IT2. F/W stream
flowing out of north end of beach. No oil found up stream banks

* See Ecological Evaluations for beach #2 within this segment and
rocky cliff portions of segment.

ACE 6702249
LOCATION: Izmit Bay  
SITE: West Shore  
LOCATION PREFIX: K-3/18  
SEG. NO.: K-3-2-18-3  
LENGTH: 140.0 (M)  
DATE: 6/17/89  
TIME (HHMM): 1050  
TIDE MT.: +0.75 (M)  
OILED ZONE: Splash  
LENGTH: 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: Amphipods in drift and cobble at high spring line.  

CLEANUP PRECAUTIONS:  
Caution should be taken not to erode beach to a point where waves will erode forest. Avoid rocky outcrops adjacent to beach.  

MAMMALS: Otters  
Harbor Seals  
Sea Lions  
Whales  

BIRDS: Terrestrial birds at forest/beach interface.  

GENERAL OBSERVATIONS:  
Lightly oiled drift seaweed material at high tide line.  
Rocky outcroppings and cliff faces adjacent to sandy beach (not oiled).  
Build help (mercequits) forays offshore.  

* See Ecological Evaluations for beach #1 and rocky cliff portions of this segment.  

ACE 8702250
LOCATION: Pebble Bay  SITE: West Shore  OBSERVER: J. Teskey
LOCATION PREFIX: K-3/16  SEG. NO.: K-3-2-16-3  LENGTH: 400' (M)
DATE: 6/17/87  TIME (HHMM): 1015  TIDE HT.: +0.5 (M)
OILED ZONE: Splash High Medium Low
SUBSTRATUM: Rock 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: Intertidal zone of cliffs and rocky beaches healthy and apparently oil free.

CLEANUP PRECAUTIONS: None - since no recommended cleanup is advised on these portions of the segment.

MAMMALS: Otters  Harbor Seals  Sea Lions  Whales  Other  None

BIRDS: None

GENERAL OBSERVATIONS: Inaccessible for cleanup. Healthy & oil-free areas.
* See Ecological Evaluations for beach #1 and #2 of this segment.
(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE: 6/27/89                    SHORELINE SEGMENT: IB-3

LOCATION: (see enclosed map) IZHUT BAY—WEST SHORE, AFVIQNAK ISLAND

ADEC NO. __________________ SHORELINE ASSESSMENT DATE: 6/17/89

Recommended Cleanup Activity(ies):
After the fall bird migration, a reassessment of the remaining oil and additional cleaning techniques (such as relocation of the oiled splash zone beach material into the active surf zone) may be appropriate. Other techniques may be used as appropriate.

Priorities Considerations: Class 3-4B
Critical resources not immediately present on this beach, however KISCC considers this a sensitive area due to local seabird colonies and pinniped haulouts in the bay.

Ecological Constraints (from site survey):
Caution must be used not to erode spring and winter berms during cleanup to a point where waves could cut into the forest.
Keep away from stream at north end of beach #1.

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]
State Historic Preservation Officer *  Date: 6/27/89

ISCC: __________________________ Date: __________
EXXON: __________________________ Date: __________
FOSC: __________________________ Date: __________

* 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:** 17/39

**Time:** 10:15 -> 10:35

**Observer:**

**Surveyed From:** (Foot/Boat/Helio/Plane)

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

**LOCATION:**

AFognak Island

**SEGMENT I.D.:** K-3 - 2 - 1B - 3

**LENGTH OF SHORELINE SEGMENT:** 1,400 m

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

**SHORELINE:**

- Shoreline Type: SPI/BEA/Cov/Hld/STRFT
- Slope: LAUG/HANG/VER
- Wave Exposure: High/Med/Low

**Sediment:** B - C - D - P - T / C - T - S - T / M - T / R - O - T

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

**OIL DISTRIBUTION:**

- Continuous: Y/N
- Segment #: 
- No. Bands: 
- Width:

**Sporadic:** Y/N

- Segment #: 
- Min/Dia: 
- Impact Width: 6 m

**Est. Oil Thickness where > 1 cm:** N/A cm

**Est. Oil Penetration:** > 20 cm

**Layers?** Yes/No

- No Oil Layers
- Oil Weathering

**Drift Debris Oiled?** Yes/No

- Supra/Upper/Mid/Lower
- Amount: H / M / L / V/L

**OIL MORPHOLOGY:**

- Pooled Oil: O
- "Free" Oil: SD
- Spattered Oil: SD
- H/V/L/V/L Sheen: O

**OIL WEATHERING (SW)**

- Fresh Oil: O
- Choc Mousse: O
- Asphalt Mousse: O
- Pancake Mousse: O

**Tar Formation:** O

**Comments:**

---

ACE 8702255
This shoreline consists of rocky headlands and small coves containing pebble/cobble/boulder beaches.

The spring tide/storm bar on Beach 1 is contaminated with buried oil, oiled seaweed or other debris. Small numbers of ≤ 10 cm diameter mussel "patties" occur on the beach surface. Logs on mid to supra ITZ are not significantly oiled.

Clean-up: Manual removal, relocation to surf zone however, this could result in contamination of prossil clean, perhaps of the ITZ.
(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KODIAK

Date: 11/30/... Time: 10:58 Observer: 

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

LOCATION

SEGMENT I.D. K-3-2-18-3

LENGTH OF SHORELINE SEGMENT: 1400 m

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

SHORELINE:

Shoreline Type: SPI/BE/AO/MT/STRF Slope: (ANCH/HANG/VER)

Wave Exposure: (High/Med/Low)

Sediment: B [ ] / C [ ] / D [ ] / E [ ] / F [ ] / G [ ] / H [ ] / M [ ] / 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/N) Segment [__, No. Bands [__, Width [__, Impact Width [__,

Sporadic: (Y/N) Segment [__, Min/Max Dist [__, 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)

Oil Weathering:

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

OIL MORPHOLOGY

Pooled Oil [ ], "Free" Oil [ ], Spattered [ ], 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:

SEE ATTACHED SHEET

ACE 8702257
This is a cobble/pellet beach situated between rocky headlands. The spring tide/upper storm berm contains buried mousse to depths of > 10 cm. Significant quantities of oiled seaweed occur on the surface of the small spring tide berm. Many small mousse "patties" (≤ 5 cm in length) have been blown up onto the logs and debris.

**Clean Up**
- Manual removal of oiled debris
- The contaminated berm could be rolled down the slope into areas which are receiving more wave action - however, wave action can be expected to clean these sediments over time.

**Cross-Section**

- Storm Berm
- Cobble/wet sand
- Buried mousse
- Spring Tide Berm
- Pebbles
- With some
(version 5/16/89)  
**SHORELINE OIL EVALUATION FORM - KODIAK**  
June 17  
Date: 1988  
Observer: MIKE MILES  
Time: 10:00  
Weather: Sun/Cloud/Rain/Snow/Fog  
Surveyed From: Foot/Boat/Helicopter/Plane  
LOCATION: AFognAK ISLAND  
SEGMENT I.D.: K3-2-1B-3  
LOCATION: IZHUT BAY  
LENGTH OF SHORELINE SEGMENT: AOU  
ACCESS: Foot/Vehicle/Boat/Barge/Helicopter/Float Plane  
SHORELINE:  
Shoreline Type: SPI/BEA/COT/STRT  
Slope: LANG/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  
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  
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: Y/N  
"Free" Oil: Y/N  
Spattered Oil: Y/N  
H/M/L/VL Sheen: Y/N  
OIL WEATHERING (OW):  
Fresh Oil: Y/N  
SU/SP/VP/MID/LO  
Choc Mousse: Y/N  
SU/SP/VP/MID/LO  
Pancake Mousse: Y/N  
SU/SP/VP/MID/LO  
Asphalt Mousse: Y/N  
SU/SP/VP/MID/LO  
Tar Formation: Y/N  

Comments:  
This form covers the portion of Segment K3-2-1B-3 between and adjacent to Sections 1 and 2.

This area was surveyed by helicopter and small portion adjacent to Beach 1 and 2 were walked. No oil was observed in this area.
DOCUMENTATION:

Map/Aerial photo marking segment boundaries

VTR: Y/N     Tape Number(s)

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

Sample Numbers Collected: N/A
ECOLOGICAL EVALUATION

<table>
<thead>
<tr>
<th>LOCATION: Ichetucknee Bay</th>
<th>SITE: West shore town</th>
<th>OBSERVER: J. Tarpley</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOCATION PREFIX: K-3/E4</td>
<td>SEG. NO.: K-3-2-IB-3</td>
<td>LENGTH: 400 (M)</td>
</tr>
<tr>
<td>DATE: 6/17/89</td>
<td>TIME (HHMM): 10/15</td>
<td>TIDE HT.: 10.5 (M)</td>
</tr>
<tr>
<td>OILED ZONE: Splash Medium Low</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**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:** Moderate amount of seeped drift material high ITZ. Amphipods in drift and cobble at high ITZ. No living biota on beach in lower ITZ. Fish (bluepans and sandcrabs) in F/w (stream).

**CLEANUP PRECAUTIONS:** Cleanup crews must be careful not to create furrows to the point where waves will cut into forest. Avoid stream.

**MAMMALS:** Otters Harbor Seals Sea Lions Whales Other Deer Tracks and scent.

**BIRDS:** Terrestrial birds at beach/Forest interface.

**GENERAL OBSERVATIONS:** Drift material oiled in high ITZ. F/w stream flowing out of north end of beach. No oil found up stream banks.

* See Ecological Evaluations for beach #2 within this segment and rocky cliff portions of segment.
ECOLOGICAL EVALUATION

Beach #2

LOCATION: Izhut Bay
SITE: (West Shore)
LOCATION PREFIX: K-3/1B
SEG. NO.: K-3-2-1B-3
LENGTH: 600 (M)
DATE: 6/17/89
TIME (HHMM): 1050
TIDE HT.: +0.75 (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: Amphipods in drift and cobble at high spring tides.

CLEANUP PRECAUTIONS: Caution should be taken not to erode beach to a point where waves will erode into forest. Avoid rocky outcrops adjacent to beach.

MAMMALS: Otters Harbor Seals Sea Lions Whales Other

BIRDS: Terrestrial birds at forest/beach interface

GENERAL OBSERVATIONS: Lightly oiled drift seaweed material at high tide line. Rocky outcroppings and cliff faces adjacent to sandy beach (not oiled). Bull Kelp (Nereocystis) forests offshore.

*See Ecological Evaluations for beach #1 and rocky cliff portions of this segment.
ECOLOGICAL EVALUATION

LOCATION: Ichtri. Bay
SITE: West Shore
OBSERVER: J. Tarpley

LOCATION PREFIX: K-3/16
SEG. NO.: K-3-2-1B-3
LENGTH: 6098 (M)

DATE: 6/17/89 TIME (HHMM): 1015
TIDE HT.: 10.5 (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: Intertidal zone of cliffs and rocky beaches healthy and apparently oil free.

CLEANUP PRECAUTIONS: None - since no recommended cleanup is advised on these portions of the segment.

MAMMALS: Otters Harbor Seals Sea Lions Whales

BIRDS: NONE

GENERAL OBSERVATIONS: Inaccessible for cleanup. Healthy & oil-free areas.

See Ecological Evaluations for beach #1 and #2 of this segment.

ACE 8702253
SHORELINE CLEANUP PROGRAM

DATE: 6/27/89

LOCATION: (see enclosed map) IZHUT BAY-TOMBOLO ON WEST SHORE.

AFOGNAK ISLAND

ADEC NO. ________ SHORELINE ASSESSMENT DATE: 6/17/89

Recommended Cleanup Activity(ies):
- Hot water, moderate to high pressure washing of rock surfaces.
- Other techniques may be used as appropriate.

Priorities Considerations: 3-B
- Critical resources not immediately present on beach.
- However, KISCC considers this a sensitive area due to local seabird colonies and pinniped haulouts within the bay.

Ecological Constraints (from site survey):
- Avoid washing oil into low intertidal zone where a currently healthy biota exists.

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 *

ISCC: ____________________________ Date: __________

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: 5/16/89  Time: 11:30  Observer: [Signature]

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

LOCATION  AFOGHAK ISLAND  SEGMENT I.D. K-3-2-1

LOCATION  12HUT BAY

LENGTH OF SHORELINE SEGMENT: 200 m

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

SHORELINE: Shoreline Type: SPI/BLA/COV/HID/STRT  Slope: HANG/HANG/VER

Wave Exposure:  [High/Med/Low]

Sediment: B75% / C 25% / P 1% / S 1% / 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:  [YN]  Segment: 10  No. Bands: 1  Width: 6 - 10
Sporadic:  [YN]  Segment: 10  Min/Max Dia: 100  Impact Width: > 20 m

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 / VL]

OIL MORPHOLOGY:
Pooled Oil:  "Free" Oil  [ ]  Spattered  [ ]  [ ]

OIL WEATHERING (OW):
Fresh Oil:  [ ]  SU/SP/VP/MID/LO
Choc Mousse:  [ ]  SU/SP/VP/LO
Pancake Mousse:  [ ]  SU/SP/VP/MID/LO
Asphalt Mousse:  [ ]  SU/SP/VP/MID/LO

Tar Formation:  [ ]

Comments:

SEE ATTACHED MAP AND COMMENT SHEET

ACE 8702267
COMMENTS

SHORELINE OIL EVALUATION FORM

This section of shoreline consists of a cobble/boulder "tombolo" [a spit like feature] which extends out to a vegetated island.

Tar coating

A band of continuous A extends over a width of 6 to 8 m at the high tide to low spring tide level. Discontinuous tar coatings in small to medium sized "splatters" extend over a 10 to 20 m wide section of the mid to high ITZ.

Cleanup

i) Manually remove oiled debris
ii) Moderate to high pressure hot water would be required to remove the tar coatings on this shore.

AC7 8702268
June 17/89
11'40
IB 3
Reef

K-3-2 - IB-4

Rock

Unconsolidated sediments
Less oiled wood

Low angle bench.

Rocks too angular to land on. Needs first "smooth" out - (pilot assessment)

Small sea stacks (rock)
DOCUMENTATION:

Map/Aerial photo-marking segment boundaries: See Attached

VTR: Y/N  Tape Number(s) ____________________________

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

Sample Numbers Collected: N/A
ECOLOGICAL EVALUATION

LOCATION PREFIX: K-3/18  SEG. NO.: K-3-2-18-4  LENGTH: 200 (M)
DATE: 6/17/29  TIME (HHMM): 1130  TIDE HT.: +1.5 (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: All birds in lower ITZ below oiled zone. Some Balane in oiled zone. Cooked barnacles dead.

CLEANUP PRECAUTIONS: Avoid washing oil into lower ITZ of healthy biota.

MAMMALS: Otters  Harbor Seals  Sea Lions  Whales  Other

BIRDS: Gulls on spit and rock stack.

GENERAL OBSERVATIONS: Little drift material in high tide lines.
Oiled zone includes healthy biota from low ITZ and barn.

ACE 8702271
SHORELINE CLEANUP PROGRAM

DATE  6/27/89    SHORELINE SEGMENT  IB-4

LOCATION: (see enclosed map)   IZHUT BAY-TOMBOLO ON WEST SHORE.
   AFOGNAK ISLAND

ADEC NO.  K3-2   SHORELINE ASSESSMENT DATE:  6/17/89

Recommended Cleanup Activity(ies):
   Hot water, moderate to high pressure washing of rock surfaces.
   Other techniques may be used as appropriate.

Priorities Considerations:  3-B
   Critical resources not immediately present on beach.
   However, KISCC considers this a sensitive area due to local
   seabird colonies and pinniped haulouts within the bay.

Ecological Constraints (from site survey):
   Avoid washing oil into low intertidal zone where a currently
   healthy biota exists.

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:

State Historic Preservation Officer

Date:  6/29/89

ISCC:

Date:

EXXON:

Date:  7/1/89

FOSC:

Date:  7/3/89

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

ACE 8702274
**SHORELINE OIL EVALUATION FORM - KODIAK**

**Date:** 5/16/89  **Observer:** [Redacted]
**Time:** 11:30  **Weather:** Sun/Cloud/Rain/Snow/Fog

**Surveyed From:** Foot/Boat/Helio/Plane

**LOCATION**

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>AFOGNAK ISLAND</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEGMENT I.D.</td>
<td>K-3-2-1B-4</td>
</tr>
</tbody>
</table>

**LENGTH OF SHORELINE SEGMENT:** 200 m

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

**SHORELINE:**

- Shoreline Type: SPI/BEA/COV/HLD/STRT
- Slope: LANG/HANG/VER
- Wave Exposure: High/Med/Low
- 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**

- Sporadic: [X]N Segment: [70] Min/Max Dia: [10 cm] Impact Width: > [20 m]

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

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

**Layers? Yes/No**

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

**OIL MORPHOLOGY**

- Pooled Oil [X] "Free" Oil [O] Spattered [90] [O] H/M/L/VL Sheen [O]
- Tar Formation [O]

**Oil Weathering:**

**Comments:**

SEE ATTACHED MAP AND COMMENT SHEET

-------

ACE 97U2275
This section of shoreline consists of a cobble/boulder 'tombolo' [a spit like feature] which extends out to a vegetated island.

A band of continuous tar extends over a width of 6 to 8 m at the high tide level. Discontinuous tar coatings in small to medium sized 'splatters' extend over a 7-20 m wide section of the mid to high ITZ.

Cleanup
i) Manually remove oiled debris
ii) Moderate to high pressure hot water would be required to remove the tar coatings on this
June 17/89
11:40
K-3-2 - R-4

18 3
Beach 2

Rock
unconsolidated
sediments
logs + fielded weed

low angle bench

Rock (submerged
at mid
tide)

heavy splatter

mod to heavy
splatter

light splatter +
some mousse
pancakes on
remnants of
beach

small sea stacks Cr...
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: False Bay  SITE: West Shore - Rocky Reef
LOCATION PREFIX: K-3/1E  SEG. NO.: K-3-2-E8-4  OBSERVER: J. Teague
LENGTH: 200  (M)
DATE: 6/17/79  TIME (HHMM): 11:30  TIDE HT.: +1.5  (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

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

OTHER OBSERVATIONS: All biota in lower ITZ below oiled zone. Some
Barnacles in oiled zone. Coated barnacles dead.

CLEANUP PRECAUTIONS: Avoid washing oil into lower ITZ of
healthy biota.

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

BIRDS: Gulls on spit and rock stacks.

GENERAL OBSERVATIONS: Little drift material in high tide line area
Oiled zone is between healthy biota of low ITZ and barn.

ACE 8702279
Recommended Cleanup Activity(ies):
After the fall bird migration, a reassessment of the remaining oil and additional cleaning techniques (such as relocation of the oiled splash zone beach material into the active surf zone) may be appropriate.
Other techniques may be used as appropriate.

Priorities Considerations: Class 4-A
KISCC considers this a sensitive area due to salmon runs up this lagoon and local seabird colonies and pinniped haulouts within the bay.

Ecological Constraints (from site survey):
- Avoid contamination of lower intertidal zone.
- Avoid contamination of lagoon by refloating oil 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.

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

**Date:** 17/39  **Time:** 17:40  **Observer:** MIKE MILES

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

**LOCATION**  
AFOSNAK ISLAND

**LOCATION**  
ZHUT BAY

**SEGMENT I.D.**  
X-3-2 - 12-5

**LENGTH OF SHORELINE SEGMENT:** 1500 m

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

**SHORELINE:**

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

Wave Exposure: High/Med/Low

Sediment: B / C / D / E / F / G / H / I / 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:  
10 Min/Max Dia:  
Impact Width:  

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

Est. Oil Penetration:  
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

**OIL MORPHOLOGY**

Pooled Oil No  
"Free" Oil  
Spattered No  
H/M/LVL 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:

SEE ATTACHED MAP AND COMMENT SHEET

ACE 8702283
COMMENTS

SHORELINE OIL EVALUATION FORM

This section of shoreline consists of a number of rocky headlands which separate small pebble (near 18.4) to cobble beaches. A low gradient stream/estuary drains into the middle of this segment.

The spring tide storm berm on the pebble beach near 18.4 is contaminated with mousse over a width of 1 to 4 m. The mud to upper ITZ of all beach areas contain occasional mousse "patties" on the beach surface. No oil was observed during a low elevation reconnaissance of the stream/estuary.

CLEAN-UP

- Manual removal of oiled debris and mousse

- Remove contaminated pebbles and cobbles in the spring tide berm into the lower surf zone. (Natural wave action will however eventually clean these sediments and the amount of oil in these materials is quite small)
June 17/89 Mike Miles

Afonak Island
IZHUT BAY
SEGMENT K-3-2-1B-5

Pebble/cobble beach
Pebble/cobble beach
Pebble/cobble beach

occasional mouse "patties" on all beaches - width of affected area ≤ 8 m

Pebble beach - spring tide berm contains light amounts of oil.

Sketch map prepared by memory following return from the field

ACE 8702285
DOCUMENTATION:
- Map/Aerial photo marking segment boundaries see attached

VTR: Y/N  Tape Number(s) ........................................

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

Sample Numbers Collected: N/A

ACE 8702286
ECOLOGICAL EVALUATION

LOCATION: Ichetucknee Bay  SITE: New Lagoon  OBSERVER: J. Tarpley
LOCATION PREFIX: K-3/56  SEG. NO.: K-3-2-I8-5  LENGTH: 1500 (M)
DATE: 4/17/87  TIME (HHMM): 1700  TIDE HT.: +1.25 (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: Clam & Mytilus shells along beaches. All biota mid to low ITZ. 1 Large Nereid polychaete worm on beach. Salmon run lagoon & stream.

CLEANUP PRECAUTIONS: Avoid oiling lower ITZ or any healthy organisms

MAMMALS: Otters  Harbor Seals  Sea Lions  Whales  Other

BIRDS: 2 Brandt's Cormorants  1 Puffin

GENERAL OBSERVATIONS: It was a hot afternoon and mussels were liquefying over rocks into cracks. Lots of pollen in water. Biotas not largely affected by mussels patties. This segment has varying ecological info due to changing biota. Most of the beach is lacking any biota however on section near head of lagoon (south side) is categorized as to what's listed above.

ACE 8702287
SHORELINE CLEANUP PROGRAM

DATE: 6/28/89

SHORELINE SEGMENT: IB-5

LOCATION: (see enclosed map) NORTHWEST SMALL BAY-IZHUT BAY,

AFOGNAK ISLAND

ADEC NO. ___________ SHORELINE ASSESSMENT DATE: 6/17/89

Recommended Cleanup Activity(ies):
After the fall bird migration, a reassessment of the remaining oil and additional cleaning techniques (such as relocation of the oiled splash zone beach material into the active surf zone) may be appropriate.
Other techniques may be used as appropriate.

Priorities Considerations: Class 4-A
KISCC considers this a sensitive area due to salmon runs up this lagoon and local seabird colonies and pinniped haulouts within the bay.

Ecological Constraints (from site survey):
Avoid contamination of lower intertidal zone.
Avoid contamination of lagoon by refloating oil 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: 6/29/89

ISCC: ____________________________
Date: ____________

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: 17/39 / Time: 17:40  Observer: MIKE MILLS.

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

LOCATION: AFOGHAK ISLAND  SEGMENT I.D. K-3-2 - 18.5

LENGTH OF SHORELINE SEGMENT: 1500 m

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

SHORELINE:
Shoreline Type: SPI/BEA/COV/HLD/STR/L  Slope: LANG/HANG/VER
Wave Exposure: High/Med/Low

Sediment: B / C / O / P / G / S / M / R / O

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
Sporadic: Y / N  Segment: _____  Min/Max Diameter: ______ Impact Width: _____

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

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 Oil  H / M / L / VL Sheen

OIL WEATHERING (CM)
Fresh Oil  Choc Mousse  Pancake Mousse  Tar Formation

Comments:

SEE ATTACHED MAP AND COMMENT SHEET
COMMENTS

SHORELINE OIL EVALUATION FORM

This section of shoreline consists of a number of rocky headlands which separate small pebble (near 184) to cobble beaches. A low gradient stream/estuary drain into the middle of this segment.

The spring tide storm bench on the pebble beach near 184 is contaminated with mousse over a width of 1 to 4 m. The mid to upper 1TZ of all beach areas contains occasional mousse 'patties' on the beach surface. No oil was observed during a low elevation reconnaissance of the stream/estuary.

- Manual removal of oiled debris and mousse patties
- Possibly move contaminated pebbles and cobbles in the spring tide bench into the lower surf zone. [Natural wave action will however eventually clean these materials and the amount of oil in these materials is quite small]
AFognak Island
12HUT BAY
SEGMENT K-3-2-18-5

June 17/89
Mike Miles

Sketch map prepared by memory following return from the field

ACE 8702293
DOCUMENTATION:

- Map/Aerial photo-marking segment boundaries See attached

VTR: Y/N
Tape Number(s) ____________________________

Photography: Y/N
Roll Number(s) JT-1 ____________________________

Sample Numbers Collected: N/A
ECOLOGICAL EVALUATION

LOCATION: Siltch Bay   SITE: Newagen   OBSERVER: J. Tarpley

LOCATION PREFIX: K-3/4   SEG. NO.: K-3-2-18.5   LENGTH: 1500 (M)

DATE: 6/17/89   TIME (HHMM): 1700   TIDE HT.: +1.25 (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: Clam & Mytilus shells along beaches. All biota
mid to low ITZ. 1 Larger Nerioide polychaete worm or beach.
Salmon run lagoon & stream.

CLEANUP PRECAUTIONS: Avoid oiling lower ITZ or any healthy organism.

MAMMALS: Otters Harbor Seals Sea Lions Whales
Other: Sea Otter Foraging in Small Bay

BIRDS: 2 Brant's Cormorants 1 Puffin

GENERAL OBSERVATIONS: It was a hot afternoon and mousse was liquifying
over rocks into cracks. Lots of pollen in water. Biota not largely
affected by mousse patties. This segment has varying ecological impact
due to changing biota. Most of the beach is lacking any biota however one
section near head of lagoon (south side) is categorized as to what's listed above.
SHORELINE CLEANUP PROGRAM

DATE __6/28/89_________ SHORELINE SEGMENT IB-6

LOCATION: (see enclosed map) NORTHWEST SHORE OF IZHUT BAY.

AFOGNAK ISLAND

ADEC NO. K3-7 SHORELINE ASSESSMENT DATE: 6/17/89

Recommended Cleanup Activity(ies):
No cleanup recommended at this time subject to FOSC approval.
Insufficient oil was found on the beach overflight and 3 brief inspections to justify cleanup activities. A more thorough inspection does not appear to be warranted.

Priorities Considerations: Class 5-B
KISCC considers this area to be sensitive, due to local seabird colonies and marine mammal haulouts.
Critical resources are not immediately present on this segment.

Ecological Constraints (from site survey):
No ecological constraints apparent at this time due to the inability to survey beach properly. Should cleanup be initiated, the ecological constraints must be reevaluated.

Archeological Constraints (from site survey):
If cleanup is conducted, additional cultural resource evaluation is recommended. 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.

Date: __6/29/89_________

State Historic Preservation Officer *

SIGNATURE

ISCC: 

EXXON: 

FOSC: 

Date: __7/1/89_________

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: 7/17/89  Time: ___ Observer: MIKE MILES
Surveyed From: Foot/Boat/Helio/Plane  Weather: Sun/Cloud/Rain/Snow/Fog
LOCATION
LOCATION AFOGNAK IS. - 12HUT BAY
SEGMENT I.D. K-3-2-1B-6

LENGTH OF SHORELINE SEGMENT: 5200 m
ACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane

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

Wave Exposure: High/Med/Low
Sediment: B___ C___ D___ E___ F___ G___ H___ I___ J___ K___
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 ___
Spattered: Y/N Segment #: Min/Max Dia ___ Impact Width ___

Est. Oil Thickness where > 1 cm: H/A cm  SU/SP/UP/MID/LO
Est. Oil Penetration: H/A 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 (GW)
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 segment consists of a rocky shore with a number of small steep gradient cobbles/pebble beaches. Survey was undertaken by helicopter with quick "power on" stops on small beaches. No oil was visible on the rocky headlands. Very small quantities of oil were found in the crevices in the boulders. No off site data was collected. This site and no other of any kind was found on either of the 2 other stops. Wave action is not to remove the observed oil and, given the access difficulty, no clean-up is warranted.
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
LOCATION: Izuk BK
SITE: NW shore
LOCATION PREFIX: K-3/16
SEG. NO.: K-3-2-16-6
LENGTH: 5200 (M)
DATE: 6/17/77
TIME (HHMM): 1300
TIDE HT.: +1.0 (M)
OILED ZONE: Splash High Medium Low
SUBSTRATUM: Rock Boulder Cobble Gravel Sand Mud
LIVE BIOTA
Pucca (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: Otter Harbor Seals Sea Lions Whales

BIRDS: Gulls on offshore rocks

GENERAL OBSERVATIONS: No ecological evaluation is possible at this time due to the inability of the helicopter to land at this segment. Overhead fly by was done and no ecological constraints are apparent. However, if cleanup is initiated for this segment ecological evaluations must be re-evaluated.

ACE 8702301
SEGMENT INSPECTION RECORD

ADEC # ___________ Shoreline Segment: 13-2-186

Shoreline Treatment Process(es) Completed for this Segment

- Heat water wash
- Warm water wash
- Water deluge
- Mechanical
- Non-mechanical
- Other

Exxon
Treatment as Indicated above has been completed. Request demobilization from this segment.

Exxon Comments:
This area was outside of the cleanup recommended area; however, the Exxon/VRCO beach cleaning team cleaned the beach anyway.

Signature: Jack A. Rickner Date: 7/27/89 Time: 1947

Printed Name: Jack A. Rickner

Existing Shoreline Condition As Visually Determined by USCG
Surface Oil

<table>
<thead>
<tr>
<th>Percent</th>
<th>Degree of Oiling</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Heavy</td>
</tr>
<tr>
<td></td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>Light</td>
</tr>
<tr>
<td></td>
<td>Very Light</td>
</tr>
</tbody>
</table>

100% Subsurface Oil

- Yes
- No

Comment Below

Reassessment

- Yes - Necessary
- No - Not necessary unless re-oiled

ADEC Rep

Comments: Please see reverse

Signature: ___________________________ Date: ___________ Time: ___________

Printed Name: _______________________

FOSC Rep

Demobilization approved/disapproved

Comments: _________________________

Signature: ___________________________ Date: ___________ Time: ___________

Printed Name: _______________________

Copy: Exxon ADEC FOSC (ISCC) Return All Signed Originals to Exxon ACE 8702304
NODA/65 Comment: oil on exposure near wave cut platform has been removed to a level where it is no longer efficient to continue as type A. The remaining oil is in a discontinuous band 10 feet wide at the MHW line. This is a possible candidate for type B remedial action and further monitoring. The spill reaches vertical in this segment and is believed to deepen in the ebbing high channel area. Surface oil was removed, but head process will leave new oil as the settlement is stirred by ebbing tides or return action. The degree of oil remaining in the head settlement is well below saturation. This is a possible site for type B and further site specific monitoring.

John D. Bailey

U.S. FWS Comment: I agree that type B cleanup would be necessary to remove much additional oil. This segment should be evaluated at the time.

GBP

ADEC Comments: Removal of surface oil has been effected. A potential exists here for recollection.

Clarke A. Peck
DATE 6/28/89  SHORELINE SEGMENT  IB-6

LOCATION: (see enclosed map)  NORTHWEST SHORE OF IZHUT BAY.
AFOGNAK ISLAND

ADEC NO.  SHORELINE ASSESSMENT DATE:  6/17/89

Recommended Cleanup Activity(ies):
No cleanup recommended at this time subject to FOSC approval.
Insufficient oil was found on the beach overflight and 3 brief inspections to justify cleanup activities. A more thorough inspection does not appear to be warranted.

Priorities Considerations: Class 5-B
KISCC considers this area to be sensitive, due to local seabird colonies and marine mammal haulouts.
Critical resources are not immediately present on this segment.

Ecological Constraints (from site survey):
No ecological constraints apparent at this time due to the inability to survey beach properly. Should cleanup be initiated, the ecological constraints must be reevaluated.

Archeological Constraints (from site survey):
If cleanup is conducted, additional cultural resource evaluation is recommended. 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: 6/29/89

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

Date: 17/89 / Time: [ ]
Observer: [M]IKE [M]ILES


LOCATION:
LOCATION 40°42'00" N 151°41'20" W
SEGMENT I.D. K-3-2-B-6

LENGTH OF SHORELINE SEGMENT: 5200 m
ACCESS: Foot/Vehicle, Boat/Barge, Helio/Float Plane
Slope:LANG/HANG/VER
Wave Exposure: High/Med/Low


Drift Debris on Beach: [Y]es / [N]o
OIL


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

Sporadic: [Y] / [N] Segment [ ] Min/Max Dia. [H] / [A] Impact Width 1-2 m

Est. Oil Thickness where > 1 cm: [H] / [A] cm

Est. Oil Penetration: [Y] / [O] cm

Layers? [Y]es / [N]o No! Layers [ ] Oil Weathering [ ]

Drift Debris Oiled? [Y]es / [N]o

OIL MORPHOLOGY
Pooled Oil [O] "Free" Oil [O] Spattered [ ]

H/M/L/VL Sheen [O]

OIL WEATHERING (OW)
Fresh Oil [O] SU/SP/VP/MID/LO Choc Mousse [O]

Pancake Mousse [O] SU/SP/VP/MID/LO Asphalt Mousse [ ]

Tar Formation [O]

ACE 8702308

Comments:
This segment consists of a rocky shore within
Severely weathered oil collected with quick "Free" oil on steep, small boulder beach.

Survey undertaken by oil collector, with quick "Free" oil on steep, small boulder beach. High oil wash-up. No rocky headlands.

Very small quantities of oil were found in the spring tide basin at slope (see map). No mousse patches were found at this site and no

Wave action is...
DOCUMENTATION:

( ) Map/Aerial photo marking segment boundaries  

VTR: Y/N  Tape Number(s)  

Photography:  

Roll Number(s)  

Sample Numbers Collected:  N/A  

ACE 8702309
ECOLOGICAL EVALUATION

LOCATION: Iliwak Bay  SITE: NW shore  OBSERVER: J. Tarpley
LOCATION PREFIX: K-3/E8  SEG. NO.: K-3-2-I8-6  LENGTH: 5200 (M)
DATE: 6/17/89  TIME (HHMM): 1200  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

**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: ___________________________________________________

CLEANUP PRECAUTIONS: __________________________________________________
ACE 8702310

MAMMALS: Otters  Harbor Seals  Sea Lions  Whales  Other
Steller's Sea Lions

BIRDS: Gulls on offshore rocks

GENERAL OBSERVATIONS: No ecological evaluation is possible at this time due to the inability of the helicopter to land at this segment. Overhead fly by was done and no ecological constraints are apparent. However, if cleanup is initiated for this segment, ecological evaluations must be re-evaluated.
(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE __6/28/89___     SHORELINE SEGMENT  IB-7

LOCATION: (see enclosed map) SOUTH SIDE OF RUTH BAY-IZHUT BAY

AFOGRNAK ISLAND

ADEC NO. K3-2 SHORELINE ASSESSMENT DATE: 6/17/89

Recommended Cleanup Activity(ies):
Manually remove the small number of mousse patties which occur on this beach.
See note under "Archeological Constraints".

Priorities Considerations: Class 5A
KISCC considers this a sensitive area due to salmon runs and local seabird colonies and pinniped haulouts in the bay.

Ecological Constraints (from site survey):
Avoid oiling low intertidal zone upon cleanup.
Avoid trafficking through healthy low intertidal zone biota.

Archeological Constraints (from site survey):
Potential for disturbance of sensitive cultural resources, balanced against degree of oiling, argues against any cleanup. Archaeological monitor recommended if cleanup proceeds.

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

State Historic Preservation Officer

ISCC:

EXXON:

FOSC:

Date: 6/29/89

Date: __________

Date: __________

Date: 7/1/89

Date: __________

ACE 6702313
SHORELINE OIL EVALUATION FORM - KODIAK

Date: 7/18/89 Time: 18:53 Observer: Mike Miles

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

LOCATION
AFognak Island

LOCATION
South Bay

SEGMENT I.D. K-3-2 B-

LENGTH OF SHORELINE SEGMENT: 220 m

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

SHORELINE:
Shoreline Type: SPI/BEA/COV/MLD/STRT Slope: LANG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B/Dt / C/Do / PHt / G/It / S/t / M/It / R/It

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 <5 cm Impact Width:

Est. Oil Thickness where > 1 cm: cm

Est. Oil Penetration: cm

Layers? Yes / No Number 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 Oil H/M/L/VL Sheen

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

Pancake Mousse

Tar Formation

Comments:

SEE ATTACHED COMMENT SHEET

ACE 8702314
Comments
SHORELINE OIL EVALUATION

A very limited number of small mousse "patties" occur on this pebble/cobble beach.

CLEAN-UP

Hand clean-up would recover the limited number of mousse patties, however clean-up will not be recommended due to the presence of cultural resources.
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 8702316
**ECOLOGICAL EVALUATION**

**LOCATION:** Izmit Bay  
**SITE:** South Side  
**OBSEVER:** J. Tagley

**LOCATION PREFIX:** K-3/B  
**SEG. NO.:** K-3-2-B-7  
**LENGTH:** 220 (M)

**DATE:** 6/17/79  
**TIME (HDDM):** 1620  
**TIDE HT.:** +1.0 (M)

**OILED ZONE:** Splash  
**SUBSTRATUM:** Rocks - Boulder - Cobble - Gravel - Sand - Mud

**LIVE BIOTA**

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<thead>
<tr>
<th>Fucus (algae): Patchy</th>
<th>Y/N Contin.</th>
<th>Y/N Dense</th>
<th>Y/N Sparse</th>
<th>Y/N None</th>
<th>Y/N</th>
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<th>Y/N Contin.</th>
<th>Y/N Dense</th>
<th>Y/N Sparse</th>
<th>Y/N None</th>
<th>Y/N</th>
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<table>
<thead>
<tr>
<th>Balanus (Barnacles): Patchy</th>
<th>Y/N Contin.</th>
<th>Y/N Dense</th>
<th>Y/N Sparse</th>
<th>Y/N None</th>
<th>Y/N</th>
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</thead>
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<th>Littorina Patchy</th>
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<th>Y/N Dense</th>
<th>Y/N Sparse</th>
<th>Y/N None</th>
<th>Y/N</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Limpets Patchy</th>
<th>Y/N Contin.</th>
<th>Y/N Dense</th>
<th>Y/N Sparse</th>
<th>Y/N None</th>
<th>Y/N</th>
</tr>
</thead>
</table>

**OTHER OBSERVATIONS:** Living biota at beach in low ETZ, underwater at the time of evaluation. Upper beach about any biota, moderate amount of drift.

**CLEANUP PRECAUTIONS:** Avoid oiling healthy biota in low ETZ.

**MAMMALS:** Otters  
**BIRDS:** None

**GENERAL OBSERVATIONS:**

ACE 8702317
SHORELINE CLEANUP PROGRAM

DATE: 6/28/89 SHORELINE SEGMENT: IB-7

LOCATION: (see enclosed map) SOUTH SIDE OF RUTH BAY-IZHUT BAY

AFOGNAK ISLAND

ADEC NO. ___________ SHORELINE ASSESSMENT DATE: 6/17/89

Recommended Cleanup Activity(ies):
Manually remove the small number of mousse patties which occur on this beach.
See note under "Archeological Constraints".

Priorities Considerations: Class 5A
KISCC considers this a sensitive area due to salmon runs and local seabird colonies and pinniped haulouts in the bay.

Ecological Constraints (from site survey):
Avoid oiling low intertidal zone upon cleanup.
Avoid trafficking through healthy low intertidal zone biota.

Archeological Constraints (from site survey):
Potential for disturbance of sensitive cultural resources, balanced against degree of oiling, argues against any cleanup. Archaeological monitor recommended if cleanup proceeds.

Douglas Bejer
State Historic Preservation Officer

Date: 6/29/89

ISCC: ____________________________ Date: ____________

EXXON: ____________________________ Date: ____________

FOSC: ____________________________ Date: ____________

* 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: 11/31/89  Time: 18:53
Observer: Mike Ali

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

LOCATION
AFONAK ISLAND

LOCATION (PICK A)

SEGMENT I.D. K-3-2 1E-7

LENGTH OF SHORELINE SEGMENT: 220m

ACCESS: Foot/Vehicle/Boat/Dingy/Float Plane

SHORELINE:
Shoreline Type: SPI/BEA/COV/HID/STFT  Slope: LANG/HANG/VER

Wave Exposure:  High/Med/Low

Sediment:  B  D  C  P / F  G  S  T  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 1  No. Bands  Width cm

Sporadic: Y/N  Segment 1  10 Min/Max Dia cm  See Impact Width cm

Est. Oil Thickness where > 1cm:  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 / VL

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

OIL WEATHERING (OW)
Fresh Oil  SU/SP/VP/MID/LO  Choc Mouse  %  SU/SP/VP/MID/LO

Pan Cake Mouse  %  SU/SP/VP/MID/LO  Asphalt Mouse  %  SU/SP/VP/MID/LO

Tar Formation

Comments:

ACE 8702321

SEE ATTACHED COMMENT SHEET
A very limited number of small mousse "patties" occur on this pebble/cobble beach.

CLEAN-UP

Hand clean-up would recover the limited number of mousse patties. However, clean-up will not be recommended due to the presence of cultural resources.
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 8702323
**ECOLOGICAL EVALUATION**

**LOCATION:** Ichetucknee Bay  
**SITE:** Ruth Bay  
**LOCATION PREFIX:** K-3/J  
**SEG. NO.:** K-3-2-J8-7  
**LENGTH:** 220 (M)

**DATE:** 6/17/84  
**TIME (HHMM):** 1620  
**TIDE HT.:** +1.4 (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:** Living biota of beach in low ITZ, under water at the time of evaluation. Upper biota absent of any biota. Moderate amount of drift.

**CLEANUP PRECAUTIONS:** Avoid oiled healthy biota in low ITZ

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

**BIRDS:** None

**GENERAL OBSERVATIONS:**

ACE 8702324
SHORELINE CLEANUP PROGRAM

DATE  8/21/89  SHORELINE SEGMENT K3-2-IB-10

LOCATION: (see enclosed map) Izhut Bay

ADEC NO. ------------- SHORELINE ASSESSMENT DATE: 8/13/89

Recommended Cleanup Activity(ies):
- No cleanup recommended due to 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 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: 7/7/89

EXXON: ___________________________ Date: ________________

FOSC: ___________________________ Date: ________________

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

General
1. Date: 8/12/89  2. Time: 1330  3. Observer: M. Acton
6. Location: Inlet Bay  7. Segment #: K3-2 - TB-10
10. Access: Foot/Vehicle/Boat/Barge/Helio/Float Plane
11. Total Percentage of Segment Accessible: < 5%
12. Access Restrictions: No helo landing access

A. Shoreline
13. Shoreline Type: SPI/SEA/COV/STRT/CLE/DAF
14. Slope: Landscape
15. Wave Exposure: High/Med/Low
16. Sediment: B 50% / C 50% / P 5% / G 5% / S 5% / M 5% / R 5%
17. Drift Debris on Beach: Yes/No  Superv/Upper/Mid/Lower Type:

C. Oil Summary
18. Degree of Oiling: Heavy/Moderate/Light/Very Light/No Oil Observed
19. Area of Beach Impact: Width of Band: _______ yds
   Continuous: Total % of Segment _______
   Sporadic: Total % of Segment _______
   No Oil: Total % of Segment _______
22. Pooled Oil: _______ %  "Free" Oil: _______ % Coated: H 5% / M 5% / L 5%
23. Fresh _______ %  Mousse _______ %  Tar Formation: _______ %
24. Drift Debris Oiled? Yes/No Sup/Up/Mid/Low Amount: _______ H/M/L

Comments:
Segment surveyed by helo; no helo landing access. No oil impact observed from helo survey. Shoreline primarily headland or cliffs.

SEE PAGE 2 FOR SUPPLEMENTAL INFORMATION
SUPPLEMENTAL SHORELINE OIL EVALUATION

25. Oil Type

<table>
<thead>
<tr>
<th>Type</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh</td>
<td></td>
</tr>
<tr>
<td>Mousse</td>
<td></td>
</tr>
<tr>
<td>Weathered</td>
<td></td>
</tr>
<tr>
<td>Tar</td>
<td>100</td>
</tr>
</tbody>
</table>

26. Total Oil Coverage

<table>
<thead>
<tr>
<th>Type</th>
<th>Length (yd)</th>
<th>Width (yd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Light</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heavy</td>
<td></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.

Total TYPE A: _________ yds.
Total TYPE B: _________ yds.
Total TYPE A/B: _________ yds.

29. Remobilization Potential: High/Medium/Low

DOCUMENTATION:

- Map/Aerial photo marking segment boundaries 1:62,500 and 1:1500 maps
- VTR: Q/N Tape Number(s) K05 39
- Photography: Q/N Roll Number(s) HLP1

Additional Comments:

____________________________________________________

ACE 87G2329
1105 depart to continue
headland, RO site possible - few spots
-1300 left
-1335 no oil observed - wind sou’westerly
toward headland
-1355 view of 3 beaches
150' long
-1415 steep gravel-poor cobble beach

8/12 0825 depart Kadikop for Phoenix Jetty
-1010 Black Diamond Ocean (USA)
-1045 Utensil - to be dropped off at Phoenix Bay
-1050 Drop checks off
-1050-work up prayer line - no oil observed
-1100 sand flat - cobble - pebble beach
-1050 small packet beach no oil observed
-1100 - same type as 1050
-1100 - 1 spot observed - Acton out only
-1150 - 1 spot observed - Acton out only
-1200 - same sand packet beach
-1215 worked area 05 mic
-1215 massed gas along picnic area
-1230 no oil observed on mid flat
-1230 almost entirely RO. or RO border and RO
-1245 start buy area - very narrow cobble beach
-1300 no oil observed
-1345 finished buy at W end of Island
-1350 depart for Kadikop
-1405 arrive Kadikop
ECOLOGICAL EVALUATION

LOCATION: Dzhud Bay  SITE: K3 Z IDO  OBSERVER: H Davis
LOCATION PREFIX: IG  SEG. NO.: 10  LENGTH: 3500 (M)
DATE: 9/13/99  TIME (HOUR): 12:20 - 12:40  TIDE HT.: 4.0 up to 5.0 (M)
OILED ZONE: Splash  High  Medium  Low
SUBSTRATUM: Rock  Boulder  Cobbles  Gravel  Sand  Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Dense and sparse patches of Fucus. Sandy covers Enterozona Golden Dictiota Neoceratuit patches. Anaknyat

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

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Dense cover on rocky areas, boulders. Sparse in Slats High Areas.

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: Very healthy intertidal area. Neoceratuit and Schizophora along South-east
Shore (outside cover area) Seen only from Helios

CLEANUP PRECAUTIONS: Manual clean up will not adversely affect biota, but minimize
damage to mid-intended biota in low energy core.

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

BIRDS: Gulls, Ravens

GENERAL OBSERVATIONS: ________________________________

ACE 8702331
SHORELINE CLEANUP PROGRAM

DATE 8/21/89 SHORELINE SEGMENT K3-2-IB-11

LOCATION: (see enclosed map) Izhut Bay

ADEC NO. ___________ SHORELINE ASSESSMENT DATE: 8/13/89

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

Priorities/Considerations:

Ecological Constraints (from site survey):
-No ecological constraints due to no cleanup recommended.

Archaeological Constraints (from site survey):
-If cleanup is conducted an archaeological monitor is required during cleanup.
-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.
SHORELINE OIL EVALUATION

General
1. Date: [Date]
2. Time: [Time]
3. Observer: [Observer]

4. Surveyed From: [Foot/Boat/Plane]
5. Weather: [Sun/Cloud/Rain/Snow/Fog]
6. Location: [Location]
7. Segment #: [Segment]
8. Length of shoreline segment: [Length]
9. Tidal Stage: [Tidal Stage]

10. Access: [Foot/Vehicle/Boat/Plane]
11. Total Percentage of Segment Accessible: [Percentage]
12. Access Restrictions: [Restrictions]

B. Shoreline
13. Shoreline Type: [Type]
14. Slope: [Slope]
15. Wave Exposure: [High/Med/Low]
16. Sediment: [Type]
17. Drift Debris on Beach: [Yes/No]

18. Degree of Oiling: [Degree]

19. Area of Beach Impact: Width of Band: [Width]
   Continuous: Total % of Segment
   Sporadic: Total % of Segment
   No Oil: Total % of Segment

20. Est. Oil Thickness where >1 in: [Thickness]
21. Est. Oil Penetration: [Penetration]
23. Fresh [Amount] % Mousse [Amount] % Tar Formation: [Amount] %
24. Drift Debris Oiled? [Yes/No] Sup/Up/Mid/Low Amount: [Amount]

Comments:
[Comments]

SEE PAGE 2 FOR SUPPLEMENTAL INFORMATION
SUPPLEMENTAL SHORELINE OIL EVALUATION

25. Oil Type

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh</td>
<td></td>
</tr>
<tr>
<td>Mousse</td>
<td></td>
</tr>
<tr>
<td>Weathered</td>
<td></td>
</tr>
<tr>
<td>Tar</td>
<td>100%</td>
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</table>

26. Total Oil Coverage

<table>
<thead>
<tr>
<th>Type</th>
<th>Length (yd)</th>
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<td></td>
<td></td>
</tr>
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<td>Moderate:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heavy:</td>
<td></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.

- Total TYPE A: __________ yds.
- Total TYPE B: __________ yds.
- Total TYPE A/B: __________ yds.

29. Remobilization Potential: High/Medium/Low

DOCUMENTATION:

- Map/Aerial photo marking segment boundaries 1:43,240 and 1:15,400 maps
- VTR: Y/N Tape Number(s): KOS 39
- Photography: Y/N Roll Number(s): HLD1
- Additional Comments:
  
ACE 8702336
1605 depart to continue
headed, RO rock platform - few spots w/
that course

1620 sea: worked, 1 spot observed

1635 no oil observed worked sea: to S
our headland and down to beach W
of headland
S-beach area

1715 is of 3 beaches
150' long
Steep gravel potshaped bottom

This area has will of impact similar to 1500 stop
no cleanup recommended

1745 depart for Kadina
1805 arrive Kadina

8/10 0825 depart Kadina for Phoenix, Fako
Acton, Denme, Davis, Odum, (USC)
Utomiya - to be dropped off at Phoenix Bay
Drop Charyb, off
950 - worked open 1 min., 2 no oil observed
sand, flat bottom, pebble, beach
1050 - small pebble beach - no oil observed
Acton out only, worked 30', 1 fathom
1100 - same type as 1050
1 spot observed Acton out only
1105 - 1 spot observed Acton out only
Similar small pebble beach
1120 worked open 0 min.
WIll remove pads along survey shore
2 pads observed on mid flat
Almost entire RO, or A.T. barrier
1225 Start Bay area - very arrow, coarse bottom
1230 no oil observed
1245 finished bay at W end of Island Bay
depart for Kadina
1305 arrive Kadina
ECOLOGICAL EVALUATION

LOCATION: Dought Bay   SITE: K3 2 EB   OBSERVER: N. Davis
LOCATION PREFIX: I   SEG. NO:   LENGTH: 2000 (M)
DATE: 8/13/89   TIME (H/M/SEC): 1200-1220   TIDE HT: 3.0' up to 4.0' (M)
OILED ZONE: Splash   High   Medium   Low
SUBSTRATUM: Rock   Boulder   Cobble   Gravel   Sand   Mud

LIVE BIOTA
Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
On rocky-cobble Fucus in dense patches in sandy areas Enteromorpha less Fucus all Healthy.(from Helio.)

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
On rocky areas dense patches associated w/Barnacles

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Barnacles continuous on rocky-cobble surface. None in sandy areas Healthy

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: Seen from Helio the area looks very healthy

CLEANUP PRECAUTIONS: Avoid soft sediment areas and use nets. (See map)
Manual clean up will not adversely effect biota. Avoid unhealthy/mixed tidal biota

MAMMALS: Otters   Harbor Seals   Sea Lions   Whales
Other

BIRDS: Cormorant   Gulls

GENERAL OBSERVATIONS: Low energy waves/healthy algal growth

ACE 8702339
SHORELINE CLEANUP PROGRAM

DATE 8/21/89    SHORELINE SEGMENT K3-2-1B-12

LOCATION: (see enclosed map) Izhut Bay

ADEC NO. _______ SHORELINE ASSESSMENT DATE: 8/12/89

Recommended Cleanup Activity(ies):
- No cleanup recommended due to observation of very light oil impact only. Subject to FOSC reassessment at a later date.

Priorities/Considerations: Class 5-A

Ecological Constraints (from site survey):
- No ecological constraints due to no cleanup recommended.

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: 8/23/89

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


6. Location: __________

7. Segment #: __________

8. Length of shoreline segment: _______ yds


10. Access: __________

11. Total Percentage of Segment Accessible: _______%

12. Access Restrictions: __________

B. Shoreline

13. Shoreline Type: SPI/BEA/COV/HLY/STRT/CLY/DAF

14. Slope: __________

15. Wave Exposure: __________

16. Sediment: B__ C__ P__ G__ S__ M__ R__

17. Drift Debris on Beach: Yes/No Sup/Up/Mid/Low Type

C. Oil Summary

18. Degree of Oiling: Heavy/Moderate/Light/Very Light/No Oil Observed

19. Area of Beach Impact: Width of Band: _______ yds

Continuous: Total % of Segment _______

Sporadic: Total % of Segment _______

No Oil: Total % of Segment _______

20. Est. Oil Thickness where >1in: _______ in

21. Est. Oil Penetration: _______ in

22. Pooled Oil: _______ "Free" Oil: _______ Coated: H__ M__ L__

23. Fresh _______ Mousse _______ Tar Formation: _______

24. Drift Debris Oiled? Yes/No Sup/Up/Mid/Low Amount: _______ H/M/L

Comments:

Section surveyed by helicopter. Shoreline surveyed on foot depicted on 1:6250 scale map.
Section comprised primarily of headland, headland/rock platform/ breakwater. Access by boat
limited. Very light oil in the form of mousse/pads observed at several locations surveyed.
Oil film present may be larger due to limitations of spotting very light oil from above.
Boards at stream mouths may aid in cleanup of few scattered mousse pads may cause

See page 2 for supplemental information

ACE 8702342
### SUPPLEMENTAL SHORELINE OIL EVALUATION

#### 25. Oil Type

<table>
<thead>
<tr>
<th>Fresh</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mousse</td>
<td>100 %</td>
</tr>
<tr>
<td>Weathered</td>
<td>%</td>
</tr>
<tr>
<td>Tar</td>
<td>100 %</td>
</tr>
</tbody>
</table>

#### 26. Total Oil Coverage

<table>
<thead>
<tr>
<th>Length (yd)</th>
<th>Width (yd)</th>
<th>Very Light:</th>
<th>Light:</th>
<th>Moderate:</th>
<th>Heavy:</th>
</tr>
</thead>
<tbody>
<tr>
<td>350</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

#### 27. Oil Distribution

- Pooled/continuous coating/splat
- Cracks/crevices
- Baffles (>10cm diameter)
- Balls (<10cm diameter)
- Asphalt pavement

#### 28. Preliminary Cleanup Est.

- Total TYPE A:__________ yds.
- Total TYPE B:__________ yds.
- Total TYPE A/B:__________ yds.

#### 29. Remobilization Potential:

- High/Medium/Low

#### DOCUMENTATION:

- Map/Aerial photo marking segment boundaries 1:62,500 and 1:1500 maps
- VTR: Y/N Tape Number(s) KOS 39
- Photography: Y/N Roll Number(s) HWD1

#### Additional Comments:

- Greater ecological impact than standard marine patch present. Hundreds/thousands of anadromous fish in and near vicinal areas.
1420 start Kadhik
1425 drop off Jordan, mass at head of bay to look around
They requested to be dropped off - pilot advised against being late but
Jordan insisted - both were dropped off my shuttle in radio
1430 continued discussion
1435 received request from Aron for pickup
1440 informed Jordan + Aron that with an hour he was his company would
assist, responding

8/12
1140 depart Kadik, 1 5B EN
Dest - head for Kadhik
1500 start down engine priming
Chris did Harvey Aron, etc. with Rick K

8/12
1425 depart Kadhik
Aron Davis, Chris
1440-1950 overnight at island
1955 - begin

1955-1500 - sections primarily B.O. cobra
plumes after - no observed - haven't
difficult to observe - no hunting spot
1500 fire cobra - beach up hill marine
pads in open to bed at night open
winds approx. 1000' - was away all
tanger - wind
1941 - 1 marine paid cleanup
2 saw
2 sc
approx. 70' from water to swl
beach approx. 5% steep - low to mud many
access for shallow draft boat
cleanup not recommended
1605 Depart to continue headw. N to rock pattern - few spots

1745 Depart for Kodiak

1805 Arrive Kodiak

8/15 0825 depart Kodiak for Phoenix Point

Acton. Durrant. Davis. Olson. (USC&I)

Lutensir - to be dropped off at Phoenix Bay

Drop Charles off

0950 - Waited oppen line - no oil observed

Sand/shark - pocket beach

1050 - Small pocket beach - no oil observed

Acton out only - wait 100' from boat

1100 - Same type as 1050

1 spat observed

1105 - 1 spat observed

Again small pocket beach

1130 Waited oppen 05 min

Wt nurse pads along shoreline

2 pads observed on mid flats

Almost entire N. or N. of end

1205 Start bay with very narrow coastal barrier

1230 No oil observed

1245 Finished bay at W side of Indian

Depot for Kodiak

1305 Arrive Kodiak
Trees

Mud flat

Stream mouth

Narrow shoreline composed primarily of flat cobbles

Mussel beds, 2 3" shells found in 3-5' band just below tree line from spit N to stream mouth.

A, A' = N

Mussel beds

Flat cobbles

ACE 8702340
ECOLOGICAL EVALUATION

LOCATION: Igbut Bay  SITE: K3 2 TB  OBSERVER: H. Davis
LOCATION PREFIX: TB  SEG. NO.: 12  LENGTH: 10600 (M)
DATE: 9/12/89  TIME (H/MN): 14:50 - 17:45  TIDE HT.: 2.0' up to 2.0'
TIDE PHASE: 9:30 - 11:30  OILED ZONE: Splash High Medium Low
SUBSTRATUM: Rock 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 in sandy areas, denser patches on rocks. All Healthy. Externally, no visible damage or Rocky Pol.

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
- Patchy mussels alongshore. All Healthy. No Piscine observed.

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
- Balanus. Oth forms continuous (except sandy shore) vary from total surface coverage to scattered individuals.

Littorina

Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
- Same pattern as Mytilus and Balanum. All Healthy.

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

OTHER OBSERVATIONS:
- Anemones fish abundant several hundred Scyphozoa in water. No
- Oil stressed individuals observed. Bear and fox tracks on beach.

CLEANUP PRECAUTIONS:
- Don't disturb eelgrass or the soft sediment around anemones, fish, and
- No cleanup. No constraints. Manual cleanup will not adversely affect biota.

MAMMALS: Otters 3 Harbor Seals 2 Sea Lions 2 Whales 2

OTHER Mammals also seen.

BIRDS: Eagles (adult, juvenile) common

GENERAL OBSERVATIONS: Very healthy area
Index For 1:1500 maps

*1

*2
SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): KODIAK-IZHUT BAY NORTHWEST BLOCK

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

FOSC
CDFU
NOAA
EPA
USDA (FS)
USFW
A.DEC
A.FG
A.DNR
CAC
PWSA
USFS
SHPO
TYPE A SHORELINE CLEANUP WORK ORDER

K3-2

Date: 7/7/89 Shoreline Segment: 18-1, 2, 3, 4, 5
Location: (Attach map) K2H U T B AY - NORTHWEST BLOCK

ADEC No. K3-2 Shoreline Assessment Date: 6/7/89

Recommended Cleanup Activity(ies):
Manual removal of mouse nesting and contaminated
fishing material.

Priority Considerations:
See attached Shoreline Segment reports

Ecological Constraints (from site survey):
See attached Shoreline Segment reports

Archaeological Constraints: See attached segment reports.
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
"Guideline for Shoreline Cleanup") and the State historic Preservation Office notified as soon as
possible.

Submitted by: [Signature] Date: 7/7/89

State Historic Preservation Officer Telephone Approval (Required) Date:

Approved: [Signature] Date:
Assistant OSC Western Alaska (if appropriate)

Approved: [Signature] Date: 7/1/89
Federal On-Scene Coordinator

4/30/89

ACE 8702354
SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- [ ] Hot water wash
- [ ] Warm water wash
- [ ] Water deluge
- [x] Non-mechanical
- [ ] Other

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments: Manual removal of mousse patties and contaminated drift material.

Signature: Jack Rickner
Date: 7/21/89
Time: 0748

Printed Name: Jack Rickner

Existing Shoreline Condition As Visually Determined by USCG

<table>
<thead>
<tr>
<th>Percent</th>
<th>Degree of Oil</th>
<th>Heavy</th>
<th>Medium</th>
<th>Light</th>
<th>Very Light</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td></td>
<td></td>
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</tbody>
</table>

Subsurface Oil

[ ] Yes
[ ] No

Comment Below: Reassessment
[ ] Yes - Necessary
[ ] No - Not necessary unless re-oiled

ADEC Rep

Comments:

Signature
Date
Time

Printed Name

FOSC Rep

Demobilization approved/disapproved

Comments: See comments on attached sheet.

Signature: [Signature]
Date: 7/23/89
Time: 0650

Printed Name: [Printed Name]

Copy: Exxon [ADEC] FOSC ISCC

Return All Signed Originals to Exxon

ACE 9702355
SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): K3-3

Includes Shoreline Segments: IB-8

Location: Peril Cape N into Izhut 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
(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE  7/17/89    SHORELINE SEGMENT K3-3-IB-8

LOCATION: (see enclosed map) Peril Cape N into Izhut Bay

ADEC NO.       SHORELINE ASSESSMENT DATE:  7/15/89

Recommended Cleanup Activity(ies):
- Manual removal of mousse from high tide line on the west side of the beach.
- Use sorbent cloth and pom-poms to remove oil covering on cobble surface of the beach.
- Clean oiled driftwood.
- Low pressure wash the west side of the cobble to remove oil.
- Use other approved techniques where appropriate.

Priorities/Considerations: Class 5
- Oil contamination light
- Resources present.

Ecological Constraints (from site survey):

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 *

EXXON: __________________________ Date: ____________

FOSC: __________________________ Date: ____________

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

Date: 7/15/89  Time: 1400 - 1615  Observer: M. Acton

Surveyed From: Foot/Boat/Plane

LOCATION

Location: Ithaca Bay, Peri-Cape to North Side Contact  Segment ID: K3-3-1B-8
Segment Length: 8 miles  m.  Access: Vehicle/Boat/Barge/Plane
Access Restrictions: Helicopter only for beach mapping

SHORELINE

Shoreline Type: SPI/SEA/CO/ALL/STR  Slope: Lo/Med/Hi/Vert
Wave Exposure: High/Med/Low
Sediment: B % / C % / P % / G&S % / M % / R %

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

IL 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

Very Light: 30  Width(m)  S  Thickness >1cm: 1cm  SU/SP/H/M/L
Light: 60  Width(m)  S  Penetration/Rework: 5cm  SU/SP/H/M/L
Moderate: 60  Width(m)  S  Burial Depth: 30cm  SU/SP/H/M/L
Heavy: 60

Dissolution Potential: High/Medium
Drift Debris Oiled? Y/N Amount: H/M/L/UL SU/SP/H/M/L Type: Driftwood, Seaweed

IL MORPHOLOGY

Poled Oil: 10 %  SU/SP/H/M/L
"Tree" Oil: 10 %  SU/SP/H/M/L
Blattered: 10 %  H/M/L/UL  SU/SP/H/M/L
Caked: 55 %  H/M/L/UL  SU/SP/H/M/L
Sandcakes/Balls: 35 %  SU/SP/H/M/L

IL WEATHERING

Rough: 10 %  SU/SP/H/M/L
Mousse: 10 %  SU/SP/H/M/L
Weathered Mousse: 90 %  SU/SP/H/M/L
Asphalt Mousse: 10 %  SU/SP/H/M/L

COMMENTS

Segment consists primarily of rock cliff and platform, headland, and large boulders/rubble with no limited access by helio. Entire segment flown by helio. One beach was suitable to helicopter landing and was assessed on foot (see map #1).
Sporadic, moderate oiling consisting of weathered mousse was observed at the beach assessed on foot (see map #1).

ACE 8702359
DOCUMENTATION:

Aerial photo marking segment boundaries See Attached Map

VTR: Y/N Tape Number(s) MA2

Photography: Y/N Roll Number(s) MA2

Sample Numbers Collected: NA

ACE 8702360
Map 1
Approx 200m long beach

Rock Headland
Covered w/ Trees

Sm. Cove (Proto Mar. 10)
Mousse at high/tide line, 3m wide band across cave
V. H. mousse split on cave walls

5m x 5m band
Surface cobbles to 2" deep - clean
2" to 6" deep, moderate chocolate
Mousse covering cobbles
6" to 12" deep - light chocolate
Mousse covering cobbles

A-A' = 35 m

1m storm tide brim

Cobble

Driftwood

It to v.H. split on driftwood

2m erosion scarp

A

Chocolate mousse band

Survey beach from 1410 - 1550
High water 1200 - 1530 + 5'

ACE 8702301
Cleanup atustin Pt.
Recommended but very low priority
Waited w/ in Map > to R.O. & builders
and came to be.
1500 left R.O. to back to kdl.
Appro 2000 ft. set stream below.
R.O. pass.
Active back on target at approx. 1700 by land.

7/15 - Arrived
- Exist 197

7/15 1345 JV airport
Active Penn Ludwig Canyon (Uds)

1400 Poli Cape
Deep campsite on beach
Side near high
Minor beach

Map 1 to 2
2 bad shot
3 to N

Zoom @ beach - 4-axes in small beside
Minor scrape at back beach line
Dense trees
Vertical rock hard/land at both ends
and of every high energy beach

worked entire beach length

trees atop headlands

some types of sand & pebbles on beach

Some +

Driftwood

Driftwood

3-4' erosion

3-4' erosion

Driftwood

Driftwood

3-4' erosion

3-4' erosion

Driftwood

Driftwood

3-4' erosion

3-4' erosion
Some madness on beach
No boat access to beach

Oil does not appear at end of beach in sand
except for very few scene puddles
less spilt on dith about at end of beach
Photo 5th
Back N from cliff at end of beach
no 1.1. observed on 3 hundred

Photo 7th - move in to site
Need a break
5m x 25m - decrease w/ depth
moderate oil input
still at 1 1/2
decaying
could not dig deeper

Photo 9 - this area
for 1/2 - medium - light - oil
1/12 - light oil

Cave at N end of beach
move at high - tides 
photo 10 - oil depth
Same as other areas
Cleanup crew has been in this cave
- put up oil feed
Photo 1a - cave
Same #11: spilt on cave walls

Note: piles of oil on beach look furry from
1550 - 1/11. 31/4
No boat access
Cape Point - 1 1/2 - 1/8 - oil crs
**ECOLOGICAL EVALUATION**

**LOCATION:** Kodiak  
**SITE:** Afognak - Izhok Bay  
**LOCATION PREFIX:** KS-3  
**SEG. NO.:** 1B-8  
**OBSERVER:** G. Purdy  
**DATE:** 07/15/89  
**TIME (HHMM):** 14:21  
**LENGTH:** 8 m. (M)  
**TIDE HT.:** _______ (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  
Un-observed

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

### OTHER OBSERVATIONS:

- Oiled Bins - Amphipods - Nematodes
- Very bight - cobble/cobble beach

### CLEANUP PRECAUTIONS:

- None - Applicable cleanup methods should not perturb biota significantly on the one oiled beach. Other areas - no precautions - no cleanups required.

### MAMMALS:

- Otters  
- Harbor Seals  
- Sea Lions  
- Whales

### OTHER:

### BIRDS:

- Seagulls - gulls (salt) - wild - approach at end of natural flight
- Seabirds, Eagles, and Gulls

### GENERAL OBSERVATIONS:

- Intertidal zone, usually poor due to
- Steep and steep slopes - usually vertical.
SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): K3-4

Includes Shoreline Segments: DU-1

Location: Cape Izhut West to Peril Cape

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 7/16/89 SHORELINE SEGMENT K3-4-DU-1

LOCATION: (see enclosed map) Cape Izhut west to Peril Cape

ADEC NO. K3 SHORELINE ASSESSMENT DATE: 7/16/89

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

Priorities/Considerations: Class

Ecological Constraints (from site survey):

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 *
Date: 7/29/89

EXXON: ____________________________ Date: ____________________________

FOSC: ____________________________ Date: ____________________________

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

Date: 7/16/89 Time: 11:10 - 11:40 Observer: M. Action
Surveyed From: Foot/Boat/Helio/Plane Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION
Location: Cape Inlet west to Pes: Cape Segment ID: K3-4-DV-1
Segment Length: 1.6 km m Access: Vehicle/Boat/Barge/Helio/Float Plane
Access Restrictions: Bas access during low energy periods only

SHORELINE
Shoreline Type: SPI/BEA/COW/HLD/STRT Slope: Lo/Med/Hi/Vert
Wave Exposure: High/Med/Low
Sediment: B 40% / C 10% / P 10% / G&S 1% / M 1% / R 50%

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

Very light: _______ Length(m) 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: _______

Mob. Potential: High/Medium/Low
Dift 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: _______ % 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
Weathered Mousse: _______ % SU/SP/H/M/L
Asphalt Mousse: _______ % SU/SP/H/M/L
Tar: _______ % SU/SP/H/M/L

COMMENTS
Segment surveyed by helio. No helio landing areas. No foot survey in segment.
No oil observed.

PRELIMINARY CLEANUP EST.
Total TYPE A: _______ m
Total TYPE B: _______ m
Total TYPE A/B: _______ m

ACE 8702371
DOCUMENTATION:

Map/Aerial photo marking segment boundaries: See attached map

VTR: Y/N Tape Number(s) ________________________________

Photography: Y/N Roll Number(s) __________________________

Sample Numbers Collected: _______________________________
Perigee and N-NW no good today

Direct towards St. in process in Selecon Bay

Selecon B - no oil detected

1200 small packet been coast return for 1st

1330 set down in Keel Rock

All well

1365 B.1 sail away embarinnen
tsame direction - op 17

for 6-8 more ball ot head of bant

V.H. oil

MAZ 21

Wakal longs pound ball

bale 3515

7-17 Man London Sir. cord. 0800

Destination - Mount Bay

Hull M 88 0840

Coke 1621 810
ECOLOGICAL EVALUATION

LOCATION: KODIAC  SITE: AFognak - Duck Bay  OBSERVER: G. PENN
LOCATION PREFIX: k3-s  SEG. NO.: BU-1  LENGTH: 1 km (M)
DATE: 27/6/1987  TIME (HHMM): 11:10  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: Intertidal b раств generally poor due to
strength of break (usually vertical). Ocean features usually
have well developed subtidal kelp beds.

ACE 3702374
Segment Map Index

2 1
Steep gravel beach, not suitable for helio landing.

Large slope failures

Small, steep pocket beach, not suitable for helio landing

K3-4-DU-1
Segment surveyed by helijet 1130 approx. Tide +3'
No helio landing access on shoreline
No oil observed from helio
SHORELINE CLEANUP PROGRAM

DATE 7/16/89

SHORELINE SEGMENT K3-5-DU-2

LOCATION: (see enclosed map) Selezen Point to Cape Izhut

ADEC NO. ______________ SHORELINE ASSESSMENT DATE: 7/16/89

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

Priorities/Considerations:
- Limited helicopter access.

Ecological Constraints (from site survey):

Archaeological Constraints (from site survey):
- If cleanup is conducted and heretofore undiscovered cultural materials are uncovered, 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

Date: 7/1/89 / Time: 14:45 Observer: M. Acton
Surveyed From: Foot/Boat/Plane Weather: Sun/Cloud/Rain/Snow/Fog

ACTION
Segment From: Seleza Point to Caper Trench Segment ID: K3-5-DV-2
Segment Length: 5 km Access: Vehicle/Boat/Helio/Plane
Access Restrictions: Boat access during low energy periods

SHORELINE
Shoreline Type: SPI/BEA/COV/FLD/STRT Slope: Lo/Med/Hi
Wave Exposure: High/Med/Low
Sediment: B / C / P / G & S / M / R S O

IL
Degree of Oiling: HEAVY / MODERATE / LIGHT / VERY LIGHT / NON-OBSERVED
Area of Impact: SU/SP/H/M/L

IL 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

Very light: _______ | _______ Thickness >1cm: _______ cm SU/SP/H/M/L
B: _______ | _______ Penetration/Rework: _______ cm SU/SP/H/M/L
C: _______ | _______ Burial Depth: _______ cm SU/SP/H/M/L
Heavy: _______ | _______

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

IL MORPHOLOGY
Oiled Oil: _______ SU/SP/H/M/L
Free Oil: _______ SU/SP/H/M/L
Plastered: _______ H/M/L/VL SU/SP/H/M/L
Oiled: _______ H/M/L/VL SU/SP/H/M/L
Incakes/Balls: _______ SU/SP/H/M/L

IL WEATHERING
Resh: _______ SU/SP/H/M/L
Ousse: _______ SU/SP/H/M/L
Weathered Mousse: _______ SU/SP/H/M/L
Asphalt Mousse: _______ SU/SP/H/M/L
Hair: _______ SU/SP/H/M/L

COMMENTS
Segment surveyed by helio. Poor helio access
No oil observed.

Preliminary Cleanup Est.
Total TYPE A: _______ m
Total TYPE B: _______ m
Total TYPE A/B: _______ m

ACE 8702332
DOCUMENTATION:
Map/Aerial photo marking segment boundaries

VTR: Y/N Tape Number(s) ____________________________

Photography: Y/N Roll Number(s) ____________________________

Sample Numbers Collected: ____________________________
Perilcope and N.W. - no good today

Died too much SE of Cape in Selecten Bay
Selecten B - no oil around

1200 - small packet boat - coast return for fuel
lett us see for lunch - see 11/7/72 and

1345 - set down in Kachak Bay

7/17 Mon
Left off from Koehne 0800 - Gilligan C - ship bridge
Destination - Shuyak Bay
Conwin Pt - past - 0840

3 crew / beside damage
ECOLOGICAL EVALUATION

LOCATION: Kodisk
SITE: Nisqually-Duck Bay
LOCATION PREFIX: K3-b
SEG. NO.: DU-2
LENGTH: 5 km (M)
DATE: 07/16/89
TIME (HHMM): 11:45
TIDE HT.: 1 m (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:

CLEANUP PRECAUTIONS: None - no oil visible

MAMMALS: Otters Harbor Seals Sea Lions Whales

BIRDS: Eagles and Nest, Ducks, Cormorants

GENERAL OBSERVATIONS: Intertidal zone generally poor in flora due to steepness of beach slope (usually vertical)
K3-5-DV-2
Segment surveyed by helio
1145 hrs. Tide +3'
No oil observed.
KODIAK SCAT
K3-6

COMPLETE JAN 03 1990

ACE 8643514
SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): K3-6

Includes Shoreline Segments: DU-3

Location: Cape Kostromitino to Selezen 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

ACE 8702389
SHORELINE CLEANUP PROGRAM

DATE  7/16/89  SHORELINE SEGMENT K3-6-DU-3

LOCATION:  (see enclosed map)  Cape Kostromitnoff to Salezen Point

ADEC NO. K3  SHORELINE ASSESSMENT DATE:  7/16/89

Recommended Cleanup Activity(ies):
- Manual removal of mousse patties (see note map #1).

Priorities/ Considerations:  Class 5-A
- Boat access may be restricted to calm days.

Ecological Constraints (from site survey):

Archeological Constraints (from site survey):
- Inspection by an archaeological monitor is required while cleanup is conducted.
- 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**

**Date:** 7/14/89  
**Time:** 12:00  
**Observer:** M. A.  
**Weather:** Sun/Cloud/Rain/Snow/Fog

**LOCATION**  
**Location:** Cape Kastro; time to select Point  
**Segment ID:** K3-6-DV-3  
**Segment Length:** 13 km  
**Access Restrictions:** Great access during low energy period.

**SHORELINE**  
**Shoreline Type:** SPI/BEA/COV/HLD/STRT  
**Slope:** Lo/Hi/Vert

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<th>Sediment</th>
<th>B</th>
<th>C</th>
<th>P</th>
<th>G&amp;S</th>
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</tbody>
</table>

**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  
**Sporadic % of Segment:** H/M/L/VL

<table>
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<tr>
<th>Total</th>
<th>Length(m)</th>
<th>Width(m)</th>
<th>Thickness &gt;1cm: cm</th>
<th>SU/SP/H/M/L</th>
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</thead>
<tbody>
<tr>
<td>Very light:</td>
<td>100</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderate:</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Heavy:</td>
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</table>

**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:** %  
**"Free" Oil:** %  
**Splattered:** %  
**Coated:** %  
**Pancakes/Balls:** %

<table>
<thead>
<tr>
<th>OIL WEATHERING</th>
<th>SU/SP/H/M/L</th>
<th>Preliminary Cleanup Est.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh: %</td>
<td>SU/SP/H/M/L</td>
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<td>Mousse: %</td>
<td>SU/SP/H/M/L</td>
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<td>Weathered Mousse: %</td>
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<tr>
<td>Asphalt Mousse: %</td>
<td>SU/SP/H/M/L</td>
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</tr>
<tr>
<td>Far: %</td>
<td>SU/SP/H/M/L</td>
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</tbody>
</table>

**COMMENTS**  
Segment surveyed by helio. Limited helio access. See segment map and note map for comments.

ACE 8702392
DOCUMENTATION:

Map/Aerial photo marking segment boundaries  See Attached Map

VTR:  Y/N   Tape Number(s) ________________________________

Photography:  Y/N  Roll Number(s) ________________________________

Sample Numbers Collected: ________________________________

ACE 8702393
Note
Map #1

headland

trees

Beach is approx 300m long

very light oil impact on surface

Approx 10 mussel pads on W side of stream

No oil observed in stream or on stream bed.

2m above stream tide line

Debris/driftwood

3m band of mussel pads

very light oil impact

sand/gravel

A - A' 80m

ACE 8702394
1700 small packed beach over rep for full
let up the hump - see 1/500 amp
7-1/2 am

very large degree of oil
wave pools at W. tide line
incoming tide moving across pools up beach

1335 set down in Kankalet Bay

25/75 wide

1320 long

all sand
10' backshore embankment
some driftwood - no spilt

few 6-8 masses balls at head of break
u.p. oil
MA2 21 N
22 3

Wavel length on break 6-1

back 1315

7/17 Mon
Liftott Stan Kemmer 0800
Destination - Warren Bay
Contact Pt - star 0840

Acton Penn
Gilliam Gilpin
**ECOLOGICAL EVALUATION**

**LOCATION:** Kodiak  
**SITE:** Afognak-Duck Bay  
**OBSERVER:** G. Penn

**LOCATION PREFIX:** K3-6  
**SEG. NO.:** DY-3  
**LENGTH:** 13 km (M)

**DATE:** 07/16/89  
**TIME (HHMM):** 12:00  
**TIDE HT.:** 1 m (M)

**OILED ZONE:** Splash High Medium Low None

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

**LIVE BIOTA**

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

<table>
<thead>
<tr>
<th>Littorina</th>
<th>Patchy</th>
<th>Y/N Contin.</th>
<th>Y/N Dense</th>
<th>Y/N Sparse</th>
<th>Y/N None</th>
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</thead>
<tbody>
<tr>
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<table>
<thead>
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<th>Y/N Sparse</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
</tbody>
</table>

**OTHER OBSERVATIONS:**

**CLEANUP PRECAUTIONS:**

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

**BIRDS:** Eagle Nest

**GENERAL OBSERVATIONS:** Intertidal zone generally poor in biota due to steepness of beach slope (usually vertical)

ACE 8702396
CULTURAL RESOURCE EVALUATION

Date: July 16, 1989
Location: Dick Bay Site: Hognahl Js.
Location Prefix: K-3-6-1
Segment #: 3
Length: 13 km

Survey Method:
Air: X (A - indicate on map)  Boat: X (A - indicate on map)
Ground: X (G - indicate on map)

Known cultural resources (AHRS #: AFG-24-25-5)

Data Source: D.W. Clark

Oil conditions/beach visibility: clean

Width of beach zone surveyed: 40 m
Tree fringe surveyed: 15 m

Cultural resources observed in beach zone (AHRS code): 0
Cultural resources observed in tree fringe (AHRS code): 0

General observations justifying survey method and segment's site probability:
Shore Profile: steep headlands and wide gravel beaches

Fresh Water Sources: streams

Sea Exposure: generally open exposure
Access/Safety: possible access to some beaches

Probability of undiscovered sites in beach zone (circle one): 1 2 3 4 5

Sufficient grounds to support recommendation:

Monitoring during cleanup needed: no
Collection: yes/no

Photos:
Color Roll:  Frames:
B/W Roll:  Frames:

Observer(s): Ludwig

Time survey started: 1145
Time survey ended: 1345

Cultural resource considerations/restraints:
Only one of the beaches was surveyed by foot. If cleanup becomes necessary on any of the other beaches, an archaeological survey must first be conducted.

ACE 8702397
See Map 1

Shoreline surveyed on foot.

EAGLES NEST
COMPLETE JAN 23 1990

ACE 7963934
SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): K3-7

Includes Shoreline Segments: KZ-1

Location: Kazakof 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 7/16/89

LOCATION: (see enclosed map) Kazakof Bay, Cape Kazakof to Cape Kostromitinof

SHORELINE SEGMENT K1-7-KZ-1

ADEC NO. __________ SHORELINE ASSESSMENT DATE: 7/16/89

Recommended Cleanup Activity(ies):
- No cleanup recommended due to very light oiling and the potential for cleanup to incur a greater impact than the oil itself. Subject to FOSC reassessment at a later date.

Priorities/Considerations: Class 5-A

Ecological Constraints (from site survey):

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

Date: 7/1/89 / Time: 12:45
Surveyed From: (Foot/Boat/ Helip/Plane)
Observer: M. Acton
Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION
Location: Kizakof Bay / Cape Kizakof to Cape Kizormin
Segment ID: K2-5 / K2-1
Segment Length: 35 km m. Access: Vehicle/Boat/Barge/Helip/Float Plane
Access Restrictions: Limited access

SHORELINE
Shoreline Type: SPI/SP/COV/MLD/STRT
Slope: Lo/Med/Hi/Verp
Wave Exposure: High/Med/Low
Sediment: B 10% / C 7% / P 15% / G&S 15% / M 15% / R 70%

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

<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>
<th>Mobilization Potential:</th>
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</thead>
<tbody>
<tr>
<td>Very light</td>
<td>25</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Moderate</td>
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<td></td>
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</tr>
<tr>
<td>Heavy</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Mobilization Potential: High/Medium/Low
- If 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

Shoreline is primarily rock cliff/rock platform with few small pocket beaches
Segment surveyed by boat. Very limited helip landing access near shoreline.
Very light oil observed at one of the few survey locations.
See segment map for notes.

ACE 8707345
DOCUMENTATION:

Map/Aerial photo marking segment boundaries

VTR: Y/N Tape Number(s) __________________________

Photography: Y/N Roll Number(s) MA2

Sample Numbers Collected: __________________________
ECOLOGICAL EVALUATION

LOCATION: Kodiak
SITE: Afognak - Kazakof Bay
LOCATION PREFIX: K3-7
SEG. NO.: KZ-1
LENGTH: 35 km (m)
DATE: 07/16/89
TIME (HHMM): 1345
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

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: None - No Cleanup Recommended

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

BIRDS: Eagles + Nut, Gull, Rookie

GENERAL OBSERVATIONS:
Segment Areas

4

3

2

1

5
Surveyed on foot
No oil observed
COMPLETE JAN - 9 1990

ACE 7963935
SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): K4-2

Includes Shoreline Segments: RI-2

Location: Raspberry 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 7/12/89  SHORELINE SEGMENT K4-2-RI-2

LOCATION: (see enclosed map) Western end of Raspberry Island

ADEC NO. ___________ SHORELINE ASSESSMENT DATE: 7/12/89

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

Priorities/Considerations: Class 5-A

Ecological Constraints (from site survey):
- Multiple nesting bald eagles and sea otter colonies prelude
  any cleanup effort at this sight.

Archaeological Constraints (from site survey):
- If cleanup is conducted and heretofore undiscovered
  cultural materials are uncovered, contact Exxon's
  Archaeological 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**

Date: 12 July 1989  
Time: 15:50-16:15  
Observer: Duncan M. Fitzhugh  
Weather: Sun/Cloud/Rain/Snow/Fog

**LOCATION**  
Location: Western End of Raspberry Island  
Segment ID: K-4-2-RF-2  
Segment Length: 4800 m  
Access: Vehicle/Boat/Barge/Helio/Float Plane  
Access Restrictions: Only land at pocket beaches

**SHORELINE**  
Shoreline Type: SPI/BEACOV/HLD STRT  
Slope: Lo/Med/Hi/Vert  
Wave Exposure: High/Med/Low  
Sediment: B10% / C50% / P5% / G&S 15% / M 1% / R 20%

**OIL**  
Avg. Degree of Oiling: HEAVY / MODERATE / LIGHT / VERY LIGHT / NONE OBSERVED

**OIL DISTRIBUTION**

<table>
<thead>
<tr>
<th>Description</th>
<th>Type</th>
<th>SU/SP/H/M/L</th>
<th>H/M/L/VL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous % of Segment</td>
<td></td>
<td>SU/SP/H/M/L</td>
<td>H/M/L/VL</td>
</tr>
<tr>
<td>Sporadic % of Segment</td>
<td></td>
<td>SU/SP/H/M/L</td>
<td>H/M/L/VL</td>
</tr>
<tr>
<td>Total Very Light Length (m)</td>
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<td>H/M/L/VL</td>
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<tr>
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<td>H/M/L/VL</td>
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<tr>
<td>Total Moderate</td>
<td></td>
<td>H/M/L/VL</td>
<td></td>
</tr>
<tr>
<td>Total Heavy</td>
<td></td>
<td>H/M/L/VL</td>
<td></td>
</tr>
<tr>
<td>Thickness &gt;1cm: __________ cm</td>
<td></td>
<td>SU/SP/H/M/L</td>
<td></td>
</tr>
<tr>
<td>Penetration/Rework: ______ cm</td>
<td></td>
<td>SU/SP/H/M/L</td>
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<tr>
<td>Burial Depth: __________ cm</td>
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<td>SU/SP/H/M/L</td>
<td></td>
</tr>
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</table>

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

**OIL MORPHOLOGY**

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<th>Description</th>
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<td>&quot;Free&quot; Oil: ______ %</td>
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<tr>
<td>Splattered: ______ %</td>
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<td>H/M/L/VL</td>
</tr>
<tr>
<td>Coated: ______ %</td>
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<td>H/M/L/VL</td>
</tr>
<tr>
<td>Pancakes/Balls: ___ %</td>
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<td>SU/SP/H/M/L</td>
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**OIL WEATHERING**

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<tbody>
<tr>
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<tr>
<td>Mousse: ______ %</td>
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<td>Weathered Mousse: 2 %</td>
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<tr>
<td>Asphalt Mousse: ___ %</td>
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<tr>
<td>Tar: ___ %</td>
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**COMMENTS**

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PRELIMINARY CLEANUP EST.

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<tbody>
<tr>
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<td></td>
</tr>
<tr>
<td>Total TYPE B: _____ m</td>
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<tr>
<td>Total TYPE A/B: _____ m</td>
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ACE 8707365
ECOLOGICAL EVALUATION

LOCATION: KOMOKWA IS., KOMOKWA
SITE: MACHINERY CRAB TO MALOA POINT
DATE: 7/12/89
TIME (HHMM): 1530-18:15
TIDE HT.: 3.0-2.8
LENGTH: 4800 (M)
SEG. NO.: 2
OILED ZONE: Splash High, Medium, Low
BURIED SPARK IN COBBLES, AND OILY MATTER
TRACK SPARK IN MED. TIDE
LOCATION PREFIX: RT
SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud
OBSERVER: S. BLUESTONE

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y Y Dense Y Y Sparse Y/N None Y/N
LIGHT, LICHEN, AND TRACE FUCUS PERUVIANUS Y IN LITE; RAHWA SP. IN ULTR'S.
TERESTIAL LICHEN IN HIGH ETE; MOST COBBLE BETHES, LATE PHYLACTHERIDS

Mytilus (Mussels): Patchy Y/N Contin. Y Y Dense Y Y Sparse Y/N None Y/N
M. EDULIS IN LITE AND IN ULTR'S ROCKY HEADLAND AREAS; ABSENCE ON COBBLE BETHES.

Balanus (Barnacles): Patchy Y/N Contin. Y Y Dense Y Y Sparse Y/N None Y/N
ABSENT IN ROCKY HEADLAND AREAS, B. FABULOSA AND B. CIRCINUS IN M-LITE.

Littorina
Patchy Y/N Contin. Y Y Dense Y Y Sparse Y/N None Y/N
ABSENT IN M-LITE, GAZING IN INTERSTICIAL SITES AND ON PHYTOPLANKTON

Limpets: Patchy Y/N Contin. Y Y Dense Y Y Sparse Y/N None Y/N
ABSENCE, LIMITED TO TIDAL POOLS AND LITE IN ROCKY HEADLANDAREAS.

OTHER OBSERVATIONS: BEACH CONSISTS OF BEDROCK HEADLANDS & SEA SNAKE,
WITH COBBLE COVERS. STORM CUTS AND BEACH KEEPS ON COBBLE COVERS INDICATE HUMAN ENVIRONMENTS.

CLEANUP PRECAUTIONS: TIDE NESTING BIRD EAGLE SITES; SEA OTTERS AND
UNMARKED HABITAT. HIGHLY SENSITIVE ECOLOGICAL COMMUNITY SHOULD INCLUDE
CLEAN-Up HERE.

MAMMALS: Otters X Harbor Seals Sea Lions Whales X
Other BIRD EAGLES BIRD SEAT ON BEACH, EVIDENCE OF FORAGING

BIRDS: BIRD EAGLE NEST SITES.

GENERAL OBSERVATIONS: HIGH ENERGY, EXPOSED HEADLAND AREA WITH
BROAD FETCH WILL SELF CLEAN. NO CLEAN-UP NECESSARY

ACE 8707366
Map 3

Rocket Beach on west side of Malina Pt.

- Bedrock
- Vegetation
- Driftwood
- Cobble Beach
- Multiple Benms
- Malina Pt.
- Experiment

- Driftwood carved w/ oil (spat)
- Cobble milled w/ light spat
- 24 wide

ACE 8707368
SHORELINE CLEANUP PROGRAM

DATE 7/12/89

SHORELINE SEGMENT K4-3-RI-3

LOCATION: (see enclosed map) Southwestern end of Raspberry Island

ADEC NO. ____ SHORELINE ASSESSMENT DATE: 7/12/89

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

Priorities/Considerations: Class 5-A

Ecological Constraints (from site survey):

Archaeological Constraints (from site survey):
- If cleanup is planned a full archaeological assessment of this segment must be conducted.

[Signature]
Date: 8-2-89

State Historic Preservation Officer *

EXXON: __________________________ Date: __________________

ISCC: __________________________ Date: __________________

FOSC: __________________________ Date: __________________

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

Date: 12 Jul Time: 18:15-18:40 Observer: Duncan A. Fitzpatrick
Surveyed From: Foot/Boat/Plane/Helio/Plane Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION
Location: Southwestern end of Keyberg 15 Segment ID: 4-3 RF-3
Segment Length: 700 m. Access: Vehicle/Boat/Barge/Plane
Access Restrictions: Most of the shoreline is inaccessible

SHORELINE
Shoreline Type: SPI/SEA/COV/HLD/STRT Wave Exposure: High/Med/Lo
Sediment: B_20_ / C_15_ / P____ / G&S_5_ / M____ / R 50_

OIL
Avg. Degree of Oiling: HEAVY / MODERATE / LIGHT
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

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

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: _____ % H/M/L/VL
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
Splot was only observed at two sections of shoreline; approx 100m in length.
ECOLOGICAL EVALUATION

LOCATION: WEST END OF ASPERITY IS. ROOKERY
SITE: SOUTH OF HAMILT, WORKING EAST
OBERVER: S. BLUESTONE

LOCATION PREFIX: RT SEG. NO.: 3 LENGTH: 48 (M)
DATE: 7/12/89 TIME (HHMM): 18:15-18:40 TIDE HT.: 5.5 - 5.9 FT.

OILED ZONE: Splash High Medium Low (REALLY CLEAN)
SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud (FLEW MOST OF SEGMENT AT VERY LOW ALTITUDE)

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Endocladias and Fucus are M'TE TO LITE; DOMINANT IN ROCKY HEADLAND AREAS BETWEEN SMALL-COBBLE COVER.

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Mytilus edulis found in and around crevasses and interspatial spaces.

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Balanus bulla and B. cariosus dominant spp., slightly larger individuals in LITE.

Littorina: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Smaller snails apparently absent in LITE; numerous in LITE HI and MED. ZONE AREAS APPROX 20 - 4.0 CM.

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Scattered in pools and LITE.

OTHER OBSERVATIONS: STEEP ROCKY CLIFF FACES ABUTTING COBBLY/BOULDERY BEACHES (STEEP CLIFFS). NURSERIES AND BEACH HABITATS HIGH TO MED. ZONE AREAS.

CLEANUP PRECAUTIONS: VERY HARD ACCES; SEA CAVE ENTRANCE TO MOUNDS AND STEEP CLIFFS (NO CLEAN-UP NECESSARY)

MAMMALS: Otters Harbor Seals Sea Lions Whales Other

BIRDS: Gulls, Ravens, Bald Eagles

GENERAL OBSERVATIONS: CLEAN-UP NOT NECESSARY.
SHORELINE CLEANUP PROGRAM

DATE 7/14/89

LOCATION: (see enclosed map) South shore of Raspberry Island.

ADEC NO. K4-3

SHORELINE ASSESSMENT DATE: 7/13/89

Recommended Cleanup Activity(ies):
-Use sorbent pads to wipeup liquid mousse at Ustia Pt. (see map #1).
-Use shovels to remove 20m by 2m band of asphalt mousse immediately east of Ustia Pt.
-Utilize 2-3 man crew, manual, non mechanized equipment.

Priorities/Considerations: Class 5-A
-Very light oil contamination.
-Ecological resources present (otters, eagles) see attached ecological map.
-Evidence of bear activity observed.

Ecological Constraints (from site survey):

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:__________________
ISCC: ____________________________ Date:__________________
FOSC: ____________________________ Date:__________________

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

Date: 12 July 1989  Time: 12:30 - 13:30  Observer: Michael Acton
Surveyed From: Foot/Boat/Eni/Plane  Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION
- Location: SW end of Raspberry Island
- Segment ID: K-4-1-R7-4
- Segment Length: 3700 m. Access: Vehicle/Boat/Barge/Helio/Float Plane
- Access Restrictions: Access only at pocket beaches

SHORELINE
- Shoreline Type: SPI/SEA/COV/ALL/STRT
- Slope: Low/Med/Hi/Vert
- Wave Exposure: High/Med/Low
- Sediment: B 10% / C 40% / P 10% / G&S 20% / M 20% / 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

<table>
<thead>
<tr>
<th>Type</th>
<th>% of Segment</th>
<th>Length (m)</th>
<th>Width (m)</th>
<th>Thickness &gt;1cm</th>
<th>Penetration/Rework</th>
<th>Burial Depth</th>
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</thead>
<tbody>
<tr>
<td>Very light</td>
<td>400</td>
<td>2</td>
<td>Thickness &gt;1cm: cm</td>
<td></td>
<td></td>
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<tr>
<td>Light</td>
<td>20</td>
<td>1</td>
<td>Penetration/Rework: cm</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Moderate</td>
<td>20</td>
<td>1</td>
<td>Burial Depth: cm</td>
<td></td>
<td></td>
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<tr>
<td>Heavy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Mobilization Potential: High/Medium/LOW
- Drift Debris Oiled? Yes
- Amount: H/M/L/VI SU/SP/H/M/L Type: Driftwood

OIL MORPHOLOGY
- Pooled Oil: %
- "Free" Oil: 42%
- Splattered: 4%
- Coated: 4%
- Pancakes/Balls: 2%

- Preliminary Cleanup Est.
  - Total TYPE A: 25 m
  - Total TYPE B: m
  - Total TYPE A/B: m

OIL WEATHERING
- Fresh:%
- Mousse: 2%
- Weathered Mousse: 4%
- Asphalt Mousse: 4%
- Tar: 4%

COMMENTS

ACE 8707377
DOCUMENTATION:

Map/Aerial photo marking segment boundaries Afognak (A-4)

VTR: Y/N Tape Number(s)

Photography: Y/N Roll Number(s) MA1

Sample Numbers Collected: ____________________________
Map 1

- Very light splat on a few cobbles in one spot at SP

- Backshore cliff: Rock cliff, gravel, sand, cobbles

- A - A' 30m

- Photo MA1-17 SW
  MA1-10 NE
up 2

Photo map 20, Ustia Pt in background to W 27 close-up

Very light split, H

Terrace grass A

Photo map 21 to W - 22 to E

Terrace grass

Point

Pocket beach - gravel + cobble

Base of w/ split

and asphalt mousse

2cm x 2cm, H

Ustia Point

Few spots of liquid mousse

and light split

Photo map 23 mousse at Ustia Pt, +w. E

- 24 mousse close-up

- 25 mousse close-up

A grass

tide berm

Gravel + cobble

Erosion scarp

Gravel

A-A' 30m

2 m approx.
Map 3

- V.H. spit at high tide mark from Ustia Pt. W for 200m x 2m, SP
- A - A' 30m
- Erosion scarp
- Cobble
- Sand and gravel

Photo May 24 to W 30 to C. Ustia Pt in background.
7/13 - 0840 assign escort
This 0930 through

First to Tunk Bay to celebrate action
0945 Return toward Kodiak - due to fog
Head toward Osprey Bay
Pass clouded in
Cape clouded in
1005 Turn back to Kodiak
In 15 Land Kodiak

1125 Same Course to Razor Island
Onion Bay Area

1145 Am t. great beam
2 R.O. sh'd 1

Wet Land Area
Cut Drawing

1215 Straight Area

Map 1

STEPPED OVER

Very light sea

A - A' 100' max

Rocks MAI
Photos - 17 Set 3 Map 1 to W tvd area

Set down one box
1220 10 p.m. check
No oil observed

1245 Set down with E at wind Pt.

Bacal C1 in R.O.

Maps 3

PHOTO 2 YARD 50 22 MEL
11/3 - 0910 arrive asp
1115 0930 takeoff

Flew to Isla del Arco to celebrate Acton
0945 Return toward Kodiak - docks

Head toward Ocean Bay
Pass on north
Cape crossed in
1005 Turn back to kodiak
1015 Land Kodiak

1125 Same crew to Raspberry Island

Onion Bay Area

1130 13B west
Area 1 - great beach

13B 12W

1215 set down area 3

Map 1

Set down area 6 13B west - 10mm
no oil obvious

1345 set down jet east of John Pt.

Use Pt. 12 B
begin to w area 8
pocket beam time 349

POOR QUALITY ORIGINAL
Clearing of Ute Pt.
Recommended, but very low priority.
Walked w/ No. 5 to Ro. & back.
and came to W-7.
1520 hrs. left for Jama to Kingston.
Appro 1200 hrs. set down Brent Bushman on.
Arrived back at camp at approx. 1710 by land transport.
ECOLOGICAL EVALUATION

LOCATION: Kodiak
SITE: Raspberry Island
OBSERVER: Penin

LOCATION PREFIX: KT
SEG. NO.: 4
LENGTH: 37.00 (M)

DATE: 07/13/89
TIME (HHMM): 12:03
TIDE HT.: 1.5 (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
Range limited to headlands

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Range limited to headlands - (T) Tactile Response

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Range limited to headlands - (T) Tactile Response

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Range limited to headlands - (T) Tactile Response

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Range limited to headlands - (T) Tactile Response

OTHER OBSERVATIONS: No observed emergent bits on cobble/gravel bedded

CLEANUP PRECAUTIONS: Cleanups should be limited to shoveling + bagging oil and material + wiping of rock surfaces with soapy pads.
Do not use any wash systems as subtidal biota is dense (Paracypsis et al.)
Wear Cleanup Too High for efficient boom placement.
MAMMALS: Otters 10-15 Harbor Seals Sea Lions Whales
Other

BIRDS: Eagles & Nest - See map for location

GENERAL OBSERVATIONS: fox tracks + scat observed on beach

For cleanup, other approved mechanical/dispersion techniques may be applicable and may be used as long as they usage comply with the biological constraints.
COMPLETE

DEC 31 1983

ACE 7963937
SHORELINE CLEANUP PROGRAM

DATE  7/31/89       SHORELINE SEGMENT K4-24-SP-7

LOCATION: (see enclosed map) North Cape Spruce Island

ADEC NO. ___________ SHORELINE ASSESSMENT DATE: 6/11/89

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

Priorities/Considerations:

Ecological Constraints (from site survey):
- No ecological evaluation form is included in this report because this segment was surveyed by helicopter only. If oil becomes evident in this area in the future, an ecological assessment must be done in 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.

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 - KODIAR**

**Date:** 6-11-99  **Time:** 1435  
**Observer:** S. Peckland  
**Weather:** Sun/Cloud/Rain/Snow

**LOCATION**  
**Spurn Island - North Cape**  
**SEGMENT I.D.: K-924-50**

**LENGTH OF SHORELINE SEGMENT:** 1970 m

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

**SHORELINE:**
**Type/Description:** SPI/DEA/COV/HELP/STFT  
**Slope:** LAB/BLAH/CAVE

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

**Sediment:** BSR / CAS / PAS / S ... / M ... / R ...

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

**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:** 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

**OIL MORPHOLOGY**
**Pooled Oil:** Yes/No  
**"Free" Oil:** Yes/No  
**Spattered:** Yes/No  
**H/N/I/IL Sheen:**

**OIL WEATHERING (ON)**
**Fresh Oil:** Yes/No  
**Su/SP/VP/MID/Lo**  
**Choc Mousse:** Yes/No  
**Su/SP/VP/MID/Lo**

**Pancake Mousse:** Yes/No  
**Su/SP/VP/MID/Lo**  
**Asphalt Mousse:** Yes/No  
**Su/SP/VP/MID/Lo**

**Tar Formation:**

**Comments:**

**ACE 8707391**
DOCUMENTATION:

Map/Aerial photo marking segment boundaries: See Attached

VTR: Y/N  Tape Number(s) ____________________________

Photography: Y/N  Roll Number(s) _______________________

Sample Numbers Collected: NA

ACE 8707392
(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/31/89 SHORELINE SEGMENT K4-24-SP-8

LOCATION: (see enclosed map) West side Spruce Island

ADEC NO. SHORELINE ASSESSMENT DATE: 6/11/89

Recommended Cleanup Activity(ies):

Priorities/ Considerations: Class 4-A

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.

[Signature]
State Historic Preservation Officer *
Date: 8/16/89

EXXON: __________________________ Date: ______________

FOSC: __________________________ Date: ______________

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

Date: 6-11-89 / Time: 16:45
Observer: S. Proeland
Surveyed From: Foot/Boat/ Hellic Plane
Weather: Sun/Cloud/Rain/Snow/Drizzle

LOCATION

Location: Spruce Island - Soldier's Bay
SEGMENT I.D.: K-4-24-SP-8

LENGTH OF SHORELINE SEGMENT: __________

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

SHORELINE:

Shoreline Type: SPI (BEACH) HIN/ STRT
Slope: LANG/ LANG/ VER

Wave Exposure: High/Med/Low

Sediment: B/OT / C/JO / P/20 / G/20 / S/20 / M/20 / R/20

Drift Debris on Beach: Yes/ No

SUPRA / UPPER / MID / LOWER Type: Lg / M / L

OIL:

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

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

IL DISTRIBUTION

Continuous: Y/N
Segment: __________ No. Bands: __________ Width: __________

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

Est. Oil Thickness where > 1 cm: __________

Est. Oil Penetration: __________

Layers? Yes / No

No Oil Layers: __________

OIl Weathering: __________

Drift Debris Oiled?: Yes / No

Supra / Upper / Mid / Lower: __________ Amount: H / M / L

OIL MORPHOLOGY

Pooled Oil: __________

"Free" Oil: __________

Spattered: __________

Oil Sheen: __________

OIL WEATHERING (ON)

Fresh Oil: __________

SU / SP / VP / MID / LO Choc Mousse: __________

Fresh Oil: __________

SU / SP / VP / MID / LO Pancake Mousse: __________

Tar Formation: __________

Comments:

K-4-24-SP-8 unit consists of a series of 3 interconnected pools:
broken separated by small rock ledges. Each pocket a characterized by
a thin brown seaweed, like mass of algae. The sand and middle bottom a
made up of gravel and pebbles. The sedimentation a much shallower
in comparison of older sediments. The very discolored oil pools are
found along the high water line. No oil is found on the foreshore.
DOCUMENTATION:

Map/Aerial photo marking segment boundaries  See Attached

VTR: Y/N  Tape Number(s) ________________________________

Photography: Y/N  Roll Number(s) DMC-14

Sample Numbers Collected: N/A
East and Middle Beach Morphology

Representation Profile of East and Middle Beach

West Beach Forest

ACE 8707398

POOR QUALITY ORIGINAL
ECOLOGICAL EVALUATION

LOCATION: WEST SIDE
SITE: SPRUCE IS
LOCATION PREFIX: SP SEG. NO.: 8 LENGTH: 1600 (M)
DATE: 6/11/89 TIME (HHMM): 1620 TIDE HT.: +1.5 (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 Dense on rocky outcropping only
Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N Dense clumps on rocky outcropping only
Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N Dense on rocky outcropping only
Littorina: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N Continuous but not dense on southern most headland.
Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS: Laminaria, rein tide pools, Enochia, Katharine, Seaburk, bull help, eelgrass,

CLEANUP PRECAUTIONS: None

MAMMALS: Otters Harbor Seals Sea Lions Whales Other

BIRDS: Bald eagle

GENERAL OBSERVATIONS: This segment consists of 3 beaches separated by rocky headlands. With the exception of patchy littorins on the southernmost beach, all are devoid of biota. The rocky areas are dense with typical mid-lower ITZ biota. Several mussel potties observed on two northern
SHORELINE CLEANUP PROGRAM

DATE: 6/21/89

SHORELINE SEGMENT SP-9

LOCATION: (see enclosed map) TRIP COVE-NORTHWEST END SPRUCE IS.

ADEC NO. SHORELINE ASSESSMENT DATE: 6/14/89

Recommended Cleanup Activity(ies):

No cleanup recommended at this time subject to FOSC approval.
No oil observed.

Priorities Considerations:

Ecological Constraints (from site survey):

No constraints, since no oil was observed in this segment. If this segment becomes oiled in the future, an ecological assessment will be required.

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 *

ISCC:

EXXON:

FOSC:

Date: 6/24/89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
(version 5/16/89)

**SHORELINE OIL EVALUATION FORM - KONJAR**

**Date:** 6-14-89  **Time:** 13:45  
**Observer:** S. Proland

Surveyed From:  
- [ ] Foot/Boat/Helio/Plane  
- [ ] Weather: Sun/Cloud/Drizzle/Snow/ Fog

**LOCATION**
- [ ] Spouse Island - Trap Cove  
- [ ] Segment I.D. K-4-24-S9

**LENGTH OF SHORELINE SEGMENT:** 2675 m

**ACCESS:**  
- [ ] Foot/Vehicle/Boat/Barge/Helio/Floating Plane

**SHORELINE:**
- [ ] Shoreline Type: SP/BEA/COV/HLD/STK
- [ ] Slope: LARG/HANG/VER

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

**Sediment:**  
- [ ] B10% / C32% / P20% / C20% / S32% / M...% / R...

**Drift Debris on Beach:**  
- [ ] Yes/No  
- [ ] Supra/Upper/Mid/Lower  
- [ ] Type Log/kelp...

**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:**  
- [ ] SU / SP / UP / MLD / TO

**Est. Oil Penetration:**  
- [ ] CM
- [ ] SU / SP / UP / MLD / TO

Layers?  
- [ ] Yes/No  
- [ ] No/1 Layer  
- [ ] Oil Weathering

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

**OIL MORPHOLOGY**

Pooled Oil:  
- [ ] "Free"  
- [ ] Spattered

**OIL WEATHERING (O/W)**

Fresh Oil:  
- [ ] SU/SP/VP/MID/LO  
- [ ] Choc Mousse

Pancake Mousse:  
- [ ] SU/SP/VP/MID/LO  
- [ ] Asphalt Mousse

**Tar Formation**
- [ ]

**Comments:**

- [ ] No oil observed on unit.  
- [ ] Oil observed only by Kodak.  
- [ ] ACE 8707403

ACE 8707403
DOCUMENTATION:

Map/Aerial photo marking segment boundaries  See Attached

VTR:  Y/N  Tape Number(s)  

Photography:  Y/N  Roll Number(s)  DMC-14

Sample Numbers Collected:  N/A
ECOLOGICAL EVALUATION

LOCATION: NW side of Species Site
LOCATION PREFIX: SP
SEG. NO.: 9
LENGTH: 2625 (M)
DATE: 6/14/89
TIME (HMMM): 1345
TIDE HT.: +1.5 (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
Dense + continuous on boulders only - either side of beach

Mussels (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
Dense + continuous on boulders only

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
Continuous on boulders only - either side of beach

OTHER OBSERVATIONS: Seaweed on beach. No oil observed.

CLEANUP PRECAUTIONS:

MAMMALS: Otters Harbor Seals Sea Lions Whales Other

BIRDS:

GENERAL OBSERVATIONS: No oil observed at this time
SHORELINE CLEANUP PROGRAM

DATE: 6/21/89  SHORELINE SEGMENT: SP-10

LOCATION: (see enclosed map) SPRUCE ISLAND-ZAPADNI POINT

ADEC NO. SHORELINE ASSESSMENT DATE: 6/14/89

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

Priorities Considerations:

Ecological Constraints (from site survey):
No ecological evaluation form is included in this report because the segment was surveyed by helicopter only.

Archeological Constraints (from site survey):
If cleanup is conducted, re-evaluation of constraints by DNR/SHPO staff is required. 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

ISCC: __________________________ 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 6/21/89                SHORELINE SEGMENT K4-24-SP-10

LOCATION: (see enclosed map) Spruce Island - Zapadni Point

ADEC NO._________SHORELINE ASSESSMENT DATE: 6/14/89

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):
-No ecological evaluation form is included in this report
because the segment was surveyed by helicopter only.

Archeological Constraints (from site survey):
-If cleanup is conducted, re-evaluation of constraints by
DNR/SHPO staff is required.
-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:__________________

EXXON:__________________________ Date:__________________

FOSC:__________________________ Date:__________________

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

Date: 6/4/89  Time: 1445

Surveyed From: Foot/Boat/Helicopter Plane

Observer: S. Feinberg

Weather: Sunny, Cloudy, Rain, Snow

LOCATION

LOCATION: Spence Island, Zappeni Point

SEGMENT I.D.: K-4-29-SP-10

LENGTH OF SHORELINE SEGMENT: 1312 m

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

SHORELINE:

Shoreline Type: SPI/DEA/COV/HLI/STRT

Slope: LANG/NGAVER

Wave Exposure: High/Med/Low

Sediment: D12, C12, P12, C12, S12, M12, R20

Drift Debris on Beach: Yes/No

SUPRA/Upper, MID/Lower Type Log/kelp

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/1 Layers

Oil Weathering

Drift Debris Oiled? Yes/No  SUPRA/Upper/MID/Lower Amount: H/H/L/L

OIL MORPHOLOGY

Pooled Oil  "Free" Oil  Spattered

Oil Weathering (CW)

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

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

Tar Formation

Comments:

No oil observed in unit K-4-29-SP-10. If oil was oil

sand cleaned out of Pequot Segment 2 complainant.

ACE 8707410
DOCUMENTATION:

Map/Aerial photo marking segment boundaries  

VTR:  Y/N  Tape Number(s) __________________________

Photography:  Y/N  Roll Number(s) __________________________

Sample Numbers Collected:  N/A  

ACE 8707411
Recommended Cleanup Activity(ies):
- Manually remove patches of mousse from the high and middle intertidal zones.
- If approved, use moderate pressure hot water wash with wands and vacuum or sorbents to remove oil penetrated into the angular cobbles on beach 3.
  Use other approved methods as appropriate

Priorities Considerations:
Class 4: light oiling.
Class A: resources present.

Ecological Constraints (from site survey): Work at mid tide and/or take appropriate measures to protect lower intertidal zone. Gently wash snails into lower intertidal zone of beach 3 before washing with hot water and moderate pressure.

Archeological Constraints (from site survey):
No access above high tide line. 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 CLEANUP PROGRAM

DATE: 6/21/89 SHORELINE SEGMENT: K4-24-SP-11

LOCATION: (see enclosed map) Spruce Island - West Zapadni Point

ADEC NO._________ SHORELINE ASSESSMENT DATE: 6/12/89

Recommended Cleanup Activity(ies):
- Manually remove patches of mousse from the high and middle intertidal zones.
- If approved, use moderate pressure hot water wash with wands and vacuum or sorbents to remove oil penetrated into the angular cobbles on beach #3.
- Use other approved methods as appropriate.

Priorities/ Considerations: Class 4-A
- Light oiling, resources present.

Ecological Constraints (from site survey):
- Work at mid tide and/or take appropriate measures to protect lower intertidal zone. Gently wash snails into lower intertidal zone of beach #3 before washing with hot water and moderate pressure.

Archeological Constraints (from site survey):
- No access above high tide line.
- 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.
Date: 6/1/89  Time: 1200  Observer: T. Provost

Surveyed From: Foot/Boat/Helicopter Plane

Weather: Sun, Cloudy, Rain, Snowing

LOCATION
Spitsbergen West Zendezo Point
SEGMENT I.D. K-4-27 SP-11

LENGTH OF SHORELINE SEGMENT: 1909

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

SHORELINE:
Shoreline Type: SPI/SEA/Low/Mid/STRT

Slope: LOW, UNSTABLE

Wave Exposure: High/Med/Low


Drift Debris on Beach: Yes/No

Supra/Upper/Mid/Lower Type Leg / L/P

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

Total Area of Beach Impact: SU / SP / (H) / N / L

OIL DISTRIBUTION
continuous: Y/N  Segment #: 40  No. Bands: #  Width: #

Sporadic: Y/N  Segment #: 40  Min/Max Dia.: #  Impact Width: #

Est. Oil Thickness Where > 1 cm: 1 - 2 cm  SU / SP (UP) / MID / UP

Est. Oil Penetration: 10 - 20 cm  SU / SP (UP) / MID / UP

Layers? Yes/No  No Layers  Oil Weathering  |

Drift Debris Oiled? Yes/No  Supra/Upper/Mid/Lower Amount: H / II / I / N

OIL MORPHOLOGY
Pooled Oil  % "Free" Oil (0%)  Spattered  % II/H/I/VL Shown  %

OIL WEATHERING (ON)
Fresh Oil  % SU/SP/VP/HID/LU Choco Mousse (0)  % SU/SP (UP) / MID / UP

Pancake Mousse  % SU/SP/VP/HID/LO Asphalt Mousse  % SU/SP/VP/HID/LO

Tar Formation  %

Comments:

K-4-27 SP-11: A complex shoreline of alternating headland/point/bay features with a prominent marker, 1st Point, and an oil "pool" near a boat anchor. There was a large "pool" of oil near the marker, 1st Point, and the boat anchor area. The oil was floating and appeared to be a light color. The oil was observed to be floating and covering a large portion of the shoreline. No oil was observed at the beach.

K-4-27 SP-11: No oil was observed at beach. 

End
DOCUMENTATION:
Map/Aerial photo marking segment boundaries  **See Attached**

VTR:  Y/N  Tape Number(s) ____________________________

Photography:  Y/N  Roll Number(s)  DMC-14

Sample Numbers Collected:  N/A
ECOLOGICAL EVALUATION

Spruce Island

LOCATION: West of Zapata Pass

LOCATION PREFIX: SP

SEG. NO.: 11

LENGTH: 1968 (M)

DATE: 6/12/89

TIME (HHMM): 1258

TIDE HT.: +1.5 (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

Littonia

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: Whales, Moluccus mussels. Oil occurring rocks to a depth of several cm. 1/2 the area cotalette here.

CLEANUP PRECAUTIONS: Clean at mid-tide time only to avoid

riding of debris. T2: Start with cool/warm water, low pressure to clean sides and area if possible before applying high pressures.

MAMMALS: Otters Harbor Seals Sea Lions Whales

BIRDS:

GENERAL OBSERVATIONS: 4 beaches in this segment. Beach #3 has

heaviest occurrence of oil in mid-tide zone. Others have at most a

few mone patches in high zone debris. Manual cleanup is already taking

place on Beach #3; potential for manual cleanup.

ACE 8707419
(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 6/21/89    SHORELINE SEGMENT SP-11

LOCATION: (see enclosed map) SPRUCE ISLAND-WEST ZAPADNI POINT

ADEC NO. K4-24 SHORELINE ASSESSMENT DATE: 6/12/89

Recommended Cleanup Activity(ies):
- Manually remove patches of mousse from the high and middle intertidal zones.
  If approved, use moderate pressure hot water wash with wands and vacuum or sorbents to remove oil penetrated into the angular cobbles on beach 3.
  Use other approved methods as appropriate

Priorities Considerations:
  Class 4: light oiling.
  Class A: resources present.

Ecological Constraints (from site survey): Work at mid tide and/or take appropriate measures to protect lower intertidal zone. Gently wash snails into lower intertidal zone of beach 3 before washing with hot water and moderate pressure.

Archeological Constraints (from site survey):
No access above high tide line. 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 *

ISCC:

EXXON:

FOSC:

Approved for Type A cleanup to remove surface contamination prior to any Type A washing operation route through RISCC.

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

Date: June 24, 1989

Date: 

Date: 7/1/89.

Date: 7/10/89

ACE 8707422 -/
SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): KODIAK-SPRUCE ISLAND NORTHWEST BLOCK

Includes Shoreline Segments: SP-9, SP-10, SP-11

Submitted: ____________________ Date: 7/1/89
(for Exxon)

ISCC Recommendation: ____________________ Date: __________

FOSC Approval: ____________________ Date: 7/1/89

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
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SHPO
SPRUCE ISLAND NORTHWEST BLOCK
SP-9, SP-10, SP-11
SHORELINE OIL EVALUATION FORM - KONTAR

Date: 6/1/89  Time: 1:30  Observer: S. Peel

Surveyed From: Foot/Boat/Helicopter Plane

LOCATION

Location: Spire Island  Pt. 9  Segment I.D. K-4-24-SPT11

Length of Shoreline Segment: 196 Yards

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

Shoreline Type: SPI/DEA/COW/HLD STER  Slope: LAND/HANGOVER

Wave Exposure: High/Med/Low

Sediment: B.O.D / C.60% / P.20% / C.20% / S.20% / M.10% / R.10%

Drift Debris on Beach: [ ] Yes  [ ] No

Drift Debris Oiled? [ ] Yes  [ ] No

OIL

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

Total Area of Beach Impact: SU / SP / [ ] U / [ ] L

OIL DISTRIBUTION

Continuous: [ ] Segment 1  [ ] No. Bands  [ ] Width

Sporadic: [ ] Segment 1  [ ] 40 Min/Max Diameter 5-25

Est. Oil Thickness where > 1cm: [ ] 1-3 cm  SU / SP / [ ] UP / [ ] MID / [ ] LO

Est. Oil Penetration: [ ] 10-20 cm  SU / SP / [ ] UP / [ ] MID / [ ] LO

Layers? [ ] Yes  [ ] No  Layers: [ ] Oil Weathering:

Drift Debris Oiled? [ ] Yes  [ ] No

OIL MORPHOLOGY

Pooled Oil [ ] "Free" Oil [ ] Spattered [ ] H/H/L/VL Sheen

OIL WEATHERING (OW)

Fresh Oil [ ] SU/SP/VF/MID/LO Choc Mousse [ ] SU/SP/LO

Fancake Mousse [ ] SU/SP/VF/HLD/LO Asphalt Mousse [ ] SU/SP/LO

Tar Formation [ ]

Comments: ACE 8707425

[Handwritten notes on the form]

Date 6/1/89  Time 1:30  Observer S. Peel

Surveyed From: Foot/Boat/Helicopter Plane

Location: Spire Island  Pt. 9  Segment I.D. K-4-24-SPT11

Length of Shoreline Segment: 196 Yards

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

Shoreline Type: SPI/DEA/COW/HLD STER  Slope: LAND/HANGOVER

Wave Exposure: High/Med/Low

Sediment: B.O.D / C.60% / P.20% / C.20% / S.20% / M.10% / R.10%

Drift Debris on Beach: [ ] Yes  [ ] No

Drift Debris Oiled? [ ] Yes  [ ] No

OIL

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

Total Area of Beach Impact: SU / SP / [ ] U / [ ] L

OIL DISTRIBUTION

Continuous: [ ] Segment 1  [ ] No. Bands  [ ] Width

Sporadic: [ ] Segment 1  [ ] 40 Min/Max Diameter 5-25

Est. Oil Thickness where > 1cm: [ ] 1-3 cm  SU / SP / [ ] UP / [ ] MID / [ ] LO

Est. Oil Penetration: [ ] 10-20 cm  SU / SP / [ ] UP / [ ] MID / [ ] LO

Layers? [ ] Yes  [ ] No  Layers: [ ] Oil Weathering:

Drift Debris Oiled? [ ] Yes  [ ] No

OIL MORPHOLOGY

Pooled Oil [ ] "Free" Oil [ ] Spattered [ ] H/H/L/VL Sheen

OIL WEATHERING (OW)

Fresh Oil [ ] SU/SP/VF/MID/LO Choc Mousse [ ] SU/SP/LO

Fancake Mousse [ ] SU/SP/VF/HLD/LO Asphalt Mousse [ ] SU/SP/LO

Tar Formation [ ]

Comments: ACE 8707425

[Handwritten notes on the form]
DOCUMENTATION:
(A) Aerial photo marking segment boundaries  See Attached

VTR: Y/N Tape Number(s) ________________________________

Photography: Y/N Roll Number(s) DHC - 4

Sample Numbers Collected: ________________________________
ECOLOGICAL EVALUATION

LOCATION: Spruce Island
SITE: 

LOCATION PREFIX: SP SEG. NO.: 11 LENGTH: 1968 (M)

DATE: 6/12/89 TIME (HHMM): 1250 TIDE HT.: +1.5 (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: Whales, Motiling mussels. Oil occurring on rocks to a depth of several cm. Healthy snail population here.

CLEANUP PRECAUTIONS: Clean at mid-tide time only to avoid working of debris. ITZ. Start wash with cold/warm water or low pressure to dissolve crude out of snails if possible before applying high pressure.

MAMMALS: Otters Harbor Seals Sea Lions Whales

BIRDS: 

GENERAL OBSERVATIONS: 4 beach in this segment - Beach #3 is

ACE 8707428
(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE __6/29/89__ SHORELINE SEGMENT ___SP-12____

LOCATION: (see enclosed map) ___WEST SIDE SPRUCE ISLAND____

ADEC NO. _______ SHORELINE ASSESSMENT DATE: ___6/15/89____

Recommended Cleanup Activity(ies):
Manually remove chocolate mousse in beach areas.
Use sorbents to manually clean oiled rocky head and areas.

Priorities Considerations:
Low, due to degree of oiling (light) and minor to no impact to biota.

Ecological Constraints (from site survey):
Manual removal of mousse patches and sorbent wiping of rocky surfaces will not adversely impact biota.

Archeological Constraints (from site survey):
Exxon supervisor required during cleanup activity to ensure that crew activity is restricted to the beach zone as per "Operational Guidelines for Shoreline Cleanup" (p.54), Kodiak Response Plan (May 2, 1989). 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 ___Douglas Regan___ Date: __6/29/89__

EXXON: _______________________________ Date: ____________

FOSC: _______________________________ Date: ____________

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
(version 5/16/89)  

**SHORELINE OIL EVALUATION FORM - KONTAR**

**Date:** 6-15-89  
**Time:** 08:57

**Surveyed From:** Foot/Boat/Plane  
**Weather:** Sun/Cloudy

**LOCATION**  
**LOCATION** Spruce Island  
**SEGMENT I.D.** K-4-24-SP-12

**LENGTH OF SHORELINE SEGMENT:** <250 m

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

**SHORELINE:**  
**Shoreline Type:** SPI/SEA/COV/STR/STRT  
**Slope:** LAN/G/VA/VER

**Wave Exposure:** High/Mod/W

**Sediment:** B/I/A / C32t / P29t / C20t / S20t / M-8 / R

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

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

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

**OIL DISTRIBUTION**

- **Continuous:** Yes  
- **Segment:** 1  
- **No. Bands:** 1  
- **Width:**

**Sporadic:** Yes  
- **Segment:** 1  
- **Min./Max. Dia.:** 6  
- **Impact Width:**

**Est. Oil Thickness where:**  
- **Where:**  
- **SU/SP/UP/MID**

**Est. Oil Penetration:**

**Layers:** Yes/No  
- **Layers:**

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

**OIL MORPHOLOGY**  
**Pooled Oil**  
**"Free" Oil**  
**Spattered:**

**OIL WEATHERING (OW)**  
**Fresh Oil**

**Pancake Mousse**

**Tar Formation**

**Comments:**

---

**K-4-24-SP-12**

- primary morphology is pocket beached

ACE 8707432
SHORELINE CLEANUP PROGRAM

DATE 6/29/89                  SHORELINE SEGMENT  SP-12

LOCATION: (see enclosed map) WEST SIDE SPRUCE ISLAND

ADEC NO. K4-24     SHORELINE ASSESSMENT DATE:  6/15/89

Recommended Cleanup Activity(ies):
Manually remove chocolate mousse in beach areas.
Use sorbents to manually clean oiled rocky head and areas.

Priorities Considerations:
Low, due to degree of oiling (light) and minor to no impact to biota.

Ecological Constraints (from site survey):
Manual removal of mousse patches and sorbent wiping of rocky surfaces will not adversely impact biota.

Archeological Constraints (from site survey):
Exxon supervisor required during cleanup activity to ensure that crew activity is restricted to the beach zone as per "Operational Guidelines for Shoreline Cleanup" (p.54). Kodiak Response Plan (May 2, 1989). 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: 6/29/89

FOSC: Date: 7/1/89

Date: 7/10/89

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

Date: 6-15-89  Time: 0857  Observer: S. Pealand
Surveyed From: Foot/Boat/Helicopter Plane  Weather: Sun/Cloud/Rain/Snow

LOCATION
LOCATION  Spruce Island  SEGMENT I.D.  K-4-24-SP-12

LENGTH OF SHORELINE SEGMENT: 250 m
ACCESS: Foot/Vehicle/Boat/Barge/Helicopter/Float Plane

SHORELINE:
Shoreline Type: SPI/BEACH/LID/STRIP  Slope: LANG/HANG/VER
Wave Exposure: High/Med/Lo
Sediment: B/0% / C30% / P20% / G20% / S20% / M-10 / R  ...
Drift Debris on Beach: Yes/No  Upper/Mid/Lower Type Log/kelp

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 6 cm  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 Weakening
Drift Debris Oiled? Yes/No  Upper/Mid/Lower Amount: H / M / L

OIL MORPHOLOGY
Roiled Oil  "Free" Oil  Spattered/Sp %  H/H/L/VP Sheen %

OIL WEATHERING ( flow)
Fresh Oil  SU/SP/VP/MID/LO  Choc Mousse 20%  SU/SP/VP/HM/LO
Pancake Mousse  %  SU/SP/VP/MID/LO  Asphalt Mousse  %  SU/SP/VP/HM/LO
Tar Formation  %

Comments:
K-4-24-SP-12 unit - primary morphology on pocket beaches:
- separated by small areas of humps
- part of beach
- turned to be oil stained
- hole turned
- observed to be oil stained
- pocket beaches from oil
- no observed to be oil.
DOCUMENTATION:

Map/Aerial photo marking segment boundaries [ ] See Attached[

VTR: Y N Tape Number(s) 

Photography: Y N Roll Number(s) DMC-14

Sample Numbers Collected: N/A
ECOLOGICAL EVALUATION

LOCATION: Spruce Island SITE: ___________ OBSERVER: D. McCormick

LOCATION PREFIX: SP SEG. NO.: 12 LENGTH: 5250 (M)

DATE: 6/15/89 TIME (HHMM): 0900 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

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

OTHER OBSERVATIONS: Green and brown in tide pools, sculpin, kelp, encrusting sponges, starfish, abalone

CLEANUP PRECAUTIONS: None

MAMMALS: Otters Harbor Seals Sea Lions Whales

BIRDS: ___________

GENERAL OBSERVATIONS: oil occurs mostly as mauve patelles in high and low T.Z., some light oiling on rocky areas.
SHORELINE OIL EVALUATION FORM - KONTAR

Date: 4-15-89 / Time: 1000
Surveyed From: Foot/Boat/Helip/Plane
Weather: Sun/Cloud/Rain/Snow

LOCATION
LOCATION: West side of Spoon Island
SEGMENT I.D. K-4-27-SP-13
LENGTH OF SHORELINE SEGMENT: 1528 m
ACCESS: Foot/ Vehicle/ Boat/Barge/Helip/Float Plane

SHORELINE:
Shoreline Type: SPI/COV/HD/STRT
Slope: LANG/FLAT/VER

Wave Exposure: High/Med/Low
Sediment: B20 / C20 / P25 / S25 / M / R

Drift Debris on Beach: Yes/No
Supra/Upper/Mid/Lower Type 1

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

Total Area of Beach Impact: SU / SP / HI / MI / L

OIL DISTRIBUTION
Continuous: ¥/$ Segment ______ No. Bands ______ Width ______
Sporadic: ¥/$ Segment ______ Min/Max Dia ______ Impact Width ______

Est. Oil Thickness where > 1 cm: ______
Est. Oil Penetration: ______ cm
Layers? Yes/No

Drift Debris Oiled? Yes/No

OIL MORPHOLOGY
Pooled Oil ______ "Free" Oil ______ Spattered/Spatter/Cirrus

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

Pancake Mousse ______ SU/SP/VP/MID/LO Asphalt Mousse ______
Tar Formation ______

Comments:
The primary morphology of unit K-4-27-SP-13 is low rocky
breakdown cliffs with partly weathered pockets below. Most of the
oil occurrences were spread out on the high/mid tidal zone. There
was no evidence of the related mousse, puddle, or sheen. Oil
deposits on the beach surface were sparse in penetration of 1-2 cm.

ACE 8707441
I (version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE: 6/29/89 SHORELINE SEGMENT: SP-13

LOCATION: (see enclosed map) WEST SIDE OF SPRUCE ISLAND

ADEC NO. SHORELINE ASSESSMENT DATE: 6/15/89

Recommended Cleanup Activity(ies):
Manually remove the mousse from the high and mid tide areas. Use sorbents to remove oil from stained rock surfaces in rocky areas.

Priorities Considerations:
Low, due to degree of oiling (light) and minor no impact to biota.

Ecological Constraints (from site survey):
Manual cleanup using sorbent pads is preferred to washing oil from rocky headland to avoid wholesale removal of tide pool organisms.

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

Date: 6/29/89

EXXON: ____________________________ Date: ____________

FOSC: ____________________________ Date: ____________

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

Date: 6-15-97 / Time: 1003
Surveyed From: Foot/Boat/ Helio/Plane
Weather: Sun/Cloud/Sky

LOCATION
Location: Unc. side of Spook Island
Segment I.D.: K-4-24-SP-13

LENGTH OF SHORELINE SEGMENT: 1525 m

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

SHORELINE:
Type: SPI/SEA/COV/MID/STRT
Slope: LAN/G/HA/VER
Wave Exposure: High/Med/Lo

Sediment: B20t / C20t / F24t / G25t / S...t / M...t / R...t

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

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

Total Area of Beach Impact: SU/SP/SH/CH/L

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

Sporadic: Y/N Segment & SQ Min/Max Dia Impact Width

Est. Oil Thickness where > 1cm: L1 cm SU/SP/UP/HI/IN

Est. Oil Penetration: 0-20 cm SU/SP/UP/HI/IN

Layers? Yes/No

Drift Debris Oiled? Yes/No Supt/Upper/Mid/Lower Amount: H/H/C

OIL MORPHOLOGY:
Pooled Oil & "Free" Oil & Spattered/Log & H/H/1/1/3 Shown

OIL WEATHERING (ON):
Fresh Oil & SU/SP/VP/MID/LO Choc Mousse, 12 & SU/SP/VP/1/10
Pancake Mousse & SU/SP/VP/MID/LO Asphalt Mousse & SU/SP/VP/1/10

Tar Formation &

ACE 8707445

Comments:
The primary mobility of unit K-4-24-SP-13 is low rocky
beach and tidal flat. Small pools and areas of mud flats
exist in the area. The oil was mostly scattered on
the surface. There were no pools or areas of 

Tar Formation.
DOCUMENTATION:

Map/Aerial photo marking segment boundaries [See Attached]

VTR: Y N Tape Number(s) 7

Photography: Y/N Roll Number(s) DMC-14

Sample Numbers Collected: N/A
(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6/29/89  SHORELINE SEGMENT SP-13

LOCATION: (see enclosed map) WEST SIDE OF SPRUCE ISLAND

ADEC NO. 134-2  SHORELINE ASSESSMENT DATE: 6/15/89

Recommended Cleanup Activity(ies):
Manually remove the mousse from the high and mid tide areas.
Use sorbents to remove oil from stained rock surfaces in rocky areas.

Priorities Considerations:
Low, due to degree of oiling (light) and minor no impact to biota.

Ecological Constraints (from site survey):
Manual cleanup using sorbent pads is preferred to washing oil from rocky headland to avoid wholesale removal of tide pool organisms.

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.

Date: 6/29/89

State Historic Preservation Officer *

EXXON: Date: 7/1/89

* FOSC: Date: 7/16/89

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

ACE 3707443 +/
DOCUMENTATION:

- Aerial photo marking segment boundaries: See Attached

VTR: Y/N Tape Number(s)

Photography: Y/N Roll Number(s) DMC-14

Sample Numbers Collected: N/A
ECOLOGICAL EVALUATION

LOCATION: Spruce Island SITE: ___________ OBSERVER: D. McCuin
LOCATION PREFIX: SP SEG. NO.: 13 LENGTH: 1525 (M)
DATE: 6/15/89 TIME (HHMM): 1000 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: Green seaweeds; a few oiled barnacles + snails on rocky headland

CLEANUP PRECAUTIONS: ____________

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

BIRDS: ____________

GENERAL OBSERVATIONS: Mousse on rocky headland - should be removed with solvent rather than washing; one mousse patch in splash zone
SHORELINE CLEANUP PROGRAM

DATE 7/31/89

SHORELINE SEGMENT K4-25-SP-3

LOCATION: (see enclosed map) North east side Spruce Island

ADEC NO. SHORELINE ASSESSMENT DATE: 6/10/89

Recommended Cleanup Activity(ies):
- No cleanup is recommended due to very light oiling (3 mousse patties) and ecological constraints discussed below. Subject to FOSC reassessment at a later date.

Priorities/ Considerations:

Ecological Constraints (from site survey):
- Due to the very light oiling a cleanup effort should not be undertaken. There is no evidence of oil stressed biota in this diverse segment and the mid - low intertidal zone should not be disturbed.

Archeological Constraints (from site survey):
- If cleanup is conducted an archaeological monitor is required during cleanup.
- 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: 8/16/89

EXXON: Date:

FOSC: Date:

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

Date: 6-12-99 / Time: 1500
Surveyed From: Foot/Boat/HHOp Plane
Observer: S. Peralta

Weather: Sun/Cloud/Rain/Snow

LOCATION
Location: Secure Island - NE Corner
Segment I.D.: K-4-25-50-3

LENGTH OF SHORELINE SEGMENT: 4800 m

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

SHORELINE:
Shoreline Type: SPI/SEA/OV/HID/STRT
Slope: LANG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B/01 / C/30 / P/01 / G/20 / S/20 / M/1 / R/1

Drift Debris on Beach: Yes/No

Supra/Upper/Mid/Lower Type Log

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

Total Area of Beach Impact: SU / SP / H / O / I

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 / U / M / L

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 / U / M / L

OIL MORPHOLOGY
Pooled Oil: "Free" Oil

LO / Spattered: Oil

SU / SP / VP / MID / LO

Choc Mousse: O / Hi

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

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

Tar Formation: O / Hi

Comments:

K-4-25-50-3 is a low cliff / rock / wall with well developed proclivity. The debris can lie up to 50 feet / longer than the rock. Some of the debris has been blown onto the beach. The debris has been washed up on the rock. It is difficult to see. The surf is up, and the tide is rising. ACE 8707454

POOR QUALITY ORIGINAL
DOCUMENTATION:

Aerial photo marking segment boundaries See Attached

VTR: Y/N Tape Number(s) ____________________________

Photography: Y/N Roll Number(s) DMC-14

Sample Numbers Collected: N/A
ECOLOGICAL EVALUATION

SPRUCE ISLAND

LOCATION: North East Side
SITE: ___________ OBSERVER: D. M. C. REYNOLDS

LOCATION PREFIX: SP SEG. NO.: 3 LENGTH: 4800 (M)

DATE: 01/10/89 TIME (HHMM): 1500 TIDE HT.: + 1.0 (M)

DEPRESSED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

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

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

Attornia

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

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

OTHER OBSERVATIONS: Enchytraeidae, green sea anemones, Katharina, Lepiltia, Halichondria, sponges

CLEANUP PRECAUTIONS: None

MAMMALS: Otters Harbor Seals Sea Lions Whales Other

BIRDS: gulls, bald eagle

GENERAL OBSERVATIONS: Increase in particulate observed by SCAT Team in this segment. Very rich in microalgae. Very dense, degree of oiling does not warrant cleanup effort.
(version 5/02/89)

**SHORELINE CLEANUP PROGRAM**

**DATE** 6/11/89

**SHORELINE SEGMENT** K4-25-SP-4

**LOCATION:** (see enclosed map) **Spruce Island - east side of Knee Cove**

**ADEC NO.** _____ **SHORELINE ASSESSMENT DATE:** 6/11/89

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

Priorities/Considerations: Class 5-A

Ecological Constraints (from site survey):
- This segment is too dense with healthy, non-oil stressed biota to warrant cleanup of three patches of mousse.

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 *

Date: 8/4/89

EXXON: ____________________________ Date: __________________

FOSC: ____________________________ Date: __________________

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
Date: 6-11-99  Time: 12:30  Observer: S. Pealevi  
Surveyed From: [Foot] Boat [Helic] Plane  
Weather: [Sun] Cloud [Rain] Snow [fog]  

LOCATION  
Spruce Island out of Fort, CA  
SEGMENT I.D. K-4-25-SP-4  
LENGTH OF SHORELINE SEGMENT: 2425 m  

SHORELINE:  
Shoreline Type: SPI [BEA] [COV] [HLD] [STRT]  
Slope: [LANG] [HANG] [VER]  
Wave Exposure: [High] Med [Low]  
Sediment: B 35% / C 35% / P 10% / G 10% / S 10% / M 5% / R 5%  
Drift Debris on Beach: [Yes] [No]  
Supra [Upper] Mid [Lower] Type Log [help]  

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

OIL DISTRIBUTION:  
Sporadic: [Y] [N] Segment #: [Min] Max Dia: 3-4 cm 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]  

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:  
ACE 8707460  

K-4-25-SP-4 Hi amid in a high cliff area (10-50m)  
Littoral shell debris: < 200mm. Littoral fauna: Cherax, etc. Some shell pieces were seen primarily composed of shells and pebbles with a few Fossil material and sand. The oil was almost non-visible, a total of 50  

Store and move objects were observed. No driving made due to  

K. remove shoreline debris. No one. Drive on cliff surface  
In summary: The beach debris were found at high water line.
DOCUMENTATION:

Map/Aerial photo marking segment boundaries See Attached

VTR: Y/N Tape Number(s) 

Photography: Y/N Roll Number(s) DMC-14

Sample Numbers Collected: N/A
**ECOLOGICAL EVALUATION**

**LOCATION:** SPRUCE ISLAND  
**SITE:**  
**LOCATION PREFIX:**  
**SEG. NO.:** 4  
**LENGTH:** 2625 (M)  
**DATE:** 6/1/89  
**TIME (HHMM):** 1110  
**TIDE HT.:** +1.5 (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  
**Polana (Barnacles):** Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N  
**Littoria:** 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:** Halichondria sp., sea urchins, star.  

**CLEANUP PRECAUTIONS:** None  

**MAMMALS:** Otters  
**HARBOR SEALS**  
**SEA LIONS**  
**OTHER** Fox, bear tracks on one beach  
**BIRDS:**  
**GENERAL OBSERVATIONS:** Fin beak, patches observed in this segment. Spanish mackerel in birds to warrant a cleanup effort.
SHORELINE CLEANUP PROGRAM

DATE 6/11/89

SHORELINE SEGMENT K4-25-SP-4

LOCATION: (see enclosed map) Spruce Island - east side of Knee Cove

ADEC NO. ________ SHORELINE ASSESSMENT DATE: 6/11/89

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

Priorities/Considerations: Class 5-A

Ecological Constraints (from site survey):
- This segment is too dense with healthy, non-oil stressed biota to warrant cleanup of three patches of mousse.

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 *

Date: 8/14/89

EXXON: ___________________________ Date: ______________

FOSC: ___________________________ Date: ______________

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

**Date:** 6-11-89  **Time:** 10:30  **Observer:** S. Peal...

**Surveyed From:** Foot/Boat/Helix/Plane  **Weather:** Sun/Cloud/Rain/Snowing

**LOCATION**

**Location:** Spruce Island - off K. Gren  **Segment I.D.:** K-4-25-SP-4

**Length of Shoreline Segment:** 2625 m

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

**SHORELINE:**

Shoreline Type: SPI/BEACON/HID/STRAT  **Slope:** LANG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B35% / C35% / P10% / G10% / S10% / M40% / R10%

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

**OIL**

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

Total Area of Beach Impact: SU/SP/MLM/L

**OIL DISTRIBUTION**

Continuous: Y/N  Segment #: No. Bands Width

Sporadic: Y/N  Segment #: Min/Max Dia 3/4 cm Impact Width

Est. Oil Thickness where > 1cm: cm

Est. Oil Penetration: cm

Layers? Yes/No  No of Layers Oil Weathering

Drift Debris Oiled? Yes/No  Supra/Upper/Mid/Lower Amount: II/III/IV/V

**OIL MORPHOLOGY**

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

**OIL WEATHERING (ON)**

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

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

Tar Formation

ACE 8707460

**Comments:**

K-4-25-SP-4 His work in a high cliff area (10-50m)

With poorly developed pockets. Objects were scattered over the area, primarily composed of twigs and sticks, with a few pieces of geodesically attached. The oil was not concentrated in one area, but rather, spread out across the area. Shovelable mounds were observed. No drawing made due to

No complex shoreline. The shoreline was viewed from a high vantage point.

POOR QUALITY ORIGINAL
DOCUMENTATION:

Map/Aerial photo marking segment boundaries See Attached

VTR: Y/N Tape Number(s) ____________________________

Photography: Y/N Roll Number(s) DMC-14

Sample Numbers Collected: N/A
ECOLOGICAL EVALUATION

LOCATION: SPRUCE ISLAND  SITE: __________  OBSERVER: D. McCormill
LOCATION PREFIX: SP  SEG. NO.: 4  LENGTH: 2625 (M)
DATE: 6/11/89  TIME (HHMM): 1110  TIDE HT.: +1.5 (M)
DIELLED 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: Halichondria sp., sponges, bull kelp, kelps, red

mosses, barnacle kelp (snag) on beach

CLEANUP PRECAUTIONS: None

MAMMALS: Otters  Harbor Seals  Sea Lions  Whales

Other  Fox, deer tracks on one beach

BIRDS:

GENERAL OBSERVATIONS: Immune patties observed in this segment. Support

risk in bits to warrant a cleanup effort.
SHORELINE CLEANUP PROGRAM

DATE: 7/31/89        SHORELINE SEGMENT K4-25-SP-6

LOCATION: (see enclosed map) East side Spruce Island

ADEC NO. ___________ SHORELINE ASSESSMENT DATE: 6/11/89

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

Priorities/ Considerations:

Ecological Constraints (from site survey):
- No ecological evaluation form is included in this report because this segment was surveyed by helicopter only. If oil becomes evident in this area in the future, an ecological assessment must be done in 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: ___________________ Date: 8/14/89

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 - KONDIAK

Date: 5-11-99 / Time: 1620

Surveyed From: Foot/Boat/Heli/Plane

Observer: S. Prasad

Weather: Sun/Cloud/Rain/Snow

LOCATION

Spruce Island - East N. Cape

SEGMENT I.D. K-4.25-21-LG

LENGTH OF SHORELINE SEGMENT: 797.5 m

ACCESS: Foot/Boat/Heli/Float Plane

SHORELINE:

Shoreline Type: SPI/SEA/BEAC/COVE/HID/STR

Slope: LAUG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: BJSW / CJSW / P/LI / L/CJ / S/OI / M... / R...

Drift Debris on Beach: Y/N 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

OIL MORPHOLOGY

Pooled Oil "Free" Oil Spattered Oil HI/HI/VI VL Sheen

OIL WEATHERING (OW)

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

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

Tar Formation

Comments:

ACE 8707472
DOCUMENTATION:

Map/Aerial photo marking segment boundaries: See Attached

VTR: Y/N Tape Number(s) ____________________________

Photography: Y/N Roll Number(s) ________________________

HMBB Numbers Collected: N/A ________________________

ACE 8707473
(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE ___7/31/89___ SHORELINE SEGMENT K4-25-SP-5

LOCATION: (see enclosed map) Spruce Island - Knee Cove

ADEC NO. ___________ SHORELINE ASSESSMENT DATE: ___6/11/89___

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

Priorities/ Considerations: Class 5-B

Ecological Constraints (from site survey):
- This segment is too dense with healthy, non-oil stressed biota to warrant cleanup of a few patches of mousse.

Archeological Constraints (from site survey):
- If cleanup is conducted an archaeological monitor is required prior to and during cleanup.
- 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.
SHORELINE OIL EVALUATION FORM - KONJAR

Date: 6-11-99 / Time: 14:05
Surveyed From: [ ] Foot / [ ] Boat / [ ] Helo / [ ] Plane
Observer: S. Roeland

Weather: [ ] Sun / [ ] Cloudy / [ ] Rain / [ ] Sleet

LOCATION
Nature Island - Knife Cove
SEGMENT I.D. K-4.25-5C-5

LENGTH OF SHORELINE SEGMENT: 2000 m
ACCESS: [ ] Foot / [ ] Vehicle / [ ] Boat / [ ] Barge / [ ] Helo / [ ] Float Plane

SHORELINE:
Shoreline Type: SPI / SEA COV / MID / STRT
Slope: [ ] LNG / [ ] HNG / [ ] VER

Wave Exposure: [ ] High / [ ] Med / [ ] Low


Drift Debris on Beach: [ ] Yes / [ ] No

Supra / [ ] Upper / [ ] Mid / [ ] Lower Type 4...

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

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

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 / [ ]

OIL MORPHOLOGY
Pooled Oil: [ ] "Free" Oil / [ ] Spotted / [ ] M / [ ] H / [ ] L / [ ] VL Sheen: [ ]

OIL WEATHERING (ON)
Fresh Oil: [ ] SU / [ ] SP / [ ] VP / [ ] MID / [ ] LO
Choco Mousse: [ ] SU / [ ] SP / [ ] VP / [ ] MID / [ ] LO

Pancake Mousse: [ ] SU / [ ] SP / [ ] VP / [ ] MID / [ ] LO
Asphalt Mousse: [ ] SU / [ ] SP / [ ] VP / [ ] MID / [ ] LO

Tar Formation: [ ]

Comments:

ACE 8707477

The oil was seen at high water...
DOCUMENTATION:

Map/Aerial photo marking segment boundaries \textit{See Attached}

VTR: Y/N Tape Number(s) \\

Photography: Y/N Roll Number(s) DMC-14 \\

Sample Numbers Collected: N/A
ECOLOGICAL EVALUATION

LOCATION: E. Side Spruce Is.  SITE:  OBSERVER: J. M. Conly
LOCATION PREFIX: SP  SEG. NO.: 5  LENGTH: 2000 (M)
DATE: 6/11/89  TIME (HHMM): 1405  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
  Dense in Balika Cove, discontinuous in Knee Bay

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
  Dense in Balika Cove, discontinuous in Knee Bay

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: dew, leeches, tube worms, Euvselina, Pteraster, etc.
  Insects, nodules, mussels; extensive clam beds in Balika Cove

CLEANUP PRECAUTIONS: None

MAMMALS: Otters  Harbor Seals  Sea Lions  Whales
  Other

BIRDS:

GENERAL OBSERVATIONS: Only very light marine traffic in Balika Cove.
  Support drone with boat and clean up activity should not be involved.

ACE 8707479

POOR QUALITY ORIGINAL
SHORELINE CLEANUP PROGRAM

DATE 7/31/89 SHORELINE SEGMENT K4-25-SP-6

LOCATION: (see enclosed map) East side Spruce Island

ADEC NO. _______ SHORELINE ASSESSMENT DATE: 6/11/89

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

Priorities/Considerations:

Ecological Constraints (from site survey):
- No ecological evaluation form is included in this report because this segment was surveyed by helicopter only. If oil becomes evident in this area in the future, an ecological assessment must be done in 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.

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 - KONTAK

Date: 6-11-91 / Time: 1620

Surveyed From: Foot/Boat/Plane

Weather: Sun/Cloud/Rain/Overcast

LOCATION

Spruce Island - East No. M. Cape

SEGMENT I.D. K-4-25-34-6

LENGTH OF SHORELINE SEGMENT: 717.5 ___m

ACCESS: Foot/Boat/Barge/Plane

SHORELINE:

Shoreline Type: SPI/BEA/COV/HID/STRK

Slope: LANO/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B.35% / C.55% / P.10% / G.12% / S.10% / 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 > 1cm: ___cm

SU/SP/UP/HID/LO

Est. Oil Penetration: ___cm

SU/SP/UP/HID/LO

Layers? Yes/No

No Layer: ___ Oil Weathering: ___

Drift Debris Oiled? Yes/No

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

OIL MORPHOLOGY

Pooled Oil: ___ "Free" Oil: ___ Spattered: ___ H/W/V/VL Sheen: ___

OIL WEATHERING (OW)

Fresh Oil: ___ SU/SP/VP/HID/LO

Choc Mousse: ___ SU/SP/VP/HID/LO

Pancake Mousse: ___ SU/SP/VP/HID/LO

Asphalt Mousse: ___ SU/SP/VP/HID/LO

Tar Formation: ___

Comments:

ACE 8707483
**DOCUMENTATION:**

- Aerial photo marking segment boundaries **See Attached**

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</table>
SHORELINE CLEANUP REASSESSMENT

DATE__6/22/89__ REASSESSMENT DATE:__6/11/89__

SHORELINE SEGMENT__SP-1R________

PURPOSE FOR REASSESSMENT:________________________________________

Revised Recommended Cleanup Activity(ies):
Manually remove patches of mousse.

Revised Ecological Constraints: Work at mid tide or take appropriate measures to protect middle and lower intertidal zone. Cleanup crews should avoid rocky areas on south end of beach. Limit size of cleanup crews to minimize damage to diverse dense biota. No ATV's allowed on beach.

Revised Archeological Constraints:
Backshore areas extremely sensitive from both cultural resources and current ownership status. Absolutely keep personnel on seaward side of storm berms, if cleanup becomes necessary. 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: __6/27/89__

EXXON: ___________________________ Date: ______________

FOSC: ___________________________ Date: ______________

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

K-4-26

DATE 6-10-89 SHORELINE SEGMENT SP-1

LOCATION: (see enclosed map) Southeast End Spruce Island - Icon Bay

ADEC NO. SHORELINE ASSESSMENT DATE: 6/10/89

Recommended Cleanup Activity(ies):

No manual cleanup of the mussel spits and Pancakes.

Priorities Considerations: None.

Ecological Constraints (from site survey): This segment is very diverse and very dense with mid-low ITZ Biotas. Cleanup activities of the very patchy mussel patches would disturb biota in tide pool areas and mussel beds. Although there are no threatened or endangered species occurring here, the diversity/density of ITZ biota precludes cleanup activities.

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.

EACKSHORE AREAS EXTREMELY SENSITIVE FROM BOTH CULTURAL RECORD AND CURRENT OWNERSHIP STATUS. ABSOLUTELY KEEP PERSONNEL ON SEAWARD SIDE OF STORM BARRS IF CLEAN-UP BECOMES NECESSARY.

State Historic Preservation Officer

Date: 5/1/89

EXXON: ___________________________ Date: ___________________________

FOSC: ___________________________ Date: ___________________________

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

ACE 8707488
SHORELINE OIL EVALUATION FORM - KONTAR

Date: 6-10-89 / Time: 1000

Surveyed From: (Foot/Boat/Helicopter) Plane

Weather: (Sun) Cloud/Rain/Encounter

LOCATION

Spruce Island - Isaac Bay

SEGMENT I.D. SP-1

LENGTH OF SHORELINE SEGMENT: 2625 m

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

SHORELINE:
Shoreline Type: SPI/BEACH COVE/CLIFF/STRET

Slope: LARGE/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B20t / C20t / P20t / C20t / S20t / M20t / R20t

Drift Debris on Beach: Yes/No

Supra, upper, mid, lower Type Log/Tree

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. / cm Impact Width 15-22 cm

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

OIL MORPHOLOGY

Pooled Oil ___ "Free" Oil 100% Spattered Oil ___ H / M / L / VL Showing

OIL WEATHERING (OM)

Fresh Oil ___ SU / SP / VP / MID / LO Choc Mousse 90% SU / SP / VP / MID / LO

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

Tar Formation ___

Comments:

*ACE 8707489*

K-4 26 SP-1: is a very complex morphology unit comprised of a large area bordered by low natural cliffs and forest areas, connected by large dunes. The break is composed of broken, sandy beaches, and natural barriers, the entire beach being covered by flat sand and logs, with sand, trees, and brush. All of the evident oil products excepted Socorro are oil on the surface of old oil, a broad oil, with some observed in the area. In the very spread cases, large pockets of oil were observed due to the complex nature of the structure on the Astoria side.
DOCUMENTATION:

Map/Aerial photo marking segment boundaries

VTR: Y/N Tape Number(s)

Photography: Y/N Roll Number(s) DMC-14

Sample Numbers Collected: N/A
ECOLOGICAL EVALUATION

ICON BAY
SOUTH EAST SIDE

LOCATION: S企FROCE ISLAND SITE: OBSERVER: D. McCauley

LOCATION PREFIX: SP SEG. NO.: 1 LENGTH: 2625 (M)
DATE: 6/10/89 TIME (HHMM): 1050 TIDE HT.: +1.5 (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: Deer tracks, crabs, fish, jellyfish, red green crabs, spherical Halichondria, sponges, Kapparonia tunicata, Blasto, Metridia, clam shells, crabs shells

CLEANUP PRECAUTIONS: No clean-up should take place here. Although there are no threats to endangered species here, the birds in the mid-low ITZ will be disturbed by a group of people walking all over the tide pools near mussel beds looking for the occasional mussel patty

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

BIRDS: Bald eagle, gulls on offshore rocky islands

GENERAL OBSERVATIONS: Oil occurring here is good chloride mousse. Residue in site previous day - no signs of weathered oil patches and no signs of oil-stressed birds. This segment is very rich in diverse birds and the very light occurrence of mousse here is not enough to warrant clean-up.

ACE 8707491
SHORELINE CLEANUP PROGRAM

DATE: 7/31/89

SHORELINE SEGMENT K4-26-SP-2

LOCATION: (see enclosed map) East side Spruce Island - Icon Bay

ADEC NO. __________

SHORELINE ASSESSMENT DATE: 6/10/89

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

Priorities/Considerations:

Ecological Constraints (from site survey):
-This segment is very diverse and very dense with mid-low intertidal biota and no evidence of oil stress. This, in conjunction with the extremely light oiling does not warrant a cleanup effort.

Archeological Constraints (from site survey):
-No access to upland zone.
-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 FORM - KONTAK

Date: 4-27-89 Time: 14:30 Observer: E. Poland

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

LOCATION
Spruce Island: Off of Point In Fort Cm SEGMENT I.D.: K-4-26-SP-2

LENGTH OF SHORELINE SEGMENT: 2180 m
ACCESS: Foot/Vehicle/Boat/Barge/Helicopter/Float Plane

SHORELINE:
Shoreline Type: SPI/DEA/Cove/STRK Slope: Lang/Hangover

Wave Exposure: Med/High/Low

Sediment: B25t / C25t / P25t / G20t / S10t / M_2t / R

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

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

Total Area of Beach Impact: S / S / P / H / L

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

Sporadic: Y/N Segment #: Min/Max Dia. 3 cm Impact Width 3 cm

Est. Oil Thickness where > 1 cm: cm SU / SF / 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 / L

OIL MORPHOLOGY
Pooled Oil "Free" Oil 100% Spotted 100% H / M / L / VL Shown

OIL WEATHERING (ON)
Fresh Oil SU/SP/VP/MID/LO Choc Mousse (62%) SU/SP/VP/LO

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

Tar Formation

Comments:

K-4-26-SP-2 is a rock cliff unit with a seaward sloping surface (15-25°). The intertidal area is covered with a mixture of seaweed, rockweed, gravel, and sand. Drift was present on the shore and extended into the water. Drift was noted on the beach in varying amounts and was present on the rocks. No additional notes.

ACE 8707495

POOR QUALITY ORIGINAL
DOCUMENTATION:
- Map/Aerial photo marking segment boundaries See Attached

VTR: Y/N  Tape Number(s)

Photography: Y/N  Roll Number(s) DMC-14

Sample Numbers Collected: N/A
ECOLOGICAL EVALUATION

LOCATION: SPAUCE ISLAND
SITE: 
SEG. NO.: 2
LENGTH: 2180 (M)
DATE: 6/10/89
TIME (HMM): 13:55
TIDE HT.: +0.5 (M)

LOCATION PREFIX: SP
SIT&: OILSPRED: J.

DATE: f9
TIMI (HHMM): 1355
TID&

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: Exuviae, Katharina torrente, bull belp, anemees (grey-
red), Helichrothea spongic, Leptasterias starfish; sea fox (2)

CLEANUP PRECAUTIONS: None

MAMMALS: Otters Harbor Seals Sea Lions Whales
Other red fox (2)

BIRDS:

GENERAL OBSERVATIONS: One otter was pretty observed by SCAT Team;
Due to the density and diversity of sea life, low TID efforts
should take place for this segment

ACE 8707497
SHORELINE CLEANUP PROGRAM

DATE 8/21/89

LOCATION: (see enclosed map) Kalsin Island

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

Recommended Cleanup Activity(ies):
- No cleanup recommended due to very light oiling and ecological constraints.

Priorities/Considerations: Class 5-A

Ecological Constraints (from site survey):
- No cleanup is recommended due to the sensitivity of the area: dense, healthy intertidal zone fauna and bird populations; very little oiling on the entire island.

Archaeological Constraints (from site survey):
- Access to vegetated upland areas is restricted. Restrict personnel from cabins or other structures on island.
- 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 21 April, 1989 as amended.

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

Date: 9 July 89  Time: 0939  Observer: BRYAN TRIMM
Surveyed From: Foot/Boat/Helio/Plane  Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION
Location: KALSI ISLAND EAST COAST KEDAIKA ISLAND  Segment ID: KS-7-21
Segment Length: 3320 m. Access: Vehicle/Boat/Barge/Helio/Float Plane
Access Restrictions: Watch out for bad roadway

SHORELINE
Shoreline Type: SPI/BET/CON/VERT/STRST  Slope: Lo/Med/Hi/Vert
Wave Exposure: High/Med/Low
Sediment: B 25% / C 25% / P 25% / G&S 5% / M 1% / R 2%  

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

OIL DISTRIBUTION
<table>
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<th>Continuous % of Segment</th>
<th>SU/SP/H/M/L</th>
<th>H/M/L/VL</th>
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</thead>
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<tr>
<td>Sporadic % of Segment 0.1</td>
<td>SU/SP/H/M/L</td>
<td>H/M/L/VL</td>
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<tr>
<th>Total</th>
<th>Length (m)</th>
<th>Width (m)</th>
<th>Thickness &gt;1cm</th>
<th>cm</th>
<th>SU/SP/H/M/L</th>
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<td>Moderate</td>
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<tr>
<td>Heavy</td>
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</tbody>
</table>

Mobilization Potential: High/Medium/Low

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: | % H/M/L/VL |
| Coated: | % H/M/L/VL |
| Pancakes/Balls: | % |

OIL WEATHERING

| Fresh: | % SU/SP/H/M/L |
| Mousse: | % SU/SP/H/M/L |
| Weathere Mousse: | % SU/SP/H/M/L |
| Asphalt Mousse: | % SU/SP/H/M/L |
| Tar: | % SU/SP/H/M/L |

COMMENTS

Very few mousse patches in 9-1/2 mile section shown. Oil deposits are not covered, reworked or penetrated into the beach substrate. Only found mousse density of one patch per 15-25 sm. Patches have a diameter of 3-6 sm.

Preliminary Cleanup Est.  

<table>
<thead>
<tr>
<th>TYPE</th>
<th>A:</th>
<th>m</th>
</tr>
</thead>
<tbody>
<tr>
<td>TYPE B:</td>
<td>m</td>
<td></td>
</tr>
<tr>
<td>TYPE A/B:</td>
<td>m</td>
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DOCUMENTATION:

- Aerial photo marking segment boundaries (See Attach.)

VTR: Y/N   Tape Number(s)

Photography: Y/N   Roll Number(s)  Dim-19 / LMC 24

Sample Numbers Collected: N/A
ECOLOGICAL EVALUATION

LOCATION: KALSIN IS   SITE:   OBSERVER: D. McCarron
LOCATION PREFIX: KS   SEG. NO.: 1   LENGTH: 3320 (M)
DATE: 7/9/89   TIME (H:MM): 0945   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   Other

BIRDS:

GENERAL OBSERVATIONS:

ACE 8707503
91 July 89

0700 Talk to Nat (523EM Pilot) About today's FLT Sched

0730 Move Furniture

0800 Office Paperwork

0900 Exxon Command - Flt Plan w/ Sara

0929 LV ABR in Route to Kalsin

0939 LD Kalsin Is [K5-7-KI-1]

Few mouse patties (can we mouse mitz)
on c/b/p beach lo energy wave survey
occasional w/c/p beach - clean
3/c/p have more mouse patties

3-15cm, one patty Aug 15-30cm apart (on range) bird rookery (E.89E)

Walk around Kalsin Is, V. LT Splat
On all but mouse patty Aug 15 to 30m apart w/ 3-15cm MOA.

1105 I fly to Queen Is, LD & Walk
While best team on Kalsin Is.
SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): K5-7

Includes Shoreline Segments: KS-1, KS-2, KN-1, QI-1

Location: Kalsin Bay, Kalsin Island, Queer 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 8/20/89  SHORELINE SEGMENT K5-7-KS-1

LOCATION: (see enclosed map) Kalsin Bay

ADEC NO. _______ SHORELINE ASSESSMENT DATE: 7/19/89

Recommended Cleanup Activity(ies):
- No cleanup recommended due to very light oiling and presence of ecological constraints. This determination is subject to FOSC reassessment at a later date.

Priorities/Considerations: Class 5-A
- No access by helicopter.

Ecological Constraints (from site survey):
- Sensitive resources/species present include dense bird population, anadromous fish, and rich clam beds. Any cleanup activities are expected to be more detrimental to these resources than the present minimal impact of oil.

Archaeological Constraints (from site survey):
- If cleanup is conducted an archaeological monitor is required during cleanup.
- If cleanup is conducted and heretofore undiscovered cultural materials are uncovered, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 21 April, 1989 as amended.

State Historic Preservation Officer *  Date: 8/22/89

EXXON: ___________________________ Date: ________________

FOSC: ___________________________ Date: ________________

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

D. General
10. Access: Foot/Vehicle/Boat/Barge/Helio/Float Plane
11. Total Percentage of Segment Accessible: 100%
12. Access Restrictions: NO ACCESS BY HELIO R/C OF CABINS, HOUSES, CHIPS

B. Shoreline
13. Shoreline Type: SPH/BIVA/COV/MLD/STR/CLE/DAF
14. Slope:  LANG/HANG/VERT
15. Wave Exposure:  HIGH/MED/LOW
16. Sediment: B/IS / C/LC / POET / CLS / S3T / M2T / R1T
17. Drift Debris on Beach: Yes/No  Sup/Upper/Mid/Lower

Oil Summary
18. Degree of Oiling: Heavy/Moderate/Light  Very Light/No Oil Observed

19. Area of Beach Impact: Width of Band: 3 yds
   Continuous: Total % of Segment 0
   Sporadic: Total % of Segment 5
   No Oil: Total % of Segment 19.5

20. Est. Oil Thickness where >1in: 0 in  21. Est. Oil Penetration: 0 in

22. Pooled Oil: 0  "Free" Oil: 0  Coated: H.O. % / M.O. % / L.O.

23. Fresh 0  Mousse 65  Tar Formation: 35

24. Drift Debris Oiled? Yes/No Sup/Up/Mid/Low Amount: H/M/L

Comments:
SEGMENT CONSISTS MOSTLY OF SPA BEACHES. OILING IS
VERY LIGHT & SCATTERED AND HAS POTENTIAL FOR NATURAL
WASHING

SEE PAGE 2 FOR SUPPLEMENTAL INFORMATION
**SUPPLEMENTAL SHORELINE OIL EVALUATION**

### 25. Oil Type

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<th>Type</th>
<th>%</th>
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<td>Fresh</td>
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<tr>
<td>Mousse</td>
<td></td>
</tr>
<tr>
<td>Weathered</td>
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<tr>
<td>Tar</td>
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</table>

### 26. Total Oil Coverage

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<th>Oil Type</th>
<th>Length (yd)</th>
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<td>60</td>
<td>3</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Heavy</td>
<td></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>Type</th>
<th>Total Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>TYPE A</td>
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</tr>
<tr>
<td>TYPE B</td>
<td>0 yds.</td>
</tr>
<tr>
<td>TYPE A/B</td>
<td>0 yds.</td>
</tr>
</tbody>
</table>

### 29. Remobilization Potential: High/medium/low

**DOCUMENTATION:**

- Map/Aerial photo marking segment boundaries
- VTR: Y/N Tape Number (s): None
- Photography: Y/N Roll Number (s): $\text{Re}^2$

**Additional Comments:**
POOR QUALITY ORIGINAL
LOCATION 10: CLEW W FLOTATION J 10
SPREAD ON ROD/1 N. 1/2 - N' - C. - M 1/2 M 3/5/11
MILL/1 M' - LOG 1/1
VEG. HAPPIER R. 12/1 M 1/2 M 1/2 M 1/2

PLACE N'T. 1/1. 1/1. LOG 1/1
PLACE N'T. 1/1. 1/1. LOG 1/1

3/5/11

CONTINUE KB-1

PLACE N'T. 1/1. LOG 1/1

PLACE N'T. 1/1. LOG 1/1

PLACE N'T. 1/1. LOG 1/1

PLACE N'T. 1/1. LOG 1/1

PLACE N'T. 1/1. LOG 1/1

PLACE N'T. 1/1. LOG 1/1

PLACE N'T. 1/1. LOG 1/1
4NPLK: SCARCE OR COVERS - EIP/E B J & A M / P -
S - SPECIFIC NUMBER 1977 - 14
(VEE WEEHAGE)

CLiff w/DIN - VEE NW-EER 2 MONTA -

ACE 8707512
POOR QUALITY ORIGINAL
ECOLOGICAL EVALUATION

LOCATION: Kalsin Bay
SITE: Kalsin Bay
OBSERVER: SM Ban

LOCATION PREFIX: K-S-7
SEG. NO.: KB-1
LENGTH: 1040 (M)

DATE: 8/17-8/19
TIME (HHMM): 1225 (E)
TIDE HT.: + 3/8 (M)

OILED ZONE: Splash High Medium Low Extensively light to discontinuous

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

Generally sparse with a few dense patches on rock outcrops

Dune oil D. Also Haloferax and alginum

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

Generally sparse; however, very dense beds in gravel at pooldock

Valvaria: None oiled

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

Adults dense especially on boulder areas. Spot dense in localized patches often on cobble/pebble beaches. Very few Dr. van Velzen

Littorina

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

Very dense in some tidal pools and on small drift wood pieces in upper 772. Also found on Fucus fronds. None other

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

Several individuals found in upper 772. None others

OTHER OBSERVATIONS: Many strong locotrottes tests onshore also sand, cockle and butter clam shells on beaches indicative of clam beds offshore. Tidal pools in rocky areas support Fragaria, Antipatharia, and coralline algae. Pools numerous but not highly diverse in fauna.

CLEANUP PRECAUTIONS: No cleanup recommended. Sensitve resources

In this area include dense bird population, numerous fish and offshore clam beds. Restrict access to the entire segment

MAMMALS: Otters Harbor Seals Sea Lions Whales

Deer Skull Other 3 Date Porpoise - of which we estimated

BIRDS: List of birds off shore - see map for location and attached page for detailed birds population in segment.

GENERAL OBSERVATIONS:

No organisms in this segment were impacted by oil

ACE 8707514
Ecological Evaluation (cont)

**Birds:** Birds observed on 8/7/89 in a large raft formation included:
- Tufted Puffins
- Pigeon Guillemots
- Black-legged Kittiwakes
- Cormorants
- Scoters
- and Glaucoo-winged gulls.

Others birds seen in segment included:
- Oyster catchers
- Cross
- Arctic terns
- Greater Yellowlegs
- Marbled Murrelet
- and New gulls
KS-7 SEGMENT KB-1
AUGUST 7: 12:25 - 15:25
AUGUST 8: 11:25 - 13:30
KARDIGIAN FLOODPLAIN

Creek

Leesburg

Utesister
(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/21/89          SHORELINE SEGMENT K5-7-QI-1

LOCATION: (see enclosed map) Queer Island

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

Recommended Cleanup Activity(ies):
- No cleanup recommended, no oil observed.

Priorities/Considerations:

Ecological Constraints (from site survey):
- No ecological assessment form is included in this report because team biologist was not present in helicopter when survey was done.

Archaeological Constraints (from site survey):
- Archaeological assessment not conducted. If cleanup is planned, a full archaeological assessment must be conducted prior to cleanup.
- If cleanup is conducted and heretofore undiscovered cultural materials are uncovered, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 21 April, 1989 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: 11:09  Observer: Bryan Trim
Surveyed From: Foot/Boat/Heli/Plane  Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION
Location: Little Jumper Gulf Bay F. Cont. Kad Rekey  Segment ID: KS-7-QI
Access Restrictions: Closed/Restricted

SHORELINE
Shoreline Type: SPI/SEM/COV/MLD/STRT  Slope: Med/Hi/Vert
Wave Exposure: High/Med/Low  Sediment: B25% / C25% / P25% / G&S 5% / M 10% / R 25%

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: _______ _______ Penetration/Rework:______ cm SU/SP/H/M/L
Light: _______ _______ Burial Depth:______ cm SU/SP/H/M/L
Moderate: _______ _______ Mobility Potential: High/Medium/Low
Heavy: _______ _______ 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:______ % 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
No Oil Observed From A Very Low Altitude (20 Feet) And Slow, Exceptional Bird REsists. No Archeological/Biological Survey.

Preliminary Cleanup Est.
Total TYPE A:______ m
Total TYPE B:______ m
Total TYPE A/B:______ m
<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:00</td>
<td>Flight Over</td>
<td>$5.7.01-N$</td>
</tr>
<tr>
<td>11:00</td>
<td>Pt. Bucket Beaches</td>
<td>$12/14$ of $28$ Oils</td>
</tr>
<tr>
<td>11:00</td>
<td>OvtCps - Sand/Dirt, Big Rockyay</td>
<td>Flying at 3000' to 200'</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No Observed Oiling Can Be Seen</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Layman confuse, glossy, black, brown rocks with oil</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Another WGC</td>
</tr>
<tr>
<td>11:16</td>
<td>Pick Up Rest of Team</td>
<td>Go to</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Campbell Lagoon, $12$ of $3$ Pt</td>
</tr>
<tr>
<td>11:52</td>
<td>KG-17 - MP-7</td>
<td>Cape Ugart to Minos's Pt</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cloudy, Flyover</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cape Ugart - Rocky Vert Hold</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Plymoor - Zofit @</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P/TA - Clean up, Hitz, Beach</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LD Above, Clean up, Talk to Them</td>
</tr>
</tbody>
</table>

**Sunday, July 29**

- Land by Jet Net Site. They are cleaning Fm. 32/14, Kalyan In. |
- This segment with Tupro (spelling) |
- USCG supplied them effectively removes features & Choc, mouse (225% removal) from rock faces |
- Boundary/Coast/Plq beach has a 2 to 3m wide zone of impact in Hitz |
- Weather (37%) & calm (50%) make
- Weather (37%) & calm (50%) make
- Found from LT Spot to Medboat |
- Greatest accumulations in between |
- Boulders 4 in cracks & crevices |
- Even on cloudy day, a slight
- Hydrocarbon smell apparent (yes - in far from the helio) |
- Penetration to 5 cm, no recovery/burial |
- Mousse up to 2.5 cm thick (in between) boulders |
- Set Netters report a 'waxer/soapy' substance in H2O. They will try to give us sample |
- Before we leave their site
SHORELINE CLEANUP PROGRAM

DATE 8/21/89  SHORELINE SEGMENT K5-7-K8-2

LOCATION: (see enclosed map) Kalsin Bay

ADEC NO. SHORELINE ASSESSMENT DATE: 7/13/89

Recommended Cleanup Activity(ies):
- Remove 15 polybags of oiled stones and debris stored under
  tree on beach at site #2 (see map, OG notes).
- Remove oiled debris and mousse patties at sites #5 and #7
  within the segment (see map).

Priorities/Considerations: Class 5-A

Ecological Constraints (from site survey):
- Remove debris bags. Keep cleanup crew number to a minimum.

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 21 April, 1989 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

A. General
6. Location: KALVIN BAY  7. Segment #: KS-7 - KB-02
10. Access:  Foot/Vehicle/Boat/Barge/Helio/Float Plane
11. Total Percentage of Segment Accessible: 100 %
12. Access Restrictions: NEARSHORE ROCKS, STEEP CLIFF

B. Shoreline
13. Shoreline Type: SPI/BEA/COV/HLD/STRT/CLF/DAF
14. Slope:  LANG/HANG/VERT
15. Wave Exposure:  HIGH/MED/LOW
16. Sediment:  BAY / CLOt/ PLDT / G10t S5t / M5t / R55t
17. Drift Debris on Beach:  Yes/No Supra/Upper/Mid/Lower Type
C. Oil Summary
18. Degree of Oiling:  Heavy/Moderate/Light/Very Light/No Oil Observed
19. Area of Beach Impact: Width of Band: N/A yds
   Continuous: Total % of Segment
   Sporadic: Total % of Segment 10
   No Oil: Total % of Segment 90
22. Pooled Oil:  _% "Free" Oil: _% Coated: H_/M_/L_/ 
23. Fresh _% Mousse _% Oil Tar Formation: _% 
24. Drift Debris Oiled? Yes/No Sup/Up/Mid/Low Amount: V.WHT/H/M/L

Comments:

SEE PAGE 2 FOR SUPPLEMENTAL INFORMATION

ACE 8707527
SUPPLEMENTAL SHORELINE OIL EVALUATION

25. Oil Type

<table>
<thead>
<tr>
<th>Type</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh</td>
<td>70</td>
</tr>
<tr>
<td>Mousse</td>
<td>30</td>
</tr>
<tr>
<td>Weathered</td>
<td>100</td>
</tr>
</tbody>
</table>

26. Total Oil Coverage

<table>
<thead>
<tr>
<th></th>
<th>Length (yd)</th>
<th>Width (yd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Light</td>
<td>1,500</td>
<td>N/A</td>
</tr>
<tr>
<td>Light</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heavy</td>
<td></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.

Total TYPE A: 500 yds.
Total TYPE B: 500 yds.
Total TYPE A/B: 500 yds.

29. Remobilization Potential: High/Medium/Low

DOCUMENTATION:

Map/Aerial photo marking segment boundaries

VTR: Y

Photography: Y

Additional Comments:

ACE 8707528
August 13/89

SEGMENT KS-7-RB-02

11:47 Commerce SAT survey
   Started at Brad Point
   - 10-20 m rock cliff / boulders / beach
   - mixing, pebbles / small depressions
   - mostly pebble sized gravel
   - stones - HTZ
   - small, square oiled stones
   - V. A. C. in water
   - mixing, square oil puddle
   - NB Approx 10-15 pints of oiled pebbles have been stored temporarily at the base of the tree along the shore at the south end of beach
   - must be removed

Stop # 1 @ 11:53
   - 200 m long, pebble/cobble beach
   - narrow (10-20m) HTZ
   - very little debris
   - 1-2 tarballs (1/2" dia)
   - 2-3 pieces of oiled driftwood
   - very light oil (extremely light)

Stop # 2 @ 12:15
   - 100 m long, pebble/cobble beach
   - driftwood log on beach and
   - oiled tarballs
   - beach has oil on stones / sand
   - it appears that some pebbles have been cleaned up and saved

Stop # 3 @ 12:45
   - 20 m HTZ
   - No oil observed

Rich Gilhe
Aug 13/89

KS-7 KB-02 cont

Stop #6  14:40
- 200 m long beach w/ odors
- rock debris, steep boulder shine
- gravel/cobble/pebble
- large stream culvert and
- clean approach to road to
- Kalmar Bay

Stop #5  13:15
- 400 m long boulder beach
- no wind, long waves
- no oil observed

Stop #4  13:35
- 100 m beach, SE of Wayfauce Ch
- gravel/sand
- low tide sand flat
- very minor oil splatter
- no cobble in R/L
- essentially no oil
- some oil debris has been moved
- walk 1/2 into along beach
to head of bay
- algal aurea 200m gravel beach
- boulder/cobble/pebble substrate
to the east
- no oil observed
- evidence of previous clean-up
- no recent oil splatter
- no cleanup!
Aug 13/89
Step 2 (cont)
- Continue walking head of bay
- Coastal / pebble beach
- Wide, dogs, and
- Essentially NO oil
- Road access
- Some cleanup appears to have
- Occurred at head of
- Very light oil residue
- Very light oil at oiled
- Spots on cables in HT2

15:39 Check out grummen
- No oil observed
LOCATION: Kodiak Island  
SITE: Kalsin Bay  
OBSERVER: Andew

LOCATION PREFIX: K5-3  
SEG. NO.: KB-2  
LENGTH: 16,190 (M)

DATE: 08/13/71  
TIME (HH:MM): 11:50  
TIDE HT.: +1.5 (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

Turfing point dense, forms in bands in bay less dense. Patchy on cobble, boulder, sand. Sub tidal. Nereocystis toward point.

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

Dense bands toward point. Less dense but continuous in bay. Found on large cobble.

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

Often under rocks, dense in areas with drifting kelp.

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

Few small limpets found under rocks

OTHER OBSERVATIONS: Gammarus most prevalent in cobble boulder

CLEANUP PRECAUTIONS: No precautions other than removal of debris bags.

Keep Cleanup crew small and remove tops 3 cm only.

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

OTHER  Harbor Porpoise

BIRDS: Gullimaso, Kittiwakes, Gulls, Puffins, St-Eagles, Plegic Cormorants.

GENERAL OBSERVATIONS:

ACE 8707532
Stop #2 - Remove 15 poly bags of oiled stones stockpiled under tree or beach.
SHORELINE CLEANUP PROGRAM

DATE  8/02/89  SHORELINE SEGMENT K6-5-UP-1

LOCATION: (see enclosed map)  Mesa rocks - East point, Ugak Passage, Kodiak Island

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

Recommended Cleanup Activity(ies):
- No cleanup recommended due to the ecological constraints listed below and the very small accumulations of oil deposits. Subject to FOSC reassessment at a later date.

Priorities/Considerations:  Class 5-A

Ecological Constraints (from site survey):
- No oil stressed fauna were seen in this segment.
- Area is too sensitive biologically to warrant cleanup.

Archaeological Constraints (from site survey):
- If cleanup is planned, inspection by an archaeological monitor is required in this segment.

State Historic Preservation Officer *
Date:  7/4/89

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 July 89 / Time: 1122  Observer: Bryan Trim
Surveyed From: Foot/Boat/Helio/Plane  Weather: Sun/CLOUD/Rain/Snow/Fog

LOCATION

Location: Mesa Rocks - Far R U barren - Recent- Koma-Is  Segment ID: K6-5-1P-1
Segment Length: 300 m.  Access: Vehicle/Boat/Barge/Helio/Float Plane
Access Restrictions: None

SHORELINE

Shoreline Type: SPI/BEA/COV/HLL/STRT  Slope: Lo/Med/Hi/Vert
Wave Exposure: High/Med/Low
Sediment: B 20% / C 10% / P 5% / G&S 5% / M ___% / R 60%

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 0  SU/SP/H/M/L  H/M/L/VL
Sporadic % of Segment 0.21  SU/SP/H/M/L  H/M/L/VL

Total

Very light: ____________  Length(m)  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
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: ____________  H/M/L/VL  SU/SP/H/M/L

OIL WEATHERING

Fresh: ____________  SU/SP/H/M/L
Mousse: ____________  SU/SP/H/M/L
Weathered Mousse: 100%  SU/SP/H/M/L
Asphalt Mousse: ____________  SU/SP/H/M/L
Tar: ____________  SU/SP/H/M/L

COMMENTS

Very light splattered or weathered mousse in high intertidal splash zone. Oilings is very hard to find. Amounts should not warrant a cleanup crew. Note near a set-net cabin.

Preliminary Cleanup Est.

Total TYPE A: ________ m
Total TYPE B: ________ m
Total TYPE A/B: ________ m

ACE 870753b
DOCUMENTATION:

- Aerial photo marking segment boundaries: See ATTACH.

VTR:    Y/N    Tape Number(s)  
Photography:  Y/N    Roll Number(s): DMC-19
Sample Numbers Collected:  N/A
0730 - Office collate maps
   call in time
0815 - LV for airport
0843 - LV AD9 - Uganik Is.
0915 - LD Uganik Is (UG 2?) work crew
   (ERNO/VELO) by SET 2010. Find out
   ("/"") game plan for this area
   (SHALLOW)
   WAIT til 1020 for ERNO rep
   TALK black crew the estimate
   714:45 (1:45) to clean UG 2
   - TALK SHALLOW (ERNO rep - M & L later)
   - Plans to what Uganik. Have my
     knowledge won't know right.
1044 - LV for other SCAT team (ERNO)
   Tell them we are doing East Pt
   East on S. coast Uganik Passage
1048 - LD & talk to Duncan's SCAT team.
1106 - FLY to East Pt
1118 - LD at East Pt (S. coast Uganik Passage)
   (on Kodiak Island coast).
1122 UP-1 (Ucanik Passage)
East Pt to East along S. coast
of Kodiak Island.

East Pt (Mesa Rock) V.LT SAAT H17Z/SP
within 10,000 pence impact

Mesa Rocks is V.LT SAAT in H17Z/SP
Approx 0.01% of beach weathered stone
Hold - VTRock / 60%R 30%B 10%C 5%G

1650 E UP-2 (beyond Arch and We Arch)
(No oiling)

Drift Loc- SP V.LT Oil
Loc - Vert Rock B/C P/1011
1 small core

OCCASIONAL V.LT SAAT HIT F 0.1%
CAME AS UP-1

1235 - UP-3
10%S%G 30%P 40%C 20%B
LT/med coat oil in w/die sized 5 cm
5 cm thick in sp/Beach loc x Beach
Undiv consolidated bluish bedrock in back

Drift loc - LRT/med SP Zone
C-WD Drift - LT/med coat - H17Z/SP

Quest in C-WD oiled or decay

5 ft NETTER claim decaying, C-WD is oiled.
Could not always agree (I think decomposition)
But in several places PEB BEACH is W/O/C-WD
C-WD Drift is oiled
ECOLOGICAL EVALUATION

LOCATION: LEGANE PASSAGE
SITE: ___
SEG. NO.: ___
LENGTH: 360 (M)

DATE: 7/7/89  TIME (HHMM): 1130  TIDE HT.: +0.35 (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: Attuiguania; clam nest; shells, Tintepheus; nipili, T. den.
Haliotis, Calliostoma, Lamps, Ex SOLUTION, E. elliptica, Mytilus, Turbo, avilia,
Tucaella, nyctihevus, pink encrusting algae

CLEANUP PRECAUTIONS: None. Do not attempt to clean.

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

OTHER ___  Otters ___  Harbor Seals ___  Sea Lions ___  Whales ___

BIRDS: ___  ___  ___  ___  ___

GENERAL OBSERVATIONS: Oil conditions are very light, erupting, spread. No oil observed. No
patches on few boulders. No oil sheen. No birds observed. To continue
an assess to warrant cleanup.

ACE 3707541
SHORELINE CLEANUP PROGRAM

DATE  8/02/89  SHORELINE SEGMENT K6-5-UP-2

LOCATION: (see enclosed map)  East point, Uganik Passage, Kodiak

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

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

Priorities/Considerations: Class 5-A

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

Archaeological Constraints (from site survey):
-If cleanup is planned, inspection by an archaeological monitor is required in this segment.

State Historic Preservation Officer  
Date: 8/6/89

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 July 89 / Time: 1150
Surveyed From: Boat/Helio/Plane
Observer: Bryan Trim
Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION
Location: East Point Ugan, Parage, Komal Island
Segment ID: K10 - 5 - UP?
Segment Length: 1600 m. Access: Vehicle/Grab/Barge/Float-Helio/Plane
Access Restrictions: None

SHORELINE
Shoreline Type: SPI/BEA/COV/HLD/STRT
Slope: Lo/Mod/Hi/Vert
Wave Exposure: High/Mod/Low
Sediment: B 20% / C 20% / P 20% / G&S 20% / M 10% / R 20%

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

OIL DISTRIBUTION
Continuous % of Segment C SU/SP/H/M/L H/M/L/VL
Sporadic % of Segment 0.1 SU/SP/H/M/L H/M/L/VL

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

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

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
Occasional very light splatter in High Intertidal Zone. One small Chocolate Mousse Patty in mid Intertidal Zone very light splatter (a couple of splatters) on splash logs.

Preliminary Cleanup Est.

TYPE A: m
TYPE B: m
TYPE A/B: m

ACE 8707544
DOCUMENTATION:

Map/Aerial photo marking segment boundaries

VTR: Y/N Tape Number(s)

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

Sample Numbers Collected: N/A

ACE 8707545
11:22 UP-1 (UGANIK PASSAGE)
East Pt to East along S. coast
of Kodiak Island

East Pt (Mes Rock) VLT SLAT H172/3 SP
Without in wide zone impact

Mes Rock is VLT SLAT in H172/3 SP
Approx 0.01% of beach weathered
Hold VTR 20%, 3 10% C BiP
59.39 G

185° EUP-2 (boundary west of We Arch)
(Not oiling)

Drift 0.95 SP VLT oil

Lu- VLT Rock B/C P/S SCORCH
1 small coal marker

OCCASIONAL VLT SLAT H172 0.1%
Same as UP-1

1235° EUP-3
10% S/C 30% P 40% C 20% B

LT/MeD coat oil in wide buried 5 cm
5 cm thick in SP/Scorched 60 x Beach

Under consolidated bluff erosion in back

Drift Long Clean SP Zone

C-WD Drift - LT/MeD Coat - H172/3 SP

Set netter's claim decaying C-WD is oiled.
Could not always agree (I think decomposition)
But in several places per beach U/4, U/Out
C-WD Drift is oiled

QUESTION in C-WD oiled or decay
ECOLOGICAL EVALUATION

LOCATION: Ugruk Passage
SEG. NO.: 2
LENGTH: 1600 (M)
DATE: 7/7/89
TIME (HHMM): 1150
TIDE HT.: -0.3 (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: None, since cleanup procedures would not be sensitive to warrant cleanup of very light occurrence of oil.

MAMMALS: Otters Harbor Seals Sea Lions Whales Other

BIRDS: Gulls, Tulegein Ducks

GENERAL OBSERVATIONS: One chocolate mouse, pretty well in entire sequence. Some very light othreat in drift debris.

ACE 8707547
(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/02/89 SHORELINE SEGMENT K6-5-UP-3

LOCATION: (see enclosed map) Uganik Passage, east of "Beach"

bench mark, Kodiak Island

ADEC NO._________SHORELINE ASSESSMENT DATE: 7/07/89

Recommended Cleanup Activity(ies):
- Determine the effectiveness of set-netters cleanup.
- Manual removal of oiled seaweed drift. Note: check to determine if decaying seaweed is oiled or not before removal.
- Manual removal of lightly to medium coated pebble beach material.
- Removal of greater than one inch of beach sediments may be required to clean beach.

Priorities/Considerations: Class 4-A

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

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 * Date: 8/6/89

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 Jun 89 / Time: 12:35
Surveyed From: Boat/Helio/Plane
Observer: B. M. T.
Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

Segment ID: K6-5 - UP-3
Segment Length: 400 m. Access: Vehicle/Boat/Barge/Float Plane
Access Restrictions: None

SHORELINE

Shoreline Type: SPI/BEA/COV/HLD/STRT
Slope: Lo/Med/Hi/Vert
Wave Exposure: High/Med/Low
Sediment: B 20% / C 40% / P 30% / G&S 10% / M 1% / R 1%

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 Length (m) Width (m)

Very Light: [ ] [ ] Thickness >1cm: ______ cm SU/SP/H/M/L
Light: ______ Penetration/Rework: <5 cm SU/SP/H/M/L
Moderate: ______ Burial Depth: ______ 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: Seaweed (see comments)

OIL MORPHOLOGY

Pooled Oil: ______ % SU/SP/H/M/L
"Free" Oil: ______ % SU/SP/H/M/L
Splattered: ______ % H/M/L/VL
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

SPLASH (STORM) 1/4th HIGH INTERTIDAL ZONE BEAMS HAVE A ONE TO TWO METER WIDE BAND OF LIGHT TO MODERATE COATING OF OIL DEPOSITS. BURIAL IN BEAMS IS UP TO 5 CM. THIS BAND IS CURRENTLY BEING TREATED BY LOCAL FISH NETTERS. ALSO SEAWEED DRIFT IS LIGHTLY OILED. SEAWEED OILING SEAWEED OILING SEAWEED OILING SHORELINE OIL http://WWW.41.COM/ACE-8707531
DOCUMENTATION:

- Map/Aerial photo marking segment boundaries: See Exhibit

VTR: Y/N  Tape Number(s) ____________________________

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

Sample Numbers Collected: N/A
1122 UP-1 (UGANIK PASSAGE)

East Pt. to East along S. coast
of Kodiak Island.

East Pt. (Keku Rocks) V. LT SLAT H1T/SP
Within 1M Wide Zone Impact

Mean Rocks is V. LT SLAT in H1T/SP
Approx. 0.01% of Beach Weathering
H1D-VRock/CR 20%; B 10%; C 20%

1050 & UP.2 (Boundary West - We Arch)
(Not oiling)

Drift logs - SP V. LT Oil

L. D. VERT Rock B/C / P/5% G Beach
1 Small Central Porous Pasty

Occasional V. LT SLAT H1T 0.1%
Same as UP.1

1235 - UP. 3
10 3% C, 30% P, 40% C, 20% B

LT/MED CoAT Oil in Wide Boxed 5cm

5cm thick in SP/80cm to B. Beach
Under Consolidated Bluff Eroding in Back

Drift logs - CLAY - SP Zone

C-WD DEFT - LT/MED CoAT - H1T/SP

Quest. in C-WD oiled or decay

Set. Netters claim decaying C-WD is oiled.
Could not always agree (I think decomposition)
But in several Places per Beach w/ & w/o out
C-WD Drift is oiled
ECOLOGICAL EVALUATION

LOCATION: Ugani Passage
SITE: 
SEG. NO.: 3
LENGTH: 400 (M)
DATE: 7/7/89
TIME (HHMM): 1235
TIDE HT.: +0.3 (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: Clean, smooth, gentle waves, some birds, seaweed, starfish, urchins, Ulva, clean cove, few yachts. No apparent pink encrusting algae.

CLEANUP PRECAUTIONS: None. Seabirds are already cleaning this segment and are not impacting lower ITZ fauna.

MAMMALS: Otters Harbor Seals Sea Lions Whales Other

BIRDS: Gulls, seagulls, cormorants

GENERAL OBSERVATIONS: Oil present as light film over water, under debris at high ITZ, near stream at net net site, average 1 m wide.

ACE 8707554
SHORELINE CLEANUP PROGRAM

DATE 8/02/89  SHORELINE SEGMENT K6-5-UP-4

LOCATION: (see enclosed map) Uganik Passage, (south coast)

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

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, inspection by an archaeological monitor is required in the archaeologically sensitive portion of the segment.

[Signature] Date: 7/6/89
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: 7 Jul 89 / Time: 14:00  
Observer: Beyn Trum  
Weather: Sun/Cloud/Rain/Snow/Fog

**LOCATION**

Location: Venet Assac Keel Bay Island  
Segment ID: Ke-5 - UP-1  
Segment Length: 1450 m. Access: Vehicle/Boat/Barge/Float Plane  
Access Restrictions: None

**SHORELINE**

Shoreline Type: SPI/BEA/COV/HLD/STRT  
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**

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

Total Length(m) Width(m)  
Very light: Thickness >1cm: cm  
Light: Penetration/Rework: cm  
Moderate: Burial Depth: cm  
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: H/M/L/VL  
Coated: H/M/L/VL  
Pancakes/Balls: H/M/L

<table>
<thead>
<tr>
<th>Pooled Oil:</th>
<th>&quot;Free&quot; Oil:</th>
<th>Splattered:</th>
<th>Coated:</th>
<th>Pancakes/Balls:</th>
</tr>
</thead>
<tbody>
<tr>
<td>SU/SP/H/M/L</td>
<td>SU/SP/H/M/L</td>
<td>H/M/L/VL</td>
<td>H/M/L/VL</td>
<td>H/M/L</td>
</tr>
</tbody>
</table>

**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**
DOCUMENTATION:

Map/Aerial photo marking segment boundaries

VTR: Y/N Tape Number(s)

Photography: Y/N Roll Number(s)

Sample Numbers Collected: N/A

ACE 8707559
FRIDAY

07 13 JULY 89

1400

UP 1 - SAME AS UP 2 EXCEPT CLEAN

FIRE 1 OR 27 RQF + A 12 OCA 1G 100

FIRE 1 OR 27 RQF + A 12 OCA 1G

FIRE 1 OR 27 RQF + A 12 OCA 1G

WILL NOT SKIP DOWN BEACH

20:48 20° 21° 33° 30° 36° 53°

SMART PEAT MITZ

WENT TO SMALL LAKE - NO CONCEALED OIL

1450 - LW UP 1, FLY OVER UP 1. RICH STRESS PATROL

- FLY & FIND EAGLE

1505 - FIND EAGLE - LAND & WAIT FOR OTHER TEAM

BE TIME 5300M TAKES OFF TO REFUEL

FLEET PLAN. NO CONTACT ISLAND AIR

ST CLEANS. FLY BACK. EAGLE WAIT

FOR TEAM.

1534 LW FOR ADQ

15 54 AR ADQ

C: CALL FROM EXAM COMMAND

- WRITE UP UP 1 - 1

1900 - STAFF MTG

1945 LW UP 1
ECOLOGICAL EVALUATION

LOCATION: UGANK Passage  SITE:    OBSERVER: D. McCoomick
KODIAK IS  SEG. NO.: 4  LENGTH: 9450 (M)

DATE: 7/17/89  TIME (HMMM): 1400  TIDE HT.: +2.0 (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

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: Enteromorpha, Calothrix, Enteromorpha, Cladophora, Lamprorida

CLEANUP PRECAUTIONS: None, since no oil was observed.

MAMMALS: Otters 6  Harbor Seals  Sea Lions  Whales

BIRDS: Gulls, Harlequin Ducks. Eagle nest approx. 500 m south of 1st dunlin (see 06 map)

GENERAL OBSERVATIONS: No oil observed in this segment.

ACE 8707561
**On Beach Assessment**

**ATTN: S.C.A.T.**

<table>
<thead>
<tr>
<th>Cleanup Resources</th>
<th>access</th>
<th>stabilized above tide</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>(good)</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>(ave.)</td>
<td>1</td>
</tr>
<tr>
<td>0</td>
<td>(at risk)</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>(at risk)</td>
<td>3</td>
</tr>
</tbody>
</table>

**WHERE IS OIL FOUND TODAY?**

- High

---

**Continuous Oil?**  n (Y)  Interpolation to next site seems valid  n (Y)

**Critical resource/habitat observations:**

- Heavy surf likely
- Subsurface?

**OIL/MOUSSE DESCRIPTION:**

- Probably OIL GLEAMED
- Att. to tide stage

**Subsurface?**  n (Y)

---

**Attachment pages:**

- 89 samples:
- 89
- 89

**Comments (weather, etc.):**

- Fairly sunny

**OTHER BEACHES**

- Weathered, heavily impacted

---

**Loran / map fix**

- Date:
- Time:

---

**Unit / subunit segment**

- 06040302

---

**WHERE IS OIL FOUND TODAY?**

- High
TYPE A SHORELINE CLEANUP WORK ORDER

KL-6

17/89 Shoreline Segment: N95, 3, 4, 5

Section: (Attach map) Kodiak - Uganik Bay - Northwest Block

ADEC No. KL-6 Shoreline Assessment Date: 6/19/89

Recommended Cleanup Activity(ies):
Manual removal of debris

Priority Considerations:
Sensitive area - major seabird colonies on housing Escal.

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

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 "Guideline for Shoreline Cleanup") and the State historic Preservation Office notified as soon as possible.

Submitted by: Exxon
Date: 7/7/89

State Historic Preservation Officer Telephone Approval (Required)

Approved:
Assistant OSC Western Alaska (If appropriate)
Date:

Approved:
Federal On-Scene Coordinator
Date: 7/7/89

ACE 8707569
TYPE A SHORELINE CLEANUP WORK ORDER

Shoreline Segment: ND 3, 4, 5

ADEC No. 6

Shoreline Assessment Date: 6/19/89

Recommended Cleanup Activity(ies):
Manual removal of debris

Priority Considerations:
Sensitive area - major seabird colonies on nesting ground.

Ecological Constraints (from site survey):
Avoid Vegetated Areas.

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 "Guideline for Shoreline Cleanup") and the State historic Preservation Office notified as soon as possible.

Submitted by: Exxon
Date: 7/7/89

State Historic Preservation Officer Telephone Approval (Required)
Date:

Approved: See Attached
Assistant OSC Western Alaska (If appropriate)
Date:

Approved: Federal On-Scene Coordinator
Date: 4/30/89

ACE 8707566
SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): KODIAK-UGANIK ISLAND NORTHWEST BLOCK

Includes Shoreline Segments: NP-1, NP-2, NP-3, NP-4, NP-5

Submitted: _______________ Date: 7/1/89
(for Exxon)

ISCC Recommendation: _______________________ Date: _______________

FOSC Approval: _______________________ Date: 7/1/89

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
SHORELINE CLEANUP PROGRAM

DATE 7/02/89

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

ADEC NO. ___________ SHORELINE ASSESSMENT DATE: 7/02/89

Recommended Cleanup Activity(ies):
- Use hand/manual cleanup of very light to light splatter of oil deposits in high intertidal zone. Low priority.

Priorities/Considerations: Class 5-A

Ecological Constraints (from site survey):

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.

Douglas Reger
State Historic Preservation Officer

Date: 9/14/89

EXXON: ___________________________ Date: __________________

FOSC: ___________________________ Date: __________________

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

Date: 2 Jul 89  Time: 1032  Observer: Bryan Tunn
Surveyed From: Foot/Boat/Helio/Plane  Weather: Sun/Cloud/Rain/Snow/FOG

LOCATION

LOCATION  VARGIL ISLAND SW COAST  SEGMENT I.D.  UG-1

LENGTH OF SHORELINE SEGMENT: 1400 m

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

SHORELINE:
Shoreline Type: SPI/NEA/COV/HID/STRT  Slope: LANG/HANG/VER

Wave Exposure: [High/Med/Low]

Sediment: D-50 / C-10 / P-60  / G-1 / S-1 / H-1 / R Z-1

Drift Debris on Beach: Yes/No  Supra/Upper/Mid/Lower Typo Loss/Scallop

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

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

IL DISTRIBUTION

Continuous: Y/N  Segment t ___ No. Bands ___ Width ___

Sporadic: O/N  Segment t ___ Min/Max Dia. ___ Impact Width ___

Est. Oil Thickness where > 1 cm: ___ cm  SU / SF / UP / MID / LO

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

Layers? Yes/No  No Layrers ___ Oil Weathering ___

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

OIL MORPHOLOGY

Pooled Oil ___  "Free" Oil ___  Spattered/LOQ ___ H/M/L ___ Sheen ___

OIL WEATHERING (OW)

Fresh Oil ___  SU/SP/VF/MID/LU  Choc Mousse ___  SU/SP/UP/MID/LO

Pancake Mousse ___  SU/SP/VF/MID/LO  Asphalt Mousse 1001  SU/SP/UP/MID/LO

Tar Formation ___

Comments:

ACE 8707570

The mousse is light to very lighty spattered over 5% of segment. The mousse was
unattached to a thin layer (gray material) little to no chance of removal
by hand. Manual cleanup very little success-too little oil.
DOCUMENTATION:

/ Aerial photo marking segment boundaries  See Attached

VTR: YES Tape Number(s) KOS-3

Photography: YES Roll Number(s) DMC-18

Sample Numbers Collected: N/A
ECOLOGICAL EVALUATION

LOCATION: Upnick Island
SITE: 
LOCATION PREFIX: SG
SEG. NO.: 1
LENGTH: 1408 (M)

DATE: 7/2/89
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

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

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

"Ittorina
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: Tubifex fauna, Katharina tubicola, nematodes, and barnacles
Usnea, Scoparia, Leptantusus; Ectoecysta Calotrich or boulder; Clay hill
and help boulders on beaches.

CLEANUP PRECAUTIONS: None.

MAMMALS: Otters Harbor Seals Sea Lions Whales

BIRDS: Eagles, gulls, Kittiwakes, etc.

GENERAL OBSERVATIONS: Clean up crew working on this segment using workers
wiping light to very lightly oiled rocks. No oil-stained birds noted.

ACE 8707572
SHORELINE CLEANUP PROGRAM

DATE  7/02/89 SHORELINE SEGMENT K6-6-UG-2

LOCATION: (see enclosed map) Ugantik Island, SW coast

ADEC NO. _________ SHORELINE ASSESSMENT DATE: 7/02/89

Recommended Cleanup Activity(ies):
- Use hand/manual cleanup of chocolate mousse deposits.

Priorities/Considerations: Class 4-A

Ecological Constraints (from site survey):
- Avoid attacking mousse to uncontaminated areas.

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.

Douglas Rogers
State Historic Preservation Officer

Date: 8/14/89

EXXON: __________________________ Date: ________________

FOSC: __________________________ Date: ________________

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
Date: 2 Jul 89  Time: 12:05
Surveyed From: Foot/Boat/ Helio/Plane
Weather: Sun/cloud/Rain/Exposure

LOCATION:
Location: Uganik Island SW/Coast - Kodiak Segment I.D. - K-6-6-

LENGTH OF SHORELINE SEGMENT: 250

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

SHORELINE:
Shoreline Type: SPI/NeA/Cov/HId/STRT
Slope: All/Hang/Ver

Wave Exposure: High/Med/Low

Sediment: B/S / C/Lo / P/Lo / C/Lo / M / M / R / R

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

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

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

OIL DISTRIBUTION:
Continuous: Y/N Segment: 20 No. Bands: 1 Width: 2 m
Sporadic: Y/N Segment: 40 Min/Max Dia: 0.6 m Impact Width: 2 m

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 Layer Oil Weathering

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

OIL MORPHOLOGY:
Pooled Oil Y "Free" Oil Y Spattered Y H/H Oil Sheen Y

OIL WEATHERING (OW):
Fresh Oil SU/SP/VF/MID/LO Choc Mousse SO Y

Pan Cake Mousse Y SU/SP/VF/MID/LO Asphalt Mousse SO Y

Tar Formation Y

Comments:

A small [some text is not legible] patch of Choc. Mousse between boulders 14 m high/med.

Exposure zone. Very light spattering 0.1 m. Ages 3 below mousse. Possibly set 1:1.5:5 are cleaning area with hand/manual methods. People/granule and extract below boulders.
ECOLOGICAL EVALUATION

LOCATION: UG/GS
SITE: _____
LOCATION PREFIX: UG
SEG. NO.: 2
LENGTH: 250 (M)
DATE: 7/2/89
TIME (HHMM): _____
TIDE HT.: _____ (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: Echinoderm, clawwhelks.

CLEANUP PRECAUTIONS: ______

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

Other ______

BIRDS: ______

GENERAL OBSERVATIONS: Beach was combed off with absorbent boom. Set-net fishermen are cleaning oiled (mossy) section of beach with widcats.
SHORELINE CLEANUP PROGRAM

DATE  7/05/89   SHORELINE SEGMENT K6-6-UG-3

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

ADEC NO. SHORELINE ASSESSMENT DATE: 7/05/89

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

Priorities/Considerations: Class 5-A

Ecological Constraints (from site survey):  
-This segment is very dense with healthy intertidal fauna which should not be disturbed for the minor amount of oil present in this segment.

Archaeological Constraints (from site survey):  
-If cleanup is planned, inspection by an archaeological monitor is required in archaeological sensitive portions of this segment.

State Historic Preservation Officer *  
Date: 8/14/89

EXXON: Date: __________________

FOSC: Date: __________________

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.
(version 5/16/89)

**SHORELINE OIL EVALUATION FORM - KONIR**

Date: 5 May 89  Time: 11:36  Observer: Bryan Temm

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

**LOCATION**

LOCATION: Ugania Is., SW Coast  SEGMENT I.D.: **UG-3**

LENGTH OF SHORELINE SEGMENT: 2400 m  1.5

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

**SHORELINE:**

Shoreline Type: SPI/SEA/COV/HLD/STRAT  Slope: **LANG/HANGOVER**

Wave Exposure: High/Med/Low

Sediment: D 20% / C 20% / P 30% / G 20% / S 30% / M 10% / R 20%

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

**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 #:  Min/Max Dia:  % Impac Width:  cm

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 / H / H / H**

**OIL MORPHOLOGY**

Pooled Oil  "Free" Oil  Spattered  **H/H/L/LO**

**OIL WEATHERING (OW)**

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

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

Tar Formation

Comments:

**Asphalt Mousse:**  **SU/SP/VP/MID/LO**  Choc Mousse with a Terry Textile, **Very Light Spatter**

**High Interaction (Spray/Splatter), Remote, Very Low Probability and Mobility**

**Low Priority, Grand Reunion (SPV), is Covered During High Tide**

ACE 8707582
DOCUMENTATION:

Aerial photo marking segment boundaries  See Attached

VTR:  Y/N  Tape Number(s)  KOS-3

Photography:  Y/N  Roll Number(s)  LMC-18

Sample Numbers Collected:  N/A
**ECOLOGICAL EVALUATION**

**LOCATION:** Ugak Island  
**SITE:**  
**OBSERVER:** L. McCormick  
**LOCATION PREFIX:** KS-6  
**SEG. NO.:** 3  
**LENGTH:** 2400 (M)  
**DATE:** 7/5/89  
**TIME (HHMM):** 1100  
**TIDE HT.:** -1.0 (M)  
**OILED ZONE:** Splash High Medium Low  
**SUBSTRATUM:** Rocks Boulder Cobble Gravel Sand Mud  

**LIVE BIOTA**

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<th><strong>Fucus (algae):</strong></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>
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<th><strong>Mytilus (Mussels):</strong></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>
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<th><strong>Balanus (Barnacles):</strong></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>
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<th><strong>Littorina:</strong></th>
<th>Patchy Y/N</th>
<th>Contin. Y/N</th>
<th>Dense Y/N</th>
<th>Sparse Y/N</th>
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<th><strong>Limpets:</strong></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>
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**CLEANUP PRECAUTIONS:** None.  

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

**BIRDS:** Bird use nest (on map); offshore birds, grey seals, kelp gulls.  

**GENERAL OBSERVATIONS:** Helped prevent very light oil spill in upportial zone.  

Very dense lower ITZ fauna.
SHORELINE CLEANUP PROGRAM

DATE  7/05/89                        SHORELINE SEGMENT K6-6-UG-4

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

ADEC NO. _______ SHORELINE ASSESSMENT DATE:  7/05/89

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):
- No ecological assessment form is included in this report because this segment was surveyed by helicopter only.

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:  8/3/89

EXXON: ___________________________ Date: ______________

FOSC: ___________________________ Date: ______________

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

Date: 5/17/89  Time: 1350  Observer: Bryan Trimm
Surveyed From: Foot/Boat/ Helicopter Plane  Weather: Sun/Cloud/Rain/Snow/Log

LOCATION: VQ-4 = SW Coast  SEGMENT I.D. VQ-4

LENGTH OF SHORELINE SEGMENT: 1600 m
ACCESS: Foot/Vehicle/Boat/Barge/ Helicopter/Float Plane

SHORELINE:
Shoreline Type: SPI/BEACH/COVER/HIL/STRT  Slope: LANG/HAR/VER
Wave Exposure: High/Med/Low
Sediment: D.05% / C.20% / F.30% / C.60% / M.20% / R.30%
Drift Debris on Beach:  No
Supra(Upper) / Mid/Lower Type  Less/Same

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 / 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: %  H/H/L/VL Shown

OIL WEATHERING (ON)
Fresh Oil %  SU/SP/VP/MID/LO  Choc Mouse %  SU/SP/VP/MID/LO
Pancake Mousse %  SU/SP/VP/MID/LO  Asphalt Mousse %  SU/SP/VP/MID/LO

Tar Formation %

Comments: No Oil Observed in Air % on the 2 Landings

ACE 8707569
DOCUMENTATION:

Aerial photo marking segment boundaries See Attached

VTR: Y/N Tape Number(s) KOS-3

Photography: Y/N Roll Number(s)

Sample Numbers Collected: N/A
(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/05/89 SHORELINE SEGMENT K6-6-UG-5

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

ADEC NO. __________ SHORELINE ASSESSMENT DATE: 7/05/89

Recommended Cleanup Activity(ies):
-No cleanup recommended due to the very light oiling and biological constraints. Subject to FOSC reassessment at a later date. Note: Set netters have and probably will continue to clean this segment.

Priorities/Considerations: Class 5-A

Ecological Constraints (from site survey):
-This segment is dense with healthy intertidal fauna which should not be disturbed for the minor amount of oil present.

Archaeological Constraints (from site survey):
-If cleanup is planned, inspection by an archaeological monitor is required in this segment.

[Signature]
State Historic Preservation Officer *  Date: 8/14/89

EXXON: __________________________ Date: __________________

FOSC: __________________________ Date: __________________

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

ACE 8707593
SHORELINE OIL EVALUATION FORM - MONAR

Date: 5 July 89  Time: 1410  Observer: [Redacted]
Surveyed From: Foot/Boat/Helio/Plane  Weather: Sun/Clear/Rain/Flurrying

LOCATION
LOCATION  LCBA  / UCAK  / IS  SEGMENT I.D. KB-6-UC-5

LENGTH OF SHORELINE SEGMENT: 200 m
ACCESS: Foot/Vehicle/Boat/Barge/ Helio/ Float Plane

SHORELINE:
Shoreline Type: SPI/RA/COV/NU/STRF  Slope: LANG/HANICER
Wave Exposure: High/Med/Slow
Sediment: 4.2t / C.2t / P. 6t / G.2t / S.B / M. 2t / R. 2.8t
Drift Debris on Beach: Yes/No  Super/Upper/Mid/Lower  Type Low/None

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

OIL DISTRIBUTION
Continuous: Y/N  Segment &  No. Bands  Width
Sporadic: Y/N  Segment & 5 Min/Max Dia.  Impact Width  1m
Est. Oil Thickness where > 1cm: ___ 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

OIL MORPHOLOGY
Pooled Oil  "Free" Oil  Spattered Oil  10% W/H/L  Shown

OIL WEATHERING (ON)
Fresh Oil  SU/SP/VP/MID/LO  Choc Mousse  9% SU/SP/VP/MID/LO
Pancake Mousse  SU/SP/VP/MID/LO  Asphalt Mousse  9% SU/SP/VP/MID/LO
Tar Formation

Comments: ACE 8707594

Set nets, bags for removal so to 100 bags of lightly oily seaweed found in the high intertidal and storm zones. Very light scattering in a one meter width varying from high intertidal, low probability of mobility. Very low priority.
DOCUMENTATION:
Map/Aerial photo marking segment boundaries See Attached

VTR: Y N Tape Number(s) KOS-4
Photography: Y N Roll Number(s) DMC-18
Sample Numbers Collected: N/A

ACE 8707595
ECOLOGICAL EVALUATION

LOCATION: SW Shore
LOCATION PREFIX: KG-6
SITE: Unga Island
SEG. NO.: 5
LENGTH: 200 (M)
DATE: 7/5/89
TIME (HHMM): 1410
TIDE HT.: +0.0 (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: Seaweed, Seaweed, Cystis, Seaweed, Cystis, Seaweed, Cystis, Seaweed, Cystis

CLEANUP PRECAUTIONS: Do not disturb ITZ for the min amount of oil in this segment

MAMMALS: Otters
Harbor Seals
Sea Lions
Whales

BIRDS:

GENERAL OBSERVATIONS: Oil here 1 present as very light smears a platter upon ITZ

ACE 8707596
SHORELINE CLEANUP PROGRAM

DATE 7/13/89

LOCATION: (see enclosed map) Uganiik Island Southeast Block

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

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

Priorities/Considerations: Class 5-A
-Exposed rocky beaches may preclude boat access in foul weather.

Ecological Constraints (from site survey):
-No cleanup recommended due to high diversity and abundance of marine inverts in rocky intertidal areas.

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 *

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 July 1989 / Time: 10:00
Observer: Duncan M. Field and Regan Teare

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

LOCATION
Location: South central side of Uganik Island
Segment ID: K-6-1
Segment Length: 2500 m
Access: Vehicle/Boat/Barge/Hello/Float Plane
Access Restrictions: Fairly protected but high wave energy could restrict boat landing

SHORELINE
Shoreline Type: SPI/BEA/COV/HLD/STRT
Slope: Lo/Med/Hi/Vert
Wave Exposure: High/Med/Low
Sediment: B 20 % / C 20 % / P 20 % / G&S 20 % / M ____ % / 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 Length(m) | Width(m) | Thickness >1cm: ________ cm SU/SP/H/M/L
Very light: ________ | ________ | Penetration/Rework: ________ cm SU/SP/H/M/L
Light: ________ | ________ | Burial Depth: ________ cm SU/SP/H/M/L
Moderate: ________ | ________ |
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: ________ t SU/SP/H/M/L
"Free" Oil: ________ t SU/SP/H/M/L
Splattered: ________ t H/M/L/VL SU/SP/H/M/L
Coated: ________ t H/M/L/VL SU/SP/H/M/L
Pancakes/Balls: ________ t SU/SP/H/M/L

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

COMMENTS

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

ACE 8707600
ECOLOGICAL EVALUATION

LOCATION: South Bay, Ventura
SITE: 
SEG. NO.: 
LENGTH: 2500 (M)

DATE: 7/7/89 TIME (HHMM): 0545-1105 TIDE HT.: 1.62 - 0.66 (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
Locally in MTS and LITZ in association with Psilodiscus. More abundant at highlands and in rocky tidal areas. Less common along cobble and sand beaches.

**Mytilus (Mussels):** Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Commonly found on Fucus, Psilodiscus and rocks. Sparse near higher muddy areas locally.

**Balanus (Barnacles):** Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Locally patch and continuous. Dominant in lower to mid tide. Majority Balanus species with smaller Balanus sp. in UITE.

**Littorina**
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Abundant to mid in UITE, found around Fucus and under rocks. More abundant on sandier, finer substrates but not on all.

**Limpets**: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Not common on and calozius sp. MTS and UITE.

OTHER OBSERVATIONS: Numerous bivalve shells on debris where substrate is sandy effect
Drifting sargassum sp. lobby headlands formed from beachrock outcrops. Numerous pop Cabrilla

CLEANUP PRECAUTIONS: Very hazardous. Lack of contamination should warrant a "no clean-up" option. Also, exposed benchfront would make access tough for anything but hand pick-up.

**Mammals:** Otters 0  Harbor Seals 0  Sea Lions 0  Whales 0  Other
Other some deer pipes and unknown feces in high UITE

**Birds:** Larks sp. Stamped

**General Observations:** NO OIL SIGHTED; CLEAN; NO CLEAN-UP NECESSARY

ACE 8707601
CULTURAL RESOURCE EVALUATION

Date  3-JULY-1989  Location  KODIAK ISLAND D-5 SITE SECTION K-6-0

Location Prefix U.G.  Segment # 6  Length 200 m

Survey Method:

Air ______ (A - indicate on map)  Boat ______ (A - indicate on map)

Ground 100% (G - indicate on map)

Known cultural resources (AHRS #) ______ Data Source ______

Oil conditions/beach visibility NO OIL OBSERVED; EXCELLENT BEACH VISIBILITY

Width of beach zone surveyed 10-30 m  Tree fringe surveyed 0-25 m

Cultural resources observed in beach zone (AHRS code) ______

Cultural resources observed in tree fringe (AHRS code) JE-1 (shell midden)

General observations justifying survey method and segment's site probability:

Shore Profile VARIABLE: STEEP ROCKY HEADLANDS AND LOW AMBLE BEACHES IN LOVES

Fresh Water Sources  SMALL STREAMS & CREEKS ONLY

Sea Exposure  GENERALLY SPOTTEDLY EXPOSURES

Access/Safety  GENERALLY ACCESSIBLE, PROTECTED BAY SHORELINE

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 ______

Observer(s)  JOE ERANDSON

Time survey started  9:30 AM  Time survey ended  11:30 AM

Cultural resource considerations/restraints:

_________________________________________________________________

_________________________________________________________________

_________________________________________________________________

ACE 8707602
SHORELINE CLEANUP PROGRAM

DATE 7/07/89

SHORELINE SEGMENT K6-6-UG-7

LOCATION: (see enclosed map) South central coast of Uganik Island

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

Recommended Cleanup Activity(ies):
- No cleanup recommended due to the very light oiling condition and the biological sensitivity of the region. Subject to FOSC reassessment at a later date.

Priorities/Considerations: Class 4-A

Ecological Constraints (from site survey):
- Nesting bald eagles, local high abundance of rocky intertidal invertebrates and extremely light, intermittent oiling precludes cleanup at this site.

Archaeological Constraints (from site survey):
- If cleanup is planned, inspection by an archaeological monitor is required in archaeologically sensitive portions of this 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.
SHORELINE OIL EVALUATION

Date: 7 July 1989 / Time: 11:05-14:05
Observer: Duncan R. FitzGerald

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

LOCATION

Location: So. Heeds Central Ugashik Island
Segment ID: K-6-6: U6-7
Segment Length: 3800 m. Access: Vehicle/Boat/Barge/Helio/Float Plane
Access Restrictions: Except during extreme wave conditions.

SHORELINE

Shoreline Type: SPI/SEA/COV/HLD/STRT
Slope: Lo/Med/Hi/Vert
Wave Exposure: High/Med/Low
Sediment: B / 10 % / C 40 % / P 10 % / G&S 30 % / M 15 % / R 10 %

OIL

Avg. Degree of Oiling: HEAVY / MODERATE / LIGHT /
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

Very light: 1/200 Width(m): 1-2
Light: Thickness >1cm: .006 cm
Moderate: Penetration/Rework: cm
Heavy: Burial Depth: cm

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: % "Free" Oil: %
Splattered: % Coated: %
Pancakes/Balls: %

Preliminary Cleanup Est.

Total TYPE A: 1300 m
Total TYPE B: m
Total TYPE A/B: m

OIL WEATHERING

Fresh: % Mousse: % Weathered Mousse: %
Asphalt Mousse: %
Tar: %

COMMENTS

Sites where spatter occurs are shown on the accompanying maps. Details of the splatter are given on the maps.

ACE 8707605
Map A.

- Split covered boulders and cobbles, 2-4 m wide
- Band at high mid-tide line next to cliff:
  - Section of beach, very light accumulation

Map B.

- Light to very lightly splashed boulders and cobbles, one or two patches of mouse (see dam)

Map C.

- Glacial cliff
  - Very light splash at high mid-tide line: 2-4 m wide

ACE 8707047
ECOLOGICAL EVALUATION

LOCATION: South of Flamingo Island, KONA
SITE: 

LOCATION PREFIX: UG SEG. NO.: 7 LENGTH: 2800 (M)

DATE: 7/17/89 TIME (HHMM): 11:45-15:45 TIDE HT.: 0.66 - 1.82 (M)

OILED ZONE: Splash High Medium Low (Very Light)

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

- Abundant on rocky headlands Y/N in LITE, and abundant living in LITE. Found
- Throughout section, more commonly in headlands, lower, windward and sometimes

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

- Found dominantly in middle and central part of section, Hook Bay by face
- Which ribbon, broad Mytilus colonies, stretches of trace fossils, and other plants

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

- Species dominant in LITE and LITE, 2 species in LITE

Littorina

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

- In LITE and LITE; found below algal detritus and between cobble substrate. Common in LITE. Found Y/N Living.

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

- Sparse distribution in LITE and LITE. Noted at Y/N sp. 2 others nearby.

OTHER OBSERVATIONS:

- Abundant birds in middle sandy section; common alvess
- Clinaciodum Y (fa); abundant Saccocirrus galapagensis, sparse Mys tomidae and Baudinella sp.
- Noted land birds in 3 sites; 2 were nesting colonies.
SHORELINE CLEANUP PROGRAM

DATE  7/07/89  SHORELINE SEGMENT K6-6-UG-8

LOCATION: (see enclosed map)  Southeast central coast of Uganik Island

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

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

Priorities/Considerations:  Class 5-B

Ecological Constraints (from site survey):
- Possible bald eagles nests in headland wooded areas.

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

Date:  8/14/89

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 July 1989 / Time: 14:00 Observer: Duncan M. Fitzgibbon
Surveyed From: Foot/Boat/Plane Weather: Sun/Cloud/Rain/Snow/Fog

**LOCATION**
Location: Southeast end of Ugarrick Island Segment ID: K-6-6-UL-8
Segment Length: 7200 m. Access: Vehicle/Boat/Barge/Helicopter/Float Plane
Access Restrictions: Very low wave energy

**SHORELINE**
Shoreline Type: SPI/SEI/COV/HLD/STRT Slope: Lo/Med/Hi/Vert
Wave Exposure: High/Med/Low
Sediment: B 20% / C 10% / P 1% / G&S 40% / M 1% / R 10%

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

**Mobilization Potential:** High/Medium/Low

Drift Debris Oiled? Y/N Amount: H/M/L/VL SU/SP/H/M/L Type:

**OIL MORPHOLOGY**

<table>
<thead>
<tr>
<th>Type</th>
<th>%</th>
<th>SU/SP/H/M/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pooled Oil</td>
<td></td>
<td>SU/SP/H/M/L</td>
</tr>
<tr>
<td>&quot;Free&quot; Oil</td>
<td></td>
<td>SU/SP/H/M/L</td>
</tr>
<tr>
<td>Splattered</td>
<td>H/M/L/VL</td>
<td>SU/SP/H/M/L</td>
</tr>
<tr>
<td>Coated</td>
<td>H/M/L/VL</td>
<td>SU/SP/H/M/L</td>
</tr>
<tr>
<td>Pancakes/Balls</td>
<td></td>
<td>SU/SP/H/M/L</td>
</tr>
</tbody>
</table>

**OIL WEATHERING**

<table>
<thead>
<tr>
<th>Type</th>
<th>%</th>
<th>SU/SP/H/M/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh</td>
<td></td>
<td>SU/SP/H/M/L</td>
</tr>
<tr>
<td>Mousse</td>
<td></td>
<td>SU/SP/H/M/L</td>
</tr>
<tr>
<td>Weathered Mousse</td>
<td></td>
<td>SU/SP/H/M/L</td>
</tr>
<tr>
<td>Asphalt Mousse</td>
<td></td>
<td>SU/SP/H/M/L</td>
</tr>
<tr>
<td>Tar</td>
<td></td>
<td>SU/SP/H/M/L</td>
</tr>
</tbody>
</table>

**COMMENTS**

Preliminary Cleanup Est.

<table>
<thead>
<tr>
<th>TYPE</th>
<th>m</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
</tr>
<tr>
<td>A/B</td>
<td></td>
</tr>
</tbody>
</table>
ECOLOGICAL EVALUATION

LOCATION: SOUTH SIDE OF UGLA SITE: Observer: S. Bluestone
LOCATION PREFIX: UG SEG. NO.: 8 LENGTH: ______ (M)
DATE: 7/7/89 TIME (HHMM): 14:45-15:30 TIDE HT.: 1.9 - ~ 3.1 (M)
OILED ZONE: Splash High Medium Low, NOT VISIBLE.
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
GENERAL COMMENT: LESS ABUNDANCE AND SPARSITY WITH ABSENCE OF
MUCILAGINES AND CHLOROPHYLL. BROWN, FLAT AND BENDABLE, COATED IN MUCILAGE.

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
GENERAL COMMENT: Found coating occasional large boulders in LITE. Generous,
scattered & sparse.

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
GENERAL COMMENT: Most evident in LITE 2. Encrusts appears throughout sections in low
abundance. Small colonies found in LITE, in fewer numbers

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
GENERAL COMMENT: Found between crevices in LITE and underneath rubble debris.

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
GENERAL COMMENT: Only in LITE, three amounts. Few molluscs in general.

OTHER OBSERVATIONS: LOWER ABUNDANCES AND DIVERSITY; MUCH CALMER
ENVIRONMENT. LESS PHYSICAL EXPOSURE. GREATER OF FRESHWATER INFUX

CLEANUP PRECAUTIONS: NO CLEANUP RECOMMENDED DUE TO LACK OF OIL.

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

BIRDS: _____ AND BLACK OCEAN CATCHER VISIBLE.

GENERAL OBSERVATIONS: LOW TO NO IMPACT AREA.
SHORELINE CLEANUP PROGRAM

DATE 7/08/89  SHORELINE SEGMENT K6-6-UG-9

LOCATION: (see enclosed map) Southeast end of Uganik

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

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

Priorities/Considerations: Class 5-A

Ecological Constraints (from site survey):
- Cleanup not recommended due to high diversity and abundances of intertidal invertebrates in rocky headlands, as well as presence of bald eagles.

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

Douglas Rege
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: 8 July 1989  Time: 11  Observer: Duncan M. Fitzgerald

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

LOCATION
Location: Southeast end of Ugani Island  Segment ID: K-6-6: U6-9
Segment Length: 11.2  Km. Access: Vehicle/Boat/Barge/Helco/Float Plane
Access Restrictions: Protected

SHORELINE
Shoreline Type: SPL/BEA/COV/HLD/STRT  Slope: Lo/Med/Hi/Vert
Wave Exposure: High/Med/Low
Sediment: B 20% / C 25% / P 5% / G&S 15% / M 1% / R 35%

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  0.1%  SU/SP/H/M/L  H/M/L/VL

Total Very light: 500  Length(m)  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/Cow
rift 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:  %  H/M/L/VL  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:  100 %  SU/SP/H/M/L

COMMENTS

Preliminary Cleanup Est.

Total TYPE A: m
Total TYPE B: m
Total TYPE A/B: m

ACE 8707018
Map A.

Splat found on a section of beach 500m long 1.5m wide bank. 5 ton dollar-sized splats occurring every 10-15m.
ECOLOGICAL EVALUATION

LOCATION: South of Beach Island, Kodiak
SITE: UG-9
OBSERVER: S. BLUESZONE

LOCATION PREFIX: UG
SEG. NO.: 9
LENGTH: (M)

DATE: 7/28/89
TIME (HHMM): 1010-1447
TIDE HT.: 1.49 ~ 2.01 (M)

OILED ZONE: Splash (High) Medium Low Very Very Light to Nonexistent

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
Abundance Throughout Section: Spotted on 3-5 ft of Bay (facile) in Headland Areas, Also Present in E. and F. (facile) Can Scare to Sparsely Sandy Areas

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Low Abundance of Mussels in Sandy Areas, Present Throughout Section in LITZ and MITZ. Well Developed Sheets in Rocky Intertidal Zones

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Abundant B. curvus and B. balanoides in LITZ and MITZ, Respectively. Gauntlet abundances in Rocky Intertidal Zones

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Abundance Throughout Section: Found Grazing on Algal Debris in LITZ

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Grazing on Algal Debris in Pods in LITZ and MITZ

OTHER OBSERVATIONS: Varied Habitat Between Coastal Rocky Intertidal Zones

And Coastal Areas. All Well Established with Abundances. Local Freshwater Influx in Small to Mod. Volumes. No Attenuation Sources

CLEANUP PRECAUTIONS: This Area Does Not Warrant Any Cleanup Action. Pristine Sensitive Habitat Should Not Be Disturbed

MAMMALS: Otters 1
Harbor Seals 0
Sea Lions 0
Whales 0

OTHER DEER IN WINTER GRASSES ABOVE BENCH, ALSO, ADJACENT

BIRDS: Eagles, Seagulls, Nesting at N End of Section 1, One Nest

GENERAL OBSERVATIONS:

ACE 8707620