

OIL SPILL PUBLIC INFO. CENTER



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1989
v.28, pt. 2

[Shoreline evaluations, 1989].

Volume 28, pt. 2

Kodiak section 6, pt. 2

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KATMAI NATIONAL MONUMENT

K-9-36

KASHVIK BAY

* walked on -
shown

KA-1

S T R A I T

Mt Kubugaki

Map #2

Map #1

Tidal Flat

RECEIVED

NOV 14 1960
U.S. ARMY
FACILITY XCE 8709227

RECEIVED
MAR 11 1992

Oil Spill Public Information Center
648 G Street
Anchorage, AK 99501

27-552-90
~~27-552-90~~

KODIAK SCAT
KIO -1

NO PROCUREMENT
DOCUMENT

COMPLETE

JAN 19 1990

ACE 7963999

Patricia #1

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): K10-1

Includes Shoreline Segments: AB-1N

Location: Katmai Nat'l Park Boundary South

Submitted: _____ Date: _____
(for Exxon)

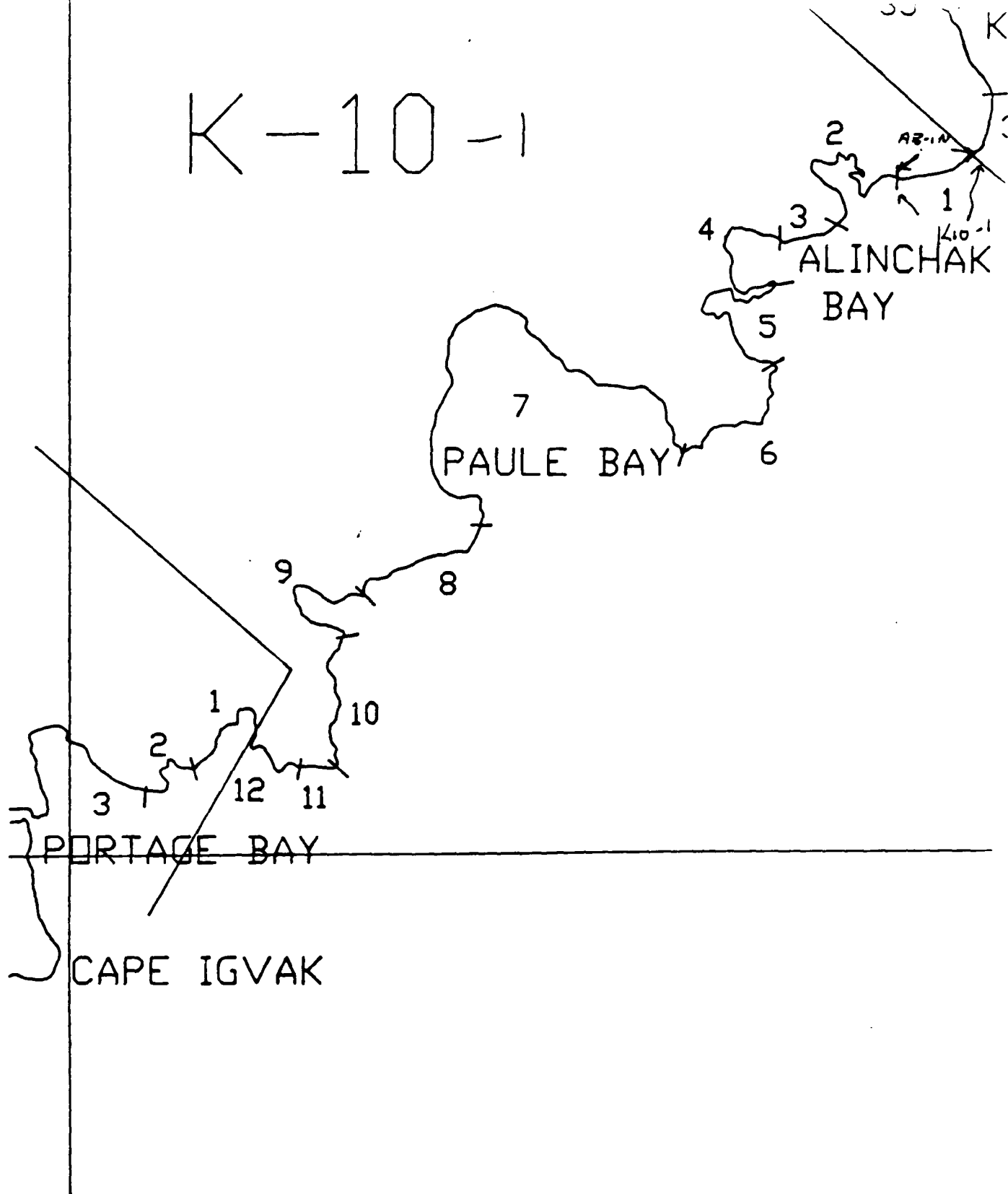
FOSC Approval: _____ Date: _____

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 8709228

K-10-1



(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/24/89

SHORELINE SEGMENT K10-1-AB-1N

LOCATION: (see enclosed map) Katmai Nat'l Park Boundary South

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

Recommended Cleanup Activity(ies):

- Manual removal of the thicker accumulations of (chocolate) mousse in between boulders and in cracks/crevices. Sorbents are probably the best collector.
- Manual removal of any mousse on the sandy beach. No penetration of oil was found in the sand.

Priorities/Considerations: Class 4-A

- Segment is located within a National Wildlife Refuge.
- Area is abundant with terrestrial wildlife, clam beds offshore, and marine mammal haulots on offshore islands.

Ecological Constraints (from site survey):

- Avoid oiling healthy lower intertidal zone and clambeds offshore.
- Avoid streams and sand dunes.

Archaeological Constraints (from site survey):

- No access by cleanup crews to the forest/upland zone 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.

A. David McMillan
State Historic Preservation Officer *

Date: 7/26/89

EXXON: Jack A. Rickner

Date: 7/27/89

FOSC: _____

Date: _____

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

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/24/89

SHORELINE SEGMENT K10-1-AB-1N

LOCATION: (see enclosed map) Katmai Nat'l Park Boundary South

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

Recommended Cleanup Activity(ies):

- Manual removal of the thicker accumulations of (chocolate) mousse in between boulders and in cracks/crevices. Sorbents are probably the best collector.
- Use -Manual removal of any mousse on the sandy beach. No penetration of oil was found in the sand.

Priorities/Considerations: Class 4-A

- Segment is located within a National Wildlife Refuge.
- Area is abundant with terrestrial wildlife, clam beds offshore, and marine mammal haulots on offshore islands.

Ecological Constraints (from site survey):

- Avoid oiling healthy lower intertidal zone and clambeds offshore.
- Avoid streams and sand dunes.

Archaeological Constraints (from site survey):

- No access by cleanup crews to the forest/upland zone 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: _____

EXXON: gmc

Date: 7/25/89

FOSC: _____

Date: _____

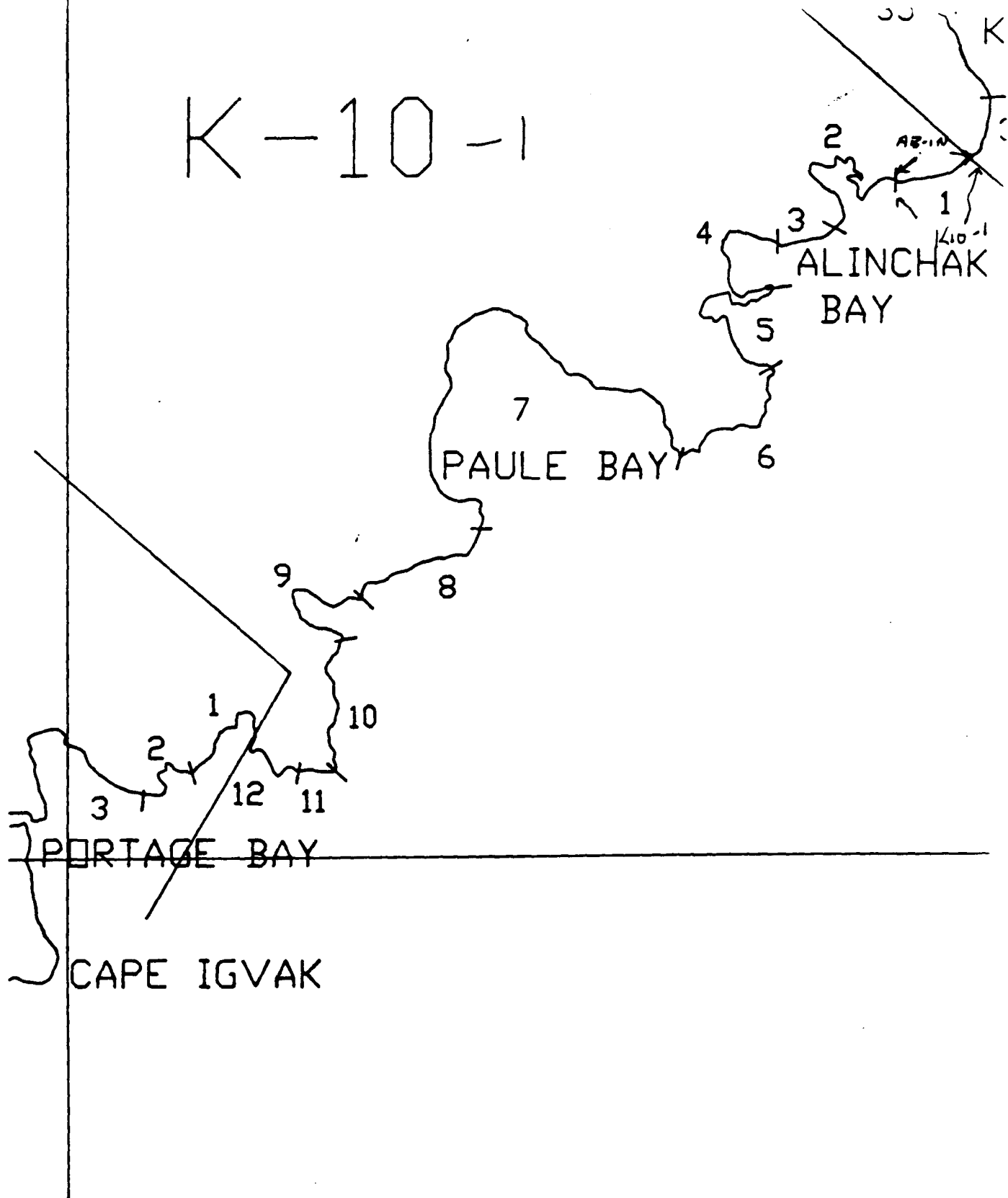
*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

DRAFT

KODIAK

ACE 8709231

K-10-1



ACE 8709232

(version July 05, 1989)

SHORELINE OIL EVALUATION

Date: 10 July 89 / Time: 1035
Surveyed From: Foot/Boat/Helicopter/Plane

Observer: BRYAN TRIMM
Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

Location: KATMAI NAT'L Pa Boundary South 3 miles Segment ID: K10-1-AB-1N
Segment Length: 650 m. Access: Vehicle/Boat/Barge/Helicopter/Float Plane
Access Restrictions: NONE

SHORELINE

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

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 5 SU/SP/H/M/L H/M/L/VL
Sporadic % of Segment 10 SU/SP/H/M/L H/M/L/VL

Total	Length(m)	Width(m)	Thickness >1cm:	cm	SU/SP/H/M/L
Very light:	<u>300</u>	<u>1</u>	Penetration/Rework:	<u>7</u>	<u>3</u>
Light:	<u>30</u>	<u>5</u>	Burial Depth:	<u>0</u>	<u>0</u>
Moderate:	<u>20</u>	<u>5</u>			
Heavy:					

Mobilization Potential: High/Medium/Low

Drift Debris Oiled? Y/N Amount: H/M/L/VL SU/SP/H/M/L Type: Logs

OIL MORPHOLOGY

Pooled Oil:	%	SU/SP/H/M/L
"Free" Oil:	<u>5</u>	<u>SU/SP/H/M/L</u>
Splattered:	<u>60</u>	<u>H/M/L/VL</u>
Coated:	<u>30</u>	<u>H/M/L/VL</u>
Pancakes/Balls:	<u>5</u>	<u>SU/SP/H/M/L</u>

Preliminary Cleanup Est.

Total TYPE A: 350 m
Total TYPE B: 0 m
Total TYPE A/B: 0 m

OIL WEATHERING

Fresh:	%	SU/SP/H/M/L
Mousse:	<u>20</u>	<u>SU/SP/H/M/L</u>
Weathered Mousse:	<u>80</u>	<u>SU/SP/H/M/L</u>
Asphalt Mousse:	<u>0</u>	<u>SU/SP/H/M/L</u>
Tar:	<u>0</u>	<u>SU/SP/H/M/L</u>

ACE 8709233

COMMENTS

HIGH ENERGY WAVES ON VERTICALLY ROCKY HEADLAND TO LOW ENERGY ON SANDY BEACH (B BEACH). A 10M X 10M PATCH OF MEDIUM SPLATTER/COATING OF WEATHERED MOUSSE FOUND BY AIR ON BOULDER RUBBLE BELOW A ROCKY HEADLAND CLIFF. BEACH A IS A PEBBLE/COBBLE/SAND (GRAVEL) WHICH HAS NO OIL PRESENT AT THIS TIME. B BEACH (SEE FIELD MAP) CONSISTS OF A BOULDER/LOW ANGLE BEDROCK BEACH ON THE NE CORNER. A 75 X 2M BAND OF VERY LIGHT SPLATTER TO HEAVY COATING OF WEATHERED CHOCOLATE MOUSSE IS FOUND IN THE MID/HIGH ITZ. THICKER ACCUMULATIONS (UP TO 7CM) ARE CHOCOLATE (FRESH) MOUSSE USUALLY FOUND ON BEDROCK & ON IN BETWEEN BOULDERS OR IN CRACKS & CREVICES. THE SANDY/PEBBLE BEACH (CENTER OF B BEACH) HAS VERY LIGHT SPLATTER IN THE HIGH ITZ & SPLASH (STORM) ZONES. A FEW SMALL (0.05M) PANCAKES OCCUR WITH THE SPLATTER (BOTH ARE WEATHERED MOUSSE). THE GRAVEL BAR (SPIT) HAS NO OBSERVED OIL & THE ROCKY HEADLAND JOINING THE GRAVEL BAR (SPIT) HAS A DECREASING OCCURRENCE OF SPLATTER IN THE SPLASH ZONE AS ONE TRAVELS SOUTH. SAND DUNES MEET THE SPLASH ZONE FOR MAJORITY OF B BEACH.

DOCUMENTATION:

Map Aerial photo marking segment boundaries See Attached

VTR: Y/N Tape Number(s) _____

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

Sample Numbers Collected: N/A

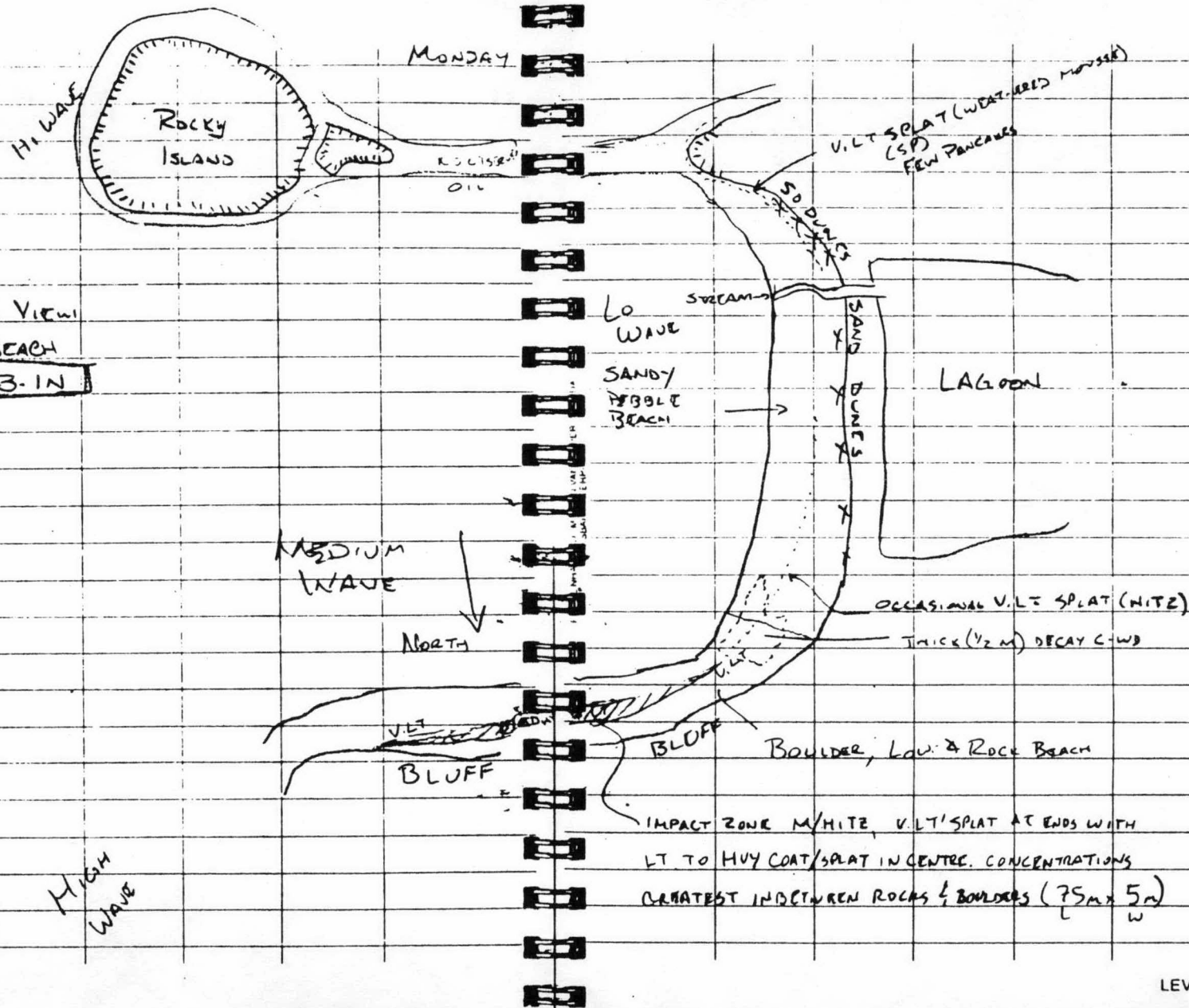
10 July 89

MONDAY

PLANE VIEW

B BEACH

AB-IN



LEVEL

ACE 8709235

2 July 89

Monday

AB-IN

CLEAR LIMITED ACCESS, HI ENERGY
WAVE, ROCKY CLIFFS

1040^α LD- TEG/C/S/G NO OIL OBSERVED

DUG TO 30CM - CLEAN

1052 B BEACH (SEE FLD MAP)

N/E CORNER LO & BEDROCK W/ B/C/P/S/G

LT/MED SPLAT M/HITE (CHOC & WEATHERED
MOUSSE) NO REWORK PENETRATION TO

3 CM IN SDY SUBSTRATE BELOW B/C.

GREATEST CONCENTRATIONS IN BETWEEN
BOULDERS & IN CRACKS/CREVICES (CHOC MOUSSE)

CHOC MOUSSE UP TO 7 CM THICK

GREEN FOUND IN HITE INTERTIDAL POOLS

CLEAR, CLEAR DAY W/ 15 KM BREEZE FROM

SW. FAINT HYDROCARBON SMELL.

ON LO & BEDROCK - CHOC MOUSSE "RUNNING/
OILING" DOWN CRACKS/CREVICES

MOST AREA HAS LT COAT TO SPLAT

THROUGH AREA OF IMPACT IS 75 M LONG X

12 M WIDE - ALL OILING IS DISCONTINUOUS

MOBILIZATION HIGH

CENTER OF B BEACH

SDY/PEBBLE BEACH. SAND DUNES SEPARATE
BEACH ZONE & LAGOON (WIND BLOWN).

V. LT SPLAT (HITE) 0.05 CM (WEATHERED MOUSSE)

LO WAVE ENERGY

SE CORNER OF B BEACH

V. LT. SPLAT (WEATHER MOUSSE) ON BOUNDARY

SPLASH ZONE DRIFT LOGS ALSO V. LT SPLAT

1/2 M WIDE IMPACT ZONE

SUMMARY AB-IN

20% B 10% C 10% P 20% L/S 40% R

APPROX 300 X 1 M V. LT 30 X 5 LT 20 X 5 M

5% FREE ON H/M 60% SALT SP/H/M 30% COAT H/M 5% PANKAGE SP

CHOC MOUSSE 20% WEATHERED 80% -

H/M SP/H/M
THICKER ACCUMULATION (IN BETWEEN BOULDERS CRACKS ETC)

LEVEL

ACE 8709236

ECOLOGICAL EVALUATION

LOCATION: Alinechuk Bay SITE: Katmai Nat'l Park Boundary
3 miles south OBSERVER: J. Tarpley
 LOCATION PREFIX: K10/AB SEG. NO.: K10-1-AB-1N LENGTH: 6850 (M)
 DATE: 7/10/89 TIME (HHMM): 1030 TIDE HT.: ~ +2.5m (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

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

Shells only on sandy beach

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

Only found on boulders and rock faces of segment

Littorina

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

Only found in rocky areas.

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

OTHER OBSERVATIONS: Light to moderate concentrations of non oiled algal
drift on sandy beaches and beach pockets. Other spp. of algae present on rocks.
ie, Enteromorpha, Odonthella, Syctosiphon.

CLEANUP PRECAUTIONS: Avoid piling healthy low ITZ during cleanup.

Avoid stream and ponds behind dunes. No foot traffic on sand dunes

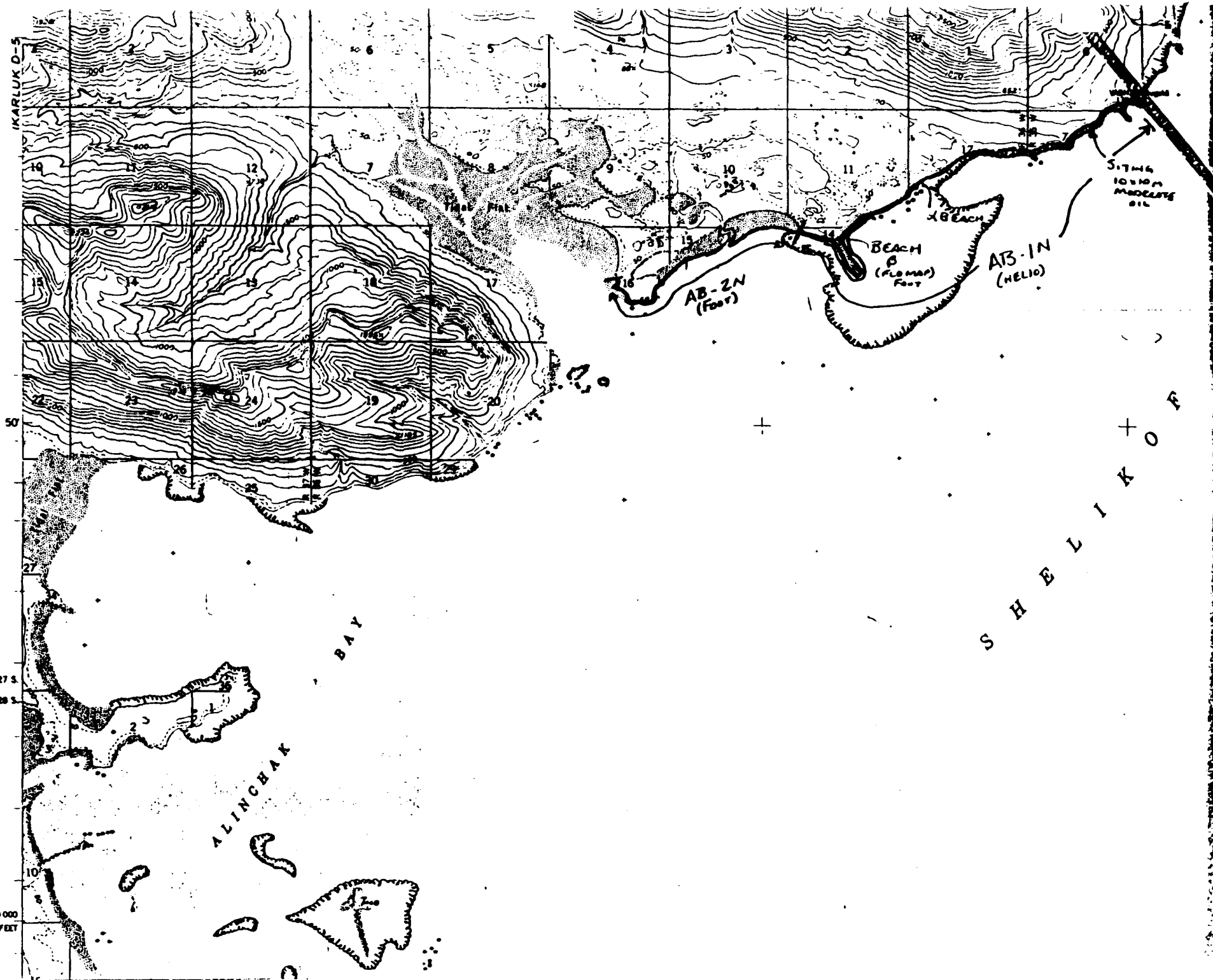
MAMMALS: Otters _____ Harbor Seals _____ Sea Lions _____ Whales _____
 Other Caribou, bear, Fox, Wolf Tracks: 2 Fox on beach

BIRDS: Glaucous-winged gulls on beach

GENERAL OBSERVATIONS: Littorina observed to graze oil splatter. Bivalve shells
on beach, shallow clam beds offshore.

ACE 8709238

1 380 000
FEET



(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/24/89

SHORELINE SEGMENT K10-1-AB-1N

LOCATION: (see enclosed map) Katmai Nat'l Park Boundary South

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

Recommended Cleanup Activity(ies):

- Manual removal of the thicker accumulations of (chocolate) mousse in between boulders and in cracks/crevices. Sorbents are probably the best collector.
- Manual removal of any mousse on the sandy beach. No penetration of oil was found in the sand.

Priorities/Considerations: Class 4-A

- Segment is located within a National Wildlife Refuge.
- Area is abundant with terrestrial wildlife, clam beds offshore, and marine mammal haulots on offshore islands.

Ecological Constraints (from site survey):

- Avoid oiling healthy lower intertidal zone and clambeds offshore.
- Avoid streams and sand dunes.

Archaeological Constraints (from site survey):

- No access by cleanup crews to the forest/upland zone 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.

SHORELINE OIL EVALUATION

Date: 10 July 89 / Time: 1035
 Surveyed From: Foot/Boat/Helicopter/Plane

Observer: Bryan Trimm
 Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

Location: KATMAI NATL Pk Boundary South 3 miles Segment ID: k10-1-AB-1N
 Segment Length: 6850 m. Access: Vehicle/Boat/Barge/Helicopter/Float Plane
 Access Restrictions: None

SHORELINE

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

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 5 SU/SP/H/M/L H/M/L/VL
 Sporadic % of Segment 10 SU/SP/H/M/L H/M/L/VL

Total	Length(m)	Width(m)	Thickness >1cm:	
Very light:	<u>300</u>	<u>1</u>	<u>7</u> cm	SU/SP/H/M/L
Light:	<u>30</u>	<u>5</u>	Penetration/Rework: <u>3</u> cm	SU/SP/H/M/L
Moderate:	<u>20</u>	<u>5</u>	Burial Depth: <u>0</u> 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: Logs

OIL MORPHOLOGY

Pooled Oil:	<u> </u> %	SU/SP/H/M/L
"Free" Oil:	<u>5</u> %	SU/SP/H/M/L
Splattered:	<u>60</u> %	SU/SP/H/M/L
Coated:	<u>30</u> %	SU/SP/H/M/L
Pancakes/Balls:	<u>5</u> %	SU/SP/H/M/L

Preliminary Cleanup Est.

Total TYPE A: 350 m
 Total TYPE B: m
 Total TYPE A/B: m

OIL WEATHERING

Fresh:	<u> </u> %	SU/SP/H/M/L
Mousse:	<u>20</u> %	SU/SP/H/M/L
Weathered Mousse:	<u>80</u> %	SU/SP/H/M/L
Asphalt Mousse:	<u> </u> %	SU/SP/H/M/L
Tar:	<u> </u> %	SU/SP/H/M/L

COMMENTS

HIGH ENERGY WAVES ON VERTICAL ROCKY HEADLAND TO LOW ENERGY ON SANDY BEACH (B BEACH). A 10M X 10M PATCH OF MEDIUM SPATTER/COATING OF WEATHERED MOUSSE FOUND BY AIR ON BOULDER RUBBLE BELOW A ROCKY HEADLAND CLIFF. BEACH A IS A PEBBLE/COBBLE/SAND/GRANITE WHICH HAS NO OIL PRESENT AT THIS TIME. B BEACH (SEE FIELD MAP) CONSISTS OF A BOULDER/LOW ANGLE BEDROCK BEACH ON THE NE CORNER. A 75 X 2M BAND OF VERY LIGHT SPATTER TO HEAVY COATING OF WEATHERED CHOCOLATE MOUSSE IS FOUND IN THE MID/HIGH INTZ. THICKER ACCUMULATIONS (UP TO 7CM) ARE CHOCOLATE (FRESH MOUSSE USUALLY FOUND ON BEDROCK 1/4 INCHES ON BOULDERS OR IN CRACKS/LEEVES). THE SANDY/PEBBLE BEACH (CENTER OF B BEACH) HAS VERY LIGHT SPATTER IN THE HIGH INTZ & SPLASH (STORM) ZONES. A FEW SMALL (0.15A) PANCAKES OCCUR WITH THE SPATTER (BOTH ARE WEATHERED MOUSSE). THE GRAVEL BAR (SPIT) HAS NO OBSERVED OIL & THE ROCKY HEADLAND JOINING THE GRAVEL BAR (SPIT) HAS A DECREASING OCCURRENCE OF SPATTER IN THE SPLASH ZONE AS ONE TRAVELS SOUTH. SAND DUNES MEET THE SPLASH ZONE FOR MOST OF B BEACH.

ACE 8709240

DOCUMENTATION:

Map/Aerial photo marking segment boundaries See Attached

VTR: Y/N Tape Number(s) _____

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

Sample Numbers Collected: N/A

23 July 89

Monday

AB-IN

CLEAR LIMITED ACCESS, HI ENERGY
WAVE ROCKY CLIFFS
1040^α LD TID/C/S/G NO OIL OBSERVED
DUG TO 30CM - CLEAN
1052 B BEACH (SEE FLD MAP)
NE CORNER LD & BEDROCK W/ B/C/P/S/G
LT/MED SPLAT M/HITZ (CHOC & WEATHERED
MOUSSE) NO REWORK PENETRATION TO
3 CM IN SDY SUBSTRATE BELOW B/C.
GREATEST CONCENTRATIONS IN BETWEEN
BOULDERS & IN CRACKS/CREVICES (CHOC MOUSSE)
CHOC MOUSSE UP TO 7 CM THICK
GREEN FOUND IN HITZ INTERTIDAL POOLS
COOL, CLEAR DAY W/ 15 KM BREEZE FROM
SW. FAINT HYDROCARBON SMELL.
ON LD & BEDROCK - CHOC MOUSSE "RUNNING/
OILING" DOWN CRACKS/CREVICES
MOST AREA HAS LT COAT TO SPLAT
THROUGH AREA OF IMPACT IS 75 M LONG X
12 M WIDE - ALL OILING IS DISCONTINUOUS
MOBILIZATION HIGH

CENTRE OF B BEACH

SDY/PEBBLE BEACH. SAND DUNES SEPARATE
BEACH ZONE & LAGOON (WIND BLOWN).
V. LT SPLAT (HITZ) 0.05 CM (WEATHERED MOUSSE)
LO WAVE ENERGY

SE CORNER OF B BEACH

V. L.T. SPLAT (WEATHER MOUSSE) ON BOUNDARY
SPLASH ZONE DRIFT LOGS ALSO V. LT SPLAT
1/2 M WIDE IMPACT ZONE

SUMMARY AB-IN

20% B	10% C	10% P	20% G & S	40% R
APPROX	300 X 1 M	V. LT	30 X 5 LT	20 X 5 MO
5% FREE OIL	60% SAT	30% COAT	5% PANCAKES	SP
H/M	SP/H/M	H/M		

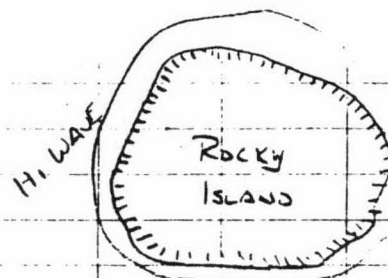
CHOC MOUSSE 20% WEATHERED 80%
H/M SP/H/M
(THICKER ACCUMULATION (IN BETWEEN BOUNDRY CRACKS ETC))

ACE 87092242

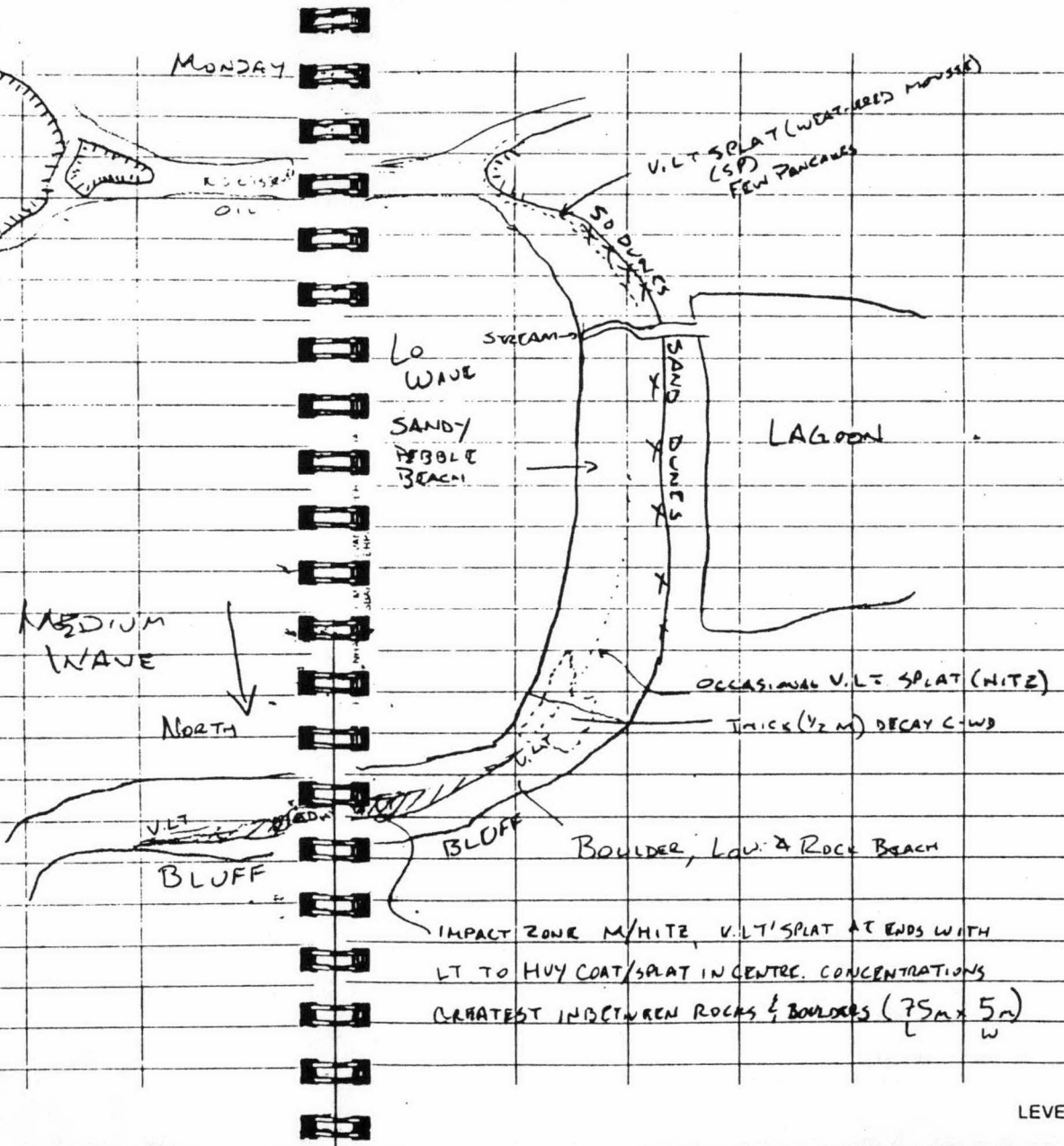
LEVEL

10 July 89

MONDAY



PLANE VIEW
 B BEACH
 AB-IN



ACE 8709243

ECOLOGICAL EVALUATION

LOCATION: Alinehak Bay SITE: ^{Katmai Nat'l Park Boundary} 3 miles south OBSERVER: J. Tarpley
 LOCATION PREFIX: K10/AB SEG. NO.: K10-1-AB-1N LENGTH: 6850 (M)
 DATE: 7/10/89 TIME (HHMM): 1030 TIDE HT.: ~ +2.5m (M)
 OILED ZONE: (Splash High Medium Low)
 SUBSTRATUM: (Rocks Boulder Cobble Gravel Sand Mud)

LIVE BIOTA

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

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

Shells only on sandy beach

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

Only found on boulders and rock faces of segment

Littorina

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

Only found in rocky areas

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

OTHER OBSERVATIONS: Light to moderate concentrations of non oiled algal
drift on sandy beaches and beach pockets. Other spp. of algae present on rocks:
is, Enteromorpha, Odonthalia, Sargassum.

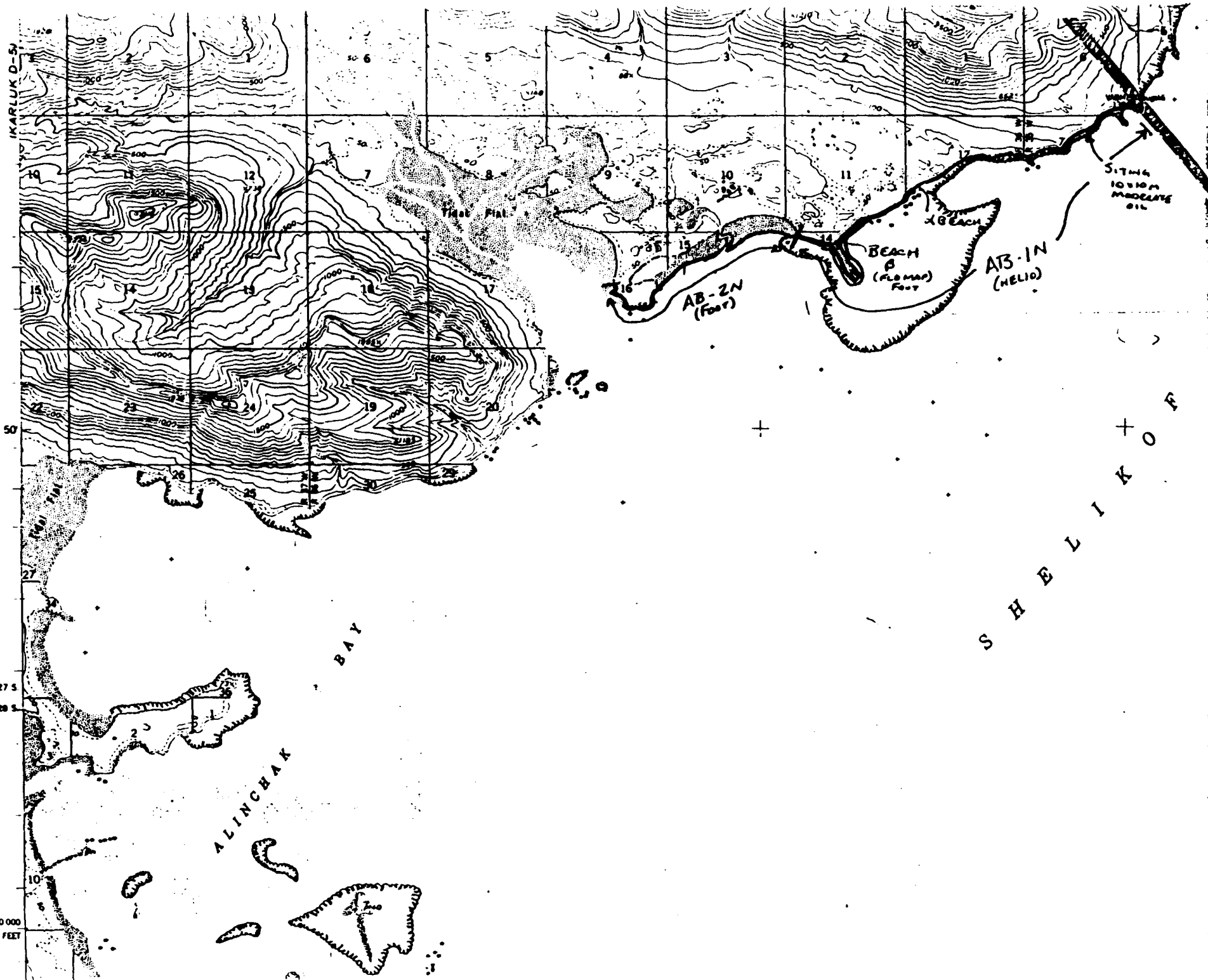
CLEANUP PRECAUTIONS: Avoid oiling healthy low ITZ during cleanup.

Avoid stream and pond behind dunes. No foot traffic on sand dunes

MAMMALS: Otters _____ Harbor Seals _____ Sea Lions _____ Whales _____
 Other Caribou, bear, Fox, Wolf Tracks: 2 Fox on beach

BIRDS: Glaucous-winged gulls on beach

GENERAL OBSERVATIONS: Littorina observed to graze oil splatter. Bivalve shells
on beach, shallow clam beds offshore.



ACE 8709245-14

10-945- KODIAK SCAT
K10-2

~~CANCELLED~~

ACE 7964000

ORIGINAL
RECEIVED
8/1/89

TYPE A SHORELINE CLEANUP WORK ORDER

Date 7/28/89

Shoreline Segment AS-8, AB-2N

Location (see map)

North Central Alinchak Bay

ADEC No. K10-2

Shoreline assessment date 7/19/89

Recommended Cleanup Activities

Manual removal - Passive collection with sorbents - Driftwood cleaning and sea weed removal
Use manual hand cleanup of mousse pancakes on beach Check mouth of stream as it cuts through beach zone for buried mousse adjacent to channel. No Cleanup in AS-7.

Priority Considerations

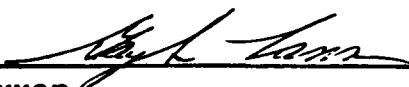
AS-8 Class 3- Moderate oiling - resources present
AB-2N Segment is located within a National Wildlife Refuge abundant with terrestrial wildlife. Salmon stream is located within this segment. Clam beds offshore.

Ecological Constraints

AS-8 Avoid areas that do not need cleanup. Care should be taken to avoid oiling of tidal flat areas. Preferrably clean at low tide so that mousse cannot be introduced to water and floated to tidal flats. AB-2N Avoid reoiling stream and healthy low ITZ on rocky point. Avoid foot traffic on sand dunes.

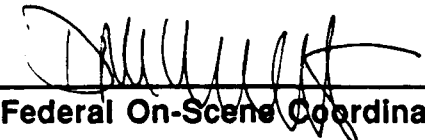
Archaeological Constraints (from site survey)

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 ammended).

Submitted by: 

Exxon

Date 8/1/89

Approved: 

Federal On-Scene Coordinator Representative

Date 8/1/89

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/19/89

SHORELINE SEGMENT K10-2-AS-8

LOCATION: (see enclosed map) North central Alinchak Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/19/89

Recommended Cleanup Activity(ies):

- Manual removal
- Passive collection with sorbents
- Driftwood cleaning and sea weed removal

Priorities/Considerations: Class 3

- Moderate oiling
- resources present

Ecological Constraints (from site survey):

- Avoid areas that do not need cleanup. Care should be taken to avoid oiling of tidal flat areas. Preferrably clean at low tide so that mousse cannot be introduced to water and floated to tidal flats.

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: 7/24/89

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): K10-2

Includes Shoreline Segments: AS-7, AS-8, AB-2N

Location: Alinchak 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

ACE 8709248

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/19/89

SHORELINE SEGMENT K10-2-AB-2N

LOCATION: (see enclosed map) North of Alinchak Bay, Alaskan
Peninsula (Kodiak)

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

Recommended Cleanup Activity(ies):

- Use manual/hand cleanup of mousse pancakes on beach (middle-high intertidal and storm splash zones). Check mouth of stream as it cuts through beach zone for buried mousse adjacent to channel.

Priorities/Considerations: Class A

- Segment is located within a National Wildlife Refuge abundant with terrestrial wildlife. Salmon stream is located within this segment. Clam beds offshore.

Ecological Constraints (from site survey):

- Avoid reoiling stream and healthy low ITZ on rocky point.
- Avoid foot traffic on sand dunes.

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: 7/24/89

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

SHORELINE OIL EVALUATION

Date: 8/19 Sep 1988 Time: 1115-1400
 Surveyed From: Foot/Boat/Helio/Plane

Observer: DUNCAN M. F. GERALD
 Weather: Sun/Cloud/Rain/Snow/Fog

CATION

Location: North-central Alinghak Br. Segment ID: K-10-2-A-8
 Segment Length: 11.6 km m. Access: Vehicle/Boat/Barge/Helio/Float Plane
 Access Restrictions: Tidal Flo. Area, barge access only at higher water

SHORELINE

Shoreline Type: SPI/BEA/COV/HLD/STRT Slope: Lo/Med/Hi/Vert
 Wave Exposure: High/Med/Low
 Sediment: B 20 % / C 20 % / P 5 % / G&S 30 % / M 5 % / R 10 %

IL

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

IL DISTRIBUTION

Continuous % of Segment 40 SU/SP/H/M/L H/M/L/VL
 Sporadic % of Segment 40 SU/SP/H/M/L H/M/L/VL

Oil	Length(m)	Width(m)	Thickness >1cm:	cm	SU/SP/H/M/L
Very light:	<u>800</u>	<u>1-4</u>	Penetration/Rework:	cm	SU/SP/H/M/L
Light:	<u>2000</u>	<u>2-5</u>	Burial Depth:	cm	SU/SP/H/M/L
Moderate:	<u>1200</u>	<u>2-6</u>			
Heavy:	<u>400</u>	<u>2-5</u>			

obilization Potential: High/Medium/Low
 Shift Debris Oiled? Y/N Amount: H/M/L/VL SU/SP/H/M/L Type: Dr. Food - seaweed

IL MORPHOLOGY

Oil	%	H/M/L/VL	SU/SP/H/M/L
Coiled Oil:	<u>20</u>		SU/SP/H/M/L
Free Oil:	<u>30</u>		SU/SP/H/M/L
Plattered:	<u>30</u>		SU/SP/H/M/L
Coated:	<u>20</u>		SU/SP/H/M/L
Cakes/Balls:	<u>20</u>		SU/SP/H/M/L

Preliminary Cleanup Est.

Total TYPE A: 3600 m
 Total TYPE B: m
 Total TYPE A/B: m

IL WEATHERING

Oil	%	SU/SP/H/M/L
Fresh:	<u>10</u>	SU/SP/H/M/L
Mousse:	<u>30</u>	SU/SP/H/M/L
Weathered Mousse:	<u>20</u>	SU/SP/H/M/L
Asphalt Mousse:	<u>40</u>	SU/SP/H/M/L

COMMENTS

Detail location and types of oiling conditions
 are given in the accompanying maps and diagrams

ECOLOGICAL EVALUATION

LOCATION: North Central Alinchock Bay SITE: Tidal Flat OBSERVER: B. Martin
 LOCATION PREFIX: AS SEG. NO.: 8 LENGTH: 11600 (M)
 DATE: 7/18/89 TIME (HHMM): 1115-1400 TIDE HT.: +0.3 - +4.4 (M)
 (Compare 7/19/89 0930-1045 -0.76 - (-0.55) (M)
 OILED ZONE: Splash High Medium Low moderate to heavy.
 SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

Fucus very sparse. Some algal mats in tidal flat areas.

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

Few Mytilus encountered. Small beds were found in rocky areas. Lots of shell.

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

Patchy but present in upper to mid ITZ

Littorina

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

Patchy and generally sparse but present in upper to mid ITZ

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

None encountered

OTHER OBSERVATIONS: Vast tidal flats, presumably containing bivalves. Some shells found. Polychaete disturbance on tidal flats.

CLEANUP PRECAUTIONS: Clean-up crews should avoid areas which don't need cleaning
Avoid piling tidal flats. Many bears in area.

MAMMALS: Otters _____ Harbor Seals _____ Sea Lions _____ Whales _____
 Other Caribou in area. Also numerous bears.

BIRDS: Gulls

GENERAL OBSERVATIONS: Very large tidal flat with boulder and cobble shores.
Most piling (particularly moose) occurs on northeast shores of inlets

ACE 8709251

POOR QUALITY ORIGINAL

ORELINE OIL EVALUATION

Date: 10 July 89 / Time: 1345
 Surveyed From: Foot/Boat/Helio/Plane

Observer: Bryan Trimm
 Weather: SUN/Cloud/Rain/Snow/Fog

LOCATION

Location: NORTH OF ALINCHIAE BAY, ALASKA PEN Segment ID: K10-2-AB-2N
 Segment Length: 3250 m. Access: Vehicle/Boat/Barge/Helio/Float Plane
 Access Restrictions: NONE

SHORELINE

Shoreline Type: SPI/BEA/COV/BLD/STRT Slope: Lo/Med/Hi/Vert
 Wave Exposure: High/Med/Low
 Sediment: B 1 % / C 1 % / P % / G&S 90 % / M % / R 3 %

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 70

SU/SP/H/M/L
 SU/SP/H/M/L

H/M/L/VL
 H/M/L/VL

Total	Length(m)	Width(m)	Thickness >1cm:	
Very light:	<u>3000</u>	<u>1/4</u>	<u>5</u> cm	SU/SP/H/M/L
Light:	<u>100</u>	<u>1</u>	Penetration/Rework: <u> </u> cm	SU/SP/H/M/L
Moderate:	<u>30</u>	<u>4</u>	Burial Depth: <u>10</u> cm	SU/SP/ <u>H</u> /M/L
Heavy:	<u> </u>	<u> </u>		

Mobilization Potential: High/Medium/Low

Drift Debris Oiled? YN Amount: H/M/L/VL SU/SP/H/M/L Type: Low

OIL MORPHOLOGY

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

Preliminary Cleanup Est.

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

OIL WEATHERING

Fresh: <u> </u> %	SU/SP/H/M/L
Mousse: <u>50</u> %	SU/ <u>SP</u> /H/M/L
Weathered Mousse: <u>50</u> %	SU/ <u>SP</u> /H/M/L
Asphalt Mousse: <u> </u> %	SU/SP/H/M/L
Var: <u> </u> %	SU/SP/H/M/L

COMMENTS

VERY LIGHT SPLATTER FOUND IN SPLASH (STORM) & HIGH INTERTIDAL ZONES THROUGHOUT SEGMENT. VERY LIGHT SPLATTER IS EASILY SEEN ON THE ROCKY HEADLANDS ON THE FAR WEST END. WHERE THE STREAM MOUTH CUTS THROUGH THE BEACH ZONE, PANCAKES ARE BURIED UP TO 10CM DEEP IN CLEAN SAND. BURIED OIL IS PRIMARILY FOUND WEST OF STREAM. THIS SEGMENT IS DOMINATED BY WIND BLOWN FINE SAND MAKING UP THE 10M HIGH DUNES. BURIAL IS QUICK IN THIS WINDY BEACH SEGMENT - THUS CLEANUP CREWS WILL HAVE TO DIG TO DETERMINE IF OTHER OIL DEPOSITS HAVE BEEN DEPOSITED SINCE THIS SURVEY. SEE ENCLOSED FIELD MAP FOR LOCATION OF KNOWN OILING.

DOCUMENTATION:

Map/Aerial photo marking segment boundaries See Attached

VTR: Y/N Tape Number(s) _____

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

Sample Numbers Collected: N/A

10 JULY 89

MONDAY

1231

LV BEACH β

RECOMMEND HAND/MANUAL W/ SPECIMENTS

CHECK CWD FOR OIL & REMOVE IF TAINTED.

PICK UP SMALL STICKS. DO NOT REMOVE

LG LOGS

1231

FLY TO DUNCAN'S SCAT TEAM.

LD 1245 C-12 RADIO. EAT LUNCH

LV 1334 LV FG. BACK TO ALINCHAIL BAY

1345

LAND AB-2NWIDE $\frac{3}{4}$ G/PRO BEACH. A LOT OF DUNES

(WIND BLOWN)

PANCAKES 15cm DIA 1 $\frac{1}{2}$ CM THICK

V.L.T. IN WIDE ZONE OF IMPACT DISC

IN SPLASH ZONE

95% $\frac{3}{4}$ G/5% PRO

TIDAL FLATS LITZ - clean

DUNES - WIND BLOWN

CAR. SAND ON BEACH

DIG IN SD DOWN TO 3cm - CLEAN (SPECIMEN)

10 JULY 89

MONDAY

EAST CORNER OF BEACH

1m CONTINUOUS BANDS CHOC MOUSSE W/ C-WD

(COLL.) SPLASH ZONE 30m LONG

MOUSSE BEGINNING TO BE BURIED IN SPLASH ZONE.

CHOC MOUSSE INSIDE.

PANCAKE BURNING AT PRESENT TIME IN SD. (5cm

DEEP) PANCAKE ALSO 5cm THICK. SOME W/ $\frac{1}{2}$

W/OUT C-WD

WEST OF STREAM

BURIED BY 3-4cm OF CLEAN SD, 3-5cm

OF CHOC MOUSSE W/ C-WD IN HITZ

DUG DEEPER - NO OIL BELOW 10cm.

THE SUNNY WARM DAY, THIS MOUSSE

CAN "RUN" - BUT

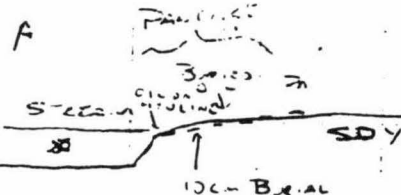
At bend in stream pancake mousse
found in stream to mid HITZ; some
buried to 10 cm. Clean sand on top
approx. thickness of buried mousse 2cm;
clean sand above & below HITZ.

Fumes coming off pancakes.

LEVEL

ACE 8709255

10 JULY 89



MONDAY

10 JULY 89

MONDAY

1726

FLY OVER

AB-2N

CONTACT 538EH TO CHECK ON THEIR
(CAREFUL)
REFUELING. 538EH OK. LAND AT
KATMA BAY BEACH PUT FLOAT SUITS
ON & HEAD TO ADR.

1829

LD ADR -

OFFICE WORK

2100 - DINNER & GOOD NIGHT

LEVEL

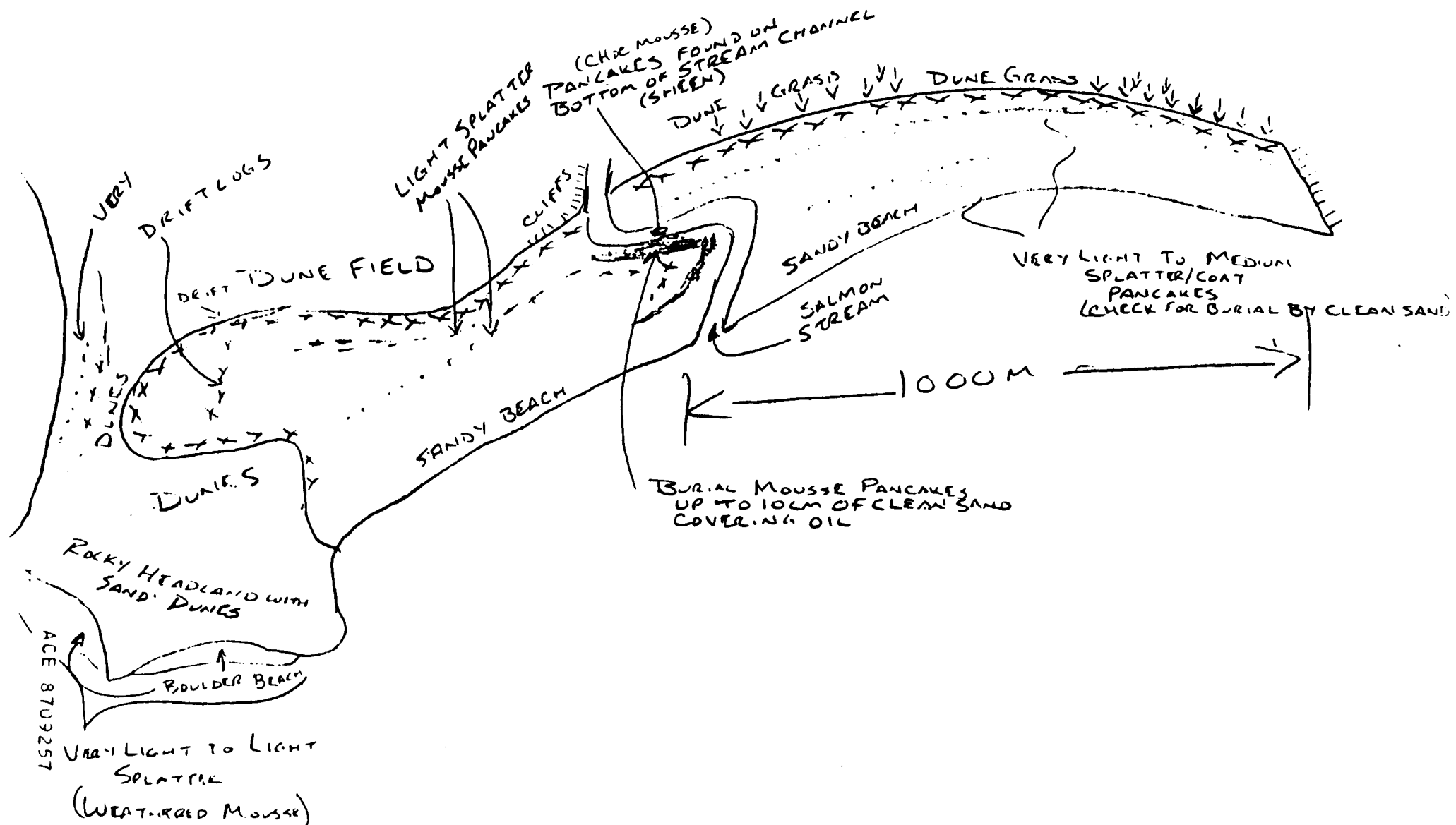
ACE 8709256

10 JULY '89

PLANE VIEW

AB-2N
(FOOT)

↑
NORTH



ECOLOGICAL EVALUATION

LOCATION: Alinchak Bay SITE: North of bay OBSERVER: J. Tarpley
 LOCATION PREFIX: K10/AB SEG. NO.: K10-2-AB-2N LENGTH: 3250 (M)
 DATE: 7 / 10 / 89 TIME (HHMM): 1340 TIDE HT.: ~ + 1.25 m (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

Shell debris only

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

Located on rocky point only

Littorina

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

Located on rocky point only

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

OTHER OBSERVATIONS: Other algae present = Halosaccion, Enteromorpha ;

Bears 1/4 mi inland upstream! Clam bed offshore - Shell debris on beach (Razor, Mytilus, Saxodonta)

Dried nonoiled algal drift present. Clam beds offshore. Flatfish & salmonids in river.

CLEANUP PRECAUTIONS: Avoid reoiling. stream. Clean this area during lowest tide available. Avoid oiling healthy low ITZ on rocky pt. No foot traffic on dunes.

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

Other / Live Caribou on beach; Caribou, bear + cats tracks, Fox tracks

BIRDS: Gulls on beach ; 3 dead oiled birds ; 1 bald eagle roosting on cliff

GENERAL OBSERVATIONS: Heaviest oiling up stream (Mousse patties) starting to get buried by sand Mousse patties Underwater in stream also present. Black anoxic sediments at edge of stream. These anoxic sediments are natural no need to clean up. However, pick up' mousse patties on stream bank and avoid further oiling into stream

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 7/10/89 Location ALINCHAK BAY Site NORTH H BAY

Location Prefix K-10-2 Segment # AB-2N Length 3250 M

Survey Method:

Air _____ (A - indicate on map) Boat _____ (A - indicate on map)

Ground X (G - indicate on map)

Known cultural resources (AHRS #) NONE Data Source AHRS FILES

Oil conditions/beach visibility MODERATELY DIMED

Width of beach zone surveyed 100 m ^{Dune} ~~Tree~~ fringe surveyed 100 M

Cultural resources observed in beach zone (AHRS code) NONE OBSERVED

Cultural resources observed in tree fringe (AHRS code) NONE OBSERVED

General observations justifying survey method and segment's site probability:

Shore Profile BROAD SAND BEACH - ROLLING DUNE UPHILLS

Fresh Water Sources SMALL STREAM

Sea Exposure MODERATE TO HIGH ENERGY BEACH

Access/Safety NECESSARY BY AIR OR BOAT

Probability of undiscovered sites in beach zone (circle one) 2 3 4 5

Monitoring during cleanup needed yes/NO Collection yes/NO

Photos: Color Roll # _____ Frames _____

B/W Roll # RK 2 Frames 3-12

Observer(s) RIK KIELT

Time survey started 1:42 PM Time survey ended 5:23 PM

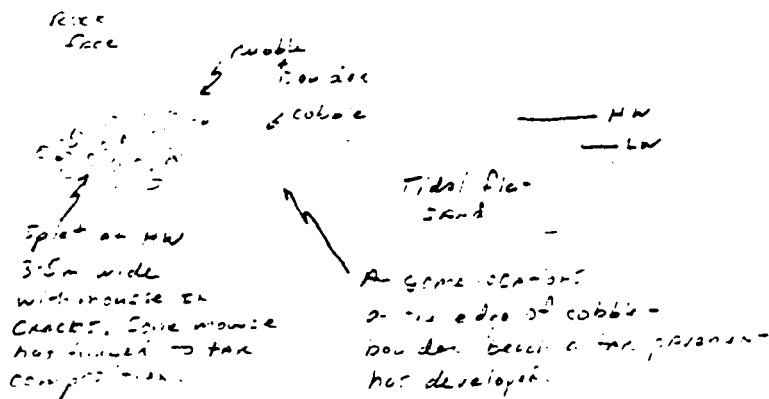
Cultural resource considerations/restraints:

NO CULTURAL RESOURCES OBSERVED - IF ANY ARE LOCATED CONTACT

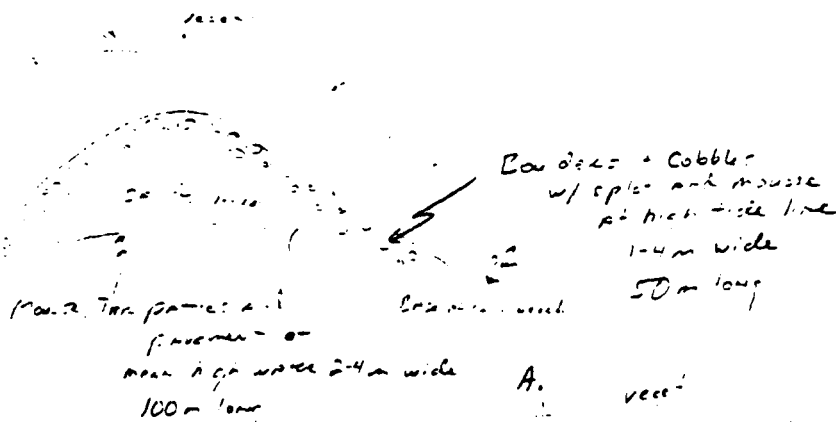
EXXON ARCHAEOLOGICAL SUPERVISOR IMMEDIATELY



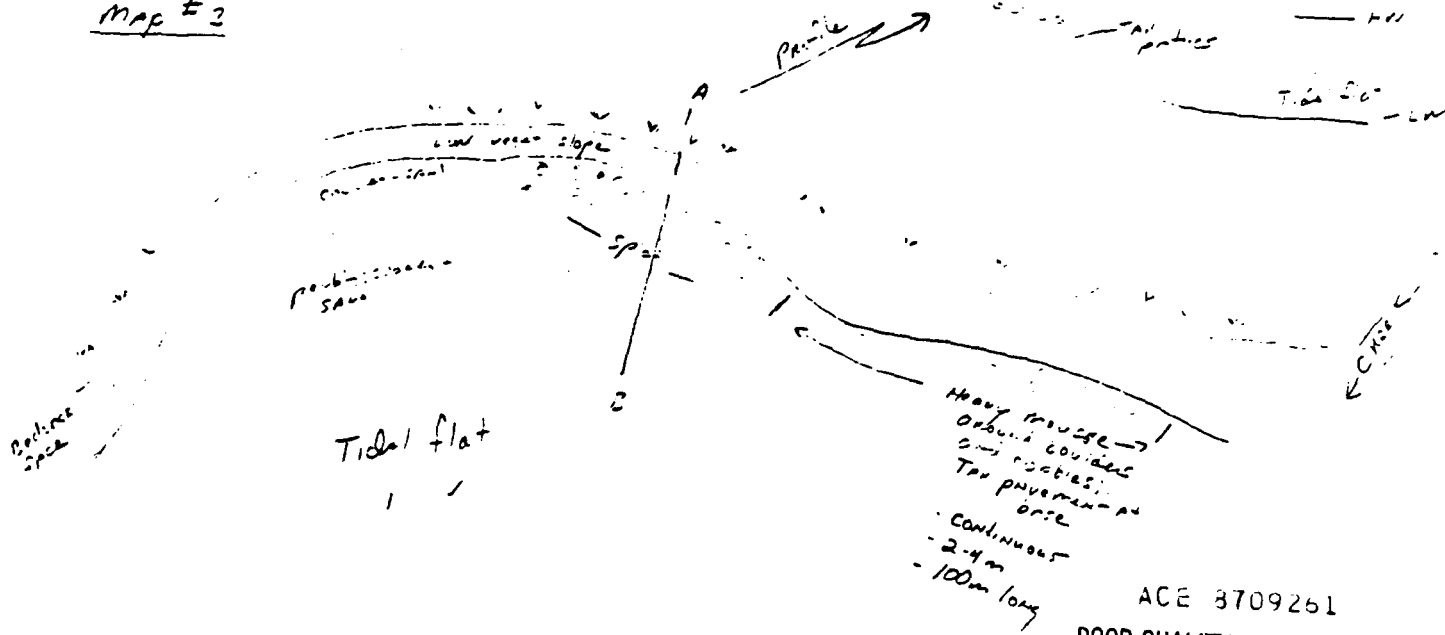
MAP # 1



MAP # 2



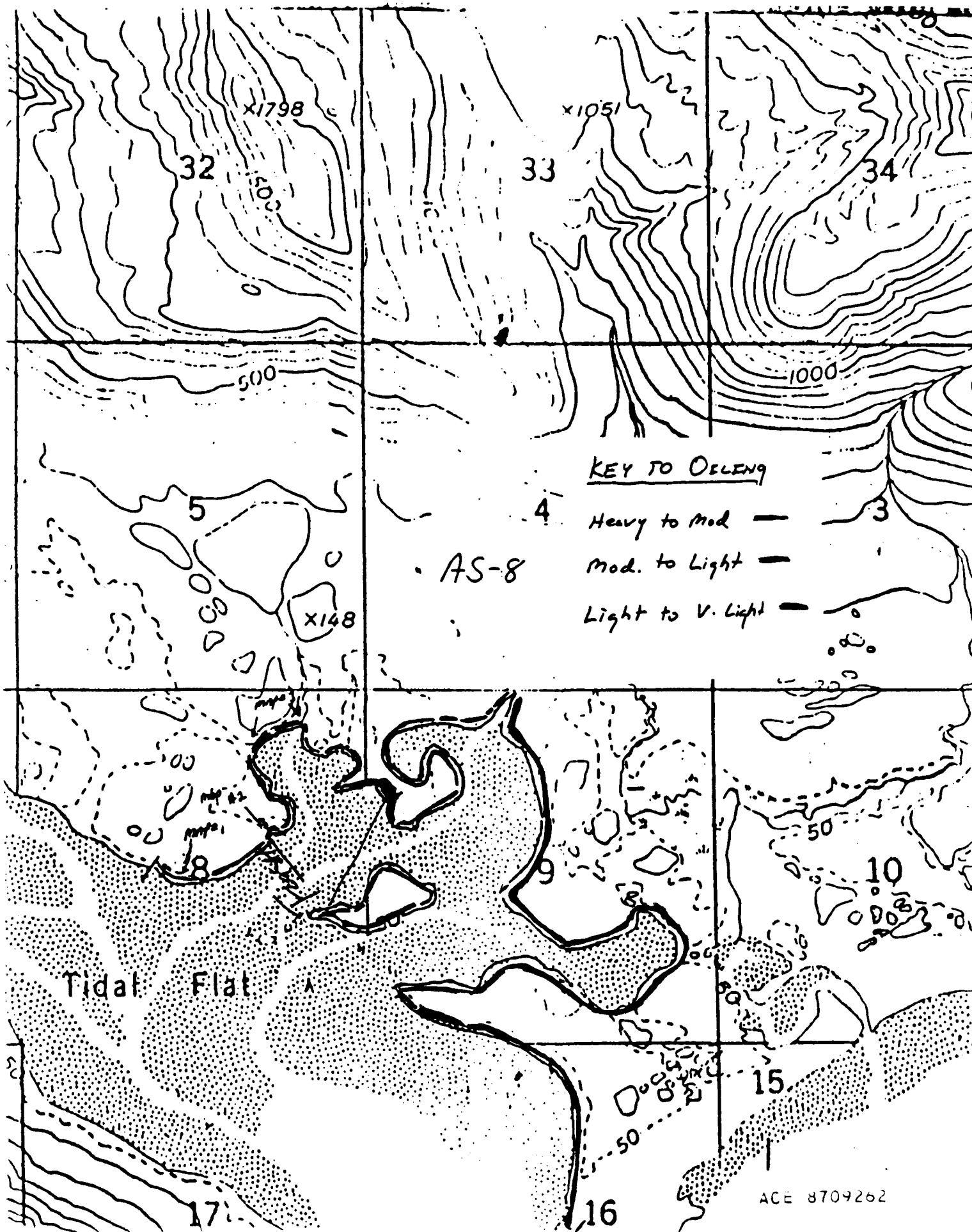
MAP # 3



ACE 8709261
POOR QUALITY ORIGINAL

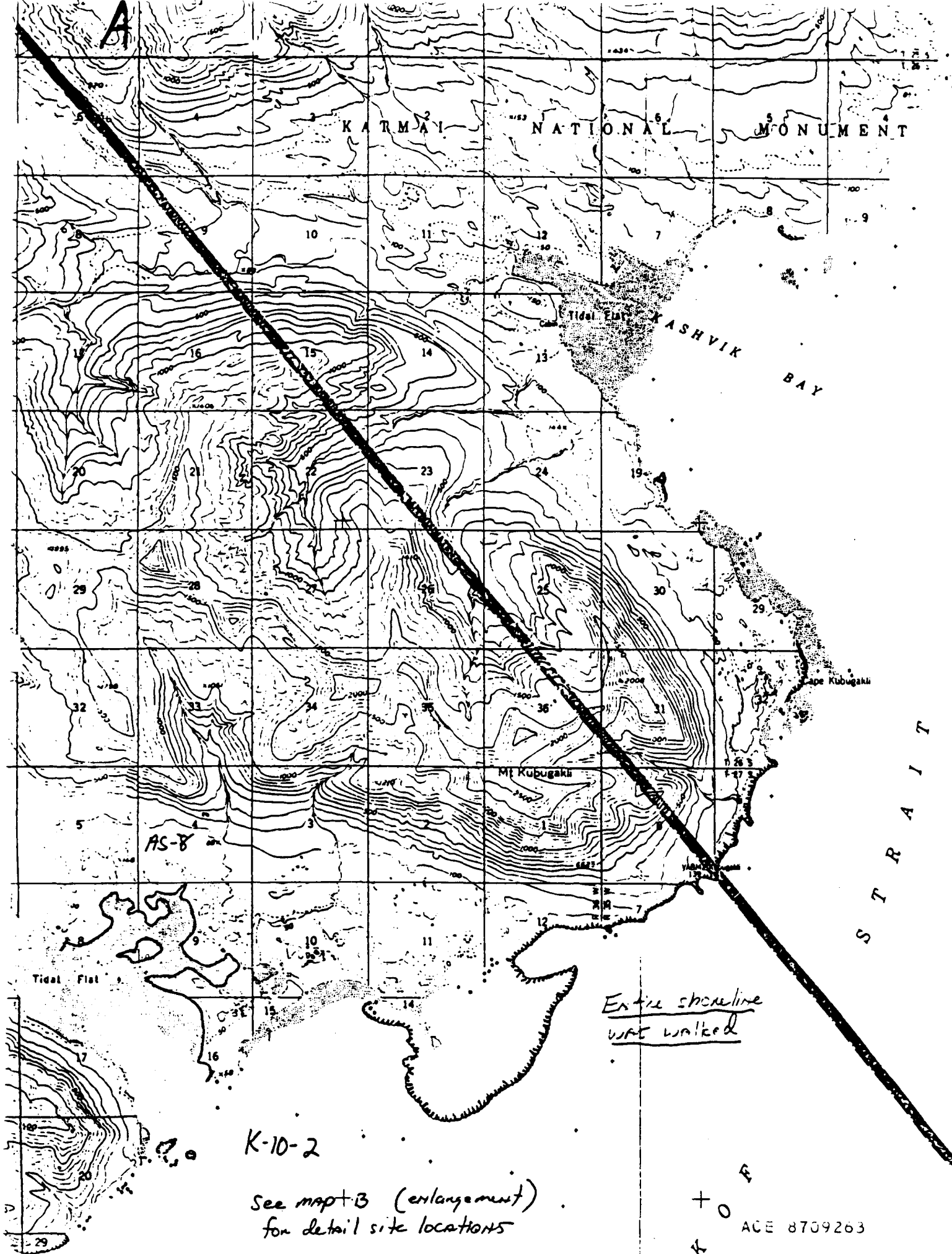
MAP B

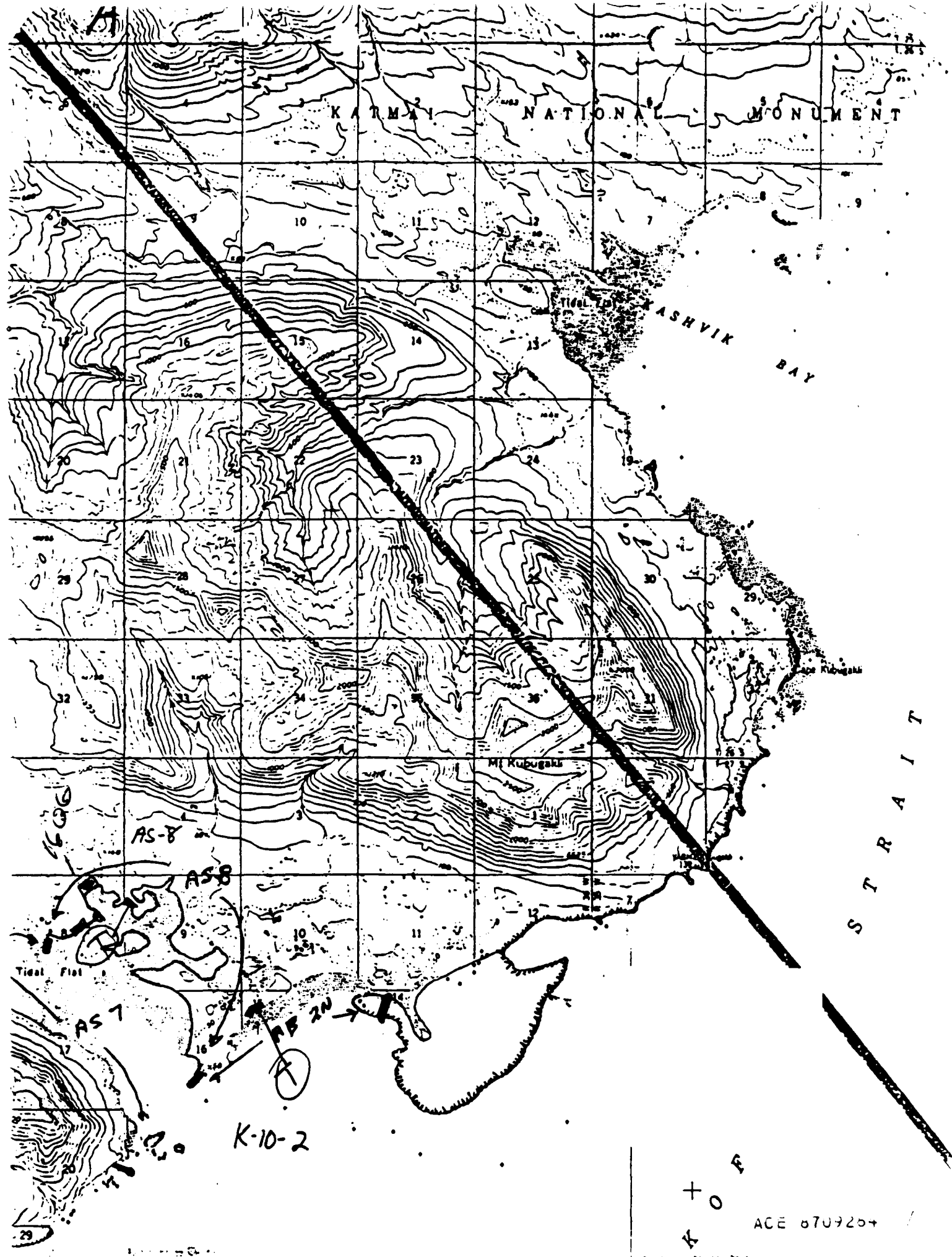
ENLARGEMENT of Map A



KEY TO OCEAN

- 4 Heavy to Mod — 3
- AS-8 Mod. to Light —
- Light to V. Light —





+ O F
K

ACE 6709254

ORIGINAL
RECEIVED
8/1/89

TYPE A SHORELINE CLEANUP WORK ORDER

Date 7/28/89

Shoreline Segment AS-8, AB-2N

Location (see map)

North Central Alinchak Bay

ADEC No. K10-2

Shoreline assessment date 7/19/89

Recommended Cleanup Activities

Manual removal - Passive collection with sorbents - Driftwood cleaning and sea weed removal
Use manual hand cleanup of mousse pancakes on beach Check mouth of stream as it cuts through beach zone for buried mousse adjacent to channel. No Cleanup in AS-7.

Priority Considerations

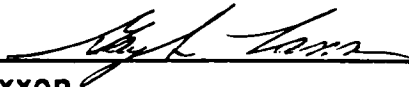
AS-8 Class 3- Moderate oiling - resources present
AB-2N Segment is located within a National Wildlife Refuge abundant with terrestrial wildlife. Salmon stream is located within this segment. Clam beds offshore.

Ecological Constraints

AS-8 Avoid areas that do not need cleanup. Care should be taken to avoid oiling of tidal flat areas. Preferably clean at low tide so that mousse cannot be introduced to water and floated to tidal flats. AB-2N Avoid reoiling stream and healthy low ITZ on rocky point. Avoid foot traffic on sand dunes.

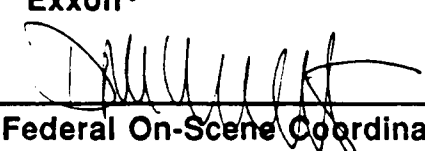
Archaeological Constraints (from site survey)

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 ammended) .

Submitted by: 

Exxon

Date 8/1/89

Approved: 

Federal On-Scene Coordinator Representative

Date 8/1/89

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/19/89

SHORELINE SEGMENT K10-2-AS-8

LOCATION: (see enclosed map) North central Alinchak Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/19/89

Recommended Cleanup Activity(ies):

- Manual removal
- Passive collection with sorbents
- Driftwood cleaning and sea weed removal

Priorities/Considerations: Class 3

- Moderate oiling
- resources present

Ecological Constraints (from site survey):

- Avoid areas that do not need cleanup. Care should be taken to avoid oiling of tidal flat areas. Preferably clean at low tide so that mousse cannot be introduced to water and floated to tidal flats.

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.

J. David M. Mahan
State Historic Preservation Officer *

Date: 7/24/89

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): K10-2

Includes Shoreline Segments: AS-7, AS-8, AB-2N

Location: Alinchak 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

ACE 8709267

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/19/89

SHORELINE SEGMENT K10-2-AB-2N

LOCATION: (see enclosed map) North of Alinchak Bay, Alaskan
Peninsula (Kodiak)

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

Recommended Cleanup Activity(ies):

- Use manual/hand cleanup of mousse pancakes on beach (middle-high intertidal and storm splash zones). Check mouth of stream as it cuts through beach zone for buried mousse adjacent to channel.

Priorities/Considerations: Class A

- Segment is located within a National Wildlife Refuge abundant with terrestrial wildlife. Salmon stream is located within this segment. Clam beds offshore.

Ecological Constraints (from site survey):

- Avoid reoiling stream and healthy low ITZ on rocky point.
- Avoid foot traffic on sand dunes.

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: 7/24/89

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

SHORELINE OIL EVALUATION

Date: 2/19/84 Time: 1115-1400
Surveyed From: Foot/Boat/Helio/Plane

Observer: DUNCAN M. E. GEAR
Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

Location: North-central Alachua Bay Segment ID: K-10-2-F-E
Segment Length: 11.6 km m. Access: Vehicle/Boat/Barge/Helio/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 20 % / P 5 % / G&S 30 % / M 5 % / R 10 %

IL

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

IL DISTRIBUTION

Continuous % of Segment 40 SU/SP/H/M/L H/M/L/VL
Spodic % of Segment 40 SU/SP/H/M/L H/M/L/VL

Oil	Length(m)	Width(m)	Thickness >1cm:	cm	SU/SP/H/M/L
Very light:	<u>800</u>	<u>1-4</u>			
Light:	<u>200</u>	<u>2-5</u>	Penetration/Rework:		SU/SP/H/M/L
Moderate:	<u>1200</u>	<u>2-6</u>	Burial Depth:		SU/SP/H/M/L
Heavy:	<u>400</u>	<u>2-5</u>			

Stabilization Potential: High/Medium/Low
Left Debris Oiled? Y/N Amount: H/M/L/VL SU/SP/H/M/L Type: Dr. Wood - removed

IL MORPHOLOGY

Oil	%	SU/SP/H/M/L
Coiled Oil:	<u>20</u>	SU/SP/H/M/L
Free Oil:	<u>30</u>	SU/SP/H/M/L
Plattered:	<u>30</u>	SU/SP/H/M/L
Coated:	<u>20</u>	SU/SP/H/M/L
Cakes/Balls:	<u>20</u>	SU/SP/H/M/L

Preliminary Cleanup Est.

Total TYPE A: 3600 m
Total TYPE B: m
Total TYPE A/B: m

IL WEATHERING

Weathering	%	SU/SP/H/M/L
Fresh:	<u>10</u>	SU/SP/H/M/L
Mousse:	<u>30</u>	SU/SP/H/M/L
Weathered Mousse:	<u>20</u>	SU/SP/H/M/L
Asphalt Mousse:	<u>40</u>	SU/SP/H/M/L

COMMENTS

Detail description and types of oiling conditions
are given in the accompanying report and diagrams

ECOLOGICAL EVALUATION

LOCATION: North central Alinchock Bay SITE: Tidal Flat OBSERVER: B. Martin
 LOCATION PREFIX: AS SEG. NO.: 8 LENGTH: 11600 (M)

DATE: 7/18/89 TIME (HHMM): 1115-1400 TIDE HT.: +0.3 - -4.4 (M)
Compass 7/19/89 0930-1045 -0.76 - (-0.55) (M)

OILED ZONE: Splash High Medium Low moderate to heavy.

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

Fucus very sparse. Some algal mats in tidal flat areas.

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

Mytilus encountered. Small beds were found in rocky areas. Lots of shell.

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

Balanus patchy but present in upper to mid ITZ

Littorina

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

Littorina patchy and generally sparse but present in upper to mid ITZ

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

Limpets none encountered

OTHER OBSERVATIONS: Vast tidal flats, presumably containing bivalves. Some shells found. Polychaete disturbance on tidal flats.

CLEANUP PRECAUTIONS: Clean-up crews should avoid areas which don't need cleaning
Avoid oiling tidal flats. Many bears in area.

MAMMALS: Otters Harbor Seals Sea Lions Whales
 Other Caribou in area. Also numerous bears.

BIRDS: Gulls

GENERAL OBSERVATIONS: Very large tidal flat with boulder and cobble shores.
Most oiling (particularly mousse) occurs on northeast shores of inlet

ACE 8709270

POOR QUALITY ORIGINAL

ORELINE OIL EVALUATION

Date: 10 July 89 / Time: 1345
 Surveyed From: Foot/Boat/Helio/Plane

Observer: Bryan Trimm
 Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

Location: NORTH OF ALINGHAR BAY, ALASKA PEN. Segment ID: K10-2-AB-2N
 Segment Length: 3250 m. Access: Vehicle/Boat/Barge/Helio/Float Plane
 Access Restrictions: NONE

SHORELINE

Shoreline Type: SPI/BEA/COV/ELD/STRT Slope: Lo/Med/Hi/Vert
 Wave Exposure: High/Med/Low
 Sediment: B 1 % / C 1 % / P % / G&S 90 % / M % / R 3 %

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 SU/SP/H/M/L H/M/L/VL
 Sporadic % of Segment 70 SU/SP/H/M/L H/M/L/VL

Total	Length(m)	Width(m)	Thickness >1cm:		
Very light:	<u>3000</u>	<u>1/4</u>	<u>5</u>	cm	SU/SP/H/M/L
Light:	<u>100</u>	<u>1</u>		cm	SU/SP/H/M/L
Moderate:	<u>30</u>	<u>4</u>		cm	SU/SP/ <u>H/M/L</u>
Heavy:					

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

OIL MORPHOLOGY

Pooled Oil:	<u>-</u> %		SU/SP/H/M/L
"Free" Oil:	<u>-</u> %		SU/SP/H/M/L
Splattered:	<u>-</u> %	H/M/L/VL	SU/SP/H/M/L
Coated:	<u>-</u> %	H/M/L/VL	SU/SP/H/M/L
Pancakes/Balls:	<u>100</u> %		SU/ <u>SP/H/M/L</u>

Preliminary Cleanup Est.

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

OIL WEATHERING

Fresh:	<u>-</u> %	SU/SP/H/M/L
Mousse:	<u>50</u> %	SU/ <u>SP/H/M/L</u>
Weathered Mousse:	<u>50</u> %	SU/ <u>SP/H/M/L</u>
Asphalt Mousse:	<u>-</u> %	SU/SP/H/M/L
Tar:	<u>-</u> %	SU/SP/H/M/L

COMMENTS

VERY LIGHT SPATTER FOUND IN SP-LASH (STORM) & HIGH INTERSTITIAL ZONES THROUGHOUT SEGMENT. VERY LIGHT SPATTER IS EASILY SEEN ON THE ROCKY HEADLANDS ON THE FAR WEST END. WHERE THE STREAM MOUTH CUTS THROUGH THE BEACH ZONE, PANCAKES ARE BURIED UP TO 10CM DEEP IN CLEAN SAND. THIS SEGMENT IS DOMINATED BY WIND BLOWN BURIED OIL IS PRIMARILY FOUND WEST OF STREAM. BURIAL IS QUICK IN THIS WINDY BEACH SEGMENT - THUS FOR SAND MAKING UP THE 10M HIGH DUNES. CLEANUP CREWS WILL HAVE TO DIG TO DETERMINE IF OTHER OIL DEPOSITS HAVE BEEN DEPOSITED SINCE THIS SURVEY. SEE ENCLOSED FIELD MAP FOR LOCATION OF KNOWN OILING.

DOCUMENTATION:

Map/Aerial photo marking segment boundaries See Attached

VTR: Y/N Tape Number(s) _____

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

Sample Numbers Collected: N/A

10 JULY 89

MONDAY

1231

LV BEACH β

RECOMMEND HAND/MANUAL W/ SERBENTS.

CHECK CWD FOR OIL & REMOVE IF TAINTED.

PICK UP SMALL STICKS. DO NOT REMOVE

LG LOGS

1231

FLY TO DUNCAN'S SCAT TEAM.

LD 1245 CWD RADIO. EAT LUNCH.

LV 1334 LV #G₂ BACK TO ALINCHAIL BAY.

1345

LAND

AB-2N

WIDE 3/4 PRO BEACH A LOT OF DUNES

(WIND BLOWN)

PANCAKES 15cm DIA 1 1/2 CM THICK

U.LT IN WIDE ZONE OF IMPACT DISC

IN SPLASH ZONE

95% S₁G/5% PD

TIDAL FLATS LITZ - clean

DUNES - WIND BLOWN

CAR. BAY ON BEACH

DUG IN SD DOWN TO 3cm - CLEAN (SPRONG)

10 JULY 89

MONDAY

EAST CORNER OF BEACH

WIDE
1m CONTINUOUS TRANS CHOC MOUSSE W/ CWD
(COILED) SPLASH ZONE 30m LONG

MOUSSE BEGINNING TO BE BURIED IN SPLASH ZONE.

CHOC MOUSSE INSIDE.

PANCAKE BURNING AT PRESENT TIME IN SD. (5cm

DEEP) PANCAKE ALSO 5cm THICK. SOME W/ $\frac{1}{2}$

W/OUT CWD

WEST OF STREAM

BURIED BY 3-4cm OF CLEAN SD, 3-5cm

OF CHOC MOUSSE W/ CWD IN HITZ

DUG DEEPER - NO OIL BELOW 10cm.

THE SUNN. WARM DAY, THIS MOUSSE

CAN "RUN" - BJT

At bend in stream pancake mousse
found in stream to mid ITZ; some
buried to 10 cm. Clean sand on top
Approx. thickness of buried mouse 2cm;
clean sand above & below at HITZ.

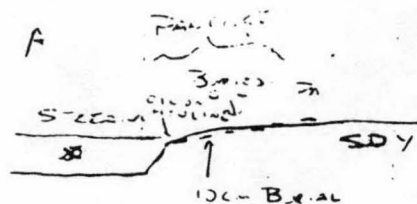
Fumes coming off pancakes.

LEVEL

ACE 8709274

10 JUL 89

A



MONDAY

A'

10 JULY 89

1726

FLY OVER

AB-2M

CONTACT 538EH TO CHECK ON THEIR
(CAREFULLY)
REFUELING. 538EH OK. LAND AT
KATMAI BAY BEACH PUT FLOAT SUITS
ON & HEAD TO ADQ.

MONDAY

1829

LD ADQ -

OFFICE WORK

2100 - DINNER & GOOD NIGHT

LEVEL

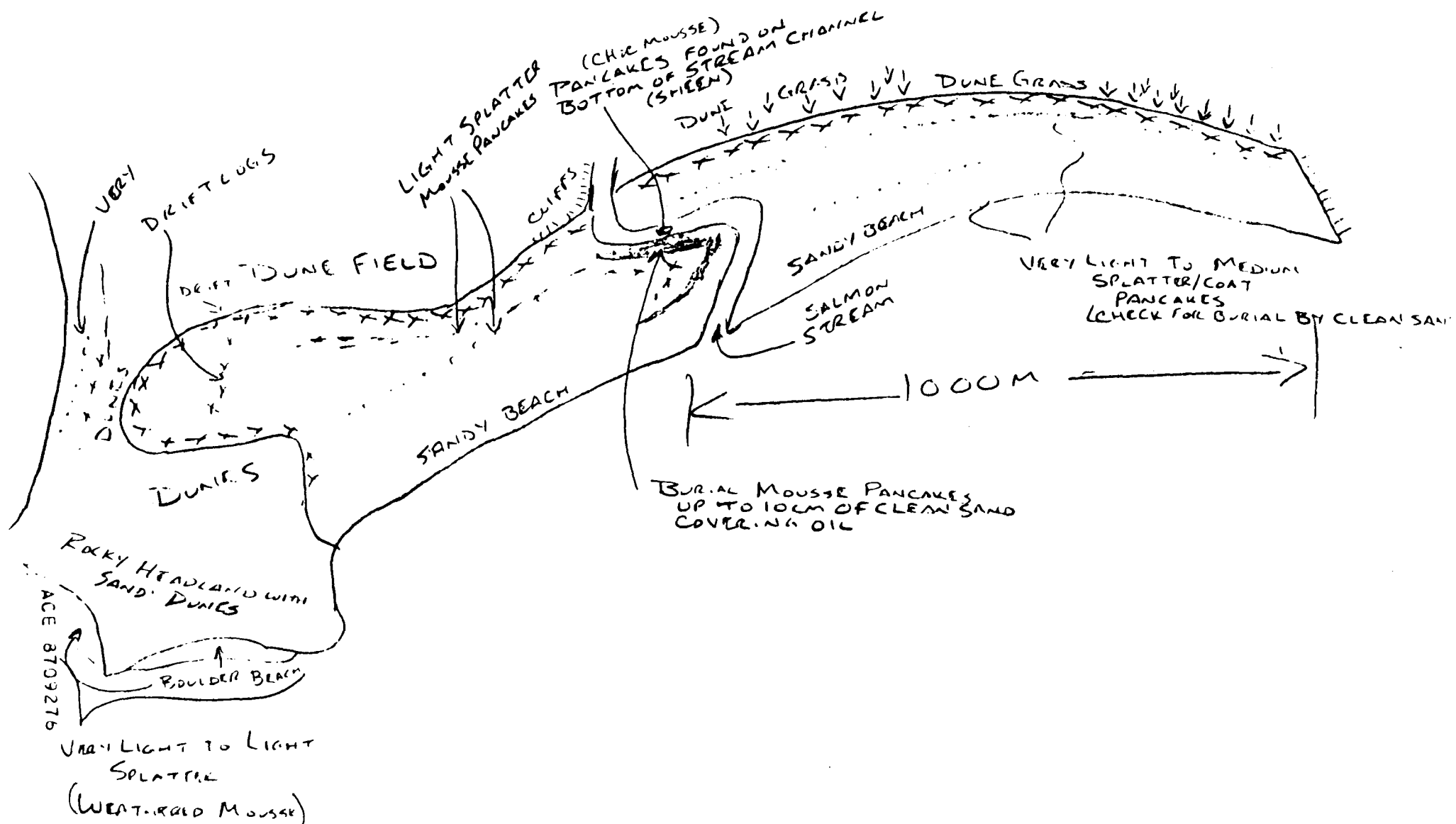
ACE 8709275

10 JULY '89

PLANE VIEW

AB-2N
(FOOT)

↑
NORTH



ECOLOGICAL EVALUATION

LOCATION: Alinchak Bay SITE: North of bay OBSERVER: J. Tarpley
 LOCATION PREFIX: K10/AB SEG. NO.: K10-2-AB-2N LENGTH: 3250 (M)
 DATE: 7 / 10 / 89 TIME (HHMM): 1340 TIDE HT.: ~ + 1.25 m (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

Shell debris only

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

Located on rocky point only

Littorina

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

Located on rocky point only

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

OTHER OBSERVATIONS: Other algae present = Halosaccion, Enteromorpha ;

Bears 1/4 mi inland upstream! Clam bed offshore - Shell debris on beach (Razor mussels)
Dried nonoiled algal drift present. Clam beds offshore. Flatfish & salmonids in river.

CLEANUP PRECAUTIONS: Avoid reoiling stream. Clean this area during lowest tide
available. Avoid oiling healthy low ITZ on rocky pt. No foot traffic on dunes.

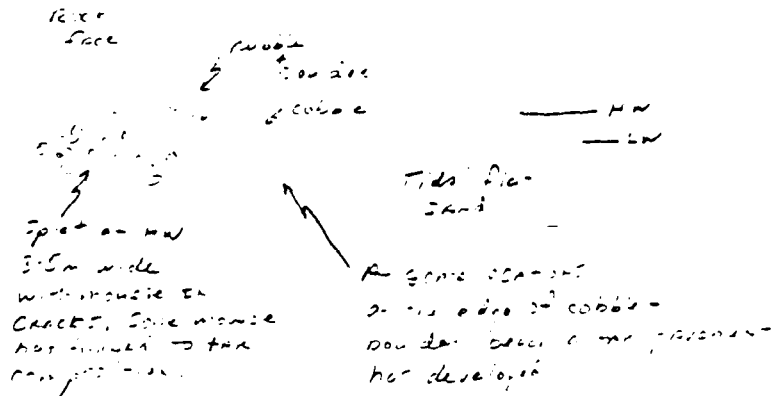
ACE 8709277

MAMMALS: Otters Harbor Seals Sea Lions Whales
Other / Live Caribou on beach; Caribou bear + cub tracks, Fox tracks

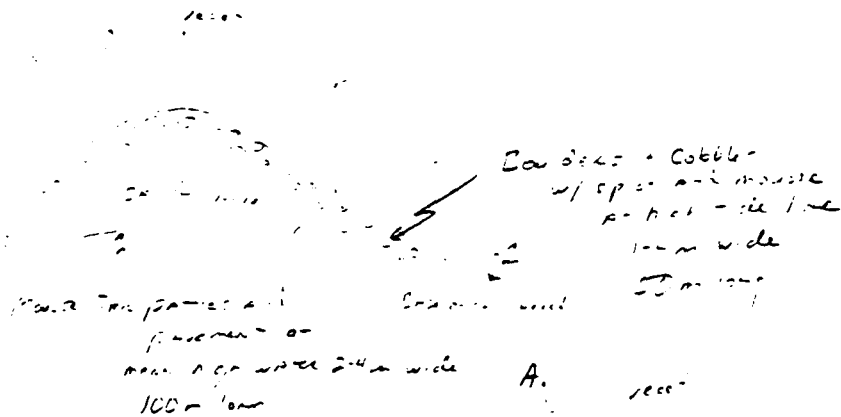
BIRDS: Gulls on beach ; 3 dead oiled birds ; 1 bald eagle roosting on cliff

GENERAL OBSERVATIONS: Heaviest oiling up stream (Mousse patties) starting to get
buried by sand Mousse patties Underwater in stream also present. Black anoxic
sediments at edge of stream. These anoxic sediments are natural no need to clean up
However, pick up' mousse patties on stream bank and avoid further oiling into stream

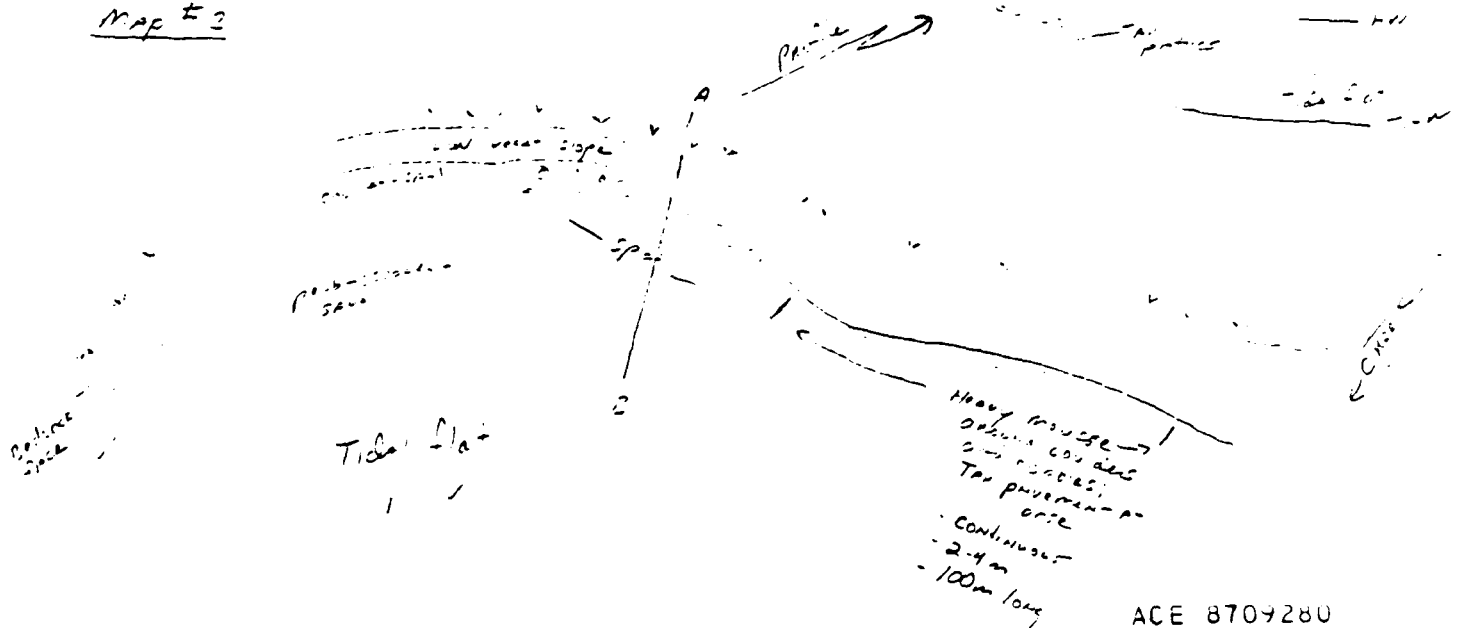
MAP # 1



MAP # 2

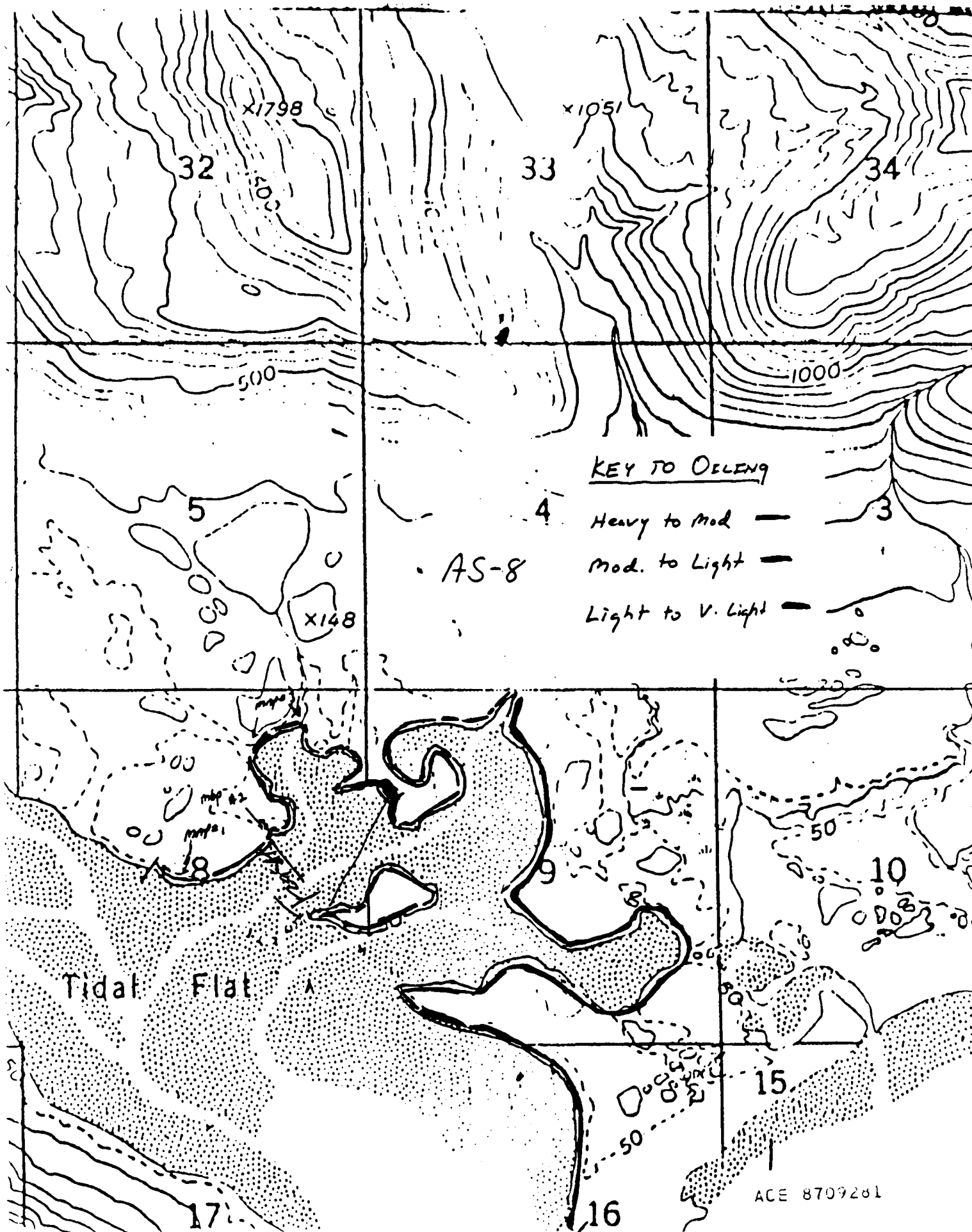


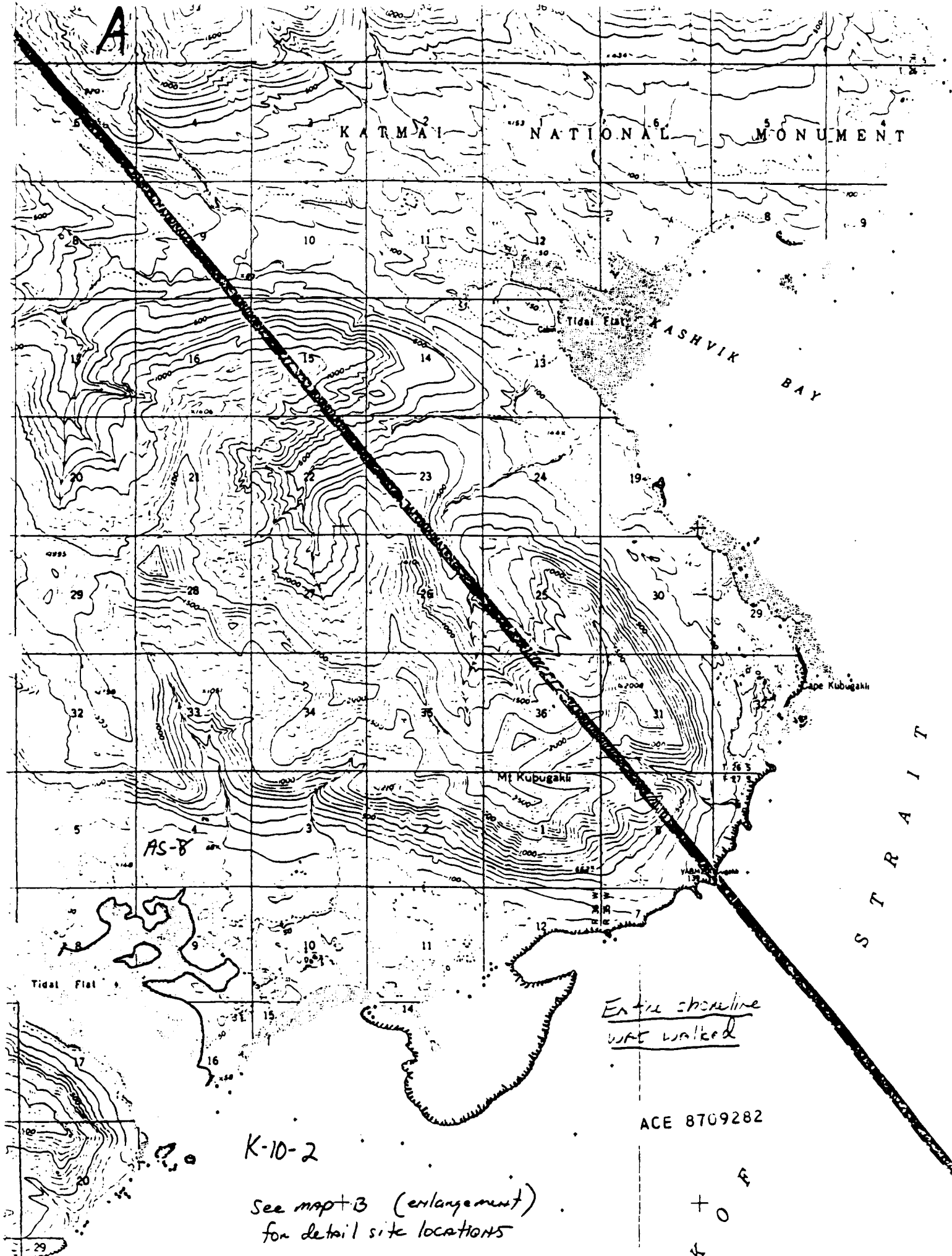
MAP # 3



MAP B

ENLARGEMENT of Map A



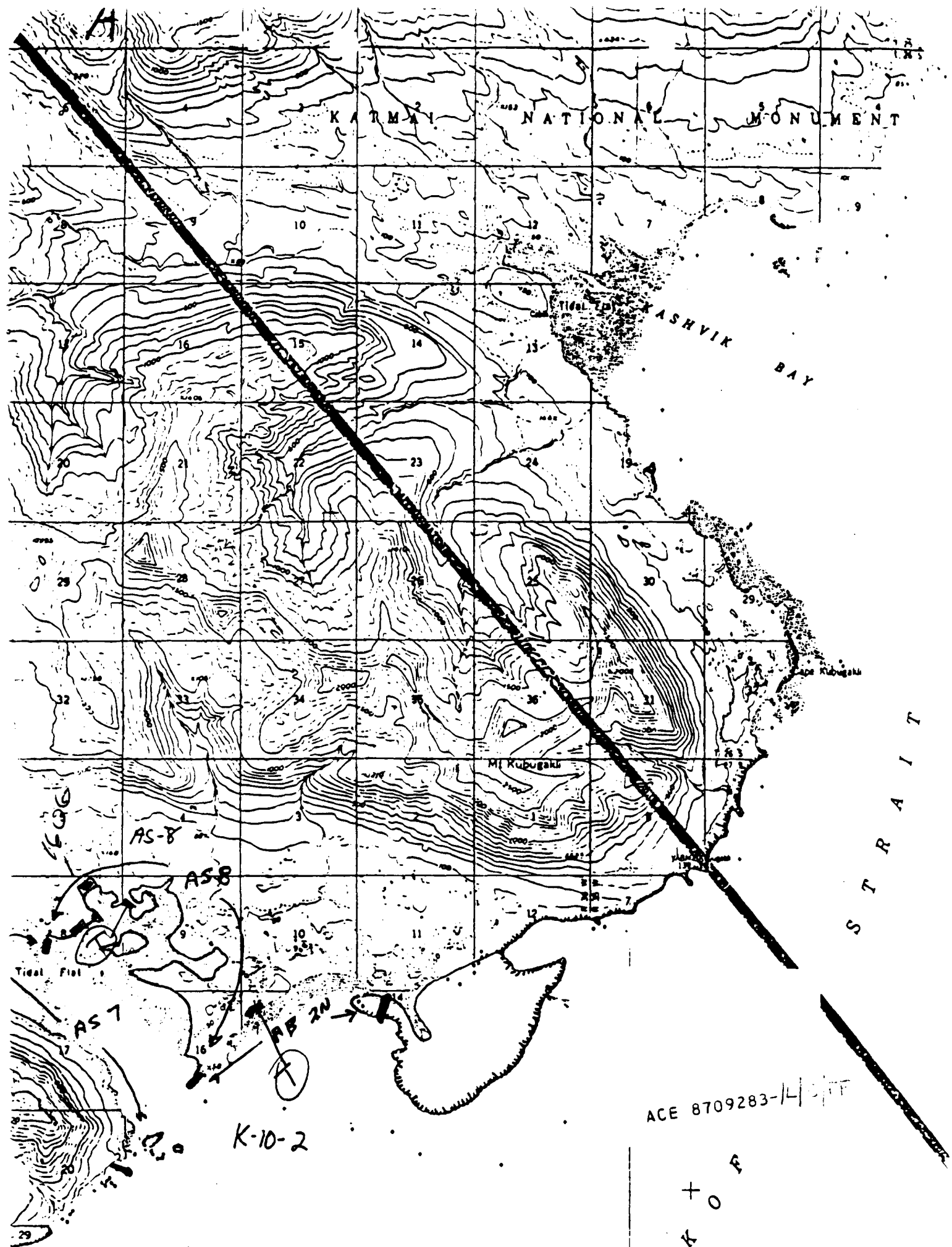


ACE 8709282

K-10-2

See map B (enlargement)
for detail site locations

+ 0
A



517- KODIAK SCAT
K10-7

COMPLETE NOV 22 1989

ACE 7964005

NOV 22 1989
Partial #1

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

K-10

DATE 5/13/89

SHORELINE SEGMENT PB-1

LOCATION: (see enclosed map) Beach at head of Puale Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 5/10/89

Recommended Cleanup Activity (ies)

Type B cleanup, including mechanical pickup of large tar patches with wide tracked equipment to achieve timely cleanup, may be preferable to Type A cleanup. Extreme care must be taken not to damage substrate.

Priorities Considerations:

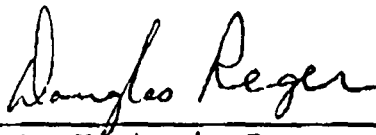
Very high so oil isn't all buried in loose sand.
Very heavily oiled in some sections.

Ecological Constraints (from site survey):

None. Clean ASAP to minimize potential damage to dam beds from continuous burial of oil at each tide change.

Archeological Constraints (from site survey):

Post-cleanup archeological assessment required. 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: 5/13/89

EXXON: 

Date: 5/17/89

FOSC: _____

Date: _____

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

ACE 8709336-

TOTAL P.03

(version 5/04/89)

SHORELINE CLEANUP AGREEMENT WORK SHEET

Location (see enclosed map): NOVATERRA AND BLOCK

Includes Shoreline Segments: PS-1, PS-2

Submitted :

Jack A. Rickner
(for Exxon)

Date: 17 May 89

FOSC Approval:

Date:

The cleanup procedure 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 proactively action requests to the OSC's on-site representative. The OSC's representative has the authority to approve on-site modifications. The Field Response 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.

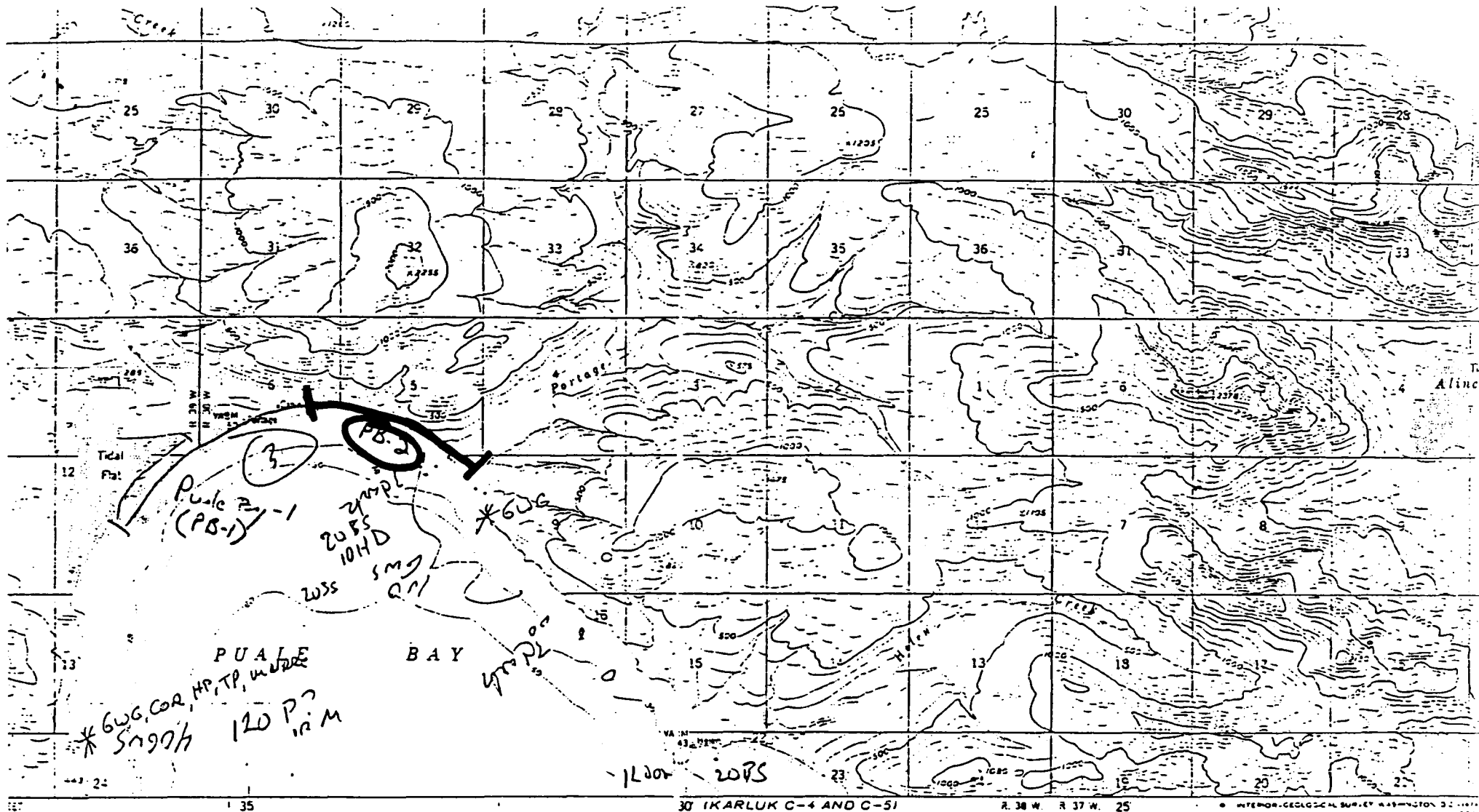
Distribution:

Exxon Shoreline Coordinator
Exxon Shoreline Supervisor
Exxon SCAT file

FOSC
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NOAA
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USFW
A.DEC
A.FC
A.DNR
CAC
PWSA
USFS
SHPO

ACE 8709337

POOR QUALITY ORIGINAL



the Geological Survey

from aerial photographs

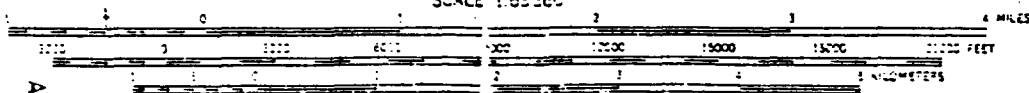
from USGS Chart 8556
7995-1947, and from aerial
photographs for navigational purposes
on 1927 North American datum
datum system, zone 5
vertical datum

horizontal locations
unadjusted

A water area
is shown in blue

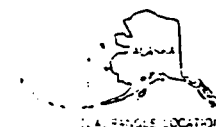


ACE 8709338



CONTOUR INTERVAL 100 FEET
DASHED LINES REPRESENT 50-FOOT CONTOURS
DATUM IS MEAN SEA LEVEL
DEPTH CURVES IN FEET - DATUM IS MEAN LOWER LOW WATER
LINEAR SCALE REPRESENTS THE APPROXIMATE LATE OF MEAN HIGH WATER
THE LATE RANGE OF THE DATUM IS APPROXIMATELY 10 FEET

FOR SALE BY U. S. GEOLOGICAL SURVEY
FAIRBANKS, ALASKA 99701, DENVER, COLORADO 80225, OR WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST



KARLUK (D-5)
N5745-W15520

ROAD CLASS
No roads or trails

1951

(version 6/05/89)

SHORELINE CLEANUP REASSESSMENT

Clean up
Block report
~~K9~~
K10-7

DATE 6/18/89

REASSESSMENT DATE: 6/8/89

SHORELINE SEGMENT PB-1R

PURPOSE FOR REASSESSMENT _____

Revised Recommended Cleanup Activity(ies):

- Manually remove patches of mousse and oiled drift material. Hot washing with wands and vacuum of oiled logs and mousse may improve efficiency if approved. After the fall bird migration, a reassessment of the remaining oil and additional techniques (such as relocation of the oiled splash zone material into the active surf zone) may be appropriate.

Revised Ecological Constraints: Work at mid tide and/or take appropriate measures to protect lower intertidal zone.

Revised Archeological Constraints:

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



State Historic Preservation Officer *

Date: June 23, 1989

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

(version 6/05/89)

SHORELINE CLEANUP REASSESSMENT

DATE 6/18/89

REASSESSMENT DATE: 6/8/89

SHORELINE SEGMENT PB-2R

PURPOSE FOR REASSESSMENT _____

Revised Recommended Cleanup Activity(ies):

- Manually remove patches of mousse and oiled drift material. Hot washing with wands and vacuum of oiled logs and mousse may improve efficiency if approved. After the fall bird migration, a reassessment of the remaining oil and additional techniques (such as relocation of the oiled splash zone material into the active surf zone) may be appropriate.

Revised Ecological Constraints: Work at mid tide and/or take appropriate measures to protect lower intertidal zone.

Revised Archeological Constraints:

If cleanup is planned, subsurface archeological testing by archeologist is required in eastern portion of segment near mouth of Portage Creek.



State Historic Preservation Officer *

Date: June 23, 1989

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

(version 5/02/89)

DRAFT

SHORELINE CLEANUP PROGRAM

DATE 5/13/89

SHORELINE SEGMENT PB-1

LOCATION: (see enclosed map) Beach at head of Puale Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 5/10/89

Recommended Cleanup Activity (ies)

Type B cleanup, including mechanical pickup of large tar patches with wide tracked equipment to achieve timely cleanup, may be preferable to Type A cleanup. Extreme care must be taken not to damage substrate.

Priorities Considerations:

Very high so oil isn't all buried in loose sand.
Very heavily oiled in some sections.

Ecological Constraints (from site survey):

None. Clean ASAP to minimize potential damage to dam beds from continuous burial of oil at each tide change.

Archeological Constraints (from site survey):

Post-cleanup archeological assessment required. 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: 5/13/89

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 8709341

DRAFT

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 5/13/89 SHORELINE SEGMENT PB-2
LOCATION: (see enclosed map) PORTAGE CREEK AREA, PUALE BAY

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 5/10/89

Recommended Cleanup Activity (ies)

None, since very light oiling exists here.

Priorities Considerations:

Low, Very lightly oiled.

Ecological Constraints (from site survey):

None, since no further cleanup is recommended, only very light oiling exists here, mostly as sheen within tide pool areas.

Archeological Constraints (from site survey):

If cleanup is planned, subsurface archeological testing by archeologist is required in eastern portion of segment near mouth of Portage Creek.

Douglas Regei
State Historic Preservation Officer *

Date: 5/13/89

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 8709342

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/08/89

SHORELINE SEGMENT PB-3

LOCATION: (see enclosed map) Puale Bay-West Side

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/06/89

Recommended Cleanup Activity(ies):

- Manually remove surface oil by appropriate means.

Priorities Considerations:

- Low priority.

Ecological Constraints (from site survey): None, other than general constraints as prescribed in the Operational Guidelines for Shoreline 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.

Charles E. H. Dimes
State Historic Preservation Officer *

Date: June 8, 1989

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/08/89

SHORELINE SEGMENT PB-4

LOCATION: (see enclosed map) Puale Bay-West Side

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/06/89

Recommended Cleanup Activity(ies):

- Manual cleanup is recommended; remove mousse patches in the mid and upper tidal zone.

-Manually remove oiled debris from the stream channel.

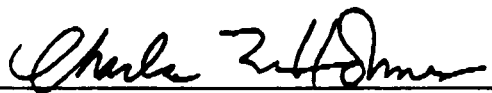
Priorities Considerations:

- Clean ASAP. This is a pink/chum salmon stream.

Ecological Constraints (from site survey): Don't remove grass. Rake oily debris out of grass and remove. Remove all clumps of oily seaweed/drift debris from along south side of stream channel and remove pancake mousse from lower channel if observed. Minimize disturbance to stream bed.

Archeological Constraints (from site survey):

No excavation, equipment storage, or other access above the drift 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: June 8, 1989

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/08/89

SHORELINE SEGMENT PB-5

LOCATION: (see enclosed map) Puale Bay-West Side

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/08/89

Recommended Cleanup Activity(ies):

- Manually remove oil by appropriate means.

Priorities Considerations:

- Low priority.

Ecological Constraints (from site survey): None, other than general constraints as prescribed in the Operational Guidelines for Shoreline 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.

Charles Z. Adams
State Historic Preservation Officer *

Date: June 8, 1989

EXXON: _____

Date: _____

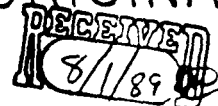
FOSC: _____

Date: _____

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

TYPE A SHORELINE CLEANUP WORK ORDER

ORIGINAL



Date: 7/7/89 Shoreline Segment: K10-7 PB2R

Location: (Attach map) Kodiak - Puak Bay

ADEC No. _____ Shoreline Assessment Date: 6/8/89

Recommended Cleanup Activity(ies):

Manually remove patches of mussel and oiled drift material

Priority Considerations: *Work at mid tide*

Ecological Constraints (from site survey):

Work at mid tide

* *Subsurface archaeological testing by archaeologist is required in eastern portion of segment near mouth of Portage Creek.*

* 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: *[Signature]* Date: 7/7/89
Exxon

State Historic Preservation Officer Telephone Approval (Required) Date: _____

Approved: _____ Date: _____
Assistant OSC Western Alaska (If appropriate)

Approved: *[Signature]* Date: 8-2-89
Federal On-Scene Coordinator *D.M. McGuire*

4/30/89

ACE 8709346

COPY

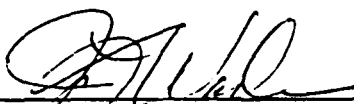
(version 5/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): KODIAK-PUALE BAY BLOCK (REASSESSED)

Includes Shoreline Segments: K10-7-PB-1R, PB-2R

Submitted :


(for Exxon)

Date:

7/7/89.

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

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USFW
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A.FG
A.DNR
CAC
PWSCA
USFS
SHPO

ACE 8709347

(version 6/05/89)

SHORELINE CLEANUP REASSESSMENTDATE 6/18/89REASSESSMENT DATE: 6/8/89SHORELINE SEGMENT PB-2R

PURPOSE FOR REASSESSMENT _____

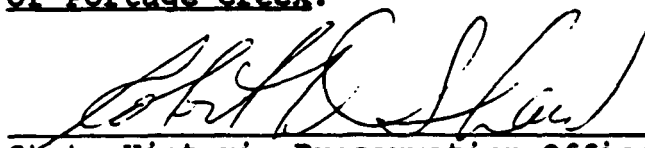
Revised Recommended Cleanup Activity(ies):

- Manually remove patches of mousse and oiled drift material. Hot washing with wands and vacuum of oiled logs and mousse may improve efficiency if approved. After the fall bird migration, a reassessment of the remaining oil and additional techniques (such as relocation of the oiled splash zone material into the active surf zone) may be appropriate.

Revised Ecological Constraints: Work at mid tide and/or take appropriate measures to protect lower intertidal zone.

Revised Archeological Constraints:

If cleanup is planned, subsurface archeological testing by archeologist is required in eastern portion of segment near mouth of Portage Creek.



State Historic Preservation Officer *

Date: June 23, 1989

EXXON: 

Date: 7/7/89

FOSC: _____

Date: _____

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

(version 5/04/89)

*Use Sign
on Segment
Report*

IAFT

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REFUND

Location (see enclosed map): KODIAK/PUALE BAY BLOCK

Includes Shoreline Segments: PB-1, PB-2

Submitted :

[Signature]
(for Exxon)

Date: 7/7/89

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 -
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ACE 8709349

(version 5/02/89)

DRAFT

SHORELINE CLEANUP PROGRAM

DATE 5/13/89 SHORELINE SEGMENT PB-2

LOCATION: (see enclosed map) PORTAGE CREEK AREA, PUALE BAY

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 5/10/89

Recommended Cleanup Activity (ies)

None, since very light oiling exists here.

Priorities Considerations:

Low, Very lightly oiled.

Ecological Constraints (from site survey):

None, since no further cleanup is recommended, only very light oiling exists here, mostly as sheen within tide pool areas.

Archeological Constraints (from site survey):

If cleanup is planned, subsurface archeological testing by archeologist is required in eastern portion of segment near mouth of Portage Creek.

Douglas Reger
State Historic Preservation Officer *

Date: 5/13/89

EXXON: [Signature]

Date: 7/2/89

FOSC: _____

Date: _____

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

SHORELINE OIL EVALUATIONDate: 10 May 89 Time: 1330Observer: B. DugarSurveyed From: Foot/Boat/Helio/PlaneWeather: Sun/Cloud/Rain/Snow/Fog**LOCATION**LOCATION Portage Creek area
Puget BaySEGMENT NUMBER P.B.-2LENGTH OF SHORELINE SEGMENT: 2500 mACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane**SHORELINE:**Shoreline Type: SPI/BEA/COV/HLD/STRTSlope: LANG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B/0 / C / P / G / S/0 / M / R/3Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type logs**OIL**Degree of Oiling: Heavy/Moderate/Light/No Oil/UnobservedArea of Beach Impact: SU / SP / H / M / LContinuous: 0 % of Segment 100 Width of Band: 40 mSporadic: 0 % of Segment 100Est. Oil Thickness where > 1cm: 0 cm Est. Oil Penetration: 1 cmPooled Oil: 0 % "Free" Oil: 90 % Coated: H 5 % / M 5 % / L 0 %Fresh 0 % Mousse 100 % Tar Formation: 0 %Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H/M/L**Comments:**

Very light mousse blobs 1cm to 20 cm
in widely scattered pattern Total cover less than
0.5 %. Recommend no further cleanup action.

DOCUMENTATION:Map/Aerial photo marking segment boundaries See Attached

VTR: Y/N -- Tape Number(s) _____

Photography: Y/N Roll Number(s) T1B-10Sample Numbers Collected: None

ACE 8709352

ECOLOGICAL EVALUATION

LOCATION: Portage Creek area
Puget Bay SITE: _____ OBSERVER: D. McCormick
 LOCATION PREFIX: _____ SEG. NO.: PB-2 LENGTH: 2500 (M)
 DATE: 5/10/89 TIME (HMM): 1330 TIDE HT.: slack water (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
extensive mussel beds - some lightly oiled but dead ones not heavily oiled.

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y
Balanus at mid tide zone probably killed off by oil - in lower T.T.Z. look o.k.

Littorina

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

OTHER OBSERVATIONS: Oiled birds within rock/boulder areas - heavy oil on water in tide pool areas; immense patches in mid and lower T.T.Z.

CLEANUP PRECAUTIONS: None, since no further cleanup is recommended

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

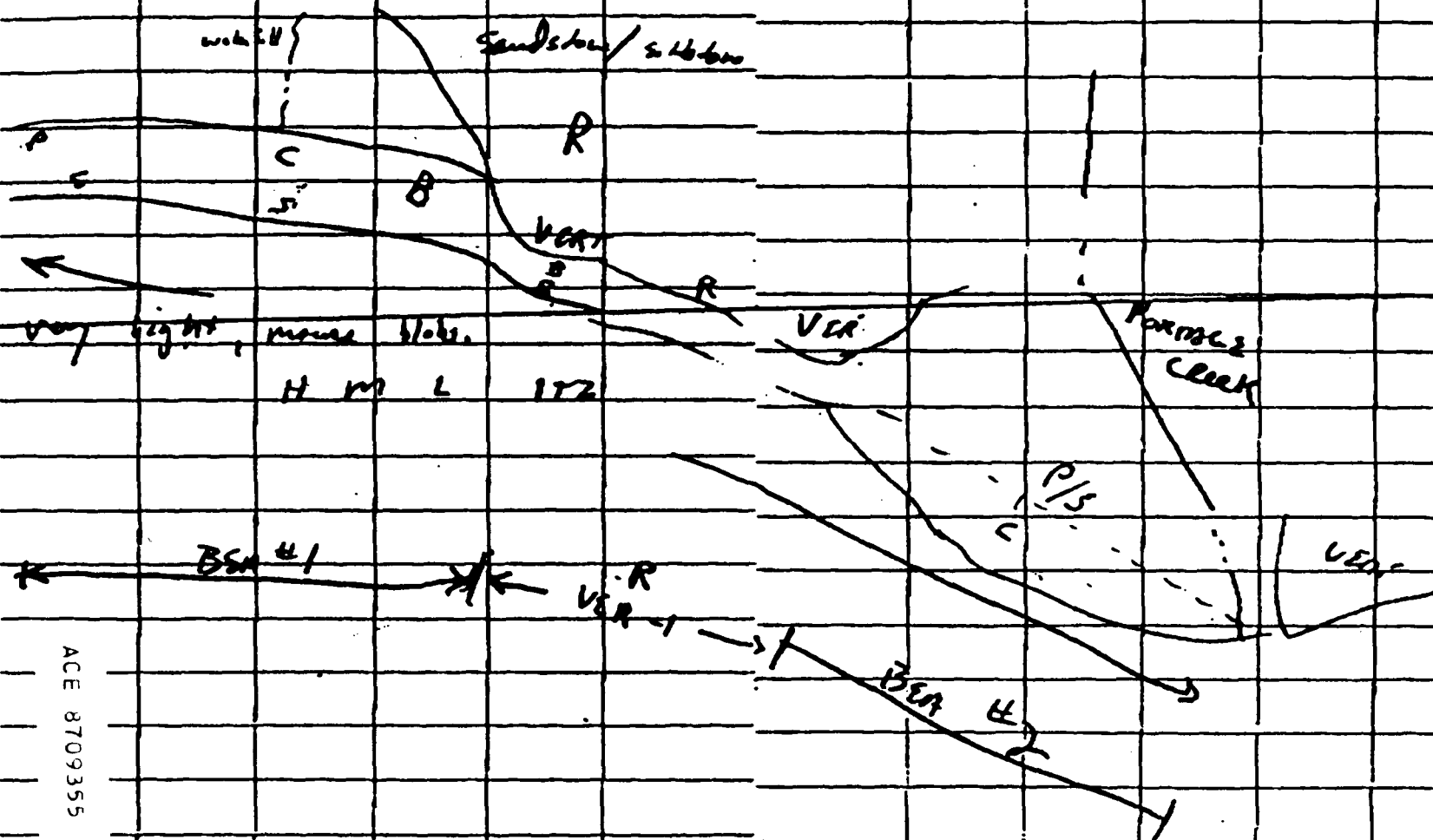
BIRDS: gulls, shorebirds (app unknown); 1 dead mussel

GENERAL OBSERVATIONS: This segment includes a rocky outcropping with extensive tide pools (mussel beds/barnacles) and a gravel/rock beach.

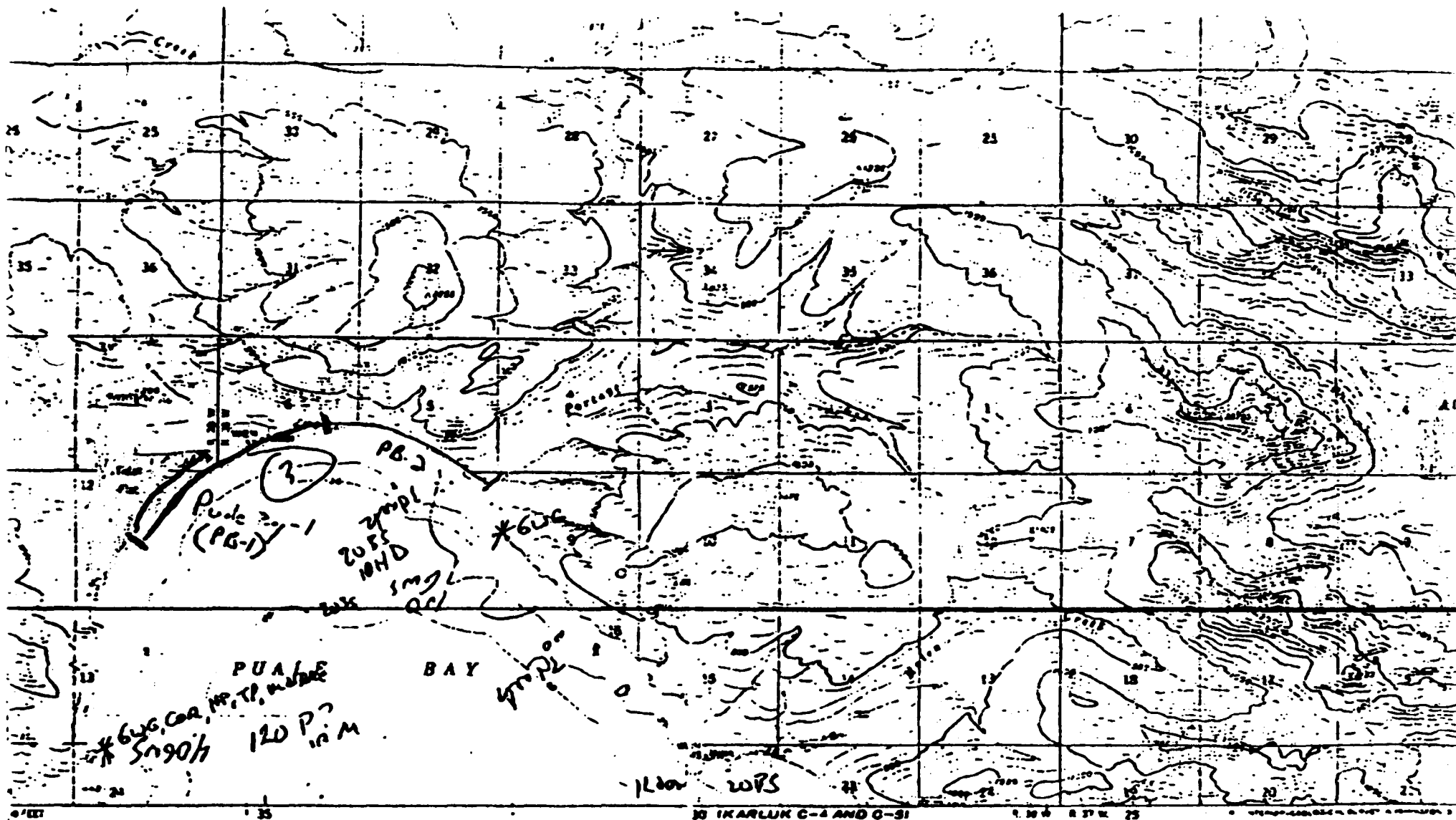
DATE: 10 MAY 87
Segment: Puck Bay - 2

TIME: 1330

200m



ACE 8709355



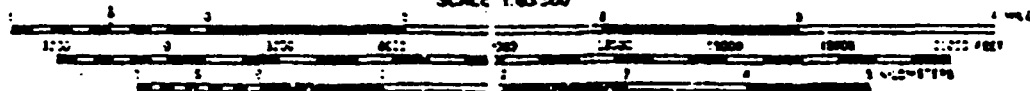
by the Geological Survey

compiled from aerial photographs

from USCGS Chart 8556
N-7195 (1947), and from aerial
photographs for navigational purposes

vertical: 1922 North American datum
horizontal: NAD 83, zone 5
vertical datum: 1922

APPROXIMATE MEAN
SEA LEVEL



CONTOUR INTERVAL 100 FEET
DASHED LINES MEAN 50 FOOT CONTOURS
DASHED LINES MEAN 25 FOOT CONTOURS
DASHED LINES MEAN 10 FOOT CONTOURS
DASHED LINES MEAN 5 FOOT CONTOURS
DASHED LINES MEAN 2.5 FOOT CONTOURS
DASHED LINES MEAN 1.25 FOOT CONTOURS

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A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST



KARLUK (C-4 AND C-5)
N5245-W155

ACE 8709356

1. The author is not

responsible for the accuracy of the data

TYPE A SHORELINE CLEANUP WORK ORDER

ORIGINAL

Date: 18 June 1989 Shoreline Segment: PB-3 PB-4, PB-5, PB-6, PB-7
Location: (Attach map) Cape Aklek to Trail Creek

ADEC No. K10-7 Shoreline Assessment Date: 6/06-08/89

Recommended Cleanup Activity(ies):

See attachments

Priority Considerations:

Ecological Constraints (from site survey):

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: Jack A. Rickman
Exxon

Date: 18 June 89

State Historic Preservation Officer Telephone Approval (Required)

Date: See Attachments

N/A, Approved via SCAT Reports on June 8, 1989

Approved:

A. M. Hruska, LT, USCG
Assistant OSC Western Alaska (if appropriate)
By direction

Date: 20 JUN 89

Approved:

ABM
Federal On-Scene Coordinator

Date: 21 JUN 89

(A7)

4/30/89

ACE 8709357 -/

TYPE A SHORELINE CLEANUP WORK ORDER

ORIGINAL

Date: 25 June 89 Shoreline Segment: PB-3, 4, 5, 6, & 7Location: (Attach map) Puale Bay - South Shore line between
Cape Aklek and Trail CreekADEC No. K10-7 Shoreline Assessment Date: June 8, 1989

Recommended Cleanup Activity(ies): Type A beach clean up to remove surface oiling
and oily debris. Do not remove more than 2" of surface sediment and less if possible.
No mechanical devices or methods may be used, hand removal only.

Priority Considerations:

See attached "Shoreline Cleanup Program" forms.

Ecological Constraints (from site survey):

See attached "Shoreline Cleanup Program" forms.

Archaeological Constraints: No excavation or access above drift line on PB 4 & PB 7
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: Jack A. Rickner
ExxonDate: 25 June 89

State Historic Preservation Officer Telephone Approval (Required)

Date: Provided on June 8, 1989
See attachments.

Approved:

A. M. Foxworth, LT, USCG
Assistant OSC Western Alaska (If appropriate)
By direction

Date: 25 June 89

Approved:

R. B. Meyer
Federal On-Scene Coordinator
By direction

Date: 25 JUN 89

4/30/89

ACE 8709358

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): KODIAK-PUALE BAY SOUTH BLOCK

Includes Shoreline Segments: PB-3, PB-4, PB-5, PB-6, PB-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:

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ACE 8709359

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/08/89

SHORELINE SEGMENT PB-3

LOCATION: (see enclosed map) Puale Bay-West Side

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/06/89

Recommended Cleanup Activity(ies):

- Manually remove surface oil by appropriate means.

Priorities Considerations:

- Low priority.

Ecological Constraints (from site survey): None, other than general constraints as prescribed in the Operational Guidelines for Shoreline 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.

Charles E. Holmes
State Historic Preservation Officer *

Date: June 8, 1989

EXXON: Jack A. Rickman

Date: 13 June 89

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 **NODIAK**

Date: JUNE 6/89 Time: 10:05

observer: D. H. WES

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fo

LOCATION

LOCATION DALE BAY - WEST SIDE

SEGMENT I.D. PB-3

LENGTH OF SHORELINE SEGMENT: 1000 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: ^{BEACH A} B 2-4 / ^{BEACH B} C 20-25 / G 20-25 / S 20-25 / M 20-25 / R 20-25

Drift Debris on Beach: Yes/No

Supra/Upper/Mid/Lower Type LG/SEALED

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved/V. LIGHT

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

OIL DISTRIBUTION

Continuous: Y/N Segment 100 No. Bands 0 Width 0

Sporadic: Y/N Segment 100 Min/Max Dia 100 Impact Width 100

Est. Oil Thickness where > 1cm: 100 cm SU / SP / UP / MID / LO

Est. Oil Penetration: 100 cm SU / SP / UP / MID / LO

Layers? Yes/No No# Layers 100 Oil Weathering 100

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

OIL MORPHOLOGY

Pooled Oil 100 "Free" Oil 100 Spattered 100 H/H/L/VL Sheen 100

OIL WEATHERING (OW)

Fresh Oil 100 SU/SP/VP/MID/LO Choc Mousse 100 SU/SP/VP/MID/LO

Pancake Mousse 25 SU/SP/UP/MID/LO Asphalt Mousse 15 SU/SP/UP/MID/LO

Tar Formation 100

Comments:

ACE 8709361

CONTINUOUS SLAYER OF OIL ON COARSE SEDIMENT - BOULDER/CORALS IN SPLASH
AND UPPER ITZ - WIDTH OF IMPACT 3-7M

DOCUMENTATION:

Map Aerial photo marking segment boundaries See Attached

VTR: ☒ Y ☐ N Tape Number(s) KODIAK-01

Photography: ☒ Y ☐ N Roll Number(s) DMC-12

Sample Numbers Collected: N/A

ECOLOGICAL EVALUATION

LOCATION: West Side of PUEBLO BAY SITE: _____ OBSERVER: D. McCoemick
 LOCATION PREFIX: PB SEG. NO.: 3 LENGTH: 1000 (M)
 DATE: 6/6/89 TIME (HHMM): 1005 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)
Dense on boulders

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

Littorina
 Patchy (Y/N) Contin. (Y/N) Dense (Y/N) Sparse (Y/N) None (Y/N)
Dense on boulders

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

OTHER OBSERVATIONS: clam shells - extensive clam beds here; kelp dense on boulders in low ITZ, some type of fish(?) eggs in mid-low zone - see photo

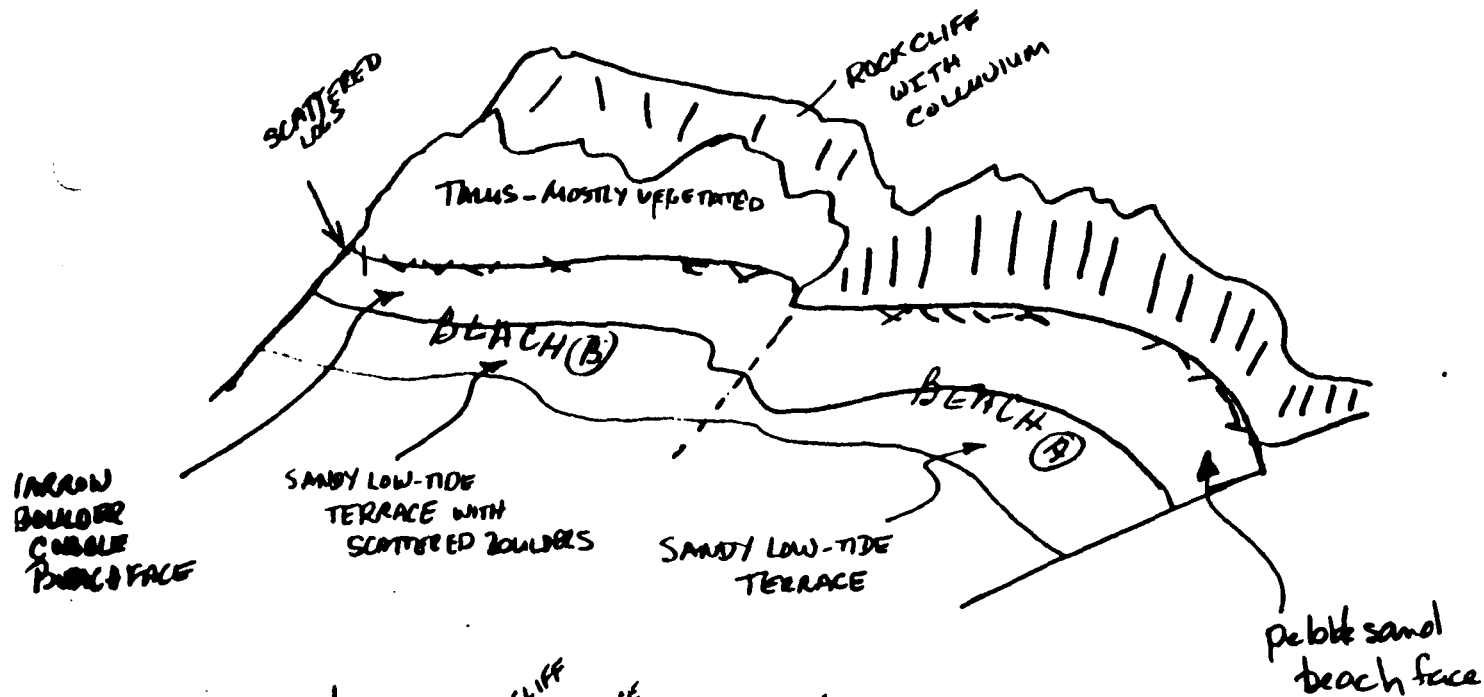
CLEANUP PRECAUTIONS: None. No cleanup is warranted

MAIMALS: Otters _____ Harbor Seals _____ Sea Lions _____ Whales _____
 Other _____

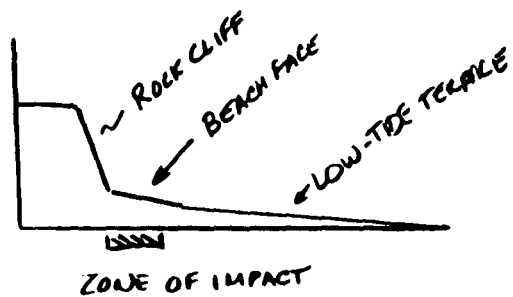
BIRDS: Bald eagle, raven, gulls

GENERAL OBSERVATIONS: Oil occurs here as very light splatter on boulders in high ITZ - almost asphalt in texture.

PB-3



AGE 8709365



SPLATTER ON BOULDER/CORAL GRAVELS + LOGS
NO SPLATTER ON BEACH SANDS

ESTIMATED CROSS-PROFILE OF PB-3

TYPE A SHORELINE CLEANUP WORK ORDER

Date 7/7/89

Shoreline Segment PB-IR

Location (see map)

Kodiak - Puale Bay

ADEC No. K10-7

Shoreline assessment date 6/8/89

Recommended cleanup activities

Manually remove patches of mousse and oiled drift material only, at this time. After the fall bird migration, a reassessment may be necessary.

No cleanup recommended in PB-2R. Very light oiling exist here.

Priority considerations

Very high so oil isn't all buried in loose sand.

Very heavily oiled in some sections.

Ecological constraints

Work at mid tide.

Subsurface archeological testing by archeologist is required in eastern portion of Segment near mouth of portage creek. Post clean up Archeological Assessment required.

Archaeological constraints (from site survey)

Post Clean Up Archeological Assessment required.

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).

Submitted by:

Exxon

Date

8/3/89

Approved:

Date

Federal On-Scene Coordinator

ACE 8709360

Change 1

TYPE A SHORELINE CLEANUP WORK ORDER

RECEIVED
9/5/89

Date 7/7/89

Shoreline Segment PB-1R

Location (see map)

Kodiak - Puale Bay

ADEC No. K10-7

Shoreline assessment date 6/8/89

Recommended cleanup activities

Manually remove patches of mousse and oiled drift material only, at this time. After the fall bird migration, a reassessment may be necessary.

No cleanup recommended in PB-2R. Very light oiling exist here.

Priority considerations

Very high so oil isn't all buried in loose sand.

Very heavily oiled in some sections.

Ecological constraints

Work at mid tide.

Subsurface archeological testing by archeologist is required in eastern portion of Segment near mouth of portage creek. Post clean up Archeological Assessment required.

Archaeological constraints (from site survey)

Post Clean Up Archeological Assessment required.

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).

Submitted by:

Exxon

Date

8/5/89

Approved:

Federal On-Scene Coordinator

Date

5 Nov 89

ACE 8709367

ORIGINAL

RECEIVED

8/1/89

TYPE A SHORELINE CLEANUP WORK ORDER

Date 7/7/89

Shoreline Segment PB-IR

Location (see map)

Kodiak - Puale Bay

ADEC No. K10-7

Shoreline assessment date 6/8/89

Recommended Cleanup Activities

Manually remove patches of mousse and oiled drift material only, at this time. After the fall bird migration, a reassessment may be necessary.
No cleanup recommended in PB-2R. Very light oiling exist here.

Priority Considerations

Very high so oil isn't all buried in loose sand.
Very heavily oiled in some sections.

Ecological Constraints

Work at mid tide.

Subsurface archeological testing by archeologist is required in eastern portion of Segment near mouth of portage creek. Post clean up Archeological Assessment required.

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. Rickman

Exxon

Date

31 July 89

Approved:

[Signature]

Federal On-Scene Coordinator Representative

Date

8/1/89

(version 6/05/89)

SHORELINE CLEANUP REASSESSMENT

DATE 6/18/89

REASSESSMENT DATE: 6/8/89

SHORELINE SEGMENT PB-1R

PURPOSE FOR REASSESSMENT _____

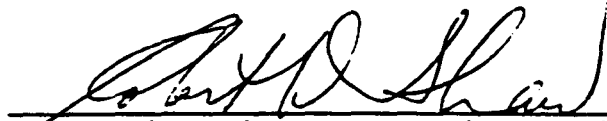
Revised Recommended Cleanup Activity(ies):

- Manually remove patches of mousse and oiled drift material. Hot washing with wands and vacuum of oiled logs and mousse may improve efficiency if approved. After the fall bird migration, a reassessment of the remaining oil and additional techniques (such as relocation of the oiled splash zone material into the active surf zone) may be appropriate.

Revised Ecological Constraints: Work at mid tide and/or take appropriate measures to protect lower intertidal zone.

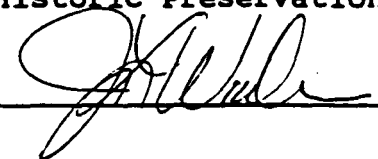
Revised Archeological Constraints:

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



State Historic Preservation Officer *

Date: June 23, 1989

EXXON: 

Date: 7/7/89

FOSC: _____

Date: _____

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

COPY

(version 5/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): KODIAK-PUALE BAY BLOCK (REASSESSED)

Includes Shoreline Segments: K10-7-PB-1R, PB-2R

Submitted :


(for Exxon)

Date:

7/7/89.

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.

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ACE 8709370

(version 5/04/89)

*OSC. Sign
on Segment
Report*

IAFT

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): KODIAK/PUALE BAY BLOCK

Includes Shoreline Segments: PB-1, PB-2

Submitted :

[Signature]
(for Exxon)

Date: 7/7/89

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.

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Exxon Shoreline Supervisor
Exxon SCAT file

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ACE 8709371

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 5/13/89

SHORELINE SEGMENT PB-1

LOCATION: (see enclosed map) Beach at head of Puale Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 5/10/89

Recommended Cleanup Activity (ies)

Type B cleanup, including mechanical pickup of large tar patches with wide tracked equipment to achieve timely cleanup, may be preferable to Type A cleanup. Extreme care must be taken not to damage substrate.

Priorities Considerations:

Very high so oil isn't all buried in loose sand.
Very heavily oiled in some sections.

Ecological Constraints (from site survey):

One. Clean ASAP to minimize potential damage to birds.
Continuous burial of oil at each tide change.

Ecological Constraints (from site survey):

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

Douglas Reger
State Historic Preservation Officer *

Date: 5/13/89

EXXON: Jack A. Kilauna

Date: 5/17/89

FOSC: _____

Date: _____

* Signature, _____, used to satisfy stipulations in Alaska DNR land use permit for tide and submerged lands.

SHORELINE OIL EVALUATIONDate: 10 May 94 Time: 1100Observer: Bob DuganSurveyed From: Foot Boat/Helio/PlaneWeather: Sun Cloud/Rain/Snow/Fc**LOCATION**LOCATION Beach at head of
Puget BaySEGMENT NUMBER PB-1LENGTH OF SHORELINE SEGMENT: 4000 mACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane**SHORELINE:**Shoreline Type: SPI/BEA/COV/HLD/STRT

Slope: LANG/HANG/VER

Wave Exposure: High/Med/LowSediment: B 5 % / C % / P % / G % / S 95 % / M % / R %Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type logs**OIL**Degree of Oiling: Heavy/Moderate/Light/No Oil/UnobservedArea of Beach Impact: SU / SP / H / M / LContinuous: Y/N % of Segment 100 Width of Band: 10-25 mSporadic: Y/N % of Segment Est. Oil Thickness where > 1cm: 1-25 cm Est. Oil Penetration: 1 cmPooled Oil: 10 % "Free" Oil: 90 % Coated: H % / M % / L %Fresh % Mousse 100 % Tar Formation: %Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H/M/L

Comments:

ACE 8709373

Heavily oiled in north portion of segment. Winds
are rapidly covering oil. Some layering due to tide
cycles & wind blown sand. Light mousse scum still in
water. Segment includes shore of lagoon that parallels the beach.
Massive cleanup would be required. Wide-tracked loaders &
rollers needed to stay atop the loose fine sands.
On-site burial of oil & oil contaminated sand should be serious
considered due to the volume of material involved (1000-2000
High priority to reduce volume of material to be disposed. 1 vol 3

DOCUMENTATION:Map/Aerial photo marking segment boundaries See AttachedVTR: Y/N -- Tape Number(s) NonePhotography: Y/N Roll Number(s) T1B-10Sample Numbers Collected: None

ACE 8709374

SHORELINE OIL EVALUATIONDate: 10 May 89 Time: 1100Observer: Bob DuganSurveyed From: Foot Boat/Helio/PlaneWeather: Sun Cloud/Rain/Snow/F**LOCATION**LOCATION Beach at head of
Puale BaySEGMENT NUMBER PB-1LENGTH OF SHORELINE SEGMENT: 4000 mACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane**SHORELINE:**Shoreline Type: SPI/BEA/COV/HLD/STRT

Slope: LANG/HANG/VER

Wave Exposure: High/Med/LowSediment: B 5 % / C % / P % / G % / S 95 % / M % / R %Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type logs**OIL**Degree of Oiling: Heavy/Moderate/Light/No Oil/UnobservedArea of Beach Impact: SU / SP / H / M / LContinuous: Y/N % of Segment 100 Width of Band: 10-25 mSporadic: Y/N % of Segment Est. Oil Thickness where > 1cm: 1-25 cm Est. Oil Penetration: 1 cmPooled Oil: 10 % "Free" Oil: 90 % Coated: H % / M % / L %Fresh % Mousse 100 % Tar Formation: %Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H/M/L

Comments:

ACE 8709375

Heavily oiled in north portion of segment. Wind
are rapidly covering oil. Some layering due to tide
cycles & wind blown sand. Light mouse scum still in
water. Segment includes shore of lagoon that parallels the
Massive cleanup would be required. Wide-tracked loaders &
rollers needed to stay atop the loose fine sands.
Onsite burial of oil & oil contaminated sand should be serious
considered due to the volume of material involved (1000-2000
High priority to reduce volume of material.

ECOLOGICAL EVALUATION

LOCATION: Beach at head of Puale Bay SITE: _____ OBSERVER: D. McCormick
 LOCATION PREFIX: _____ SEG. NO.: PB-1 LENGTH: 4000 (M)
 DATE: 5/10/89 TIME (HHMM): 1100 TIDE HT.: +0.5 (M)
 OILED ZONE: Splash High Medium Low
 SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

Only Fucus is at strand line buried under sand-oiled.

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

Mytilus shells scattered along lower ITZ only.

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

Balanus shells at strand line only.

Littorina

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

OTHER OBSERVATIONS: Beaver tracks seen along mid-tide line going south;
counted approx. 35 oiled birds (dead), 5 of which were scavenged by gulls; we
saw one set of prints, possibly fox.

CLEANUP PRECAUTIONS: Manual cleanup at high tide zone should not affect
lower, has contaminated lower ITZ.

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

BIRDS: gulls, some shorebirds, spp. unknown

GENERAL OBSERVATIONS: Worst oiling confined to upper tide zone - this beach
has potential for long term study of effect buried oil may have on dem
beds.

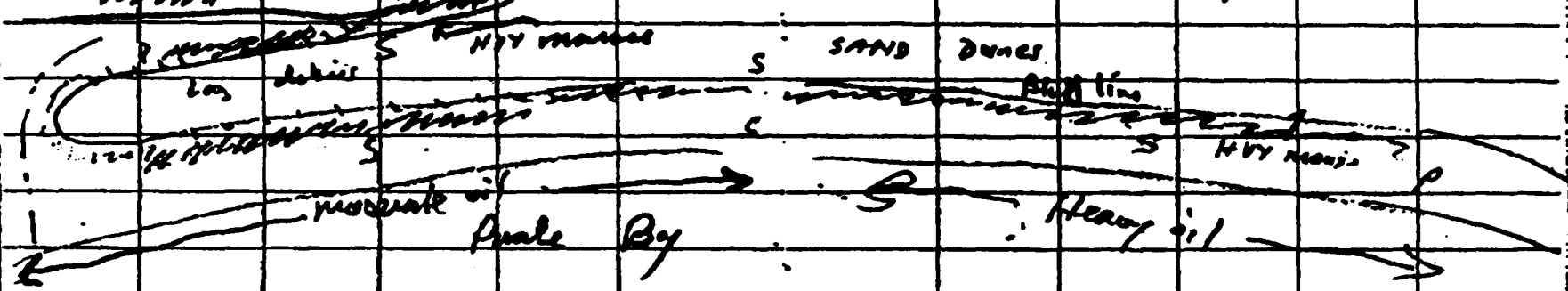
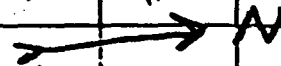
10 Mar 89

Time: 1100

Segment: Puck Bay - Lagoon

Weather: Sunny

Waves: moderate



BEACH: Fine sand 100% ^{low} in HRL & Supra zone

HITZ: Patches of mounds, ^{very} ~~moderate~~ concentrated in several stand lines, some in pocket 1025 cm deep behind logs, most is buried or partly buried

in fine sand from wind/wave

width of mound row ~ 25m. is mound covered

MIRA - very light mouse scum, being washed into beach, scattered ^{and} patches

LITZ - very light mouse scum, being washed into beach, scattered ^{and} blocks

Debris - ^{see} ~~all~~ ^{not} ~~entire~~ (supra zone, behind oil log)

Wada - Bush mouse scum in water along shore

happily - very poor - HITZ due to rock sand

ACE 870937B

K10-7

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/08/89

SHORELINE SEGMENT PB-3

LOCATION: (see enclosed map) Puale Bay-West Side

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/06/89

Recommended Cleanup Activity(ies):

- Manually remove surface oil by appropriate means.

Priorities Considerations:

- Low priority.

Ecological Constraints (from site survey): None, other than general constraints as prescribed in the Operational Guidelines for Shoreline 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.

Charles E. Holmes
State Historic Preservation Officer *

Date: June 8, 1989

EXXON: [Signature]

Date: 8/7/89

FOSC: _____

Date: _____

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

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/08/89

SHORELINE SEGMENT PB-3

LOCATION: (see enclosed map) Puale Bay-West Side

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/06/89

Recommended Cleanup Activity(ies):

- Manually remove surface oil by appropriate means.

Priorities Considerations:

- Low priority.

Ecological Constraints (from site survey): None, other than general constraints as prescribed in the Operational Guidelines for Shoreline 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.

Charles E. H. Dimes
State Historic Preservation Officer *

Date: June 8, 1989

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 8709381

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/08/89

SHORELINE SEGMENT PB-3

LOCATION: (see enclosed map) Puale Bay-West Side

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/06/89

Recommended Cleanup Activity(ies):

- Manually remove surface oil by appropriate means.

Priorities Considerations:

- Low priority.

Ecological Constraints (from site survey): None, other than general constraints as prescribed in the Operational Guidelines for Shoreline 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.

Charles E. Holmes
State Historic Preservation Officer *

Date: June 8, 1989

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 8709302

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KODIAK

Date: JUNE 6/89 Time: 10:05

Observer: D. HOWES

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

LOCATION DALE BAY - WEST SIDE

SEGMENT I.D. PB-3

LENGTH OF SHORELINE SEGMENT: 1000 m

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

SHORELINE:

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

Slope: LAHG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: ^{BEACH A:} B 2-4 % / C 20-25 % / P 70-80 % / G 10 % / S 10 % / M 10 % / R 10 %
^{BEACH B:} 20 % / 70 %

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

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved/V. LIGHT

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

OIL DISTRIBUTION

Continuous: Y/N Segment % 100 No. Bands 0 Width 0

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

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

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

Layers? Yes/No No# Layers Oil Weathering

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

OIL MORPHOLOGY

Pooled Oil % "Free" Oil % Spattered 100 % H/M/L/VL Sheen %

OIL WEATHERING (OW)

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

Pancake Mousse 25 % SU/SP/UP/MID/LO Asphalt Mousse 15 % SU/SP/UP/MID/LO

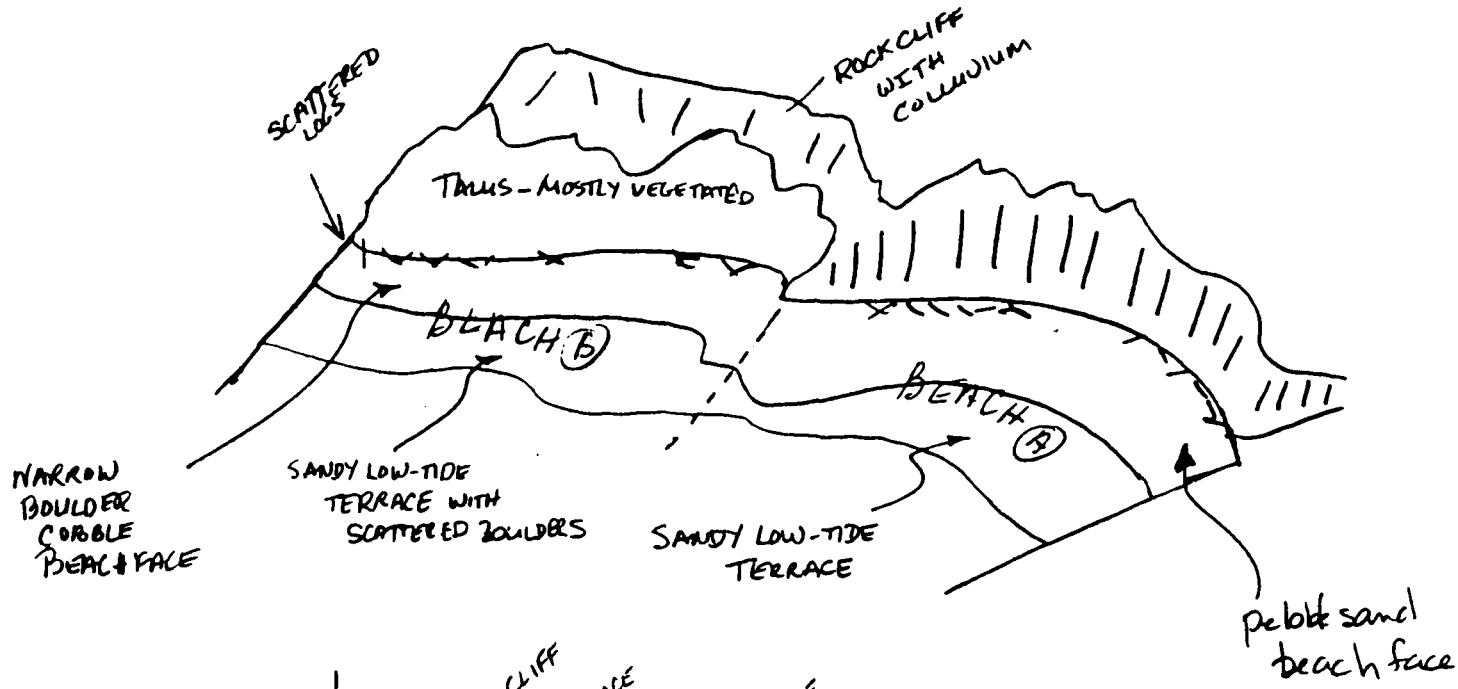
Tar Formation %

ACE 8709383

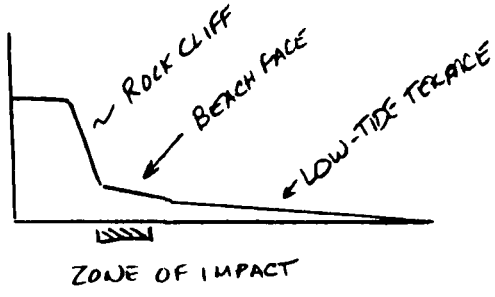
Comments:

CONTINUOUS SLATHER OF OIL ON COARSE SEDIMENT - BOULDER/COBBLES IN SPITS
AND UPPER ITZ - WIDTH OF IMPACT 3-7M

PB-3



ACE 8709384



SPLATTER ON BOULDER/COBBLE GRAVELS + LOGS
NO SPLATTER ON BEACH SANDS

ESTIMATED CROSS-PROFILE OF PB-3

ECOLOGICAL EVALUATION

LOCATION: West Side of PUALE BAY SITE: _____ OBSERVER: D. McCormick
 LOCATION PREFIX: PB SEG. NO.: 3 LENGTH: 1000 (M)
 DATE: 6/6/89 TIME (HHMM): 1005 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)

Dense on boulders

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

Dense on boulders

Littorina

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

Dense on boulders

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

OTHER OBSERVATIONS: clam shells - extensive clam beds here; kelp dense on boulders in low ITZ; some type of fish eggs in mid-low zone - see photo.

CLEANUP PRECAUTIONS: None - No cleanups warranted

MAMMALS: Otters _____ Harbor Seals _____ Sea Lions _____ Whales _____
 other _____

BIRDS: bold eagles, ravens, gulls

GENERAL OBSERVATIONS: Oil occurs here as very light splatter on boulders in high ITZ - almost asphalt in texture.

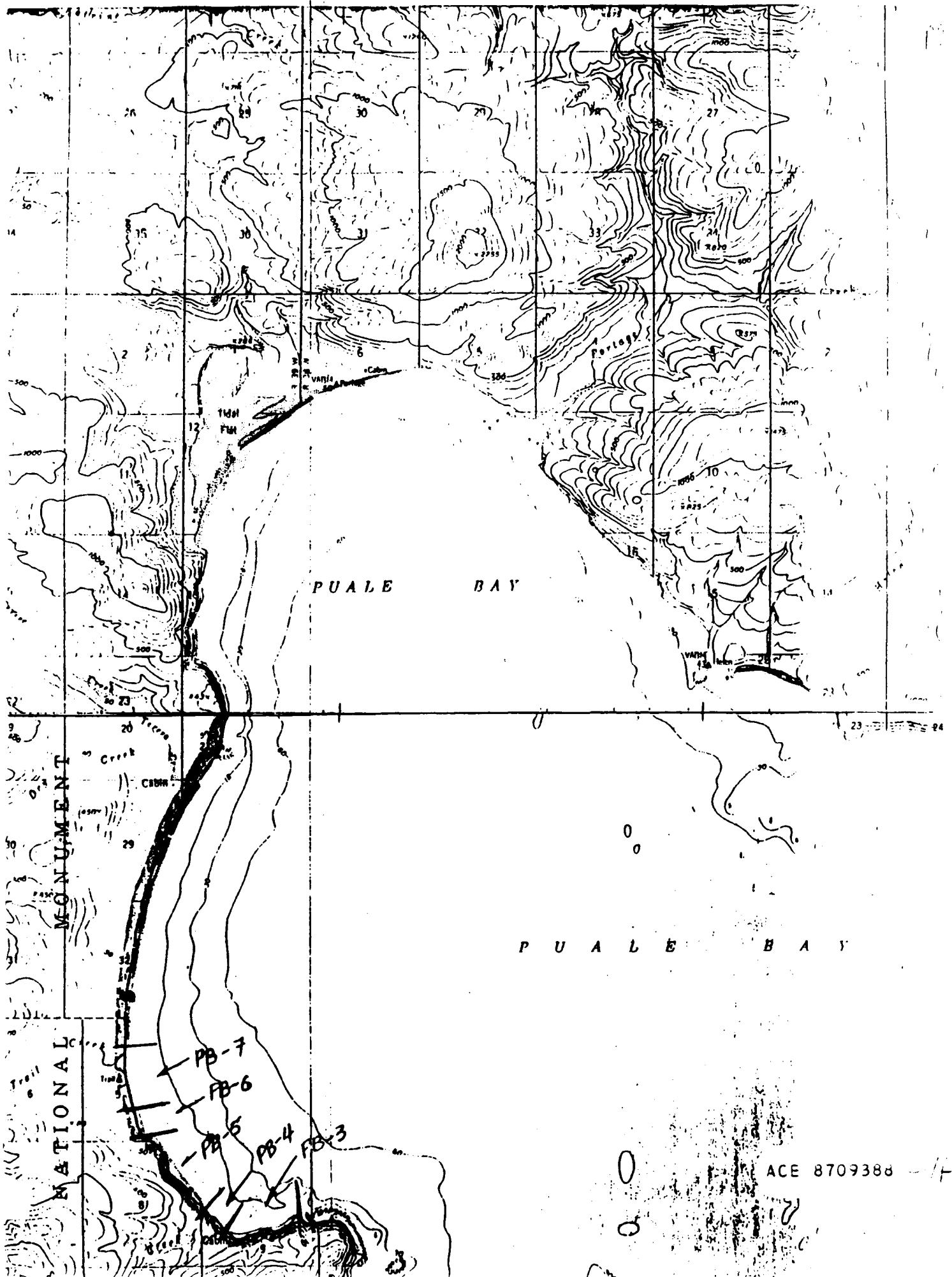
DOCUMENTATION:

Map Aerial photo marking segment boundaries See Attached

VTR: (Y)N Tape Number(s) KODIAK-01

Photography: (Y)N Roll Number(s) DMC-12

Sample Numbers Collected: N/A



TYPE A SHORELINE CLEANUP WORK ORDER

ORIGINAL

Date: 25 June 89 Shoreline Segment: PB-3, 4, 5, 6, & 7Location: (Attach map) Puale Bay - South Shore line between
Cape Ahlek and Trail CreekADEC No. K10-7 Shoreline Assessment Date: June 8, 1989

Recommended Cleanup Activity(ies): Type A beach clean up to remove surface oiling
and oily debris. Do not remove more than 2" of surface sediment and less if possible.
No mechanical devices or methods may be used, hand removal only.

Priority Considerations:

See attached "Shoreline Cleanup Program" forms.

Ecological Constraints (from site survey):

See attached "Shoreline Cleanup Program" forms.

Archaeological Constraints: No excavation or access above drift line on PB4 & PB7
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: Jack A. Rickner
ExxonDate: 25 June 89

State Historic Preservation Officer Telephone Approval (Required)

Date: Provided on June 8, 1989
See attachments.Approved: A. M. Foxworth, LT, USCG
Assistant OSC Western Alaska (if appropriate)
By directionDate: 25 June 89Approved: R. B. Meyer
Federal On-Scene Coordinator
By directionDate: 25 JUN 89

TYPE A SHORELINE CLEANUP WORK ORDER

ORIGINAL

Date: 18 June 1989 Shoreline Segment: PB-3, PB-4, PB-5, PB-6, PB-7Location: (Attach map) Cape Aklek to Trail CreekADEC No. K10-7 Shoreline Assessment Date: 6/06-08/89

Recommended Cleanup Activity(ies):

See attachments

Priority Considerations:

Ecological Constraints (from site survey):

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: Jack A. Richman
ExxonDate: 18 June 89

State Historic Preservation Officer Telephone Approval (Required)

Date: See AttachmentsN/A, Approved via SCAT Reports on June 8, 1989

Approved:

A. M. Fournier, LT, USCG
Assistant OSC Western Alaska (if appropriate)
By directionDate: 20 JUN 89

Approved:

AKM
Federal On-Scene CoordinatorDate: 21 JUN 89

(A7)

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): KODIAK-PUALE BAY SOUTH BLOCK

Includes Shoreline Segments: PB-3, PB-4, PB-5, PB-6, PB-7 ~~PB-8, PB-9~~

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
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A.DNR
CAC
PWSCA
USFS
SHPO

ACE 8709391

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/08/89 SHORELINE SEGMENT PB-4

LOCATION: (see enclosed map) Puale Bay-West Side

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/06/89

Recommended Cleanup Activity(ies):

- Manual cleanup is recommended; remove mousse patches in the mid and upper tidal zone.

-Manually remove oiled debris from the stream channel.

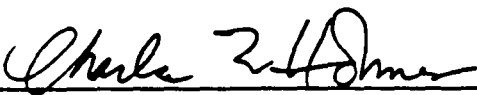
Priorities Considerations:

- Clean ASAP. This is a pink/chum salmon stream.

Ecological Constraints (from site survey): Don't remove grass. Rake oily debris out of grass and remove. Remove all clumps of oily seaweed/drift debris from along south side of stream channel and remove pancake mousse from lower channel if observed. Minimize disturbance to stream bed.

Archeological Constraints (from site survey):

No excavation, equipment storage, or other access above the drift 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: June 8, 1989

EXXON: Jack A. Rickman

Date: 13 June 89

FOSC: _____

Date: _____

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

ACE 8709392

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KOREAN

Date: JUNE 6/89 Time: 10:30

Observer: D. HOWES

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fo

LOCATION

LOCATION PUMBLE BAY - WEST SIDE

SEGMENT I.D. PB-4

LENGTH OF SHORELINE SEGMENT: 435 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 1 / C 0-1 / P 2-3 / G 1 / S 0-1 / M 1 / R 1

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

OIL

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

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

OIL DISTRIBUTION

Continuous: Y/N Segment 1 100 No. Bands 1 Width

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

Est. Oil Thickness where > 1cm: up to 2 cm SU / SP / UP / MID / LO

Est. Oil Penetration: NONE cm SU / SP / UP / MID / LO

Layers? Yes/No No. Layers Oil Weathering

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

OIL MORPHOLOGY

Pooled Oil % "Free" Oil 10 % Spattered 30 % H/M/L/VL Sheen %

OIL WEATHERING (OW)

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

Pancake Mousse 10 % SU/SP/VP/MID/LO Asphalt Mousse 30 % SU/SP/VP/MID/LO

Tar Formation %

Comments:

ACE 8709393

DOCUMENTATION:

Map Aerial photo marking segment boundaries See Attached

VTR: Y/N Tape Number(s) KODIRK-01

Photography: Y/N Roll Number(s) DMC-12

Sample Numbers Collected: N/A

ECOLOGICAL EVALUATION

LOCATION: WEST SIDE Puall Bay SITE: _____ OBSERVER: D. McCormick
 LOCATION PREFIX: PB SEG. NO.: 4 LENGTH: 435 (M)
 DATE: 6/6/89 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
Dense in clumped masses on boulders.

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

Littorina
 itchy 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: For parts in stream channel sand bar.

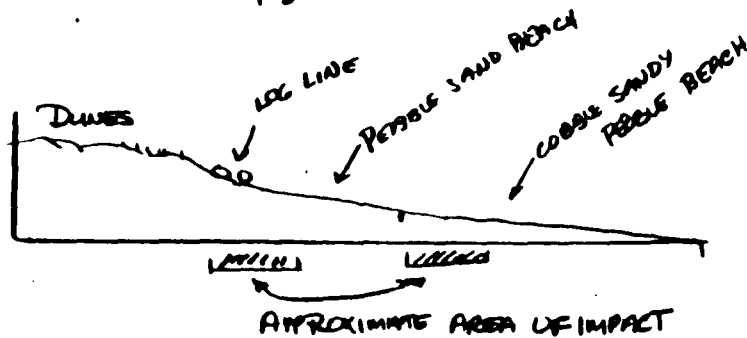
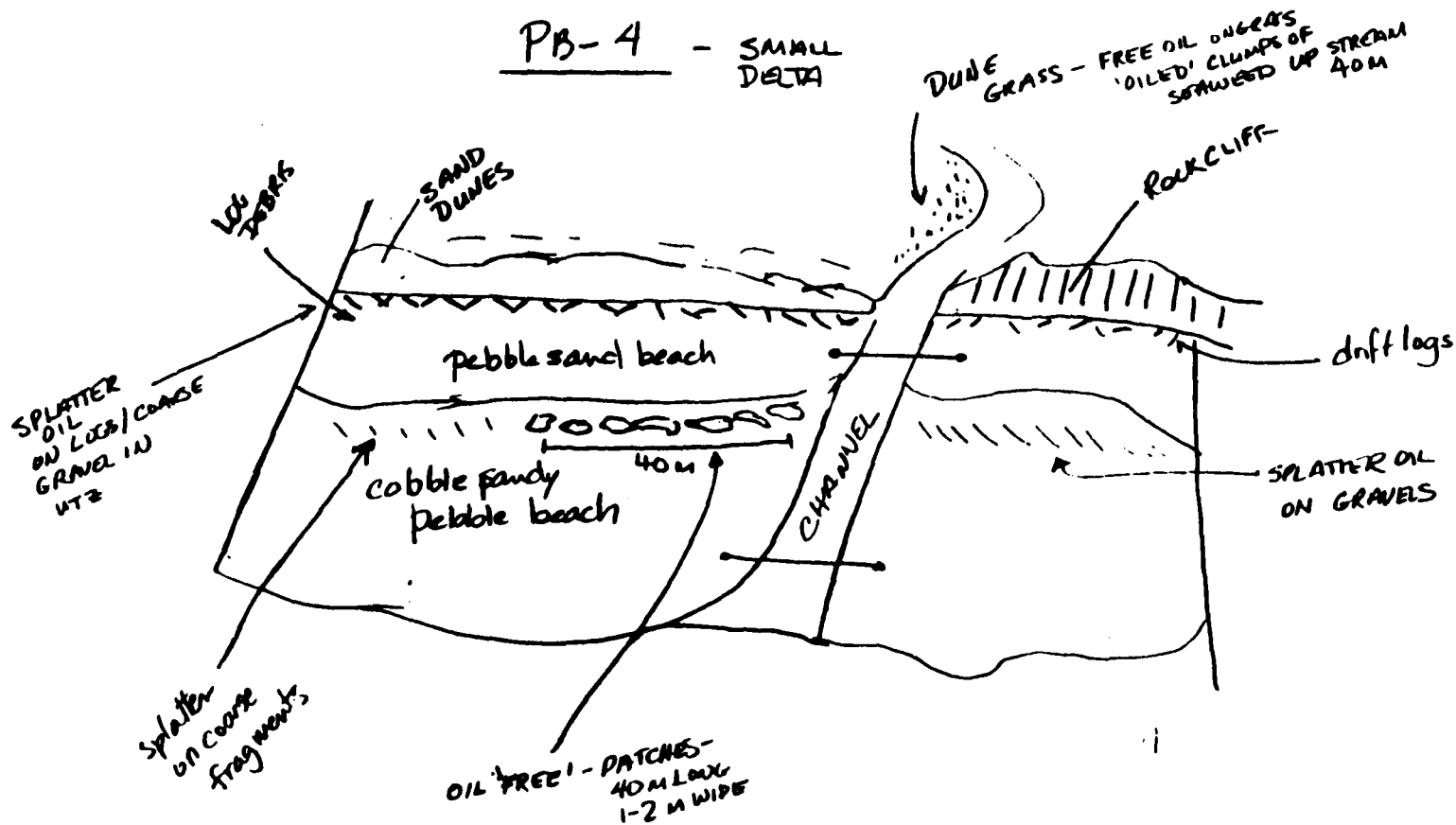
CLEANUP PRECAUTIONS: Do not pick grass - remove all oily debris - log & seaweeds.
Stay out of stream - pick up when salmon use this.

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

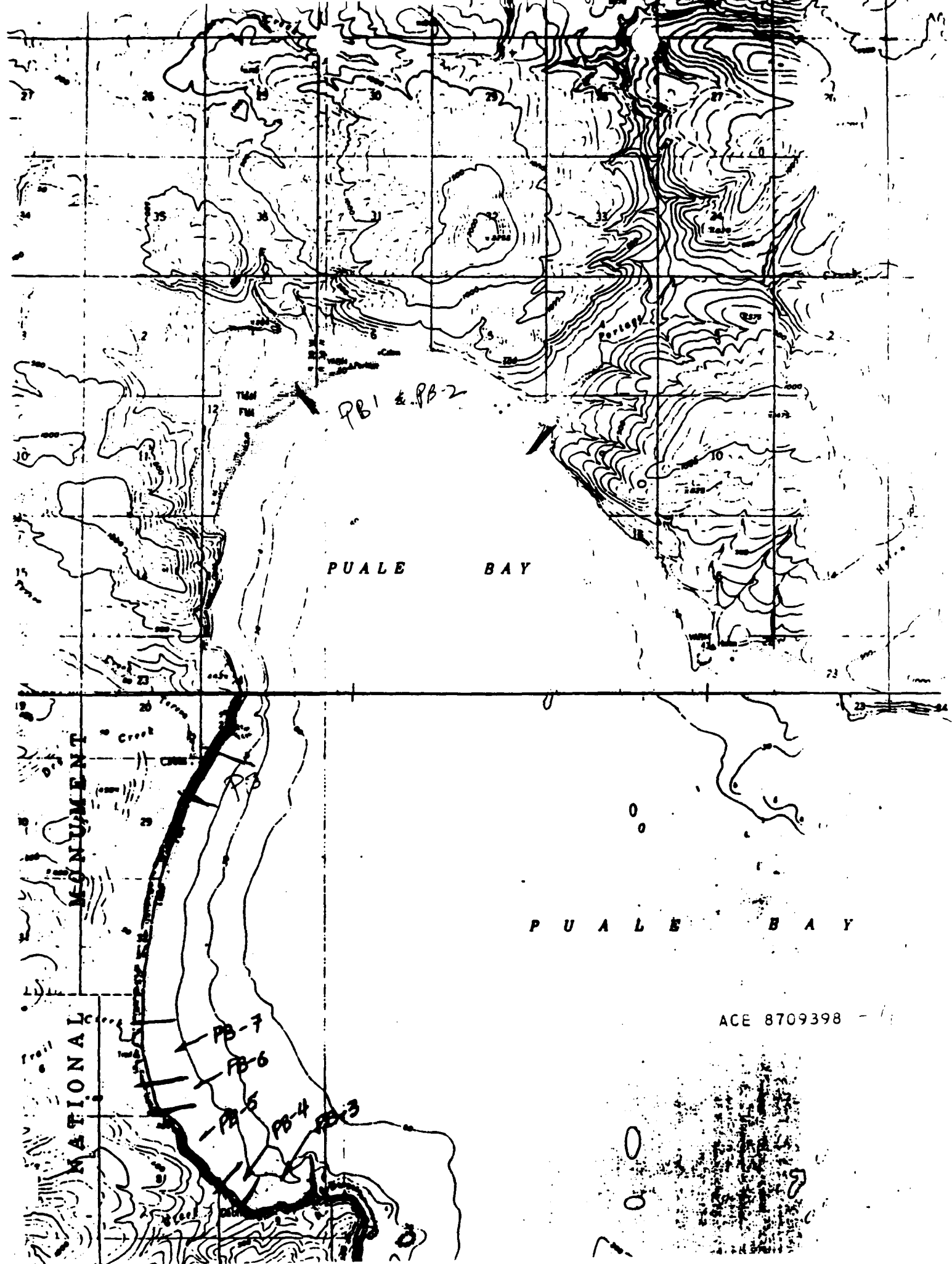
BIRDS: _____

GENERAL OBSERVATIONS: Oil here occurs in several modes: mid ITZ, it's mouse pancakes
to ITZ, it's pancakes & splatter on rocks (asphalt) little to no oily debris. Along stream
oil is in grass and oily debris at high zone which should be cleaned ASAP due to salmon use.
few small (5 cm) mouse pancakes seen in stream channel at low ITZ - should be removed.

PB-4 - SMALL DELTA



ESTIMATED CROSS-PROFILE OF PB-4



PUALE BAY

PUALE BAY

ACE 8709398

K10-07

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/08/89 SHORELINE SEGMENT PB-4

LOCATION: (see enclosed map) Puale Bay-West Side

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/06/89

Recommended Cleanup Activity(ies):

- Manual cleanup is recommended; remove mousse patches in the mid and upper tidal zone.

-Manually remove oiled debris from the stream channel.

Priorities Considerations:

- Clean ASAP. This is a pink/chum salmon stream.

Ecological Constraints (from site survey): Don't remove grass. Rake oily debris out of grass and remove. Remove all clumps of oily seaweed/drift debris from along south side of stream channel and remove pancake mousse from lower channel if observed. Minimize disturbance to stream bed.

Archeological Constraints (from site survey):

No excavation, equipment storage, or other access above the drift 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.

Charles Z. Adams
State Historic Preservation Officer *

Date: June 8, 1989

EXXON: [Signature]

Date: 6/7/89

FOSC: _____

Date: _____

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

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/08/89 SHORELINE SEGMENT PB-4

LOCATION: (see enclosed map) Puale Bay-West Side

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/06/89

Recommended Cleanup Activity(ies):

- Manual cleanup is recommended; remove mousse patches in the mid and upper tidal zone.

-Manually remove oiled debris from the stream channel.

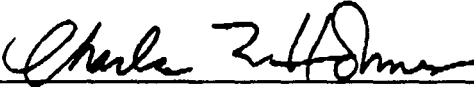
Priorities Considerations:

- Clean ASAP. This is a pink/chum salmon stream.

Ecological Constraints (from site survey): Don't remove grass. Rake oily debris out of grass and remove. Remove all clumps of oily seaweed/drift debris from along south side of stream channel and remove pancake mousse from lower channel if observed. Minimize disturbance to stream bed.

Archeological Constraints (from site survey):

No excavation, equipment storage, or other access above the drift 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: June 8, 1989

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 8709400

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/08/89

SHORELINE SEGMENT PB-4

LOCATION: (see enclosed map) Puale Bay-West Side

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/06/89

Recommended Cleanup Activity(ies):

- Manual cleanup is recommended; remove mousse patches in the mid and upper tidal zone.

-Manually remove oiled debris from the stream channel.

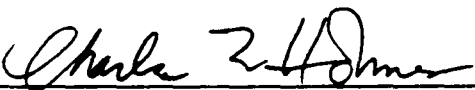
Priorities Considerations:

- Clean ASAP. This is a pink/chum salmon stream.

Ecological Constraints (from site survey): Don't remove grass. Rake oily debris out of grass and remove. Remove all clumps of oily seaweed/drift debris from along south side of stream channel and remove pancake mousse from lower channel if observed. Minimize disturbance to stream bed.

Archeological Constraints (from site survey):

No excavation, equipment storage, or other access above the drift 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: June 8, 1989

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 8709401

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KODIAK

Date: JUNE 6/89 Time: 10:30

Observer: D. HOWES

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION
LOCATION

PUMPE BAY - WEST SIDE

SEGMENT I.D. PB-4

LENGTH OF SHORELINE SEGMENT: 435 m

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

SHORELINE:

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

Slope: LANG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B___% / CD-10% / P 30-40% / G___% / S 10-20% / M___% / R___%

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

OIL

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

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

OIL DISTRIBUTION

Continuous: Y/N Segment % 100 No. Bands 10 Width

Sporadic: Y/N Segment % _____ Min/Max Dia _____ Impact Width _____

Est. Oil Thickness where > 1cm: up to 2 cm SU / SP / UP / MID / LO

Est. Oil Penetration: NONE cm SU / SP / UP / MID / LO

Layers? Yes/No No# Layers _____ Oil Weathering _____

Drift Debris Oiled ? Yes/No Supra/Upper/Mid/Lower Amount: II / II (I) / VI

OIL MORPHOLOGY

Pooled Oil _____% "Free" Oil 10% Spattered 30% H/H/L/VL Sheen _____%

OIL WEATHERING (OW)

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

Pancake Mousse 10% SU/SP/VP/MID/LO Asphalt Mousse 30% SU/SP/VP/MID/LO

Tar Formation _____%

Comments:

ACE 8709402

DOCUMENTATION:

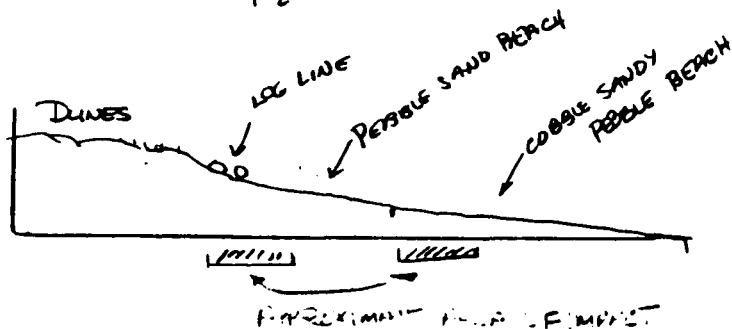
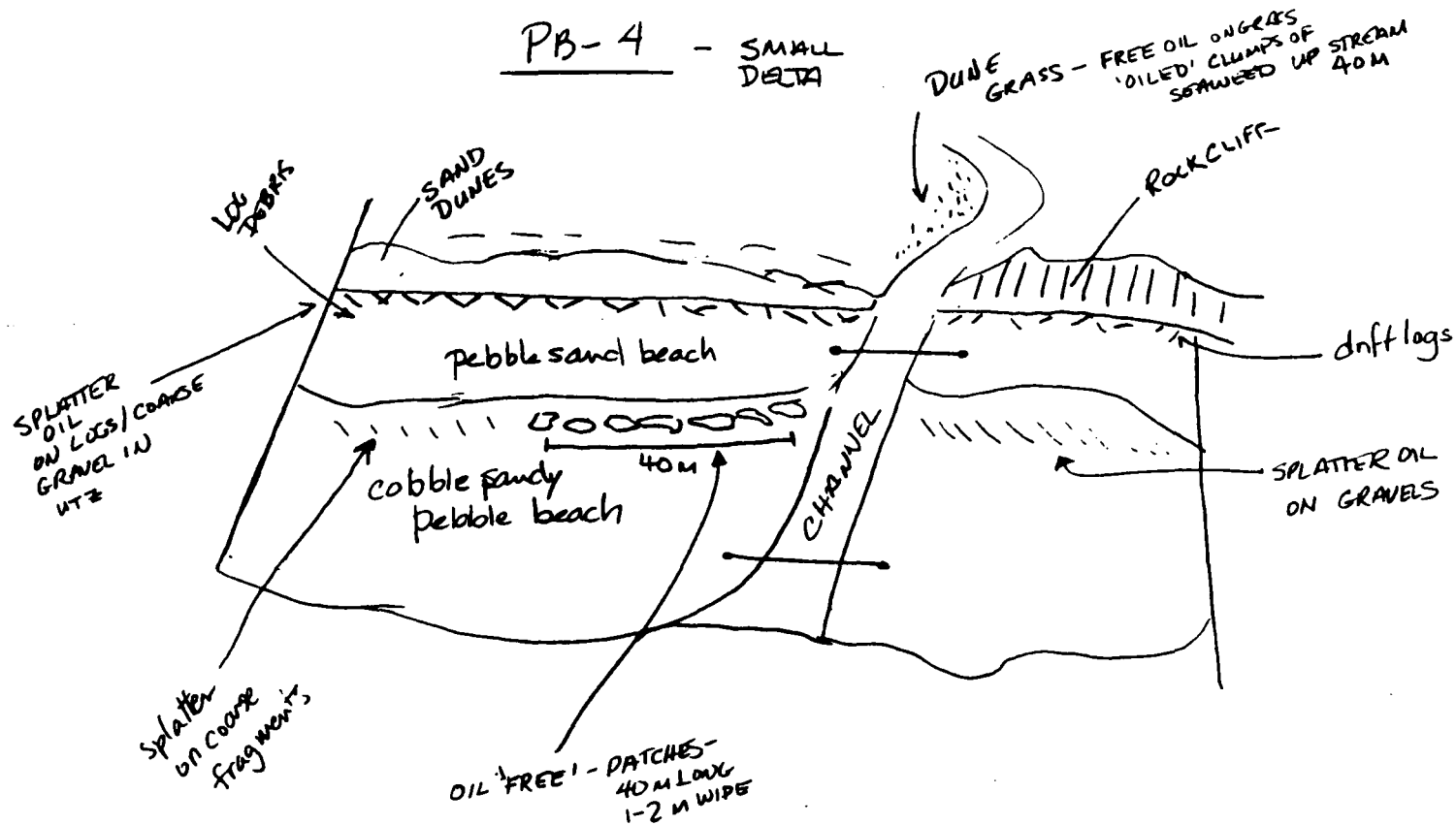
Map Aerial photo marking segment boundaries See Attached

VTR: YN Tape Number(s) KODIAK-01

Photography: YN Roll Number(s) DMC-12

Sample Numbers Collected: N/A

PB-4 - SMALL DELTA



APPROXIMATE AREA OF IMPACT

ECOLOGICAL EVALUATION

LOCATION: WEST SIDE PUEBLO BAY SITE: _____ OBSERVER: D. McCormick
 LOCATION PREFIX: PB SEG. NO.: 4 LENGTH: 435 (M)
 DATE: 6/6/89 TIME (HHMM): 1030 TIDE HT.: -0.75 (M)
 POOLED ZONE: Splash High Medium Low
 SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Ulcus (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 clumped masses on boulders.

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

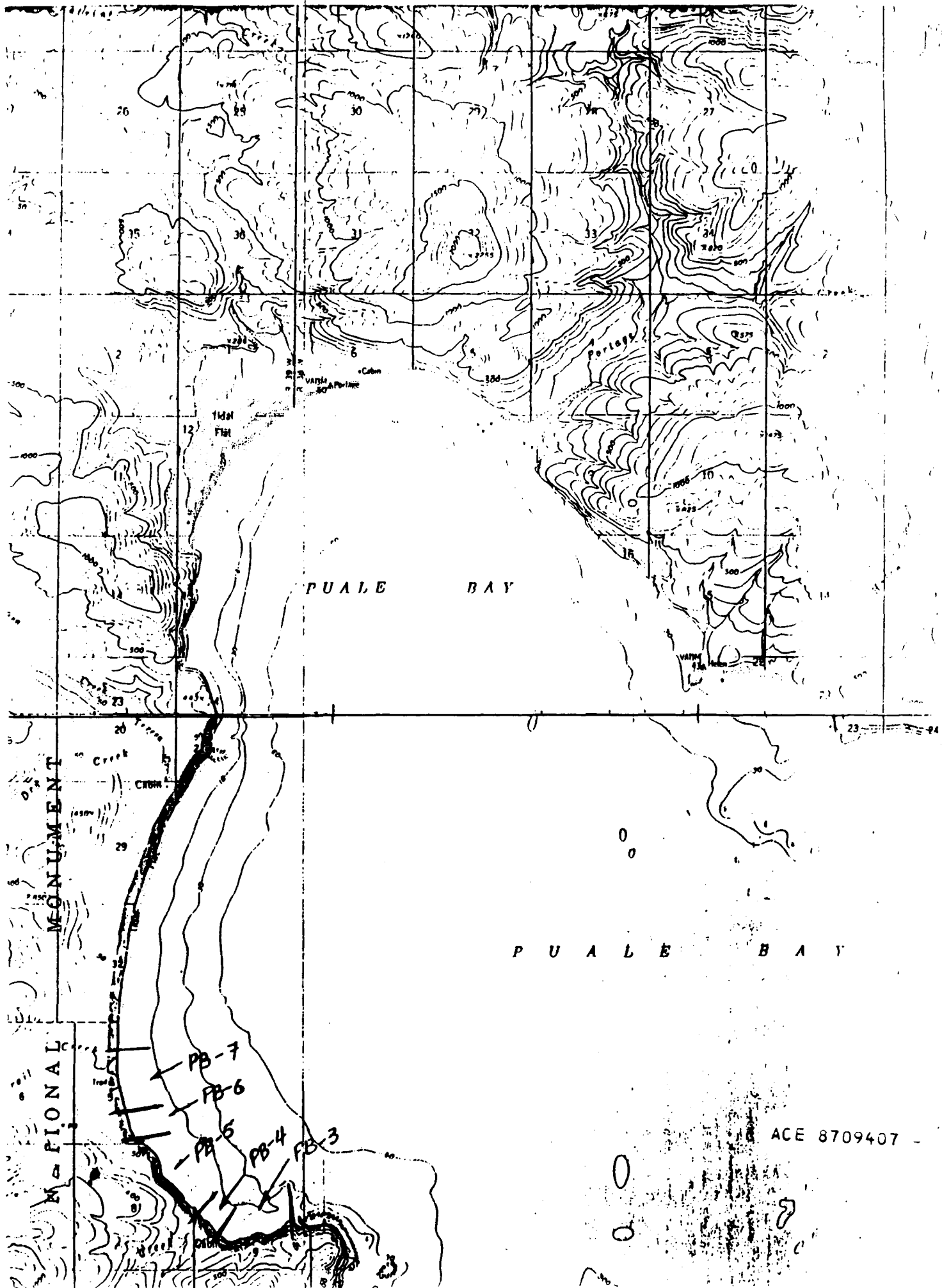
OTHER OBSERVATIONS: Fox prints in stream channel sand bar.

CLEANUP PRECAUTIONS: Do not pick grass - remove all oily debris - logs & seaweeds.
Stay out of stream - pick up salmon use this.

AMMALS: Otters _____ Harbor Seals _____ Sea Lions _____ Whales _____
 other _____

BIRDS: _____

GENERAL OBSERVATIONS: Oil here occurs in several modes: mid ITZ it's mousse pancakes;
Just ITZ it's pancakes & splatter on rocks (asphalt) little to no oily debris. Along stream channel
it's in grass and oily debris at high zone which should be cleaned ASAP due to salmon use.
few small (<5cm) mousse pancakes seen in stream channel at low ITZ - should be removed.



ACE 8709407

TYPE A SHORELINE CLEANUP WORK ORDER

ORIGINAL

Date: 25 June 89 Shoreline Segment: PB-3, 4, (5), 6, & 7

Location: (Attach map) Puale Bay - South Shore line between Cape Aklek and Trail Creek

ADEC No. K10-7 Shoreline Assessment Date: June 8, 1989

Recommended Cleanup Activity(ies): Type A beach clean up to remove surface oiling and oily debris. Do not remove more than 2" of surface sediment and less if possible. No mechanical devices or methods may be used, hand removal only.

Priority Considerations:

See attached "Shoreline Cleanup Program" forms.

Ecological Constraints (from site survey):

See attached "Shoreline Cleanup Program" forms.

Archaeological Constraints: No excavation or access above drift line on PB 4 & PB 7
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: Jack A. Rickner
Exxon

Date: 25 June 89

State Historic Preservation Officer Telephone Approval (Required)

Date: Provided on June 8, 1989
See attachments.

Approved: A. M. Foxworth, LT, USCG
Assistant OSC Western Alaska (If appropriate)
By direction

Date: 25 June 89

Approved: R. M. Meyer
Federal On-Scene Coordinator.
By direction

Date: 25 JW 89

4/30/89

ACE 8709408

TYPE A SHORELINE CLEANUP WORK ORDER

ORIGINAL

Date: 18 June 1989 Shoreline Segment: PB-3, PB-4, PB-5, PB-6, PB-7Location: (Attach map) Cape Aklek to Trail CreekADEC No. K10-7 Shoreline Assessment Date: 6/06-08/89

Recommended Cleanup Activity(ies):

See attachments

Priority Considerations:

Ecological Constraints (from site survey):

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: Jack A. Rickman
ExxonDate: 18 June 89

State Historic Preservation Officer Telephone Approval (Required)

Date: See AttachmentsN/A, Approved via SCAT Reports on June 8, 1989

Approved:

A. M. Fournier, LT, LISC
Assistant OSC Western Alaska (if appropriate)
by directionDate: 20 JUN 89

Approved:

ABM
Federal On-Scene CoordinatorDate: 21 JUN 89

(A7)

4/30/89

ACE 8709409

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): KODIAK-PUALE BAY SOUTH BLOCK

Includes Shoreline Segments: PB-3, PB-4, PB-5, PB-6, PB-7 ~~PB-8, PB-9~~

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
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Exxon SCAT file

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ACE 8709410

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/08/89

SHORELINE SEGMENT PB-5

LOCATION: (see enclosed map) Puale Bay-West Side

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/08/89

Recommended Cleanup Activity(ies):

- Manually remove oil by appropriate means.-

Priorities Considerations:

- Low priority.

Ecological Constraints (from site survey): None, other than general constraints as prescribed in the Operational Guidelines for Shoreline 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.

Charles Zeffman
State Historic Preservation Officer *

Date: June 8, 1989

EXXON: Jack A. Ricketts

Date: 13 June 89

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 4/89 / Time: 11:00

Observer: D. HOWES

Surveyed From: Foot / Boat / Helio / Plane

Weather: Sun / Cloud / Rain / Snow / Fog

LOCATION

LOCATION PULASKI BAY - WEST SIDE

SEGMENT I.D. PB-5

LENGTH OF SHORELINE SEGMENT: 1310 m

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

SHORELINE:

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

Slope: LANG / HANG / VER
Rock Platform

Wave Exposure: High / Med / Low

Sediment: BS-10 / CS-10 / P / G / S 90 / M / R

Drift Debris on Beach: Yes / No

Supra / Upper / Mid / Lower Type log / seaweed

OIL

Degree of Oiling: Heavy / Moderate / Light / No Oil / Unobserved / V. LIGHT

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

OIL DISTRIBUTION

Continuous: Y / N Segment 100 No. Bands 0 Width

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

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

Est. Oil Penetration: NO cm SU / SP / UP / MID / LO

Layers? Yes / No No# Layers 1 Oil Weathering

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

OIL MORPHOLOGY

Pooled Oil 1 "Free" Oil 1 Spattered 100 H / M / L / VI Sheen 1

OIL WEATHERING (OW)

Fresh Oil 1 SU / SP / VP / MID / LO Choc Mousse 5 SU / SP / VP / MID / LO

Pancake Mousse 95 SU / SP / VP / MID / LO Asphalt Mousse 1 SU / SP / VP / MID / LO

Tar Formation 1

Comments:

ACE 8709412

OIL LIMITED TO VERY LIGHT SPATTER IN UPPER 1/3; CONTINUOUS ALONG THE UPLT
NO CLEANUP NECESSARY AT THIS TIME

DOCUMENTATION:

Map/Aerial photo marking segment boundaries See Attached

VTR: Y/N Tape Number(s) KODIAK-01

Photography: Y/N Roll Number(s) DMC-12 and DMC-13

Sample Numbers Collected: N/A

ECOLOGICAL EVALUATION

LOCATION: West Side Puale Bay SITE: _____ OBSERVER: D. McCoemick
 LOCATION PREFIX: PR SEG. NO.: 5 LENGTH: 1310 (M)
 DATE: 6/6/89 TIME (HHMM): 1100 TIDE HT.: -0.5 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

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

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)

Few feeding on kelp

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

OTHER OBSERVATIONS: Kelp very dense from low to high ITZ on this platform beach;
dense clam beds, Leptasterias and Solaster starfish; y. Bl. fish; Saxidomus clams (shells);
Anthopleura anemones feeding on crab legs; 1 dead oiled bird at high tide

CLEANUP PRECAUTIONS: None

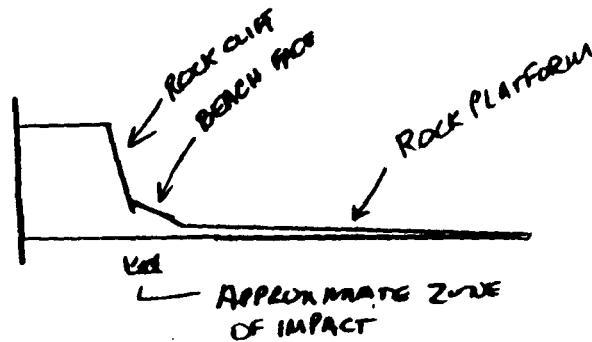
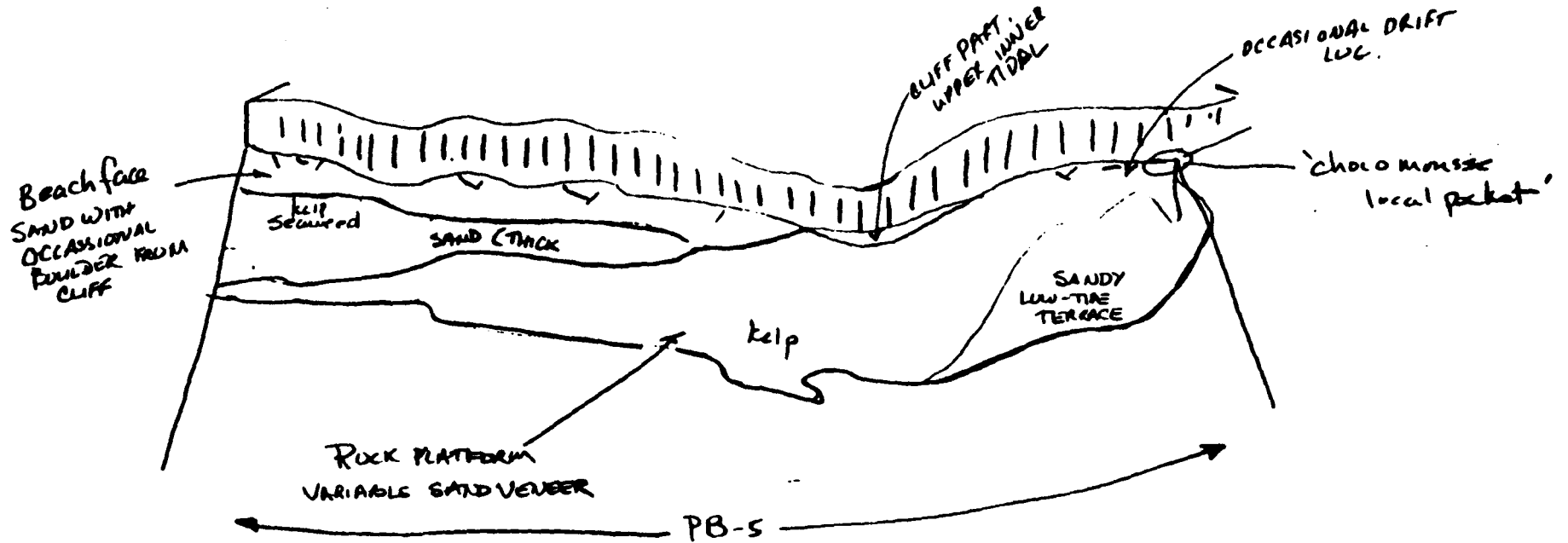
MAMMALS: Otters _____ Harbor Seals _____ Sea Lions _____ Whales _____
 Other _____

BIRDS: _____

GENERAL OBSERVATIONS: This segment very rich in biota. Very light splatter in high
ITZ only, not affecting biota. No cleanup warranted.

PB-5

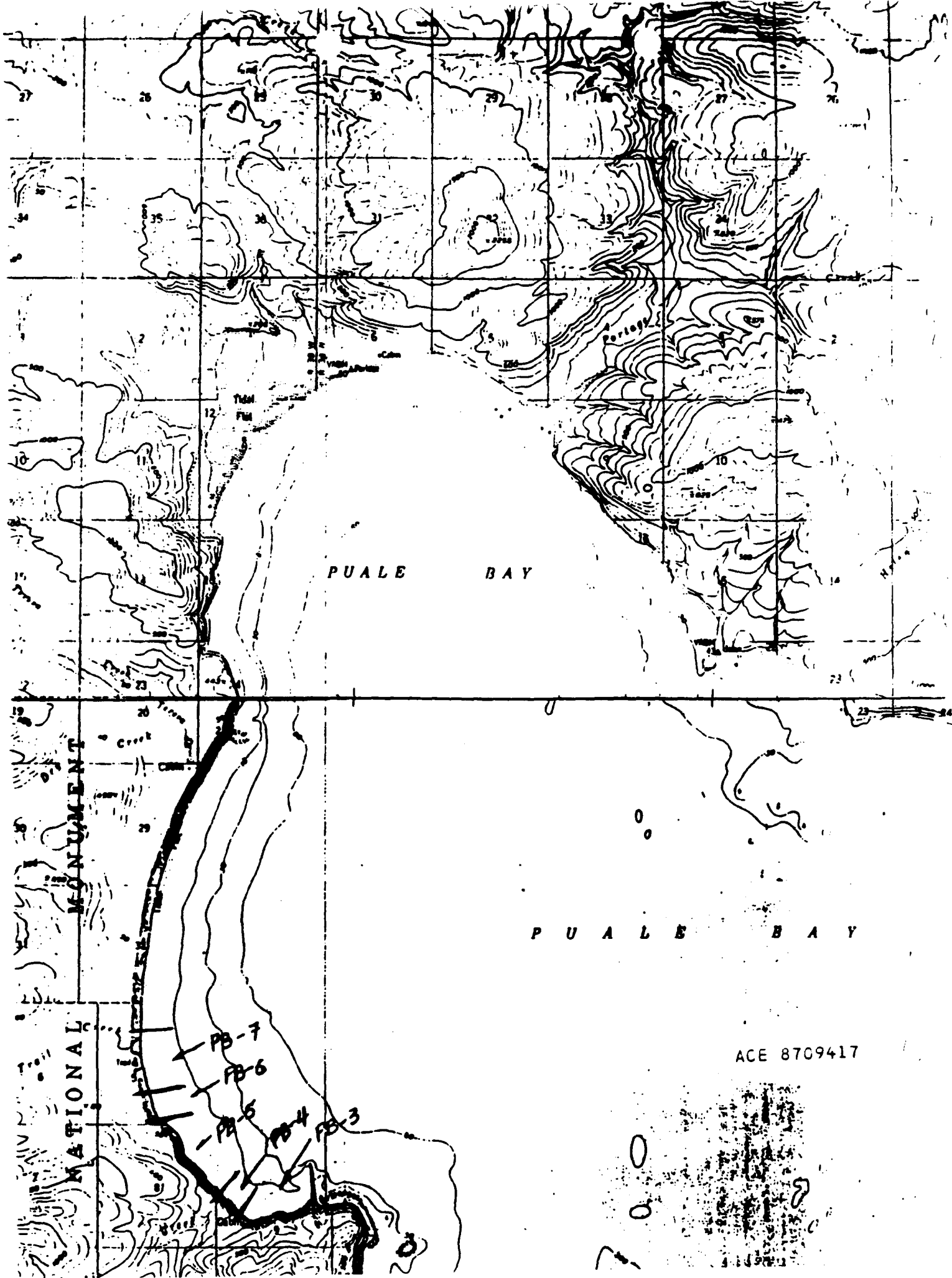
ROCK PLATFORM - WITH SAND VENEER



ESTIMATED X-PROFILE PB-5

- OIL SPLATTER
- Splash - high tide zone
 - on rock cliff face or cobble/boulder sediment
 - $< 1\%$ - asphalt + 15% } mousse & choc 5%
- AT NORTH END

AGE 8709416



(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/08/89 SHORELINE SEGMENT PB-5

LOCATION: (see enclosed map) Puale Bay-West Side

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/08/89

Recommended Cleanup Activity(ies):

- Manually remove oil by appropriate means.

Priorities Considerations:

- Low priority.

Ecological Constraints (from site survey): None, other than general constraints as prescribed in the Operational Guidelines for Shoreline 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.

Charles Z. Adams
State Historic Preservation Officer *

Date: June 8, 1989

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/08/89

SHORELINE SEGMENT PB-5

LOCATION: (see enclosed map) Puale Bay-West Side

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/08/89

Recommended Cleanup Activity(ies):

- Manually remove oil by appropriate means.

Priorities Considerations:

- Low priority.

Ecological Constraints (from site survey): None, other than general constraints as prescribed in the Operational Guidelines for Shoreline 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.

Charles Zellman
State Historic Preservation Officer *

Date: June 8, 1989

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 8709420

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KODIAK

Date: JUNE 6/89 / Time: 11:00

Observer: D. HOWES

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

LOCATION PUALE BAY - WEST SIDE

SEGMENT I.D. PB-5

LENGTH OF SHORELINE SEGMENT: 1310 m

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

SHORELINE:

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

Slope: LANG/HANG/VER
Rock PLATFORM

Wave Exposure: High/Med/Low

Sediment: B5-10 / C5-10 / P___ / G___ / S 90 / M___ / R___

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

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved/V. LIGHT

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

OIL DISTRIBUTION

Continuous: Y/N Segment 100 No. Bands 0 Width___

Sporadic: Y/N Segment 1 Min/Max Dia___ Impact Width___

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

Est. Oil Penetration: NO 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 / L / VI

OIL MORPHOLOGY

Pooled Oil___ "Free" Oil___ Spattered 100 H/H/L/VI Sheen___

OIL WEATHERING (OW)

Fresh Oil___ SU/SP/VP/MID/LO Choc Mousse 5 SU/SP/VP/MID/LO

Pancake Mousse 95 SU/SP/VP/MID/LO Asphalt Mousse___ SU/SP/VP/MID/LO

Tar Formation___

Comments:

OIL LIMITED TO VERY LIGHT SPATTER IN UPPER 1/2; CONTINUOUS ALONG THE BEACH
NO CLEANUP NECESSARY AT THIS TIME.

ACE 8709421

DOCUMENTATION:

Map/Aerial photo marking segment boundaries see Attached

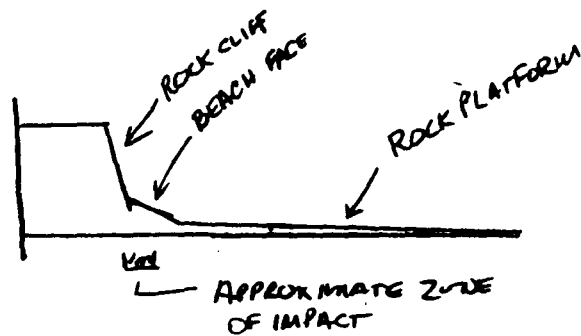
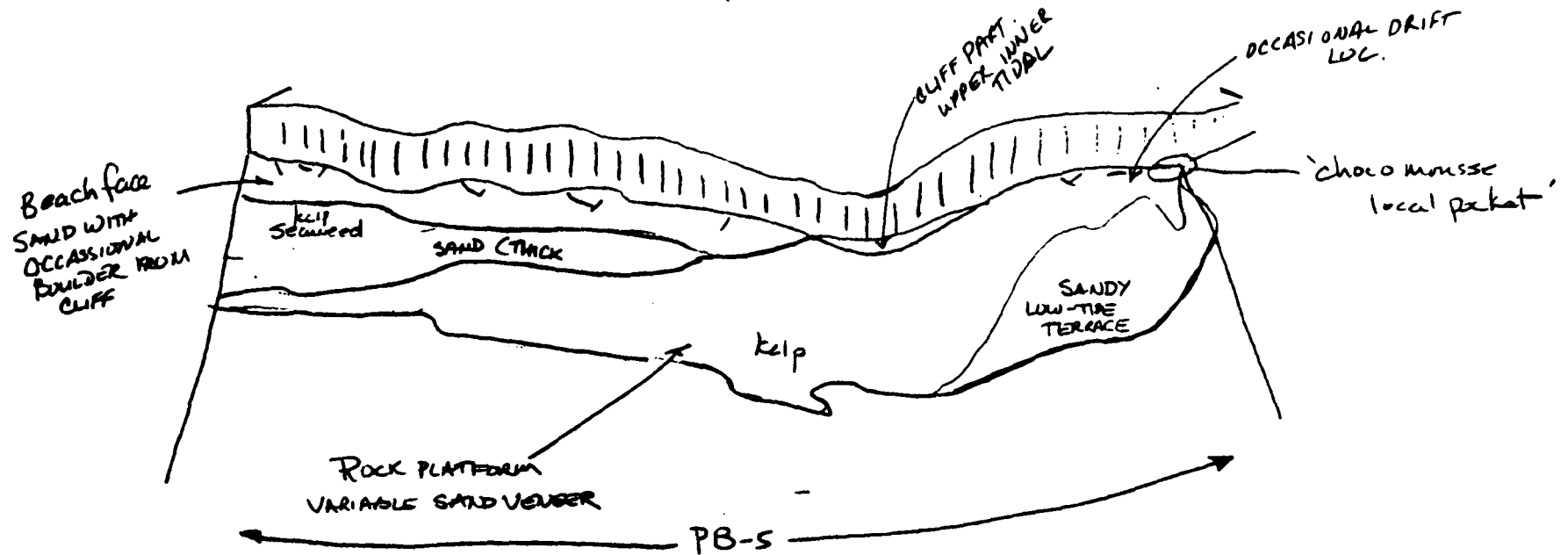
VTR: ☒ Y ☐ N Tape Number(s) KODIAK-01

Photography: ☒ Y ☐ N Roll Number(s) DMC-12 and DMC-13

Sample Numbers Collected: N/A

PB-5

ROCK PLATFORM - WITH SAND VENEER



ESTIMATED X-PROFILE PB-5

- OIL SPLATTER
- Splash - high tide zone
 - on rock cliff face or cobble/boulder sediment
 - <1% - asphalt + 15% } mousse
choco 5%
- AT NORTH END

ACE 8709423

ECOLOGICAL EVALUATION

LOCATION: West Side PuALE BAY SITE: _____ OBSERVER: D. McCormick
 LOCATION PREFIX: PB SEG. NO.: 5 LENGTH: 1310 (M)
 DATE: 6/6/89 TIME (HHMM): 1100 TIDE HT.: -0.5 (M)
 ZONE: Splash High Medium Low
 SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Uca (algae): Patchy ☒ Contin. ☒ Dense ☒ Sparse ☒ None ☒

Mytilus (Mussels): Patchy ☒ Contin. ☒ Dense ☒ Sparse ☒ None ☒
Dense on boulders

Balanus (Barnacles): Patchy ☒ Contin. ☒ Dense ☒ Sparse ☒ None ☒

Littorina
 Patchy ☒ Contin. ☒ Dense ☒ Sparse ☒ None ☒
feeding on kelp

Limpets: Patchy ☒ Contin. ☒ Dense ☒ Sparse ☒ None ☒

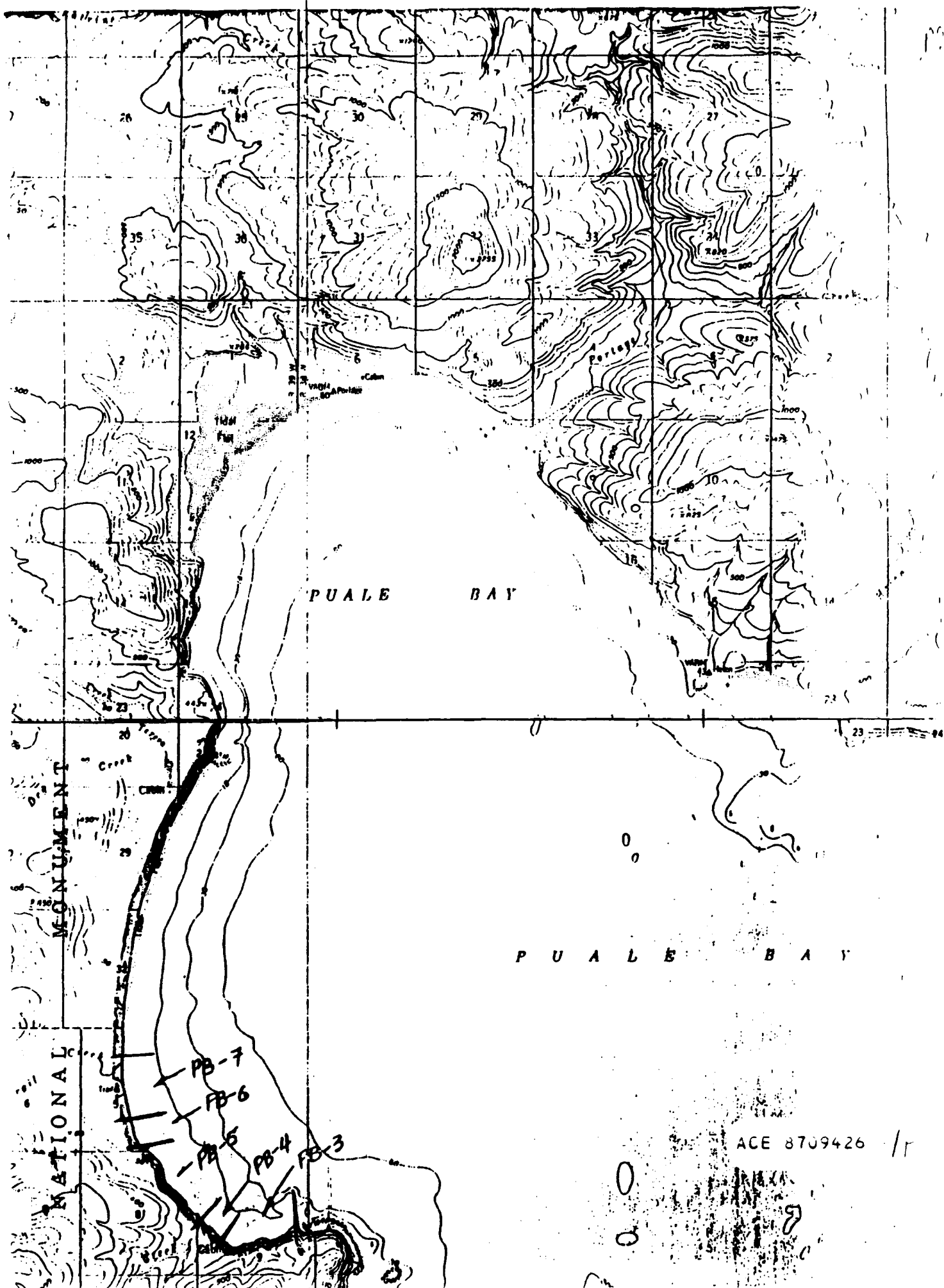
OTHER OBSERVATIONS: kelp very dense from low to high ITZ on this platform beach;
dense clam beds: Leptasterias and Solaster starfish; Mytilus; Saxidomus clams (shells);
Anthopleura anemones feeding on crab legs; 1 dead oiled bird at high tide

CLEANUP PRECAUTIONS: None

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

BIRDS: _____

GENERAL OBSERVATIONS: This segment very rich in biota. Very light splatter in high
ITZ only, not affecting biota. No cleanup warranted.



ACE 8709426

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/08/89

SHORELINE SEGMENT PB-6

LOCATION: (see enclosed map) Puale Bay-West Side

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/08/89

Recommended Cleanup Activity(ies):

- Manually remove surface oil by appropriate means.

Priorities Considerations:

- Low priority.

Ecological Constraints (from site survey): None, other than general constraints as prescribed in the Operational Guidelines for Shoreline 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.

Charles E. Holmes
State Historic Preservation Officer *

Date: June 8, 1989

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

TYPE A SHORELINE CLEANUP WORK ORDER

ORIGINAL

Date: 25 June 89 Shoreline Segment: PB-3, 4, 5, 6, 7Location: (Attach map) Puale Bay - South Shore line between
Cape Aklek and Trail CreekADEC No. K10-7 Shoreline Assessment Date: June 8, 1989

Recommended Cleanup Activity(ies): Type A beach clean up to remove surface oiling
and oily debris. Do not remove more than 2" of surface sediment and less if possible.
No mechanical devices or methods may be used, hand removal only.

Priority Considerations:

See attached "Shoreline Cleanup Program" forms.

Ecological Constraints (from site survey):

See attached "Shoreline Cleanup Program" forms.

Archaeological Constraints: No excavation or access above drift line on PB 4 & PB 7
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: Jack A. Rickner
ExxonDate: 25 June 89

State Historic Preservation Officer Telephone Approval (Required)

Date: Provided on June 8, 1989
See attachments.Approved: A. M. Foxworth, LT, USCG
Assistant OSC Western Alaska (If appropriate)
By directionDate: 25 June 89Approved: R. B. Meyer
Federal On-Scene Coordinator.
By directionDate: 25 JUN 89

4/30/89

ACE 8709428

TYPE A SHORELINE CLEANUP WORK ORDER

ORIGINAL

Date: 18 June 1989 Shoreline Segment: PB-3, PB-4, PB-5, PB-6, PB-7

Location: (Attach map) Cape Aklek to Trail Creek

ADEC No. K10-7 Shoreline Assessment Date: 6/06-08/89

Recommended Cleanup Activity(ies):

See attachments

Priority Considerations:

Ecological Constraints (from site survey):

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: Jack A. Rickman
Exxon

Date: 18 June 89

State Historic Preservation Officer Telephone Approval (Required)

Date: See Attachments

N/A, Approved via SCAT Reports on June 8, 1989

Approved:

A. M. Howard, LT, USCG
Assistant OSC Western Alaska (if appropriate)
by direction

Date: 20 JUN 89

Approved:

AB [Signature]
Federal On-Scene Coordinator

Date: 21 JUN 89

ACE 8709429

4/30/89

(A7)

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): KODIAK-PUALE BAY SOUTH BLOCK

Includes Shoreline Segments: PB-3, PB-4, PB-5, PB-6, PB-7 ~~PB-8, PB-9~~

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:

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ACE 8709430

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/08/89

SHORELINE SEGMENT PB-6

LOCATION: (see enclosed map) Puale Bay-West Side

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/08/89

Recommended Cleanup Activity(ies):

- Manually remove surface oil by appropriate means.

Priorities Considerations:

- Low priority.

Ecological Constraints (from site survey): None, other than general constraints as prescribed in the Operational Guidelines for Shoreline 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.

Charles F. Holmes
State Historic Preservation Officer *

Date: June 8, 1989

EXXON: Jack A. Rickson

Date: 13 June 89

FOSC: _____

Date: _____

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

ACE 8709431

(version 5/16/89)

BEACHLINE OIL EVALUATION FORM KODIAK

Date: JUNE 6/89 Time: 12:00

Observer: D. HOWES

Surveyed From: Foot Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

LOCATION PWALE BAY - WEST SIDE

SEGMENT I.D. PB-6

LENGTH OF SHORELINE SEGMENT: 425 m

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

SHORELINE:

Shoreline Type: SP/BEA/COV/HLD/STRT

Slope: LANG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B 2 / C 2 / P 2 / G 2 / S 2 / M 2 / R 2

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

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved V. LIGHT

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

OIL DISTRIBUTION

Continuous: Y/N Segment 100 No. Bands 0 Width

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

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

Est. Oil Penetration: 100 cm SU / SP / UP / MID / LO

Layers? Yes/No No# Layers Oil Weathering

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

OIL MORPHOLOGY

Pooled Oil % "Free" Oil % Spattered 100 % H/H/L/VL Sheen %

OIL WEATHERING (OW)

Fresh Oil % SU/SP/VP/MID/LO Choc Mousse 10 % SU/SP/UP/MID/LO

Pancake Mousse 75 % SU/SP/UP/MID/LO Asphalt Mousse 15 % SU/SP/UP/MID/LO

Tar Formation %

ACE 8709432

Comments:

SPLATTER ON DRIFT LOGS + COARSE SEDIMENTS (CORALS) ON BEACH FACE

- MOUSSE ON LOGS - IS ASPHALT 100%

MOUSSE ON STONES - PANCAKE 90% WITH MINOR CHOCOLATE INDICATING SOME
RECENT DEPOSITION

- NO CLEANUP RECOMMENDED

DOCUMENTATION:

Map/Aerial photo marking segment boundaries See Attached

VTR: (Y)N **Tape Number(s)** KODIAK - 01

Photography: (Y)N **Roll Number(s)** DMC-13

Sample Numbers Collected: N/A

ECOLOGICAL EVALUATION

LOCATION: WEST SIDE Puale Bay SITE: _____ OBSERVER: D. McCoemick
 LOCATION PREFIX: PB SEG. NO.: 6 LENGTH: 425 (M)
 DATE: 6/6/89 TIME (HHMM): 1200 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

Lightly oiled in debris line at high ITZ

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

Shell only

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

Littorina

atchy 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 and cockle shells; tube worms; jellyfish in mid-lagoon

CLEANUP PRECAUTIONS: None

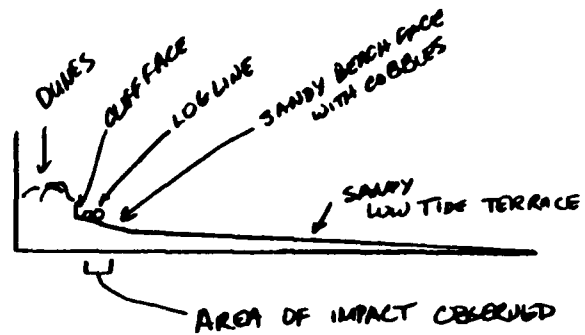
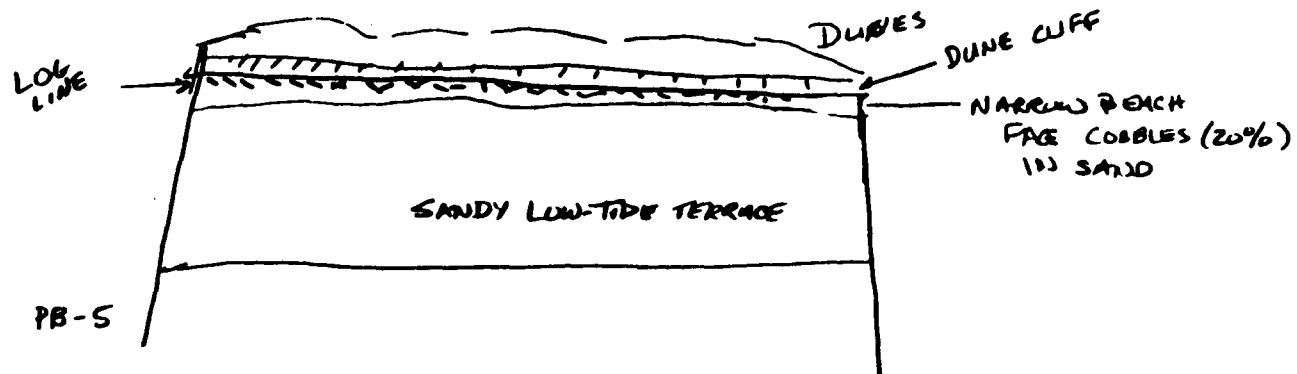
MAMMALS: Otters _____ Harbor Seals _____ Sea Lions _____ Whales _____
 Other _____

BIRDS: sandpipers, gulls

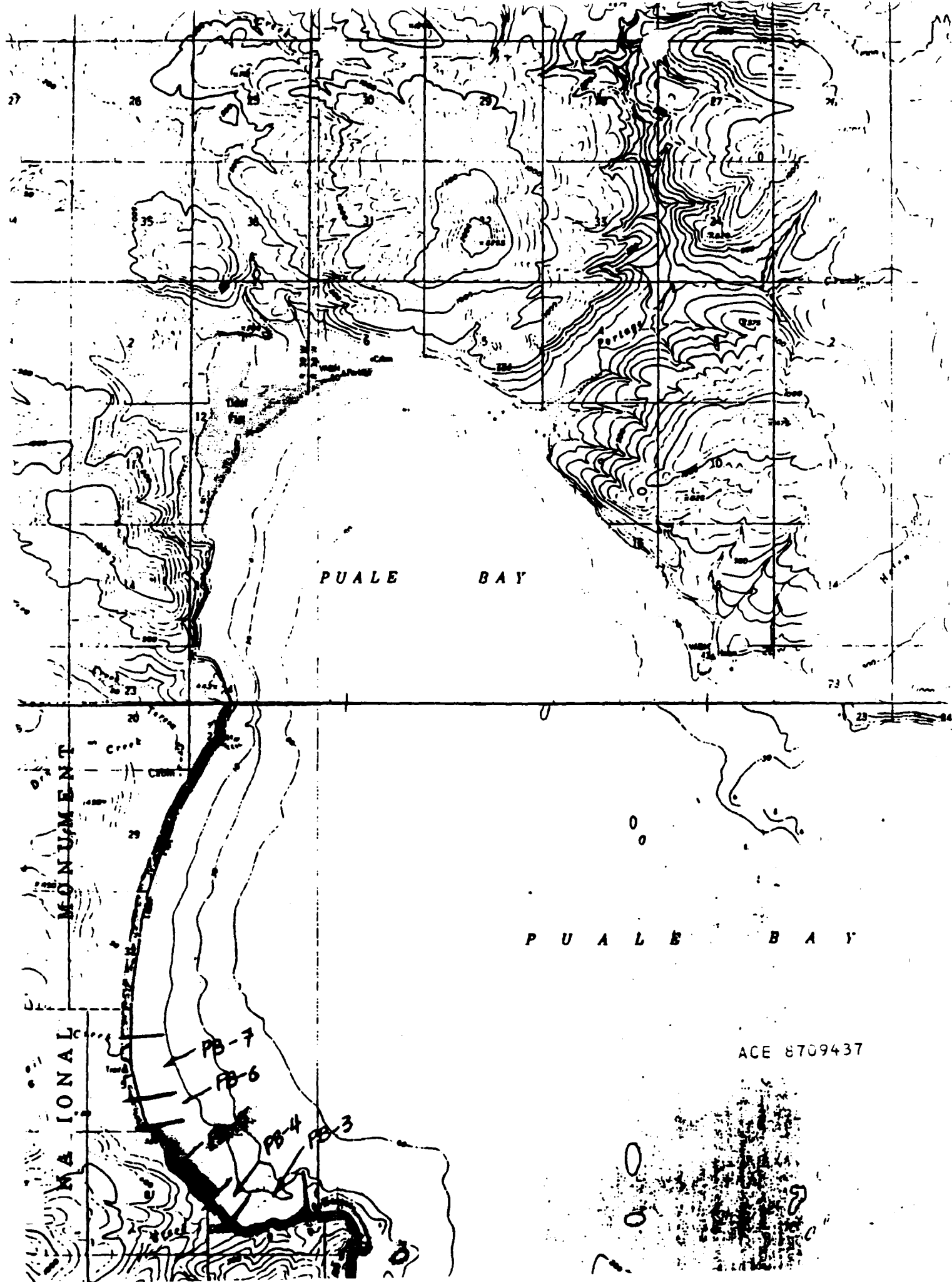
GENERAL OBSERVATIONS: This is a sandy beach w/ a few rocky areas in low ITZ - some light
oil in pooled water here. Otherwise, oil is in drift debris at high ITZ only. No
cleanup is warranted

PB-6

'SANDY BEACH'



ESTIMATED X-PROFILE OF PB-6



ACE 8709437

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

K10-7
K10-7

DATE 6/08/89 SHORELINE SEGMENT PB-6

LOCATION: (see enclosed map) Puale Bay-West Side

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/03/89

Recommended Cleanup Activity(ies):

- Manually remove surface oil by appropriate means.

Priorities Considerations:

- Low priority.

Ecological Constraints (from site survey): None, other than general constraints as prescribed in the Operational Guidelines for Shoreline 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.

Charles E. H. Jones
State Historic Preservation Officer *

Date: June 8, 1989

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/08/89 SHORELINE SEGMENT PB-4

LOCATION: (see enclosed map) Puale Bay-West Side

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/06/89

Recommended Cleanup Activity(ies):

- Manual cleanup is recommended; remove mousse patches in the mid and upper tidal zone.

-Manually remove oiled debris from the stream channel.

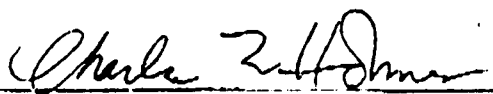
Priorities Considerations:

- Clean ASAP. This is a pink/chum salmon stream.

Ecological Constraints (from site survey): Don't remove grass. Rake oily debris out of grass and remove. Remove all clumps of oily seaweed/drift debris from along south side of stream channel and remove pancake mousse from lower channel if observed. Minimize disturbance to stream bed.

Archeological Constraints (from site survey):

No excavation, equipment storage, or other access above the drift 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: June 8, 1989

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 8709439

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): KODIAK-PUALE BAY SOUTH BLOCK

Includes Shoreline Segments: PB-3, PB-4, PB-5, PB-6, PB-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

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PWSCA
USFS
SHPO

ACE 8709440

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/08/89

SHORELINE SEGMENT PB-5

LOCATION: (see enclosed map) Puale Bay-West Side

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/08/89

Recommended Cleanup Activity(ies):

- Manually remove oil by appropriate means.

Priorities Considerations:

- Low priority.

Ecological Constraints (from site survey): None, other than general constraints as prescribed in the Operational Guidelines for Shoreline 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.

Charles Z. Johnson
State Historic Preservation Officer *

Date: June 8, 1989

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 8709441

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/08/89 SHORELINE SEGMENT PB-7

LOCATION: (see enclosed map) Puale Bay-West Side

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/08/89

Recommended Cleanup Activity(ies):

- Recommend manual cleanup of this segment. Remove mousse patches in upper tidal zone/supra zone, including those located up Trail Creek (see ecological constraints).
- Pickup small oily debris, especially debris adjacent to stream.

Priorities Considerations:

- Trail Creek is a pink/chum salmon stream and cleanup should be given a high priority.

Ecological Constraints (from site survey): During manual cleanup of oily debris and mousse pancakes, avoid stream channels as much as possible, except when removing mousse from the stream itself. Don't try to remove oiled grass or plants; rake oily debris out of this area only.

Archeological Constraints (from site survey):

No excavation, equipment storage, or other access above the drift 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.

Charles E. Hansen
State Historic Preservation Officer *

Date: June 8, 1989

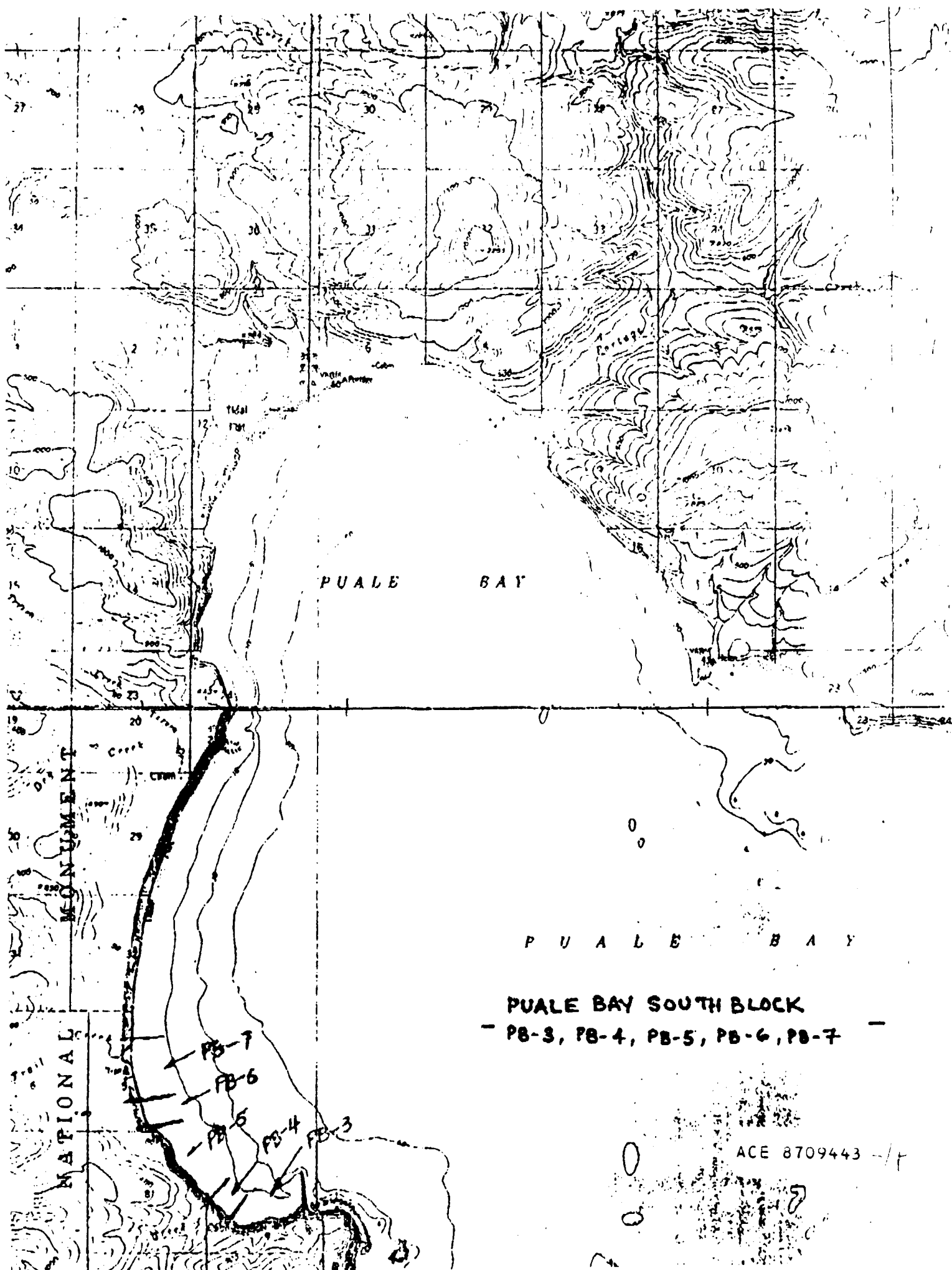
EXXON: _____

Date: _____

FOSC: _____

Date: _____

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



(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/08/89

SHORELINE SEGMENT PB-7

LOCATION: (see enclosed map) Puale Bay-West Side

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/08/89

Recommended Cleanup Activity(ies):

- Recommend manual cleanup of this segment. Remove mousse patches in upper tidal zone/supra zone, including those located up Trail Creek (see ecological constraints).

- Pickup small oily debris, especially debris adjacent to stream.

Priorities Considerations:

- Trail Creek is a pink/chum salmon stream and cleanup should be given a high priority.

Ecological Constraints (from site survey): During manual cleanup of oily debris and mousse pancakes, avoid stream channels as much as possible, except when removing mousse from the stream itself. Don't try to remove oiled grass or plants; rake oily debris out of this area only.

Archeological Constraints (from site survey):

No excavation, equipment storage, or other access above the drift 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.

Charles E. Hodman
State Historic Preservation Officer *

Date: June 8, 1989

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 8709444

K10-07

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/08/89

SHORELINE SEGMENT PB-7

LOCATION: (see enclosed map) Puale Bay-West Side

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/08/89

Recommended Cleanup Activity(ies):

- Recommend manual cleanup of this segment. Remove mousse patches in upper tidal zone/supra zone, including those located up Trail Creek (see ecological constraints).

- Pickup small oily debris, especially debris adjacent to stream.

Priorities Considerations:

- Trail Creek is a pink/chum salmon stream and cleanup should be given a high priority.

Ecological Constraints (from site survey): During manual cleanup of oily debris and mousse pancakes, avoid stream channels as much as possible, except when removing mousse from the stream itself. Don't try to remove oiled grass or plants; rake oily debris out of this area only.

Archeological Constraints (from site survey):

No excavation, equipment storage, or other access above the drift 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.

Charles E. Hansen
State Historic Preservation Officer *

Date: June 8, 1989

EXXON: [Signature]

Date: 6/7/89

FOSC: _____

Date: _____

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

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/08/89 SHORELINE SEGMENT PB-7

LOCATION: (see enclosed map) Puale Bay-West Side

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/08/89

Recommended Cleanup Activity(ies):

- Recommend manual cleanup of this segment. Remove mousse patches in upper tidal zone/supra zone, including those located up Trail Creek (see ecological constraints).

- Pickup small oily debris, especially debris adjacent to stream.

Priorities Considerations:

- Trail Creek is a pink/chum salmon stream and cleanup should be given a high priority.

Ecological Constraints (from site survey): During manual cleanup of oily debris and mousse pancakes, avoid stream channels as much as possible, except when removing mousse from the stream itself. Don't try to remove oiled grass or plants; rake oily debris out of this area only.

Archeological Constraints (from site survey):

No excavation, equipment storage, or other access above the drift 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.

Charles E. Hansen
State Historic Preservation Officer *

Date: June 8, 1989

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/08/89 SHORELINE SEGMENT PB-7

LOCATION: (see enclosed map) Puale Bay-West Side

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/08/89

Recommended Cleanup Activity(ies):

- Recommend manual cleanup of this segment. Remove mousse patches in upper tidal zone/supra zone, including those located up Trail Creek (see ecological constraints).
- Pickup small oily debris, especially debris adjacent to stream.

Priorities Considerations:

- Trail Creek is a pink/chum salmon stream and cleanup should be given a high priority.

Ecological Constraints (from site survey): During manual cleanup of oily debris and mousse pancakes, avoid stream channels as much as possible, except when removing mousse from the stream itself. Don't try to remove oiled grass or plants; rake oily debris out of this area only.

Archeological Constraints (from site survey):

No excavation, equipment storage, or other access above the drift 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.

Charles E. H. Jones
State Historic Preservation Officer *

Date: June 8, 1989

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 8709447

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KODIAK

Date: JUNE 189 / Time: 12:30 PM

Observer: D. HOWES

Surveyed From Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

LOCATION PUME BAY - WEST SIDE

SEGMENT I.D. PB-7

LENGTH OF SHORELINE SEGMENT: 150 m

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

SHORELINE:

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

Slope: LAUG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B 1 / C 1 / P 2 / G 1 / S 9 / M 1 / R 1

Drift Debris on Beach: Yes/No

Supra/Upper/Mid/Lower Type LN/S.M.B.E.Z.

OIL

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

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

OIL DISTRIBUTION

Continuous: Y/N Segment 100 ^{PATCHES} No. Bands 0 Width 24 m

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

Est. Oil Thickness where > 1cm: 5 cm SU / SP / UP / MID / LO

Est. Oil Penetration: 1 cm SU / SP / UP / MID / LO

Layers? Yes/No No. Layers 1 Oil Weathering CHOCO Mousse

Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: II H / I / VI

OIL MORPHOLOGY

Pooled Oil 1 "Free" Oil BS Spattered 15 II H/I/VL Sheen 1

OIL WEATHERING (OW)

Fresh Oil 1 SU/SP/VP/MID/LO Choc Mousse 15 SU/SP/VP/MID/LO

Pancake Mousse 20 SU/SP/VP/MID/LO Asphalt Mousse 5 SU/SP/VP/MID/LO

Tar Formation 1

Comments:

ACE 8709448

OIL IMPACT - SPLASH AND UPPER INTERTIDAL ZONE; OCCURS AS A DISCONTINUOUS
PATCHES OF 'FREE' OIL (BS) + SPLATTER (15%) ON THE BEACH MATERIALS ABOUT
ALSO OCCURS AS SPLATTER - ASPHALT MOUSSE AND PANCAKE MOUSSE ON DRIFT WOODS; 14 M
OIL EXTENDS UP TRAIL CREEK
SOME OF THE OIL IS BURIED / PARTIALLY BURIED BY SAND - PROCESS WILL CONTINUE
RECOMMEND CLEANUP OF FREE OIL ON THE BEACH SEDIMENTS

DOCUMENTATION:

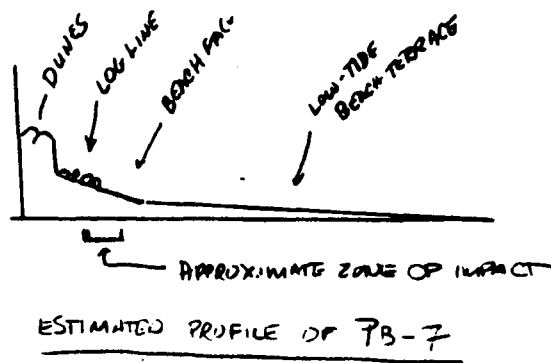
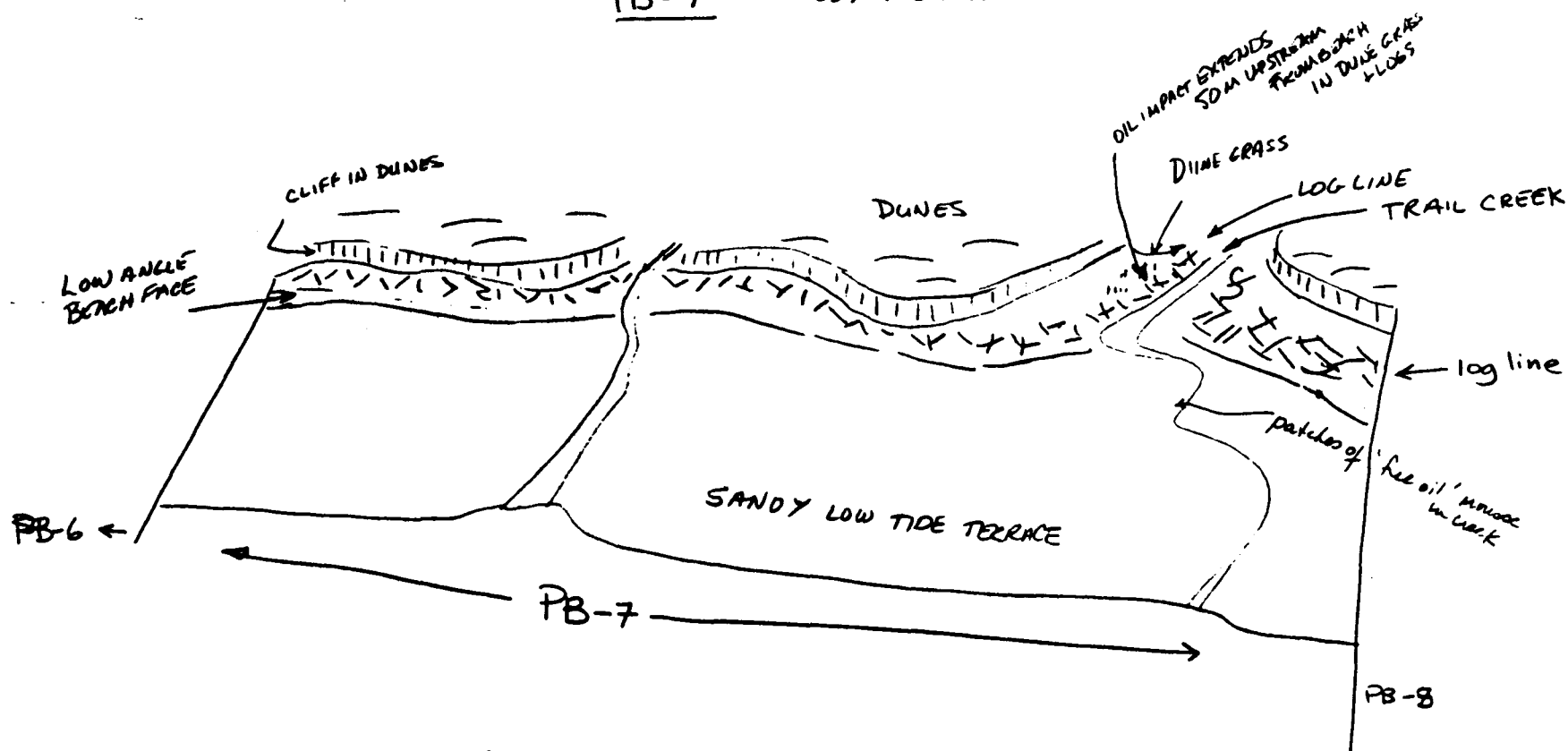
Map Aerial photo marking segment boundaries See Attached

VTR: Y/N Tape Number(s) KODIAK-01

Photography: Y/N Roll Number(s) DMC-13

Sample Numbers Collected: N/A

PB-7 'SANDY BEACH'



OIL → OCCURS AS DISCONTINUOUS PATCHES IN THE UPPER TIDAL ZONE

85% FREE OIL 30% CHOCOLATE MOUSE
15% SPLATTER 70% PANCAKE MOUSE

ZONE ABOUT 4 M ACROSS
IT EXTENDS UP TRAIL STREAM
THICKNESS UP TO 5 CM AVE: 2-3 CM
IT IS BURIED IN DEEPER SANDS UP TO 7-8 CM AVERAGE LESS

OIL → ALSO OCCURS AS SPLATTER ON DRIFT WOOD AND ON BEACH SEDIMENTS
- SEVERAL CONCENTRATED SPLATTERED - COATED DRIFT WOOD 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

ECOLOGICAL EVALUATION

WEST SIDE

STATION: PUBLE BAY SITE: _____ OBSERVER: D. McCORMICKLOCATION PREFIX: PB SEG. NO.: 7 LENGTH: 750 (M)DATE: 6/6/89 TIME (HHMM): 1230 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/NMytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/NShells only.Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/NLittorinaPatchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/NLimpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/NOTHER OBSERVATIONS: 1 brown beaver track; tube worms; crab carapaces; 1 dead starfish in stream channel; clam shells; Conostegia; kelp; cockle shells; Saxidomus shells; Spondylus shells; Common NW Neptune shells (white); 2 dead dead birds; salmon stream (Trail Creek).CLEANUP PRECAUTIONS: Only debris along stream channel should be removed ASAP - this debris is probably the cause of oil seen on water in low ITZ of channel. Stay out of stream as much as possible during cleanup.MAMMALS: Otters _____ Harbor Seals _____ Sea Lions _____ Whales _____
Other pink and blue salmon, use Trail Creek.

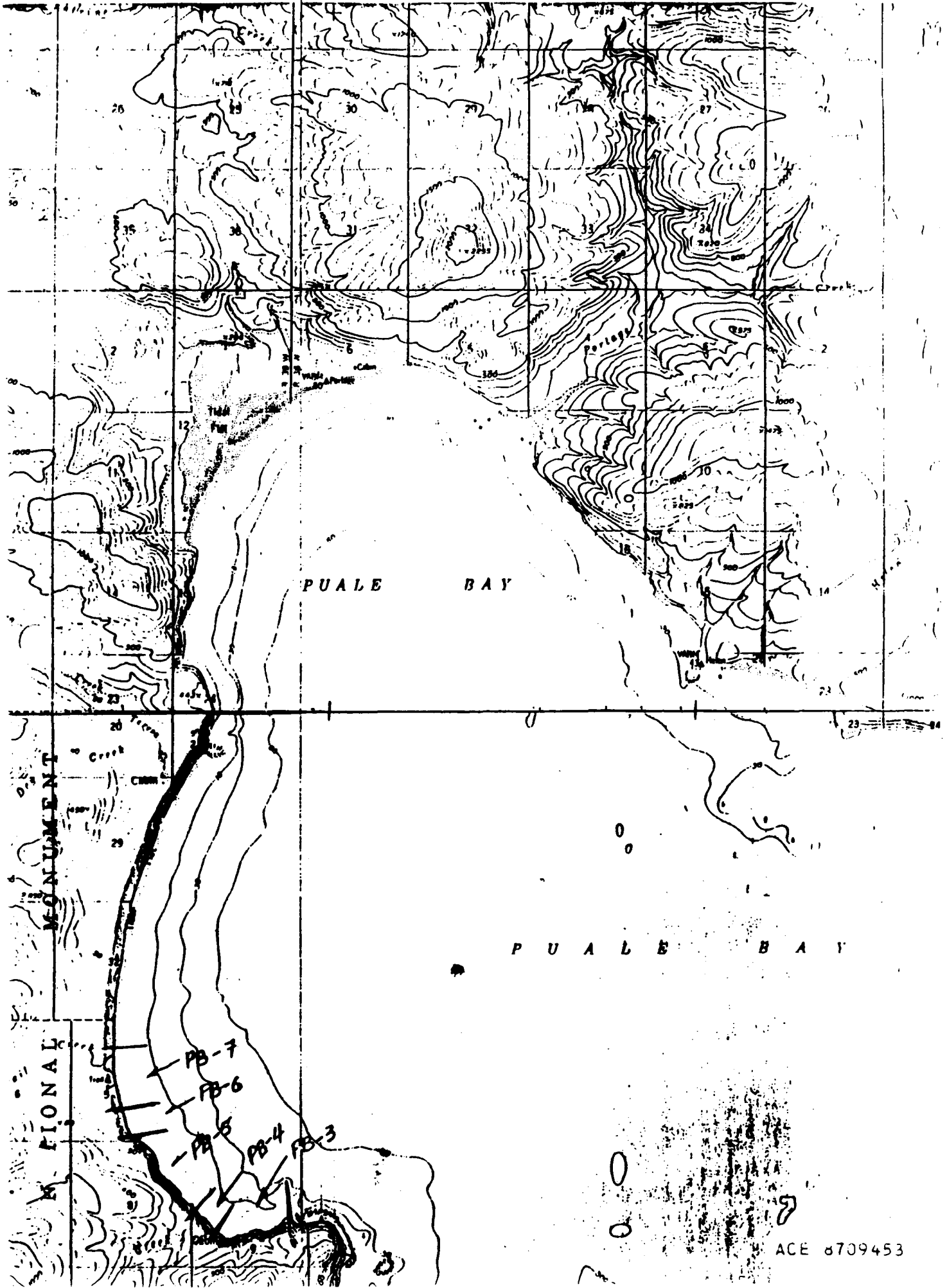
BIRDS: _____

ACE 8709451

GENERAL OBSERVATIONS: The oil in the high zone is getting buried under sand about 2" deep; oil along stream channel is mouse and splatter in grass - should be noted & only debris removed ASAP.
Note: observed dune plants (species unknown) growing up through pancake mouse patty - see photo

#9 in DMC-13.

Also, high # of small mouse patty pancakes in stream channel itself in high → low ITZ.
Take these out if possible.



ACE 8709453

SHORELINE CLEANUP PROGRAM

DATE 5/13/89 SHORELINE SEGMENT PB-1

LOCATION: (see enclosed map) Beach at head of Puale Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 5/10/89

Recommended Cleanup Activity (ies)

Type B cleanup, including mechanical pickup of large tar patches with wide tracked equipment to achieve timely cleanup, may be preferable to Type A cleanup. Extreme care must be taken not to damage substrate.

Priorities Considerations:

Very high so oil isn't all buried in loose sand.
Very heavily oiled in some sections.

Ecological Constraints (from site survey):

None. Clean ASAP to minimize potential damage to dam beds
continuous burial of oil at each tide change.

Archaeological Constraints (from site survey):

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

Douglas Reger
State Historic Preservation Officer *

Date: 5/13/89

EXXON: Jack A. Kichen

Date: 5/17/89

FOSC: _____

Date: _____

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

ACE 8709454 -

TOTAL P.03

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 5/13/89 SHORELINE SEGMENT PL-2

LOCATION: (see enclosed map) PORTAGE CREEK, ALASKA

ADEC NO. SHORELINE ASSESSMENT DATE: 5/13/89

Recommended Cleanup Activity (ies)

~~None~~ since very light oiling exists here.

Priorities Considerations:

Low, Very lightly oiled.

Ecological Constraints (from site survey):

None, since no further cleanup is required. Only very light oiling exists here, mostly as shown within this parcel.

Archaeological Constraints (from site survey):

If cleanup is planned, an archaeologist is required to perform a survey of Portage Creek.

Douglas Reger
State Historic Preservation Officer

Date: 5/13/89

EXXON: Jack A. Rickman

Date: May 17, 1989

FOSC:

Date:

* Signature required to satisfy stipulations in all oil and gas land use permits for tide and submerged lands.

ACE 8709455

POOR QUALITY ORIGINAL

(version 5/04/89)

SHORELINE CLEANUP BACKSOME REPORT

() CONTINENTAL CAN BLOCK

Site: Continental Segment: PE-1, PS-2

Submitted:

Jack A. Rickner
(for Exxon)

Date: 17 May 89

FOSC Approval:

Date:

Any action identified in the Shoreline Cleanup Program
may require modifications to these systems can be made in the
field. Field personnel are encouraged to suggest
modifications or productivity enhancements to the OSC's on-scene
representative. The OSC's representative has the authority to
approve or disapprove modifications. The Field Resource Team should be
informed if these actions do not fit within the Ecological
Requirements of the Shoreline Cleanup Program. Requirements for
protection of cultural material must be observed.

Distribution:

Exxon Shoreline Coordinator
Exxon Shoreline Supervisor
Exxon SCAT file

FOSC
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NOAA
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USFW
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A.FC
A.DNR
CAC
PWSCA
USFS
SHFO

ACE 8709456

POOR QUALITY ORIGINAL

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 5/10/89

SHORELINE SEGMENT PB-2

LOCATION: (see enclosed map) PORTAGE CREEK AREA, PUNALE BAY

ADEC NO. _____ SHORELINE ASSESSMENT DATE: _____

Recommended Cleanup Activity(ies):

None

Priorities Considerations:

low . very lightly oiled

Ecological Constraints (from site survey):

None, since no further cleanup is recommended, only very light oiling exists here, mostly as sheen within tide pool areas.

Archeological Constraints (from site survey):

If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon archaeologist C. Mobley and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer *

Date: _____

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 870945b

SHORELINE OIL EVALUATIONDate: 10 May 89 Time: 1330Observer: Bob DuganSurveyed From: (Foot) Boat/Helio/PlaneWeather: (Sun) Cloud/Rain/Snow/FogLOCATIONLOCATION Portage Creek area
Puget BaySEGMENT NUMBER P.B-2LENGTH OF SHORELINE SEGMENT: 2500 mACCESS: 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/0% / C___% / P___% / G___% / S60% / M___% / R30%Drift Debris on Beach: (Yes)/No (Supra)/Upper/Mid/Lower Type logsOILDegree of Oiling: Heavy/Moderate/(Light)/No Oil/UnobservedArea of Beach Impact: SU / (SP / H / M) / LContinuous: (N) % of Segment 100 Width of Band: 40 mSporadic: (Y)/N % of Segment 100Est. Oil Thickness where > 1cm: _____ cm Est. Oil Penetration: 1 cmPooled Oil: _____% "Free" Oil: 90% Coated: H 5% / M 5% / L _____%Fresh _____% Mousse 100% Tar Formation: _____%Drift Debris Oiled? (Yes)/No (Supra/Upper)/Mid/Lower Amount: H/M/(L)

Comments:

Very light mousse blobs 1cm to 20 cm
in widely scattered pattern Total cover less than
0.5 %. Recommend no further cleanup action.

DOCUMENTATION:Map/Aerial photo marking segment boundaries See Attached

VTR: Y/N - Tape Number(s) _____

Photography: Y/N Roll Number(s) T/B-10Sample Numbers Collected: None

ISLANDS (Locations)

* GEOLOGIC SEDIMENT TYPE

Naked Is. NA
 Peak Is. PE
 Stoney Is. ST
 Eleanor Is. EL
 Ingot Is. IN
 Block Is. BL
 Entrance Is. EN
 Sphinx Is. SP
 Disk Is. DI
 Knight Is. KN
 Smith Is. SM
 Seal Is. SE
 Applegate Is. AP
 Green Is. GR
 L. Green Is. LG
 Agnes (Bass) Is. AB
 L. Smith Is. LS
 Gore Point GP
 Montague Is. MN
 Aguliak Is. AG
 Squirrel Is. SL
 New Year Is. NY
 Murray Is. MU
 Squire Is. SQ
 Crafton Is. CR
 Pt. Nowell PN
 Junction Is. JU
 Chenega Is. CH
 Pleiades Is. PL
 Bainbridge Is. BA
 Flemming Is. FL
 Evans Is. EV
 Elrington Is. ER
 Latouche Is. LA
 Danger Is. DA

Boulder (>256mm) B
 Cobble (64-256) C
 Pebble (4-64) P
 Granule (2-4) G
 Sand (0.06-2) S
 Mud (less 0.06) M
 Rock R

** DEGREE OF OILING

Heavy HV
 Moderate MD
 Light LT
 No Oil NO
 Unobserved UN

AREA OF BEACH IMPACT

Supratidal (+SHWL) SU
 HWL to SHWL SP
 Upper 1/3 ITZ H
 Middle 1/3 ITZ M
 Lower 1/3 ITZ L

ADEC IMPACT SURVEY

Heavy HVY
 Moderate MOD
 Light LT
 No Oil NO
 Unobserved UNOBS

SHORELINE TYPE

Beach BEA
 Cove COV
 High Angle HANG
 Low Angle LANG
 Vertical VER
 Headland HLD
 Spit SPI

Comments:

* Multiple entry is acceptable, use decreasing order of type found.
 (ie. C/G/S where C is most predominant type and S is the least one.)

** Heavy (>6m wide and/or >1.0 cm thick)
 Moderate (3-6m wide and/or 0.2-1.0 cm thick)
 Light (0.1 -3m wide and/or <0.2 cm thick)
 No Oil (free of visible oil)

ACE 8709461

ECOLOGICAL EVALUATION

LOCATION: Portage Creek area
Puget Bay SITE: _____ OBSERVER: D. McCormick
 LOCATION PREFIX: _____ SEG. NO.: PB-2 LENGTH: 2500 (M)
 DATE: 5/10/89 TIME (HHMM): 1330 TIDE HT.: slack water (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

extensive mussel beds - some lightly oiled, but dead ones not heavily oiled.

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

Balanus at mid tide zone probably killed off by oil - in lower ITZ look O.K.

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 birds within rock / boulder area - heavy oil on water in tide pool areas; mouse patches in mid and lower ITZ.

CLEANUP PRECAUTIONS: None, since no further cleanup is recommended.

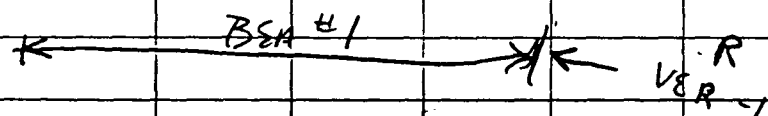
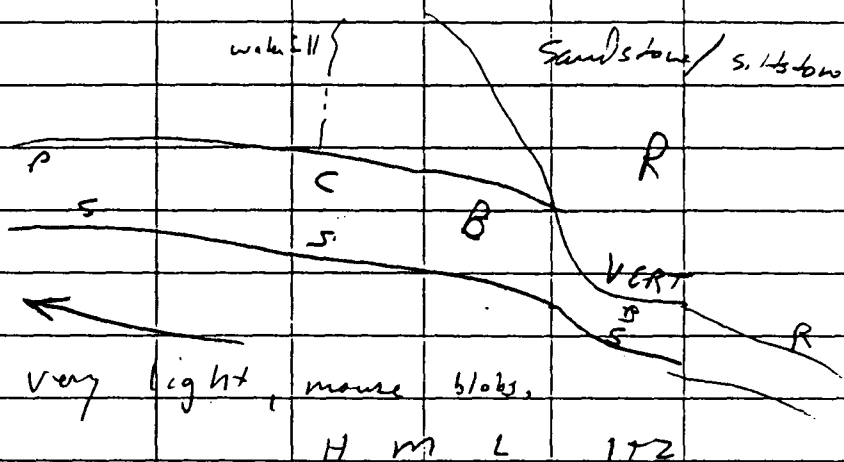
MAMMALS: Otters _____ Harbor Seals _____ Sea Lions _____ Whales _____
 Other _____

BIRDS: gulls, shorebirds (sp. unknown); 1 dead murre

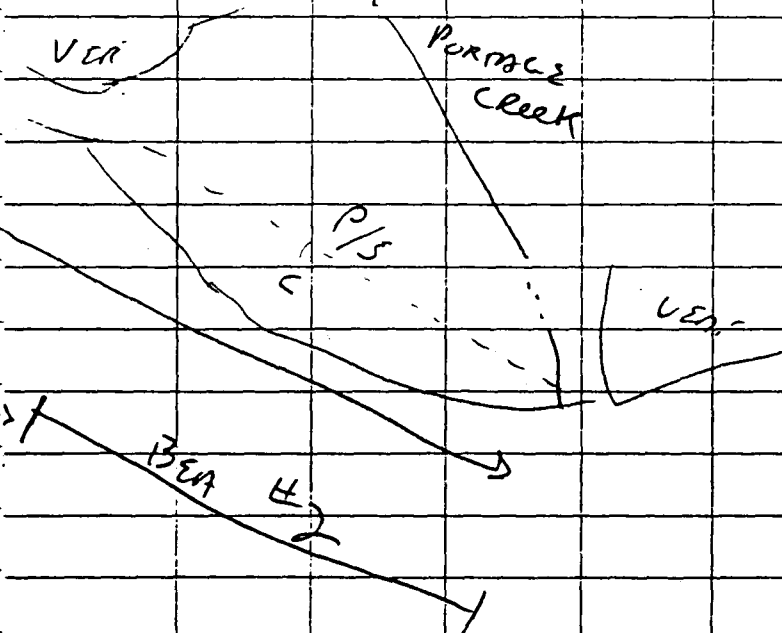
GENERAL OBSERVATIONS: This segment includes a rocky outcropping with extensive tide pools (mussel beds / barnacles) and a gravel / rock beach.

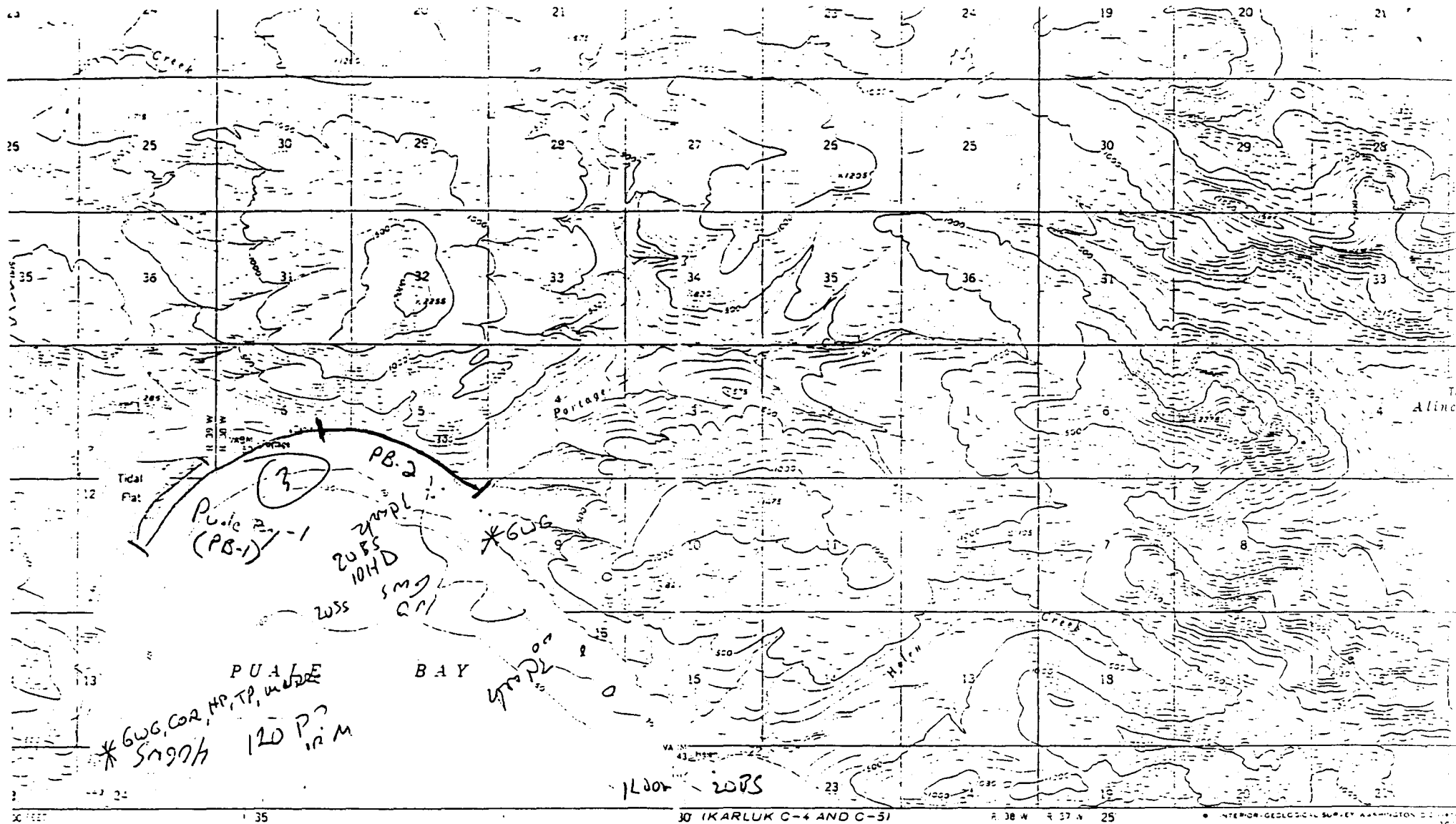
DATE : 10 MAY 89
 Segment Puale Bay - 2
 TIME : 1330

0 200 m



ACE 8709464





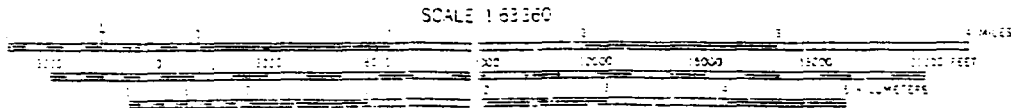
by the Geological Survey

1. Derived from aerial photographs
 2. From USGS Chart 3556
 3. From 1935 (1947), and from aerial
 photography for navigational purposes
 4. From 1937 North American datum
 5. From 1937 North American datum
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CONTOUR INTERVAL 100 FEET
 DASHED LINES REPRESENT 50 FOOT CONTOURS
 DATUM IS MEAN SEA LEVEL
 DEPTH CURVES IN FEET - DATUM IS MEAN LOWER LOW WATER
 UNPUBLISHED CURVES REPRESENT THE LOWEST MEASURED LOW WATER
 (REPRESENTATIVE OF THE LOWEST MEASURED LOW WATER)

FOR SALE BY U. S. GEOLOGICAL SURVEY
 FAIRBANKS, ALASKA 99701, DENVER, COLORADO 80225, OR WASHINGTON, D. C. 20242
 A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST



KARLUK C-4
 193745-191622

ROAD CLAS
 No roads shown

1951
 100-100

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6-10-89

SHORELINE SEGMENT PB-8

LOCATION: (see enclosed map) Puale Bay - West shore

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6-7-89

Recommended Cleanup Activity(ies):

No overall segment cleanup appears to be necessary at this time; however, heavily splattered drift logs in small stream channel (see sketch) should be removed when segment PB-9 is cleaned up.

Priorities Considerations:

Ecological Constraints (from site survey):

Although this is not a salmon stream, oiled debris should be removed from the stream since sheen is washing down to lower intertidal zone where gulls were seen feeding.

Archeological Constraints (from site survey):

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

Charles E. Homer
State Historic Preservation Officer *

Date: June 14, 1989

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

out JUL 20 1989

SEGMENT INSPECTION RECORD

COPY

ADEC # K10-7

Shoreline Segment: PB-8

Shoreline Treatment Process(es) Completed for this Segment

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

Exxon

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

Comments Type A clean up manual removal of surface oiling & oily debris. Do not remove more than 2" of surface sediment and less if possible. Heavy splattered logs should be wiped.

Signature [Signature] Date 7/14/89 Time

Printed Name Jim Wade

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

☒ Reassessment
☒ Yes - Necessary

☐ No - Not necessary unless re-oiled

ADEC Rep

Comments

Although it looks like a lot of oil has been removed from

Signature Clarke A Pelz Date 7-19-89 Time 6:30 PM

Printed Name Clarke A Pelz

FOSC Rep Demobilization approved/disapproved

Comments See comments on reverse.

Signature [Signature] Date 7/19/89 Time 1945

Printed Name Phillip C Smith

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

ACE 8709467

We reviewed segment 8 in Pule Bay - a few thin patches left and scattered small ones. In general the beach was pretty well covered.

Jay R. Ballin
US FWS Representative

ADEC comment

this area it would be good to see less sandy oil left from treatment, particularly the chunks ~~about~~ over 5' in diameter. It would also be good to see some of the heavier oil and sand stripped from the drift. Perhaps a finishing crew could patrol the beach ~~at~~ just prior completion.

NOAA SSC comments

This segment still has a small amount of oil mixed with sand near extreme high water line. Oil Sand mixture is very thin and not mobile. Shows advanced stages of degradation. Any further work would be very labor intensive and would not alter impact. Beach recommended for demobilization

JC Talbot

JC TALBOT, NOAA SSC

(version 5/02/89)

K10-7

SHORELINE CLEANUP PROGRAM

DATE 6-10-89

SHORELINE SEGMENT PB-8

LOCATION: (see enclosed map) Puale Bay - West shore

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6-7-89

Recommended Cleanup Activity(ies):

No overall segment cleanup appears to be necessary at this time; however, heavily splattered drift logs in small stream channel (see sketch) should be removed when segment PB-9 is cleaned up.

Priorities Considerations:

Ecological Constraints (from site survey):

Although this is not a salmon stream, oiled debris should be removed from the stream since sheen is washing down to lower intertidal zone where gulls were seen feeding.

Archeological Constraints (from site survey):

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

Charles E. Holmes
State Historic Preservation Officer *

Date: June 14, 1989

EXXON: Jack A. Rickman

Date: 14 June 89

FOSC: _____

Date: _____

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

ACE 8709409

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KONTAK

Date: JULY 7/89 / Time: 10:20

Observer: D. Howes

Surveyed From: Foot / Boat / Helio / Plane

Weather: Sun / Cloud / Rain / Snow / Fog

LOCATION

LOCATION PALMA BAY - WEST SIDE

SEGMENT I.D. PB-8

LENGTH OF SHORELINE SEGMENT: 3500 m

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

SHORELINE:

Shoreline Type: SPI / BEA / COV / MID / STET

Slope: LAUG / HANG / VER

Wave Exposure: High / Med / Low

Sediment: B 1 / C 1 / P 3 / G 1 / S 95 / M 1 / R 1

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

OIL

Degree of Oiling: Heavy / Moderate / Light / No Oil / Unobserved / V. LIGHT

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

OIL DISTRIBUTION

Continuous: Y / N Segment 1 / 100 No. Bands 0 Width

Sporadic: Y / N Segment 1 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 Not Layers 1 Oil Weathering choco' mousse
in discontiguous patches - only at north end of segment

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

OIL MORPHOLOGY

Pooled Oil "Free" Oil Spattered 100 H / M / L / VL Shosh

OIL WEATHERING (OW)

Fresh Oil SU / SP / VP / MID / LO Choc Mousse 5 SP / VP / MID / LO

Pancake Mousse 50 SU / SP / VP / MID / LO Asphalt Mousse 45 SU / SP / VP / MID / LO

Tar Formation

Comments:

ACE 8709470

- VERY LIGHT SPLATTER IN SLASH / HIF. SMALL AMOUNT OF CHOCO MOUSSE SPLATTER INDICATING SOME MINOR RECENT DEPOSITION
- NO OVERALL CLEANUP RECOMMENDED EXCEPT HEAVILY DEBRIS SPLATTER LOGS IN SMALL STREAM CHANNEL SHOULD BE REMOVED
- 4 BURIED PATCHES OF CHOCO MOUSSE (FREE OIL) MIXED WITH SEAWEED AT NORTH END OF UNIT

DOCUMENTATION:

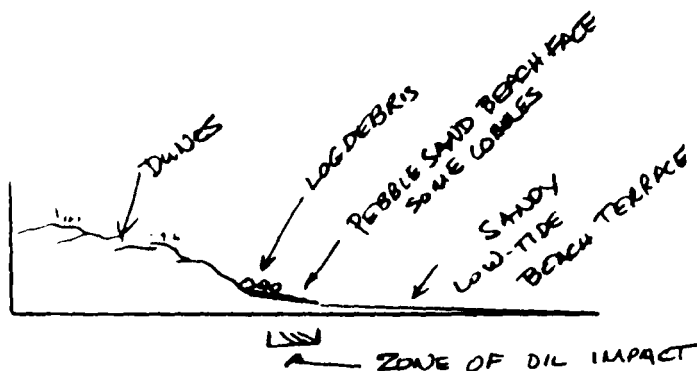
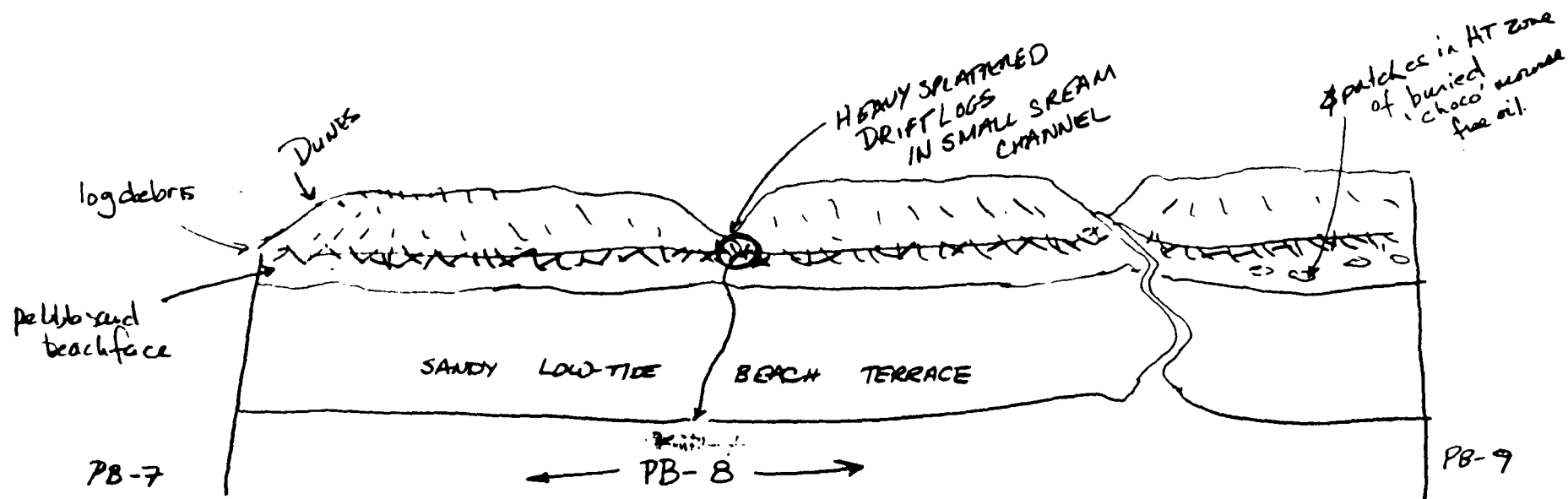
Map Aerial photo marking segment boundaries See Attached

VTR: Y/N Tape Number(s) KODIAK 01

Photography: Y/N Roll Number(s) DMC-13

Sample Numbers Collected: N/A

PB-8 - "SAND BEACH"



ESTIMATED CROSS PROFILE

OIL - splatter on drift logs + upper tidal beach sediments

- pancake mouse ~~5%~~; choco mouse 5%
- asphalt mouse 45%

some recent deposition (small amount)

- 4 small patches of 'choco' mouse - free oil buried by about 2cm of sand with seaweed

ECOLOGICAL EVALUATION

LOCATION: WEST SHORE of PUALE BAY SITE: _____ OBSERVER: D. McCormick
 LOCATION PREFIX: PB SEG. NO.: 8 LENGTH: 3500 (M)
 DATE: 6/7/89 TIME (HHMM): 1020 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

Present in debris stream only

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

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

Littorina

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

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

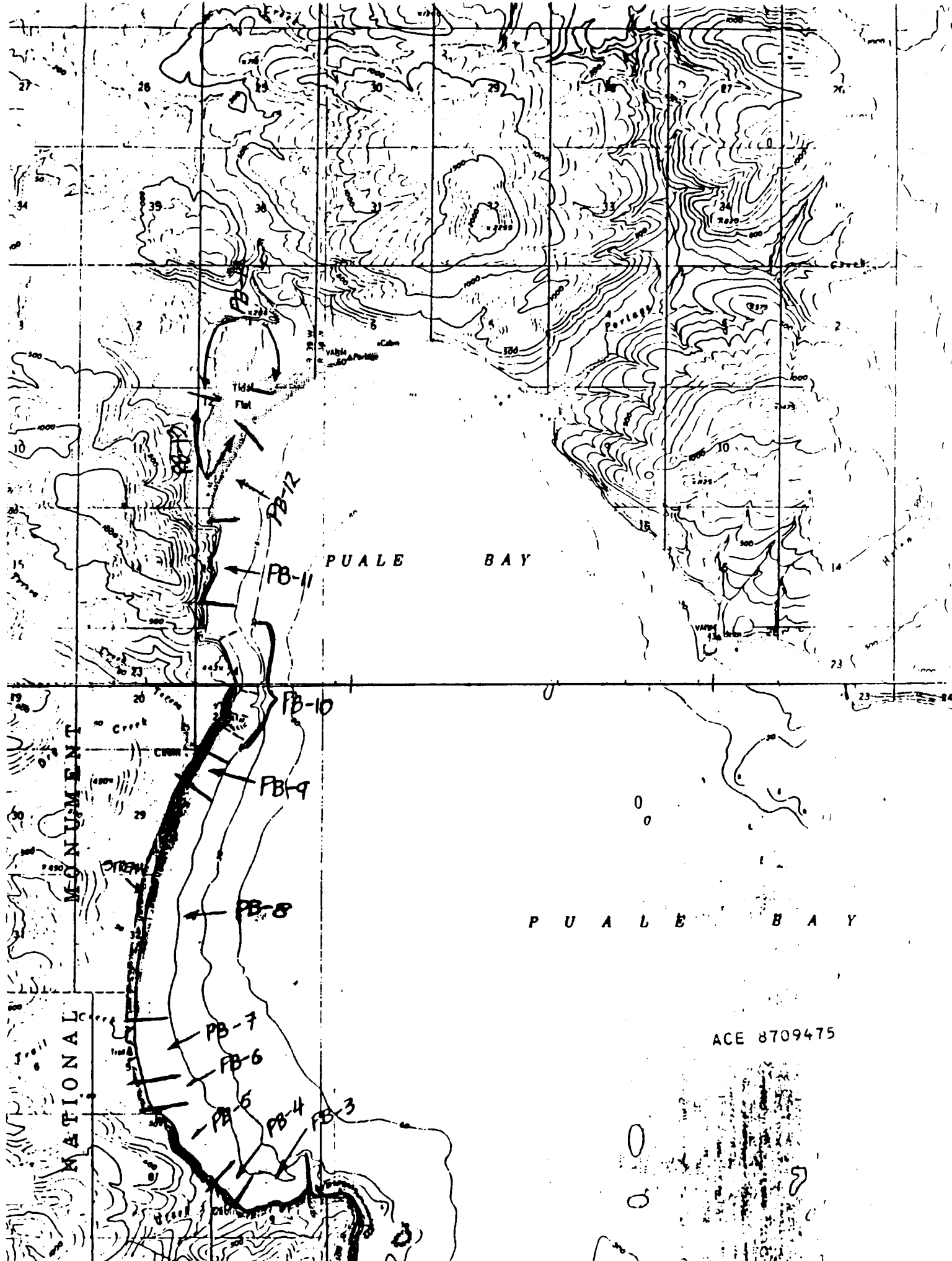
OTHER OBSERVATIONS: crab shells, clam shells; razor clam shells

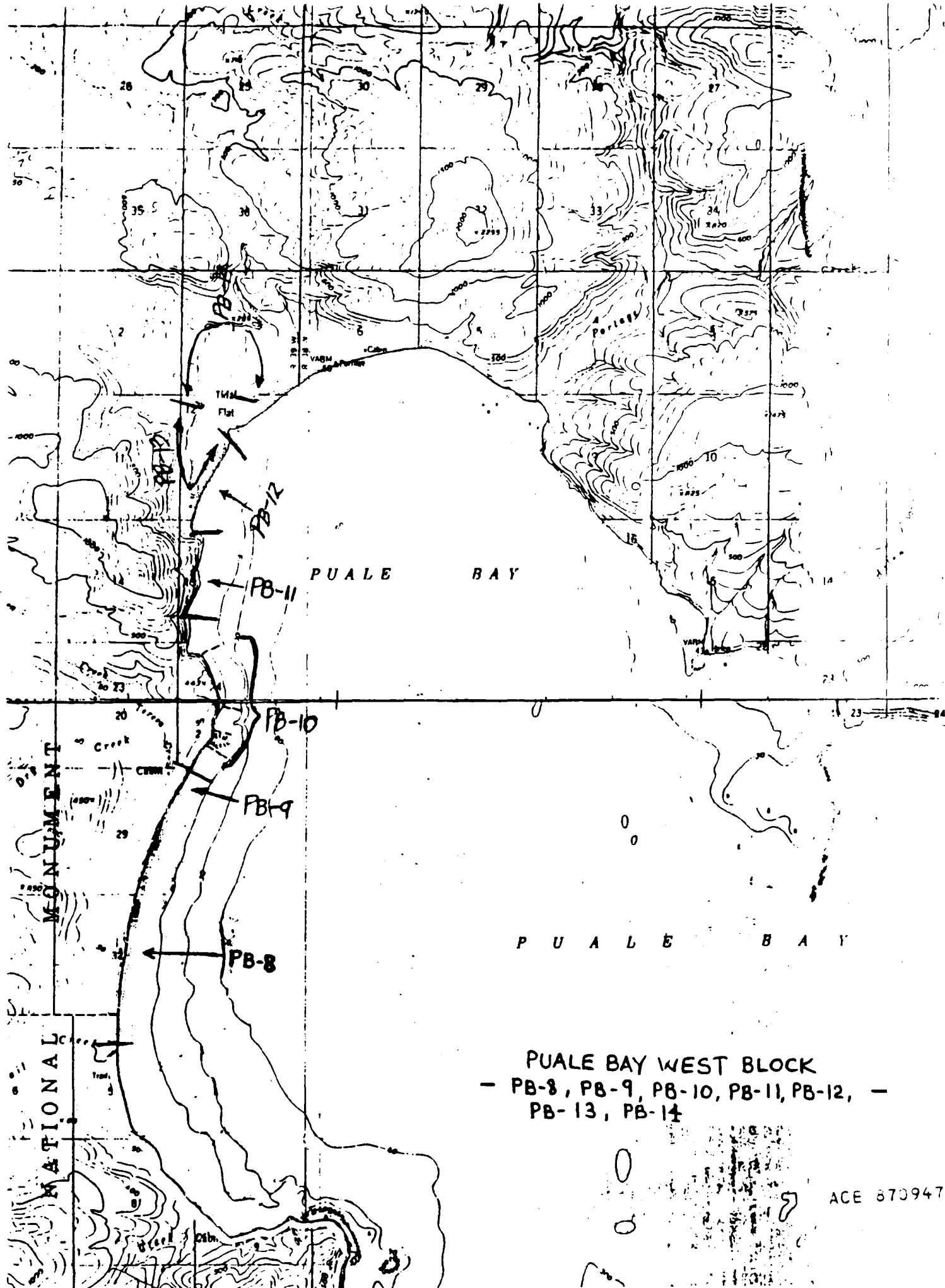
CLEANUP PRECAUTIONS: None

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

BIRDS: Hald eagle, gulls

GENERAL OBSERVATIONS: This is a north beach with oil primarily as splatter, & mouse in drift debris in high zone. One stream with lots of oiled debris across it should be cleaned even though this isn't a calm stream since the oil is washing down as sheer to lower ITZ where gulls were observed feeding





PUALE BAY WEST BLOCK
- PB-8, PB-9, PB-10, PB-11, PB-12, -
PB-13, PB-14

ACE 8709476

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6-10-89

SHORELINE SEGMENT PB-9

LOCATION: (see enclosed map) Puale Bay - West shore

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6-7-89

Recommended Cleanup Activity(ies):

Manual removal of oil 'patches' in higher intertidal zone of channel/delta area (see sketch); see priorities consideration below.

Priorities Considerations:

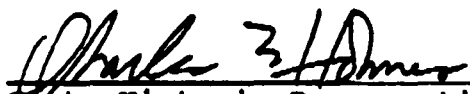
Theresa Creek is a salmon stream and should be cleaned as soon as possible.

Ecological Constraints (from site survey):

Clean mousse pancakes out of stream bed and along banks only if salmon are not present.

Archeological Constraints (from site survey):

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



State Historic Preservation Officer *

Date: June 11, 1989

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

(version 5/02/89)

KISCC
File
Copy

SHORELINE CLEANUP PROGRAM

DATE 6-10-89

SHORELINE SEGMENT PB-9

LOCATION: (see enclosed map) Puale Bay - West shore

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6-7-89

Recommended Cleanup Activity(ies):

Manual removal of oil 'patches' in higher intertidal zone of channel/delta area (see sketch); see priorities consideration below.

Priorities Considerations:

Theresa Creek is a salmon stream and should be cleaned as soon as possible.

Ecological Constraints (from site survey):

Clean mousse pancakes out of stream bed and along banks only if salmon are not present.

Archeological Constraints (from site survey):

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

Charles E. Adams
State Historic Preservation Officer *

Date: June 11, 1989

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 8709478

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KONTAK

Date: JUNE 7/89 Time: 11:15

Observer: DHWES

Surveyed From: Foot/Boat/Helicopter/Plane

Weather: Sunny/Cloudy/Rain/Snow/Hazy

LOCATION

LOCATION PUNLA BAY - WEST SIDE

SEGMENT I.D. PB-9

LENGTH OF SHORELINE SEGMENT: 435 m

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

SHORELINE:

Shoreline Type: SPI/BEA/COV/HLD/STET

Slope: LAUG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B ^{DELTA} / C ⁶⁰ / P ⁵ / G ⁴⁰ / S ⁹⁵ / M / R

Drift Debris on Beach: Yes/No

Supra/Upper/Mid/Lower Type UX/SEAWEED

OIL

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

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

OIL DISTRIBUTION

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

Sporadic: Y/N Segment 1 Min/Max Dia 10 Impact Width 1

Est. Oil Thickness where > 1cm: 2-3 cm SU / SP / UP / MID / LO

Est. Oil Penetration: 1 cm SU / SP / UP / MID / LO

Layers? Yes/No No. Layers 1 Oil Weathering 1

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

OIL MORPHOLOGY

Pooled Oil 1 "Free" Oil 90 Spattered 10 H/H/L VI Shores 1

OIL WEATHERING (OW)

Fresh Oil 1 SU/SP/VP/MID/LO Chee Mousse 1 SU/SP/VP/MID/LO

Pancake Mousse 95 SU/SP/VP/MID/LO Asphalt Mousse 5 SU/SP/VP/MID/LO

Tar Formation 1

Comments:

ACE 8709479

-A DISCONTINUOUS BAND OF 'FREE OIL' PATCHES OF PANCAKE MOUSSE
IN H.T. ZONE OF CHANNEL & DATA SHOULD BE MANUALLY REMOVED.

DOCUMENTATION:

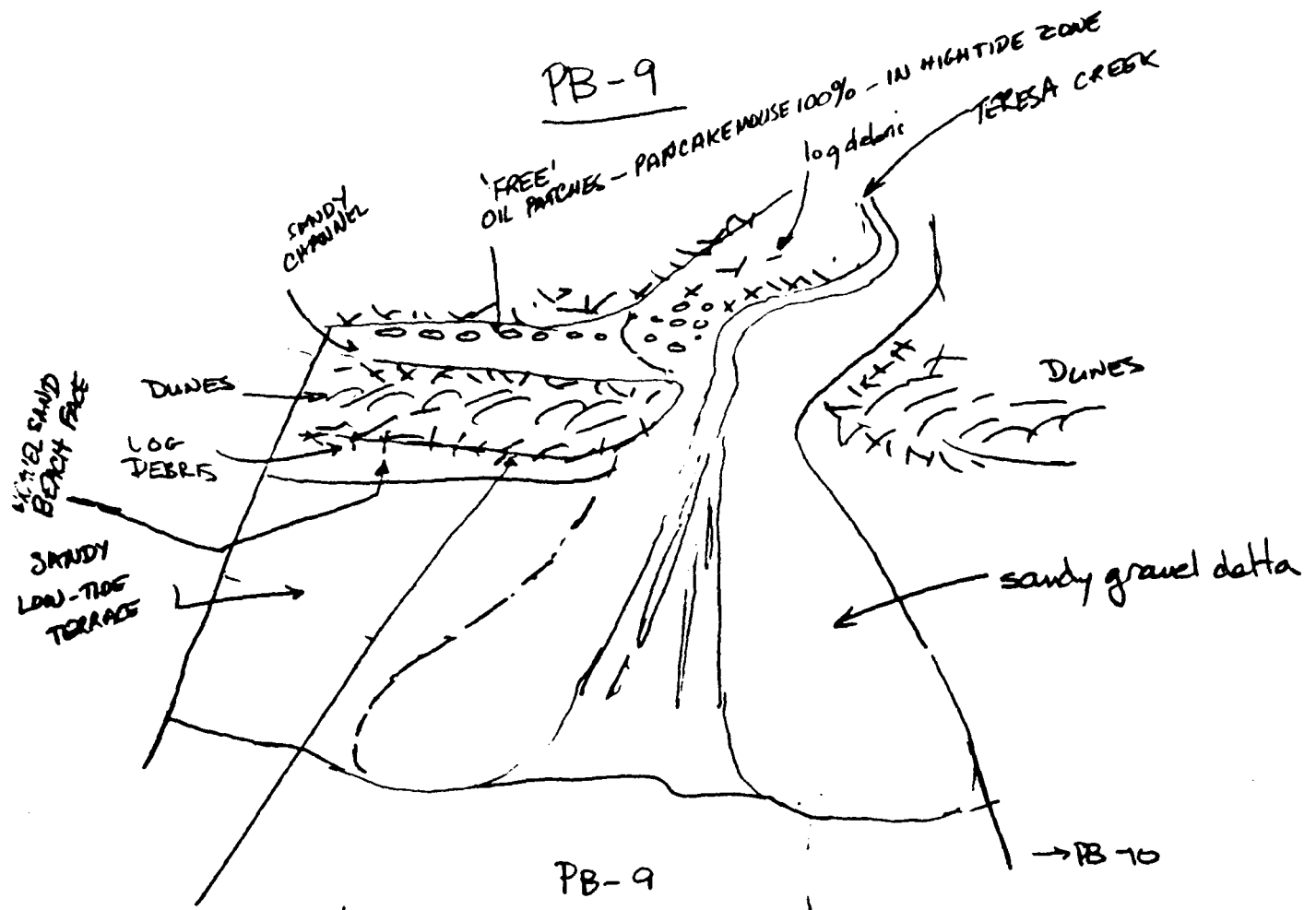
Map Aerial photo marking segment boundaries See Attached

VTR: (Y)N Tape Number(s) KODAK-01

Photography: (Y)N Roll Number(s) DMC-13

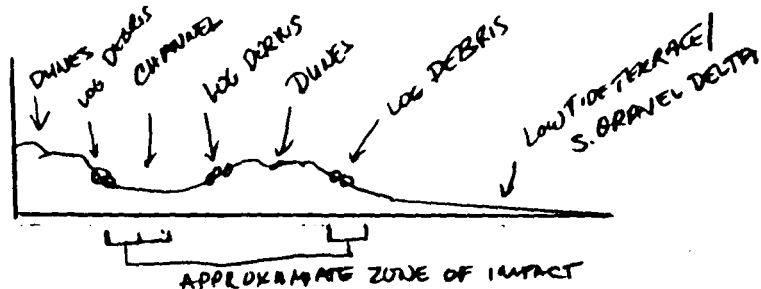
Sample Numbers Collected: N/A

PB-9



PB-9

OIL DRIFT DEBRIS / BEACH FACE SEDIMENTS
Very light spatter - Asphalt / Pancake House



ESTIMATED X-SECTION PB-9

ACE 8709481

ECOLOGICAL EVALUATION

LOCATION: ^{West Shore} of Puget Bay SITE: _____ OBSERVER: D. McCoemick
 LOCATION PREFIX: PB SEG. NO.: 9 LENGTH: 435 (M)
 DATE: 6/7/89 TIME (HHMM): 1115 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

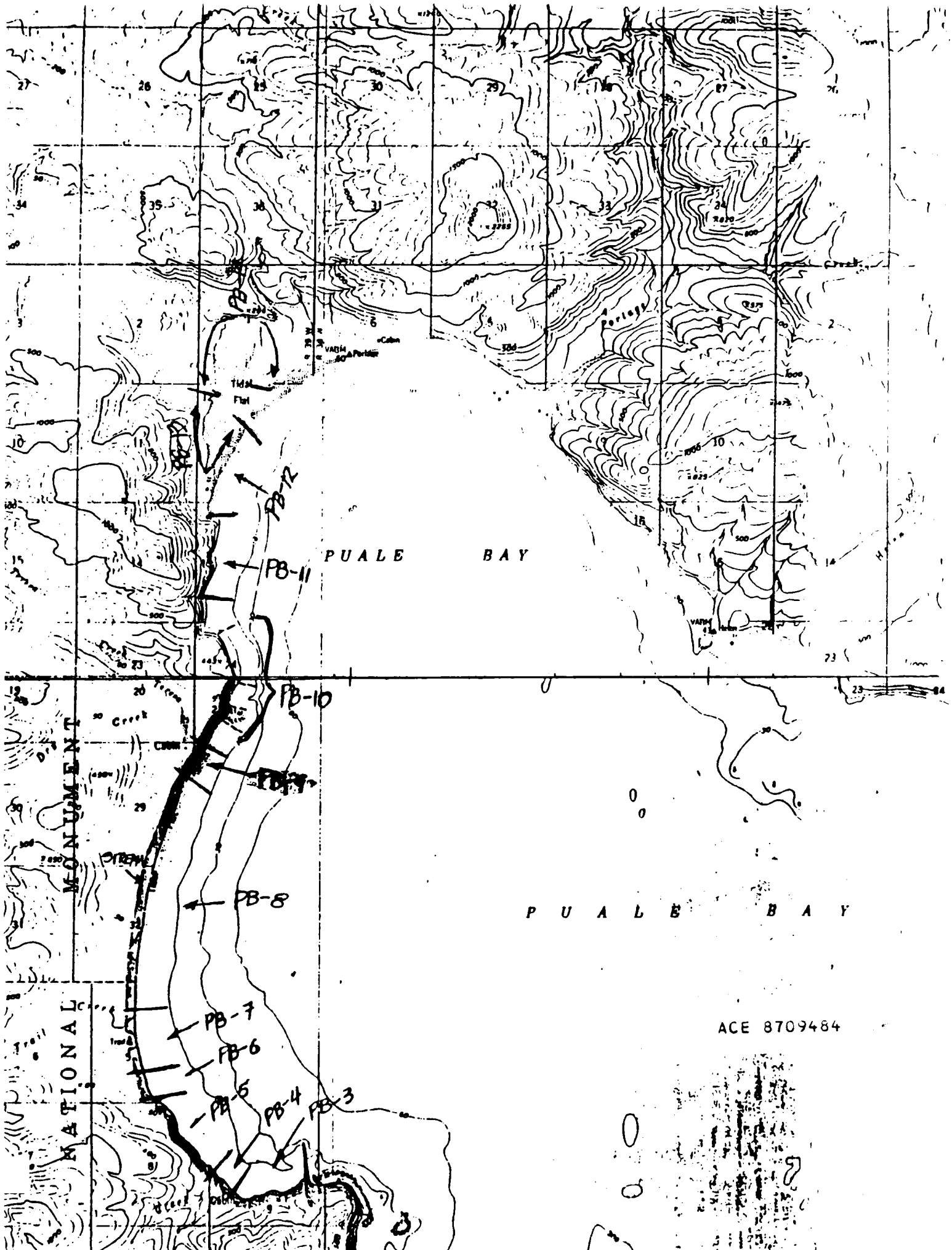
OTHER OBSERVATIONS: 3 dead oiled birds; kelp as debris; bear tracks

CLEANUP PRECAUTIONS: None

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

BIRDS: murrees, gulls, eagles

GENERAL OBSERVATIONS: oil here is mouse patters in and around Theresa Creek
which is a salmon stream: clean-up ASAP.



ACE 8709484

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6-10-89

SHORELINE SEGMENT PB-10

LOCATION: (see enclosed map) Puale Bay - West shore

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6-7-89

Recommended Cleanup Activity(ies):

No cleanup recommended at this time due to no oil.

Priorities Considerations:

Ecological Constraints (from site survey):

None, since cleanup is not recommended.

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.

Sheldon E. Farmer
State Historic Preservation Officer *

Date: *June 11, 1989*

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6-10-89

SHORELINE SEGMENT PB-10

LOCATION: (see enclosed map) Puale Bay - West shore

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6-7-89

Recommended Cleanup Activity(ies):

No cleanup recommended at this time due to no oil.

Priorities Considerations:

Ecological Constraints (from site survey):

None, since cleanup is not recommended.

Archeological Constraints (from site survey):

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

Charles E. Horman
State Historic Preservation Officer *

Date: June 11, 1989

EXXON: Jack A. Rickman

Date: 14 June 89

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 - RONTAR

Date: JUNE 7/89 Time: 12:40

Observer: D. HOWES

Surveyed From: Foot Boat/Helio/Plane

Weather: Sun Cloud/Rain/Snow/Mist

LOCATION

LOCATION PUMPA BAY - WEST SIDE

SEGMENT I.D. PB-10

LENGTH OF SHORELINE SEGMENT: _____ m

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

SHORELINE:

Shoreline Type: SPI/BEA/COV/HID/STFT

Slope: LAND/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B 10 / C 10 / F 10 / G _____ / S 10 / M _____ / R _____

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

OIL

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

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

OIL DISTRIBUTION

Continuous: Y/N Segment # _____ 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 / H / L / VL

OIL MORPHOLOGY

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

OIL WEATHERING (OW)

Fresh Oil _____ SU/SP/VE/MID/LO Choc Mousse _____ SU/SP/VE/MID/LO

Pancake Mousse _____ SU/SP/VE/MID/LO Asphalt Mousse _____ SU/SP/VE/MID/LO

Tar Formation _____

Comments:

ACE 8709487

NO OIL OBSERVED DURING FOOT TRAVERSE

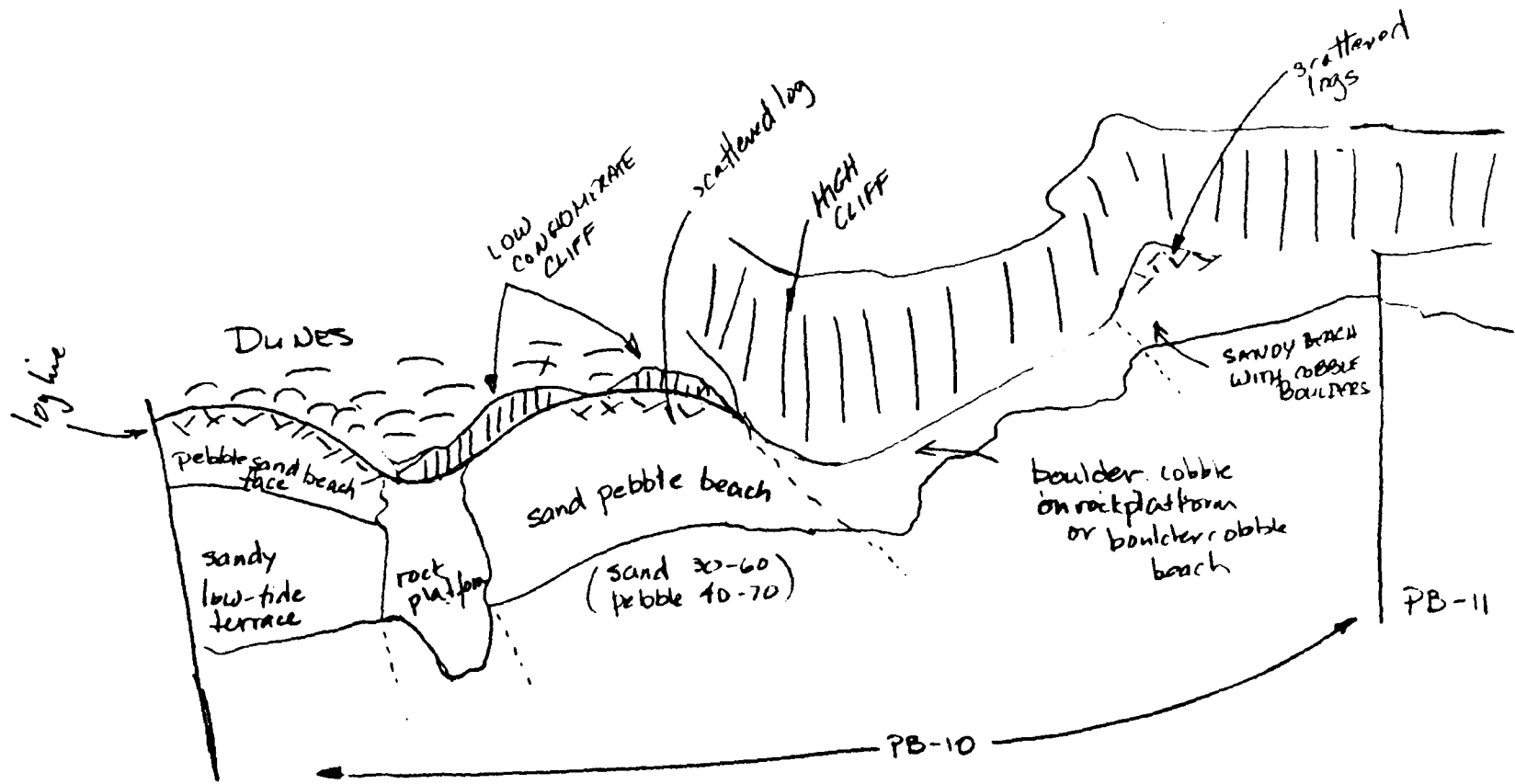
DOCUMENTATION:

Map Aerial photo marking segment boundaries See Attached

VTR: Y N Tape Number(s) KODIAK-01

Photography: Y N Roll Number(s) DMC-13

Sample Numbers Collected: N/A



ACE 8709469

ECOLOGICAL EVALUATION

LOCATION: west shore PUNLE BAY SITE: _____ OBSERVER: D. Mc CORMICK
 LOCATION PREFIX: PB SEG. NO.: 10 LENGTH: 2185 (M)
 DATE: 6/7/89 TIME (HHMM): 11:40 TIDE HT.: -0.5 (M)

OILED ZONE: Splash High Medium Low None

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

Mytilus (Mussels): Patchy (Y/N) Contin. (Y/N) Dense (Y/N) Sparse (Y/N) None (Y/N)
Clumped on some boulders - dense.

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

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

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

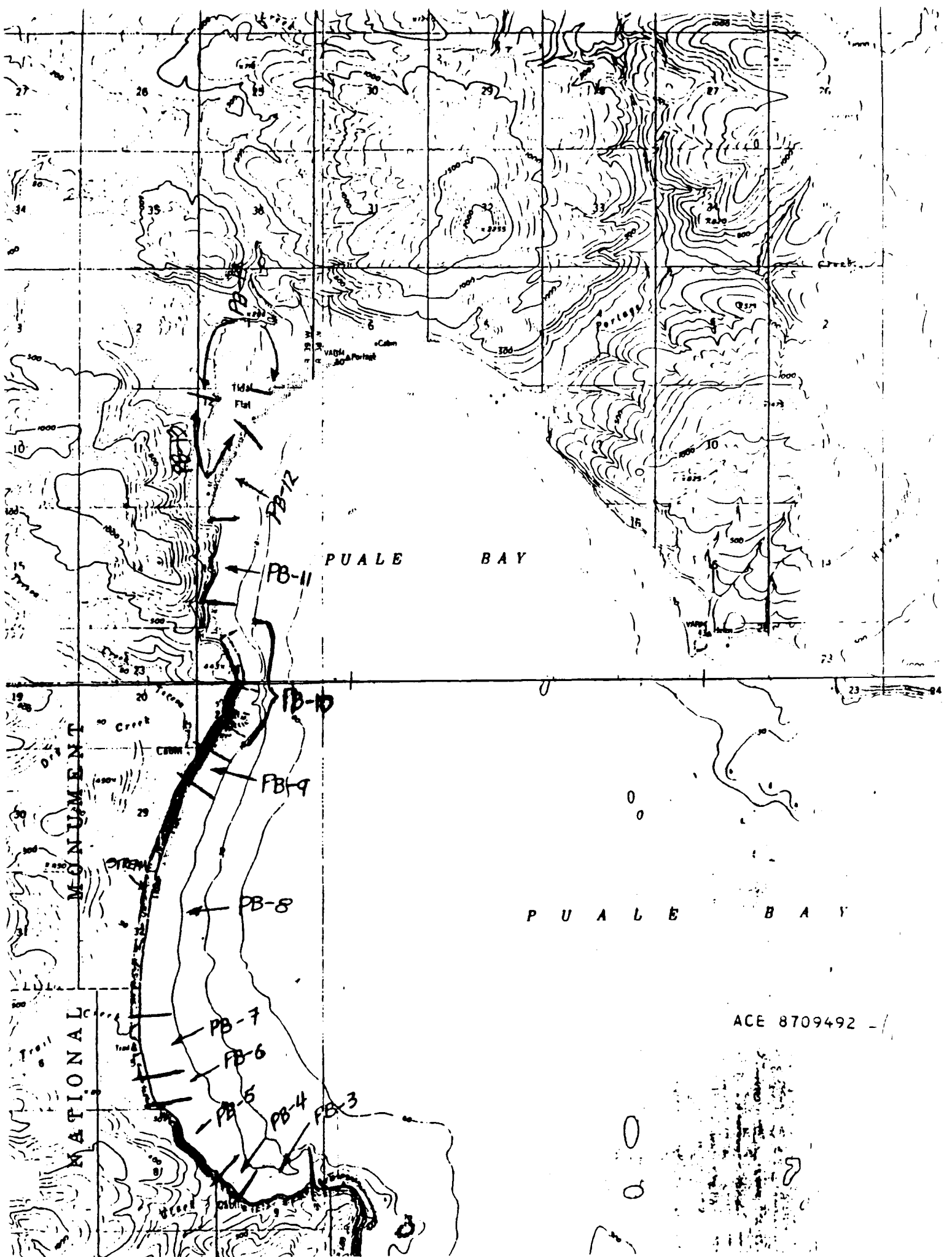
OTHER OBSERVATIONS: Very dense felp all over segment; broken clam shells; no oil observed.

CLEANUP PRECAUTIONS: None.

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

BIRDS: _____

GENERAL OBSERVATIONS: no oil.



ACE 8709492 -

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6-10-89

SHORELINE SEGMENT PB-11

LOCATION: (see enclosed map) Puale Bay - West shore

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6-7-89

Recommended Cleanup Activity(ies):

No cleanup recommended at this time due to very light oil, minimal anticipated environmental impact and ecological constraints.

Priorities Considerations:

Ecological Constraints (from site survey):

Cleanup activities would likely cause unnecessary disturbance to nesting birds and may damage otherwise healthy clams and fucus.

Archeological Constraints (from site survey):

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

Charles E. Palmer
State Historic Preservation Officer *

Date: June 11, 1989

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6-10-89

SHORELINE SEGMENT PB-11

LOCATION: (see enclosed map) Puale Bay - West shore

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6-7-89

Recommended Cleanup Activity(ies):

No cleanup recommended at this time due to very light oil, minimal anticipated environmental impact and ecological constraints.

Priorities Considerations:

Ecological Constraints (from site survey):

Cleanup activities would likely cause unnecessary disturbance to nesting birds and may damage otherwise healthy clams and fucus.

Archeological Constraints (from site survey):

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

Charles Z. Adner
State Historic Preservation Officer *

Date: June 11, 1989

EXXON: Jack A. Rickman

Date: 14 June 89

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 - KONTAK

Date: JUNE 18/89 Time: 12:40

Observer: D. H. W. S.

Surveyed From: Foot/Boat/Helicopter/Plane

Weather: Sun/Cloud/Rain/Snow/Hazy

LOCATION

LOCATION PULKA BAY - WEST SIDE

SEGMENT I.D. PB-11

LENGTH OF SHORELINE SEGMENT: 1300 m

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

SHORELINE:

Shoreline Type: SPI/BEA/COV/HID/STFT

Slope: LAND/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B20 / C20 / P / G / S 60 / M / R

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

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved V. LIGHT

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

OIL DISTRIBUTION

Continuous: Y/N Segment # Width

Sporadic: Y/N Segment # 60 Min/Max Dia 45cm 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 / VI

OIL MORPHOLOGY

Pooled Oil "Free" Oil Spattered 100 H/H/L/CL Choc

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 100 SU/SP/VP/MID/LO

Tar Formation

Comments:

SPLATTER ON Boulders/CORALS AND CLIFF FACE - VERY LOW
NO CLEAN-UP NECESSARY

ACE 8709495

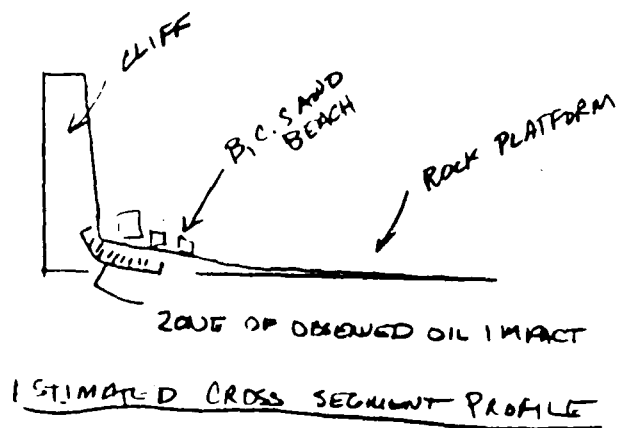
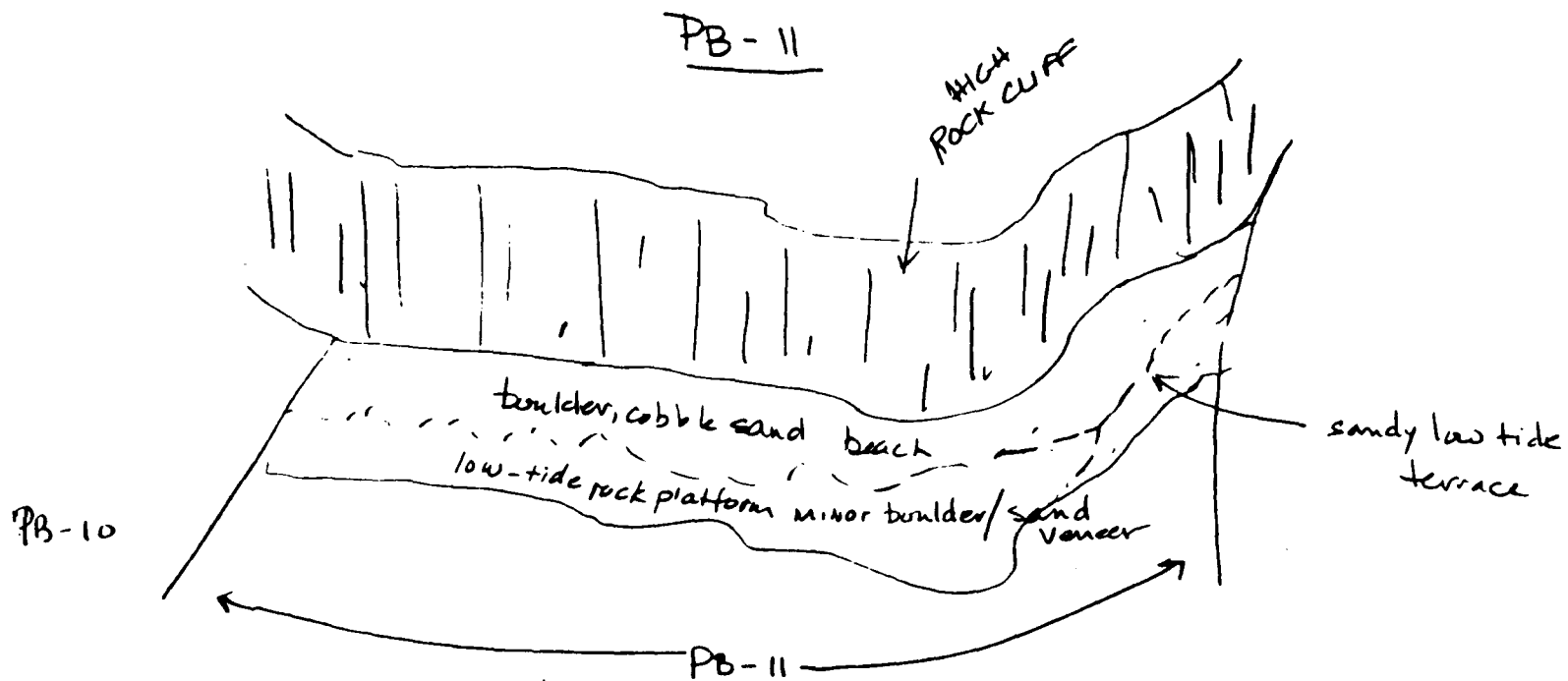
DOCUMENTATION:

Map/Aerial photo marking segment boundaries See Attached

VTR: Y/N Tape Number(s) KODIAK-01

Photography: Y/N Roll Number(s) DMC-13

Sample Numbers Collected: N/A



ACE 8709497

ECOLOGICAL EVALUATION

LOCATION: West Shore Puale BAY SITE: _____ OBSERVER: D. McCormick
 LOCATION PREFIX: PB SEG. NO.: 11 LENGTH: 1300 (M)
 DATE: 6/7/89 TIME (HHMM): 1240 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

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

Littorina

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

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

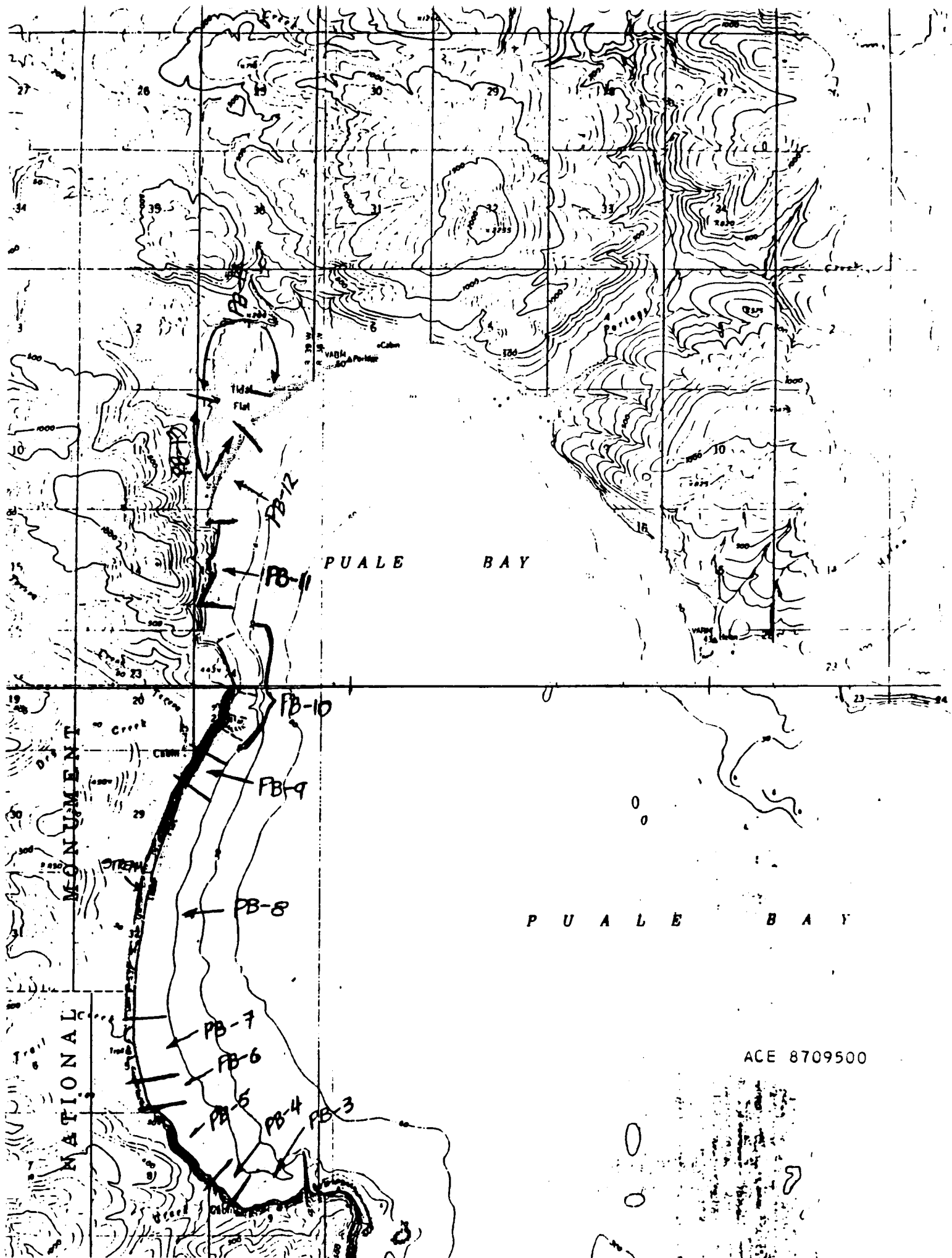
OTHER OBSERVATIONS: 2 large groups (>500 ea.) of mures offshore; clam siphon holes; kelp dense & continuous

CLEANUP PRECAUTIONS: _____

MAMMALS: Otters _____ Harbor Seals _____ Sea Lions _____ Whales _____
 other _____

BIRDS: mures, gulls, terns, ravens, bald eagles

GENERAL OBSERVATIONS: Oil here is mostly splashed at high tide with a few mousse patches in low FTZ and some sheen in pooled areas. Total oil is minimal and no cleanup warranted.



ACE 8709500

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6-10-89 SHORELINE SEGMENT PB-12

LOCATION: (see enclosed map) Puale Bay - North shore

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6-7-89

Recommended Cleanup Activity(ies):

No cleanup recommended at this time due to very light oiling
and high wave exposure which will enhance self cleaning.

Priorities Considerations:

Ecological Constraints (from site survey):

None, since no cleanup is warranted.

Archeological Constraints (from site survey):

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

Charles F. Adams
State Historic Preservation Officer *

Date: June 11, 1989

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 8709501

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6-10-89

SHORELINE SEGMENT PB-12

LOCATION: (see enclosed map) Puale Bay - North shore
—
—

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6-7-89

Recommended Cleanup Activity(ies):

No cleanup recommended at this time due to very light oiling and high wave exposure which will enhance self cleaning.

Priorities Considerations:

Ecological Constraints (from site survey):

None, since no cleanup is warranted.

Archeological Constraints (from site survey):

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

Charles F. Adams
State Historic Preservation Officer *

Date: June 14, 1989

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 - KONTAK

Date: JUN 7/87 Time: 13:10

Observer: D. Hines

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Hazy

LOCATION
LOCATION PYALA BAY - NORTH END

SEGMENT I.D. PB-12

LENGTH OF SHORELINE SEGMENT: 1300 m

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

SHORELINE:

Shoreline Type: SPI/DEA/COV/HID/STET

Slope: LAUG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B 1 / 0.2-3% / P5-10% / G 1 / S90% / M 1 / R 1

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

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved V. LIGHT

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

OIL DISTRIBUTION

Continuous: Y/N Segment 1 100 No. Bands 0 Width

Sporadic: Y/N Segment 1 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 / H / L / VL

OIL MORPHOLOGY

Pooled Oil "Free" Oil Spattered 100 H/H/L/VL Shown

OIL WEATHERING (OW)

Fresh Oil SU/SP/VP/MID/LO Choc Mousse 10 SU/SP/VP/MID/LO

Pancake Mousse SU/SP/VP/MID/LO Asphalt Mousse 90 SU/SP/VP/MID/LO

Tar Formation

Comments:

SMALL AMOUNT CHOC MOUSSE INDICATES SOME RECENT DEPOSITION
NO CLEANUP NECESSARY AT THIS TIME

ACE 8709503

DOCUMENTATION:

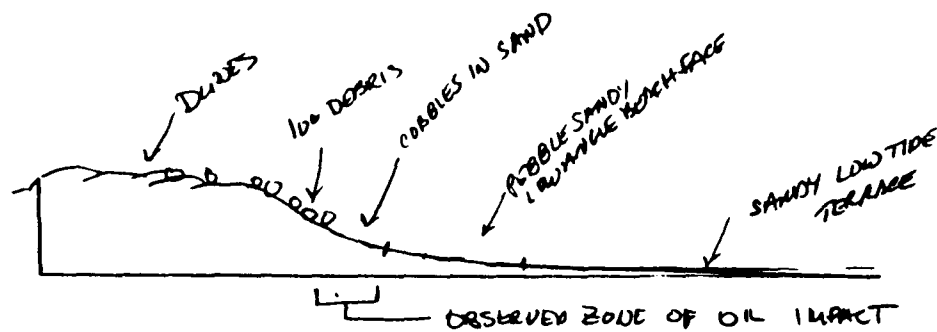
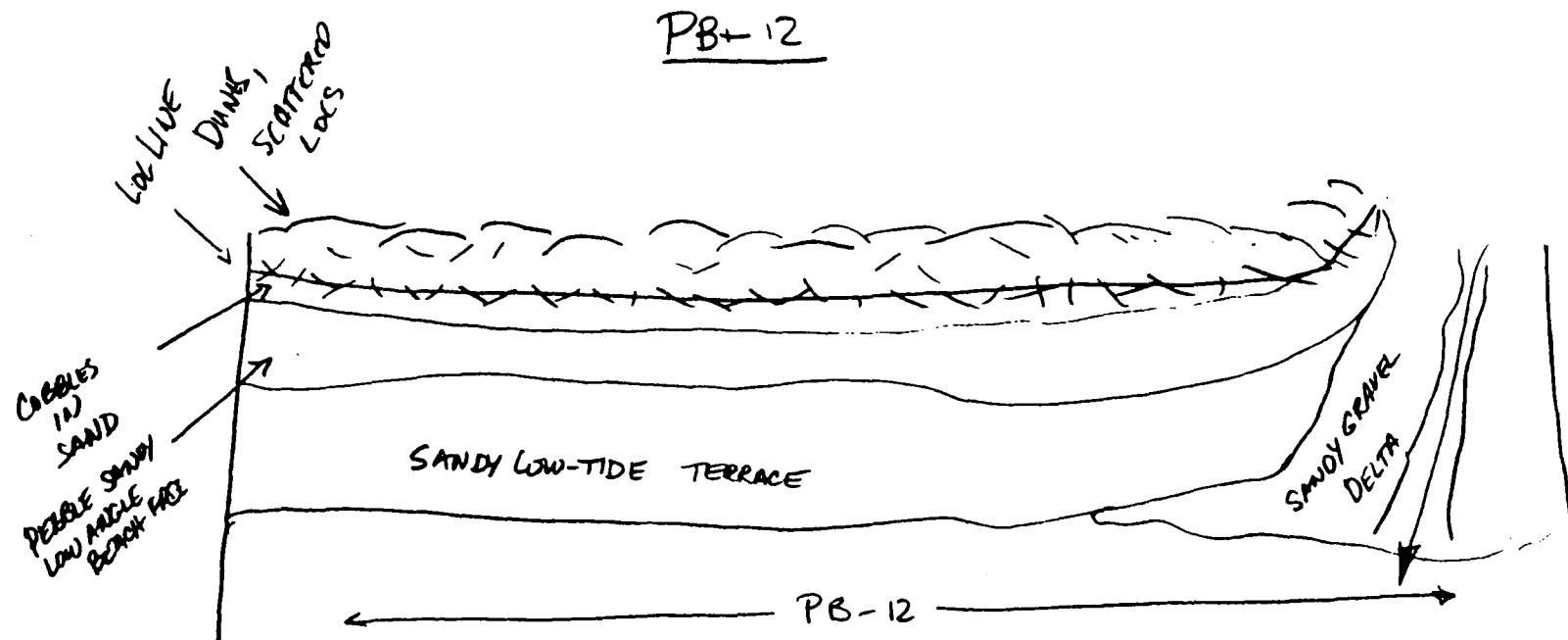
Map Aerial photo marking segment boundaries See Attached

VTR: Y N Tape Number(s) KODIAK-01

Photography: Y N Roll Number(s) DMC-13

Sample Numbers Collected: N/A

ACE 8709505



ESTIMATED PROFILE OF PB-12

OIL: 100% SPLATTER
TYPE
ASPHALT: 96%
CHDCO 16%

"Very light impact"

ECOLOGICAL EVALUATION

LOCATION: NORTH END of PUALA BAY SITE: _____ OBSERVER: D. McCoemick
 LOCATION PREFIX: PB SEG. NO.: 12 LENGTH: 1300 (M)
 DATE: 6/7/89 TIME (HHMM): 1310 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

Shells only

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

Littorina

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

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

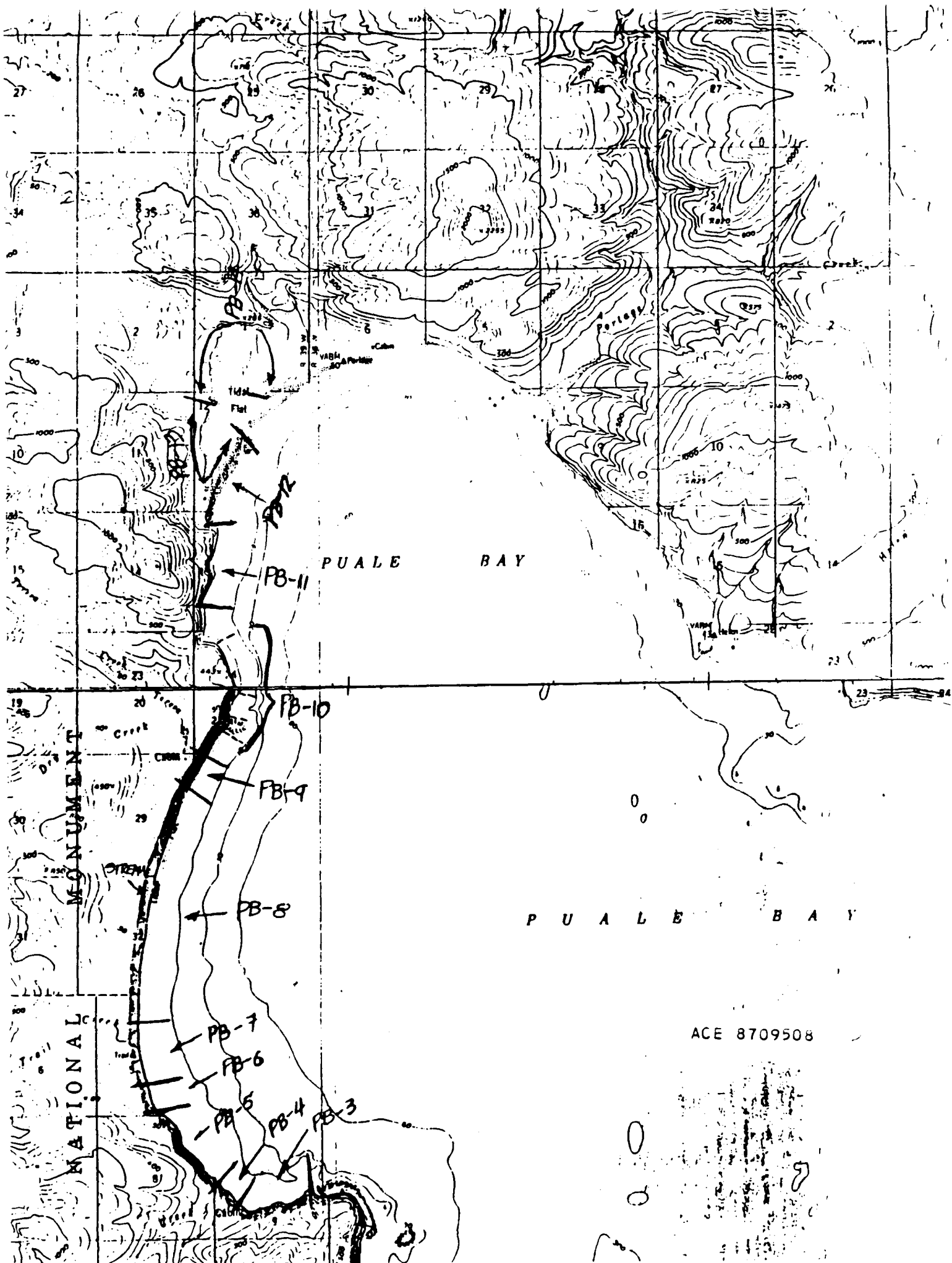
OTHER OBSERVATIONS: few tracks; no live biota observed

CLEANUP PRECAUTIONS: None

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

BIRDS: _____

GENERAL OBSERVATIONS: Oil present as residue / asphalt in high ITC -
no cleanup warranted.



ACE 8709508

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6-10-89

SHORELINE SEGMENT PB-13

LOCATION: (see enclosed map) Puale Bay - North shore (Lagoon)

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6-7-89

Recommended Cleanup Activity(ies):

Clean at low tide. Clean ASAP because this is a salmon use area.

Manually remove surface oil by appropriate means.

Priorities Considerations:

Ecological Constraints (from site survey):

Don't remove dune grass - rake oily debris out of this area only. Avoid contaminating stream channel any worse than it is.

Archeological Constraints (from site survey):

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

Charles E. Homan
State Historic Preservation Officer *

Date: June 11, 1989

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 8709509

(version 5/02/89)

KISCC
File
Copy

SHORELINE CLEANUP PROGRAM

DATE 6-10-89

SHORELINE SEGMENT PB-13

LOCATION: (see enclosed map) Puale Bay - North shore (Lagoon)

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6-7-89

Recommended Cleanup Activity(ies):

Clean at low tide. Clean ASAP because this is a salmon use area.

Manually remove surface oil by appropriate means.

Priorities Considerations:

Ecological Constraints (from site survey):

Don't remove dune grass - rake oily debris out of this area only. Avoid contaminating stream channel any worse than it is.

Archeological Constraints (from site survey):

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

Charles E. Himes
State Historic Preservation Officer *

Date: June 11, 1989

EXXON: Jack A. Ricketts

Date: 14 June 89

FOSC: _____

Date: _____

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

ACE 8709510

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KONTAK

Date: JUN 8/87 Time: 2:00

Observer: D. R. W. B.

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Hail

LOCATION
LOCATION

PUNA BAY - NORTH END

SEGMENT I.D. PB-13

LENGTH OF SHORELINE SEGMENT: 2200 m

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

SHORELINE:

Shoreline Type: SPI/BEA/COV/HLD/STFT

Slope: LAUG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B 1 / C 1 / P/O 1 / G 1 / S 90 / M 1 / R 1

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

OIL

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

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

OIL DISTRIBUTION

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

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

Est. Oil Thickness where > 1cm: 3 cm SU / SP / UP / MID / LO

Est. Oil Penetration: 1 cm SU / SP / UP / MID / LO

Layers? Yes/No No# Layers 1 Oil Weathering 'CHOCO'
SHORT/DISCONTINUOUS

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

OIL MORPHOLOGY

Pooled Oil 1 "Free" Oil 90 Spattered 10 H/H/L/VI Sheen 1

OIL WEATHERING (OW)

Fresh Oil 1 SU/SP/VE/MID/LO Choc Mousse 10 SU/SP/VE/MID/LO

Pancake Mousse 90 SU/SP/VE/MID/LO Asphalt Mousse 1 SU/SP/VE/MID/LO

Tar Formation 1

Comments:

ACE 8709511

- PANCAKE MOUSSE OF FREE OIL DISTRIBUTED FROM H12 TO L12
SHOULD BE MANUALLY REMOVED
- SOME SPATTERED NO PEBBLES
- PANCAKE MOUSSE OCCURS AS SPLATS 1-2 M LONG 1 M WIDE

DOCUMENTATION:

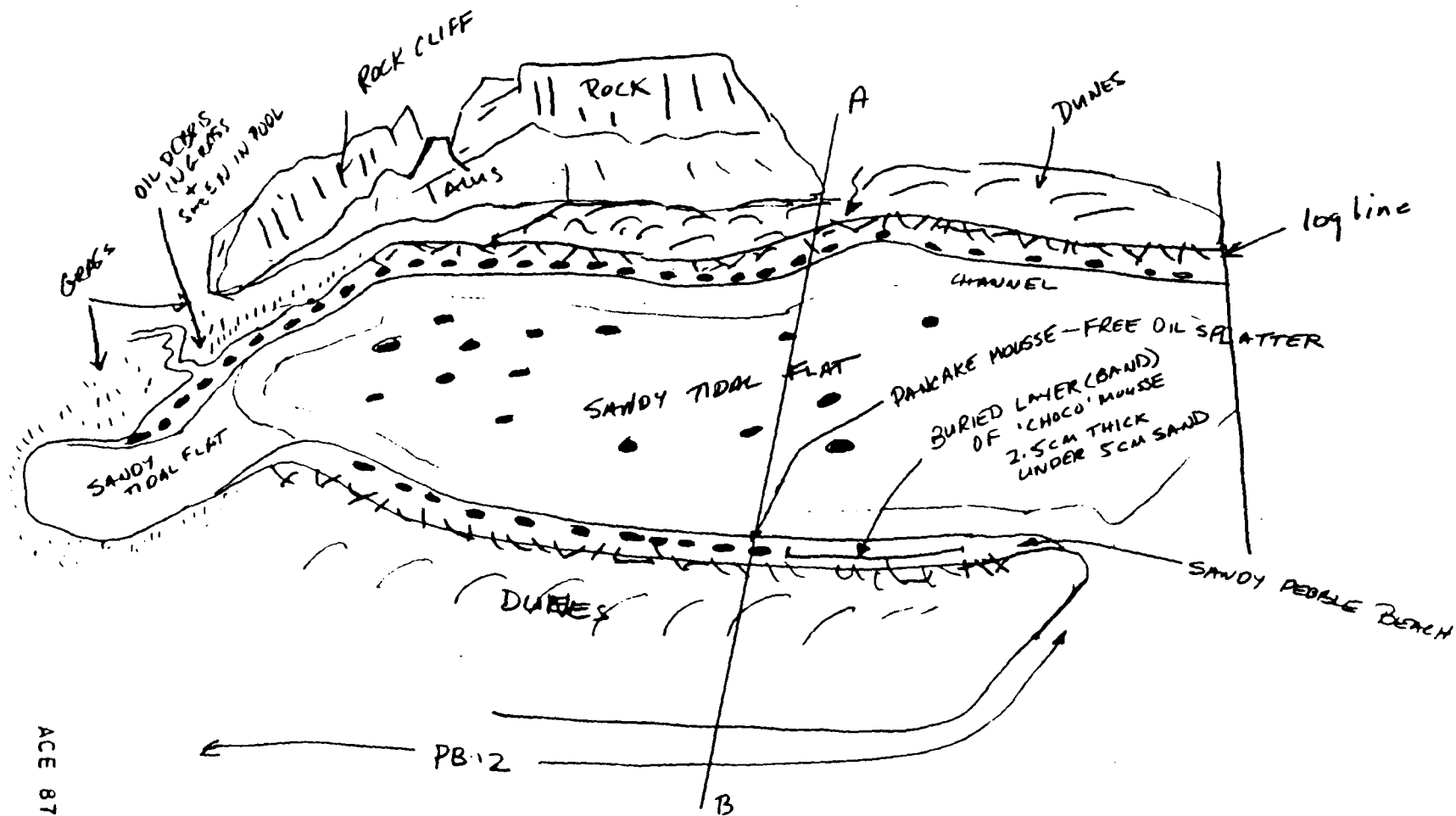
Map Aerial photo marking segment boundaries See Attached

VTR: ☒ Y ☐ N Tape Number(s) KODIAK-01

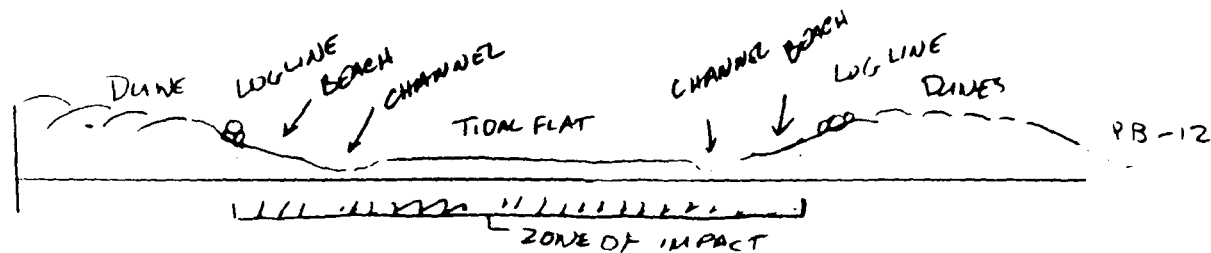
Photography: ☒ Y ☐ N Roll Number(s) DMC-13

Sample Numbers Collected: N/A

PB-13 'TIDAL FLAT'



ACE 8709513



CROSS-PROFILE OF PB-13

ECOLOGICAL EVALUATION

NORTH SHORE OF RALE

LOCATION: BAY - LAGOON SITE: _____ OBSERVER: D. McCoemick
 LOCATION PREFIX: PB SEG. NO.: 13 LENGTH: 2200 (M)
 DATE: 6/7/89 TIME (HHMM): 1400 TIDE HT.: + 1.0 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

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

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

Shellwork

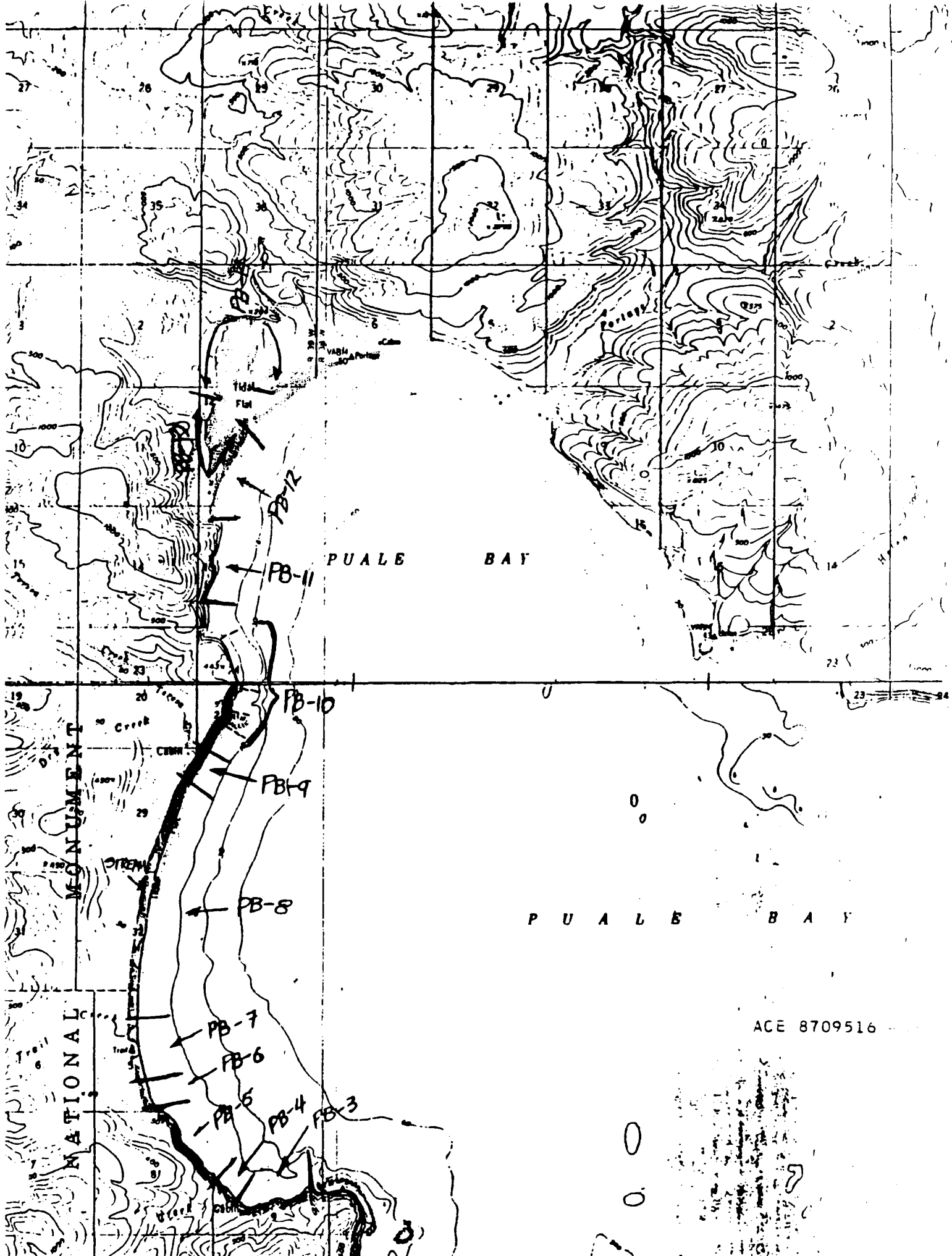
OTHER OBSERVATIONS: 4 brown bears; 12 dead oiled birds; tube worms;
clam shells; sea urchin shells; whelk shells

CLEANUP PRECAUTIONS: Clean at low tide to get mouse patties in tide flats -
when cleaning near stream avoid contaminating channel any more;
don't remove grass - rake only debris out of it only.

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

BIRDS: sandpipers

GENERAL OBSERVATIONS: This segment is oiled all over the lagoon - buried under
sand in high zone, mouse patties high to low zones, oil in dense grass and
sheen in standing water. Clean ASAP.



(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6-10-89

SHORELINE SEGMENT PB-14

LOCATION: (see enclosed map) Puale Bay - North shore (Lagoon)

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6-7-89

Recommended Cleanup Activity(ies):

No cleanup recommended at this time due to no oil.

Priorities Considerations:

Ecological Constraints (from site survey):

No ecological evaluation form was completed because this survey was done by helicopter only.

Archeological Constraints (from site survey):

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

Charles E. H. Mass
State Historic Preservation Officer *

Date: June 11, 1989

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 8709517

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6-10-89

SHORELINE SEGMENT PB-14

LOCATION: (see enclosed map) Puale Bay - North shore (Lagoon)

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6-7-89

Recommended Cleanup Activity(ies):

No cleanup recommended at this time due to no oil.

Priorities Considerations:

Ecological Constraints (from site survey):

No ecological evaluation form was completed because this survey was done by helicopter only.

Archeological Constraints (from site survey):

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

Charles E. H. May
State Historic Preservation Officer *

Date: June 4, 1989

EXXON: Jack A. Rickman

Date: 14 June 89

FOSC: _____

Date: _____

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

DOCUMENTATION:

Map/Aerial photo marking segment boundaries See Attached

VTR: Y/N Tape Number(s) KODIAK-01

Photography: Y/N Roll Number(s) _____

Sample Numbers Collected: N/A

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KONTAK

Date: JUNE 9/89 Time: 4:00

Observer: DHMS

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Other

LOCATION

LOCATION PALMA BAY

SEGMENT I.D. PB-14

LENGTH OF SHORELINE SEGMENT: 2200 m

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

SHORELINE:

Shoreline Type: SPI/DEA/COV/HLD/STET

Slope: LAUG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B 1 / C 1 / P20 / G 1 / S 80 / M 1 / R 1

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

OIL

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

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

OIL DISTRIBUTION

Continuous: Y/N Segment 1 No. Bands Width

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

Est. Oil Thickness where > 1cm: 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 / L / VL

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 8709520

NO OIL OBSERVED - HELICOPTER TRAVERSE ONLY

DOCUMENTATION:

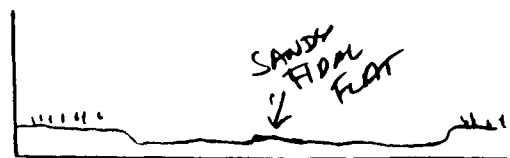
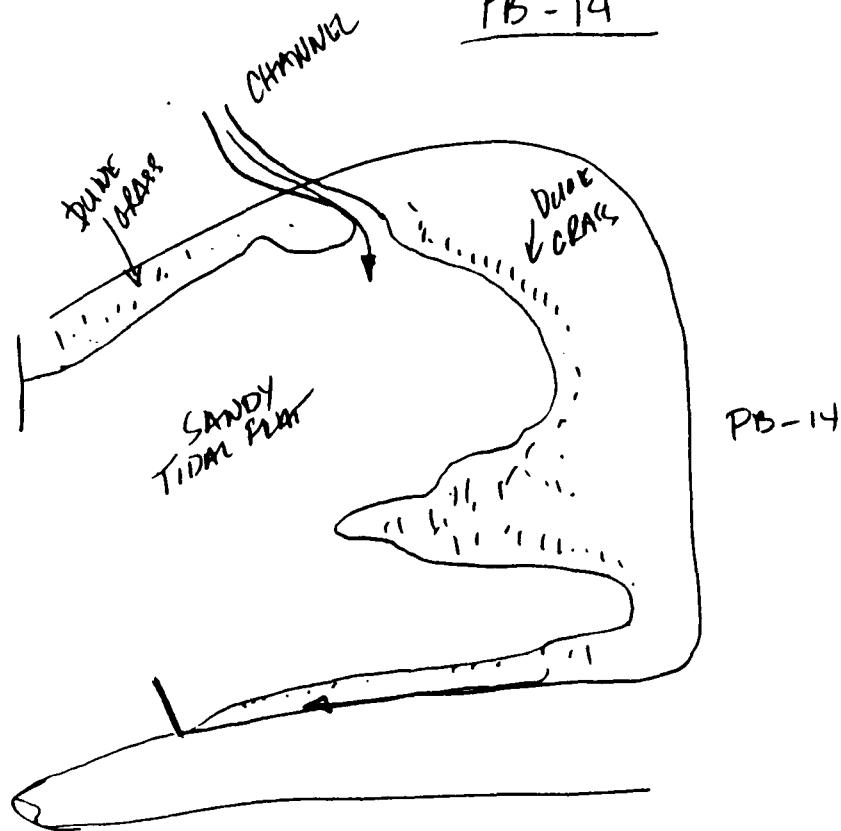
Map/Aerial photo marking segment boundaries See Attached

VTR: Y/N Tape Number(s) KODIAK-01

Photography: Y/N Roll Number(s) _____

Sample Numbers Collected: N/A

PB-14



PB-14

ESTIMATED PROFILE

version 4/29/89)

CULTURAL RESOURCE EVALUATIONDate 7 JUNE 89 Location KODIAK site PURGE BAYLocation Prefix PB Segment # 14 Length 2200

Survey Method:

Air ✓ (A - indicate on map) Boat _____ (A - indicate on map)Ground ✓ (G - indicate on map)Known cultural resources (AHRS #) NONE Data Source _____Oil conditions/beach visibility SPORADIC TAIL PATCHESWidth of beach zone surveyed 100 m ^{DUNE ZONE} ~~Tree fringe~~ surveyed 25 mCultural resources observed in beach zone (AHRS code) FLATSAMCultural resources observed in tree fringe (AHRS code) FLATSAM

General observations justifying survey method and segment's site probability:

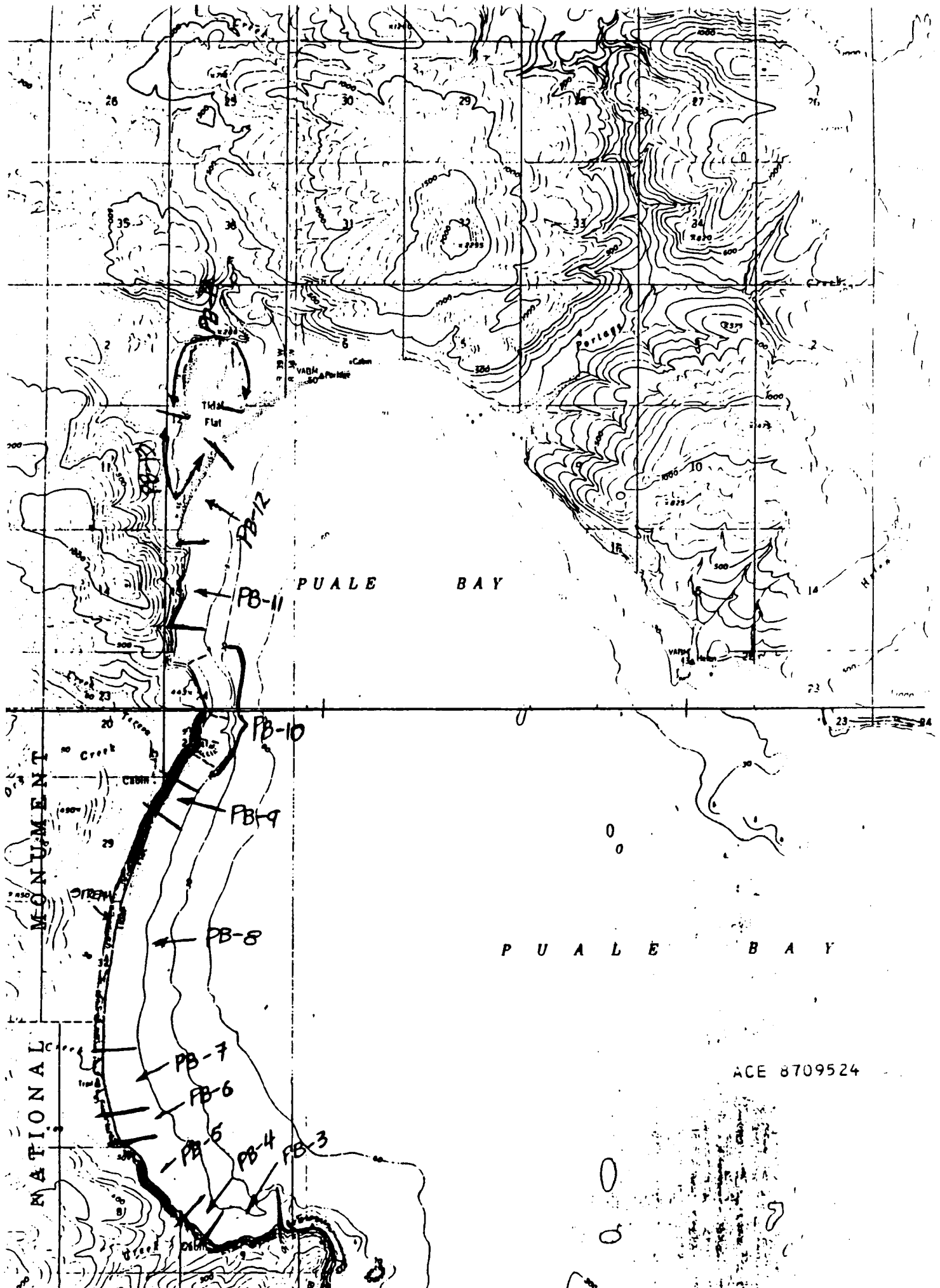
Core Profile SAND BENCHFresh Water Sources STREAMSSea Exposure OPENAccess/Safety MODERATEProbability of undiscovered sites in beach zone (circle one) 1 2 3 4 5Monitoring during cleanup needed yes/no no Collection yes/no noPhotos: Color Roll # NO CAMERA Frames _____

B/W Roll # _____ Frames _____

Observer(s) B. REAMTime survey started 1510 Time survey ended 1550

Cultural resource considerations/restraints:

X MURDER CAUTION



(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/09/89

SHORELINE SEGMENT K10-7-PB-15

LOCATION: (see enclosed map) Northeast Puale Bay

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

Recommended Cleanup Activity(ies):

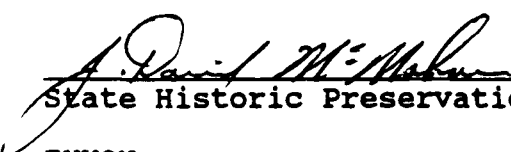
-No cleanup recommended due to very sporadic occurrence of very light splat. Subject to FOSC reassessment at a later date.

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.


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: 9 July 1989 / Time: 11:10-12:50
Surveyed From: Foot/Boat/Helio/Plane

Observer: Duncan M. Fitzgerald
Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION
Location: Northeast shore of Puale Bay Segment ID: K-10-7-PB-15
Segment Length: 5 km m. Access: Vehicle/Boat/Barge/Helio/Float Plane
Access Restrictions: access only by helio and walking from adj. cove

SHORELINE

Shoreline Type: SPI/BEA/COV/HLD/STRT Slope: Lo/Med/Hi/Vert
Wave Exposure: High/Med/Low
Sediment: B 85 % / C ___ % / P ___ % / G&S ___ % / M ___ % / R 15 %

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 27 SU/SP/H/M/L H/M/L/VL

Total	Length(m)	Width(m)		
Very light:	<u>2 km</u>	<u>4 m</u>	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: <u>100</u> %	H/M/L/VL	SU/ <u>SP</u> /H/M/L
Coated: _____ %	H/M/L/VL	SU/SP/H/M/L
Pancakes/Balls: _____ %		SU/SP/H/M/L

Preliminary Cleanup Est.

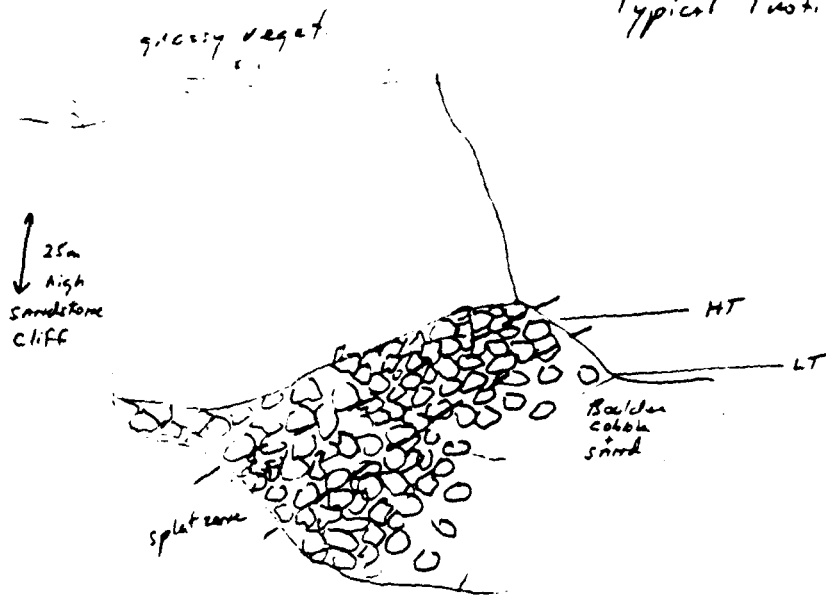
Total TYPE A: 100 % m
Total TYPE B: _____ m
Total TYPE A/B: _____ m

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: <u>100</u> %	SU/ <u>SP</u> /H/M/L

COMMENTS

Typical Profile of PB-15



- Vertical rock face
- Narrow boulder beach
- sporadic splat zone
- splash zone to high water zone

ECOLOGICAL EVALUATION

LOCATION: Puale Bay, Bear River SITE: Puale Bay OBSERVER: S. Bluestone
 LOCATION PREFIX: PB SEG. NO.: 15 LENGTH: 5 km (M)
 DATE: 7/9/89 TIME (HHMM): 1110-1250hrs TIDE HT.: -1.65 - -0.99 (M)
 OILED ZONE: Splash High Medium Low (VERY LIGHT SPILT)
 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)
 DOMINANT SP. in L-M.I.T.Z. is Endocladia muricata; w/ TRACE Fucus sp and some Peletopsis sp scattered over similar zones.

Mytilus (Mussels): Patchy (Y/N) Contin. (Y/N) Dense (Y/N) Sparse (Y/N) None (Y/N) locally
 MAINLY IN L.I.T.Z.; NOT IN GREAT ABUNDANCES.

Balanus (Barnacles): Patchy (Y/N) Contin. (Y/N) Dense (Y/N) Sparse (Y/N) None (Y/N) locally
 ALTHOUGH PRESENT MANY TIMES DENSE BANDS IN UPPER I.T.Z.; SOMETIMES SPARSE. Biglandula dominant sp.

Littorina locally locally
 Patchy (Y/N) Contin. (Y/N) Dense (Y/N) Sparse (Y/N) None (Y/N)
 FORM LOCALLY DENSE MASSES IN INTERSTITIAL SPACES BETWEEN ROCKS AND ON ALGAL DETRITUS. DOMINANTLY L. setulata in L.I.T.Z. & L. sitkana in M-I.T.Z.

Limpets: Patchy (Y/N) Contin. (Y/N) Dense (Y/N) Sparse (Y/N) None (Y/N)
 LOCALLY ABUNDANT IN TIDE POOLS IN L.I.T.Z.; FOUND CONGREGATING AND MASSIVE Notogemma guttata and Collisella digitalis; some Puncturella cucullata.

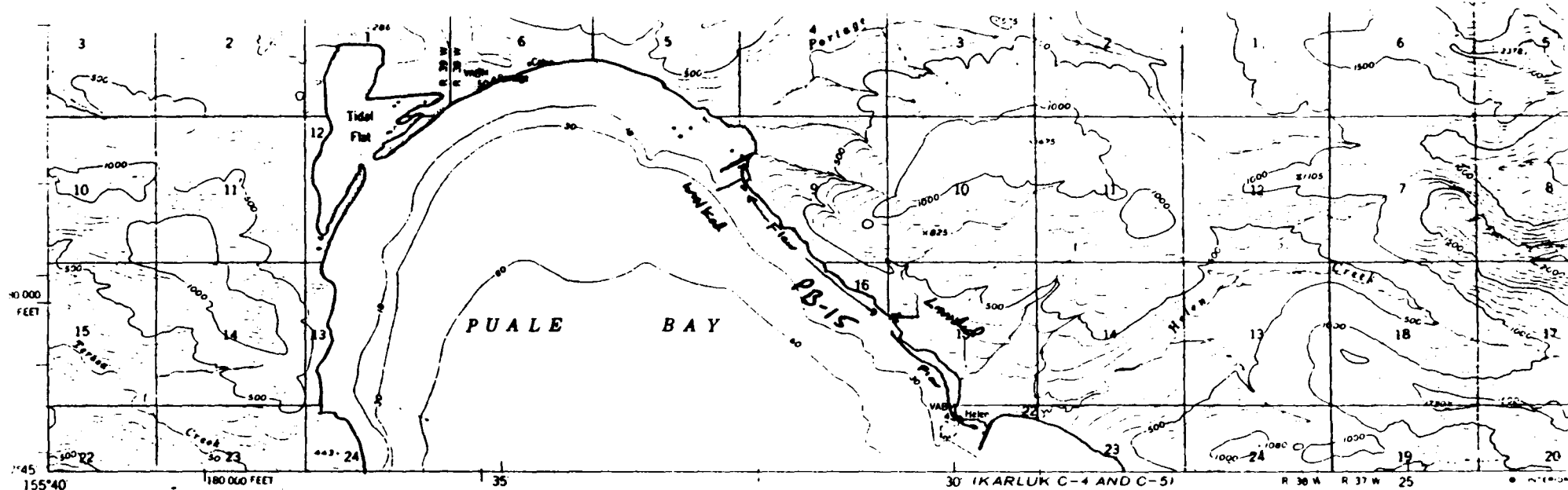
OTHER OBSERVATIONS: Sandy COVE w/ FRESH WATER INFLOW FROM PORTAGE CREEK w/
SCATTERED CLAMSHELLS; ABUNDANT ALGAL DEBRIS & DRIFT MATERIAL ON BEACH
IN SPLASH ZONE, AND U.I.T.Z.

CLEANUP PRECAUTIONS: CLEANUP IN PROCESS.

MAMMALS: Otters Harbor Seals Sea Lions Whales
 Other BALD EAGLES, BEAR TRACKS AND CARIBOU TRACKS ON BEACH

BIRDS: Gulls (Larus sp.), RAVEN AND BALD EAGLES.

GENERAL OBSERVATIONS: GENERALLY CLEAN TO EAST END OF THIS
SECTION.



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Control by USC&GS and USCE

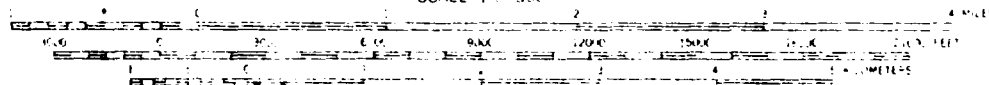
Topography by photogrammetric methods from aerial photographs taken 1951. Map not field checked.

Selected hydrographic data compiled from USC&GS Chart 8556 (1952) (1:350,000 scale), survey H-7195 (1947), and from aerial photographs. This information is not intended for navigational purposes.

Universal Transverse Mercator projection, 1927 North American datum, 10,000-foot grid based on Alaska coordinate system, zone 5, 1000-meter Universal Transverse Mercator grid ticks, zone 5, shown in blue.

Land lines represent unsurveyed and unmarked locations predetermined by the Bureau of Land Management. Folio S 22, Seward Meridian.

Swamps, as portrayed, indicate only the wetter areas, usually of low relief, as interpreted from aerial photographs.



CONTOUR INTERVAL 100 FEET

DASHED LINES REPRESENT 50 FOOT CONTOURS

DATUM IS MEAN SEA LEVEL

DEPTH CURVES IN FEET - DATUM IS MEAN LOWER LOW WATER
SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER
THE AVERAGE RANGE OF TIDE IS APPROXIMATELY 10 FEET



FOR SALE BY U. S. GEOLOGICAL SURVEY
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A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

ACE 8709530

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/09/89

SHORELINE SEGMENT K10-7-PB-16

LOCATION: (see enclosed map) East central side of Puale Bay

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

Recommended Cleanup Activity(ies):

- Manual removal of surface mousse patties and mousse under boulders (see sketch for locations).
- Manual removal of oiled debris (see sketch for locations).
- Manual removal of submerged mousse at mouth of Helen Creek. May require some excavation of sand/pebble material.
- If required, remove surface sand layer (4-8 inches) to access buried mousse (see sketch for locations).

Priorities/Considerations: Class 3-A

- Boat access may be restricted to calm days.

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 *

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: 9 July 1989 / Time: 12:50-14:30
 Surveyed From: Foot/Boat/Helio/Plane

Observer: DUNCAN M. F. TELGEHARD
 Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

Location: East-center side of Puget Bay Segment ID: K-10-7-PB-16
 Segment Length: 1200 m. Access: Vehicle/Boat/Barge/Helio/Float Plane
 Access Restrictions: red. High wave energy could restrict boat access

SHORELINE

Shoreline Type: SPI/BEA/COV/HLD/STRT Slope: Lo/Med/Hi/Vert
 Wave Exposure: High/Med/Low
 Sediment: B 10 % / C 20 % / P 10 % / G&S 60 % / M % / R %

OIL

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

OIL DISTRIBUTION

Continuous % of Segment 75 SU/SP/H/M/L H/M L/VL
 Sporadic % of Segment 25 SU/SP/H/M/L H/M L/VL

Total	Length(m)	Width(m)	Thickness >1cm:	
Very light:			<u>2-14</u> cm	SU/SP/H/M/L
Light:	<u>600</u>	<u>3-5m</u>	Penetration/Rework:	SU/SP/H/M/L
Moderate:	<u>300</u>	<u>2-4</u>	Burial Depth:	SU/SP/H/M/L
Heavy:	<u>300</u>	<u>2-4</u>	<u>5-20cm</u> cm	

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

OIL MORPHOLOGY

Pooled Oil:	<u> </u> %	SU/SP/H/M/L
"Free" Oil:	<u>40</u> %	SU/SP/H/M/L
Splattered:	<u>10</u> %	H/M/L/VL SU/SP/H/M/L
Coated:	<u> </u> %	H/M/L/VL SU/SP/H/M/L
Pancakes/Balls:	<u>50</u> %	SU/SP/H/M/L

Preliminary Cleanup Est.

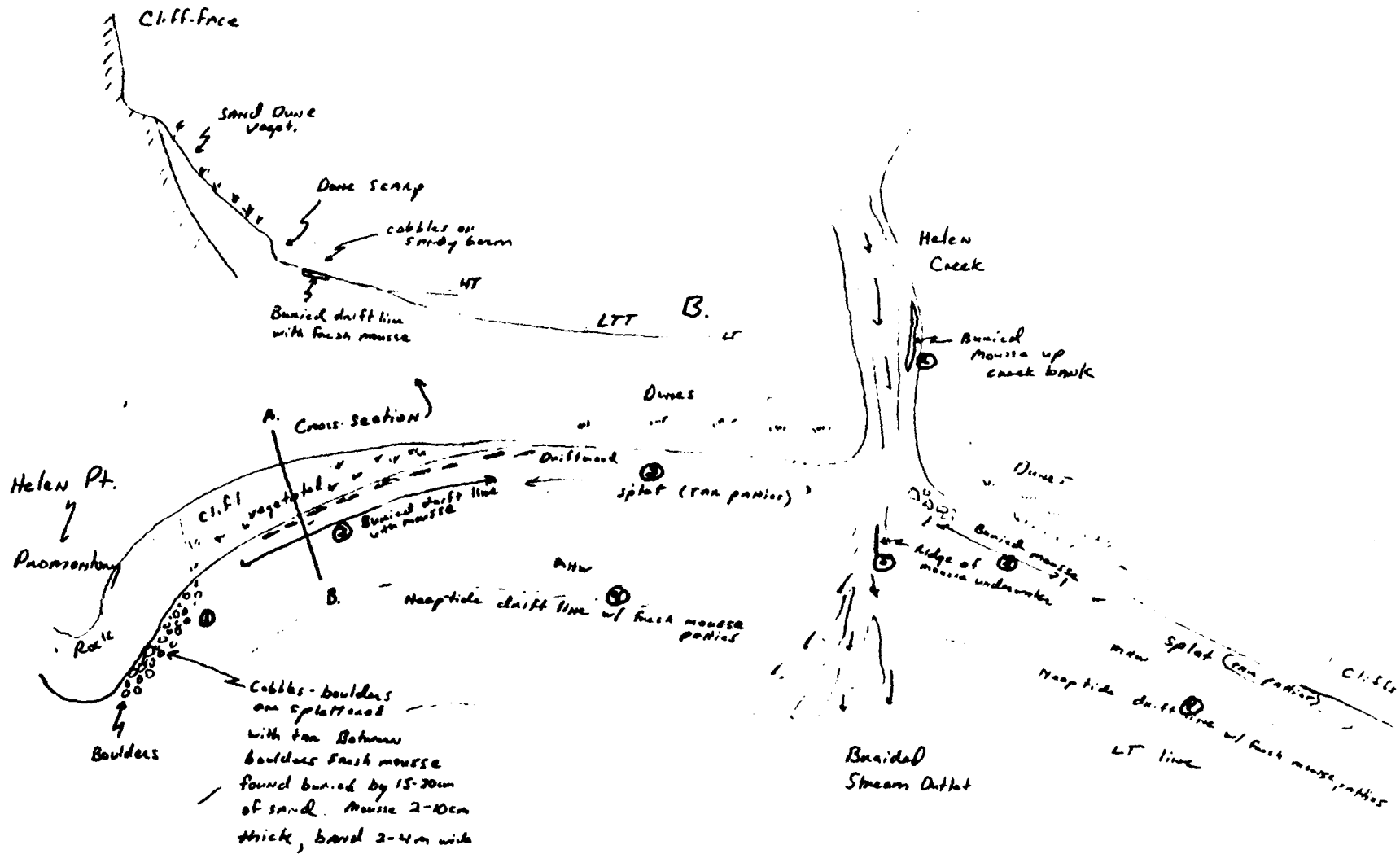
Total TYPE A: 800 m
 Total TYPE B: 200 m
 Total TYPE A/B: 100 m

OIL WEATHERING

Fresh:	<u> </u> %	SU/SP/H/M/L
Mousse:	<u>10</u> %	SU/SP/H/M/L
Weathered Mousse:	<u>40</u> %	SU/SP/H/M/L
Asphalt Mousse:	<u> </u> %	SU/SP/H/M/L
Tar:	<u>50</u> %	SU/SP/H/M/L

COMMENTS

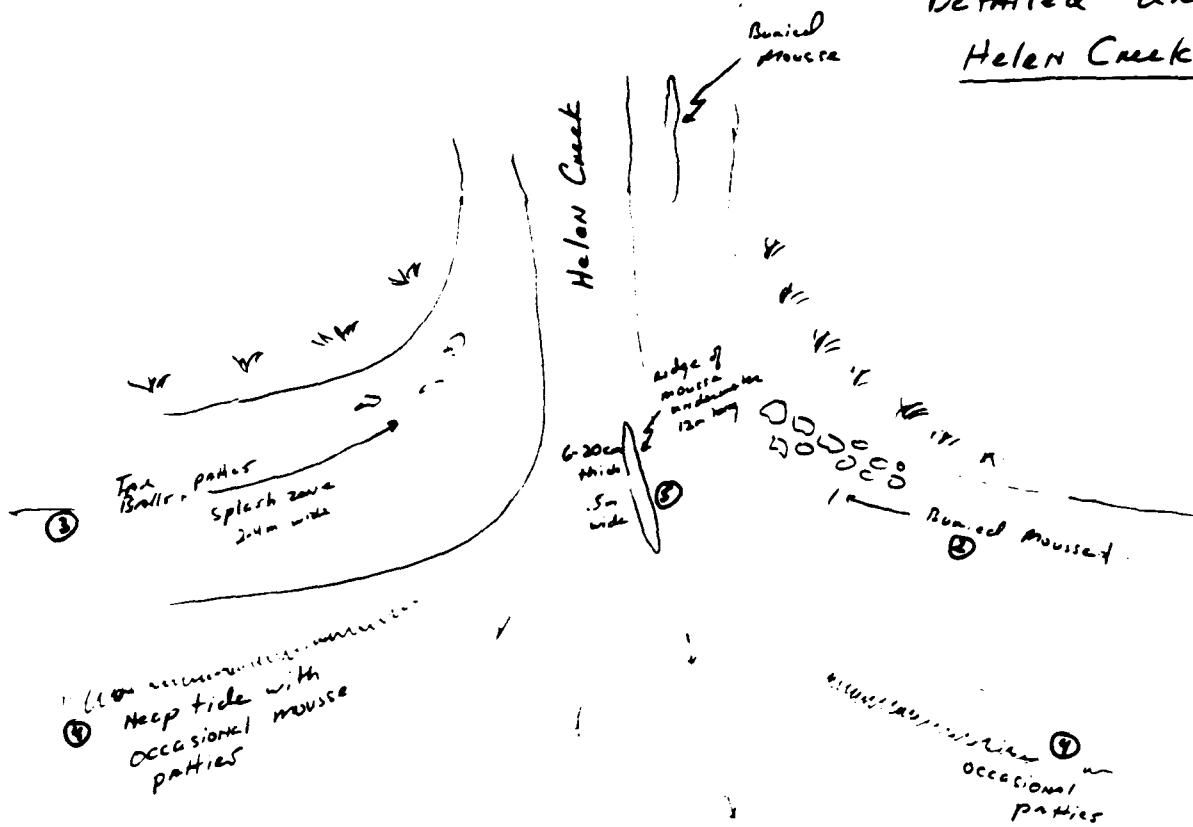
Details given on accompanying maps



ACE 8709533

Map View

Detailed drawing of Helen Creek Mouth



ECOLOGICAL EVALUATION

LOCATION: PWAVE BAY, BEHAROF NATIONAL MONUMENT, SHELKOF STRAIGHT SITE: PWAVE BAY OBSERVER: S. BLUESTONE
 LOCATION PREFIX: PB SEG. NO.: 16 LENGTH: 1200 (M)
 DATE: 7/9/89 TIME (HHMM): 1250-1430 TIDE HT.: ~0.79 - ~1.26 (M)
 OILED ZONE: (Splash High) Medium Low (LIGHT TO MOD. MOUSSE + TAR BALLS & BURIED OIL)
 SUBSTRATUM: (Rocks Boulder Cobble Gravel Sand Mud)

LIVE BIOTA

Fucus (algae): Patchy (Y/N) Contin. (Y/N) Dense (Y/N) Sparse (Y/N) None (Y/N)
 ALTHOUGH PRESENT, NEVER DENSE. Endocladia sp. dominant, in L. 70M ITZ, SOME TRACE Fucus sp. and other unidentified Phaeophytes.

Mytilus (Mussels): Patchy (Y/N) Contin. (Y/N) Dense (Y/N) Sparse (Y/N) None (Y/N) ^{LOCALLY}
 VERY FEW VISIBLE ABOVE L. ITZ, SOME IN ROCKY HEADLAND AREAS AND LATE TIDE TIDEPOOLS

Balanus (Barnacles): Patchy (Y/N) Contin. (Y/N) Dense (Y/N) Sparse (Y/N) None (Y/N)
 DOMINANT B. glandula forming a "band" in L. 10M ITZ.

Littorina
 Patchy (Y/N) Contin. (Y/N) Dense (Y/N) Sparse (Y/N) None (Y/N) ^{LOCALLY}
 FOUND THROUGHOUT ZONE ON DECOMPOSING ALGAL DETRITUS AND ROCKY TIDAL SUBSTRATE. SPARSE IN AREA OF HELEN CREEK DRAINAGE

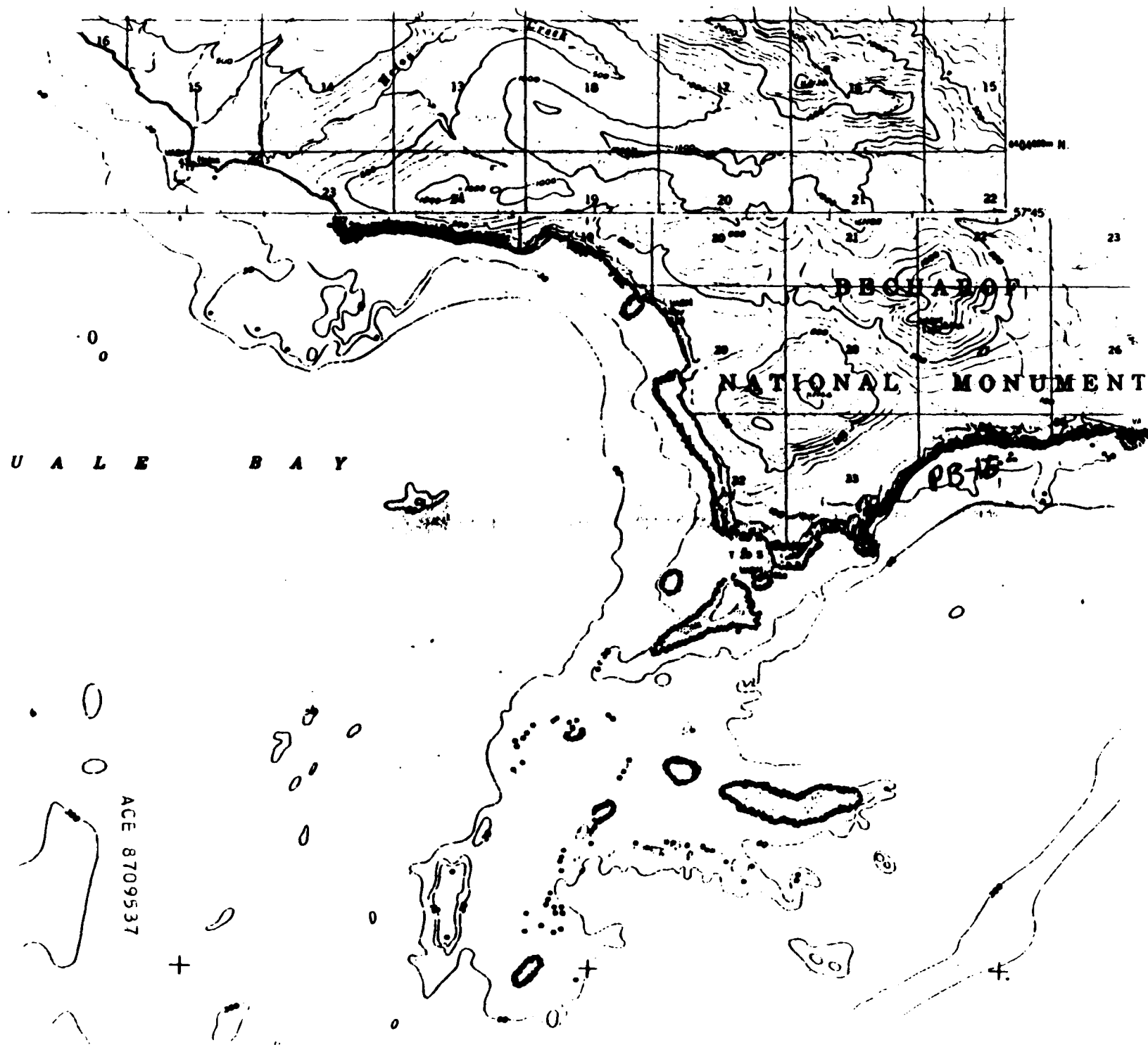
Limpets: Patchy (Y/N) Contin. (Y/N) Dense (Y/N) Sparse (Y/N) None (Y/N) ^{LOCALLY}
 LIMITED TO TIDE POOLS IN HEADLAND L. 10M ITZ.

OTHER OBSERVATIONS: MOUSSE AND SPILT FOUND U. LIGHT TO LOCALLY MOD. NEAR ~100M EAST OF HELEN CREEK MSW, A BAR PARALLEL TO STREAM
AREAS OF SUBMERGED MOUSSE. BURIED WET MOUSSE AND TARRY OIL THROUGHOUT UPPER ITZ / SPLASH ZONE, WITH CONCENTRATION NEAR DRAINAGE OF HELEN CREEK
 CLEANUP PRECAUTIONS: CLEAN-UP SHOULD PROCEED IMMEDIATELY, AS HELEN CREEK IS ANADROMOUS, AND SALMON ARE DUE TO RUN SOON.

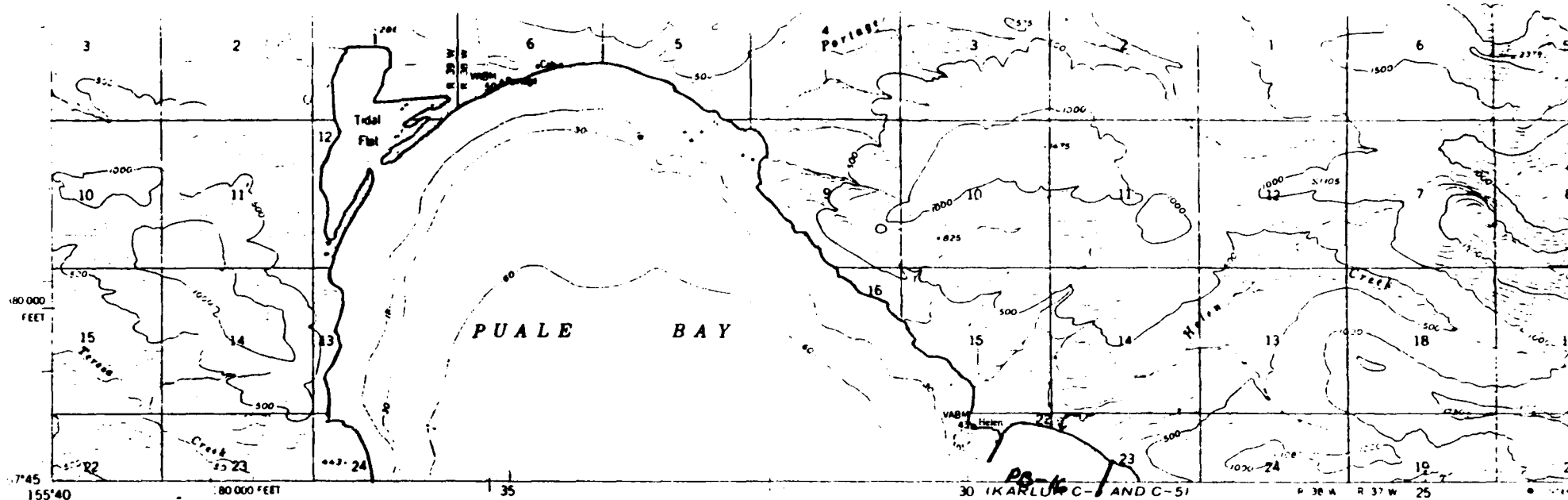
MAMMALS: Otters _____ Harbor Seals _____ Sea Lions _____ Whales _____
 other CARIBOU AND BROWN BEAR, AROUND HELEN CREEK WITH ~5 TRAY

BIRDS: BAUD EAGLES, GULLS, PETRELS AND OTHER UNID. SPP. ^{~5 TRAY} _{FOUND}

GENERAL OBSERVATIONS: CLEAN-UP HERE IS NECESSARY AND SHOULD BE EXPEDITED. CREWS SHOULD DIG AROUND FOR BURIED OIL TYPES IN WITZ AND DRIFT ZONE, IMMEDIATELY EAST OF HELEN CREEK.



ACE 8709537



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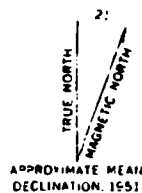
Topography by photogrammetric methods from aerial photographs taken 1951. Map not field checked.

Selected hydrographic data compiled from USC&GS Chart 8556 (1952) (1:350,000 scale), survey H-7195 (1947), and from aerial photographs. This information is not intended for navigational purposes.

Universal Transverse Mercator projection, 1927 North American datum, 10,000 foot grid based on Alaska coordinate system, zone 5, 1000 meter Universal Transverse Mercator grid ticks, zone 5, shown in blue.

Land lines represent unsurveyed and unmarked locations predetermined by the Bureau of Land Management, Folio S 22, Seward Meridian.

Swamps, as portrayed indicate only the wetter areas, usually of low relief, as interpreted from aerial photographs.



SCALE 1" = 1 MILE
DASHED LINES REPRESENT 50 FOOT CONTOURS
DATUM IS MEAN SEA LEVEL
DEPTH CURVES IN FEET - DATUM IS MEAN LOWER LOW WATER
SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER
THE AVERAGE RANGE OF TIDE IS APPROXIMATELY 10 FEET

CONTOUR INTERVAL 100 FEET

DASHED LINES REPRESENT 50 FOOT CONTOURS

DATUM IS MEAN SEA LEVEL

DEPTH CURVES IN FEET - DATUM IS MEAN LOWER LOW WATER

SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER
THE AVERAGE RANGE OF TIDE IS APPROXIMATELY 10 FEET



FOR SALE BY U. S. GEOLOGICAL SURVEY
FAIRBANKS, ALASKA 99701, DENVER, COLORADO 80225, OR WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

*Helen Creek empties into
the ocean toward the
southeastern portion of
the beach*

ACE 870953B

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/09/89

SHORELINE SEGMENT K10-7-PB-17

LOCATION: (see enclosed map) East central section of Puale Bay

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

Recommended Cleanup Activity(ies):

-Manual removal (sorbents) of oil from around boulders in the areas of greatest contamination.

Priorities/Considerations: Class 3-B

-Clean before storms remobilize mousse.

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 *

Date: 7/6/89

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 8709539

SHORELINE OIL EVALUATION

Date: 9 July 1989 / Time: 14:30 - 15:10
 Surveyed From: Foot/Boat/Helio/Plane

Observer: DUNCAN M. FITZGERALD
 Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

Location: East-central Puget Bay Segment ID: K-10-7-PB-17
 Segment Length: 1200 m. Access: Vehicle/Boat/Barge/Helio/Float Plane
 Access Restrictions: Cliff coast boulder beach, must walk to area

SHORELINE

Shoreline Type: SPI/BEA/COV/HLD/STRT Slope: Lo/Med/Hi/Vert
 Wave Exposure: High/Med/Low
 Sediment: B 100 % / C % / P % / G&S % / M % / R %

OIL

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

OIL DISTRIBUTION

Continuous % of Segment 20 SU/SP/H/M/L H/M/L/VL
 Sporadic % of Segment 80 SU/SP/H/M/L H/M/L/VL

Total	Length(m)	Width(m)	Thickness >1cm:	
Very light:	<u>900</u>	<u>2-4</u>	<u>3-15</u> cm	SU/ <u>SP/H</u> /M/L
Light:	<u>100</u>	<u>2-4</u>	Penetration/Rework: <u> </u> cm	SU/SP/H/M/L
Moderate:	<u>200</u>	<u>2-6</u>	Burial Depth: <u> </u> 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: <u> </u> %		SU/SP/H/M/L
"Free" Oil: <u>15</u> %		SU/ <u>SP/H</u> /M/L
Splattered: <u>85</u> %	H/M/L/VL	SU/ <u>SP/H</u> /M/L
Coated: <u> </u> %	H/M/L/VL	SU/SP/H/M/L
Pancakes/Balls: <u> </u> %		SU/SP/H/M/L

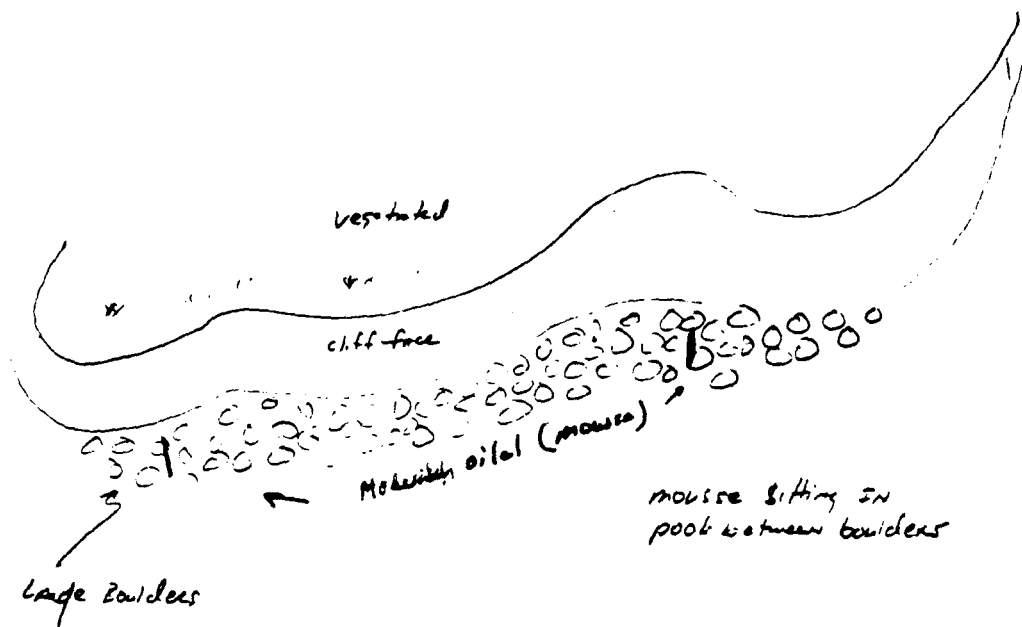
Preliminary Cleanup Est.

Total TYPE A: 300 m
 Total TYPE B: m
 Total TYPE A/B: m

OIL WEATHERING

Fresh: <u> </u> %	SU/SP/H/M/L
Mousse: <u>20</u> %	SU/ <u>SP/H</u> /M/L
Weathered Mousse: <u> </u> %	SU/SP/H/M/L
Asphalt Mousse: <u> </u> %	SU/SP/H/M/L
Tar: <u>80</u> %	SU/ <u>SP/H</u> /M/L

COMMENTS



ACE 8709541

ECOLOGICAL EVALUATION

PURE BAY, BERNARD
NATIONAL MONUMENT,
SOUTHERN CALIFORNIA

LOCATION: PURE BAY SITE: PURE BAY OBSERVER: S. BUECHNER

LOCATION PREFIX: PB SEG. NO.: 17 LENGTH: 1200 (M)

DATE: 7/9/89 TIME (HHMM): 130-150 TIDE HT.: ~1.39 - ~1.65 (M)

OILED ZONE: Splash High Medium Low (SHEETS OF SPILT AND MOUSSE POOLS + BALS)

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)
mainly Endocladia sp. in U to M ITZ, w/ Postelsia sp. visible in LITZ.
Washed-up periwinkle sp. frags.

Mytilus (Mussels): Patchy (Y/N) Contin. (Y/N) Dense (Y/N) Sparse (Y/N) None (Y/N)
THREE IN LITZ → STEEP ROCKY GRADIENT, MYTILUS ARE MAINLY SUBMERGED
IN LITZ POOLS.

Balanus (Barnacles): Patchy (Y/N) Contin. (Y/N) Dense (Y/N) Sparse (Y/N) None (Y/N)
SPREAD IN BAND ACROSS M-LITZ, JUST BELOW SPLASH ZONE
Balanus.

Littorina
Patchy (Y/N) Contin. (Y/N) Dense (Y/N) Sparse (Y/N) None (Y/N)
ABUNDANT IN DENSE PATCHES IN POOLS AND FOUND COMBATING
W/ BRANUS. OBSERVED COVERED BY OIL, AND MIGRATING ACROSS OIL-SPAT.

Limpets: Patchy (Y/N) Contin. (Y/N) Dense (Y/N) Sparse (Y/N) None (Y/N)
LIMITED TO LITZ, AND FOUND IN INTERSTITIAL SPACES BETWEEN
LARGE BOULDERS.

OTHER OBSERVATIONS: SHEETLIKE SPILT AND MOUSSE IN POOLS; HIGH ENERGY
INTERIOR ENVIRONMENT WOULD ACCOMMODATE PHYSICAL IMPACT OF CLEAN-UP.

CLEANUP PRECAUTIONS: CAREFUL NOT TO RE-SUSPEND OIL. IT'S PRESENT
IN LARGE AREA SPILT ZONES ABOVE PRODUCTIVE ITZ. DON'T REINTRODUCE
CONTAMINANTS TO U-M-LITZ. HARD TO ACCESS IN ROUGH SEAS
VIA BOAT.

MAMMALS: Otters Harbor Seals X Sea Lions Whales
Other

BIRDS: Gulls + Ravens

GENERAL OBSERVATIONS: STEEP SEA CLIFFS FORMED FROM BEDROCK, AND
BLOCK FAILURES HAVE FORMED BOULDER SUBSTRATE. HIGH ENERGY/
WAVE IMPACT ZONE.

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/09/89

SHORELINE SEGMENT K10-7-PB-18

LOCATION: (see enclosed map) Southeast Puale Bay

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

Recommended Cleanup Activity(ies):

-No cleanup recommended due to very sporadic presence of very light splat tarring on boulders and cobbles. 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.


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: 9-5-4 Time: 15:10-17:40
Surveyed From: Foot/Boat/Helio/Plane

Observer: Duncan M. Fitzgerald
Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

Location: Southeast Puale Bay Segment ID: 1C-10-7-PB-18
Segment Length: 4800 m. Access: Vehicle/Boat/Barge/Helio/Float Plane
Access Restrictions: vertical cliffs in many sections and beach can only be walked into.

SHORELINE

Shoreline Type: SPI/SEA/COV/HLD/STRT Slope: Lo/Med/Hi/Vert
Wave Exposure: High/Med/Low
Sediment: B 40 % / C 25 % / P 10 % / G&S 10 % / M % / 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 SU/SP/H/M/L H/M/L/VL
Sporadic % of Segment 4% SU/SP/H/M/L H/M/L/VL

Total	Length(m)	Width(m)	Thickness >1cm:	cm	SU/SP/H/M/L
Very light:	<u>200</u>	<u>2-4</u>	Penetration/Rework:	<u> </u> cm	SU/SP/H/M/L
Light:	<u> </u>	<u> </u>	Burial Depth:	<u> </u> cm	SU/SP/H/M/L
Moderate:	<u> </u>	<u> </u>			
Heavy:	<u> </u>	<u> </u>			

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:	<u> </u>	SU/SP/H/M/L
Splattered:	<u>100</u>	SU/ <u>SP</u> / <u>H</u> / <u>M</u> / <u>L</u>
Coated:	<u> </u>	SU/SP/H/M/L
Pancakes/Balls:	<u> </u>	SU/SP/H/M/L

H/M/L/VL
H/M/L/VL

Preliminary Cleanup Est.

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

OIL WEATHERING

Fresh:	%	SU/SP/H/M/L
Mousse:	<u> </u>	SU/SP/H/M/L
Weathered Mousse:	<u> </u>	SU/SP/H/M/L
Asphalt Mousse:	<u> </u>	SU/SP/H/M/L
Tar:	<u>100</u>	SU/SP/H/M/L

COMMENTS

Wave energy in this region will cause abrasion
of the splattered boulders.

ECOLOGICAL EVALUATION

LOCATION: Puake Bay Belharof
NATIONAL MONUMENT, SHELIKOF STRAIT SITE: Puake Bay OBSERVER: S. BLUESONE
 LOCATION PREFIX: PB SEG. NO.: 18 LENGTH: 4800 (M)
 DATE: 7/9/89 TIME (HHMM): 150-1710 TIDE HT.: ~1.65 - ~3.63 (M)
 OILED ZONE: Splash High Medium Low (VERY LIGHT SPAT IN SPLASH ZONE)
 SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y^{locally} N Contin. Y^{locally} N Dense Y^{locally} N Sparse Y^{locally} N None Y^{locally} N
Sandy coves and rocky promontories -> dominant Endocladia sp. w/
trace fucus sp. and small other filamentous phaeophytes

Mytilus (Mussels): Patchy Y^{locally} N Contin. Y^{locally} N Dense Y^{locally} N Sparse Y^{locally} N None Y^{locally} N
Found in low abundances in rocky ITZ (lower)

Balanus (Barnacles): Patchy Y^{locally} N Contin. Y^{locally} N Dense Y^{locally} N Sparse Y^{locally} N None Y^{locally} N
Found in rocky headland and talus/rockfall beaches in
LTZ MITZ as a band. B. glandula dominant.

Littorina
 Patchy Y^{locally} N Contin. Y^{locally} N Dense Y^{locally} N Sparse Y^{locally} N None Y^{locally} N
Found cohabitating w/ Balanus sp. Locally dense populations in
poors + interstitial area, grazing on algal detritus.

Limpets: Patchy Y^{locally} N Contin. Y^{locally} N Dense Y^{locally} N Sparse Y^{locally} N None Y^{locally} N
Found in LTZ, and scarce in sandy cove

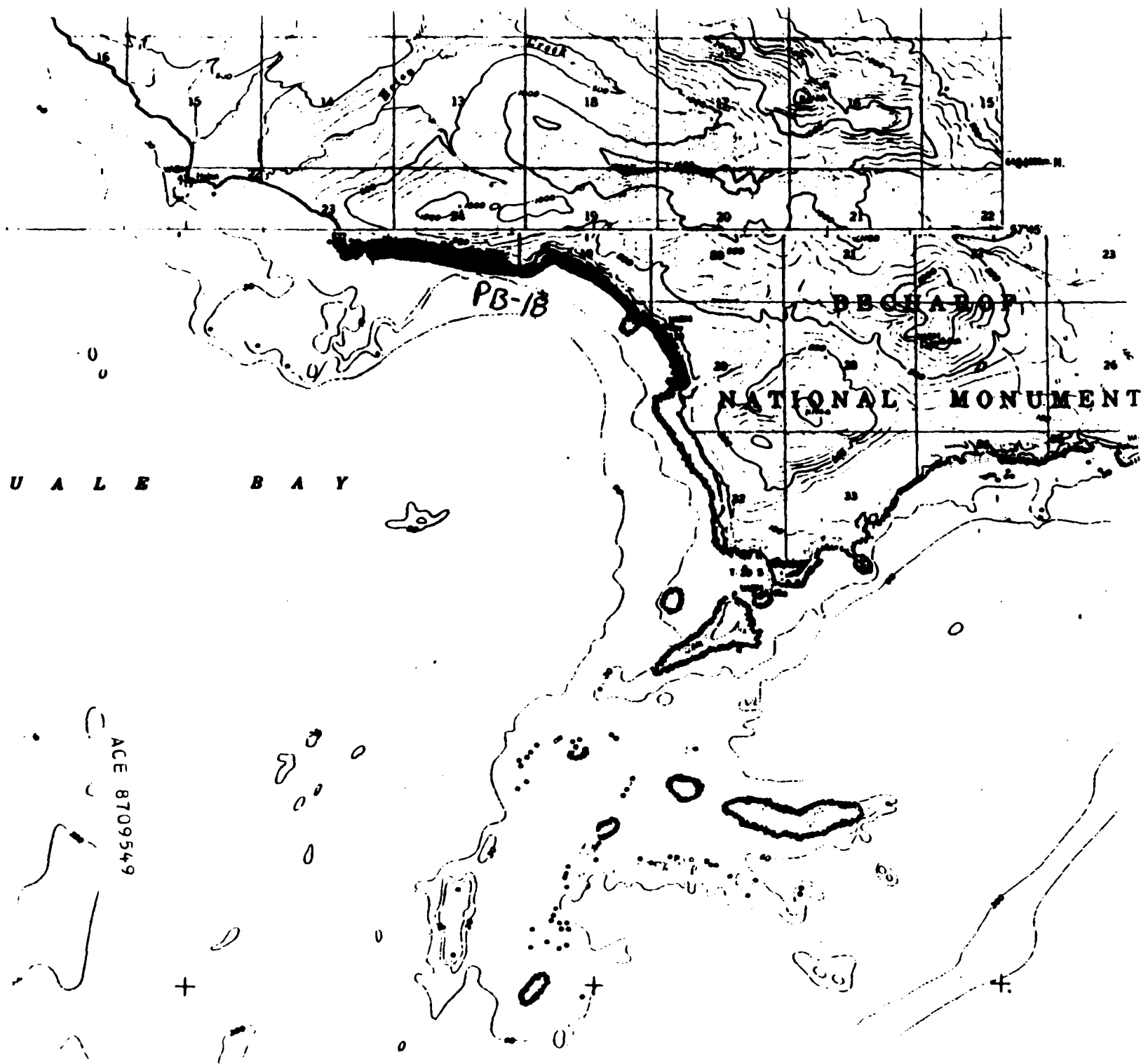
OTHER OBSERVATIONS: SECTION CONTAINS AREAS OF RECENTLY DEPOSITED
LARGE ANGULAR SANDSTONE BLOCK-FAILURES, Boulders
AND TALUS DERIVED FROM FAULTED SEDIMENTARY BEDROCK LIFTS. THUS LOW
DIVERSITY/ABUNDANCE DUE TO HIGH RATE OF EROSION/DEPOSITION. ALSO
WELL ESTABLISHED RITZ HEADLANDS AND SANDY BEACHES.

CLEANUP PRECAUTIONS: ACCESS SHOULD BE TO SANDY BEACH. LIMITED
CLEAN-UP, IF ANY.

MAMMALS: Otters Harbor Seals X Sea Lions Whales
 Other

BIRDS: BIRD EAGLES, Gulls (Larus sp.) AND RAVEN

GENERAL OBSERVATIONS: WELL DEVELOPED REEF AND Kelp BEDS APPROXIMATELY
20M OFF SHORE FROM COVE PART OF SECTION. ROCKY REEF WEST OF THAT.



ACE 8709549

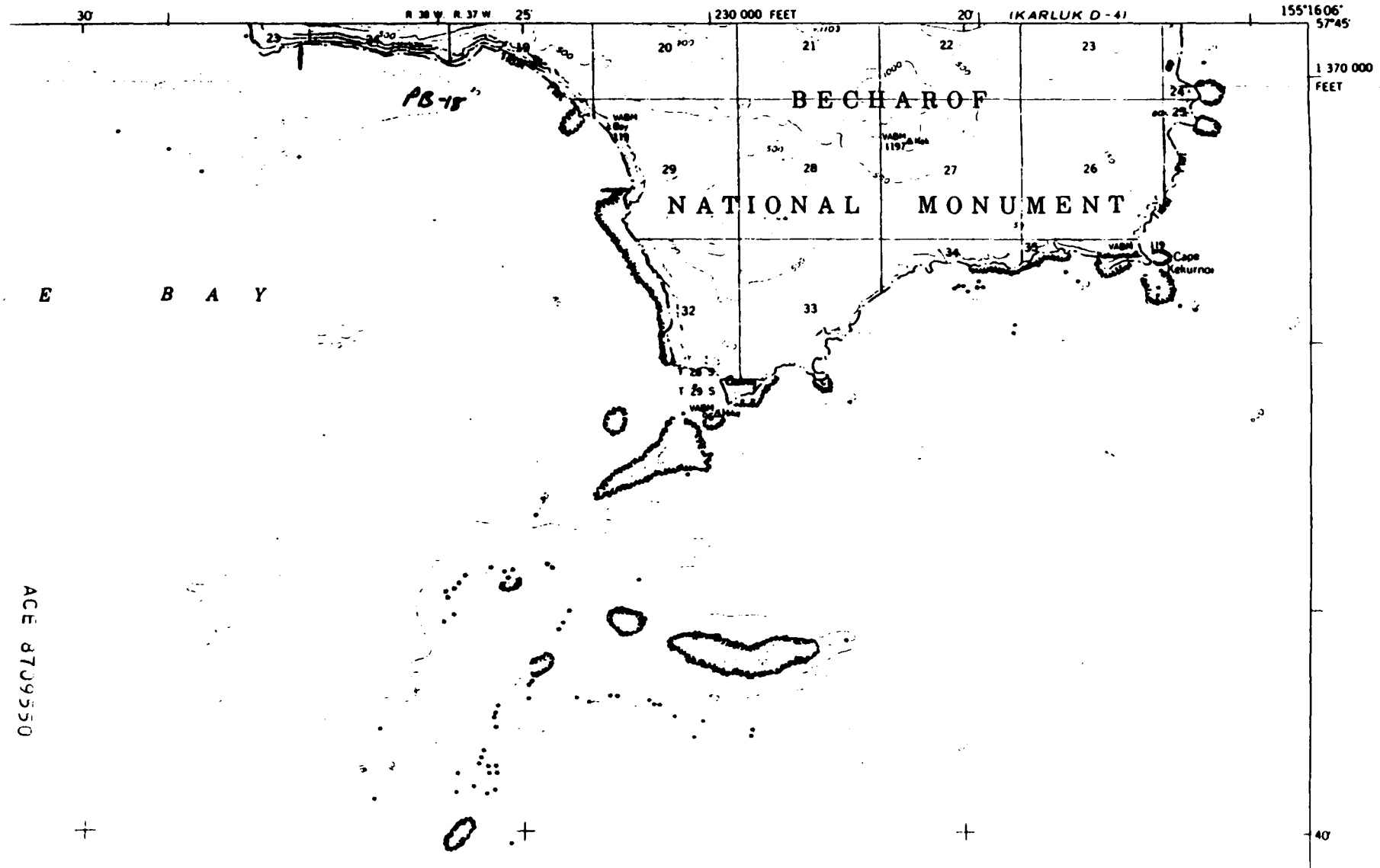
OFFICE COPY

KARLUK (C-4 AND C-5) QUADRANGLE
ALASKA

1:63,360 SERIES (TOPOGRAPHIC)

(KARLUK D-4)

(KARLUK D-4)



ACE 8709550

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/10/89

SHORELINE SEGMENT K10-7-PB-19

LOCATION: (see enclosed map) Southeast Puale Bay

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

Recommended Cleanup Activity(ies):

- Manual removal of free oil mousse from between boulders and cobbles at sites designated on the location map and detailed sketch maps.
- Manual removal of oiled driftwood.

Priorities/Considerations: Class 4-A

Ecological Constraints (from site survey):

- Care should be taken not to damage rocky intertidal ecosystems (tidepools) with high diversities and abundances of marine invertebrates.
- Cleanup should be directed at worst case areas highlighted herein.

Archaeological Constraints (from site survey):

- Inspection by an archaeological monitor is required in the southern half of the segment, including the small island offshore.
- 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: 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: 10 July 1989 / Time: _____
 Surveyed From: Foot/Boat/Helicopter/Plane

Observer: DUNCAN M. FITZGERALD
 Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

Location: Southeast shore of Puale Bay Segment ID: K-10-7-PB-19
 Segment Length: 4400 m. Access: Vehicle/Boat/Barge/Helicopter/Float Plane
 Access Restrictions: most of this section is only accessible by foot

SHORELINE

Shoreline Type: SPI/BEA/COV/HLD/STRT Slope: Lo/Med/Hi/Vert
 Wave Exposure: High/Med/Low
 Sediment: B 20 % / C 15 % / P 5 % / G&S 20 % / M % / R 40 %

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 56 SU/SP/H/M/L H/M/L/VL
 Sporadic % of Segment 54 SU/SP/H/M/L H/M/L/VL

Total	Length(m)	Width(m)	Thickness >1cm:	cm	SU/SP/H/M/L
Very light:	<u>2500</u>	<u>1-5</u>	Penetration/Rework:	cm	SU/SP/H/M/L
Light:			Burial Depth:	cm	SU/SP/H/M/L
Moderate:	<u>260</u>	<u>2-15m</u>			
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: 60 % SU/SP/H/M/L
 Splattered: 40 % 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

Preliminary Cleanup Est.

Total TYPE A: 2760 m
 Total TYPE B: _____ m
 Total TYPE A/B: _____ m

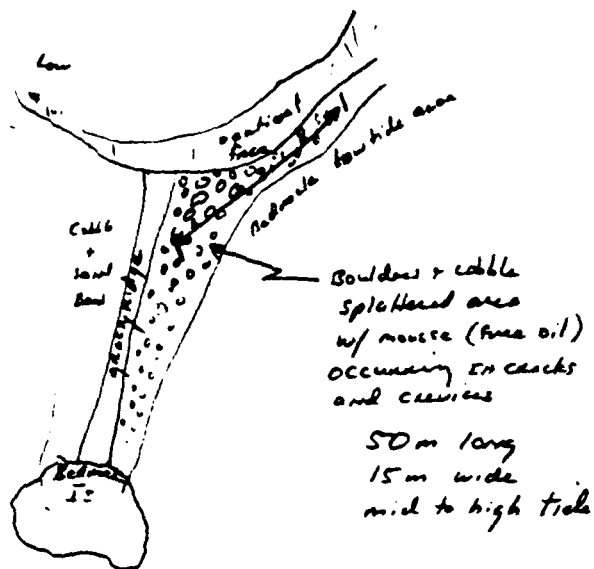
OIL WEATHERING

Fresh: _____ % SU/SP/H/M/L
 Mousse: 40 % SU/SP/H/M/L
 Weathered Mousse: _____ % SU/SP/H/M/L
 Asphalt Mousse: _____ % SU/SP/H/M/L
 Tar: 60 % SU/SP/H/M/L

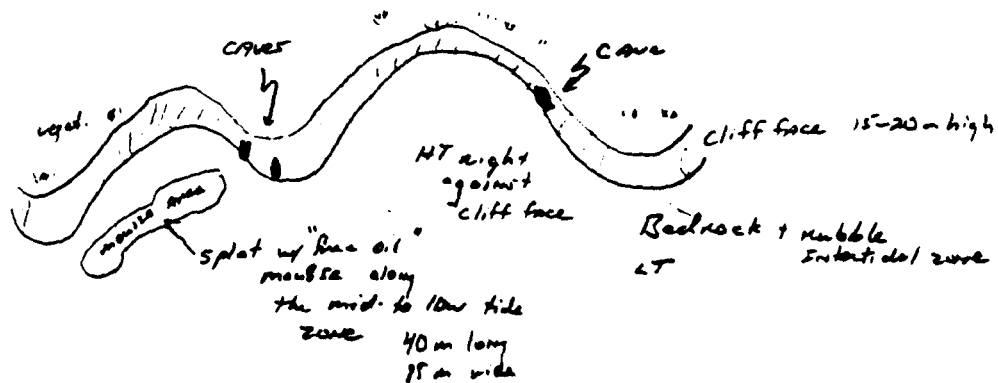
COMMENTS

Maps have been made of the worst areas

Map #4

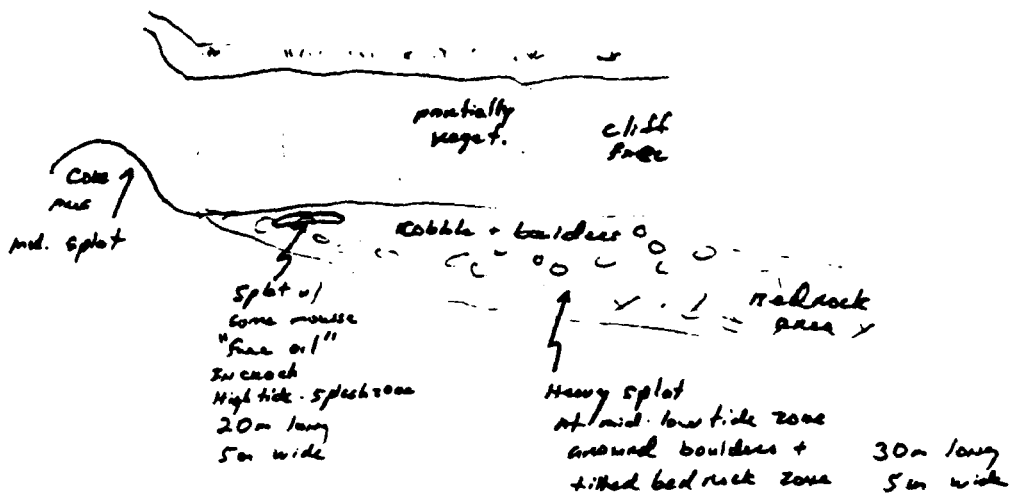


Map #5

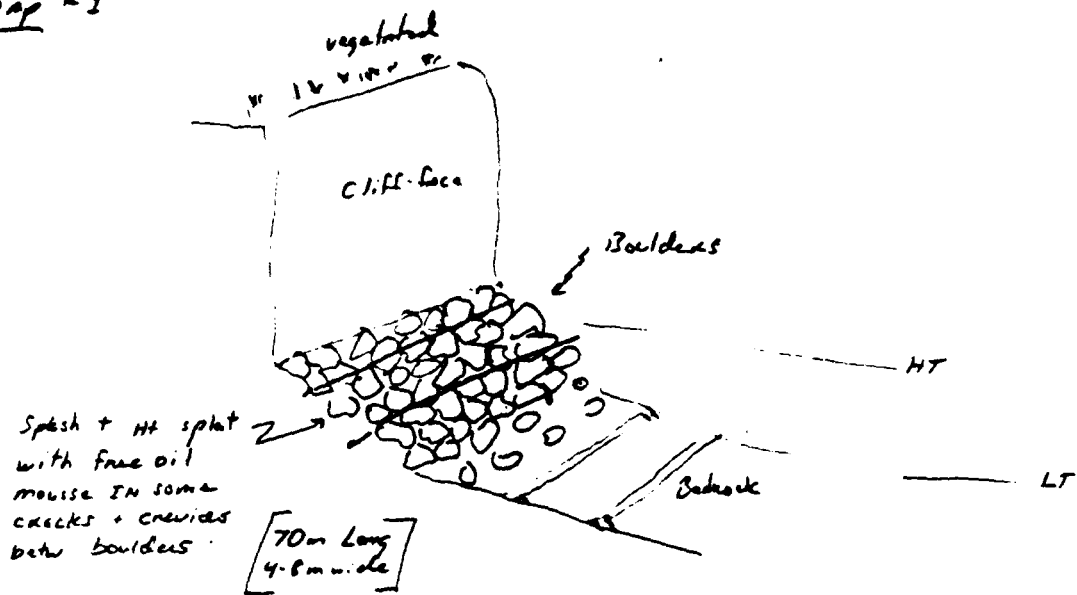


Map #6

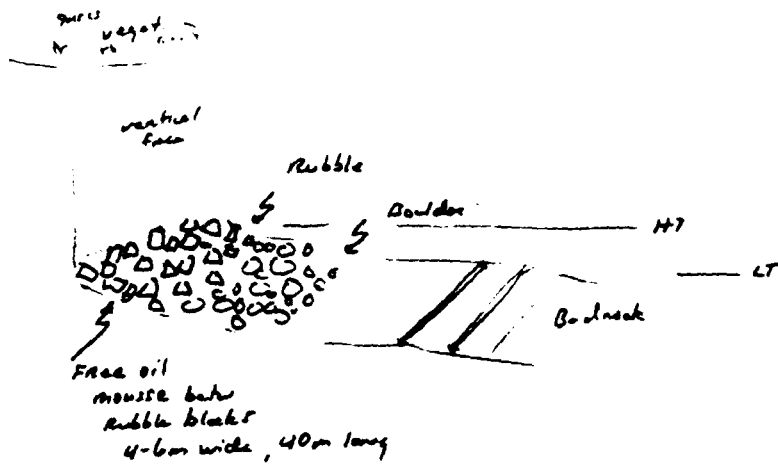
Island off
Cabin Pt.
South face



Map #1

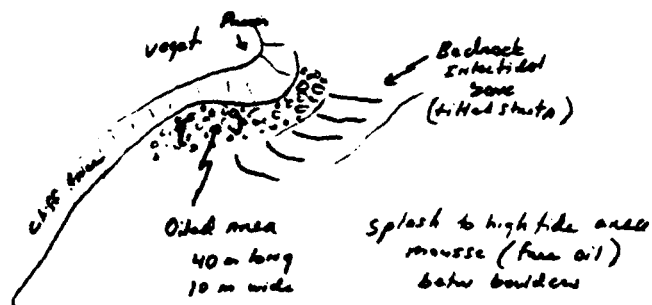


Map #2



Map #3

(Looking South)



ECOLOGICAL EVALUATION

LOCATION: ^{WESTERN PUKEBAY HEADLAND,}
~~BEACH OF NATIONAL MOUNTAIN~~
~~SHELLOF STRAIT.~~ SITE: WEST END PUKEBAY OBSERVER: S. BULLSTONE

LOCATION PREFIX: PB-19 SEG. NO.: 19 LENGTH: 4400 (M)

DATE: 7 / 10 / 99 TIME (HMM): 1140-1400 TIDE HT.: ~2.1m to ~4m (M)

OILED ZONE: Splash High Medium Low ^{LIGHT SPAT W/ SMALL PATCHES OF MOD SPAT + MOUSSE ON ISLAND}
^{LOCALLY}
SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy ^{LOCALLY} Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
^{LOCALLY}
^{SANDY COVES AND SEA COVES LACK FUCUS; DOMINANT R. I.T.Z. SPP IN U.I.T.Z - H.I.T.Z}
^{IS ENDOCODIA SP; SOME WITH LAMINARIA SP AND CHLOROPHYTES W LITZ. ALSO}
^{PERIDOPSIS SP. IN M-U.I.T.Z. LOCALLY.}

Mytilus (Mussels): Patchy ^{LOCALLY} Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
^{FOUND LOCALLY IN LITZ OF ROCKY MOUNTAINS AND IN BEDROCK POOLS.}
^{SCARCE. M. EDULE}

Balanus (Barnacles): Patchy ^{LOCALLY} Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
^{FORM BAND OF S. GLANDULA IN M-U.I.T.Z; R.I.T.Z; SOME LARGER Balanus}
^{SP IN LITZ.}

LIMNIA
~~SPAT~~
Patchy ^{LOCALLY} Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
^{LIMITED IN ABUNDANCE, YET COMMON IN LOWER I.T.Z. FOUND}
^{GRAZING.}

LIMNIA
~~SPAT~~
Patchy ^{LOCALLY} Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
^{LOCALLY V. DENSE GROVES OF L. STRAM IN WIDE SHALLOWS AND MOUNTAINS}
^{ON DETRITUS DOMINANTLY M-U.I.T.Z, THOUGH FOUND THROUGHOUT.}

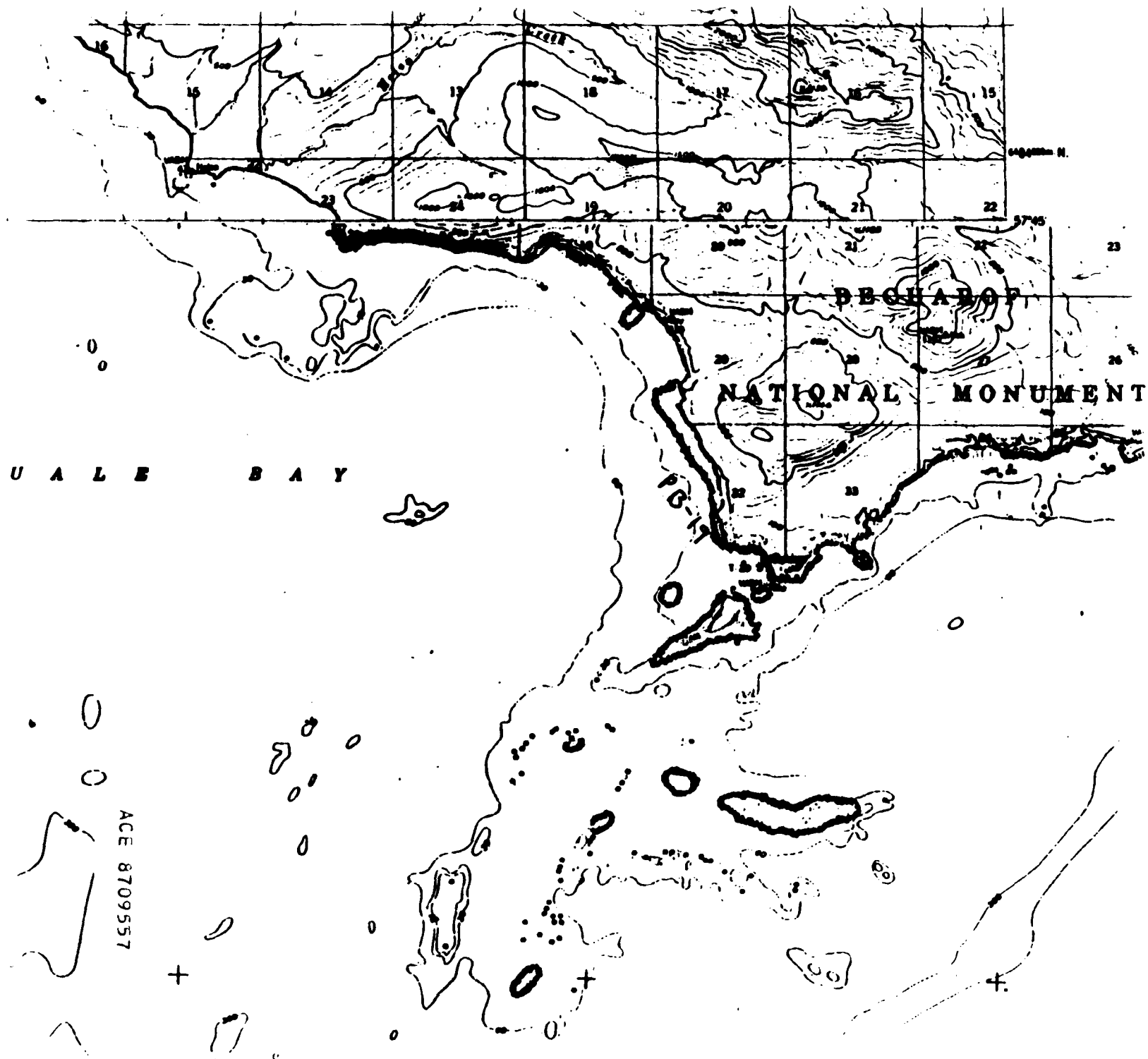
OTHER OBSERVATIONS: INTERIOR FORMED BY LOW & BEDROCK BEDDING PLANES
FORMING MANY TIDE POOLS & OFFSHORE REEFS + BACKSHORE CLIFFS. EXPOSED COASTLINE
TIDE POOLS W/ SPONGES, HERMIT CRABS, SCULPIN, ETC

CLEANUP PRECAUTIONS: ECOLOGICALLY WELL DEVELOPED COASTLINE; VERY EXPOSED
COASTLINE; CLEAN-UP SHOULD BE LIMITED TO "WORST-CASE" AREAS, IF ANY.

MAMMALS: Otters Harbor Seals Sea Lions Whales
Other CARIBOU TRACKS ON BEACH

BIRDS: NUMEROUS SHOREBIRDS NESTING IN AND ALONG ROCKY CLIFFS. ^{HISTIONICUS SP.}
^{PHALACROCORAX;}

GENERAL OBSERVATIONS: BROAD, EXPANSIVE ROCKY I.T.Z AND ^{CEPPHUS SP.}
LOCAL SANDY COVES. CLEAN-UP.



KARLU

IKARLUK D-41

IKARLUK D-41

1 370 000
FEET

NATIONAL MONUMENT

A L E B A Y

ACE 8709558

KODIAK SCAT
K10-8

COMPLETE NOV 22 1989

ACE 7964006

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/03/89

SHORELINE SEGMENT K10-8-DB-14

LOCATION: (see enclosed map) North mouth of Dry Bay to Cape

Aklek

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 8/03/89

Recommended Cleanup Activity(ies):

- Manual removal of tar balls and patties along seaweed and log strand on both sides of stream on S end of segment.
- Manual removal of oiled seaweed and small driftwood.
- Manually scrape oil spots off of larger logs.

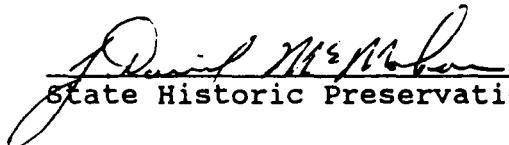
Priorities/ Considerations: Class 5-A

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.


State Historic Preservation Officer *

Date: 8/2/89

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

SHORELINE OIL EVALUATIONA. General

1. Date: 8/3/89 2. Time: 1115-1245 3. Observer: C. DILLON
4. Surveyed From: Foot/Boat/Helio/Plane 5. Weather: Sun/Cloud/Rain/Snow/Fog
6. Location: Mouth of Dry Bay N. to Cape Attek 7. Segment #: K10-8-DB-14
8. Length of shoreline segment: 10,900 yds 9. Tidal Stage $\pm$ 0 to +3 ft.
10. Access: Foot/Vehicle/Boat/Barge/Helio/Float Plane
11. Total Percentage of Segment Accessible: 15 %
12. Access Restrictions: Access on beach at S. end of segment. Wind and rocks make access difficult/unsafe by cliff areas.

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: E35 / C0 / P0 / G0 S 0 / M 0 / R 35
17. Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type: logs/seaweed

C. Oil Summary

18. Degree of Oiling: Heavy/Moderate/Light/Very Light/No Oil Observed
19. Area of Beach Impact: Width of Band: 2-6 yds
 Continuous: Total % of Segment 0
 Sporadic: Total % of Segment 25
 No Oil: Total % of Segment 75
20. Est. Oil Thickness where >1 in: 1 in 21. Est. Oil Penetration: 0 in
22. Pooled Oil: 0 % "Free" Oil: 0 % Coated: balls/patties H 0 / M 0 / L 0 VL 100 %
23. Fresh 0 % Mousse 0 % Weathered and Tar Formation: 100 %
24. Drift Debris Oiled? Yes/No/Sup/Up/Mid/Low Amount: 0 H/M/L

Comments:

Majority of segment is vertical cliffs with steep boulder slopes at their bases and small pocket beaches of cobble and sand which lie between the cliffs and vertical headlands. They are not easily or safely accessible due to high wind sheet and many offshore rocks.

There is a long, wide sand beach at the South end of the segment which is easily accessible to vessels and aircraft. The S end of the beach has a wide anadromous stream and a high and dynamic dune/berm. Along the berm to the grass line is a wide seaweed and log strand.

(Version July 30, 1989)

Page 2

SUPPLEMENTAL SHORELINE OIL EVALUATION25. Oil Type

Fresh	_____	3
Mousse	_____	3
Weathered	<u>50</u>	3
Tar	<u>50</u>	3
	<u>100</u>	3

26. Total Oil Coverage

	Length(yd)	Width (yd)
Very Light:	<u>100</u>	<u>2-6</u>
Light:	_____	_____
Moderate:	_____	_____
Heavy:	_____	_____

27. Oil Distribution

pooled/continuous
coating/ splat
cracks / crevices
patties (>10cm diameter)
balls (< 10cm diameter)
asphalt pavement

				Thick			Burial
SP	H	M	L	>1in	Length(yd)	Width(yd)	Depth
✓					<u>300</u>	<u>2-6</u>	<u>0</u>
✓					<u>300</u>	<u>2-6</u>	<u>0</u>

28. Preliminary Cleanup Est.Total TYPE A: 300 yds.Total TYPE B: 0 yds.

Total TYPE A/B: _____ yds.

29. Remobilization Potential: High/Medium/LowDOCUMENTATION:Map/Aerial photo marking segment boundaries AttachedVTR: Y/N Tape Number (s) NonePhotography: Y/N Roll Number (s) NoneAdditional Comments:

All oil is in the form of small tar balls and patties.
They are located along the debris strand for 300m north of the
stream on the large beach at the South end of the segment
No penetration found.

K 10-8

ECOLOGICAL EVALUATION

LOCATION: Oil Creek SITE: _____ OBSERVER: A. JAHNLOCATION PREFIX: DB SEG. NO.: 14 LENGTH: 9,000 (M)DATE: 3 Aug 89 TIME (HMM): 1112-1256 TIDE HT.: 0 to +1 (M)OILED ZONE: Splash High Medium LowSUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/NMytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/NBalanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/NLittorina

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

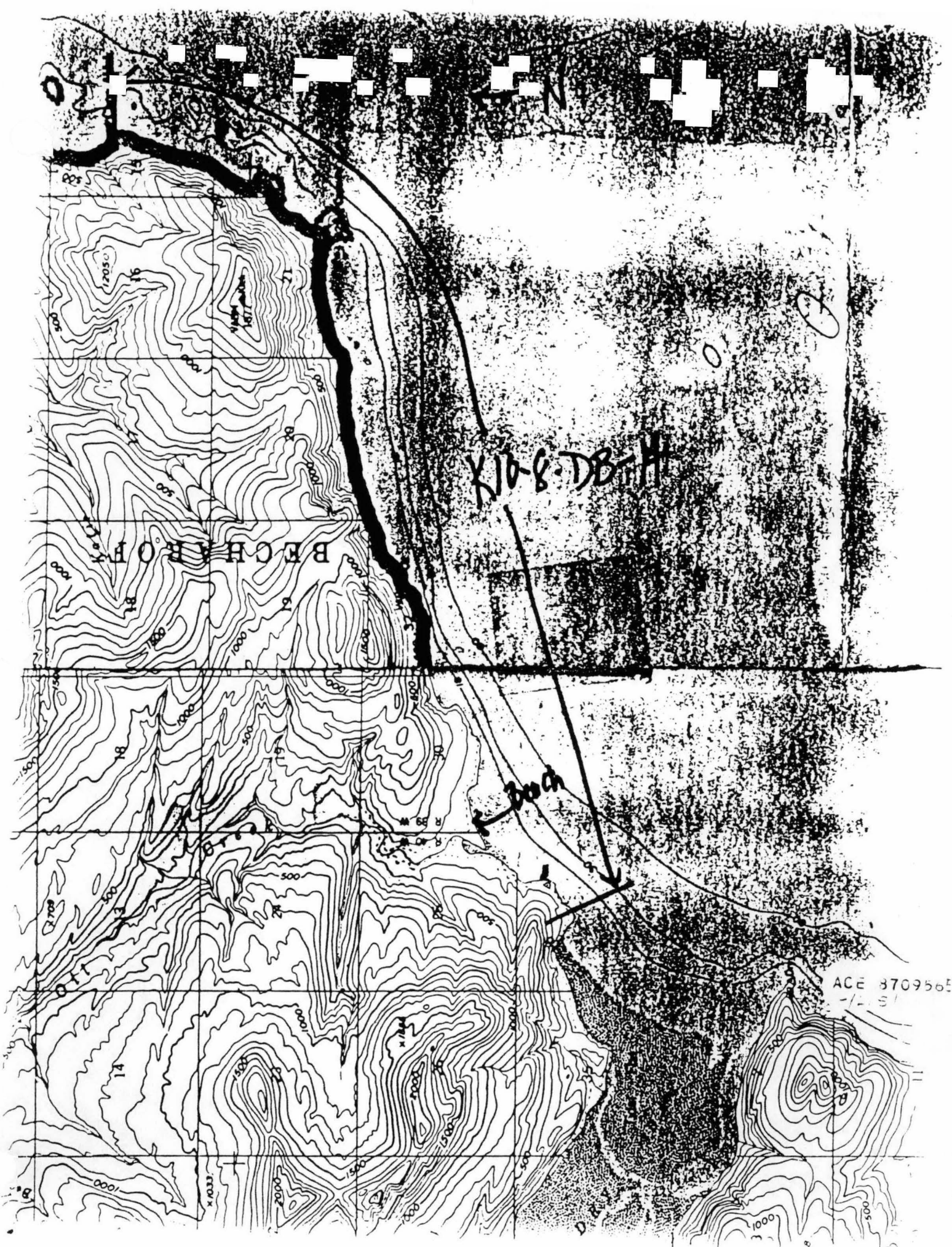
Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/NOTHER OBSERVATIONS: rocky areas not seen clearly; Abundant
bird fauna (flicked below), studied by USFWS @ Oil Creek Camp [Greg Thompson]

CLEANUP PRECAUTIONS: _____

MAMMALS: Otters _____ Harbor Seals _____ Sea Lions _____ Whales _____
Other 2 brown bearsBIRDS: red-tailed + pelagic cormorants, common + thick-billed Murres, horned + tufted puffins,
kit foxes + glaucous-winged gulls, eagles

GENERAL OBSERVATIONS: _____

mostly sea cliffs + some shrubs - one wide sandy beach + wetOil Creek



ACE 3709565

-1-51

517-426 01
KODIAK SCAT
- K10-9 -7

~~COMPLETE DEC - 8 1989~~

ACE 7964007

version July 23, 1989)

SHORELINE PRE CLEANUP REASSESSMENT

DATE 8/03/89 SHORELINE SEGMENT K10-9-DB-3R REASSESSMENT DATE 8/03

Observers: OG C. Dillon BIO A. Jahn ARCH S. Ludwig

Reason for Reassessment Initial assessment conducted 2 months
ago.

Revised Recommended Cleanup Activity(ies):

- No change from original assessment except oil previously re-
ported as "pooled" is now dried.

- Remove smaller pieces and more heavily oiled pieces of oiled
debris.

- Scrape oil spots off of larger logs that are only lightly
splattered.

Revised Ecological Constraints:

- No change from original assessment except no need for special
precautions regarding oiled dune grasses.

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.

Douglas Rege
State Historic Preservation Officer *

Date: 8/14/89

EXXON: David L. Murphy

Date: 8/16/89

FOSC: _____

Date: _____

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

ACE 8709500

(version 6/04/89)

SHORELINE CLEANUP PROGRAM

DATE 6/05/89 SHORELINE SEGMENT DB-1

LOCATION: (see enclosed map) West Shore of Dry Bay-Alaska
Alaska Peninsula

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 5/31/89

Recommended Cleanup Activity(ies):

- Manually remove mousse and oiled drift material from high tide line.
- Rake oily debris out of grass areas, however, take care not to remove dune grass.

Priorities Considerations:

- KISCC determined this area to be sensitive due to sea bird nesting colonies.

Ecological Constraints (from site survey):

Archeological Constraints (from site survey):

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

Charles G. Holmes
State Historic Preservation Officer *

Date: June 5, 1989

ISCC: _____

Date: _____

EXXON: _____

Date: _____

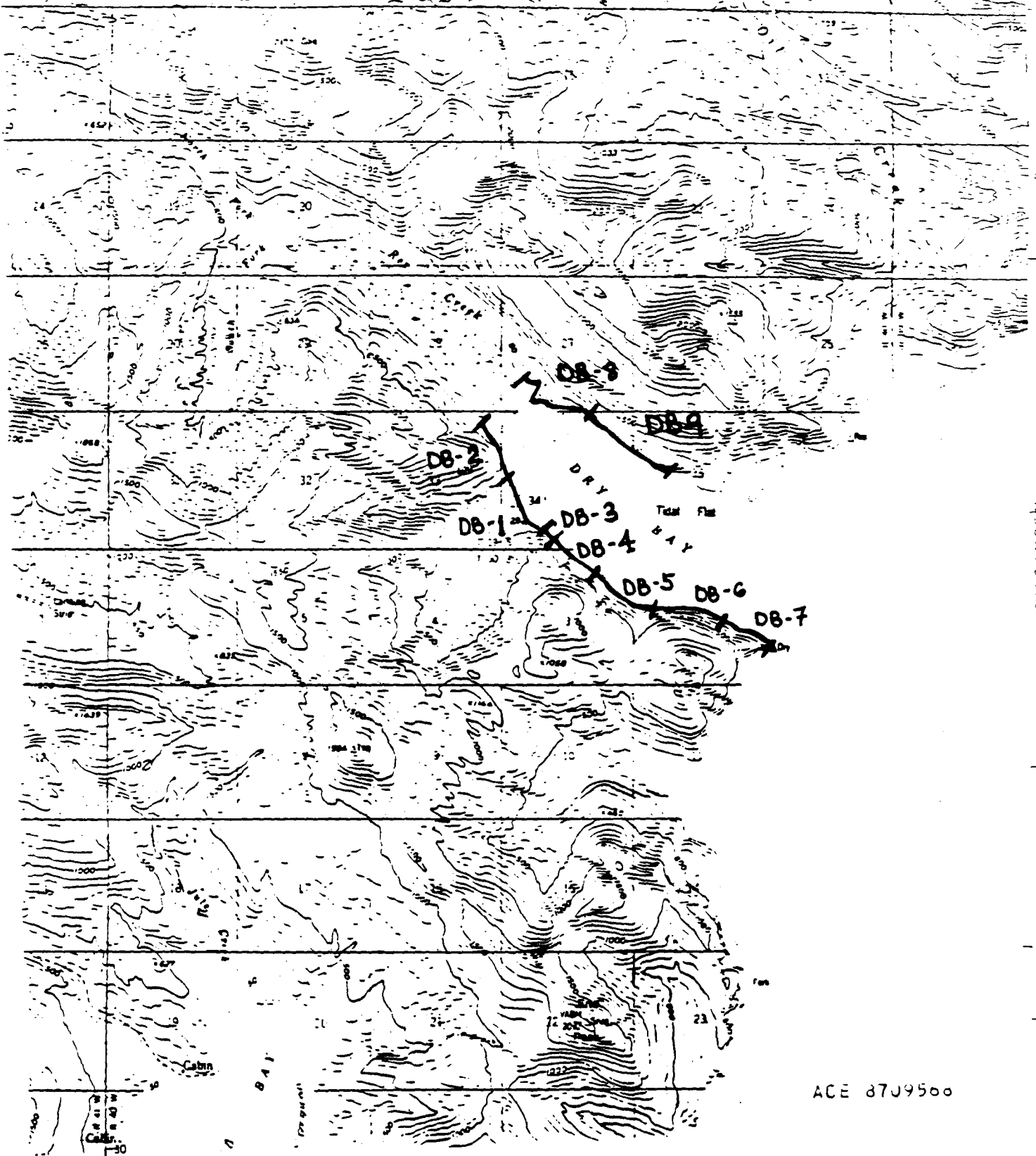
FOSC: _____

Date: _____

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

DRY BAY BLOCK (KODIAK)

- DB-1, DB-2, DB-3, DB-4, DB-5, -
DB-6, DB-7, DB-8, DB-9



IRARLIN C-4 AND C-6

-35-

ACE 87J9500

SHORELINE OIL EVALUATIONDate: 5/31/89 Time: 1545Observer: J. TAPLEYSurveyed From: Foot/Boat/Helio/PlaneWeather: Sun/cloud/Rain/Snow/Fog**LOCATION**LOCATION DRY BAY (west shore) SEGMENT NUMBER DB-1LENGTH OF SHORELINE SEGMENT: 875 mACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane**SHORELINE:**Shoreline Type: SPI/BEA/COV/HLD/STRTSlope: LANG/HANG/VERWave Exposure: High/Med/LowSediment: B5 / C5 / P10 / G20 / S60 / M / RDrift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type Beach wrack Drift wood**OIL**Degree of Oiling: Heavy/Moderate/Light/No Oil/UnobservedArea of Beach Impact: SU / SP / H / M / LContinuous: Y/N % of Segment 100 Width of Band: <1-15 mSporadic: Y/N % of Segment Est. Oil Thickness where > 1cm: 1-5 cm Est. Oil Penetration: cmPooled Oil: 0 % "Free" Oil: 0 % Coated: H / M / L 100 %Fresh 0 % Mousse 100 % Tar Formation: 0 %Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H/M/L**Comments:**

A <1.0-1.5m band of light mousse covering the high intertidal zone in a continuous band from a river at the SW end of segment towards the head of the Bay at the NW stream is the NW corner. The upper end of segment towards head of bay band is less continuous, patchy all over beach and onto the sand flat. Logs lightly oiled. Grass at NW corner also lightly oiled, take debris from grass, do not remove dune grass.

DOCUMENTATION:

Map/Aerial photo marking segment boundaries See Attached

VTR: Y/N Tape Number(s) N/A

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

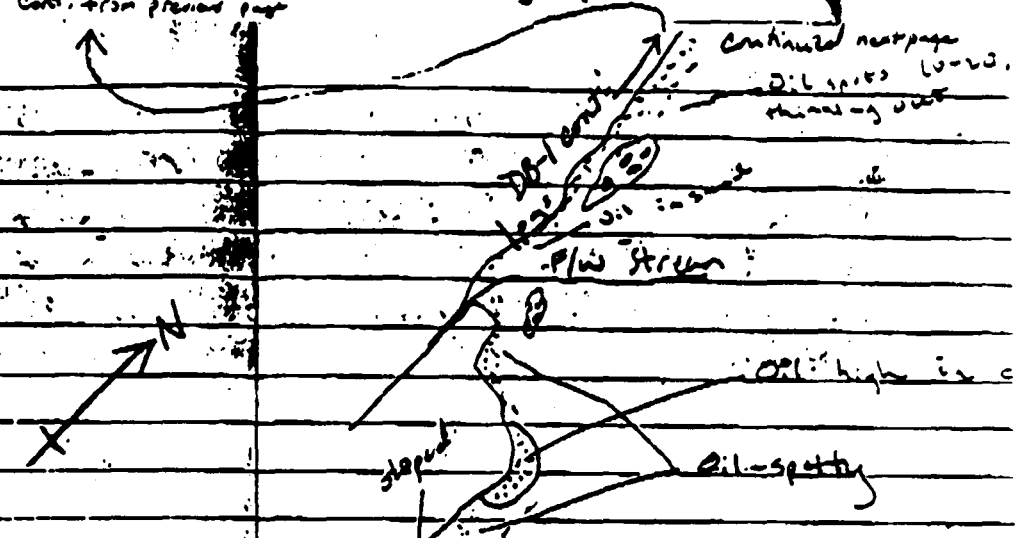
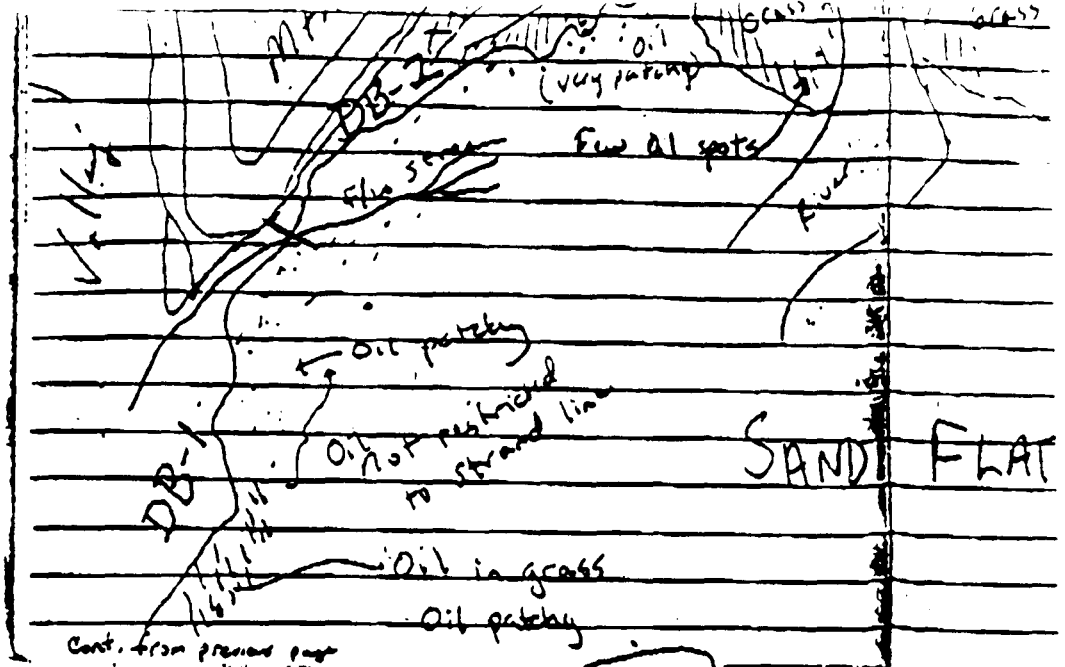
Sample Numbers Collected: N/A

ACE 8709570

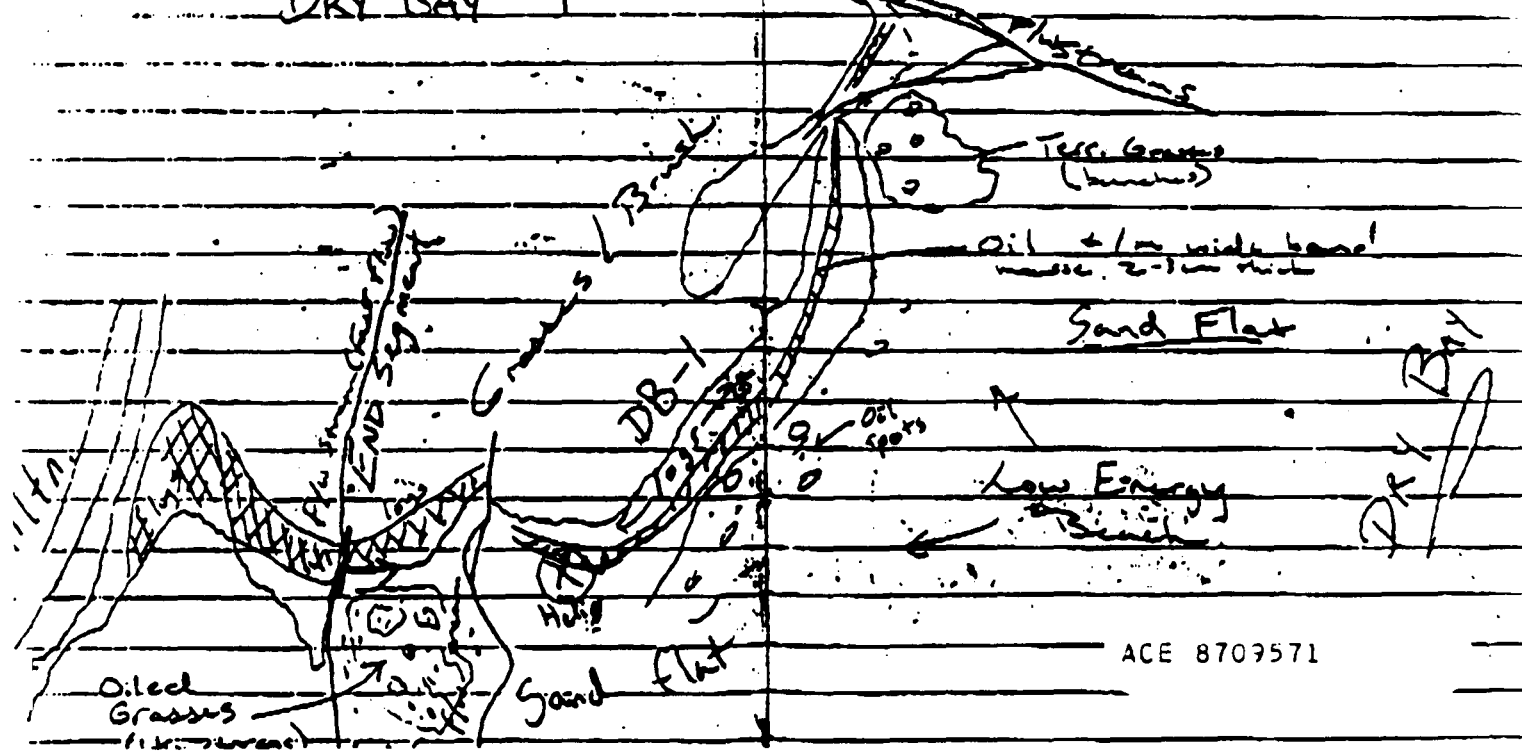
18357525 P.04

TO

JUN-02-1988 16:53 FROM



DRY BAY - I



ACE 8709571

LOCATION: DRY BAY SITE: _____ OBSERVER: D. McCORMICK
LOCATION PREFIX: DB SEG. NO.: 1 LENGTH: 875 (M)
DATE: 5/31/89 TIME (HMM): 1545 TIDE HT.: ~~1.0~~ 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

Fucus at strand line, oiled, being buried in sands - in mid low ITZ free of oil

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

Evidence of mytilus from scattered shell fragments - very sparse

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

Evidence of barnacles from shell fragments

Littorina

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

OTHER OBSERVATIONS: observed: bear and caribou tracks along high tide line; 3 caribou seen at north end head of bay; gull in area; dune grass oiled 1-5 cm high; no evidence of clam beds; 2 dead oiled birds at strand line.

CLEANUP PRECAUTIONS: during manual cleanup - avoid removing dune grass - just rake oily debris out of grass.

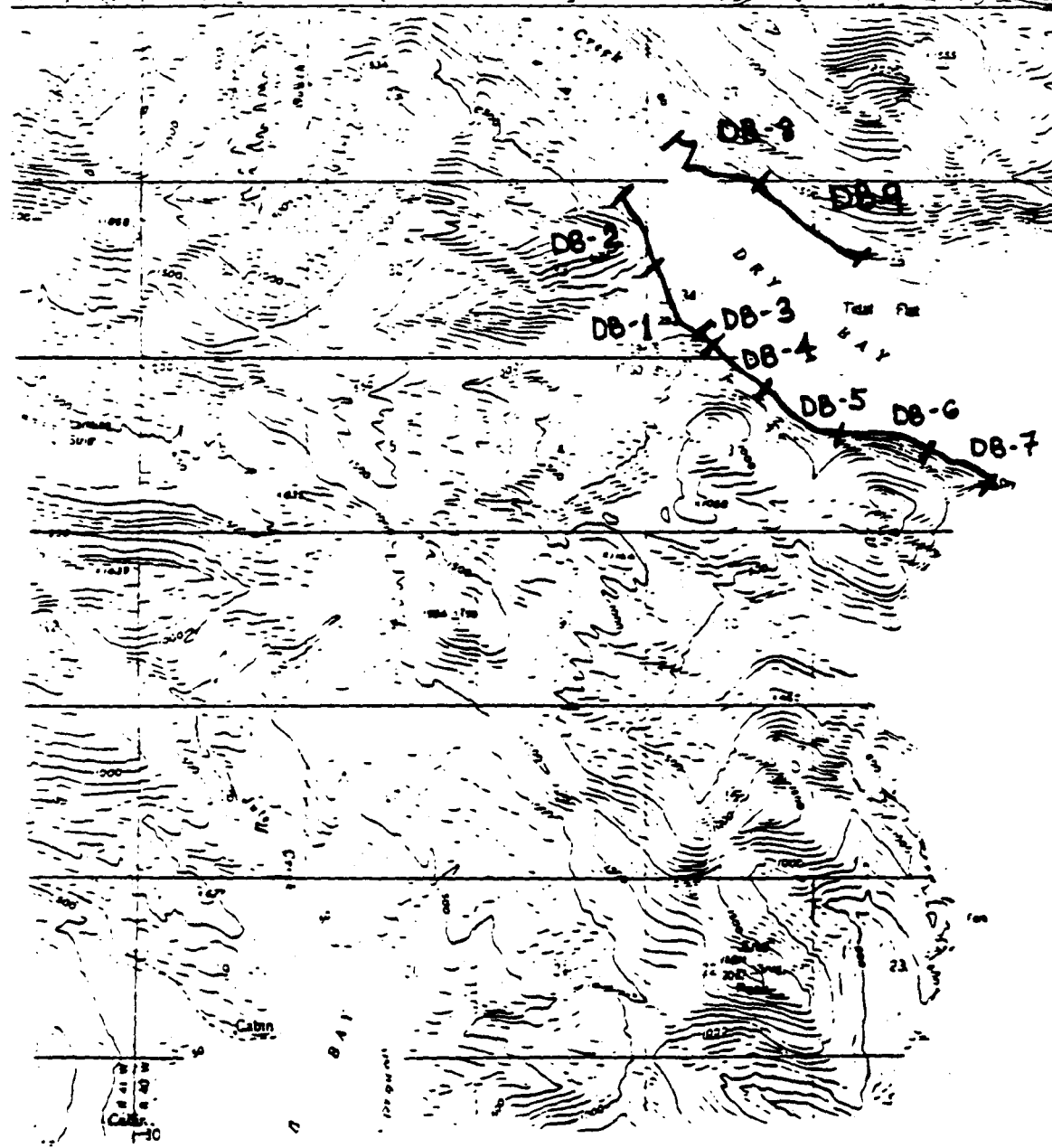
MAMMALS: Otters _____ Harbor Seals _____ Sea Lions _____ Whales _____
Other caribou

BIRDS: gulls - 2 dead oiled birds

GENERAL OBSERVATIONS: There is only light oiling here at high ITZ - primarily on moss patches; oil is buried in sediments - evident as ~~moss~~ when walking through soft mud. This is a very broad tidal flat with little to no live biota of concern.

ACE 3709572

DRY BAY BLOCK (KODIAK)
- DB-1, DB-2, DB-3, DB-4, DB-5, -
DB-6, DB-7, DB-8, DB-9



(MAPLE C 4 AND C 6)

- 35 -

ACE 8709574

1(version 6/04/89)

SHORELINE CLEANUP PROGRAM

DATE 6/05/89

SHORELINE SEGMENT DB-2

LOCATION: (see enclosed map) West Shore of Dry Bay-Alaska Peninsula

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 5/31/89

Recommended Cleanup Activity(ies):

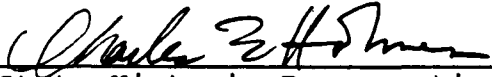
- Manually remove mousse paddies from sand beach.
- No cleanup recommended in marsh grasses at this time due to ecological constraints.

Priorities Considerations: According to KISCC, this is a sensitive area due to presence of sea bird nesting colonies.

Ecological Constraints (from site survey): During manual pickup of mousse, stay completely out of marsh areas. Trying to clean marsh will do more harm than good.

Archeological Constraints (from site survey):

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


State Historic Preservation Officer *

Date: June 5, 1989

ISCC: _____

Date: _____

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

SHORELINE OIL EVALUATIONDate: 5/31/89 Time: 1710hObserver: J. TAPLEYSurveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fc

LOCATIONLOCATION Head of Dry BaySEGMENT NUMBER DB-2LENGTH OF SHORELINE SEGMENT: ~650 mACCESS: Foot/Vehicle/Boat/Barge/Helio/Float PlaneSHORELINE:Shoreline Type: SPI/BEA/COV/HLD/STRTSlope: LANG/HANG/VERWave Exposure: High/Med/LowSediment: B 1 / C 1 / P 1 / G 5 / S 90 / M <5 / R 1Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type logsOILDegree of Oiling: Heavy/Moderate/Light/No Oil/UnobservedArea of Beach Impact: SU / SP H / M / LContinuous: Y/N % of Segment _____ Width of Band: _____ mSporadic: Y/N % of Segment 100Est. Oil Thickness where > 1cm: 1-3 cm Est. Oil Penetration: _____ cmPooled Oil: 0 % "Free" Oil: 0 % Coated: H 1 / M 1 / L 100 %Fresh 0 % Mousse 100 % Tar Formation: 0 %Drift Debris oiled? Yes/No Supra/Upper/Mid/Lower Amount: H/M/L

Comments:

Sporadic mousse patches throughout the segment.
Mousse located on gravel beach and in marsh grass.
Remove mousse from sand beach.

ACE 8709576

DOCUMENTATION:

Map/Aerial photo marking segment boundaries See Attached

VTR: Y ☒ N Tape Number(s) N/A

Photography: ☒ Y ☐ N Roll Number(s) DMC-11

Sample Numbers Collected: N/A

ACE 8709577

Dry Bay - 2

SAND FLAT

oil in grass
oil pabday

Oil patching

Cont. from previous page

LOCATION: DEY BAY SITE: WEST shore OBSERVER: D. McCORMICK
 LOCATION PREFIX: AB SEG. NO.: 2 LENGTH: 650 (M)
 DATE: 5/31/89 TIME (HDDM): 1710 TIDE HT.: 0.8 (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

Fucus at high ITZ - lightly to no oiled

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

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

OTHER OBSERVATIONS: 3 caribou grazing at head of bay; caribou bear tracks seen along banks of tide flat; 1 dead oiled bird in debris strand

CLEANUP PRECAUTIONS: Stay completely out of marsh areas. Although there some oiling in marsh grasses, trying to clean it would do more harm than good.

MANUALS: Otters Harbor Seals Sea Lions Whales
 Other Caribou

BIRDS: gulls

GENERAL OBSERVATIONS: Most oil here is form of mouse patties on surface or buried at strand line - no impacts from manual pickup of oiled debris.

ACE 8709579

- DB-1, DB-2, DB-3, DB-4, DB-5, -
DB-6, DB-7, DB-8, DB-9

- DB-1, DB-2, DB-3, DB-4, DB-5, -
DB-6, DB-7, DB-8, DB-9

TABLE C 4 AND C 5

- 35

ACE 8709581 -

(version 6/04/89)

K10-9

SHORELINE CLEANUP PROGRAM

DATE 6/05/89

SHORELINE SEGMENT DB-3

LOCATION: (see enclosed map) West Side Dry Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/01/89

Recommended Cleanup Activity(ies):

- Manually remove pooled oil and oil in grass.
(see Ecological Constraint)

Priorities Considerations:

- KISCC considers this a sensitive area due to presence of sea bird nesting colonies.

Ecological Constraints (from site survey): Don't remove oiled dune grasses. Rake oil/debris out as much as possible.

Archeological Constraints (from site survey):

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

Charles E. Adams
State Historic Preservation Officer *

Date: June 5, 1989

ISCC: _____

Date: _____

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 8709582

SHORELINE OIL EVALUATION FORM - RODYARDate: JUNE 1/89 Time: 1330observer: D. HOWESSurveyed From: Foot Boat/Helio/PlaneWeather: Sun Cloud Rain/SnowLOCATIONLOCATION DRY BAY - WEST SHORESEGMENT I.D. DB-3LENGTH OF SHORELINE SEGMENT: 50.0 mACCESS: Foot/Vehicle Boat/Barge/Helio/Float PlaneSHORELINE:Shoreline Type: SPI BEA COV/HLD/STRTSlope: LAUNDRY/VEGWave Exposure: High/Med LowSediment: B 1 / C 1 / P 5 / G 1 / S 9 / M 1 / R 1Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type Drift logs/sawOILDegree of Oiling: Heavy/Moderate Light/No Oil/UnobservedTotal Area of Beach Impact: SU / SP / H / M / LOIL DISTRIBUTIONContinuous: Y N Segment 1 No. Bands 1 Width 1Sporadic: Y/N Segment 1 Min/Max Dia 100 Impact Width 1Est. Oil Thickness where > 1cm: 1 cm SU / SP / UP / MID / LOEst. Oil Penetration: 1 cm SU / SP / UP / MID / LOLayers? Yes/No No# Layers 1 Oil Weathering 1Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H / M / LOIL MORPHOLOGYPooled Oil 40 % "Free" Oil 60 % Spattered 1 % H/M/L/VL Sheen 1 %OIL WEATHERING (OW)Fresh Oil 1 % SU/SP/UP/MID/LO Choc Mousse 40 % SU/SP/UP/MID/LOPancake Mousse 60 % SU/SP/UP/MID/LO Asphalt Mousse 1 % SU/SP/UP/MID/LOTar Formation 1 %

ACE 8709583

Comments:

POOLS OF OIL ARE LOCATED IN THE LOG DEBRIS (2.5% OF LOGGED AREA)PANCAKE MOUSSE BANDS IN THE GRASS AREA (SEE SKETCH)REMOVE POOLED OIL AND MOUSSE BANDS FROM BEACHTWO DEAD BIRDS OBSERVEDPOOLS IN LOGS LOCATED IN FIRST 4 M. PROCEEDING LANDWARDMANUAL CLEANUP RECOMMENDED

DOCUMENTATION:

Map Aerial photo marking segment boundaries See Attached

VTR: Y Tape Number(s) KODIAK 01

Photography: YN Roll Number(s) DMC-11

Sample Numbers Collected: N/A

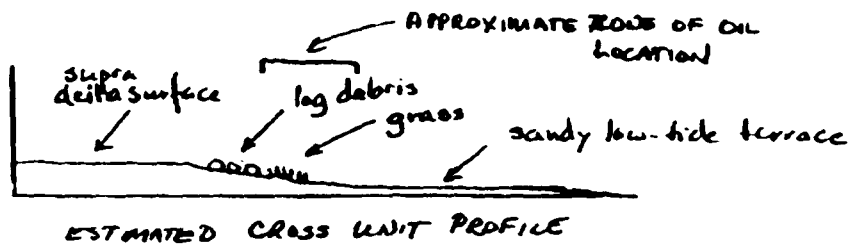
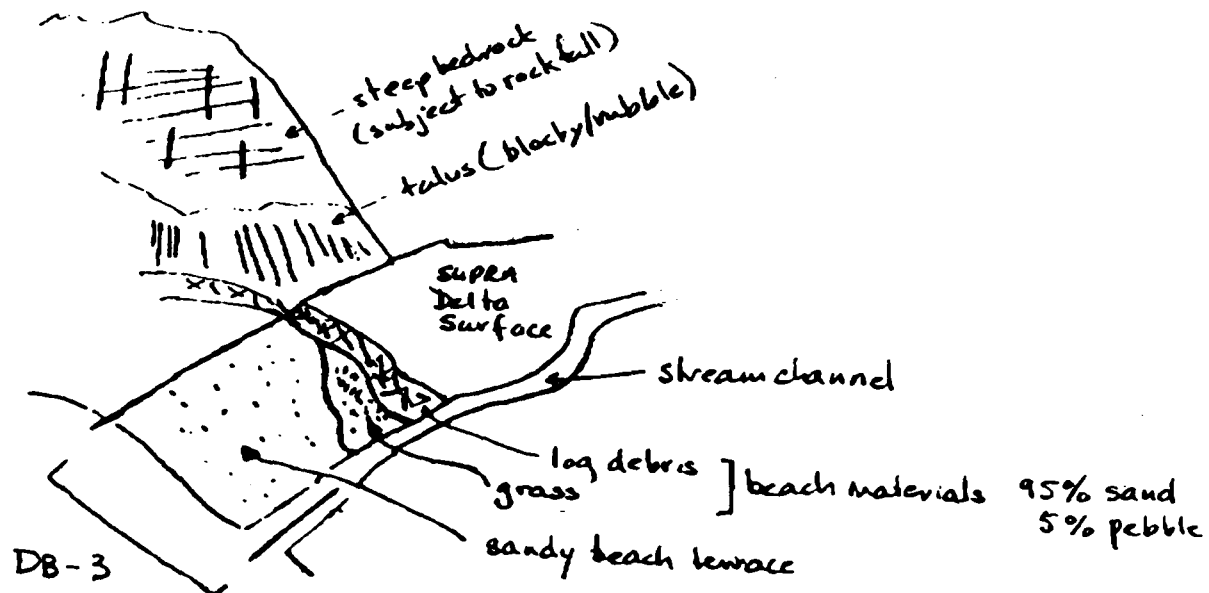
ACE 8709584

JUN-03-1989 17:04 FROM

TO

18357525 P.18

SITE DB-3



NOTE - oil pools in log debris
 - bands of <1m wide of pancake mousse in grass

ACE 8709585

ECOLOGICAL EVALUATION

LOCATION: West Shore DRY BAY SITE: _____ OBSERVER: N. McGemick
 LOCATION PREFIX: DB SEG. NO.: 3 LENGTH: 50 (M)
 DATE: 6/1/89 TIME (HHMM): 1330 TIDE HT.: ~ 4.1 (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

Fucus present in debris line at #ITZ - un-oiled.

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: 7 dead oiled birds; patches of oiled dune grass - moderate to heavy. Some oiled fucus algae mixed in with oiled debris at strand line. White soap-like material at debris line - no clue as to what this is - NOAA has collected a sample for analysis.

CLEANUP PRECAUTIONS: None.

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

BIRDS: _____

GENERAL OBSERVATIONS: Thick clumps of ³⁻⁴ mouse pinks in driftwood 15-18 cm thick. very localized - no live birds impacted from these pinks. If storm spreads these pinks around, ~~impacted~~ larger area of beach will be impacted as they should probably be picked up soon.

ACE 8709586



ACE 6709588

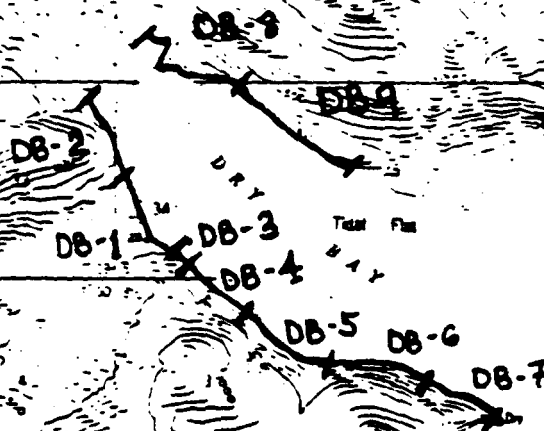
JUN-02-1989 17:06 FROM

TO

18257525 F.22

DRY BAY BLOCK (KODIAK)

- DB-1, DB-2, DB-3, DB-4, DB-5, -
DB-6, DB-7, DB-8, DB-9



MAPLE C 4 AND C 6

(version 6/04/89)

K10-9

SHORELINE CLEANUP PROGRAM

DATE 6/05/89

SHORELINE SEGMENT DB-4

LOCATION: (see enclosed map) West Shore of Dry Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/01/89

Recommended Cleanup Activity(ies):

- Recommend manual removal of oil mousse patties when segments DB-1, DB-2, DB-3 are cleaned. This area has secondary priority to DB-1, DB-2, DB-3.

Priorities Considerations:

- KISCC considers this Bay to be a sensitive area, due to sea bird nesting colonies.

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.

Charles Z. Adams
State Historic Preservation Officer *

Date: June 5, 1989

ISCC: _____

Date: _____

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 8709590

SHORELINE OIL EVALUATION FORM - MONTAF

Date: JUNE 1/89 / Time: 13:55Observer: D. HowesSurveyed From: Foot/Boat/Helio/PlaneWeather: Sun Cloud Drizzle Clear

LOCATION

LOCATION DRY BAY- WEST SHORESEGMENT I.D. DB-4LENGTH OF SHORELINE SEGMENT: 875 mACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane

SHORELINE (General)

Shoreline Type: SPI/BEA/COV/HID/STRTSlope: LARG. HANGOVERWave Exposure: High/Med/LowSediment: B4 / C2 / P5 / G / S9 / M / RDrift Debris on Beach: Yes/No Supra Upper/Mid/Lower Type logs/seaweed

OIL

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

OIL DISTRIBUTION

Continuous: Y/N Segment 1 No. Bands 1 Width 100Sporadic: Y/N Segment 1 Min/Max Dia 100 Impact Width 100Est. Oil Thickness where > 1cm: 100 cm SU / SP / UP / MID / LOEst. Oil Penetration: None observed cm SU / SP / UP / MID / LOLayers? Yes/No No# Layers 1 Oil Weathering 1Drift Debris Oiled? Yes/No Supra Upper/Mid/Lower Amount: H / U / L / V

OIL MORPHOLOGY

Pooled Oil 100 % "Free" Oil 40 % Spattered 60 % H/U/L/VL Check 1

OIL WEATHERING (OW)

Fresh Oil 100 % SU/SP/UP/MID/LO Choc Mousse 1 % SU/SP/UP/MID/LOPancake Mousse 100 % SU/SP/UP/MID/LO Asphalt Mousse 1 % SU/SP/UP/MID/LOTar Formation 1 %

Comments:

ACE 8709591

In places pancake mousse partially buried by sand
 Oil splatter on the scattered boulders
 Size of pancake mousse varies from 4.5cm to 3m in width, but is 41% of unit.
 Recommend: manual removal of patches when segments DB-3, DB-2, DB-1 are cleaned; area is secondary to DB-3, -2 & -1.

DOCUMENTATION:

Map Aerial photo marking segment boundaries See attached

VTR: Y/N Tape Number(s) KODAK 01

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

Sample Numbers Collected: N/A

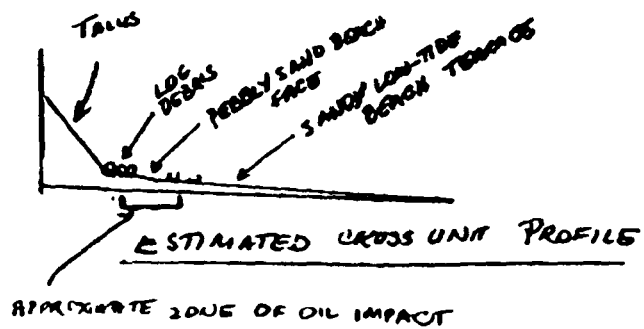
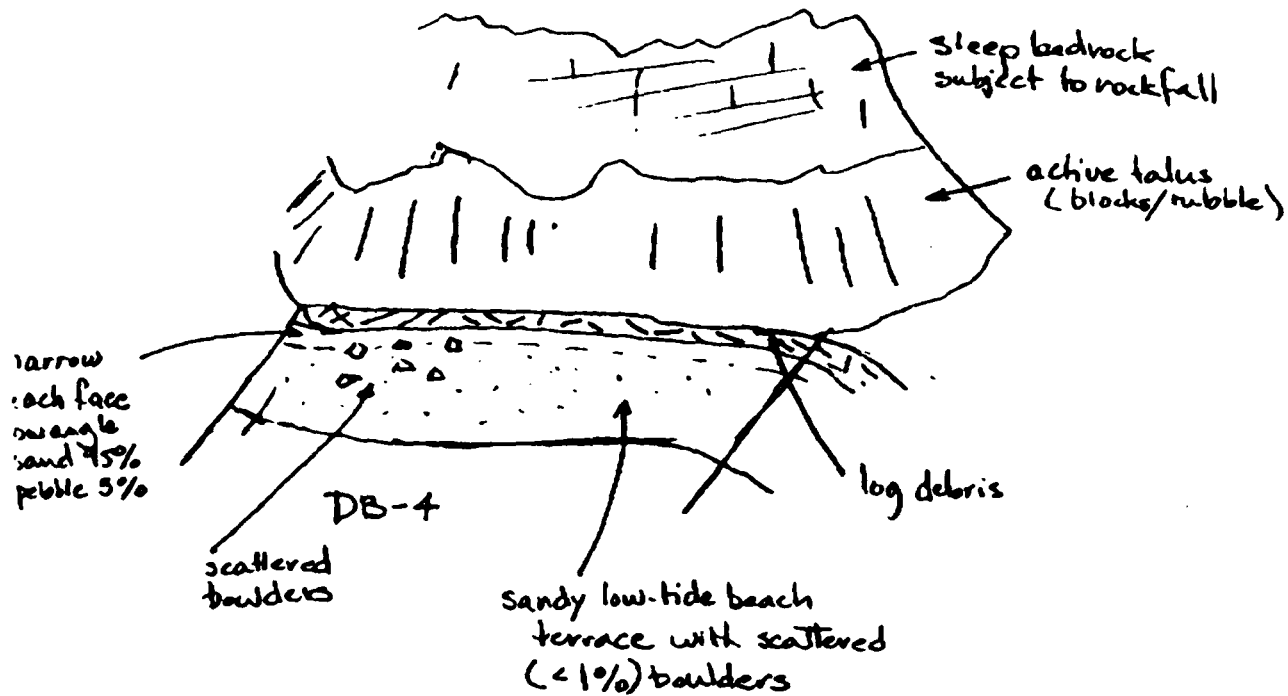
ACE 8709592

JUL-02-1989 17:12 FROM

18357525 P.26

TO

SITE DB-4



ACE 8709593

LOCATION: Dry Bay SITE: West Shore OBSERVER: J. Tarpley
LOCATION PREFIX: DB SEG. NO.: 4 LENGTH: 875 (M)
DATE: 6/1/89 TIME (HMM): 1355 TIDE HT.: + 3.5 (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

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

Littorina

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

OTHER OBSERVATIONS: Drift material at high tide strand composed
primarily of Fucus & terrestrial grass. In drift is white 'soapy' detergent
like substance. Drift material is not oiled.

CLEANUP PRECAUTIONS: None

MAMMALS: Otters Harbor Seals Sea Lions Whales
 Other

BIRDS: NONE

GENERAL OBSERVATIONS: Splattered oil on large rocks throughout
this ITZ. Mousse peniculus (~2cm thick) on sand beach at high tide line.
Verylight oil coverage. Few shells on beach.

AGE 8709594



ACE 8709596

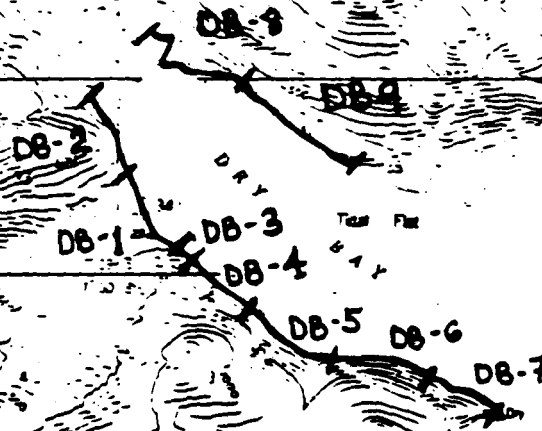
18257525 P.30

10

JUN-07-1988 1:14 PM

DRY BAY BLOCK (KODIAK)

- DB-1, DB-2, DB-3, DB-4, DB-5, -
DB-6, DB-7, DB-8, DB-9



MAPS C-4 AND C-6

-35-

ACE 8709597

(version 6/04/89)

210-9

SHORELINE CLEANUP PROGRAM

DATE 6/05/89

SHORELINE SEGMENT DB-5

LOCATION: (see enclosed map) South Shore-Dry Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/01/89

Recommended Cleanup Activity(ies):

- No cleanup recommended at this time. Very light weathered oil occurs sporadically as splash on rocks.

Priorities Considerations:

- None.

Ecological Constraints (from site survey):

- None, since cleanup is not recommended.

Archeological Constraints (from site survey):

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

Charles E. Holmes
State Historic Preservation Officer *

Date: June 5, 1989

ISCC: _____

Date: _____

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 8709593

SHORELINE OIL EVALUATION FORM - MONTAGDate: WAG/89 / Time: 1430Observer: DH2UESSurveyed From: Foot/Boat/Helio/PlaneWeather: Sun, Cloudy (Sunny)LOCATIONLOCATION DRY BAY - WEST SHORESEGMENT I.D. DB-5LENGTH OF SHORELINE SEGMENT: 875 mACCESS: Foot/Vehicle/Boat/Barge/Helio/Float PlaneSHORELINE:Shoreline Type: SPI/BEA/COV/HLD/STRT

Slope: LANG/HANG/VER

Wave Exposure: High/Med/LowSediment: B 95 % / C 25 % / P 40 % / G % / S 25-30 % / M % / R %Drift Debris on Beach: Yes/No Supra Upper/Mid/Lower Type LOGS / STRAWOILDegree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved VERY LIGHTTotal Area of Beach Impact: SU / SP / H / M / LOIL DISTRIBUTIONContinuous: 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 / LOEst. Oil Penetration: cm SU / SP / UP / MID / LOLayers? Yes/No No# Layers Oil Weathering Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H / M / L / VOIL MORPHOLOGYPooled Oil % "Free" Oil 5 % Spattered 95 % H/H/L/VL Sheen %OIL WEATHERING (OW)Fresh Oil % SU/SP/VP/MID/LO Choc Mousse % SU/SP/VP/MID/LOPancake Mousse 100 % SU/SP/UP/MID/LO Asphalt Mousse % SU/SP/VP/MID/LOTar Formation %

ACE 8709599

Comments:

- SPATTER ON COBBLES/BOULDERS; SOME MINOR PANCAKE - ^{'FREE' OIL PARTIES} ~~VERY LIGHT SPATTER~~ ON THE SANDY PORTIONS OF THE BEACH.
- NO TREATMENT APPEARS TO BE NECESSARY.

DOCUMENTATION:

Map/Aerial photo marking segment boundaries See Attached

VTR: Y ~~N~~ Tape Number(s) KODAK 01

Photography: Y ~~N~~ Roll Number(s) DMC-11

Sample Numbers Collected: N/A

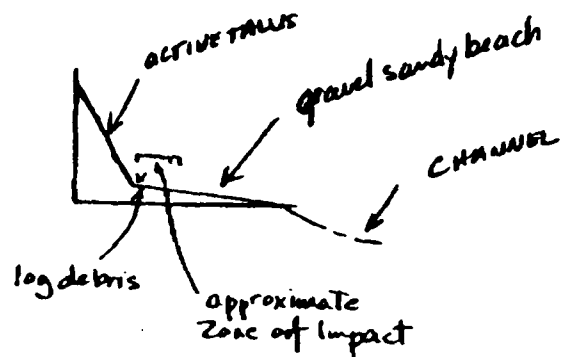
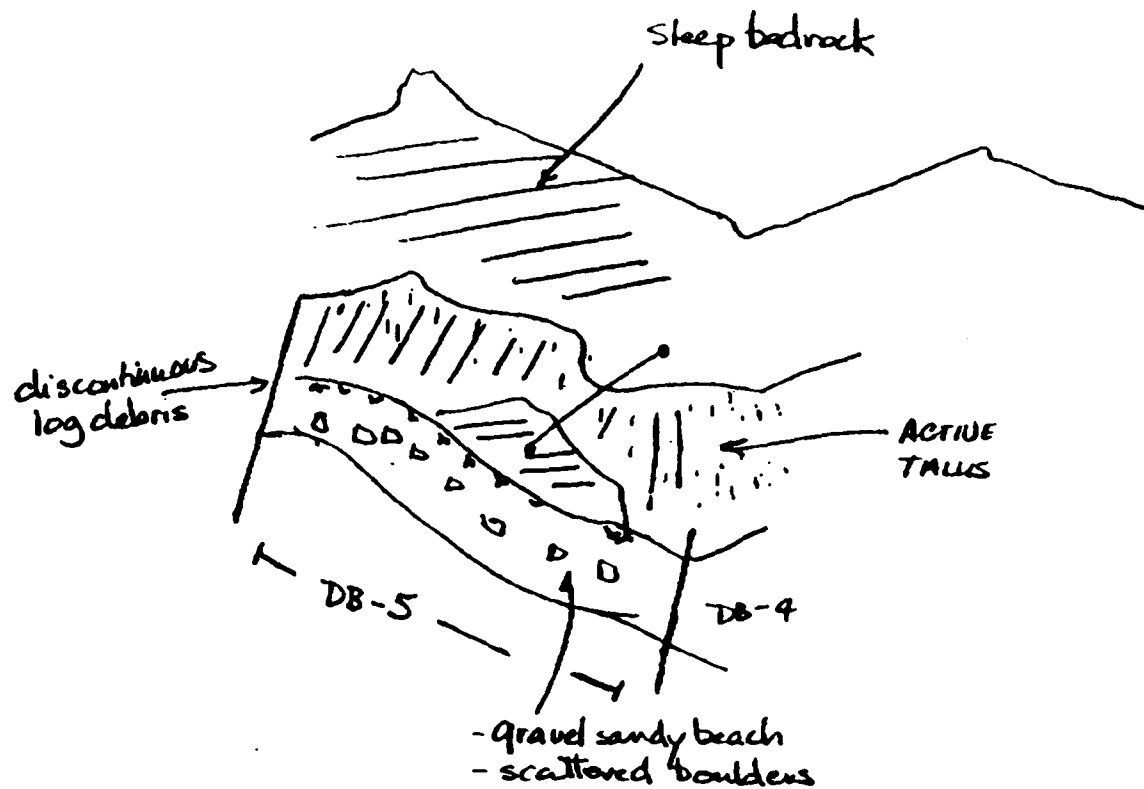
ACE 8709600

18357525 P.34

TO

JUN-02-1989 17:20 FROM

SITE DB-5



ESTIMATED CASE UNIT PROFILE

ECOLOGICAL EVALUATION

LOCATION: SOUTH SHORE
DAY BAY SITE: _____ OBSERVER: D. McCormick

LOCATION PREFIX: DB SEG. NO.: 5 LENGTH: 875 (M)

DATE: 6/1/89 TIME (HHMM): 1430 TIDE HT.: +3.0 (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

Healthy on large boulders.

Littorina

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

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

OTHER OBSERVATIONS: 1 dead oiled bird; shells of barnacles, small clams; bull kelp
algae + laminae in debris - some lightly oiled.

CLEANUP PRECAUTIONS: None

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

BIRDS: gulls, sandpipers

GENERAL OBSERVATIONS: Oil occurs here as splash on rocks - weathered; no
way to clean this up - oiling is light, cleanup is not warranted.

ACE 8709602



ACE 8709604

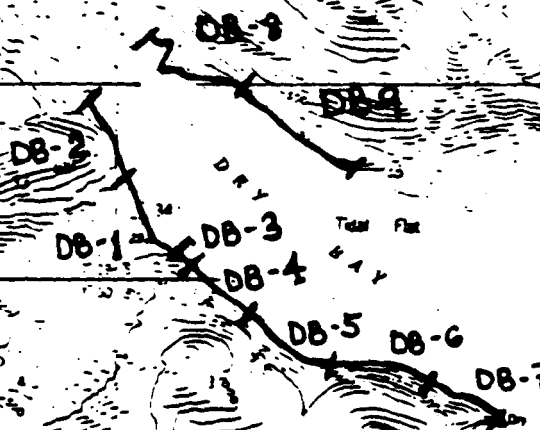
JUN-02-1969 17:21 FROM

TO

16257525 F.38

DRY BAY BLOCK (KODIAK)

- DB-1, DB-2, DB-3, DB-4, DB-5, -
DB-6, DB-7, DB-8, DB-9



MAPLE C 4 AND C 61

- 35 -

ACE 8709605

(version 6/04/89)

SHORELINE CLEANUP PROGRAM

DATE 6/05/89

SHORELINE SEGMENT DB-6

LOCATION: (see enclosed map) South Shore Dry Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/01/89

Recommended Cleanup Activity(ies):

- No cleanup recommended at this time. Sporadic very light splatter of oil on rocks and mousse pancakes on beach.

Priorities Considerations:

- KISCC considers this a sensitive area due to local sea bird nesting colonies.

Ecological Constraints (from site survey):

- None.

Archeological Constraints (from site survey):

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

Charles R. Thomas
State Historic Preservation Officer *

Date: June 5, 1989

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 - KONTAK

Date: JUNE 1/89 / Time: 1510

Observer: _____

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/_____

LOCATION

LOCATION DRY BAY - WEST SIDE

SEGMENT I.D. DB-6

LENGTH OF SHORELINE SEGMENT: 1050 m

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

SHORELINE:

Shoreline Type: SPI DEA COV/HLD/STRT

Slope: LANG HANG/VER

Wave Exposure: High/Med/Low

Sediment: B10 / C1 / P20 / G1 / S70 / M1 / R1

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

OIL

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

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

OIL DISTRIBUTION

Continuous: Y/N Segment 1 No. Bands _____ Width _____

Sporadic: Y/N Segment 1 Min/Max Dia _____ Impact Width _____
(% length of beach)

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

OIL MORPHOLOGY

Pooled Oil _____ "Free" Oil 20 Spattered 80 H/H/L/VL Shown _____

OIL WEATHERING (OW)

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

Pancake Mousse 100 SU/SP/VP/MID/LO Asphalt Mousse _____ SU/SP/VP/MID/LO

Tar Formation _____

Comments:

ACE 8709607

NOTE: OIL WHICH IS VERY LIGHT OCCURS AS SPATTER OR FINE OIL THINLY
HAS A PANCAKE Mousse CONSISTENCY -> MOST IS ON BOULDERS SOME PATCHES ON BEACH
NO REMEDIATION APPEARS TO BE NECESSARY.

DOCUMENTATION:

Map Aerial photo marking segment boundaries See attached

VTR: (Y) Tape Number(s) KODIAK 01

Photography: (Y) Roll Number(s) DMC-11

Sample Numbers Collected: N/A

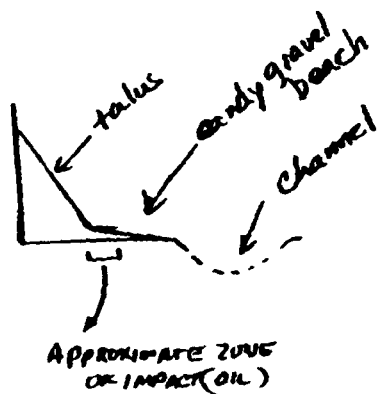
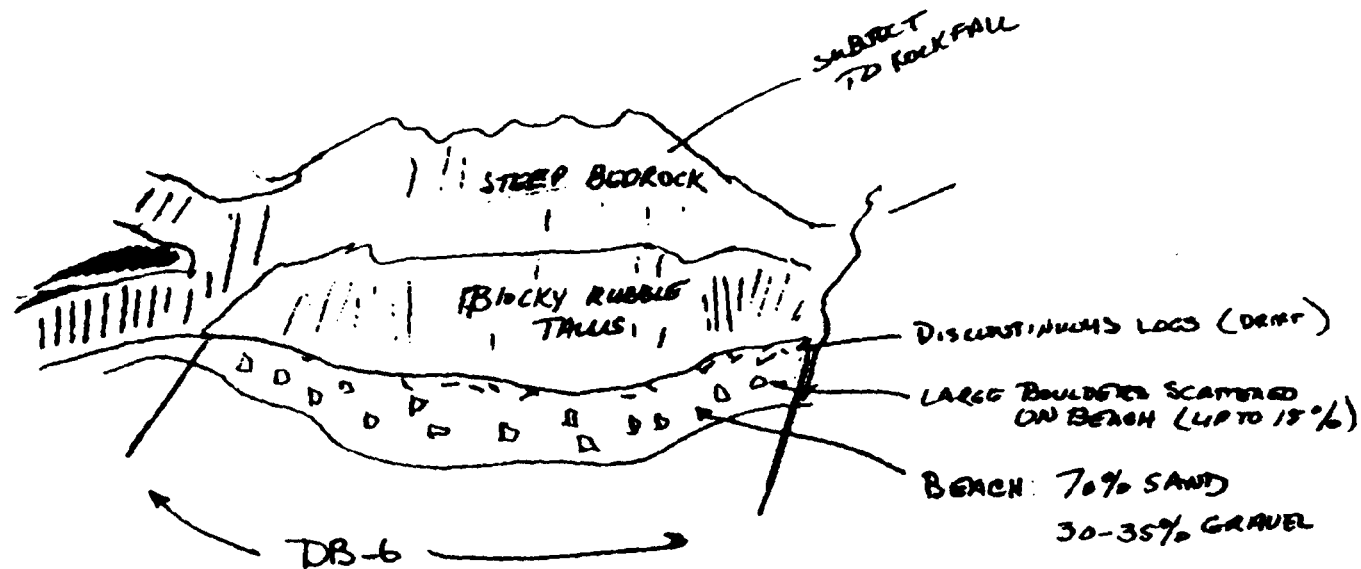
ACE 3709608

JUN-02-1989 17:27 FROM

TO

18357525 P.42

STG DB-6



ACE 8709609

ESTIMATED CROSS-UNIT PROFILE

LOCATION: DRY BAY SITE: South Shore OBSERVER: J. TAPPEL
LOCATION PREFIX: DB SEC. NO.: 6 LENGTH: 1050 (M)
DATE: 6 / 1 / 89 TIME (HDDM): 1510 TIDE HT.: +2.5 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

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

Shells only

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

Found only on larger rocks at lower ITZ.

Littorina

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

Littorina sp, Nucella sp & Margarita sp present

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

Shells only

OTHER OBSERVATIONS: Few bivalve shells found. Healthy life found on
rocks that have been splattered with oil.

CLEANUP PRECAUTIONS: None.

MAMMALS: Otters Other Harbor Seals Cocaine Sea Lions Antlers in logs Whales

BIRDS: Kittiwakes on the bay, Sandpipers on beach

GENERAL OBSERVATIONS: Very light splatter of oil on the rocks and
mousse patches on the beach. No cleanup recommended.
(w/len thick)

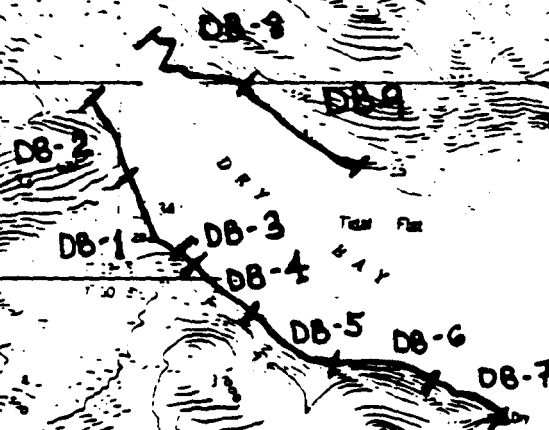
ACE 8709610



ACE 8709612

DRY BAY BLOCK (KODIAK)

- DB-1, DB-2, DB-3, DB-4, DB-5, -
DB-6, DB-7, DB-8, DB-9



(PARTS C 4 AND C 5)

(version 6/04/89)

K10-9

SHORELINE CLEANUP PROGRAM

DATE 6/05/89

SHORELINE SEGMENT DB-7

LOCATION: (see enclosed map) South Shore of Dry Bay to
South eastern Point

ADEC NO. _____ SHORELINE ASSESSMENT DATE: _____

Recommended Cleanup Activity(ies):

- No cleanup recommended at this time. No oil observed.

Priorities Considerations:

- KISCC considers this area to be sensitive, due to local sea bird nesting colonies.

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 re-evaluated.

Archeological Constraints (from site survey):

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

Charles E. Adams
State Historic Preservation Officer *

Date: June 5, 1989

ISCC: _____

Date: _____

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 8709614

SHORELINE OIL EVALUATION FORM - ROTAF

Date: JUNE 1/89 / Time: 1525

Observer: D. Howes

Surveyed From: Foot/Boat/Helio/Plane

Weather: Con. Cloudy Rain/Sunny

LOCATION

LOCATION DRY BAY - WEST SIDE

SEGMENT I.D. DB-7

LENGTH OF SHORELINE SEGMENT: 875 m

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

SHORELINE:

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

Slope: LANG. SHARP VEE

Wave Exposure: High/Med/Low

Sediment: B90 / C10 / P___ / G___ / S___ / M___ / R___

^{ED}
(really
blocky rubble
beach)

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 / MID / LO

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

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

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

OIL MORPHOLOGY

Pooled Oil ___ "Free" Oil ___ 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:

ACE 8709615

NO OIL IMPACT WAS OBSERVED IN THE HELICOPTER FLY-BY

NO CLEAN-UP APPEARS TO BE NECESSARY

Map Aerial photo marking segment boundaries See attached

VTR: Y ~~Q~~ Tape Number(s) KONIAK 01

Photography: Y ~~N~~ Roll Number(s) _____

Sample Numbers Collected: N/A

ACE 8709616

JUL-02-1969 17:35 FPM

18357525 P.50

TO

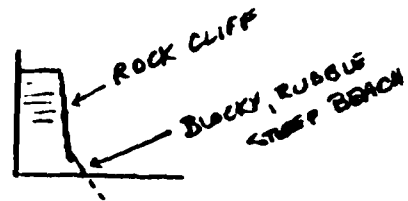
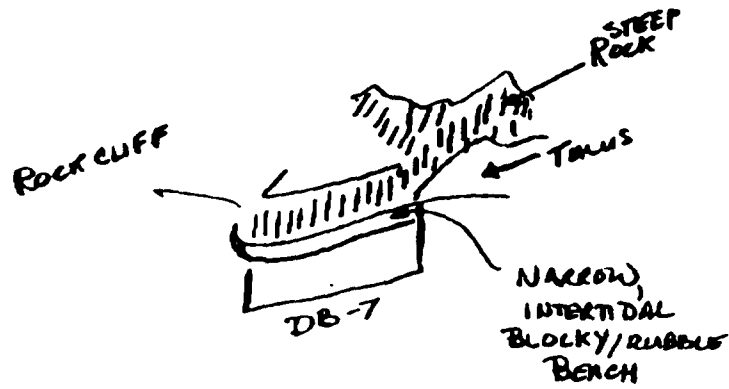
JUL 11-02-1989 17:35 FROM

ACE 8709617

TO

18357525 P.51

SITE DB-7



ESTIMATED CROSS-UNIT
PROFILE



ACE 8709619

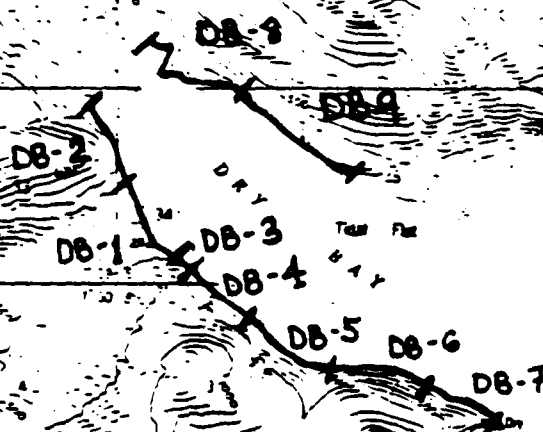
JUN-03-1989 17:38 FROM

TO

18367825 4.53

DRY BAY BLOCK (KODIAK)

- DB-1, DB-2, DB-3, DB-4, DB-5, -
DB-6, DB-7, DB-8, DB-9



IN AREA C 4 AND C 6

- 35

ACE 8709620

(version 6/04/89)

K10-9

SHORELINE CLEANUP PROGRAM

DATE 6/05/89

SHORELINE SEGMENT DB-9

LOCATION: (see enclosed map) Northeast Shore-Dry Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/01/89

Recommended Cleanup Activity(ies):

- No cleanup recommended at this time. No oil observed.

Priorities Considerations:

- KISCC considers this a sensitive area, due to local sea bird nesting colonies.

Ecological Constraints (from site survey):

- None, since cleanup treatment is not necessary.

Archeological Constraints (from site survey):

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

Charles E. Holmes
State Historic Preservation Officer *

Date: June 5, 1989

ISCC: _____

Date: _____

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACC 8709621

SHORELINE OIL EVALUATION FORM - RDTAP

Date: JUNE 1/89 / Time: 16:00

Observer: D Howes

Surveyed From: Foot/Boat/Helio/Plane

Weather: Cloudy Rain None

LOCATION

LOCATION DRY BAY - EXT SIDE DRY BAY

SEGMENT I.D. DB-9

LENGTH OF SHORELINE SEGMENT: 1500 m

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

SHORELINE:

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

Slope: LAKE HANG/VER

Wave Exposure: High/Med/Low

Sediment: B / C / PG / G / S / M / P

Drift Debris on Beach: Yes/No

Supra/Upper/Mid/Lower Type logs

OIL

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

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

OIL DISTRIBUTION

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

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

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

Est. Oil Penetration: 1 cm SU / SP / UP / MID / LO

Layers? Yes/No No# Layers 1 Oil Weathering 1

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

OIL MORPHOLOGY

Pooled Oil 1 "Free" Oil 1 Spattered 1 H/H/L/VL Choc 1

OIL WEATHERING (OW)

Fresh Oil 1 SU/SP/VP/MID/LO Choc Mousse 1 SU/SP/VP/MID/LO

Pancake Mousse 1 SU/SP/VP/MID/LO Asphalt Mousse 1 SU/SP/VP/MID/LO

Tar Formation 1

Comments:

ACE 8709622

TOTAL BEACH LENGTH WALKED - NO OBSERVED EVIDENCE OF OIL IMPACT.
NO CLEAN-UP NECESSARY

DOCUMENTATION:

Map/Aerial photo marking segment boundaries Sec attached

VTR: Y/N Tape Number(s) Kodak 01

Photography: Y/N Roll Number(s) 0

Sample Numbers Collected: N/A

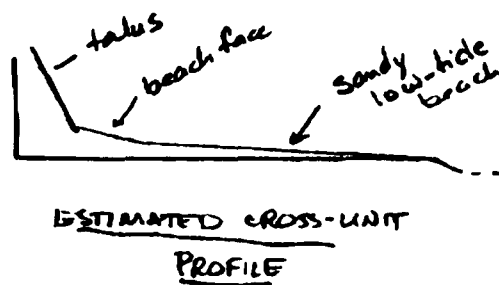
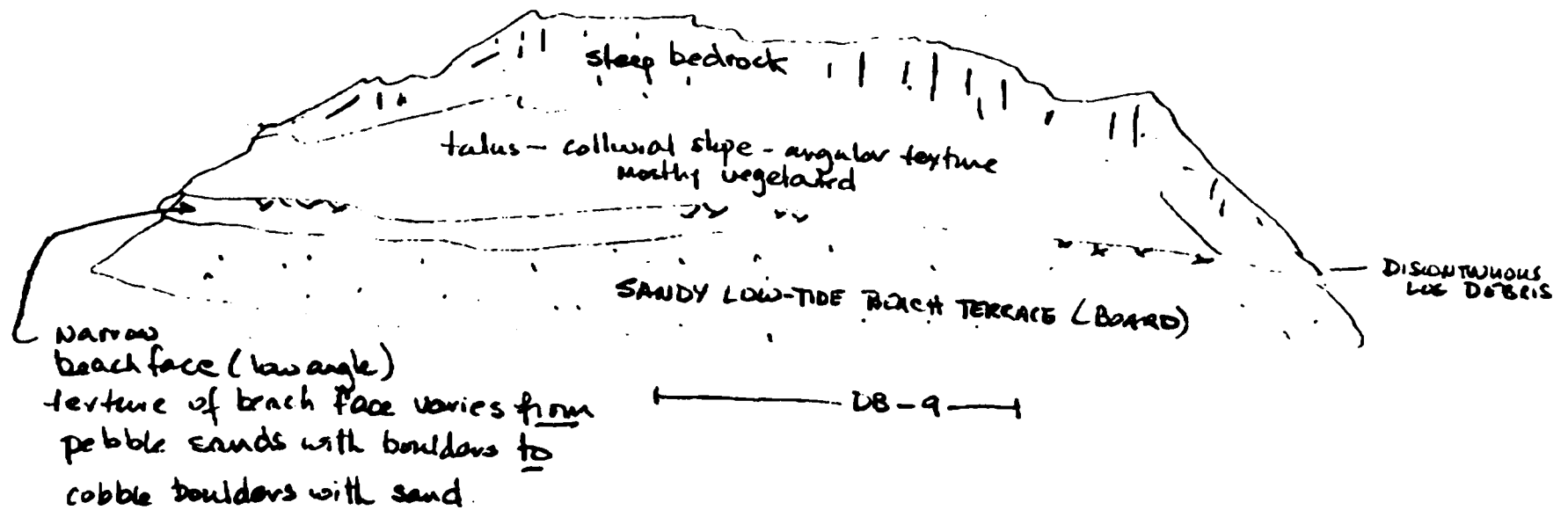
ACE 8709623

JUN-02-1989 17:49 FROM

18257525 P.65

TO

SITE DB-9



LOCATION: DRY BAY SITE: NE shore OBSERVER: J. Turpley
 LOCATION PREFIX: DB SEC. NO.: 9 LENGTH: 1500 (M)
 DATE: 6/1/89 TIME (HDDM): 1600 TIDE HT.: +20 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

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

Shells only

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

Located on larger rocks among the sandy beach flat.

Littorina

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

OTHER OBSERVATIONS: Wreck line not oiled, primarily composed of
terrestrial vegetation. Many bivalve shells on sandy beach, also
evidence of snail or worm tracks through sand. One dead Starry Flounder
found (clean/not oiled)

CLEANUP PRECAUTIONS: NONE

MAMMALS: Otters Harbor Seals Sea Lions Whales
 other Beach Tracks

BIRDS: Terrestrial birds seen on sandy beach

GENERAL OBSERVATIONS: Sandy Beaches along NE shore oil free

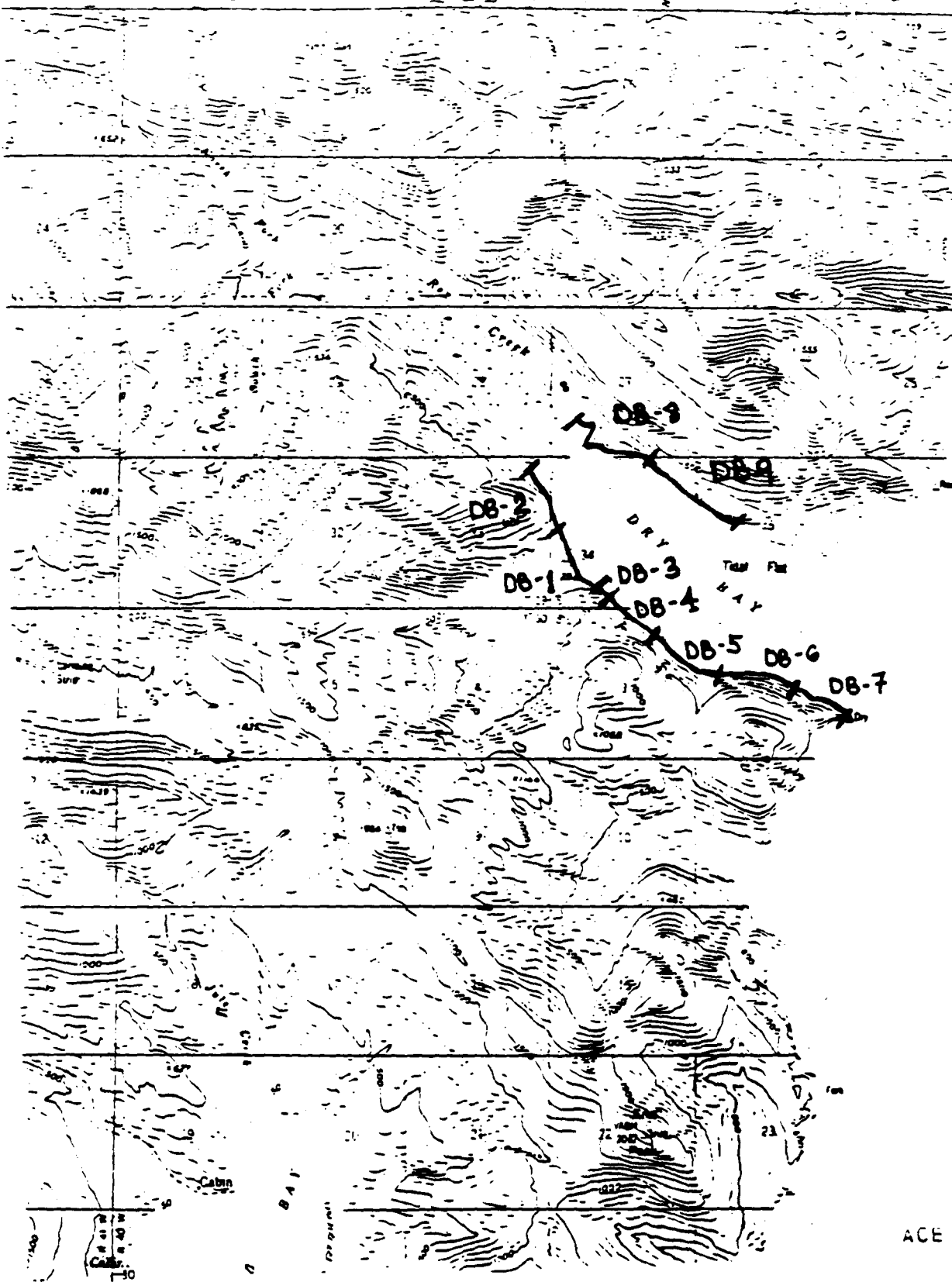
AGE 8709625



ACE 6709627

DRY BAY BLOCK (KODIAK)

- DB-1, DB-2, DB-3, DB-4, DB-5, -
DB-6, DB-7, DB-8, DB-9



FRAMER C 4 AND 1 b)

ACE 8709028

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6/10/89 SHORELINE SEGMENT DB-10

LOCATION: (see enclosed map) North end of DRY BAY

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/05/89

Recommended Cleanup Activity(ies):

- No cleanup appears to be necessary at this time, due to very light oiling and minimal anticipated environmental impact.

Priorities Considerations:

Ecological Constraints (from site survey): None, since no cleanup is recommended. The negligible amount of oil here will not adversely impact clam beds.

Archeological Constraints (from site survey):

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

Charles E. Holmes
State Historic Preservation Officer *

Date: June 10, 1989

EXXON: Jack A. Rickman

Date: 14 June 89

FOSC: _____

Date: _____

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

ACE 8709629

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KONTAK

Date: JUNE 5/89 Time: 12:30 PM

Observer: DHOWES

Surveyed From: Foot Boat/Helicopter/Plane

Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

LOCATION

DRY BAY - NORTH SIDE

SEGMENT I.D.

DB-10

LENGTH OF SHORELINE SEGMENT: 440 m

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

SHORELINE:

Shoreline Type: SPI/BEA/COV/HID/STET

Slope: LAUG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B 1 / C 0-3 / P 0-2 / G 1 / S 8 / M 1 / R 1

Drift Debris on Beach: Yes/No

Supra/Upper/Mid/Lower Type log seaward

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved/V. LIGHT

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

IL DISTRIBUTION

Continuous: Y/N Segment 1 100 No. Bands 0 Width 0

Spuradic: Y/N Segment 1 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 / U / L VL

OIL MORPHOLOGY

Pooled Oil % "Free" Oil 5 % Spattered 95 % H/U/L/VL Sheen %

OIL WEATHERING (OW)

Fresh Oil % SU/SP/VP/MID/LO Choc Mousse 80 % SU/SP/UP/MID/LO

Pancake Mousse % SU/SP/VP/MID/LO Asphalt Mousse 20 % SU/SP/UP/MID/LO

Tar Formation %

Comments:

ACE 3709630

SEEN IN WATER / SEDIMENTS OF LOWER MIDDLE BEACH (SEE SKETCH)
THICK MOUSSE WITH SOME ASPHALT MOUSSE. OCCURS AS SPLATS SPURADICALLY ON THE
BEACH. SEDIMENTS WITH VERY LIGHT SPATTER ON LOGS. SPATTER ON BEACH UPPER + MID ZONES

DOCUMENTATION:

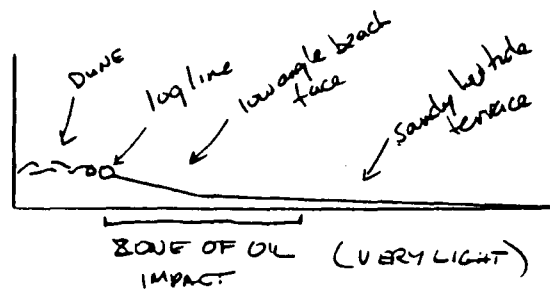
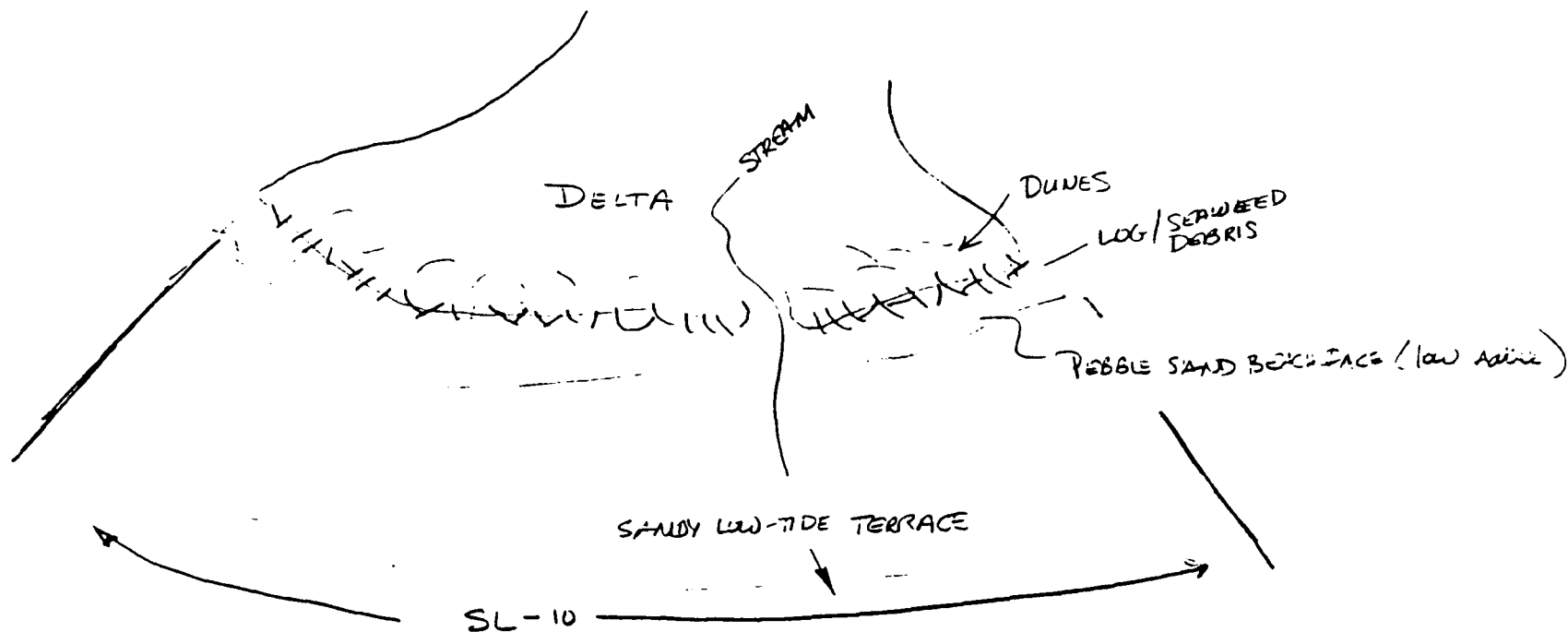
Map/Aerial photo marking segment boundaries See Attached

VTR: Y/N Tape Number(s) _____

Photography: Y/N Roll Number(s) DMC-12

Sample Numbers Collected: N/A

DB-10



- all splatter on the log (first row only)

ACE 8709032

ECOLOGICAL EVALUATION

LOCATION: NORTH END of DRY BAY SITE: _____ OBSERVER: D. McCormick
 LOCATION PREFIX: DB SEG. NO.: 10 LENGTH: 440 (M)
 DATE: 6/5/89 TIME (HHMM): 1230 TIDE HT.: +2.0 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

On debris strand only

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

Shells only

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

Shells only

Littorina

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

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

Shells only

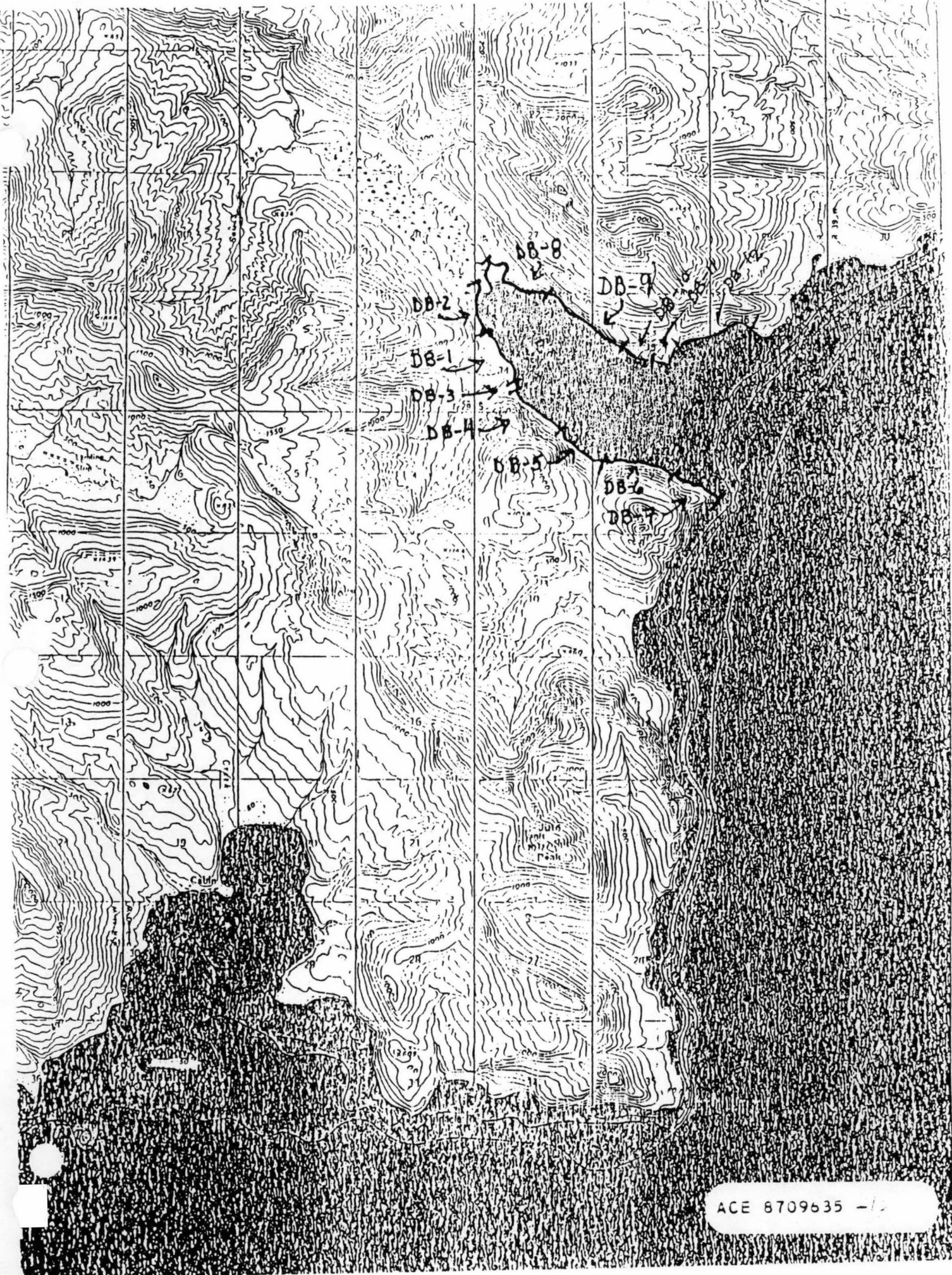
OTHER OBSERVATIONS: Lots of razor clam shells in mid - high ITZ - light
seen in pooled water - patchy mouse patty's - 2 brown bears in area.

CLEANUP PRECAUTIONS: _____

MMALS: Otters _____ Harbor Seals _____ Sea Lions _____ Whales _____
 other 2 Brown Bears

RDS: _____

GENERAL OBSERVATIONS: No live biota seen - only shell fragments. Oil
sparse - present as small diameter mouse patty's - no cleanup is
warranted. Impact to razor clam beds negligible from this small amount of oil.



(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6/10/89

SHORELINE SEGMENT DB-11

LOCATION: (see enclosed map) North side of DRY BAY near mouth
of bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/05/89

Recommended Cleanup Activity(ies):

- No cleanup recommended at this time, due to very light oiling and minimal anticipated environmental impact.

Priorities Considerations:

Ecological Constraints (from site survey): None, since no cleanup is recommended. The amount of oil is negligible here and will not adversely affect internal 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.

Charles F. Adams
State Historic Preservation Officer *

Date: June 10, 1989

EXXON: Jack A. Rickman

Date: 14 June 89

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 - KONTAK

Date: JUNE 19/89 Time: 13:00

Observer: D. HINES

Surveyed From: FOOD/Boat/Helio/Plane

Weather: Sun, Cloud, Rain, Snow, Fog

LOCATION

LOCATION DRY BAY - NORTH SIDE SEGMENT I.D. DB-11

LENGTH OF SHORELINE SEGMENT: 550 m

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

SHORELINE:

Shoreline Type: SPI/BEA/COV/HID/STFT

Slope: LAUG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B 13 / C 1 / P 1 / G 1 / S9/10 / M 1 / R 1

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

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved/V. LIGHT

Total Area of Beach Impact: SU / SP / H / V / I.

IL DISTRIBUTION

Continuous: Y/N Segment 1 / 100 No. Bands 0 Width 0

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

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

Est. Oil Penetration: 1 cm SU / SP / UP / MID / LO

Layers? Yes/No No# Layers 1 Oil Weathering 1

Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H / H / I VI

OIL MORPHOLOGY

Pooled Oil 1 % "Free" Oil 10 % Spattered 90 % H/H/VI Sheen 1

OIL WEATHERING (OW)

Fresh Oil 1 % SU/SP/VP/MID/LO Choc Mousse 20 % SU/SP/VP/MID/LO

Pancake Mousse 80 % SU/SP/VP/MID/LO Asphalt Mousse 1 % SU/SP/VP/MID/LO

Tar Formation 1 %

ACE 8709637

Comments:

SANDY BEACH WITH OCCASIONAL BOULDERS; BOULDERS & DRIFT LOGS HAVE V. LIGHT SPLATTER

SPLATTER ON BEACH SANDS MOSTLY 'PANCAKE'. SOME 'CHOCO' WITH FREE OIL SPLATCHES > 5cm WIDTH; SOME OF THE SPLATTERS ARE PARTIALLY BURIED

DOCUMENTATION:

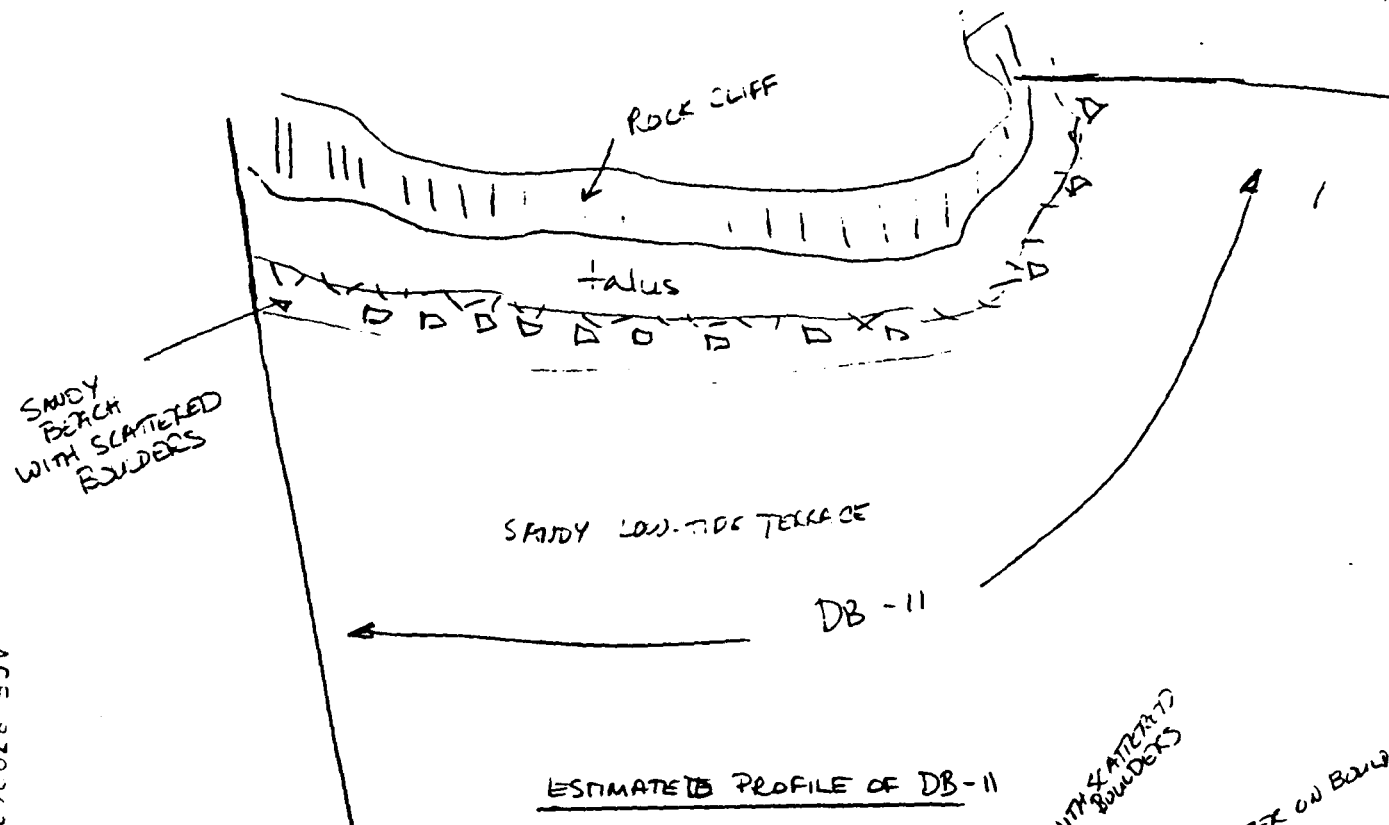
Map/Aerial photo marking segment boundaries See Attached

VTR: Y N Tape Number(s) _____

Photography: Y N Roll Number(s) DMC-12

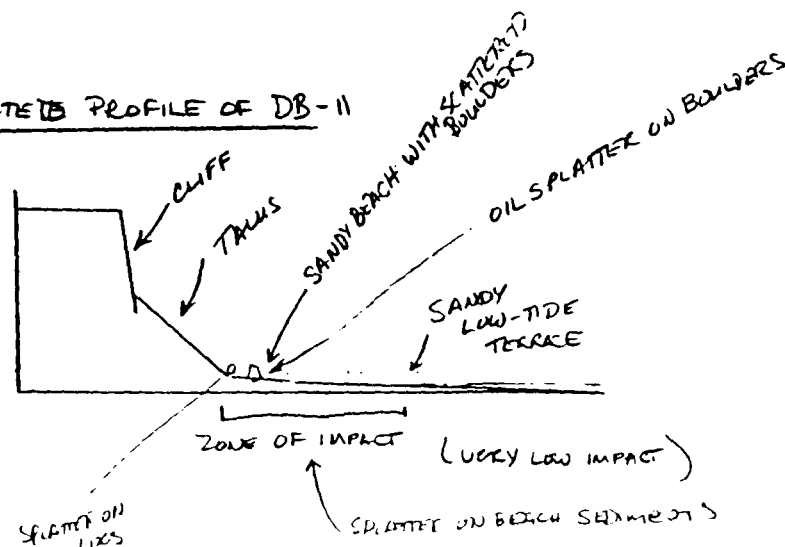
Sample Numbers Collected: N/A

DB-11



ACE 8709639

ESTIMATED PROFILE OF DB-11



ECOLOGICAL EVALUATION

LOCATION: DRY BAY SITE: North Shore OBSERVER: J. TAYLOR

CATION PREFIX: DB SEG. NO.: 11 LENGTH: 550 (M)

DATE: 6/5/89 TIME (HHMM): 1300 TIDE HT.: 1.20 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

drift material only

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

Shell debris only

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

Littorina

chy 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

Shell debris

OTHER OBSERVATIONS: Razor clams & other bivalve shells present

CLEANUP PRECAUTIONS: None

ANIMALS: Otters Harbor Seals Sea Lions Whales
Other Fox Tracks

BIRDS: 3 dead oiled birds

GENERAL OBSERVATIONS: Fairly clean beach, small amount of drift material some of it being oiled. Splattered oil on vertical rock faces. Extensive sand-flat beyond beach.



ACE 8709642

K10-9

DB-2

DB-1

DB-3

DB-4

DB-8

DB-9

DB-5

DB-6

DB-7

DRY
BAY

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6/10/89 SHORELINE SEGMENT DB-12

LOCATION: (see enclosed map) North shore of DRY BAY

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/05/89

Recommended Cleanup Activity(ies):

- No cleanup recommended at this time, due to very light oiling and minimal anticipated environmental impact.

Priorities Considerations:

Ecological Constraints (from site survey): None, since no cleanup is recommended. The amount of oil here is negligible and will not adversely impact any internal 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.

Charles E. Holmes
State Historic Preservation Officer *

Date: June 10, 1989

EXXON: Jack A. Rickman

Date: 14 June 89

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 - KONTAK

Date: JUNES/89 Time: _____

Observer: D. Howes

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Log

LOCATION

LOCATION DRY BAY - NORTH SIDE

SEGMENT I.D. DB-12

LENGTH OF SHORELINE SEGMENT: 1000 m

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

SHORELINE:

Shoreline Type: SPI BEA COV/HLD/STET

Slope: LAUG/HANG/VER

Wave Exposure: High/Med Low

Sediment: B ___ % / C ___ % / P2-3 ___ % / G ___ % / S1-2 ___ % / M ___ % / R ___ %

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

OIL

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

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

VL DISTRIBUTION

Continuous: Y/N Segment # 100 No. Bands 0 Width 0

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 / U / L 0

OIL MORPHOLOGY

Pooled Oil _____ % "Free" Oil 5 % Spattered 95 % H/U/L/VL Sheen _____ %

OIL WEATHERING (OW)

Fresh Oil _____ % SU/SP/VP/MID/LO Choc Mousse 90 % SU/SP/VP/MID/LO

Pancake Mousse 10 % SU/SP/VP/MID/LO Asphalt Mousse _____ % SU/SP/VP/MID/LO

Tar Formation _____ %

Comments:

ACE 8709645

OIL CONTINUOUS IN UNIT. OCCURS AS SPLATTER (< 5 CM WIDTH) ON BEACH SEDIMENTS
IN UPPER / MID ZONES; SHEEN IN SAND & WATER IN MID TIDE ZONE
MOST OIL IN UPPER 20 M. DE. ZONE.
VERY, VERY LIGHT OIL IMPACT

DOCUMENTATION:

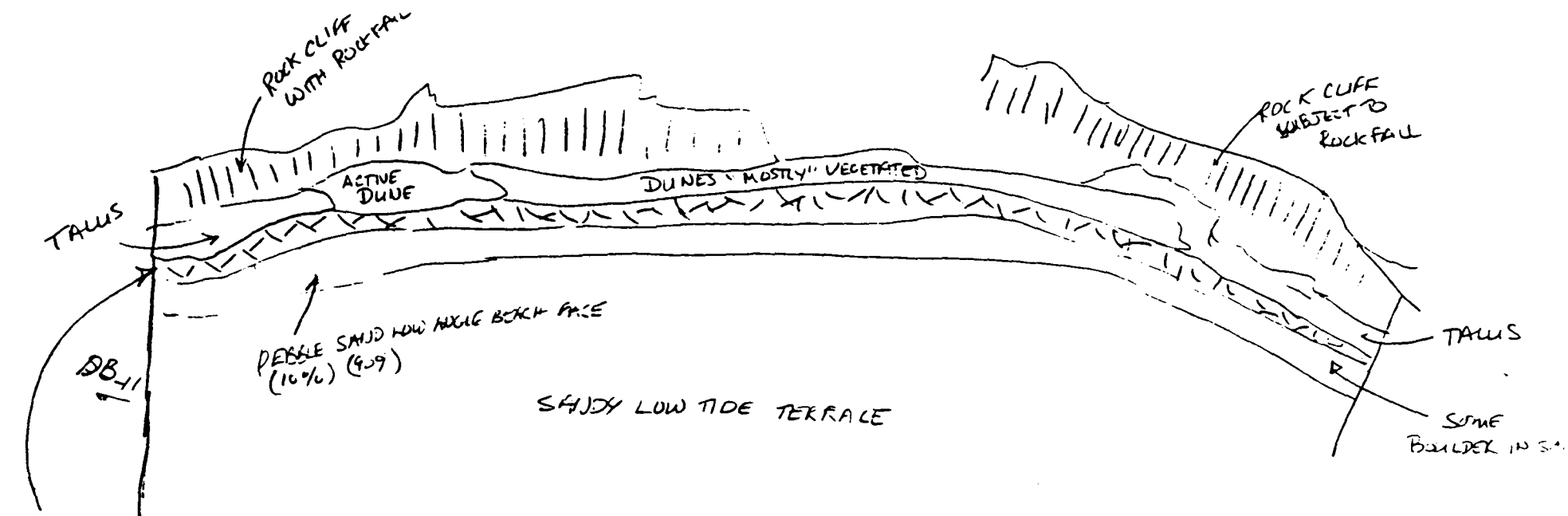
Map Aerial photo marking segment boundaries See Attached

VTR: Y/N Tape Number(s) _____

Photography: Y/N Roll Number(s) DMC-12

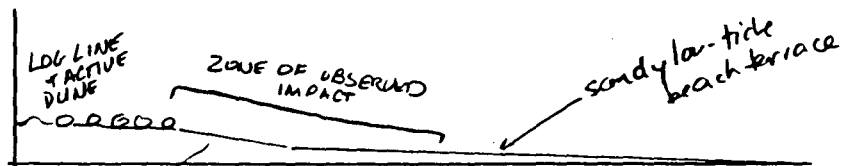
Sample Numbers Collected: N/A

DB-12



logs
line with
active dune
between logs

ACE 8709647



ESTIMATED PROFILE OF DB-12

Pebble
sand
beach face

ECOLOGICAL EVALUATION

LOCATION: DRY BAY SITE: North Shore OBSERVER: J. TARPLEY
 LOCATION PREFIX: DB SEG. NO.: 12 LENGTH: 1000 (M)
 DATE: 6/5/89 TIME (HHMM): 1320 TIDE HT.: 1 Z. 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)

Drift material only.

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)

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

Shell debris only.

OTHER OBSERVATIONS: Very little drift material. No attached live biota observed. Random clams & other bivalve shell debris present

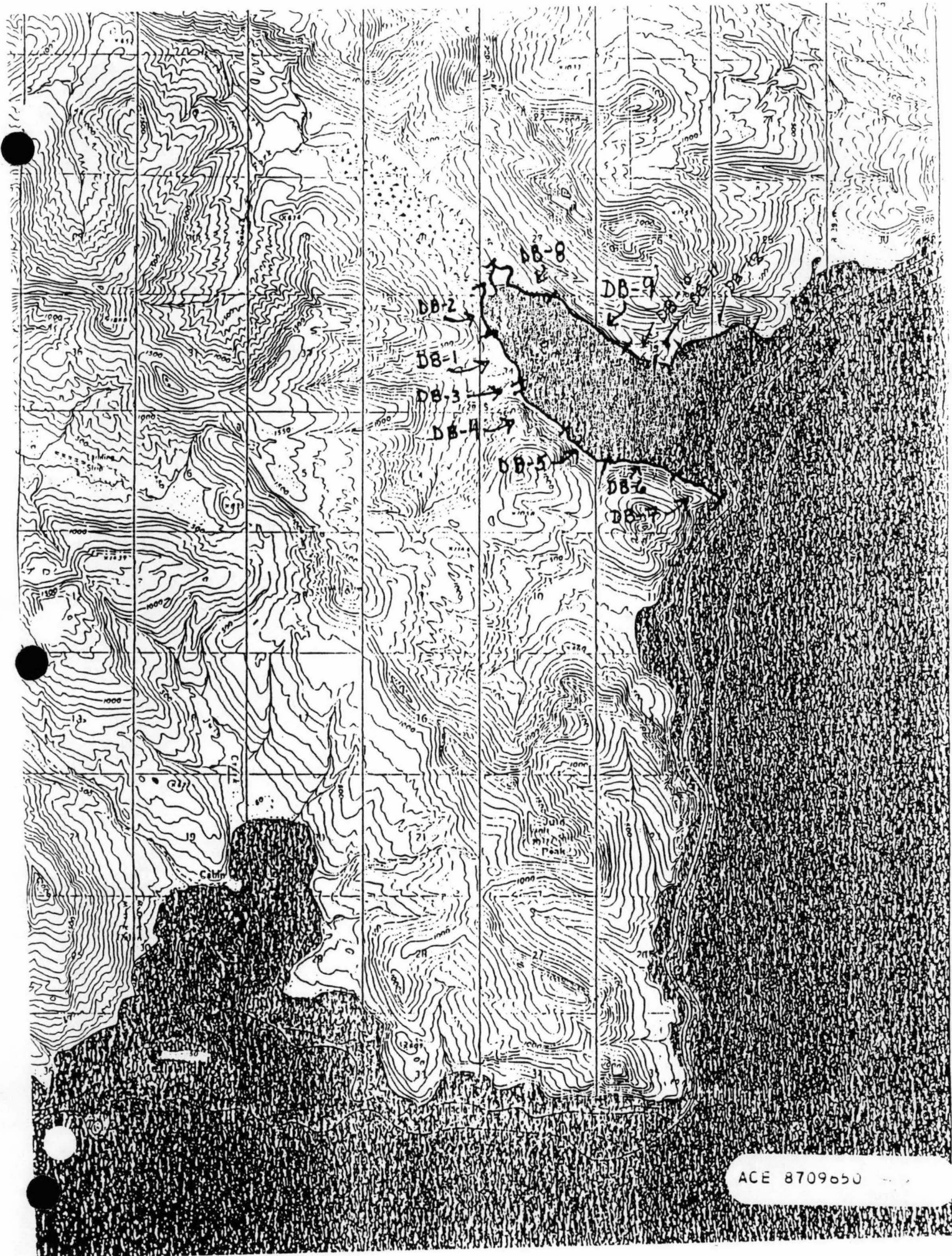
CLEANUP PRECAUTIONS: NONE

MAMMALS: Otters Harbor Seals Sea Lions Whales
 Other fox tracks

BIRDS: 4 dead birds (oiled)

GENERAL OBSERVATIONS: 1 baseball size Tin ball found at high ITZ.

Splattered mousse on logs & sand. Large bag of oil coated rocks also found on beach. Low energy beach. Extensive sand-flat out in front of beach.



ACE 8709650

(version July 23, 1989)

SHORELINE PRE CLEANUP REASSESSMENT

DATE 8/03/89 SHORELINE SEGMENT K10-9-DB-1R REASSESSMENT DATE 8/03

Observers: OG C. Dillon BIO A. Jahn ARCH S. Ludwig

Reason for Reassessment Initial assessment conducted 2 months
ago.

Revised Recommended Cleanup Activity(ies):

- No change from original assessment except to also remove small
pieces of oiled debris.

- Scrape oil spots off of larger logs.

Revised Ecological Constraints:

- No change from original assessment.

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.

Douglas Reger
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 submerged lands.

(version 6/04/89)

SHORELINE CLEANUP PROGRAM

DATE 6/05/89

SHORELINE SEGMENT DB-1

LOCATION: (see enclosed map) West Shore of Dry Bay-Alaska
Alaska Peninsula

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 5/31/89

Recommended Cleanup Activity(ies):

- Manually remove mousse and oiled drift material from high tide line.
- Rake oily debris out of grass areas, however, take care not to remove dune grass.

Priorities Considerations:

- KISCC determined this area to be sensitive due to sea bird nesting colonies.

Ecological Constraints (from site survey):

Archeological Constraints (from site survey):

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

Charles G. Holden
State Historic Preservation Officer *

Date: June 5, 1989

ISCC: _____

Date: _____

EXXON: Jack A. Pickner

Date: 6/24/89

* FOSC: _____

Date: _____

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

SHORELINE OIL EVALUATIONDate: 5/31/89 Time: 1545Observer: J. TARPLEYSurveyed From: Foot/~~Boat~~/~~Helio~~/PlaneWeather: Sun/~~cloud~~/Rain/Snow/FogLOCATIONLOCATION DRY BAY (west shore) SEGMENT NUMBER DB-1LENGTH OF SHORELINE SEGMENT: 875 mACCESS: Foot/Vehicle/Boat/Barge/Helio/Float PlaneSHORELINE:Shoreline Type: SPI/BEA/COV/HLD/STRTSlope: LANG/HANG/VERWave Exposure: High/Med/LowSediment: B₅ / C₅ / P₁₀ / G₂₀ / S₆₀ / M / RDrift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type Bench wrack
Drift woodOILDegree of Oiling: Heavy/Moderate/Light/No Oil/UnobservedArea of Beach Impact: SU / SP / (H) / M / LContinuous: Y/N % of Segment 100 Width of Band: <1 - 1.5 m

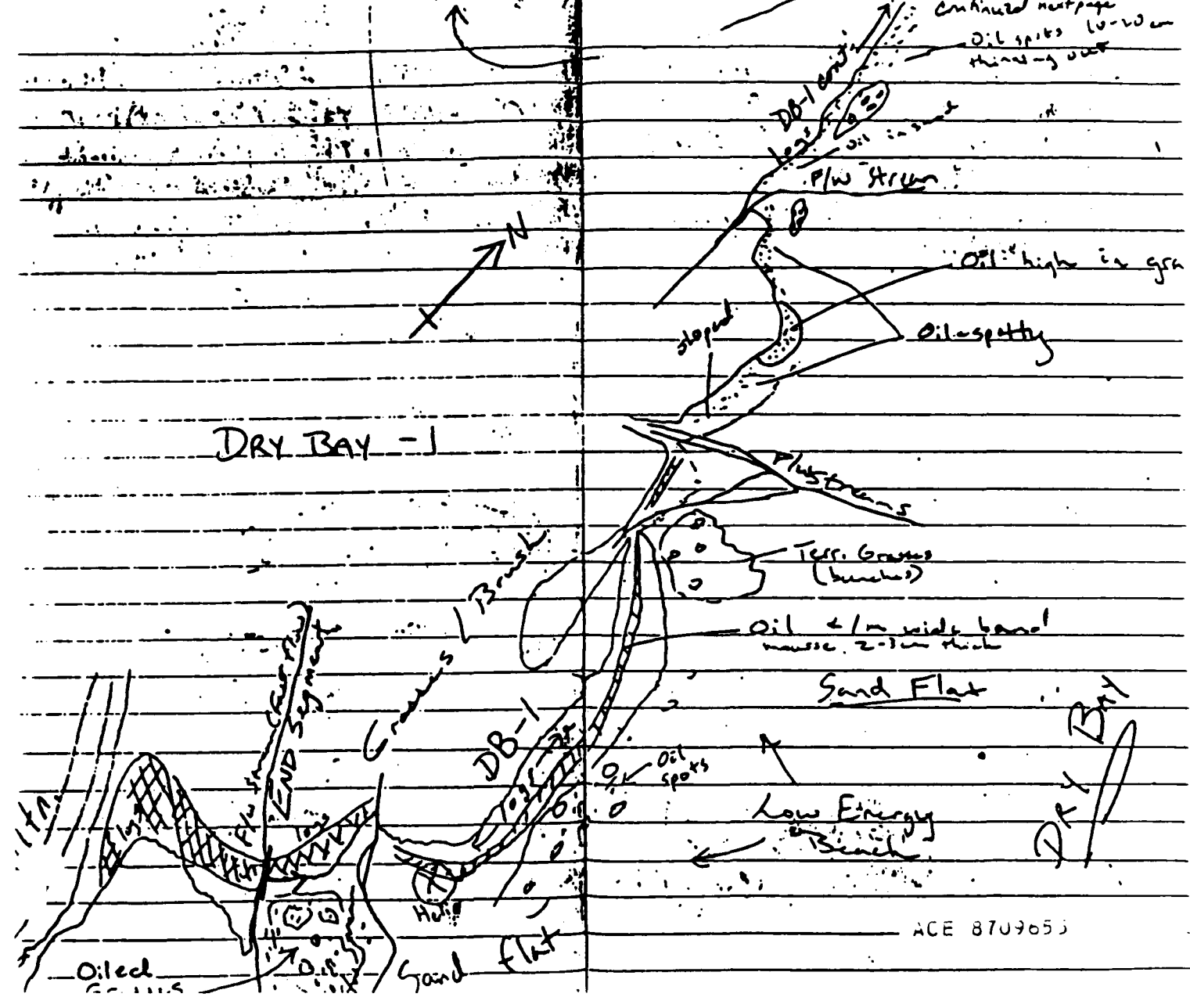
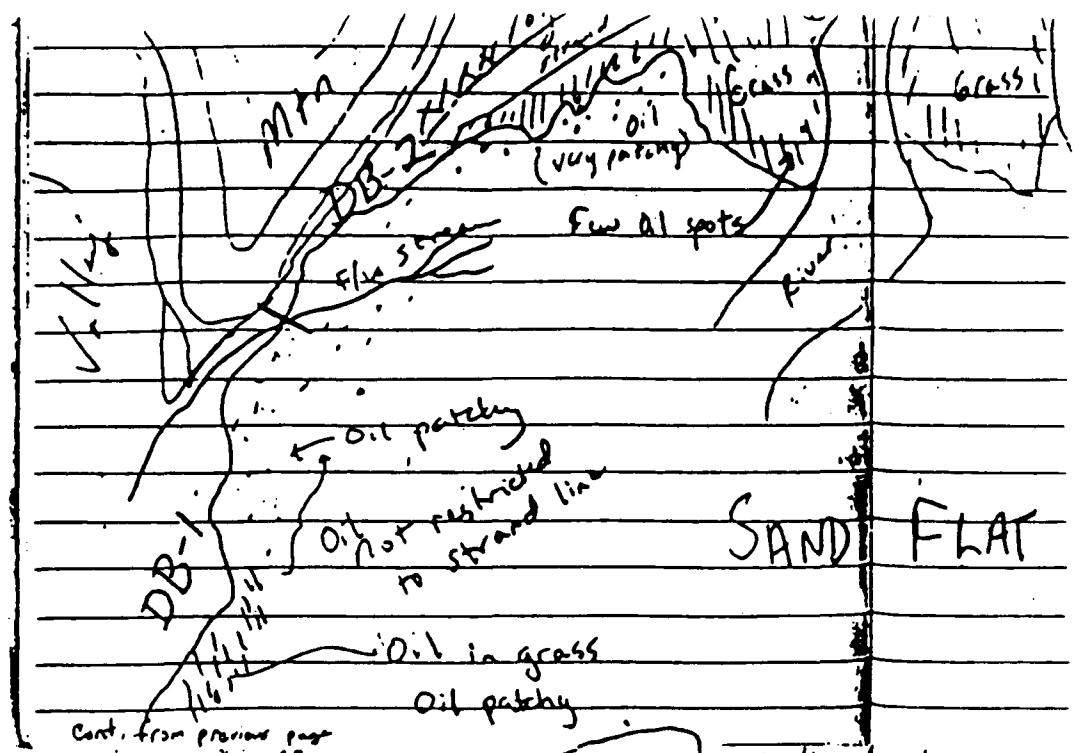
Sporadic: Y/N % of Segment _____

Est. Oil Thickness where > 1cm: 1-5 cm Est. Oil Penetration: _____ cmPooled Oil: 0 % "Free" Oil: 0 % Coated: H _____ % / M _____ % / L 100 %Fresh 0 % Mousse 100 % Tar Formation: 0 %Drift Debris Oiled ? Yes/No Supra/Upper/Mid/Lower Amount: H/M/L

Comments:

A <1.0 - 1.5m band of light mousse covering the high intertidal zone in a continuous band from a river at the SW end of segment towards the head of the Bay at the NW stream in the NW corner. The upper end of segment towards head of bay band is less continuous, patchy all over beach and onto the sand flat. Logs lightly oiled. Grass at NW corner also lightly oiled. Take debris from grass, do not remove clune grass

DOCUMENTATION:Map/Aerial photo marking segment boundaries See AttachedVTR: Y/~~N~~ Tape Number(s) N/APhotography: ~~Y~~/N Roll Number(s) DMC-11Sample Numbers Collected: N/A



ECOLOGICAL EVALUATION

LOCATION: DRY BAY SITE: _____ OBSERVER: D. McCORMICK
 LOCATION PREFIX: DB SEG. NO.: 1 LENGTH: 875 (M)
 DATE: 5/31/89 TIME (HMM): 1545 TIDE HT.: ~~0.5~~ 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

Fucus at strand line, oiled, being buried in sands - in mid/low ITZ free of oil.

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

Evidence of mytilus from scattered shell fragments - very sparse.

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

Evidence of barnacles from shell fragments

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)

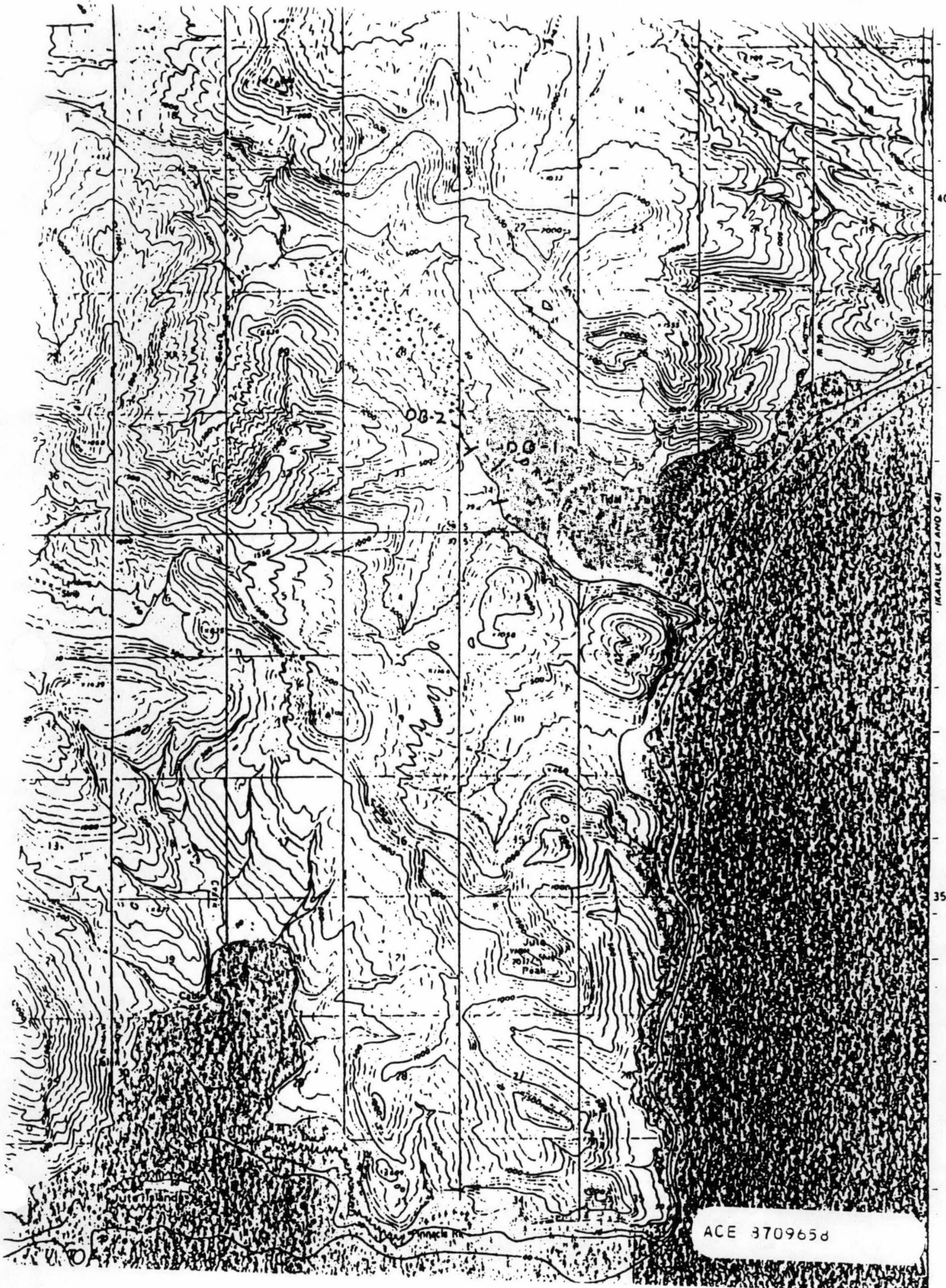
OTHER OBSERVATIONS: observed: bear and caribou tracks along high tide line; 3 caribou seen at north end head of bay; gullin area; dune grass oiled 1-5 cm high; no evidence of clow bees; 2 dead also found at strand line.

CLEANUP PRECAUTIONS: during manual cleanup - avoid removing dune grass - just take oily debris out of grass.

MAMMALS: Otters _____ Harbor Seals _____ Sea Lions _____ Whales _____
 Other Caribou

BIRDS: gulls - 2 dead oiled birds

GENERAL OBSERVATIONS: There is only light oiling here at high ITZ - primarily as mouse paths; oil is buried in sediments - evident as ~~mouse~~ sheen when walking through soft mud. This is a very broad tidal flat with little to no live biota of concern.



ACE 370965d



ACE 8709659

version July 23, 1989)

SHORELINE PRE CLEANUP REASSESSMENT

DATE 8/03/89 SHORELINE SEGMENT K10-9-DB-2R REASSESSMENT DATE 8/03

Observers: OG C. Dillon BIO A. Jahn ARCH S. Ludwig

Reason for Reassessment Initial assessment conducted 2 months
ago.

Revised Recommended Cleanup Activity(ies):

- No change from original assessment except to also remove small
pieces of oiled debris.

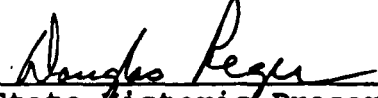
- Scrape oil spots off of larger logs.

Revised Ecological Constraints:

- No change from original assessment.

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.


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 submerged lands.

ACE 8709660

1(version 6/04/89)

SHORELINE CLEANUP PROGRAM

DATE 6/05/89

SHORELINE SEGMENT DB-2

LOCATION: (see enclosed map) West Shore of Dry Bay-Alaska Peninsula

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 5/31/89

Recommended Cleanup Activity(ies):

- Manually remove mousse paddies from sand beach.
- No cleanup recommended in marsh grasses at this time due to ecological constraints.

Priorities Considerations: According to KISCC, this is a sensitive area due to presence of sea bird nesting colonies.

Ecological Constraints (from site survey): During manual pickup of mousse, stay completely out of marsh areas. Trying to clean marsh will do more harm than good.

Archeological Constraints (from site survey):

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

Charles E. Hansen
State Historic Preservation Officer *

Date: June 5, 1989

ISCC: _____

Date: _____

EXXON: [Signature]

Date: 6/20/89

FOSC: _____

Date: _____

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

ACE 8709661

SHORELINE OIL EVALUATIONDate: 5/31/89 Time: 1710hObserver: J. TARPLEYSurveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fog

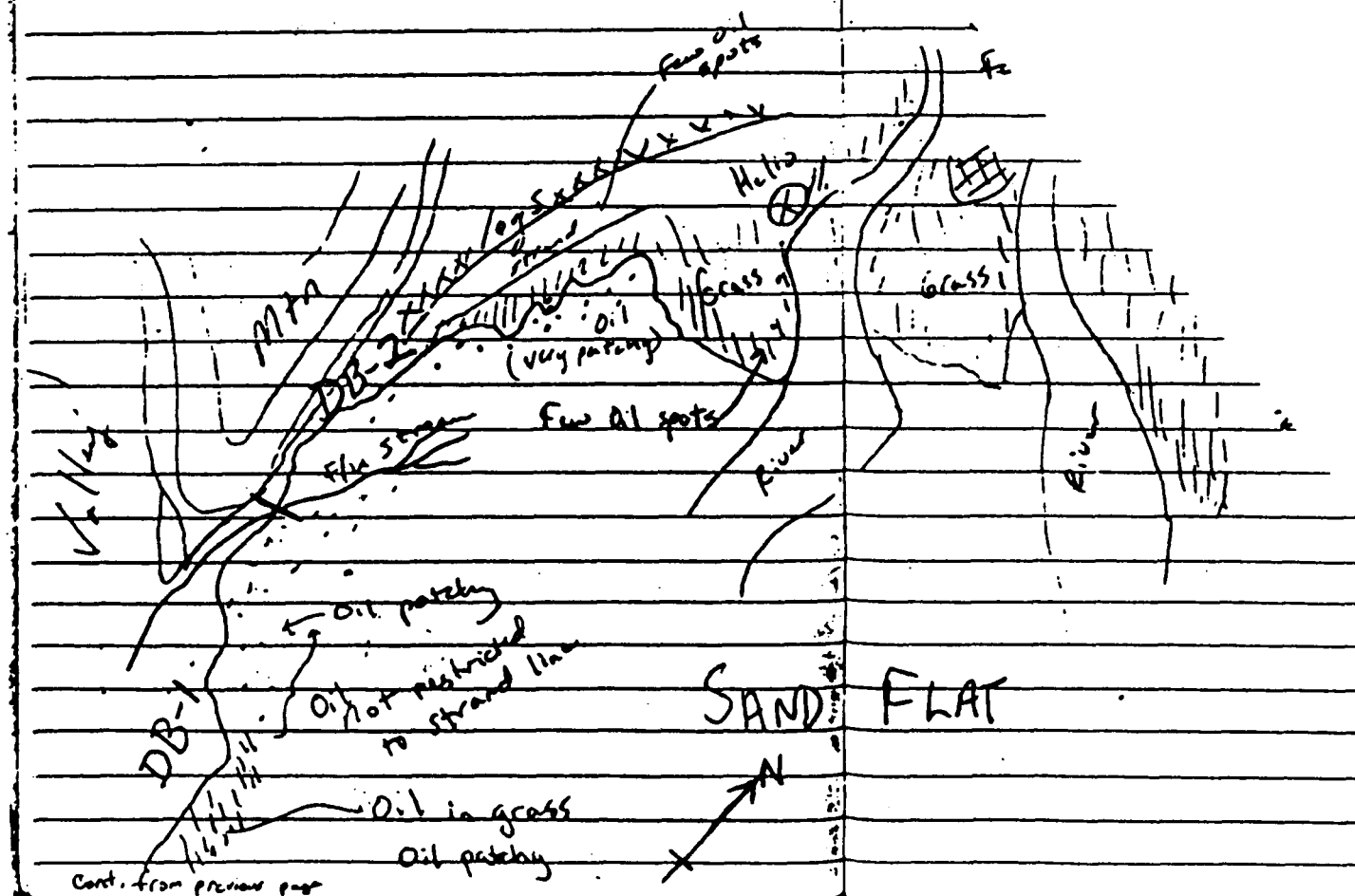
LOCATIONLOCATION Head of Dry BaySEGMENT NUMBER DB-2LENGTH OF SHORELINE SEGMENT: ~650 mACCESS: Foot/Vehicle/Boat/Barge/Helio/Float PlaneSHORELINE:Shoreline Type: SPI/BEA/COV/HLD/STRTSlope: LANG/HANG/VERWave Exposure: High/Med/LowSediment: B 1 / C 1 / P 1 / G 5 / S 90 / M 5 / R 1Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type LogsOILDegree of Oiling: Heavy/Moderate/Light/No Oil/UnobservedArea of Beach Impact: SU / SP H / M / LContinuous: Y/N % of Segment _____ Width of Band: _____ mSporadic: Y/N % of Segment 100Est. Oil Thickness where > 1cm: 1-3 cm Est. Oil Penetration: _____ cmPooled Oil: 0 % "Free" Oil: 0 % Coated: H 1 / M 1 / L 100 %Fresh 0 % Mousse 100 % Tar Formation: 0 %Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H/M/L

Comments:

Sporadic mousse patties throughout the segment.
Mousse located on gravel beach and in marsh grass.
Remove mousse from sand beach.

DOCUMENTATION:Map/Aerial photo marking segment boundaries See AttachedVTR: Y ☒ N Tape Number(s) N/APhotography: ☒ Y N Roll Number(s) DMC - 11Sample Numbers Collected: N/A

DRY BAY - 2



ECOLOGICAL EVALUATION

LOCATION: ARY BAY SITE: WEST shore OBSERVER: D. McCORMICK

LOCATION PREFIX: AB SEG. NO.: 2 LENGTH: 650 (M)

DATE: 5/31/89 TIME (HHMM): 1710 TIDE HT.: 0.8 (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

Fucus at high ITZ - lightly to no oiled

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: 3 caribou grazing at head of bay; caribou/bear tracks seen along banks of tide flat; 1 dead oiled bird in debris strand

CLEANUP PRECAUTIONS: Stay completely out of marsh areas. Although there is some oiling in marsh grasses, trying to clean it would do more harm than good.

MAMMALS: Otters _____ Harbor Seals _____ Sea Lions _____ Whales _____
Other Caribou

BIRDS: gulls

GENERAL OBSERVATIONS: Most oil here in form of mouse patties on surface or buried at strand line - no impacts from manual pickup of oiled debris.



version July 23, 1989)

SHORELINE PRE CLEANUP REASSESSMENT

DATE 8/03/89 SHORELINE SEGMENT K10-9-DB-4R REASSESSMENT DATE 8/03

Observers: OG C. Dillon BIO A. Jahn ARCH S. Ludwig

Reason for Reassessment Initial assessment conducted 2 months
ago.

Revised Recommended Cleanup Activity(ies):

- No change from original assessment.

Revised Ecological Constraints:

- No change from original assessment.

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.

Douglas Reger
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 submerged lands.

ACE 8709669

(version 6/04/89)

SHORELINE CLEANUP PROGRAM

DATE 6/05/89

SHORELINE SEGMENT DB-4

LOCATION: (see enclosed map) West Shore of Dry Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/01/89

Recommended Cleanup Activity(ies):

- Recommend manual removal of oil mousse patties when segments DB-1, DB-2, DB-3 are cleaned. This area has secondary priority to DB-1, DB-2, DB-3.

Priorities Considerations:

- KISCC considers this Bay to be a sensitive area, due to sea bird nesting colonies.

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.

Charles J. Adams
State Historic Preservation Officer *

Date: June 5, 1989

ISCC: _____

Date: _____

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 8709670

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KONTAK

Date: JUN 1/89 / Time: 13:55

Observer: D. HAWES

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Icy

LOCATION

LOCATION DRY BAY- WEST SHORE

SEGMENT I.D. DB-4

LENGTH OF SHORELINE SEGMENT: 875 m

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

SHORELINE (General)

Shoreline Type: SPI/DEA/COV/HID/STET

Slope: LAUG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B4 / C4 / P5 / G1 / S90 / M1 / R1

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

OIL

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

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

OIL DISTRIBUTION

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

Sporadic: Y/N Segment 100 Min/Max Dia 100 Impact Width 100

Est. Oil Thickness where > 1cm: 100 cm SU / SP / UP / MID / LO

Est. Oil Penetration: None observed cm SU / SP / UP / MID / LO

Layers? Yes/NO No. Layers 1 Oil Weathering 1

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

OIL MORPHOLOGY

Pooled Oil 1 "Free" Oil 40 Spattered 60 H/H/L/VL Shown 1

OIL WEATHERING (OW)

Fresh Oil 1 SU/SP/UP/MID/LO Choc Mousse 1 SU/SP/VP/MID/LO

Pancake Mousse 100 SU/SP/VP/MID/LO Asphalt Mousse 1 SU/SP/VP/MID/LO

Tar Formation 1

Comments:

ACE 8709671

In places pancake mousse partially buried by sand
Oil splatter on the scattered boulders
Size of pancake mousse varies from 45cm high 3m in width, but is <1% of
unit.
Recommend: Manual removal of patties when segments DB-3, DB-2, DB-1
are cleaned; area secondary to DB-3/-2/-1.

DOCUMENTATION:

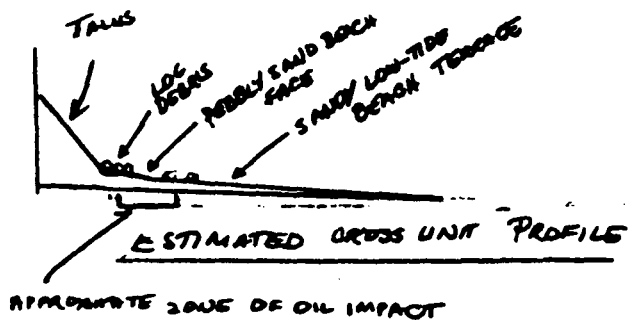
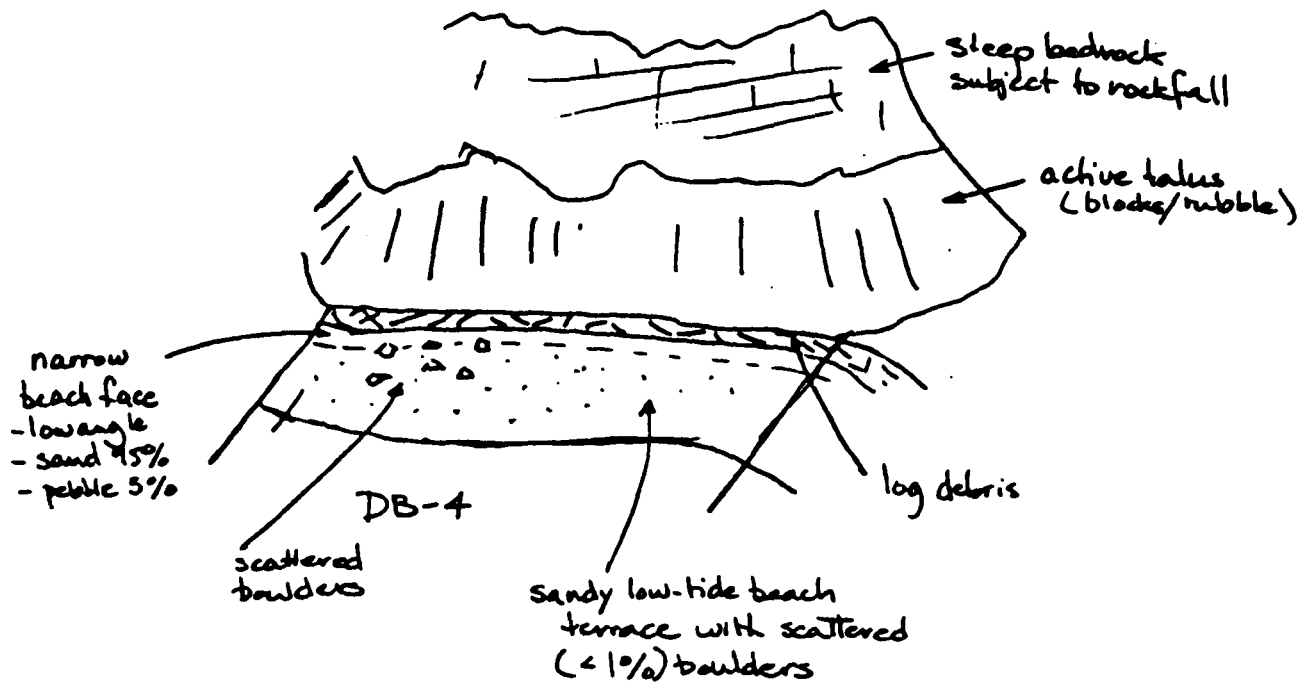
Map Aerial photo marking segment boundaries See attached

VTR: Y Tape Number(s) KODIAK 01

Photography: Y Roll Number(s) Dmc-11

Sample Numbers Collected: N/A

SITE DB-4



ACE 8709673

ECOLOGICAL EVALUATION

LOCATION: Dry Bay SITE: West Shore OBSERVER: J. Tarpley
 LOCATION PREFIX: DB SEG. NO.: 4 LENGTH: 875 (M)
 DATE: 6/1/89 TIME (HHMM): 1355 TIDE HT.: + 3.5 (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

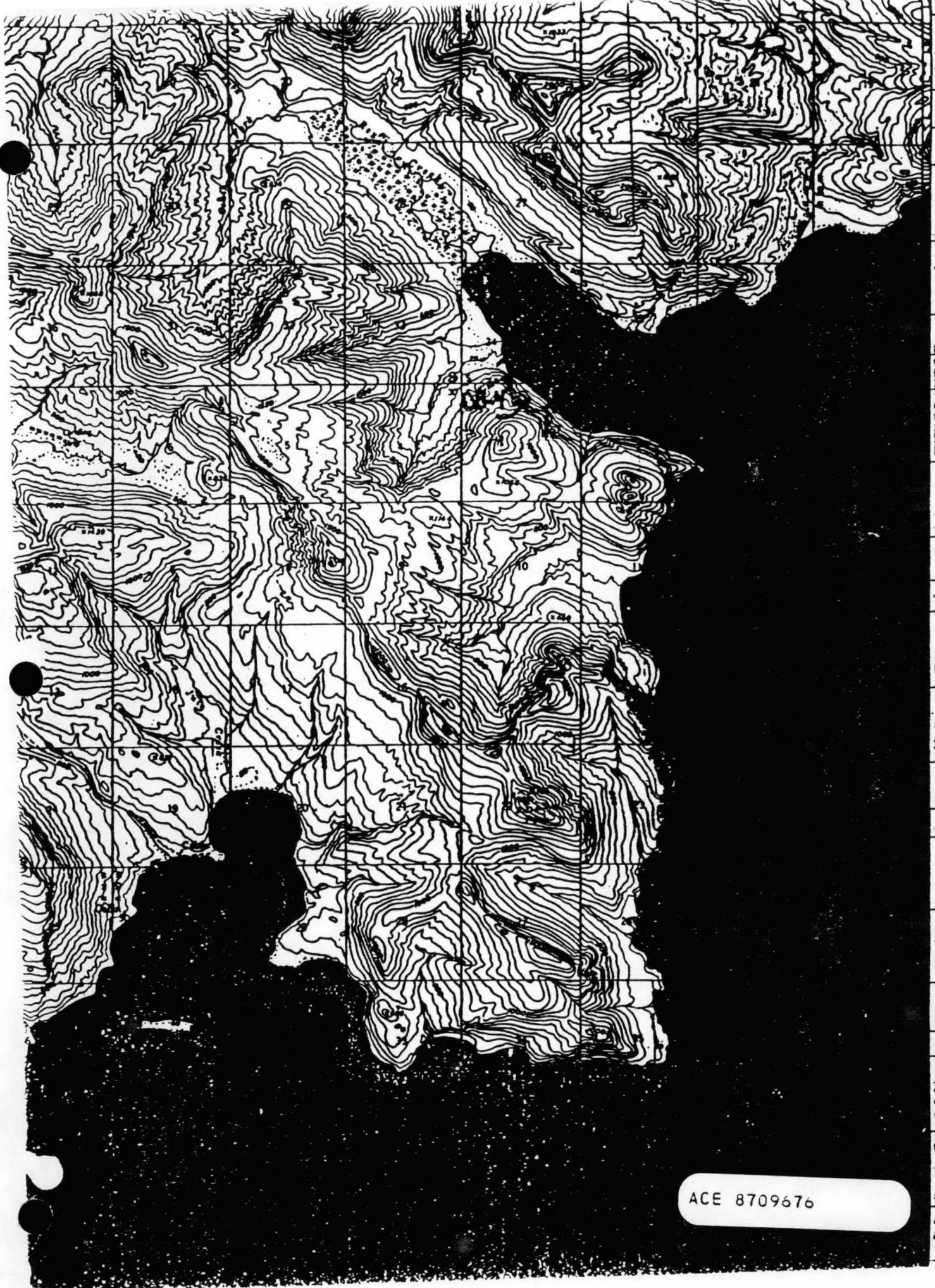
OTHER OBSERVATIONS: Drift material at high tide strand composed
primarily of Fucus & terrestrial grass. In drift is white "soapy" detergent-
like substance. Drift material is not oiled.

CLEANUP PRECAUTIONS: NONE

MAMMALS: Otters Harbor Seals Sea Lions Whales
 Other None Bear Tracks

BIRDS: NONE

GENERAL OBSERVATIONS: Splattered oil on large rocks throughout
the ITZ. Mousse pancakes (~2cm thick) on sand beach at high tide line
Very light oil coverage. Few shells on beach.



ACE 8709676



ACE 8709677 -1P

version July 23, 1989)

SHORELINE PRE CLEANUP REASSESSMENT

DATE 8/03/89 SHORELINE SEGMENT K10-9-DB-5R REASSESSMENT DATE 8/03

Observers: OG C. Dillon BIO A. Jahn ARCH S. Ludwig

Reason for Reassessment Initial assessment conducted 2 months
ago.

Revised Recommended Cleanup Activity(ies):
- No change from original assessment.

Revised Ecological Constraints:
- No change from original assessment.

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.

Douglas Reger
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 submerged lands.

ACE 8709678

(version 6/04/89)

SHORELINE CLEANUP PROGRAM

DATE 6/05/89

SHORELINE SEGMENT DB-5

LOCATION: (see enclosed map) South Shore-Dry Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/01/89

Recommended Cleanup Activity(ies):

- No cleanup recommended at this time. Very light weathered oil occurs sporadically as splash on rocks.

Priorities Considerations:

- None.

Ecological Constraints (from site survey):

- None, since cleanup is not recommended.

Archeological Constraints (from site survey):

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

Charles E. Adams
State Historic Preservation Officer *

Date: June 5, 1989

ISCC: _____

Date: _____

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 8709679

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KONTAK

Date: JUNE/89 / Time: 14:30

Observer: D. Jones

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun. Cloud / Rain / Snow / Fog

LOCATION

LOCATION DRY DRY - WEST SHORE

SEGMENT I.D. DB-5

LENGTH OF SHORELINE SEGMENT: 875 m

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

SHORELINE:

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

Slope: LAUG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B 95 / C 10 / P 40 / G / S 10 / M / R

Drift Debris on Beach: Yes/No

Supra Upper/Mid/Lower Type LOGS SOMETHING

OIL

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

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

OIL DISTRIBUTION

Continuous: Y/N Segment No. Bands Width

Sporadic: Y/N Segment 100 Min/Max Dia Impact Width
(% length affected)

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 5 Spattered 95 H/H/L/VL Sheen

OIL WEATHERING (OW)

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

Pancake Mousse 100 SU/SP/VP/MID/LO Asphalt Mousse SU/SP/VP/MID/LO

Tar Formation

ACE 8709680

Comments:

- SPLITTER ON COBBLES/BOULDERS; SOME MINOR PANCAKE - ^{FREE OIL PATCHES} ~~VERY LITTLE~~ ^{VERY LITTLE} ~~ON~~ ^{ON} THE SANDY PORTIONS OF THE BEACH: ...
NO TREATMENT APPEARS TO BE NECESSARY

DOCUMENTATION:

Map Aerial photo marking segment boundaries See Attached

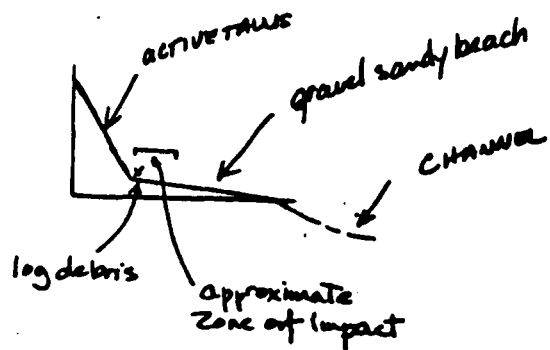
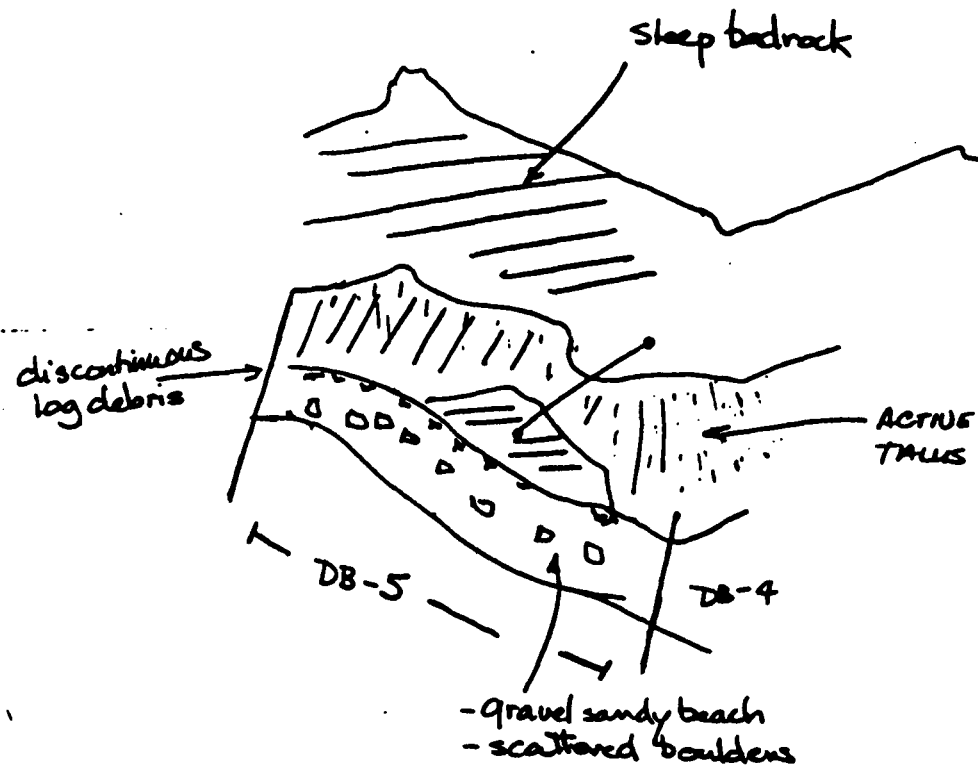
VTR: Y ~~N~~ Tape Number(s) KODIAK 01

Photography: Y ~~N~~ Roll Number(s) DMC-11

Sample Numbers Collected: N/A

ACE 8709681

SITE DB-5



ESTIMATED CROSS UNIT PROFILES

ECOLOGICAL EVALUATION

LOCATION: SOUTH SHORE DRY BAY SITE: _____ OBSERVER: D. McCORMICK

LOCATION PREFIX: DB SEG. NO.: 5 LENGTH: 875 (M)

DATE: 6/1/89 TIME (HHMM): 1430 TIDE HT.: +3.0 (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

Healthy on large boulders.

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

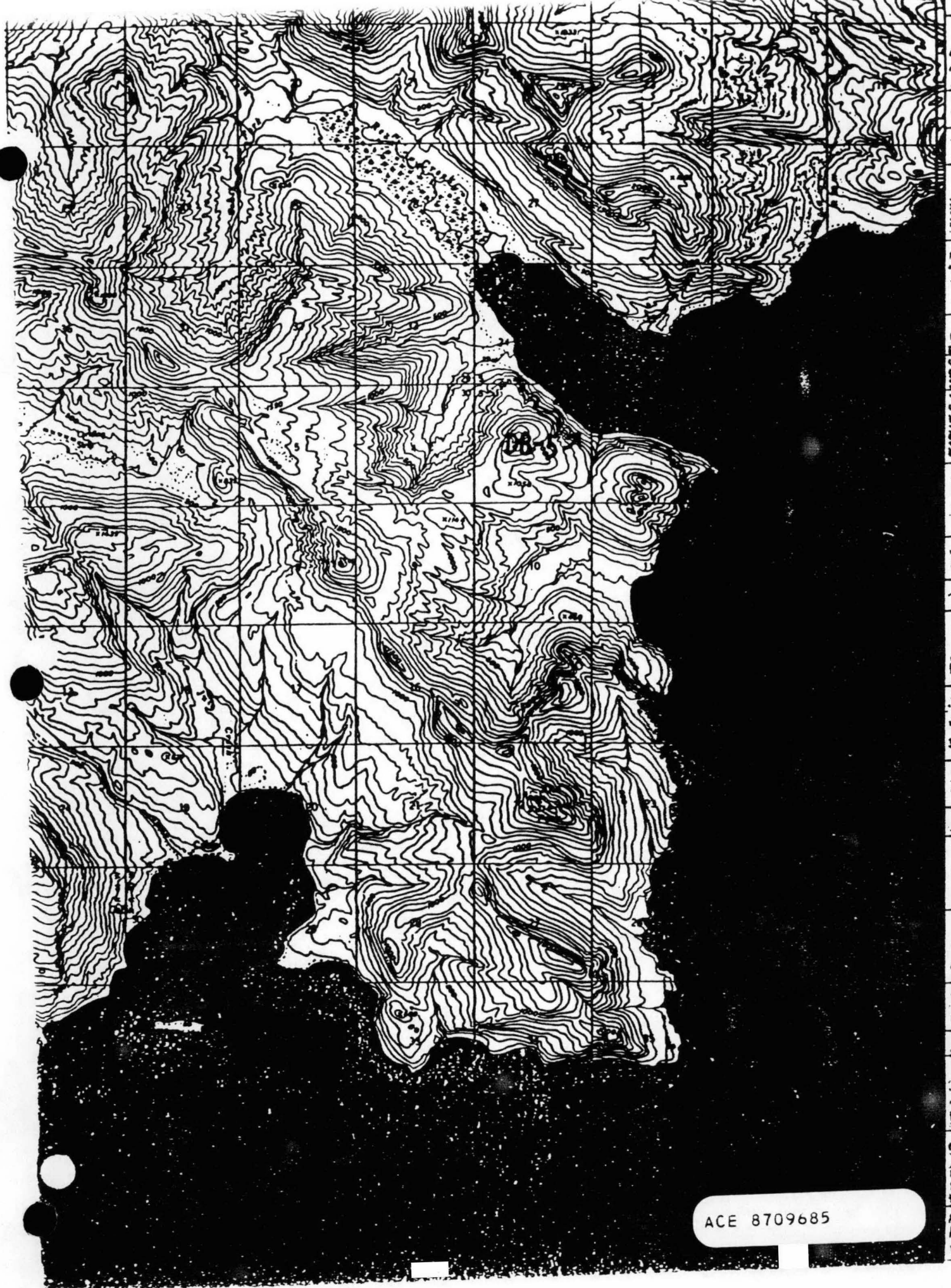
OTHER OBSERVATIONS: 1 dead oiled bird; shells of barnacles, small clams; bull kelp;
algae + laminaria in debris - some lightly oiled.

CLEANUP PRECAUTIONS: None

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

BIRDS: gulls, sandpipers

GENERAL OBSERVATIONS: Oil occurs here as splash on rocks - weathered; no
way to clean this up - oiling is so light, cleanup is not warranted.



ACE 8709685



ACE 8709686 - 1

version July 23, 1989)

SHORELINE PRE CLEANUP REASSESSMENT

DATE 8/03/89 SHORELINE SEGMENT K10-9-DB-6R REASSESSMENT DATE 8/03

Observers: OG C. Dillon BIO A. Jahn ARCH S. Ludwig

Reason for Reassessment Initial assessment conducted 2 months
ago.

Revised Recommended Cleanup Activity(ies):

- No change from original assessment.

Revised Ecological Constraints:

- No change from original assessment.

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.

Douglas Reger
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 submerged lands.

ACE 8709687

(version 6/04/89)

SHORELINE CLEANUP PROGRAM

DATE 6/05/89

SHORELINE SEGMENT DB-6

LOCATION: (see enclosed map) South Shore Dry Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/01/89

Recommended Cleanup Activity(ies):

- No cleanup recommended at this time. Sporadic very light splatter of oil on rocks and mousse pancakes on beach.

Priorities Considerations:

- KISCC considers this a sensitive area due to local sea bird nesting colonies.

Ecological Constraints (from site survey):

- None.

Archeological Constraints (from site survey):

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

Charles R. Dima
State Historic Preservation Officer *

Date: June 5, 1989

ISCC: _____

Date: _____

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 8709688

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KODIAK

ate: JUNE 1/89 / Time: 1510

Observer: _____

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

LOCATION DRY BAY - WEST SIDE

SEGMENT I.D. DB-6

LENGTH OF SHORELINE SEGMENT: 1050 m

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

SHORELINE:

Shoreline Type: SPI DEA COV/HLD/STET

Slope: LAUG HANG/VER

Wave Exposure: High/Med/Low

Sediment: B OK / C / P 20 / G / S 10 / M / R

Drift Debris on Beach: Yes/No

Supra/Upper/Mid/Lower Type logs/rocks

OIL

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

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

OIL DISTRIBUTION

Continuous: Y/N Segment No. Bands Width

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

Est. Oil Thickness where > 1cm: 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 / L / VL

OIL MORPHOLOGY

Pooled Oil "Free" Oil 20 Spattered 80 H/H/L/VL Sheen

OIL WEATHERING (OW)

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

Pancake Mousse 100 SU/SP/VP/MID/LO Asphalt Mousse SU/SP/VP/MID/LO

Tar Formation

ACE 8709689

Comments:

MOST OF OIL WHICH IS VERY LIGHT OCCURS AS SPATTER OR FINE OIL WHICH
HAS A PANCAKE Mousse CONSISTENCY -> MOST IS ON BOULDERS SOME PATCHES ON BEACH
NO REMEDIATION APPEARS TO BE NECESSARY

DOCUMENTATION:

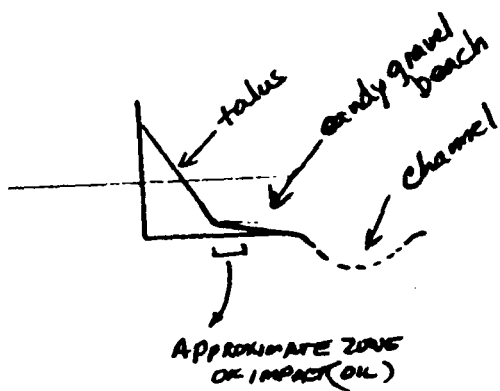
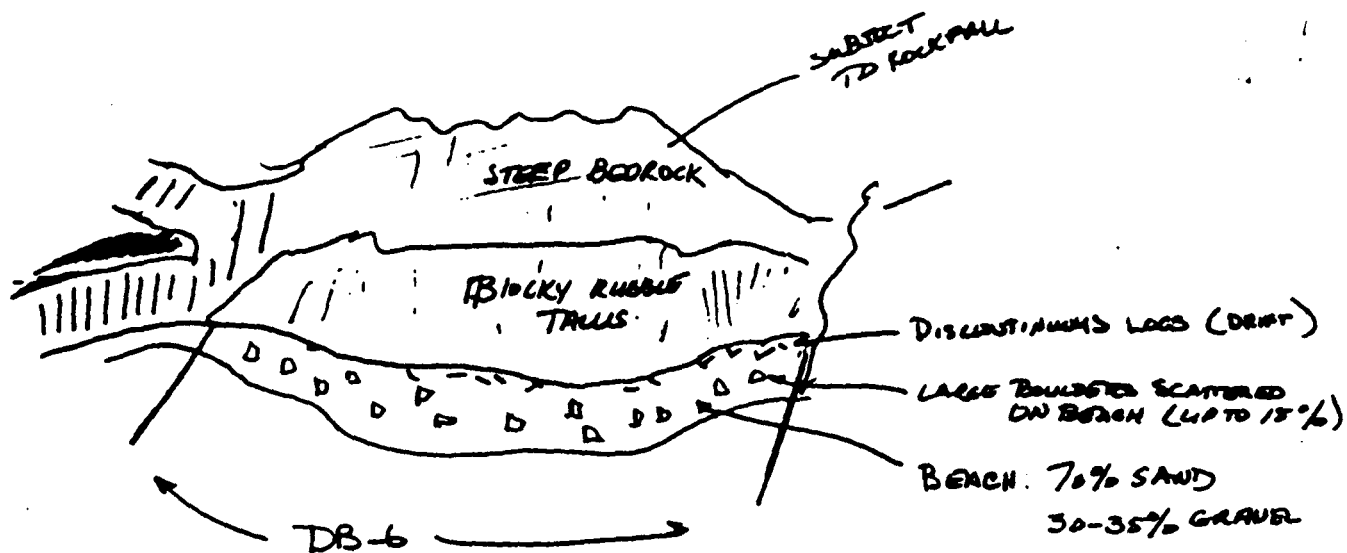
Map Aerial photo marking segment boundaries See attached

VTR: (Y/N) Tape Number(s) KODIAK 01

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

Sample Numbers Collected: N/A

SITE DB-6



ESTIMATED CROSS-UNIT PROFILE

ACE 8709691

ECOLOGICAL EVALUATION

LOCATION: DRY BAY SITE: South Street OBSERVER: J. TAPLEY

LOCATION PREFIX: DB SEG. NO.: 6 LENGTH: 1050 (M)

DATE: 6 / 1 / 89 TIME (HHMM): 1510 TIDE HT.: +2.5 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

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

Shells only

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

Found only on large rocks at lower ITZ.

Littorina

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

Littorina sp., Nereis sp. & Macgillivray sp. present

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

Shells only

OTHER OBSERVATIONS: Few bivalve shells found. Healthy life found on rocks that have been splattered with oil.

CLEANUP PRECAUTIONS: None

MAMMALS: Otters Other Harbor Seals Cuban Monkeys in logs Sea Lions Whales

BIRDS: Kittiwakes on the bay, Sandpipers on beach

GENERAL OBSERVATIONS: Very light splatter of oil on the rocks and moss patches on the beach. No cleanup recommended.
(when thick)



ACE 8709695

version July 23, 1989)

SHORELINE PRE CLEANUP REASSESSMENT

DATE 8/03/89 SHORELINE SEGMENT K10-9-DB-7R REASSESSMENT DATE 8/03

Observers: OG C. Dillon BIO A. Jahn ARCH S. Ludwig

Reason for Reassessment Initial assessment conducted 2 months
ago.

Revised Recommended Cleanup Activity(ies):

- No change from original assessment.

Revised Ecological Constraints:

- No change from original assessment.

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.

Douglas Reger
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 submerged lands.

(version 6/04/89)

SHORELINE CLEANUP PROGRAM

DATE 6/05/89

SHORELINE SEGMENT DB-7

LOCATION: (see enclosed map) South Shore of Dry Bay to
South eastern Point

ADEC NO. _____ SHORELINE ASSESSMENT DATE: _____

Recommended Cleanup Activity(ies):

- No cleanup recommended at this time. No oil observed.

Priorities Considerations:

- KISCC considers this area to be sensitive, due to local sea bird nesting colonies.

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 re-evaluated.

Archeological Constraints (from site survey):

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

Charles E. Adams
State Historic Preservation Officer *

Date: June 5, 1989

ISCC: _____

Date: _____

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 8709697

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - MONTAR

Date: JUNE 1/89 Time: 1525

Observer: D. Howes

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Hazy

LOCATION

LOCATION DRY BAY - WEST SIDE

SEGMENT I.D. DB-7

LENGTH OF SHORELINE SEGMENT: 875 m

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

SHORELINE:

Shoreline Type: SPI/BEA/COV/HID/STRT

Slope: LAAG/HAB/VEP

Wave Exposure: High/Med/Low

Sediment: B90% / C10% / P___% / G___% / S___% / M___% / R___%

^{ED}
(coaly
blocky rubble
beach)

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 / 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 / L / VL

OIL MORPHOLOGY

Pooled Oil ___% "Free" Oil ___% Spattered ___% H/H/L/VL Shown ___%

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 8709698

NO OIL IMPACT WAS OBSERVED IN THE HELICOPTER FLY-BY
NO CLEAN-UP APPEARS TO BE NECESSARY.

DOCUMENTATION:

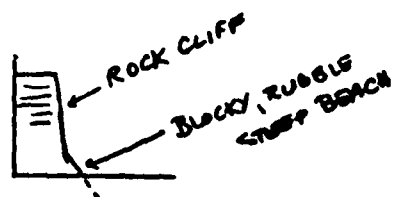
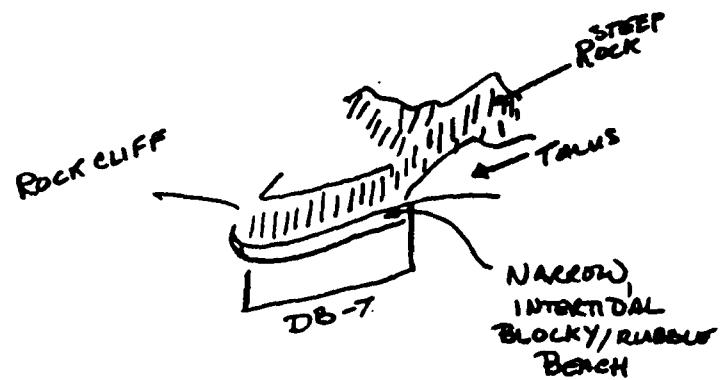
Map Aerial photo marking segment boundaries See attached

VTR: Y ~~Y~~ Tape Number(s) KODIAK 01

Photography: Y ~~N~~ Roll Number(s) _____

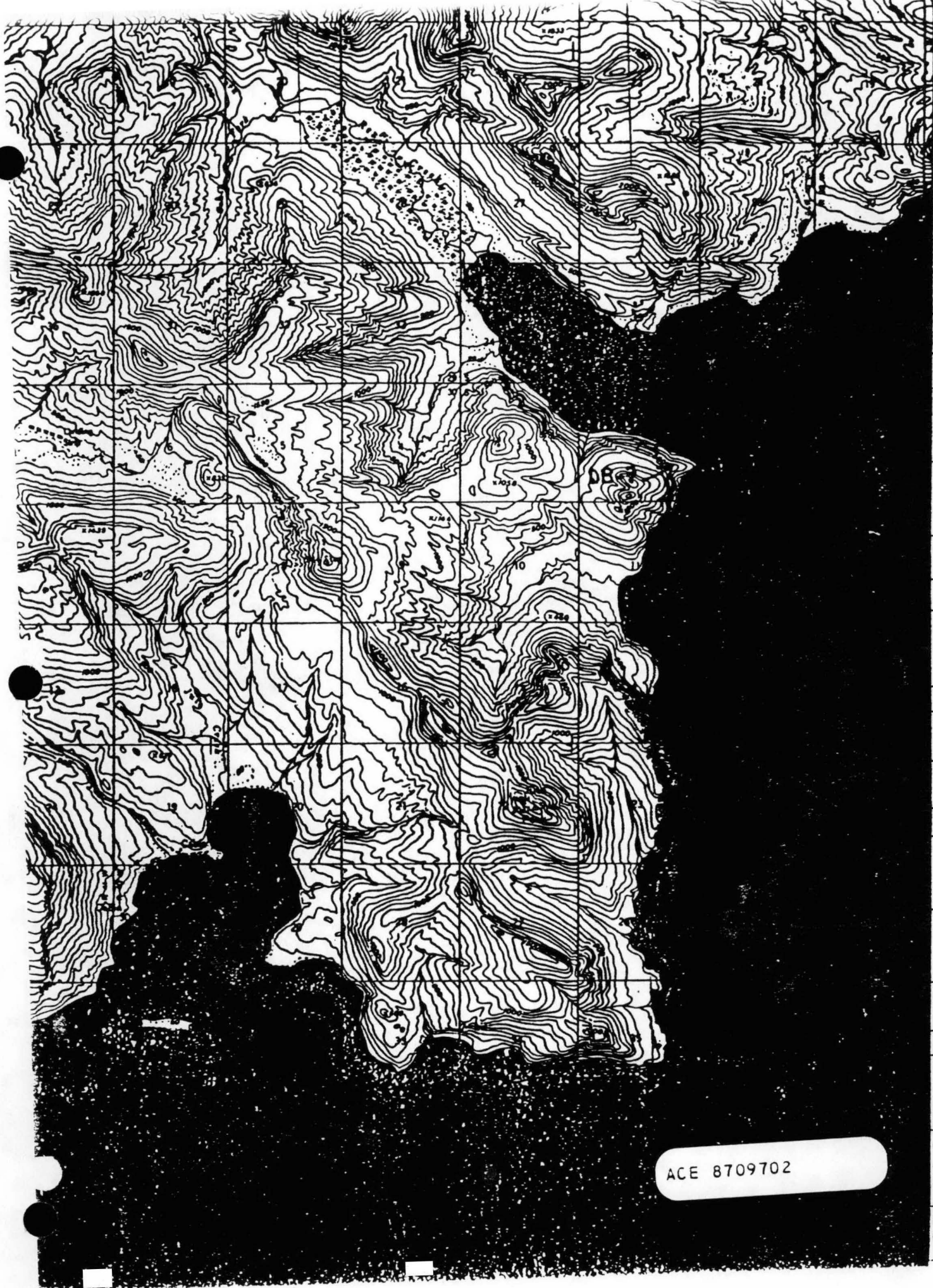
Sample Numbers Collected: N/A

SITE DB-7

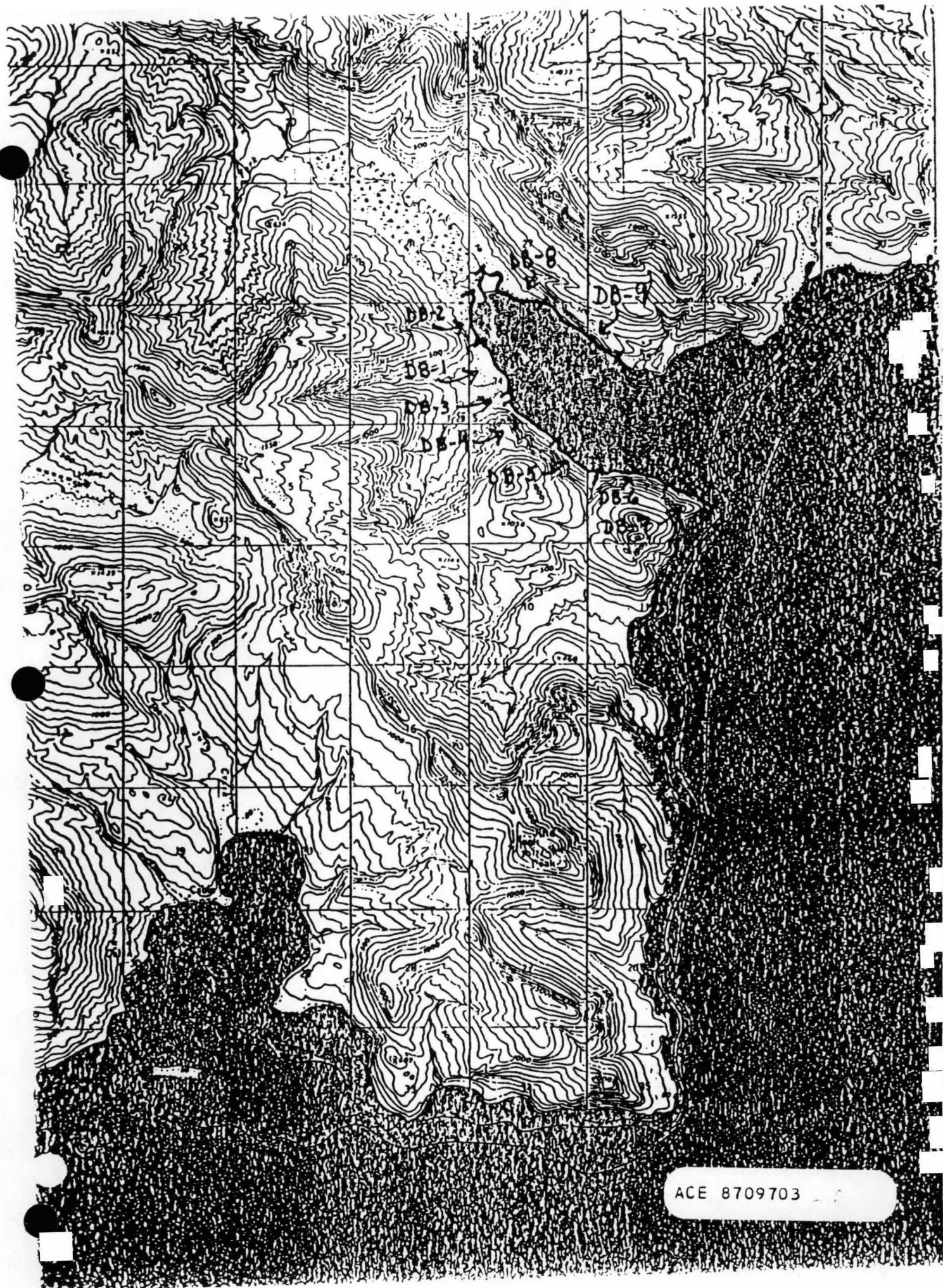


ESTIMATED CROSS-UNIT
PROFILE

ACE 8709700



ACE 8709702



ACE 8709703

version July 23, 1989)

SHORELINE PRE CLEANUP REASSESSMENT

DATE 8/03/89 SHORELINE SEGMENT K10-9-DB-8R REASSESSMENT DATE 8/03

Observers: OG C. Dillon BIO A. Jahn ARCH S. Ludwig

Reason for Reassessment Initial assessment conducted 2 months
ago.

Revised Recommended Cleanup Activity(ies):

- No change from original assessment.

Revised Ecological Constraints:

- No change from original assessment.

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.

Douglas Regier
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 submerged lands.

(version 6/04/89)

SHORELINE CLEANUP PROGRAM

DATE 6/05/89

SHORELINE SEGMENT DB-8

LOCATION: (see enclosed map) North End Head-Dry Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/01/89

Recommended Cleanup Activity(ies):

- No cleanup recommended at this time. See ecological constraints.

Priorities Considerations:

- None.

Ecological Constraints (from site survey): None, since no cleanup is recommended. Only very minor, spotty oiling in grass does not warrant a cleanup effort in this sensitive marsh 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.

Charles Z. Hines
State Historic Preservation Officer *

Date: June 5/1989

ISCC: _____

Date: _____

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 8709705

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - RONTAR

Date: JUNE 1/89 Time: 15:30

Observer: D. HOWES

Surveyed From: Foot/Boat/Helic/Plane

Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

LOCATION DRY BAY - NORTH END - HEAD OF BAY SEGMENT I.D. DB - 8

LENGTH OF SHORELINE SEGMENT: 1500 m

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

SHORELINE:

Shoreline Type: SPI/BEA/COV/HLD/STET

Slope: LAUG/HANG/VER (really as ditch/abney)

Wave Exposure: High/Med/Low

Sediment: B 1 / C 1 / P 10 / G 1 / S 40 / M 1 / R 1

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

OIL

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

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

IL DISTRIBUTION

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

Sporadic: Y/N Segment 1 30 Min/Max Dia 1 Impact Width 1

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

Est. Oil Penetration: 1 cm SU / SP / UP / MID / LO

Layers? Yes/No No. Layers 1 Oil Weathering 1

Drift Debris Oiled? Yes/NO Supra/Upper/Mid/Lower Amount: H / U / L / VL

OIL MORPHOLOGY

Pooled Oil 1 "Free" Oil 100 Spattered 1 H/U/L/VL Choc. 1

OIL WEATHERING (OW)

Fresh Oil 1 SU/SP/VP/MID/LO Choc Mousse 1 SU/SP/VP/MID/LO

Pancake Mousse 100 SU/SP/VP/MID/LO Asphalt Mousse 1 SU/SP/VP/MID/LO

Tar Formation 1

Comments:

ACE 8709706

OIL IMPACT VERY, VERY LIGHT - 3 SMALL PATCHES IN THE GRASS (SEE SKETCH)
ONE TAR BALL - 25 CM diameter - OBSERVED IN SANDY CORNER AREA (SEE SKETCH)
NO CLEAN-UP APPEARS TO BE NECESSARY - APPROXIMATELY 80% DEWET COVERED ON GROUND

DOCUMENTATION:

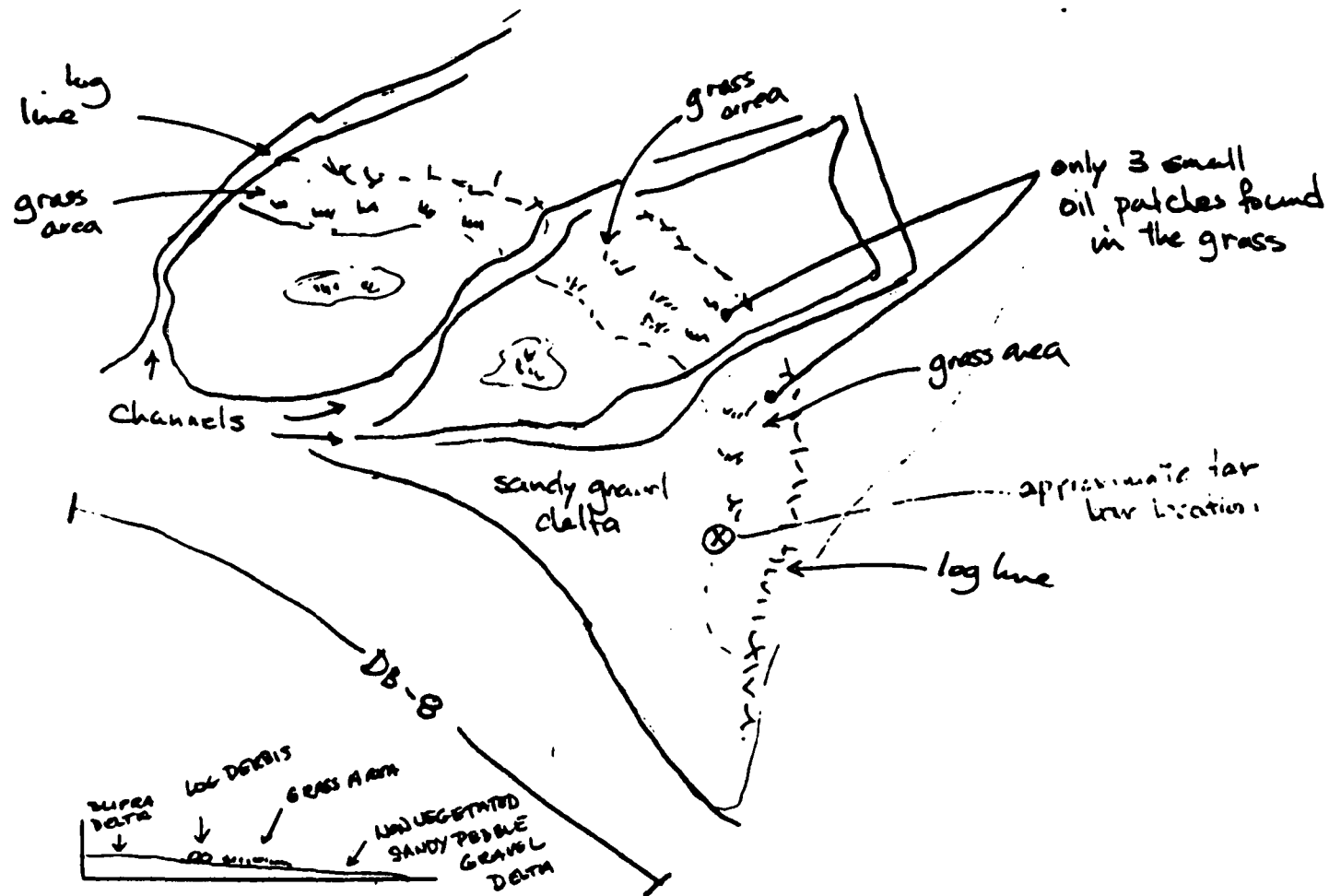
(Map) Aerial photo marking segment boundaries _____

TR: ☒ Y ☐ N Tape Number(s) KODIAK 01

Photography: ☒ Y ☐ N Roll Number(s) DMC-11

Sample Numbers Collected: N/A

SITE DB-8



ESTIMATED CROSS-SECTION
OF UNIT

ECOLOGICAL EVALUATION

LOCATION: NORTH END, Head of DRY BAY SITE: _____ OBSERVER: D. Mc Coemick
 LOCATION PREFIX: DB SEG. NO.: 8 LENGTH: 1500 (M)
 DATE: 6/1/89 TIME (HHMM): 1530 TIDE HT.: + 2.0 (M)
 OILED ZONE: Splash High Medium Low
 SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

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

Broken shells only.

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

Shells 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

OTHER OBSERVATIONS: dead oiled birds = 2; bear tracks, possibly for tracks;
diverse shells along low-mid ITZ - no signs of clam beds; some very minor patches
of mousse in grass. Sheen seen in one stream along 5-m segment. One 25-cm tar ball
seen (salmon?) smelt in stream
 CLEANUP PRECAUTIONS: No cleanup is recommended.

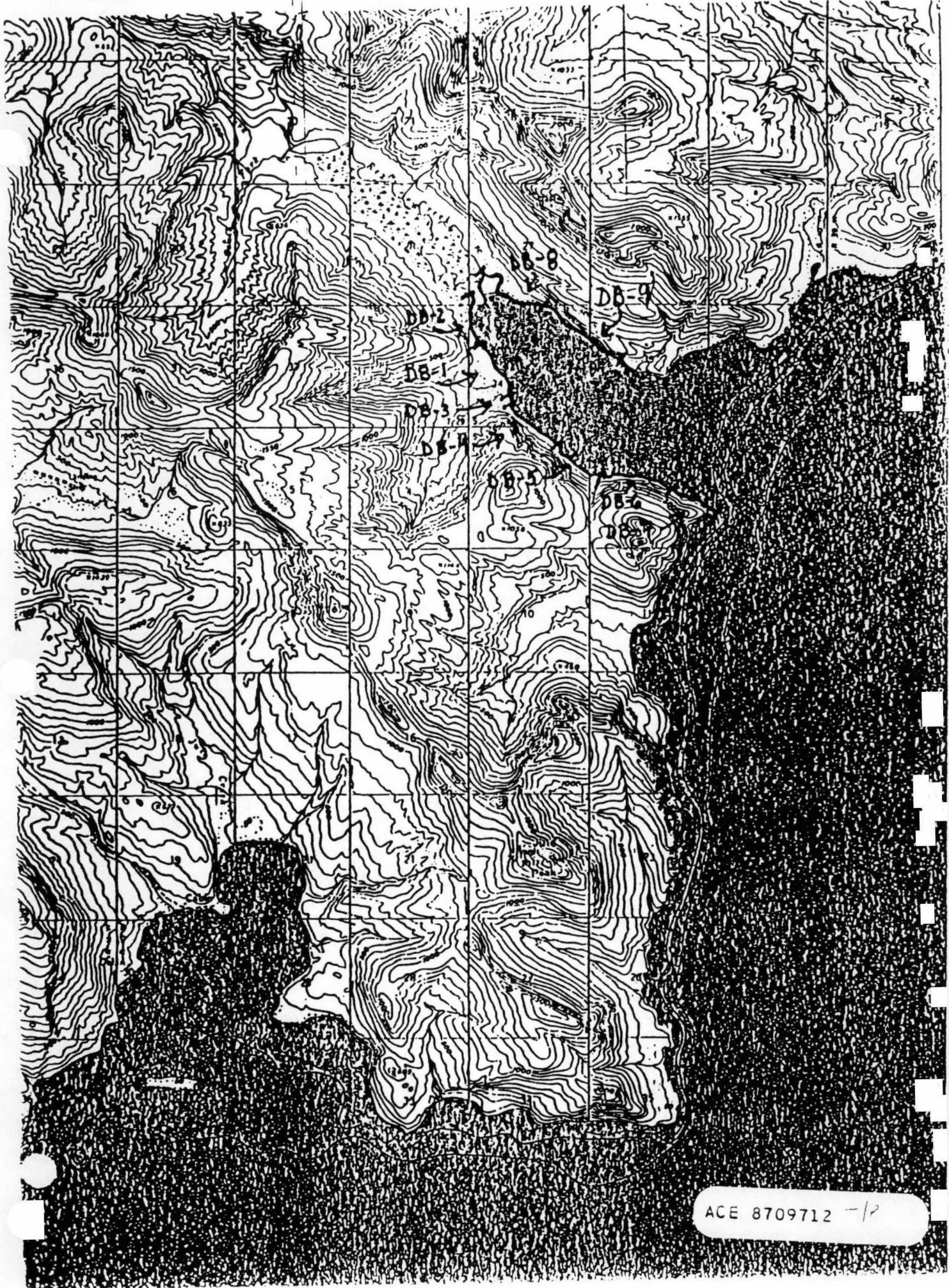
MAMMALS: Otters _____ Harbor Seals _____ Sea Lions _____ Whales _____
 Other bear sign, fox sign

BIRDS: waterfowl flying overhead.

GENERAL OBSERVATIONS: This is an estuary-type segment with several f.w. streams feeding
its bay; Marshy area which should be left undisturbed. Very minor oiling in
2 or 3 patches of dense grass and a sheen on one 5-m stretch of one stream does
not warrant a clean-up effort.



ACE 8709711



ACE 8709712 -12

version July 23, 1989)

SHORELINE PRE CLEANUP REASSESSMENT

DATE 8/03/89 SHORELINE SEGMENT K10-9-DB-9R REASSESSMENT DATE 8/03

Observers: OG C. Dillon BIO A. Jahn ARCH S. Ludwig

Reason for Reassessment Initial assessment conducted 2 months
ago.

Revised Recommended Cleanup Activity(ies):

- No change from original assessment.

Revised Ecological Constraints:

- No change from original assessment.

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.


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 submerged lands.

ACE 8709713

(version 6/04/89)

SHORELINE CLEANUP PROGRAM

DATE 6/05/89

SHORELINE SEGMENT DB-9

LOCATION: (see enclosed map) Northeast Shore-Dry Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/01/89

Recommended Cleanup Activity(ies):

- No cleanup recommended at this time. No oil observed.

Priorities Considerations:

- KISCC considers this a sensitive area, due to local sea bird nesting colonies.

Ecological Constraints (from site survey):

- None, since cleanup treatment is not necessary.

Archeological Constraints (from site survey):

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

Charles E. Adams
State Historic Preservation Officer *

Date: June 5, 1989

ISCC: _____

Date: _____

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 8709714

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KONTAK

Date: JUNE 1/89 Time: 16:00

Observer: D. HOWES

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Hazy

LOCATION

LOCATION DRY BAY - EAST SIDE DRY BAY

SEGMENT I.D. DB-9

LENGTH OF SHORELINE SEGMENT: 1500 m

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

SHORELINE:

Shoreline Type: SPI/DEA/COV/HID/STET

Slope: LAUG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B / C / PO / G / S / M / P

Drift Debris on Beach: Yes/No

Supra/Upper/Mid/Lower Type logs

OIL

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

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

OIL DISTRIBUTION

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

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

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

Est. Oil Penetration: 1 cm SU / SP / UP / MID / LO

Layers? Yes/No No. Layers 1 Oil Weathering 1

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

OIL MORPHOLOGY

Pooled Oil 1 "Free" Oil 1 Spattered 1 H/H/L/VL Sheen 1

OIL WEATHERING (OW)

Fresh Oil 1 SU/SP/VP/MID/LO Choc Mousse 1 SU/SP/VP/MID/LO

Pancake Mousse 1 SU/SP/VP/MID/LO Asphalt Mousse 1 SU/SP/VP/MID/LO

Tar Formation 1

Comments:

TOTAL BEACH LENGTH WALKED - NO OBSERVED EVIDENCE OF OIL IMPACT
NO CLEAN-UP NECESSARY

ACE 8709715

DOCUMENTATION:

Map/Aerial photo marking segment boundaries See attached

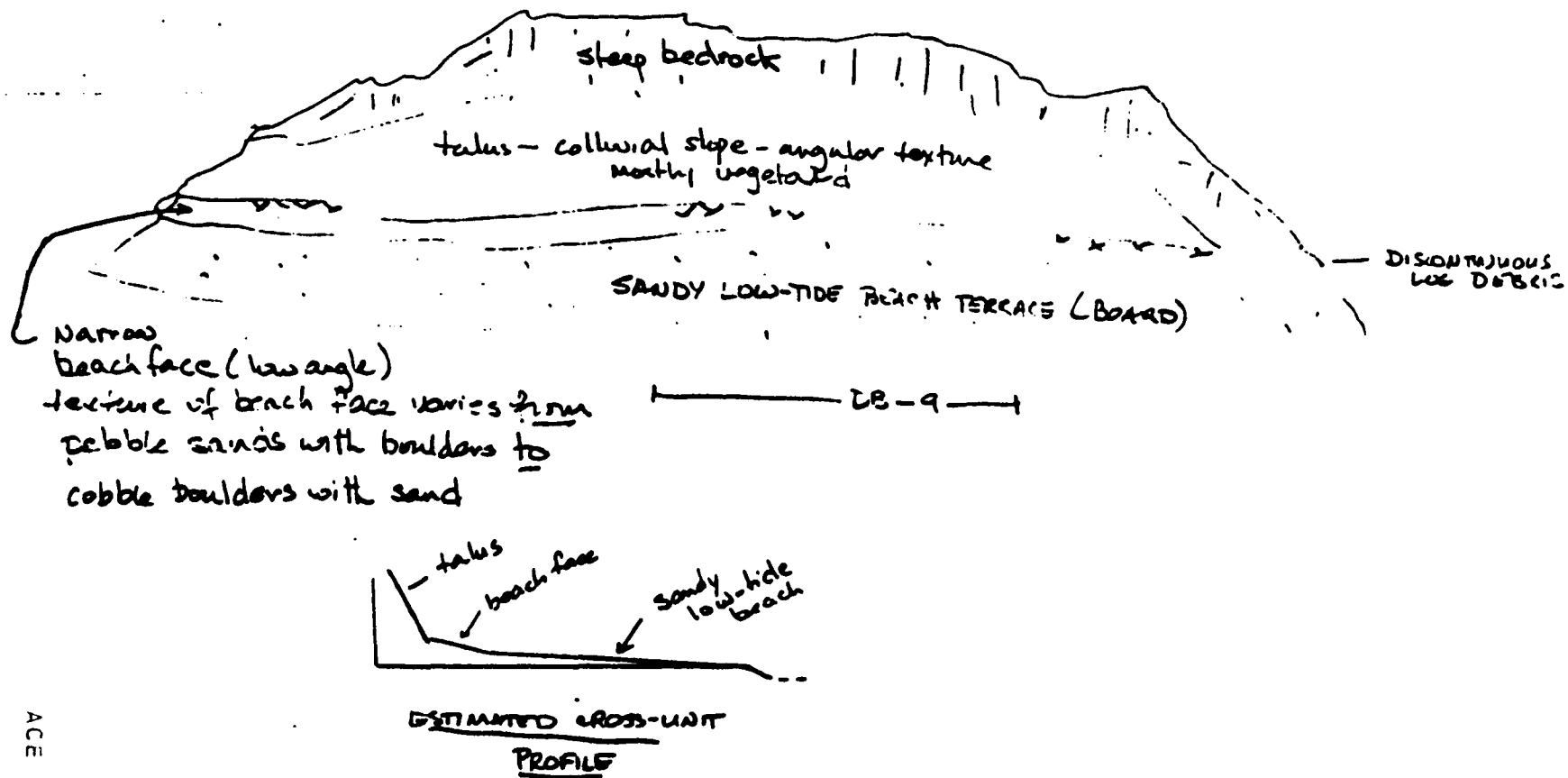
VTR: (Y)/N Tape Number(s) Kodak 01

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

Sample Numbers Collected: N/A

ACE 8709716

SITE DB-9



ACE 3709717

ECOLOGICAL EVALUATION

LOCATION: Dry Bay SITE: NE shore OBSERVER: J. Tarpley
 LOCATION PREFIX: DB SEG. NO.: 9 LENGTH: 1500 (M)
 DATE: 6/1/89 TIME (HHMM): 1600 TIDE HT.: +2.0 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

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

Shells only

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

Located on larger rocks among the sandy beach flat.

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: Wreck line not oiled, primarily composed of
terrestrial vegetation. Many bivalve shells on sandy beach, also
evidence of snail or worm tracks through sand. One dead Starry Flounder
found (clean/not oiled)

CLEANUP PRECAUTIONS: None

MAMMALS: Otters Harbor Seals Sea Lions Whales
 Other Bear Tracks

BIRDS: Terrestrial birds seen on sandy beach

GENERAL OBSERVATIONS: Sandy Beaches along NE shore oil free.



MAPLE C-1 MWD C-51

ACE 8709720



ACE 8709721 - 1

(version 6/04/89)

K10-9

SHORELINE CLEANUP PROGRAM

DATE 6/05/89

SHORELINE SEGMENT DB-8

LOCATION: (see enclosed map) North End Head-Dry Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/01/89

Recommended Cleanup Activity(ies):

- No cleanup recommended at this time. See ecological constraints.

Priorities Considerations:

- None.

Ecological Constraints (from site survey): None, since no cleanup is recommended. Only very minor, spotty oiling in grass does not warrant a cleanup effort in this sensitive marsh 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.

Charles Z. Himes
State Historic Preservation Officer *

Date: June 5, 1989

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 - KONTAKDate: JUNE 1/89 Time: 15:30Observer: D. HOWESSurveyed From: FOOT/Boat/Helio/PlaneWeather: Sun CLOUDY/Rain/SnowLOCATIONLOCATION DRY BAY - NORTHERN HEAD - BAY SEGMENT I.D. DB - 8LENGTH OF SHORELINE SEGMENT: 1500 mACCESS: Foot/Vehicle/Boat/Barge/Helio/Float PlaneSHORELINE:Shoreline Type: SPX/BEA/COV/HLD/STRTSlope: LAUGH/DUNG/VER*(really as delta/sandy)*Wave Exposure: High/Med/LowSediment: B 1 / C 1 / P 20 / G 1 / S 40 / M 1 / R 1Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type logsOILDegree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved/VERY LIGHT

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

OIL DISTRIBUTIONContinuous: Y/N Segment 1 No. Bands 1 Width 1Sporadic: Y/N Segment 30 Min/Max Dia 1 Impact Width 1
*(% long after)*Est. Oil Thickness where > 1cm: 1 cm SU / SP / UP / MID / LOEst. Oil Penetration: 1 cm SU / SP / UP / MID / LOLayers? Yes/No No# Layers 1 Oil Weathering 1Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H / M / L / VOIL MORPHOLOGYPooled Oil 1 "Free" Oil 100 Spattered 1 H/H/L/VL Shoop 1OIL WEATHERING (OW)Fresh Oil 1 SU/SP/VP/MID/LO Choc Mousse 1 SU/SP/VP/MID/LOPancake Mousse 100 SU/SP/VP/MID/LO Asphalt Mousse 1 SU/SP/VP/MID/LOTar Formation 1

Comments:

ACE 8709723

OIL IMPACT VERY, VERY LIGHT - 3 SMALL PATCHES IN THE GRASS (SEE SKETCH)
ONE TAR BAR - 25 CM DIAMETER - OBSERVED IN SANDY GRAVEL AREA (SEE SKETCH)
NO CLEAN-UP APPEARS TO BE NECESSARY - APPROXIMATELY 80% DEBRIS COVERED ON GROUND

DOCUMENTATION:

Map Aerial photo marking segment boundaries _____

VTR: (Y) Tape Number(s) KODIAK 01

Photography: (Y)N Roll Number(s) DMC-11

Sample Numbers Collected: N/A

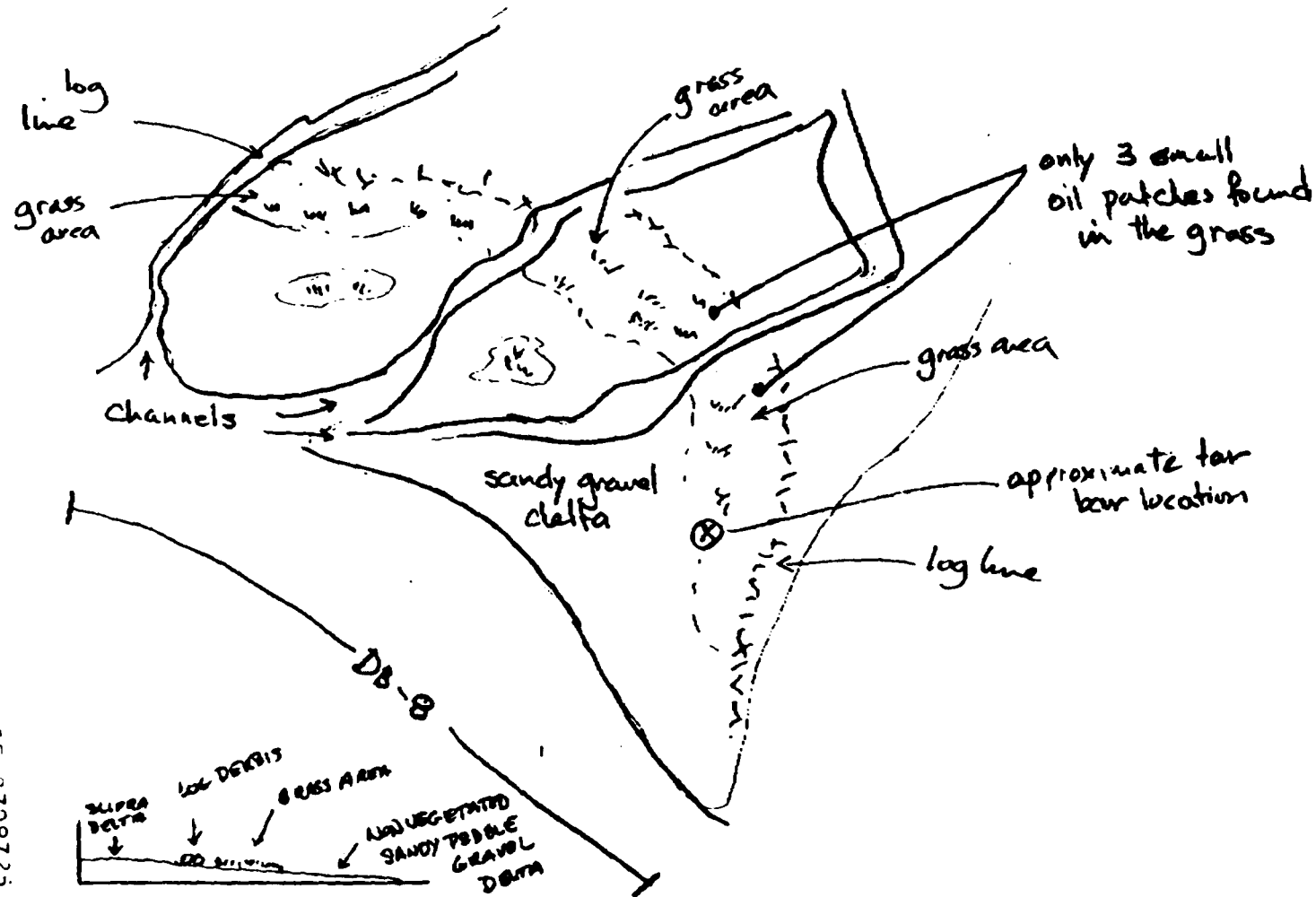
ACE 8709724

JUN-02-1989 17:42 FROM

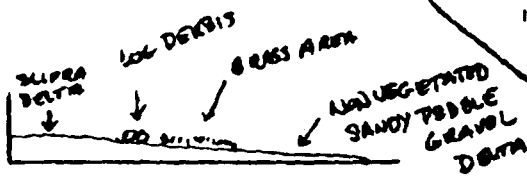
18357525 P.57

TO

SITE DB-8



ESTIMATED CROSS-SECTION
OF UNIT



ACE 8709725

ECOLOGICAL EVALUATION

LOCATION: NORTH END, Head of DRY BAY SITE: _____ OBSERVER: D. McCoemick
 LOCATION PREFIX: DB SEG. NO.: 8 LENGTH: 1500 (M)
 DATE: 6/1/89 TIME (HHMM): 1530 TIDE HT.: +2.0 (M)
 OILED ZONE: Splash High Medium Low
 SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

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

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

OTHER OBSERVATIONS: dead oiled birds - 2; bear tracks, possibly fox tracks;
bivalve shells along low-mid IT2 - no signs of clam-buss; some very minor patches
of mousse in grass. Sheen seen in one stream along 5-m segment. One 25-cm tar balls
few (salmon?) smolt in stream
 CLEANUP PRECAUTIONS: No cleanup is recommended.

MAMMALS: Otters _____ Harbor Seals _____ Sea Lions _____ Whales _____
 Other bear sign, fox sign

BIRDS: waterfowl flying overhead.

GENERAL OBSERVATIONS: This is an estuary-type segment with several f.w. streams feeding
into bay; Marshy area which should be left undisturbed. Very minor mousse
in 2 or 3 patches of dense grass and a sheen on one 5-m stretch of one stream does
not warrant a clean-up effort.

ACE 3709726



ACE 8709728

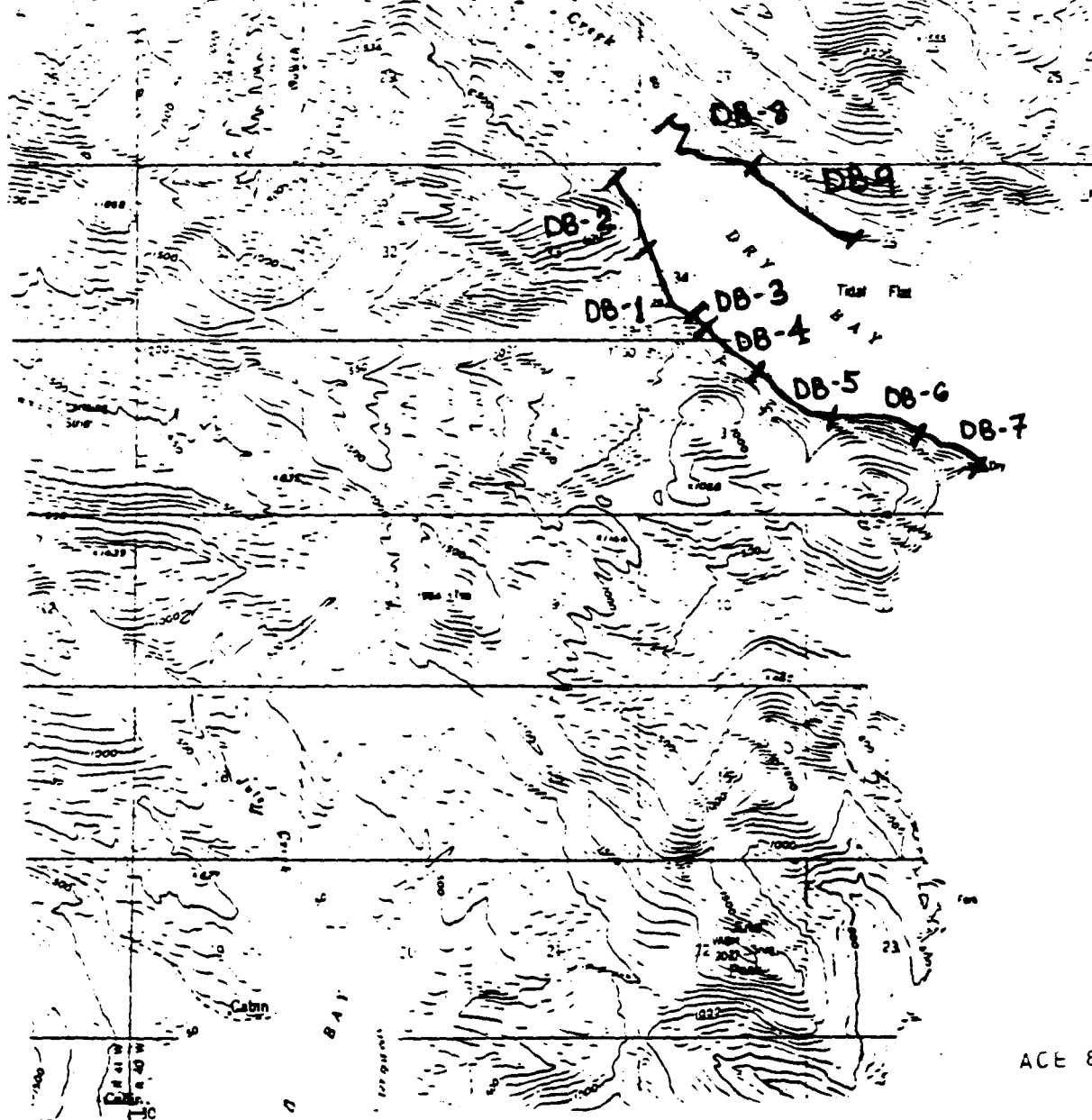
JUN-02-1989 17:45 FROM

TO

18357525 P.61

DRY BAY BLOCK (KODIAK)

- DB-1, DB-2, DB-3, DB-4, DB-5, -
DB-6, DB-7, DB-8, DB-9



IN ARJUK C-4 AND C-6

- 35 -

ACE 8709729

(version July 23, 1989)

SHORELINE PRE CLEANUP REASSESSMENT

DATE 8/03/89 SHORELINE SEGMENT K10-9-DB-10R REASSESSMENTDATE8/03

Observers: OG C. Dillon BIO A. Jahn ARCH S. Ludwig

Reason for Reassessment Initial assessment conducted 2 months
ago.

Revised Recommended Cleanup Activity(ies):

- No change from original assessment.

Revised Ecological Constraints:

- No change from original assessment.

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.

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 submerged lands.

ACE 8709730

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6/10/89

SHORELINE SEGMENT DB-10

LOCATION: (see enclosed map) North end of DRY BAY

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/05/89

Recommended Cleanup Activity(ies):

- No cleanup appears to be necessary at this time, due to very light oiling and minimal anticipated environmental impact.

Priorities Considerations:

Ecological Constraints (from site survey): None, since no cleanup is recommended. The negligible amount of oil here will not adversely impact clam beds.

Archeological Constraints (from site survey):

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

Charles E. Holmes
State Historic Preservation Officer *

Date: June 10, 1989

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 8709731

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KONTAK

Date: JUNE 19/89 Time: 12:30 PM

Observer: D. HOWES

Surveyed From: Foot Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

LOCATION DRY BAR - NORTH SIDE SEGMENT I.D. DB-10

LENGTH OF SHORELINE SEGMENT: 4.40 m

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

SHORELINE:

Shoreline Type: SPI/DEA/COV/HID/STET

Slope: LAUG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B 1 / CD 3 / PD 1 / G 1 / S 3 / M 1 / R 1

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

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved V. LIGHT

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

OIL DISTRIBUTION

Continuous: Y/N Segment 1 UP No. Bands 0 Width 0

Sporadic: Y/N Segment 1 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 / H / L VL

OIL MORPHOLOGY

Pooled Oil "Free" Oil 5 Spattered 96 H/H/L/VL Sheen

OIL WEATHERING (OW)

Fresh Oil SU/SP/VP/MID/LO Choc Mousse 80 SU/SP/UP HID LO

Pancake Mousse SU/SP/VP/MID/LO Asphalt Mousse 20 SU/SP UP HID LO

Tar Formation

Comments:

ACE 8709732

SEEN IN WATER / SEDIMENTS OF LOWER ^{MIDDLE} BEACH (SEE SKETCH)
3000 Mousse WITH SOME ASPHALT MOUSSE. OCCURS AS SPLATS SPOTONALLY ON THE
BEACH SEDIMENTS WITH VERY LIGHT SPATTER TO LOSS, SPATTER ON BEACH UPPER + MID ZONE

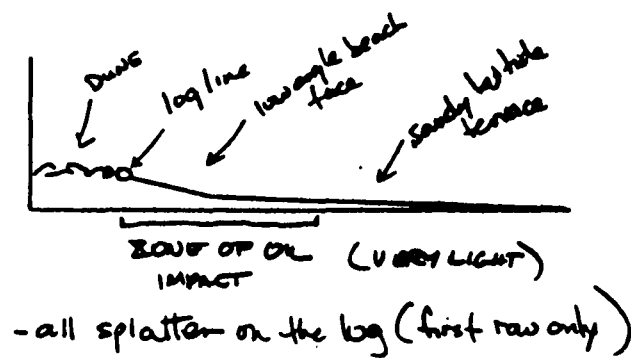
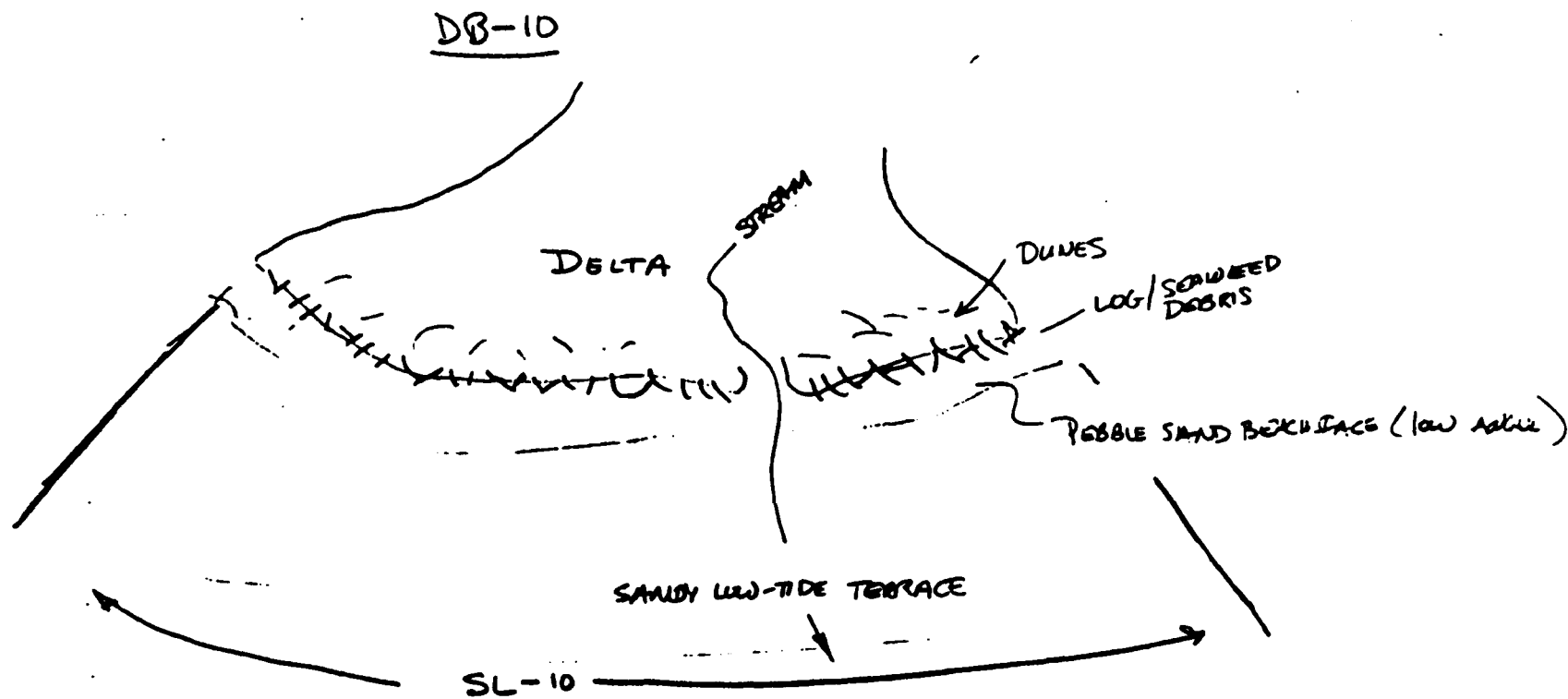
DOCUMENTATION:

Map/Aerial photo marking segment boundaries See Attached

VTR: Y/N Tape Number(s) _____

Photography: Y/N Roll Number(s) DMC-12

Sample Numbers Collected: N/A



ECOLOGICAL EVALUATION

LOCATION: NORTH END of DRY BAY SITE: _____ OBSERVER: D. McCormick

ATION PREFIX: DB SEG. NO.: 10 LENGTH: 440 (M)

DATE: 6/5/89 TIME (HHMM): 1230 TIDE HT.: +2.0 (M)

ILED ZONE: Splash High Medium Low

JBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

IVE BIOTA

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

On debris strand only

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

Shells only

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

Shells only

ttorina
atchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

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

Shells only

IER OBSERVATIONS: Lots of razor clam shells in mid - high ITZ - light sea in pooled water - patchy mouse patty's - 2 brown bears in area.

ANUP PRECAUTIONS: _____

MALS: Otters _____ Harbor Seals _____ Sea Lions _____ Whales _____
Other 2 Brown Bears

DS: _____

ERAL OBSERVATIONS: No live biota seen - only shell fragments. Oil sparse - present as small diameter mouse patty's - no cleanup is wanted. Impact to razor clam beds negligible from the small amount of oil.



ACE 8709737

(version July 23, 1989)

SHORELINE PRE CLEANUP REASSESSMENT

DATE 8/03/89 SHORELINE SEGMENT K10-9-DB-11R REASSESSMENTDATE8/03

Observers: OG C. Dillon BIO A. Jahn ARCH S. Ludwig

Reason for Reassessment Initial assessment conducted 2 months
ago.

Revised Recommended Cleanup Activity(ies):

- No change from original assessment.

Revised Ecological Constraints:

- No change from original assessment.

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.

Douglas Rege
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 submerged lands.

version July 23, 1989)

SHORELINE PRE CLEANUP REASSESSMENT

DATE 8/03/89 SHORELINE SEGMENT K10-9-DB-3R REASSESSMENT DATE 8/03

Observers: OG C. Dillon BIO A. Jahn ARCH S. Ludwig

Reason for Reassessment Initial assessment conducted 2 months
ago.

Revised Recommended Cleanup Activity(ies):

- No change from original assessment except oil previously re-
ported as "pooled" is now dried.

- Remove smaller pieces and more heavily oiled pieces of oiled
debris.

- Scrape oil spots off of larger logs that are only lightly
splattered.

Revised Ecological Constraints:

- No change from original assessment except no need for special
precautions regarding oiled dune grasses.

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.

Douglas Regier
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 submerged lands.

(version 6/04/89)

SHORELINE CLEANUP PROGRAM

DATE 6/05/89

SHORELINE SEGMENT DB-3

LOCATION: (see enclosed map) West Side Dry Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/01/89

Recommended Cleanup Activity(ies):

- Manually remove pooled oil and oil in grass.
(see Ecological Constraint)

Priorities Considerations:

- KISCC considers this a sensitive area due to presence of sea bird nesting colonies.

Ecological Constraints (from site survey): Don't remove oiled dune grasses. Rake oil/debris out as much as possible.

Archeological Constraints (from site survey):

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

Charles E. Adams
State Historic Preservation Officer *

Date: June 5, 1989

ISCC: _____

Date: _____

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 8709740

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KONTAK

Date: June 1/89 Time: 1330

Observer: D. Humes

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

LOCATION DRY BAY - WEST SHORE

SEGMENT I.D. DB-3

LENGTH OF SHORELINE SEGMENT: 50.0 m

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

SHORELINE:

Shoreline Type: SPI/BEA/COV/HLD/STET

Slope: LAUGH/HAUG/VER

Wave Exposure: High/Med/Low

Sediment: B 1 / C 1 / P 5 / G 1 / S 9 / M 1 / R 1

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

OIL

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

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

OIL DISTRIBUTION

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

Sporadic: Y/N Segment 1 Min/Max Dia 100 Impact Width 1
(10 length affected)

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

Est. Oil Penetration: 1 cm SU / SP / UP / MID / LO

Layers? Yes/No No! Layers 1 Oil Weathering 1

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

OIL MORPHOLOGY

Pooled Oil 40 % "Free" Oil 60 % Spattered 1 % H/H/L/VL Sheen 1 %

OIL WEATHERING (OW)

Fresh Oil 1 % SU/SP/UP/MID/LO Choc Mousse 40 % SU/SP/UP/MID/LO

Pancake Mousse 60 % SU/SP/UP/MID/LO Asphalt Mousse 1 % SU/SP/UP/MID/LO

Tar Formation 1 %

Comments:

ACE 3709741

POOLS OF OIL ARE LOCATED IN THE LOG DEBRIS (25% OF LOGGED AREA)

PANCAKE MOUSSE BANDS IN THE GRASS AREA (SEE SKETCH)

REMOVE POOLED OIL AND MOUSSE BANDS FROM SEGMENT

TWO DEAD BIRDS OBSERVED

POOLS IN LOGS LOCATED IN FIRST 4 M. PROCEEDING LANDWARD

MANUAL CLEANSUP RECOMMENDED

DOCUMENTATION:

Map Aerial photo marking segment boundaries See Attached

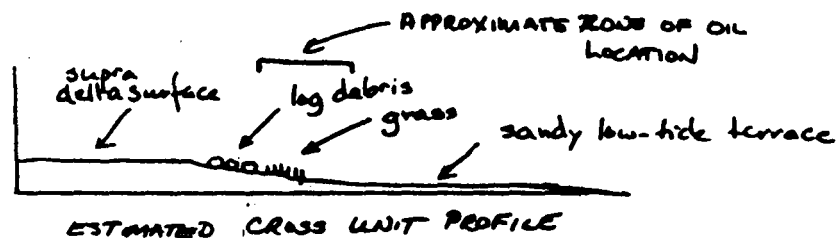
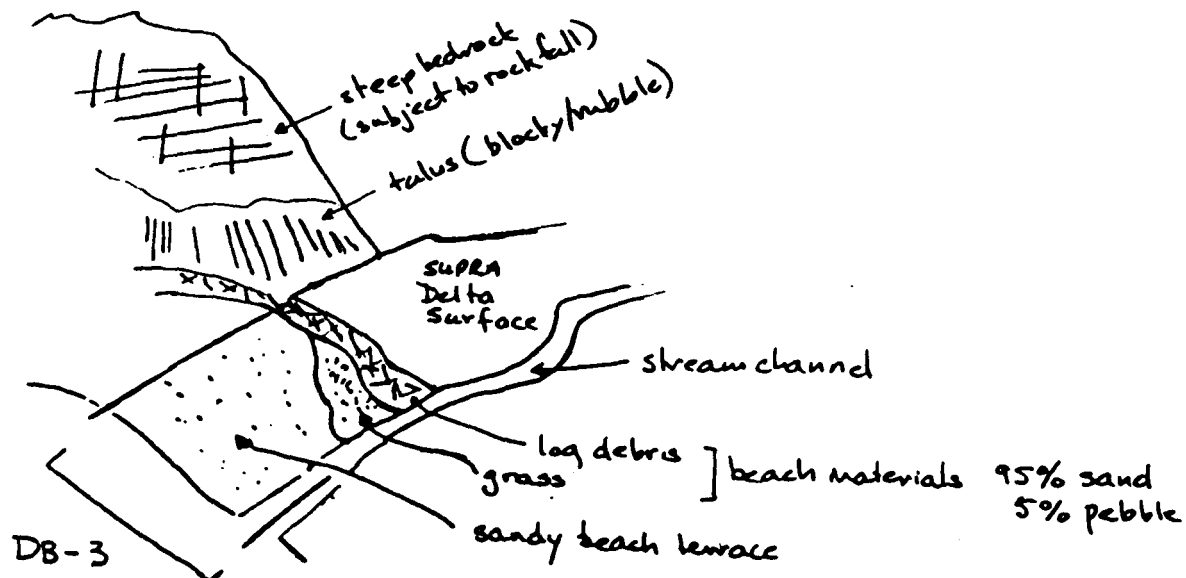
VTR: Y ~~Y~~ Tape Number(s) KODIAK 01

Photography: Y ~~N~~ Roll Number(s) DMC-11

Sample Numbers Collected: N/A

ACE 8709742

SITE DB-3



NOTE: - oil pools in log debris
 - bands of <1m wide of pancake mousse in grass

ECOLOGICAL EVALUATION

LOCATION: West Shore DRY BAY SITE: _____ OBSERVER: D. McCormick

LOCATION PREFIX: DB SEG. NO.: 3 LENGTH: 50 (M)

DATE: 6/1/89 TIME (HHMM): 1330 TIDE HT.: + 4.1 (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

Fucus present in debris line at #ITZ - unoiled.

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

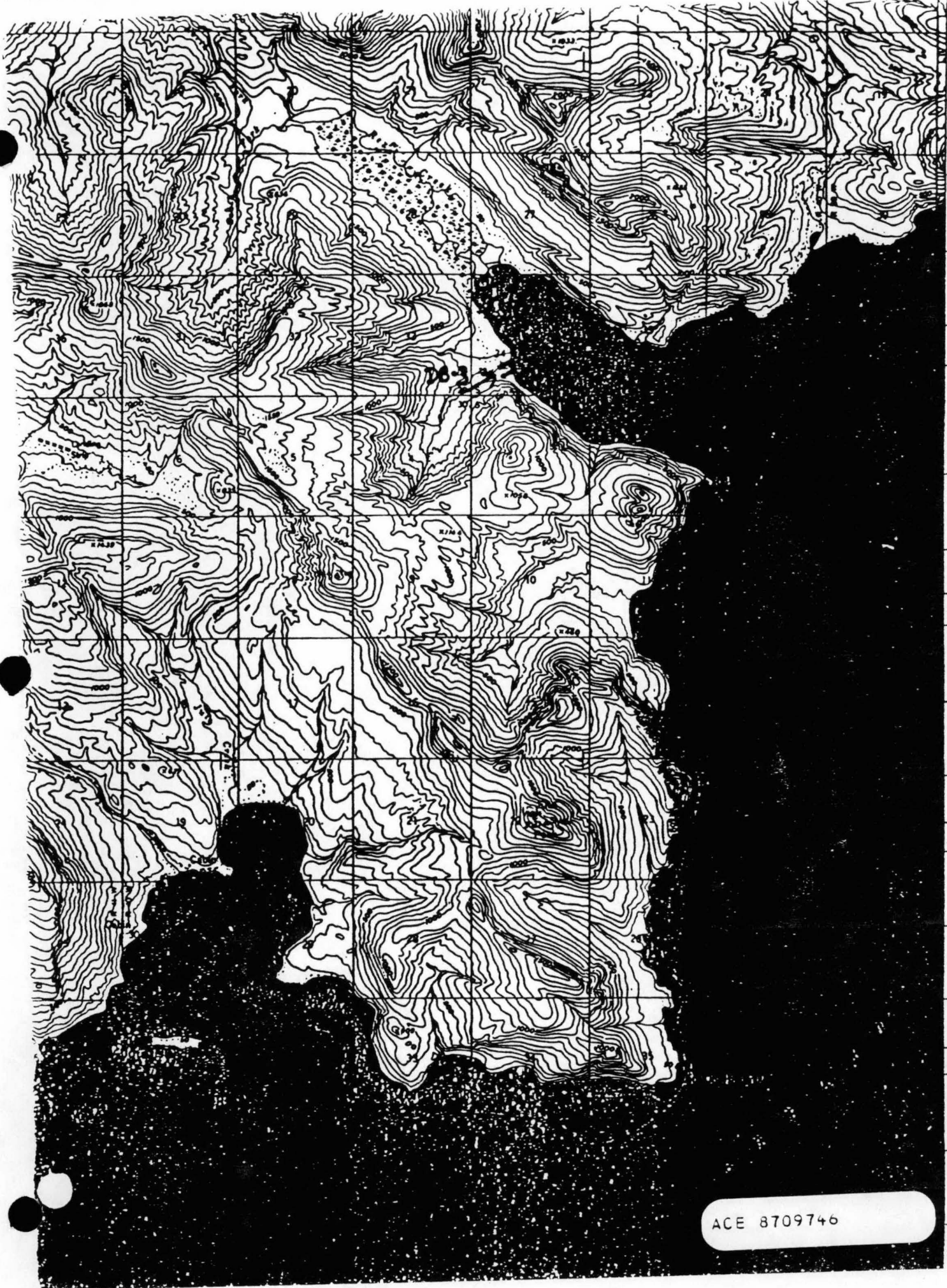
OTHER OBSERVATIONS: 7 dead oiled birds; patches of oiled dune grass - moderate to heavy. Some oiled fucus algae mixed in with oiled debris at strand line. White spongy-like material at debris line - no clues as to what this is - NOAA has collected a sample for analysis.

CLEANUP PRECAUTIONS: None.

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

BIRDS: _____

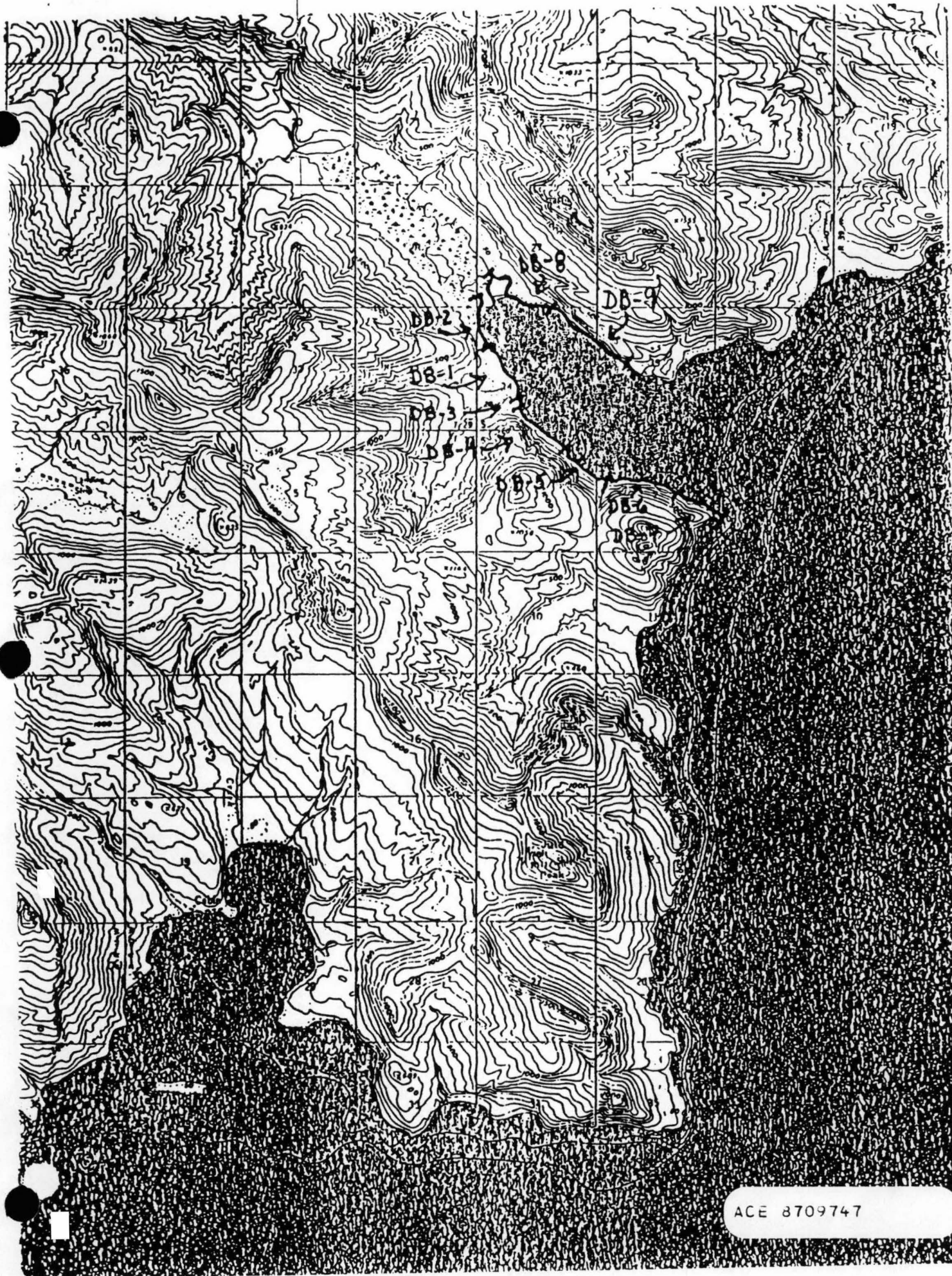
GENERAL OBSERVATIONS: Thick clumps of ³⁻⁴ mouse pools in driftwood 15-18 cm thick. very localized - no live birds impacted from these pools. If storm spreads these pools around, ~~impacted~~ larger area of beach will be impacted as they should probably be picked up soon.



MAPLE C-MND C-M

35

ACE 8709746



ACE 8709747

(version July 23, 1989)

SHORELINE PRE CLEANUP REASSESSMENT

DATE 8/03/89 SHORELINE SEGMENT K10-9-DB-12R REASSESSMENT DATE 8/03

Observers: OG C. Dillon BIO A. Jahn ARCH S. Ludwig

Reason for Reassessment Initial assessment conducted 2 months
ago.

Revised Recommended Cleanup Activity(ies):

- No change from original assessment.

Revised Ecological Constraints:

- No change from original assessment.

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.

Douglas Reger
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 submerged lands.

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6/10/89

SHORELINE SEGMENT DB-12

LOCATION: (see enclosed map) North shore of DRY BAY

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/05/89

Recommended Cleanup Activity(ies):

- No cleanup recommended at this time, due t very light oiling and minimal anticipated environmental impact.

Priorities Considerations:

Ecological Constraints (from site survey): None, since no cleanup is recommended. The amount of oil here is negligible and will not adversely impact any internal 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.

Shayla E. Adams
State Historic Preservation Officer *

Date: June 10, 1989

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 8709749

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - MONTAR

Date: JUNE 89 Time: _____

Observer: DHWS

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

LOCATION DRY BAY - NORTH SIDE

SEGMENT I.D. DB-12

LENGTH OF SHORELINE SEGMENT: 1000 m

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

SHORELINE:

Shoreline Type: SPI/BEA/COV/HID/STET

Slope: LAUG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B 1 / C 1 / P2-3 1 / G 1 / SPI/BEA / M 1 / R 1

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

OIL

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

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

VL DISTRIBUTION

Continuous: Y/N Segment 100 No. Bands 0 Width 0

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

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

Est. Oil Penetration: 1 cm SU / SP / UP / MID / LO

Layers? Yes/No No. Layers 1 Oil Weathering 1

Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: 1 / 1 / 1 / 1

OIL MORPHOLOGY

Pooled Oil 1 "Free" Oil 5 Spattered 95 1 H/H/L/VL Sheen 1

OIL WEATHERING (OW)

Fresh Oil 1 SU/SP/VP/MID/LO Choc Mousse 90 1 SU/SP/VP/MID/LO

Pancake Mousse 10 1 SU/SP/VP/MID/LO Asphalt Mousse 1 1 SU/SP/VP/MID/LO

Tar Formation 1

Comments:

DR CONTINUOUS IN UNIT. DECLARS AS SPLATTER (C. 5cm WIDTH) ON BEACH SEDIMENTS
IN UPPER / MID ZONES, SHOWN IN SAND & WATER IN MID TIDE ZONE
MOST OIL IN UPPER 20 M. DE. ZONE.
VERY, VERY LIGHT ON IMPACT

ACE 8709750

DOCUMENTATION:

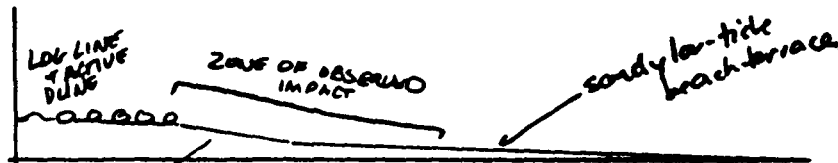
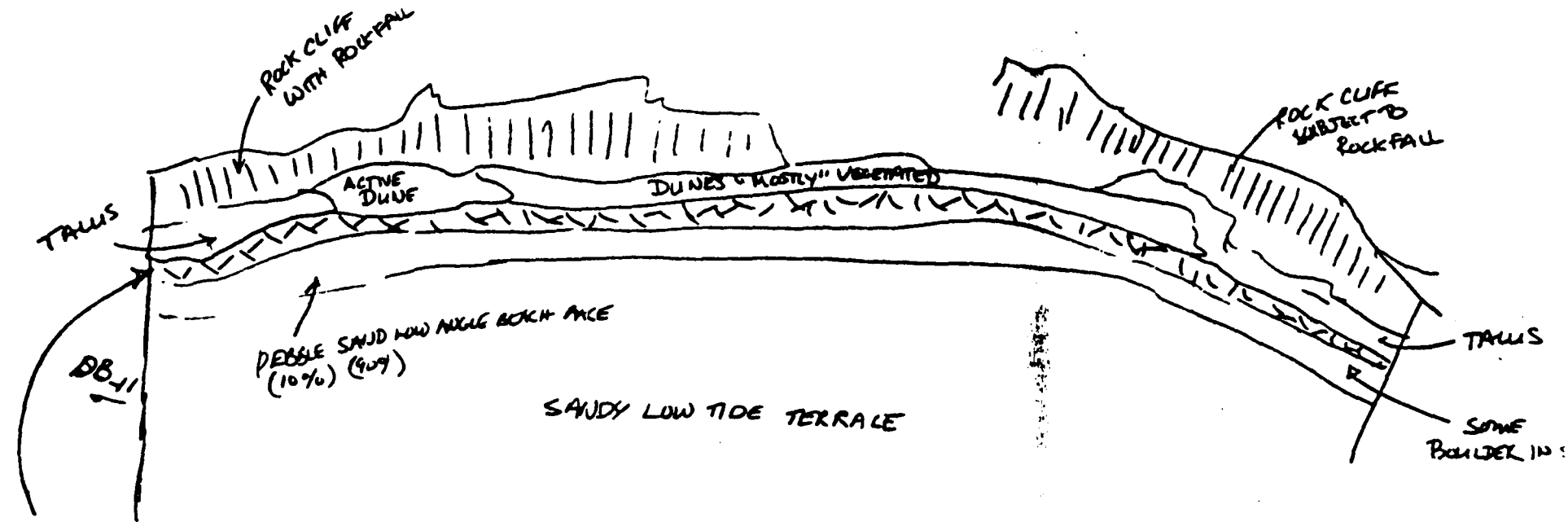
Map Aerial photo marking segment boundaries See Attached

VTR: Y N Tape Number(s) _____

Photography: Y N Roll Number(s) DMC-12

Sample Numbers Collected: N/A

DB-12



ESTIMATED PROFILE OF DB-12

Pebble sand beach face

ACE 8709752

ECOLOGICAL EVALUATION

LOCATION: DRY BAY SITE: North Shore OBSERVER: J. TAPLEY

LOCATION PREFIX: DB SEG. NO.: 12 LENGTH: 1000 (M)

DATE: 6/5/89 TIME (HDDM): 1320 TIDE HT.: +2.0 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

Drift material only.

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

Shell debris only.

OTHER OBSERVATIONS: Very little drift material. No attached live biota observed. Razor clams & other bivalve shell debris present

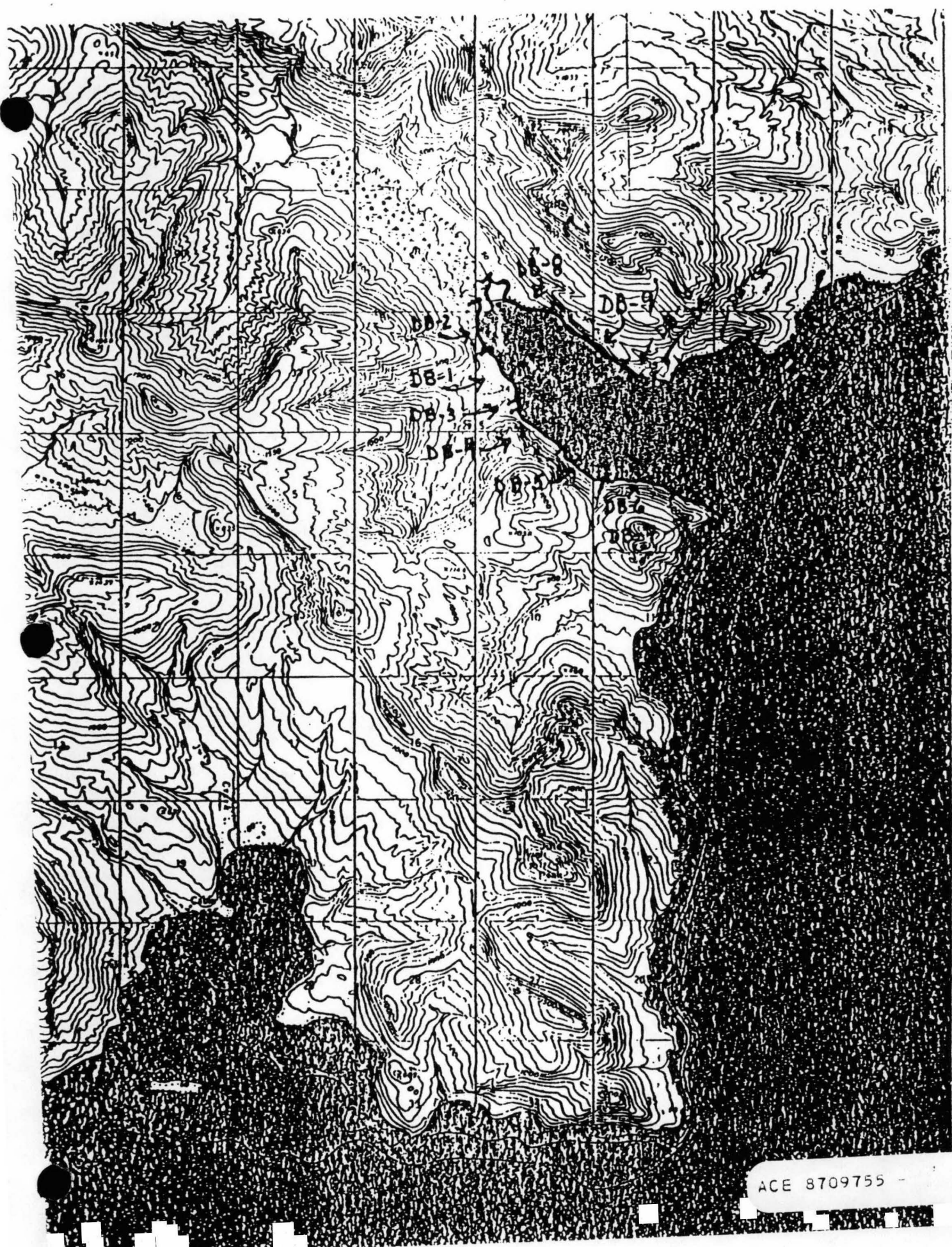
CLEANUP PRECAUTIONS: None

MAMMALS: Otters Harbor Seals Sea Lions Whales
Other FOX Tracks

BIRDS: 4 dead birds (oiled)

GENERAL OBSERVATIONS: 1 baseball size Turball found at high T2.

Splattered mussel on logs & sand. Large bag of oil coated rocks also found on beach. Low energy beach. Extensive sand-flat out in front of beach.



ACE 8709755 -

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6/10/89 SHORELINE SEGMENT DB-11

LOCATION: (see enclosed map) North side of DRY BAY near mouth
of bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/05/89

Recommended Cleanup Activity(ies):

- No cleanup recommended at this time, due to very light oiling and minimal anticipated environmental impact.

Priorities Considerations:

Ecological Constraints (from site survey): None, since no cleanup is recommended. The amount of oil is negligible here and will not adversely affect internal 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.

Charles F. Adams
State Historic Preservation Officer *

Date: June 10, 1989

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 - KONTAK

Date: JUL 5/89 Time: 13:00

Observer: DANES

Surveyed From: FOOT/Boat/Helio/Plane

Weather: Sun/CLOUD/Rain/Snow/Fog

LOCATION
LOCATION

DRY BAY - NORTH SIDE

SEGMENT I.D. DB-11

LENGTH OF SHORELINE SEGMENT: 550 m

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

SHORELINE:

Shoreline Type: SPI/UEA/COV/HID/STET

Slope: LAUG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B 15 / C 1 / P 1 / G 1 / S 94 / M 1 / R 1

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

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved/V. LIGHT

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

VL DISTRIBUTION

Continuous: Y/N Segment 1/00 No. Bands 0 Width 0

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

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

Est. Oil Penetration: 1 cm SU / SP / UP / MID / LO

Layers? Yes/No No. Layers 1 Oil Weathering 1

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

OIL MORPHOLOGY

Pooled Oil 1 "Free" Oil 10 Spattered 90 H/H/L/VI Green 1

OIL WEATHERING (OW)

Fresh Oil 1 SU/SP/VP/MID/LO Choc Mousse 20 SU/SP/VP/MID/LO

Pancake Mousse 80 SU/SP/VP/MID/LO Asphalt Mousse 1 SU/SP/VP/MID/LO

Tar Formation 1

Comments:

ACE 8709757

SANDY BEACH WITH OCCASIONAL BOULDERS; BOULDERS & DRIFT LOGS HAVE V. LIGHT SPLATTER

SPLATTER ON BEACH SANDS MOSTLY 'PANCAKE'; SOME 'CHOC' WITH FREE OIL SPLATTERS > 5cm WIDE; SOME OF THE SPLATTERS ARE PARTIALLY BURIED...

DOCUMENTATION:

Map/Aerial photo marking segment boundaries See Attached

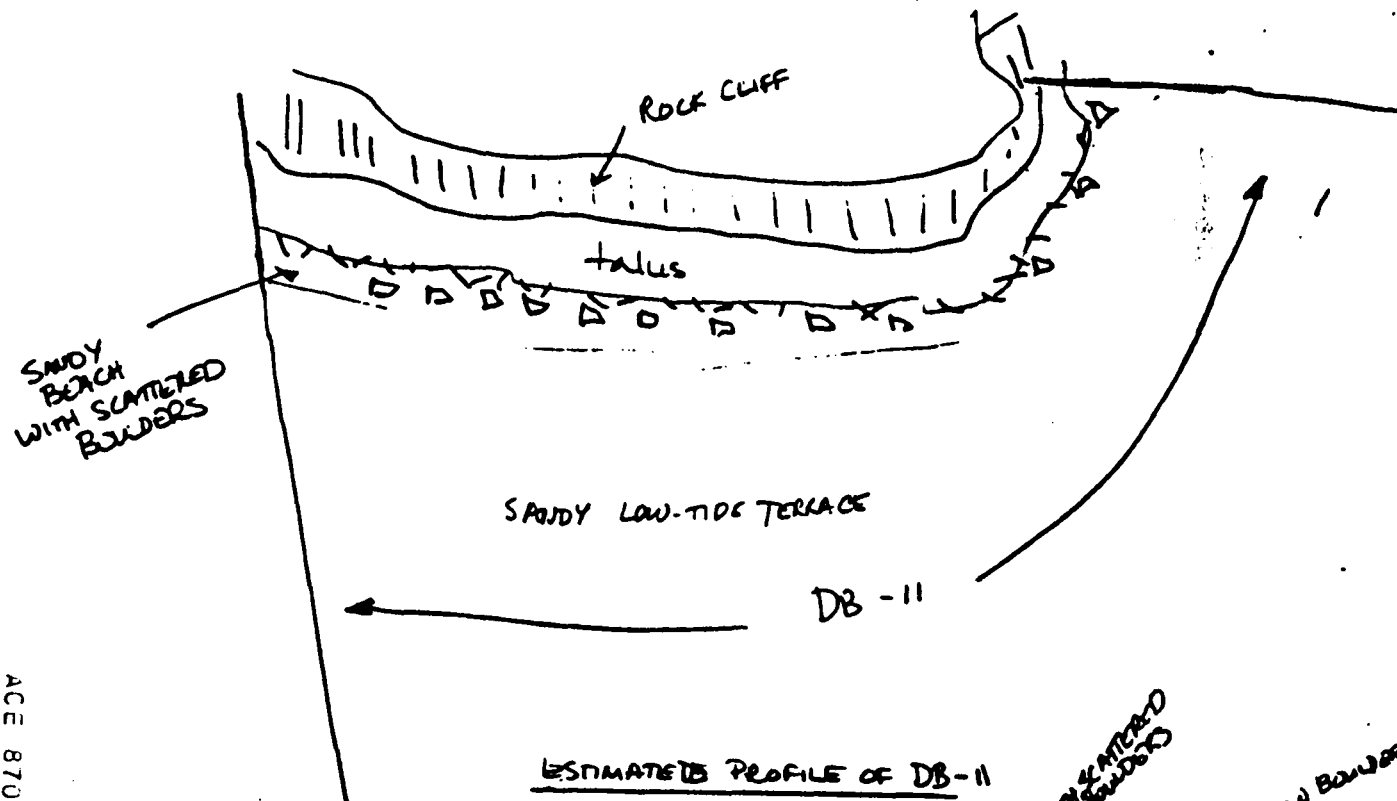
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Photography: Y N Roll Number(s) DMC-12

Sample Numbers Collected: N/A

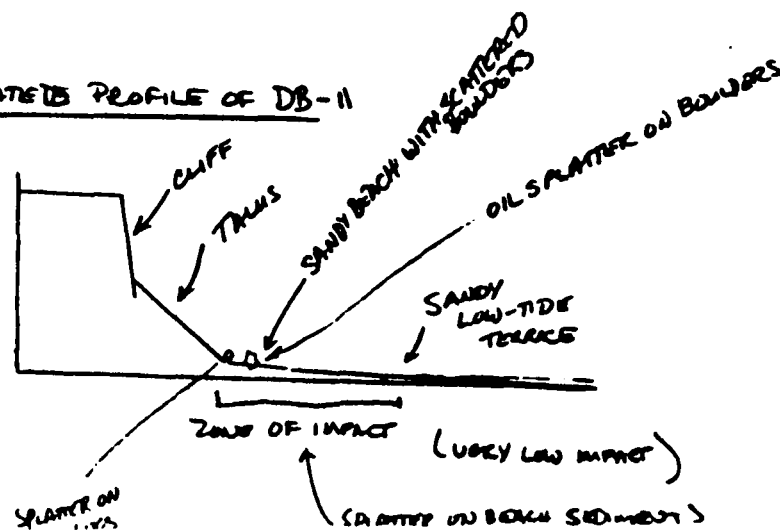
ACE 8709758

DB-11



ACE 8709759

ESTIMATED PROFILE OF DB-11



ECOLOGICAL EVALUATION

LOCATION: DRY BAY SITE: North shore OBSERVER: J. TAPLEY

LOCATION PREFIX: DB SEG. NO.: 11 LENGTH: 550 (M)

DATE: 6/5/89 TIME (HHMM): 1300 TIDE HT.: 4.20 (M)

OILED ZONE: Splash (High) (Medium) Low

SUBSTRATUM: Rocks Boulder Cobble Gravel (Sand) Mud

LIVE BIOTA

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

drift material only

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

Shell debris only

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

Littorina

chry 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)

Shell debris

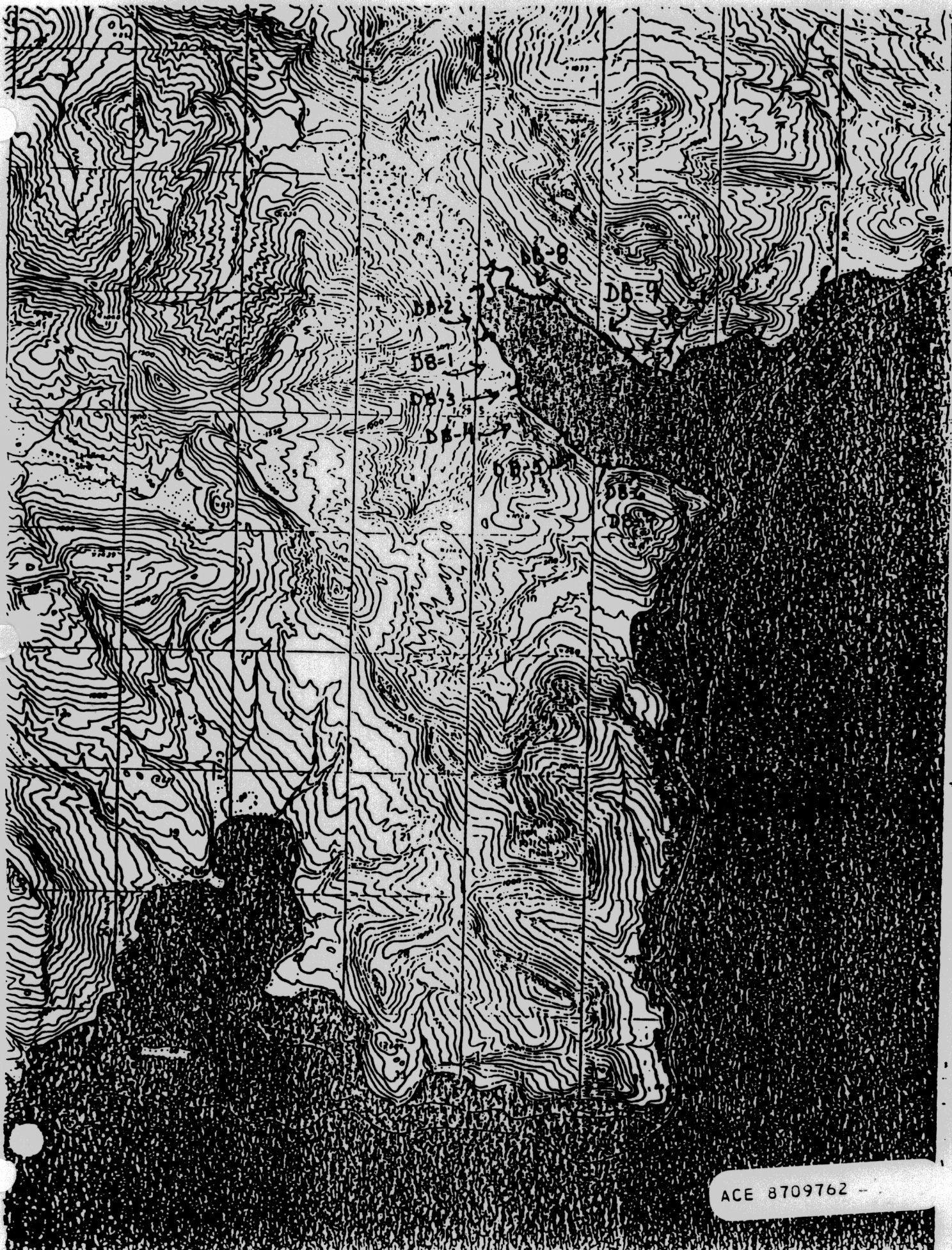
OTHER OBSERVATIONS: Razor clams & other bivalve shells present

CLEANUP PRECAUTIONS: None

ANIMALS: Otters Harbor Seals Sea Lions Whales
other Fox tracks

BIRDS: 3 dead oiled birds

GENERAL OBSERVATIONS: Fairly clean beach, small amount of drift material some of it being oiled. Splattered oil on vertical rock faces. Extensive sand flat beyond beach.



ACE 8709762 -

(version 6/04/89)

K10-9

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): KODIAK-DRY BAY BLOCK

Includes Shoreline Segments: DB-1, DB-2, DB-3, DB-4, DB-5, DB-6,
DB-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
PWSCA
USFS
SHPO

ACE 8709763

(version 6/04/89)

K 10-9

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): KODIAK-DRY BAY NORTHEAST BLOCK

Includes Shoreline Segments: DB-10, DB-11, DB-12

Submitted: _____ Date: _____
(for Exxon)

ISCC Recommendation: _____ Date: _____

FOSC Approval: _____ Date: _____

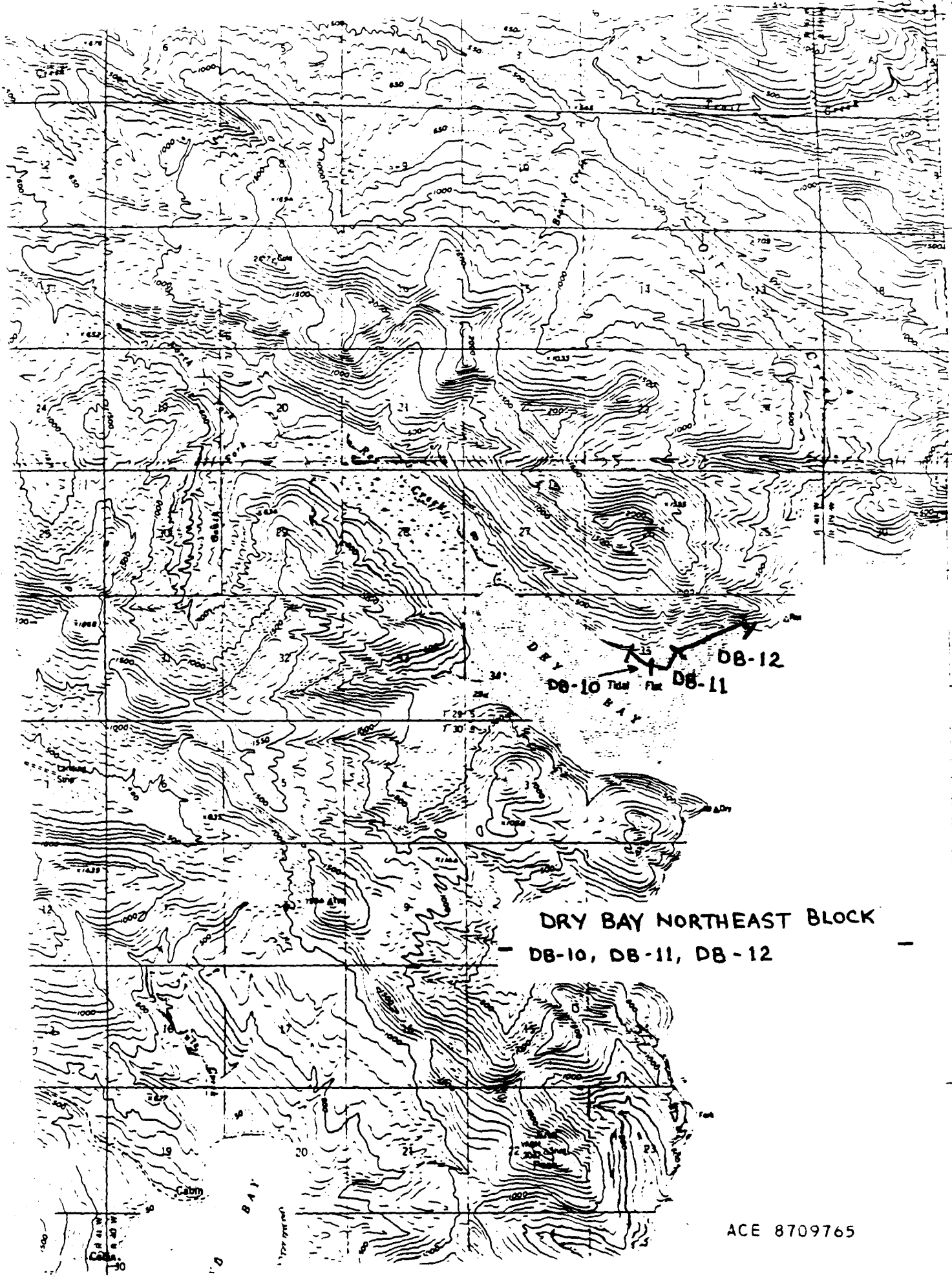
The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative 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
PWSCA
USFS
SHPO

ACE 8709764



(KARLUK C-4 AND C-5)

DRY BAY NORTHEAST BLOCK
- DB-10, DB-11, DB-12

ACE 8709765

ORIGINAL
RECEIVED
8/2/89

TYPE A SHORELINE CLEANUP WORK ORDER

DATE: June 29, 1989 **SHORELINE SEGMENT:** DB-1
LOCATION: (Attached map) West shore of Dry Bay - Alaska Peninsula

ADEC No. K10-9 **SHORELINE ASSESSMENT DATE:** June 5, 1989

RECOMMENDED CLEANUP ACTIVITY(IES):

Manually remove mousse and oiled drift material from high tide line.

Rake oily debris out of grass areas, however, take care not to remove dune grass.

PRIORITY CONSIDERATIONS:

KISCC determined this area to be sensitive due to sea bird nesting colonies.

ECOLOGICAL CONSTRAINTS (from site survey):

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: _____

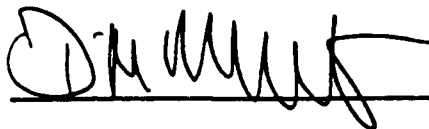
Approved:

See attached

Date: _____

Assistant OSC Western Alaska (if appropriate)

Approved:



Date:

8/5/89

Federal On-Scene Coordinator

4/30/89

ACE 8709766

ORIGINAL
8/2/89

TYPE A SHORELINE CLEANUP WORK ORDER

DATE: June 29, 1989 SHORELINE SEGMENT: DB-2
LOCATION: (Attached map) West shore of Dry Bay - Alaska Peninsula

ADEC No. K-10-9 SHORELINE ASSESSMENT DATE: May 31, 1989

RECOMMENDED CLEANUP ACTIVITY(IES):

Manually remove mousse paddies from sand beach.

No cleanup recommended in marsh grasses at this time due to ecological constraints.

PRIORITY CONSIDERATIONS:

According to KISCC, this is a sensitive area due to presence of sea bird nesting colonies.

ECOLOGICAL CONSTRAINTS (from site survey):

During manual pickup of mousse, stay completely out of marsh areas. Trying to clean marsh will do more harm than good.

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.

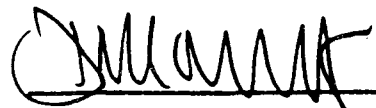
State Historic Preservation Officer Telephone Approval (Required) Date: _____

Approved: 

Date: _____

Assistant OSC Western Alaska (if appropriate)

ACE 8709767

Approved: 

Date: 8/3/89

FEDERAL ON-SCENE COORDINATOR

ORIGINAL
8/2/89

TYPE A SHORELINE CLEANUP WORK ORDER

DATE: June 29, 1989 **SHORELINE SEGMENT:** DB-3
LOCATION: (Attached map) West side Dry Bay - Alaska Peninsula

ADEC No. K10-9 **SHORELINE ASSESSMENT DATE:** June 1, 1989

RECOMMENDED CLEANUP ACTIVITY(IES):

Manually remove pooled oil and oil in grass. (See ecological constraints).

PRIORITY CONSIDERATIONS:

KISCC considers this a sensitive area due to presence of sea bird nesting colonies.

ECOLOGICAL CONSTRAINTS (from site survey):

Don't remove oiled dune grasses. Rake oil/debris out as much as possible.

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: _____

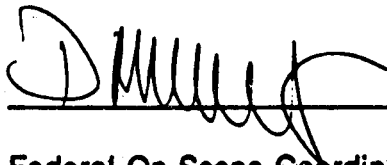
Approved:

See attached

Date:

Assistant OSC Western Alaska (if appropriate)

Approved:



Date:

8/3/89

Federal On-Scene Coordinator

4/30/89

ACE 8709768

TYPE A SHORELINE CLEANUP WORK ORDER

DATE: June 29, 1989 SHORELINE SEGMENT: DB-4
LOCATION: (Attached map) West shore of Dry Bay - Alaska Peninsula

ADEC No. K10-9 SHORELINE ASSESSMENT DATE: June 1, 1989

RECOMMENDED CLEANUP ACTIVITY(IES):

Recommend manual removal of oil mousse patties when segments DB-1, DB-2, and DB-3 are cleaned. This segment has secondary priority to DB-1, DB-2, and DB-3.

PRIORITY CONSIDERATIONS:

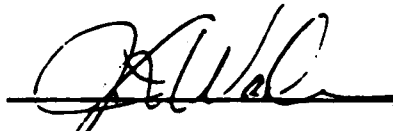
KISCC considers this a sensitive area due to presence of sea bird nesting colonies.

ECOLOGICAL CONSTRAINTS (from site survey):

None.

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

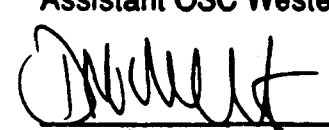
Date: 7/7/89

State Historic Preservation Officer Telephone Approval (Required) Date: _____

Approved: 

Date: _____

Assistant OSC Western Alaska (if appropriate)

Approved: 

Date: 8/3/89

Federal On-Scene Coordinator

4/30/89

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