[Shoreline evaluations, 1989].

Volume 18

Seal Island, Smith Island

ISLANDS (Locations)

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

* GEOLOGIC SEDIMENT TYPE

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 vissible oil)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): Pinniped Haulout Block

Includes Shoreline Segments: SM-47, LS-48, LS-49, LG-50, AB-51

Submitted : _____ Date: 4-23-89
(for Exxon)

FOSC Approval: _____ Date: 4/26/89

Distribution:
Exxon Shoreline Coordinator
Exxon Shoreline Supervisor
Exxon SCAT file

FOSC

NOAA
EPA
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A.DEC
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PWSCA

Master

EXXON VALDEZ

SHORELINE TREATMENT APPROVAL

SHORELINE SEGMENT NUMBER SM-47

SHORELINE SEGMENT NAME Smith Haulout

SUBMITTED FOR APPROVAL 5/15/89

COMMENTS: Environmentaly clean

William Shilling
Signature of EXXON rep

ADEC comments on the condition of this shoreline segment and action recommendation.

ADEC not present on?

Signature of ADEC rep

Coast Guard Comments and Action.

✓ Completed removal of gross contamination to the extent that the oil will not migrate. Site will require reassessment at a later date to determine future treatment. Terminated due to pupping season. GAR

___ The majority of surface oil contamination has been removed. The site will require reassessment at a later date to determine future treatment.

___ All contamination has been removed. No further treatment required unless re-oiled.

G.A. Reiten 5/15/89
Signature of Coast Guard rep

XC: ADEC
EXXON
~~FSOC~~

(BWS) PINNIPED HAULOUT

(version 4/22/89)

SHORELINE CLEANUP PROGRAM

DATE: April 22, 1989 SHORELINE SEGMENT SM-47

LOCATION: (see enclosed map) East side (seal haulout)

ADEC No.

SHORELINE ASSESSMENT DATE: 4-21-89

Recommended Cleanup Activity(ies):
Washing/flooding
Warm water at moderate/high pressure
Low/high pressure washing

Priorities Considerations:
Pinniped haulout area .

Ecological Constraints (from site survey):
Avoid destruction of algae holdfasts and mytilus beds if possible.
Approach methods
Minimize disturbance

Archeological Constraints (from site survey):
If heretofore undiscovered cultural material is uncovered, contact Exxon archaeologist C. Mobley as per procedures in the "Guidelines for Shoreline Cleanup".

Marilyn E. Holmes Date: 4/23/89
State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

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

[revised 19 Apr 89]

SHORELINE OIL EVALUATION

Date: 4 / 21 /89 Observer: C. DILLON

Time: 09 h 00-30 m Weather: (Sun)/Cloud/Rain/Snow/Fog

LOCATION

LOCATION (BKG) SMITH ISLAND SITE EAST (SEAL HAULOUT)

LOCATION PREFIX SM SEGMENT NUMBER SM-[redacted] 47

LATITUDE: 60 d 30.0 m ____ s LONGITUDE: 147 d 19.0 m ____ s

LENGTH OF SHORELINE SEGMENT: 400 m

ACCESS: FOot/VEhicle/(BOat)/BArge/(HElio)/Float Plane

→difficult landing - only possible at low tide

SHORELINE:

SHORELINE CHARACTER: shallow

(BEach)/SPit/(Cove) 7 / ____ /

Wave Exposure: (High)/Med/Low

ROck (Y)/N % 10 (Vertical)/High Angle/Low Angle

SEdiment (Y)/N % 90 Types: (B) 70% / (C) 10% / (P) 5% / (G) 5% / S / M / R

Strand Line Y/(N) Algae/Debris/Logs

OIL

LOCATION OF OIL: SU / SP / (H / M / L)

CONTINUOUS: (Y)/N WIDTH OF BAND: 50 m % of Segment 80

PATCHY: 10/20/(30)/40/50/60/70/80/90% coverage % of Segment 20 (Next to >6 cm in pools in UITZ >2 cm on rock area)

EST. OIL THICKNESS: >1 in rock cm EST. OIL PENETRATION: >20 cm (cobble beach)

POOLED OIL: (Y)/N "FREE" OIL: (Y)/N WEATHERED: (Y)/N

→many in UITZ →tar-like

STRAND LINE CLEAN/OILED N/A

SUMMARY OILING: Amount (High)/Med/Low

Coverage (Extensive)/Moderate/Light

COMMENTS: Terrain is extremely treacherous due to large jagged boulders and deep pools of "free" tar-like oil. North extent of segment is all cobble beach. Surface appears clear with 30% patchy light oil however, oil saturation is about a foot deep here.

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](version 4/22/89)

SHORELINE CLEANUP PROGRAM

DATE:April 22, 1989 SHORELINE SEGMENT LS-48

LOCATION:(see enclosed map) Southwest portion of Little Smith Island ADEC No. 24

SHORELINE ASSESSMENT DATE: 4-21-89

Recommended Cleanup Activity(ies):
Washing/flooding
Warm water at moderate/high pressure
Low/high pressure washing

Priorities Considerations:
Pinniped haulout area .

Ecological Constraints (from site survey):
Avoid destruction of algae holdfasts and mytilus beds if possible.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural material is uncovered, contact Exxon archaeologist C. Mobley as per procedures in the "Guidelines for Shoreline Cleanup".

Charles J. Holmes Date: 4/23/89
State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

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

EXXON VALDEZ

SHORELINE TREATMENT APPROVAL

SHORELINE SEGMENT NUMBER LS-48

SHORELINE SEGMENT NAME Little Smith Haulout

SUBMITTED FOR APPROVAL 5 / 10 / 89

COMMENTS:
Environmentaly clean

William Hollup
Signature of EXXON rep

ADEC comments on the condition of this shoreline segment and action recommendation.

ADEC Representative was not present. GAR

Signature of ADEC rep

Coast Guard Comments and Action.

✓ Completed removal of gross contamination to the extent that the oil will not migrate. Site will require reassessment at a later date to determine future treatment. Inspected 5/8/89

____ The majority of surface oil contamination has been removed. The site will require reassessment at a later date to determine future treatment.

____ All contamination has been removed. No further treatment required unless re-oiled.

G.A. Reiter 5/24/89
Signature of Coast Guard rep

XC: ADEC
EXXON
FSOC

PINNIPED HAULOUT

[revised 17 Apr 89]

SHORELINE OIL EVALUATION

Date: 4 / 21 /89 Observer: C. DILLON

Time: 10 h 15 m Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

LOCATION LITTLE SMITH ISLAND SITE (SW) SOUTHWEST

LOCATION PREFIX LS SEGMENT NUMBER LS-48

LATITUDE: 60 d 30.0 m ____ s LONGITUDE: 147 d 26.5 m ____ s

LENGTH OF SHORELINE SEGMENT: ~~600~~ 500 m

ACCESS: FOot/VEhicle/BOat/BArge/HElio/Float Plane

↳ landing only possible during low tide

SHORELINE:

SHORELINE CHARACTER:

BEach/SPit/COve (← shallow, surrounded by cliffs) ____/____/

Wave Exposure: High/Med/Low

ROck (Y)/N % 25 VErtical (← in core areas)/High Angle/Low Angle

SEdiment (Y)/N % 75 Types: B (50) / C (25) / P / G (← 10% on cobble beach area) / S / M / R

Strand Line (Y)/N (some) Algae/Debris/Logs

OIL

LOCATION OF OIL: SU / SP / H / M / L

CONTINUOUS: (Y)/N WIDTH OF BAND: 10-20 m % of Segment 85 (highly oi) / 15% li

PATCHY: 10/20/30/40/50/60/70/80/90% coverage % of Segment ____

EST. OIL THICKNESS: >4 in pools (1 cm or rocks) cm EST. OIL PENETRATION: ~~4~~ <2 cm

POOLED OIL: (Y)/N (water w/ floating oil) "FREE" OIL: (Y)/N (tar consistency) WEATHERED: (Y)/N to tar consistency (in pools)

STRAND LINE CLEAN/OILED

SUMMARY OILING: Amount (High)/Med/Low

Coverage (Extensive)/Moderate/Light

COMMENTS: Oiling is high and extensive in Upper Intertial Zone, decreasing in Lower ITZ. UITZ contains small pools of thick tarry oil and pools of water with floating oil ~ 1cm thick mostly in middle ITZ.

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(version 4/22/89)

SHORELINE CLEANUP PROGRAM

DATE:April 22, 1989 SHORELINE SEGMENT LS-49

LOCATION:(see enclosed map) Northeast portion of Little Smith Island ADEC No. 24

SHORELINE ASSESSMENT DATE: 4-21-89

Recommended Cleanup Activity(ies):
Washing/flooding
Warm Water at moderate/high pressure
Low/high pressure washing

Priorities Considerations:
Pinniped haulout area .

Ecological Constraints (from site survey):
Avoid destruction of algae holdfasts and mytilus beds if possible.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural material is uncovered, contact Exxon archaeologist C. Mobley as per procedures in the "Guidelines for Shoreline Cleanup".

Charles E. Holmes Date: 4/23/89
State Historic Preservation Officer *

EXXON:_____ Date:_____

FOSC:_____ Date:_____

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

EXXON VALDEZ

SHORELINE TREATMENT APPROVAL

SHORELINE SEGMENT NUMBER LS-49

SHORELINE SEGMENT NAME Little Smith Haulout

SUBMITTED FOR APPROVAL 5/14/89

COMMENTS:

Environmentaly clean

William Stelmo
Signature of EXXON rep

ADEC comments on the condition of this shoreline segment and action recommendation.

ADEC representative was not present
GAR

Signature of ADEC rep

Coast Guard Comments and Action.

✓ Completed removal of gross contamination to the extent that the oil will not migrate. Site will require reassessment at a later date to determine future treatment. Completed 5/6/89

____ The majority of surface oil contamination has been removed. The site will require reassessment at a later date to determine future treatment.

____ All contamination has been removed. No further treatment required unless re-oiled.

G.A. Reiten 5/24/89
Signature of Coast Guard rep

XC: ADEC
EXXON
FSOC

PINNIPED HAULOUT

[revised 19 Apr 89]

SHORELINE OIL EVALUATION

Date: 4 / 21 /89 Observer: C. DILLON

Time: 11 h 30 m Weather: (Sun)/Cloud/Rain/Snow/Fog

LOCATION

LOCATION LITTLE SMITH ISLAND SITE [redacted] NORTHEAST

LOCATION PREFIX LS SEGMENT NUMBER LS-49

LATITUDE: 60 d 30.0 m ____ s LONGITUDE: 147 d 26.5 m ____ s

LENGTH OF SHORELINE SEGMENT: 600 m

ACCESS: FOot/VEhicle/(BOat)/BArge/(HElic)/Float Plane
↳ very difficult - must be low tide

SHORELINE:

SHORELINE CHARACTER:

(BEach)/SPit/COve/____/____/

Wave Exposure: (High)/Med/Low

ROck Y/(N) %____ VErtical/High Angle/Low Angle

SEdiment (Y)/N % 100 Types: (B) 10% / (C) 80% / (P) 10% / G / S / M / R

Strand Line Y/(N) Algae/Debris/Logs

OIL

LOCATION OF OIL: SU / SP / H / (M / L)

CONTINUOUS: (Y)/N WIDTH OF BAND: 15 m % of Segment 60 – No the most extent segm.

PATCHY: 10/20/30/40/50/60/70/80/90% coverage % of Segment____

EST. OIL THICKNESS: 21 cm EST. OIL PENETRATION: <2 cm

POOLED OIL: Y/(N) "FREE" OIL: Y/(N) WEATHERED: Y/(N)

STRAND LINE CLEAN/OILED N/A

SUMMARY OILING: Amount High/(Med)/Low
Coverage Extensive/(Moderate)/Light

COMMENTS: Couldn't land helicopter. Aerial surveillance only at very low, ~~slow~~ altitude and slow speed.

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(version 4/22/89)

SHORELINE CLEANUP PROGRAM

DATE: April 22, 1989 SHORELINE SEGMENT LG-50

LOCATION: (see enclosed map) Southwest Little Green Island

ADEC No.

SHORELINE ASSESSMENT DATE: 4-21-89

Recommended Cleanup Activity(ies):
No cleanup recommended

Priorities Considerations:
Pinniped haulout area .

Ecological Constraints (from site survey):
None other than identified in "Guidelines for Shoreline Cleanup".

Archeological Constraints (from site survey):
If heretofore undiscovered cultural material is uncovered, contact Exxon archaeologist C. Mobley as per procedures in the "Guidelines for Shoreline Cleanup".

Date: 4/23/89

State Historic Preservation Officer *

EXXON: Date:

FOSC: Date:

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

[revised 17 Apr 89]

SHORELINE OIL EVALUATION

Date: 4 / 21 /89 Observer: C. DILLON

Time: 11 h 00 m Weather: (Sun)/Cloud/Rain/Snow/Fog

LOCATION

LOCATION LITTLE GREEN ISLAND SITE SOUTHWEST

LOCATION PREFIX LG SEGMENT NUMBER LG - ~~#~~ 50

LATITUDE: 60 d 13.8 m ____ s LONGITUDE: 147 d 31.4 m ____ s

LENGTH OF SHORELINE SEGMENT: 500 m

ACCESS: FOot/VEhicle/(BOat)/BArge/(HElio)/Float Plane

SHORELINE:

SHORELINE CHARACTER: shallow

(BEach)/SPit/(COve)/____/____/

Wave Exposure: (High)/Med/Low

ROck (Y)/N % 10 VErtical/High Angle/Low Angle

SEdiment (Y)/N % 90 Types: (B) 20% / (C) 60% / (P) 10% / G / S / M / R

Strand Line Y/N Algae/Debris/Logs

OIL

LOCATION OF OIL: SU / SP / H / M / L CLEAN AT SURVEY TIME

N/A CONTINUOUS: Y/N WIDTH OF BAND: ____m % of Segment____

N/A PATCHY: 10/20/30/40/50/60/70/80/90% coverage % of Segment____

N/A EST. OIL THICKNESS: ____cm EST. OIL PENETRATION: ____cm

N/A POOLED OIL: Y/N "FREE" OIL: Y/N WEATHERED: Y/N

N/A STRAND LINE CLEAN/OILED

SUMMARY OILING: Amount High/Med/Low
Coverage Extensive/Moderate/Light
CLEAN

COMMENTS: Entire beach/cove segment had virtually undetectable remnants of oil droplets on a few cobbles only. Very clean

C:\WP\DATA\SHOREVAL.1

(version 4/22/89)

SHORELINE CLEANUP PROGRAM

DATE: April 22, 1989 SHORELINE SEGMENT AB-51

LOCATION: (see enclosed map) Agnes (Bass) Island (entire)

ADEC No.

SHORELINE ASSESSMENT DATE: 4-21-89

Recommended Cleanup Activity(ies):
Small boat survey and spot clean with appropriate methods as necessary.

Priorities Considerations:
Pinniped haulout area .

Ecological Constraints (from site survey):
Avoid destruction to algae holdfasts and mytilus beds.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural material is uncovered, contact Exxon archaeologist C. Mobley as per procedures in the "Guidelines for Shoreline Cleanup".

Date: 4/23/89

State Historic Preservation Officer *

EXXON: Date:

FOSC: Date:

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

[revised 17 Apr 89]

SHORELINE OIL EVALUATION

Date: 4 / 21 /89 Observer: C. DILLON

Time: 08 h 40 m Weather: (Sun)/Cloud/Rain/Snow/Fog

LOCATION

LOCATION AGNES (BASS) ISLAND SITE ALL (ENTIRE PERIMETER)

LOCATION PREFIX AB SEGMENT NUMBER AB-~~99~~ 51

LATITUDE: 60 d 39 m ____ s LONGITUDE: 147 d 22.2 m ____ s

LENGTH OF SHORELINE SEGMENT: 1100 - 1200 m

ACCESS: FOot/VEhicle/(BOat)/BArge/(HElic)/Float Plane

→ difficult - possibly able to land at very low tide.

SHORELINE:

SHORELINE CHARACTER:

(BEach)/SPit/(COve)/____/____/

Wave Exposure: (High)/Med/Low

ROck (Y)/N % 20 VErtical/High Angle/Low Angle

SEdiment (Y)/N % 80 Types: (B / C / P / G) / S / M / R

Strand Line (Y)/N Algae/Debris/(Logs)

SOME

OIL

LOCATION OF OIL: SU / SP / H / (M / L)

CONTINUOUS: (Y/N) WIDTH OF BAND: ____m % of Segment____

SOME PATCHY: (10/20/30/40/50/60/70/80/90% coverage % of Segment UNKNOWN

UNKNOWN EST. OIL THICKNESS: ____cm EST. OIL PENETRATION: ____cm

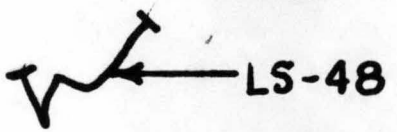
POOLED OIL: Y/(N) "FREE" OIL: Y/(N) WEATHERED: Y/(N)

STRAND LINE (CLEAN)/OILED

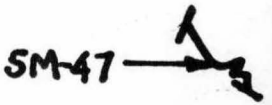
SUMMARY OILING: Amount High/Med/(Low)
Coverage Extensive/Moderate/(Light)

COMMENTS: UNABLE TO LAND HELO. RECOMMEN SMALL BOAT SURVEILLANCE. ISLAND APPEARED MOSTLY CLEAN FROM AIR EXCEPT FOR A FEW SMALL, LOCALIZED PATCHES NO DOCUMENTATION AT THIS TIME. SHOULD BE DOCUMENTED BY VESSEL ACCESSED SURVEY.

PINNIPED HAULOUT BLOCK



L. Smith



SMITH ISLAND

Smith I.

= Shoreline Segment

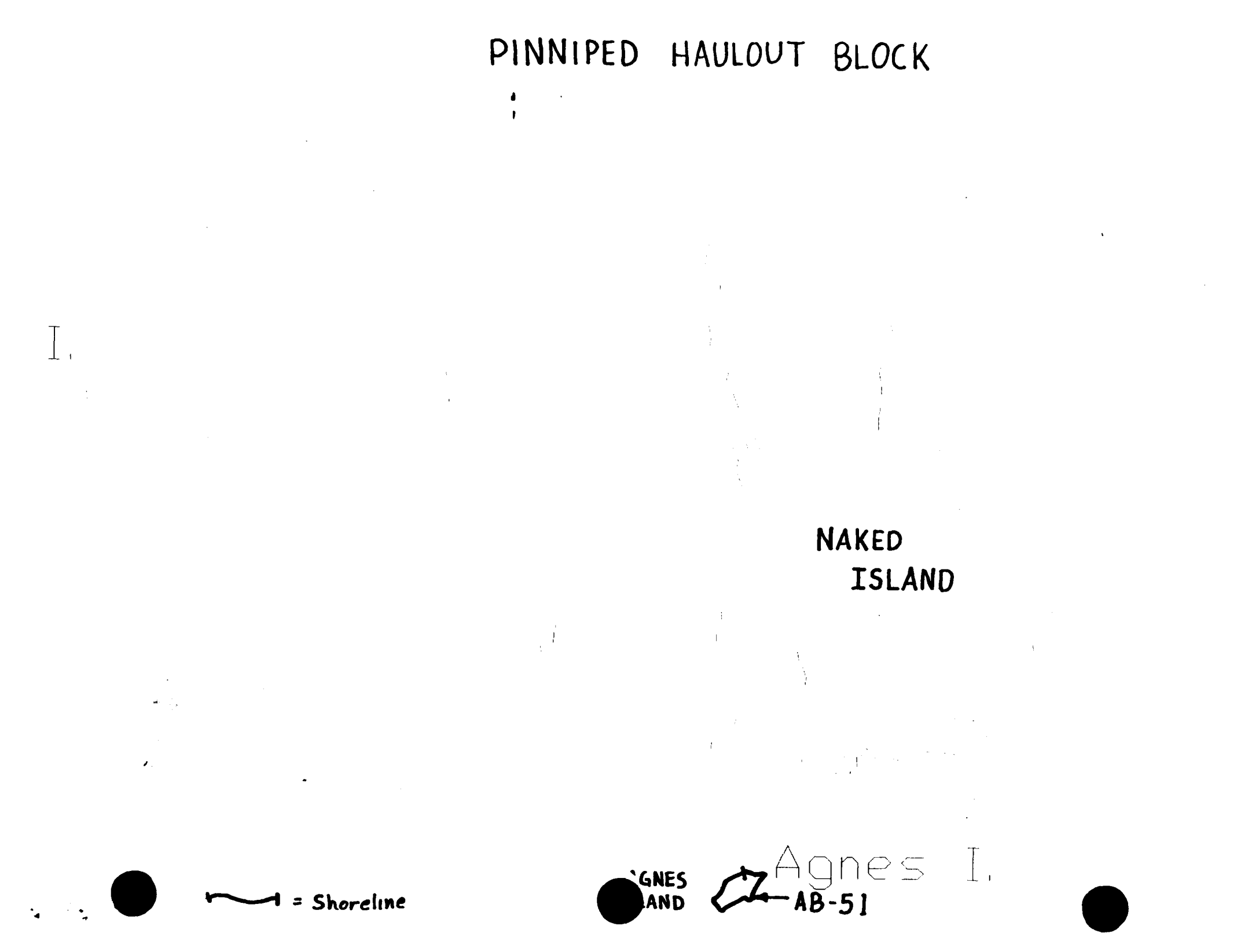
PINNIPED HAULOUT BLOCK

GREEN ISLAND

LITTLE GREEN ISLAND

LG-50

= Shoreline Segment


PINNIPED HAULOUT BLOCK
NAKED
ISLAND
= Shoreline
Agnes I.
AB-51

TREATMENT MANUAL, 6/15/89

SEG SM47 INSPECTION # ___ **SEGMENT**

DATE 8/11/89 **INSPECTION RECORD**

Shoreline Treatment Process(es) Completed for this Segment

- [X] Hot water wash
- [X] Warm water wash
- [X] Water deluge
- [X] Mechanical POM POM
- [X] Non-mechanical SNARE BOOM
- [X] Other BIOREMEDIATION GAP

Exxon

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

Comments SEAL HAULOUT AREA ON EAST TIP OF SMITH ISLAND

Signature Leonard Herbst Date: 8/11/89 Time:

Printed Name LEONARD HERBST

Existing Shoreline Condition As Visually Determined by USCG

	Surface Oil		Subsurface Oil
	Percent	Degree of Oiling	[X] Yes [ ] No
USCG	ADEC		
5	15	Heavy	
20	35	Medium	
50	40	Light	
20	5	Very Light	
5	5	None	
	100 %		

Comments Minor subsurface oiling. Area is primarily at bedrock with small patches of gravel between rocks.

Reassessment

[X] Yes - necessary (next spring) [ ] No - not necessary unless re-oiled

ADEC rep Comments AREA has been treated with Bioremediation. This area is a seal haul-out & should be monitored by Fish & Game. Deadline has expired for work on site.

Signature Wesley Ghormley Date: 9/12/89 Time: 11:45

Printed Name Wesley Ghormley

FOSC rep Demobilization approved/disapproved

Comments Site has been treated for Bioremediation. Permit for cleaning has expired. No further treatment allowed due to Eggs molting

Signature G.A. Reiter Date: 8/12/89 Time: 1145

Printed Name G.A. REITER, CDR, USCG

COPY: EXXON ADEC FOSC ISCC

EXXON VALDEZ

SHORELINE TREATMENT APPROVAL

SHORELINE SEGMENT NUMBER SM-47

SHORELINE SEGMENT NAME Smith Haulout

SUBMITTED FOR APPROVAL 5 / 15 / 89

COMMENTS: Environmentaly clean

William Shilyp
Signature of EXXON rep

ADEC comments on the condition of this shoreline segment and action recommendation.

ADEC not present on ?

Signature of ADEC rep

Coast Guard Comments and Action.

✓ Completed removal of gross contamination to the extent that the oil will not migrate. Site will require reassessment at a later date to determine future treatment. Terminated due to pupping season. GAR

____ The majority of surface oil contamination has been removed. The site will require reassessment at a later date to determine future treatment.

____ All contamination has been removed. No further treatment required unless re-oiled.

G. A. Reiten 5/15/89
Signature of Coast Guard rep

XC: ADEC
EXXON
~~FSOC~~

EXXON VALDEZ

SHORELINE TREATMENT APPROVAL

SHORELINE SEGMENT NUMBER LS-48

SHORELINE SEGMENT NAME Little Smith Haulout

SUBMITTED FOR APPROVAL 5 / 10 / 89

COMMENTS:
Environmentaly clean

William Phillips
Signature of EXXON rep

ADEC comments on the condition of this shoreline segment and action recommendation.

ADEC Representative was not present. GAR

Signature of ADEC rep

Coast Guard Comments and Action.

✓ Completed removal of gross contamination to the extent that the oil will not migrate. Site will require reassessment at a later date to determine future treatment. Inspected 5/8/89

____ The majority of surface oil contamination has been removed. The site will require reassessment at a later date to determine future treatment.

____ All contamination has been removed. No further treatment required unless re-oiled.

G.A. Reiter 5/24/89
Signature of Coast Guard rep

XC: ADEC
EXXON
FSOC

Cleared 8/7/89

(version 8/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): PINNIPED HAULOUT BLOCK

(REASSESSED)

Includes Shoreline Segments: LS-49R

Submitted : [signature] Date: 8/5/89
(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

- SHPO
- FOSC
- CDFU
- NOAA
- EPA
- USDA (FS)
- USFW
- A.DEC
- A.FG
- A.DNR

(version 8/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): PINNIPED HAULOUT BLOCK (REASSESSED)

Includes Shoreline Segments: LS-49R

Submitted : [signature] (for Exxon) Date: 8/5/89

ISCC Recommendation: Sharon K. Christopher Date: 8/7/89

FOSC Approval: [signature] Date: 8/8-89

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

Distribution:

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- Exxon Shoreline Supervisor
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- SHPO
- FOSC
- CDFU
- NOAA
- EPA
- USDA (FS)
- USFW
- A.DEC
- A.FG
- A.DNR

ACA 8/7

(version 08/02/89)

SHORELINE CLEANUP REASSESSMENT

DATE 8/5/89 SHORELINE SEGMENT: LS-49R

REASSESSMENT DATE 8/4/89

PURPOSE FOR REASSESSMENT 15 WEEKS SINCE INITIAL ASSESSMENT

Revised Recommended Cleanup Activity(ies):

- Flood/flush with warm to hot water (up to 140^{0}F) on low angle beach if access permits.
- Use moderate to high pressure washing on rock.
- Use other approved methods as appropriate.

Priorities Considerations:
Class 2-4: Heavy to light oil
A: Resources present

Revised Ecological Constraints:
Work at mid tide + or take appropriate measures to protect lower intertidal zone. Avoid disturbance to seabird colony and pinnipeds.

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

Charles E. Holmes — Date: August 6, 1989
State Historic Preservation Officer *

ISCC: Sharon K. Christopherson — Date: 8/7/89

EXXON: Daniel R. Taft — Date: 8/7/89

FOSC: C. S. McCain — Date: 8-8-89

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

SHORELINE OIL EVALUATION

Date: 8/4/89 / Time: 09.10 Observer: G. MACDONALD

Surveyed From: (Foot)/(Boat)/Helio/Plane Weather: (Sun)/Cloud/Rain/Snow/Fc

LOCATION

LOCATION N. coast of LittleSmith I. SEGMENT NUMBER LS-49R

LENGTH OF SHORELINE SEGMENT: ~20 m

ACCESS: Foot/Vehicle/(Boat)/(Barge)/Helio/Float Plane; calm only.
small.

SHORELINE:

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

Wave Exposure: (High)/Med/Low

Sediment: B 50 % / C 10 % / P ___ % / G ___ % / S ___ % / M ___ % / R 40 %

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

OIL

1 pocket only.

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

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

Continuous: (Y)/N % of Segment 80 Width of Band: 1 m

Sporadic: Y/N % of Segment _____

Est. Oil Thickness where > 1cm: _____ cm Est. Oil Penetration: ≤ 20 cm

Pooled Oil: _____ % "Free" Oil: _____ % Coated: H 10 % / M ___ % / L 90 %

Fresh _____ % Mousse _____ % Tar Formation: 100 %

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

Comments:

Heavily oiled pocket 15m x 30m on NW end of Little Smith; jagged rock nearby – omni-sweep would reach at > mid. tide.

DOCUMENTATION:

Map/Aerial photo marking segment boundaries Attached

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

Photography: Y/N Roll Number(s) TSG4 (23-28)

Sample Numbers Collected: NONE

8/4 · Segment LS-~~19~~R
09.10

steep exposed rocky shore;
oil on old mousse, new soft tar;
½ - 1 m contin. band @ HITZ;

15 m × 30 m heavily oiled pocket @
NW island; penetr^{n} > 35 cm!.

mature mousse continues @ 1 m
band @ HITZ, continuous but
thins eastward.

~~keep~~ ~~water~~ off most of segment.

10.00 END of SEGMENT

LOCATION: Prince William Sd SITE: Little Smith Is. OBSERVER: E.R. White

LOCATION PREFIX: LS SEG. NO.: 49R LENGTH: 620 (M)

DATE: 08 / 01 / 81 TIME (HHMM): 0920-1000 TIDE HT.: 0.0 - -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

continuous-dense on rock/sparse on boulders // diverse & healthy algal community at lower intertidal elevations.

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

occasional dense mussel beds on rocks // ϕ on beaches

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

B. glandula continuous throughout; B. cariosus - sometimes dense - @ mid-low intertidal elevations

Littorina

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

mostly at high-super tidal elevations (splash zone)

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

mostly at mid-low intertidal elevations

OTHER OBSERVATIONS: kelp beds offshore

CLEANUP PRECAUTIONS: clear all activity with ADF&G &/or USF&WS re: seabird colonies & seal haulout // minimize disturbance to lower intertidal & subtidal environment

MAMMALS: Otters Harbor Seals 15-20 - pups on shore Sea Lions ___ Whales ___

BIRDS: 10-15 tufted puffins; 20-30 horned puffins; ♦ pidgeon guillemots; murrelet

GENERAL OBSERVATIONS:

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 8-4-89 Location Little Smith Is. Site North Coast

Location Prefix LS Segment # LS-49R Length 620m

Survey Method:

Air _____ (A - indicate on map) Boat ✓(95%) (A - indicate on map

Ground ✓(5%) (G - indicate on map)

Known cultural resources (AHRS #) none Data Source AHRS

Oil conditions/beach visibility Trace to Heavy, good visibility

Width of beach zone surveyed 20 m Tree fringe surveyed 0m

Cultural resources observed in beach zone (AHRS code) none

Cultural resources observed in tree fringe (AHRS code) none

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

Shore Profile Very steep, high Vertical cliffs

Fresh Water Sources none observed

Sea Exposure High energy shoreline, NW to N exposure

Access/Safety fair to poor.

Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

Monitoring during cleanup needed yes/(no) Collection yes/(no)

Photos: Color Roll # _____ Frames _____

B/W Roll # N/A Frames _____

Observer(s) [redacted] Pilgrim

Time survey started 0910 Time survey ended 0955

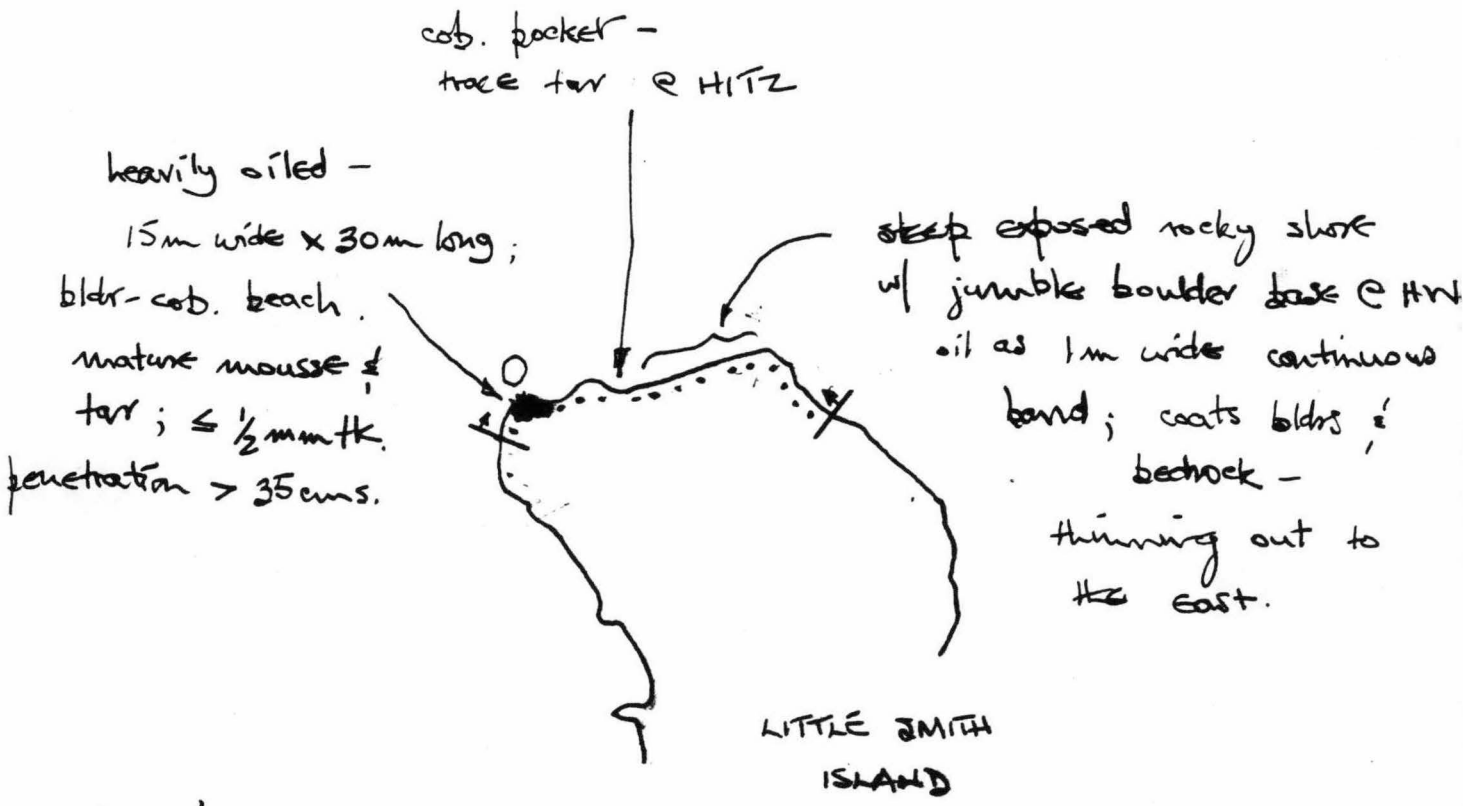
Cultural resource considerations/restraints:

STANDARD

SEGMENT LS-49R

8/4/89 a.m.

G. MACDONALD.



KEY

: light oil

● heavy oil

scale 1:12,000

0 1000 2000 3000 FT

½ mile

Little Smith

SEG Seg R INSPECTION # _ _ SEGMENT

DATE 8/11/89 INSPECTION RECORD

TREATMENT MANUAL, 6/15/89

Shoreline Treatment Process(es) Completed for this Segment

- ☐ Hot water wash
- ☐ Warm water wash
- ☐ Water deluge
- ☐ Mechanical
- ☐ Non-mechanical
- ☒ Other NO ACTION TAKEN

Exxon

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

Comments SEAL HAULOUT AREA ON LITTLE SMITH ISLAND.

Signature Leonard Heitzt Date: 8/11/89 Time:

Printed Name LEONARD HEITZST

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
20	Heavy
15	Medium
45	Light
10	Very Light
10	None
100 %	

Subsurface Oil

☐ Yes ☒ No

Comments Hard bedrock under large rocks

Reassessment

☒ Yes - necessary ☐ No - not necessary unless re-oiled

ADEC rep Comments - Next spring Bioremediation was applied in this area Area is a sensitive seal haul out & should be monitored by Fish & Game.

Signature Wesley Gilmanley Date: 8/12/89 Time: 1920

Printed Name Wesley Gilmanley

FOSC rep Demobilization approved/disapproved.

Comments Seal haul-out area - one spot heavy oil needed hand wipe w/exception of melting boulder on 12 ft

Signature Thomas O. Coulter Jr Date: 8/12/89 Time: 1445

Printed Name THOMAS O. COULTER JR.

COPY: EXXON ADEC FOSC ISCC

EXXON VALDEZ

SHORELINE TREATMENT APPROVAL

SHORELINE SEGMENT NUMBER LS-49

SHORELINE SEGMENT NAME Little Smith Haulout

SUBMITTED FOR APPROVAL 5/14/89

COMMENTS:

Environmentaly clean

William Stelmo
Signature of EXXON rep

ADEC comments on the condition of this shoreline segment and action recommendation.

ADEC representative was not present
GAR

Signature of ADEC rep

Coast Guard Comments and Action.

✓ Completed removal of gross contamination to the extent that the oil will not migrate. Site will require reassessment at a later date to determine future treatment. Inspected 5/8/89

____ The majority of surface oil contamination has been removed. The site will require reassessment at a later date to determine future treatment.

____ All contamination has been removed. No further treatment required unless re-oiled.

G.A. Reiten 5/24/89
Signature of Coast Guard rep

XC: ADEC
EXXON
FSOC

(version 8/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): LITTLE SMITH ISLAND BLOCK

Includes Shoreline Segments: LS-60, LS-61

Submitted : _____ (for Exxon) Date: 8/17/89

ISCC Recommendation: _____ Date: 8/23/89

FOSC Approval: _____ Date: 8-23-89

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

Distribution:

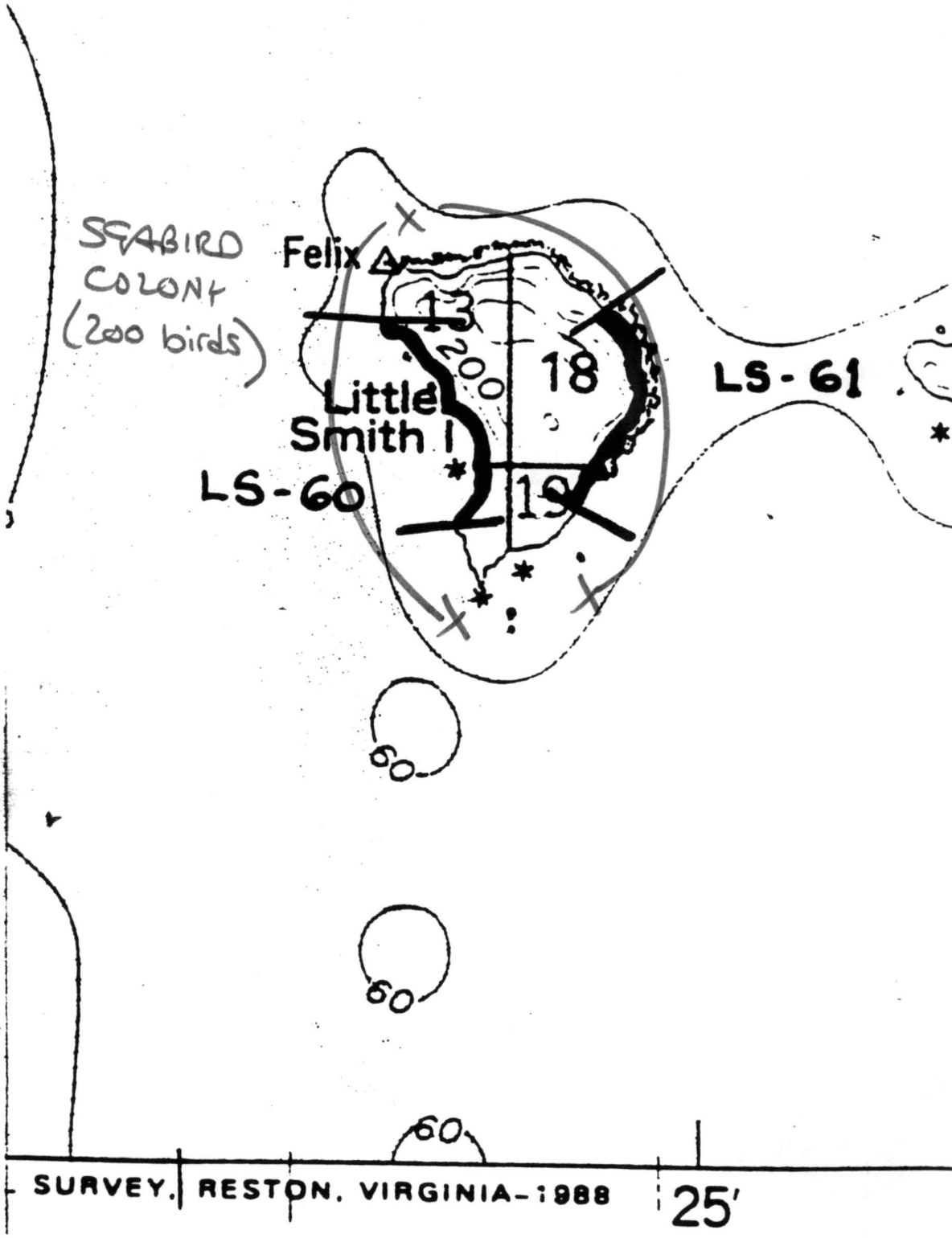
Exxon Shoreline Coordinator
Exxon Shoreline Supervisor
Exxon SCAT file

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

LITTLE SMITH ISLAND BLOCK

LS-60, LS-61

USFWS
8/18/89



(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/16/89 SHORELINE SEGMENT LS-60

LOCATION: (see enclosed map) LITTLE SMITH ISLAND-WESTERN SHORELINE (LITTLE SMITH ISLAND BLOCK)

ADEC NO. SHORELINE ASSESSMENT DATE: 8/13/89

Recommended Cleanup Activity(ies):
-Bioremediation of pebble/cobble areas.
-Moderate to high pressure/warm to hot water washing to clear the heavily oiled portions of this segment.
-If cleanup is delayed more than a few weeks after 8/13/89, reassessment should be made of the amount of self-cleaning before cleanup is begun.

Priorities Considerations:
2A

Ecological Constraints (from site survey):
All cleanup activity should occur when tide level is >+3.0 feet. Minimize boat traffic through kelp bed and stay away from seal haulouts, falcon nests, and puffin colony.

Archeological Constraints (from site survey):
No upland access.
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.

Robert Byrell
State Historic Preservation Officer * Date: 8/17/89

ISCC: Jacqueline Michael Date: 8/23/89

EXXON: Daniel D. Tabet Date: 8-23-89

FOSC: D. E. Cleary Date: 8-23-89

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

SHORELINE OIL EVALUATION

Date: 8/13/89 Time: 96.15 Observer: G. MACDONALD

Surveyed From: (Foot) (Boat) Helio/Plane Weather: Sun/(Cloud)/Rain/Snow/(Foc

LOCATION

LOCATION W coast of Little Smith SEGMENT NUMBER LS-60

LENGTH OF SHORELINE SEGMENT: ~950 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 20 % / C 5 % / P 5 % / G (rest) % / S ___ % / M ___ % / R 70 %

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

OIL

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

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

Continuous: Y/(N) % of Segment _____ Width of Band: _____ m

Sporadic: (Y)/N % of Segment ~ 30%

Est. Oil Thickness where > 1cm: _____ cm Est. Oil Penetration: _____ cm

Pooled Oil: _____ % "Free" Oil: TRACE % Coated: H ___ % / M ___ % / L 100 %

Fresh _____ % Mousse TRACE % Tar Formation: 100 %

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

Comments:

Tar is dark - brown - black, soft - tacky; as thin coat < 1 mm thick; bedrock & large boulders are up to 30% self cleaned since April 20th, especially in cob-peb over bedrock areas.

Faint detergent odour & "soapy" feel to tar - deemulsifying agent - is very successful here at breaking down tar and/or preventing drying.

Map/Aerial photo marking segment boundaries Attached.

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

Photography: Y (N) Roll Number(s) _____

Sample Numbers Collected: None

06·15 8/13/89 Little Smith
Sequent LS-60

hi exposure, steep rocky shore w/ mod ∠ cob pockets; some peb. berms.

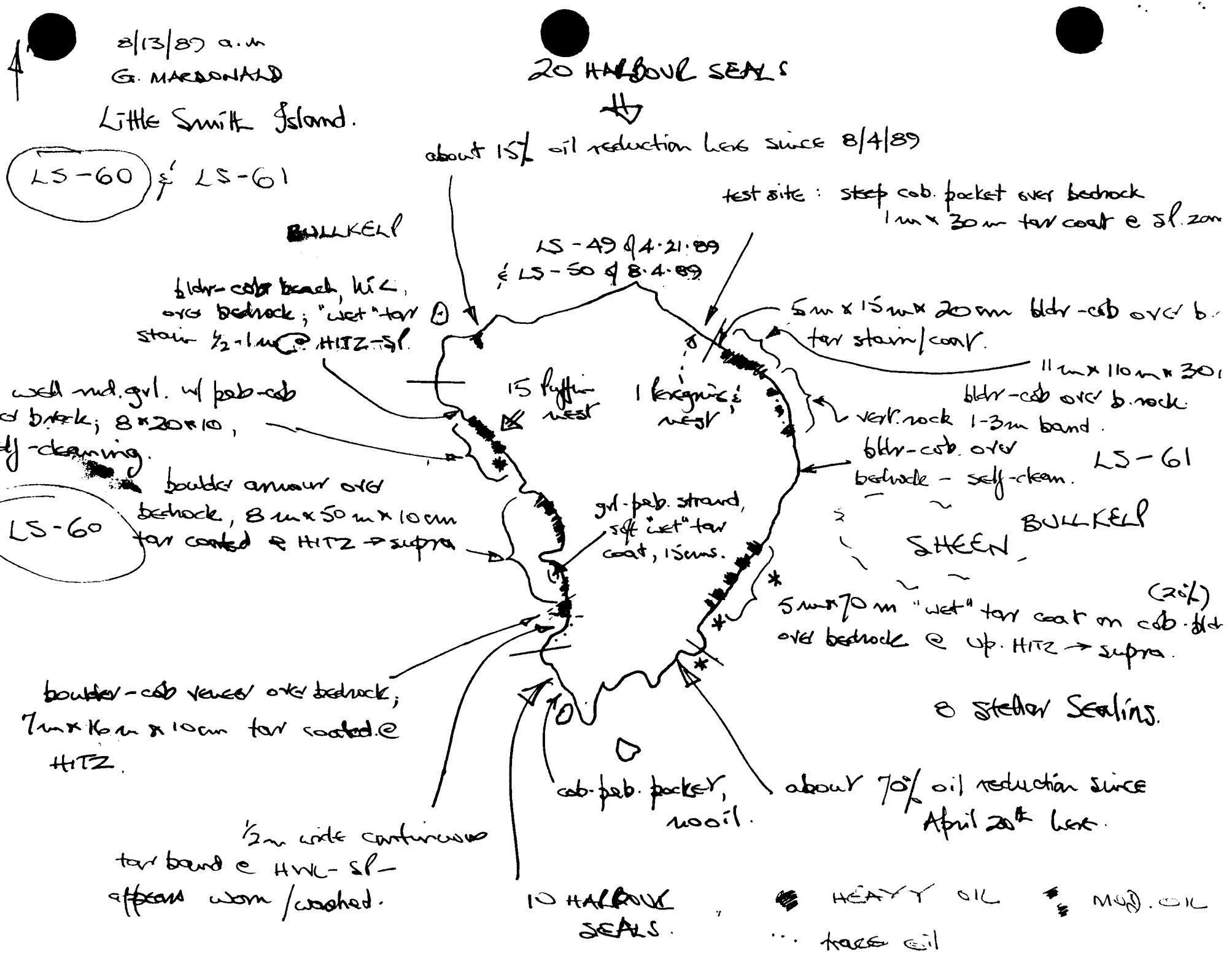
faint "detergent" odour; tar is "wet" and appears to be dissolving/ breaking down, losing tacky properties → becoming "soapy."

no further contamin^; faint sheen as spots off W. shore.

tar @ HTZ - sl/ occas. supra; well rounded cobs. to 30% coverage over mod-hi ∠ bedrock

07·00 END OF SEGMENT

In general, oil coating & contamin^ levels have decreased at least 20% since @ NE tip; (LS·50) self-cleaning of cob-peb over bedrock areas! V. evident; > 10% since 8/ , and > 40% since April 20th.


8/13/89 a.m
G. MACDONALD
Little Smith Island.
LS-60 & LS-61
20 HARBOUR SEALS
about 15% oil reduction here since 8/4/89
test site: steep cob. pocket over bedrock
1 m x 30 m tar coat e sl. zone
LS-49 @ 4·21·89
& LS-50 @ 8·4·89
bldr-cobble beach, hi <, over bedrock; "wet" tar stain ½-1 m @ HITZ-sl.
5 m x 15 m x 20 cm bldr-cob over b. tar stain/coat.
11 m x 110 m x 30 bldr-cob over b.rock
vert. rock 1-3 m band.
bldr-cob. over bedrock - self-clean.
LS-61
BULLKELP
SHEEN
(2%)
5 m x 70 m "wet" tar coat on cob-bldr over bedrock @ up. HITZ → supra.
8 other Sealing.
well mod. gvl. w/ peb-cob over b.rock; 8 x 20 x 10, self-cleaning.
boulder armour over bedrock, 8 m x 50 m x 10 cm tar coated @ HITZ → supra
LS-60
15 flyfish west
1 kingfisher west
gvl-peb. strand, soft "wet" tar coat, 15 cms.
boulder-cob veneer over bedrock; 7 m x 16 m x 10 cm tar coated @ HITZ.
½ m wide continuous tar band @ HWL-sl-offshore worn/washed.
cob-peb. pocket, no oil.
about 70% oil reduction since April 20th here.
10 HARBOUR SEALS.
HEAVY OIL
MOD. OIL
... trace oil

ECOLOGICAL EVALUATION

LOCATION: Prince William Sound SITE: Little Smith Island OBSERVER: S. Dearn

LOCATION PREFIX: _____ SEG. NO.: LS-60 LENGTH: 850 (M)

DATE: 08 / 13 / 89 TIME (HHMM): 0615 - 0705 TIDE HT.: 1.0 - 2.0 ft

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 forms a dense continuous band on rocky outcroppings + headlands. Fucus plants in several oiled patches in segment are thickly coated + appear dead (still attached) ~~New fucus plants are beginning to grow in the middle of the fucus band.~~

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Small patches of Mytilus are found along the vertical walls of rocky outcroppings + on ledges of rocky benches + at base of boulders amongst cobble/pebble mix. Some individuals are light-moderately oiled. Dead gaping mussels, still attached, are present in these oiled areas.

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Upper 0.5 m. of barnacles in places is light-moderately oiled. Dead individuals are present

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

Littorina are present throughout segment in apparently a uniform distribution. Abundance is relatively consistant throughout segment. Some ~~Littorella~~ are present.

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

Large individuals are found beneath algal blades. Medium sized individuals are often present under cobbles or shale fragments. Onchidella (shell-less limpets) are also present. (Combined Tectibranchia)

OTHER OBSERVATIONS: Seagrass beds + kelp beds present in nearshore waters. Ctenophores + jellyfish also present in nearshore waters. Both tufted puffins + horned puffins are nesting in rocky cliffs just below exposed tree roots. 30+ harbor seals + 1 peregrine falcon sighted in adjacent segments (SEE MAP)
Intertidal organisms below oil (lt - mid-low) appear healthy. 20-armed seastars (Pycnopodia) + Ochre stars (Pisaster) are present in mid-low intertidal feeding.

CLEANUP PRECAUTIONS: Avoid mid-low intertidal zones, nesting puffin region (SEE MAP) + subtidal kelp + seagrass beds. It appears that an unknown decontamination agent has been applied to rocks/boulders of upper high ITZ + seems to be reducing oil w/ very minimal affects to ecol. sensitive areas mentioned below*

MAMMALS: Otters ____ Harbor Seals ____ (20 + 10 individuals observed in adjacent segments (SEE MAP)) Sea Lions ____ Whales ____
Other _____

BIRDS: Oyster Catchers 4, nesting tufted ± horned puffins (at least 15 entrances to nests observed (SEE MAP)), numerous Kittiwakes + glaucous-winged gulls

GENERAL OBSERVATIONS: A healthy, rich mid-low intertidal zone with many species of algae + inverts is present within this segment. Nesting puffins (tufted + horned), shallow subtidal seagrass beds, offshore kelp beds (Nereocystis) + a diverse mid-low intertidal make this a very ecologically sensitive area.

* nearby harbor seal haulouts + a nesting peregrine falcon,

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 8-13-89 Location Little Smith Is. Site _____

Location Prefix LS Segment # LS-60 Length ~850 m

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 mod. to heavy, good visibility

Width of beach zone surveyed 5-10 m Tree fringe surveyed 10-20 m

Cultural resources observed in beach zone (AHRS code) none

Cultural resources observed in tree fringe (AHRS code) CMT's (3)

General observations justifying survey method and segment's site probability

Shore Profile steep rock walls, mod. angle boulder cobble pocket beaches

Fresh Water Sources none observed

Sea Exposure west southwest, high energy

Access/Safety poor to fair access, moderately safe

Probability of undiscovered sites in beach zone (circle one) 1 (2) 3 4 5

Monitoring during cleanup needed yes (no) Collection yes (no)

Photos: Color Roll # — Frames —

B/W Roll # — Frames —

Observer(s) [redacted] Phippen

Time survey started 0615 Time survey ended 0705

Cultural resource considerations/restraints:

standard

8/4 Segment LS-50
09.10

steep exposed rocky shore;
oil on old mousse, now soft tar;
½-1m contin. band @ HITZ;

15m x 30m heavily oiled pocket @
NW island; penetr" > 35 cm!

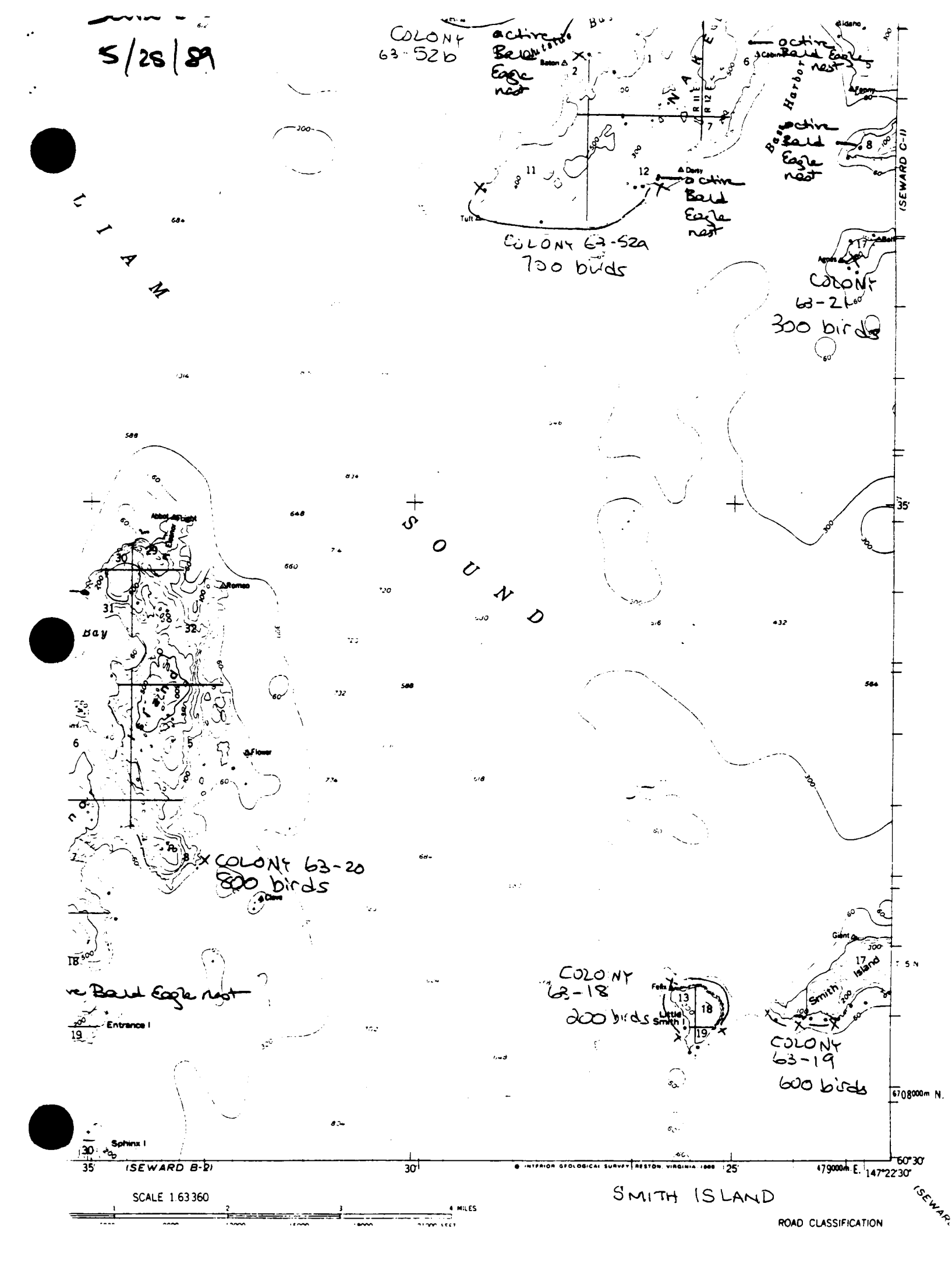
mature mousse continues @ 1m
band @ HITZ, continuous bld
thins eastward.

deep water off most of segment

10.00 END of SEGMENT

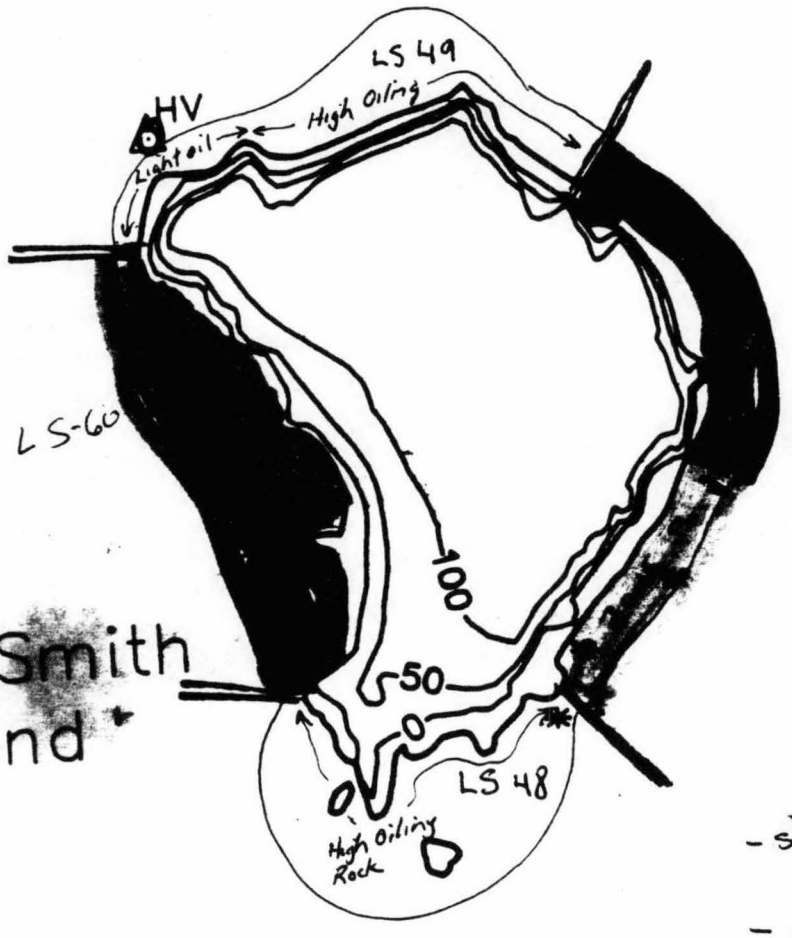
REPLACES LS-49!

ADDENDA


5/28/89
COLONY 63-52b
active Bald Eagle nest
COLONY 63-52a
700 birds
active Bald Eagle nest
active Bald Eagle nest
active Bald Eagle nest
COLONY 63-21
300 birds
COLONY 63-20
800 birds
COLONY 63-18
200 birds
COLONY 63-19
600 birds
SMITH ISLAND
SOUND
Bay
Harbor
ISEWARD C-II
ISEWARD B-2
SCALE 1:63360
ROAD CLASSIFICATION

LS 60	ZONE A	ROCK WITH BOULDERS HEAVY / MOD. OIL
	ZONE B	CB/PB BEACH LIGHT OIL
LS 61	ZONES A	ROCK HEAVY OIL
	ZONE B	CB/PB BCH HEAVY OIL
	ZONE C	PB/CB BCH HEAVY OIL

OIL
HEAVY
MOD.
LIGHT



Little Smith Island

SHEEN

- sheens about 1/2 mile off south shove
- All oil in mid and upper intertidal
- Fucus/barnacles in lower intertidal mostly off the rock/boulder zones - appeared healthy

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/16/89 SHORELINE SEGMENT LS-61

LOCATION: (see enclosed map) LITTLE SMITH ISLAND-EAST COASTLINE (LITTLE SMITH ISLAND BLOCK)

ADEC NO. SHORELINE ASSESSMENT DATE: 8/13/89

Recommended Cleanup Activity(ies):
-Moderate to high pressure/warm to hot water washing is recommended to clear the heavily oiled portions of this segment.
-Bioremediation is recommended for pebble/cobble portions of this segment.
-If cleanup is delayed for more than a few weeks after 8/13/89, reassessment should be made of the amount of self-cleaning before cleanup is begun.

Priorities Considerations:
2A
Ecological Constraints (from site survey):
-Cleanup activities should take place at tides >+3 feet. -Minimize boat traffic through kelp beds.
-Keep boats and people as far as possible from seal haulouts and falcon/puffin nesting areas.

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

Bobbe Bundell Date: 8/17/89
State Historic Preservation Officer *

ISCC: Jacquelin Michel Date: 8/23/89

EXXON: Daniel L Tufts Date: 8-23-89

FOSC: D. F. Cranecay Date: 8-23-89

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

SHORELINE OIL EVALUATION

Date: 8/13/89 / Time: 07.05 Observer: G. MACDONALD

Surveyed From: Foot/Boat/Helio/Plane Weather: Sun/(Cloud)/Rain/Snow/(Fo

LOCATION

LOCATION E. coast / Little Smith I SEGMENT NUMBER LS-61

LENGTH OF SHORELINE SEGMENT: ~900 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 10 % / C 10 % / P 10 % / G TRACE % / S ___ % / M ___ % /R 70 %

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

OIL

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

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

Continuous: Y/(N) % of Segment _____ Width of Band: _____ m

Sporadic: (Y)/N % of Segment <25%

Est. Oil Thickness where > 1cm: _____ cm Est. Oil Penetration: _____ cm

Pooled Oil: _____ % "Free" Oil: _____ % Coated: H ___ % /M ___ % /L 100 %

Fresh _____ % Mousse TRACE % Tar Formation: 100 %

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

Comments:

Decontamination agent - soap odour - "wetting agent" penetrates to bedrock & breaks down tar coat to stain thickness of 1cm; ~~[illegible]~~

Steep rocky shore w/ hi. exposure

(Map)/Aerial photo marking segment boundaries Attached

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

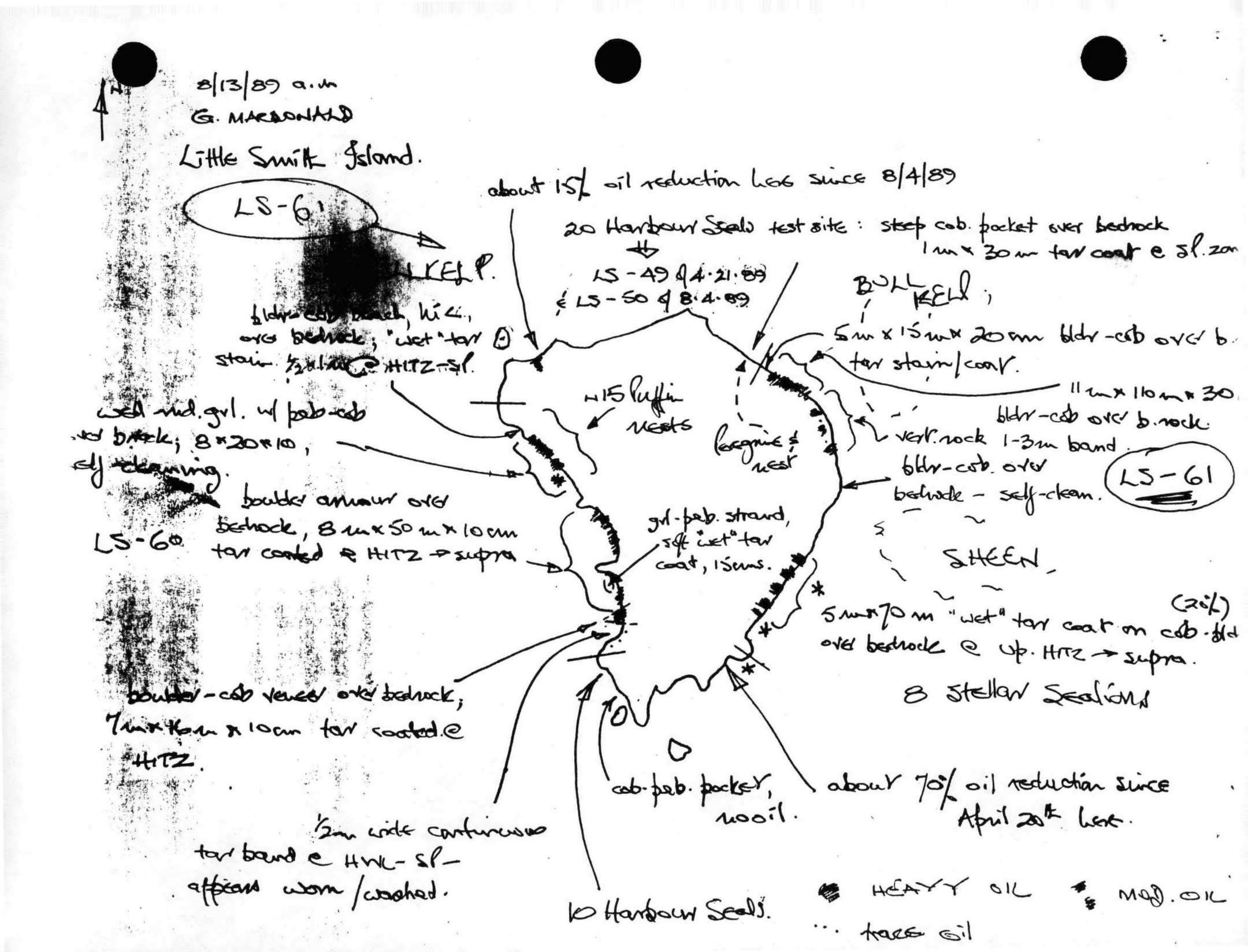
Photography: (Y)/N Roll Number(s) _____

Sample Numbers Collected: 1 of 5

8/13 Segment LS - 61
07.05 HRS.

11 m x 110 cob-bldr beach over b.r.
lower 8+ m are self-cleaning in
mid. beach w/ cob. berm beginning
@ upper HTTZ;
"wet" tar coat @ up. HTTZ - flash;
5 m x 60 m x 20+ cms;
coat < 2 mm th;
grl. strand @ sl zone oiled in
part; generally 0-10 cms penetr;
trace - light coat.
"wetting" agent penetrates to
bedrock and is breaking down
tar coat to stain thickness or
less (< ½ mm). Also at work
in channels & traps in bedrock;
excellent oil zone contact / coverage.

07.55 END of SEGMENT
seas building to 2'


8/13/89 a.m.
G. MACDONALD
Little Smith Island.
LS-61
about 15% oil reduction here since 8/4/89
20 Harbour Seals test site: steep cob. pocket over bedrock
1 m × 30 m tar coat @ sl. zone
LS-49 @ 4.21.89
& LS-50 @ 8.4.89
BULL KELP
5 m × 15 m × 20 cm bldr-cob over b.
tar stain/coat.
11 m × 110 m × 30
bldr-cob over b.rock
vert. rock 1-3m band
bldr-cob. over
bedrock - self-clean.
LS-61
~15 Puffin nests
kelp engine & nest
well rnd. gvl. w/ peb-cob
over b.rock; 8×20×10,
self cleaning.
boulder armour over
bedrock, 8 m × 50 m × 10 cm
tar coated @ HITZ → supra
LS-60
gvl-peb. strand,
soft "wet" tar
coat, 15cms.
SHEEN
(2%)
5 m × 70 m "wet" tar coat on cob-bld
over bedrock @ up. HITZ → supra.
8 Stellar Sealions
boulder-cob veneer over bedrock;
7 m × 4 m × 10 cm tar coated @
HITZ.
cob-peb. pocket,
no oil.
about 70% oil reduction since
April 20th here.
½m wide continuous
tar band @ HWL - sl -
appears worn/washed.
10 Harbour Seals.
HEAVY OIL
MOD. OIL
... trace oil

ECOLOGICAL EVALUATION

LOCATION: Prince William Sound SITE: Little Smith Island OBSERVER: S. Dearn

LOCATION PREFIX: _____ SEG. NO.: LS-61 LENGTH: 900 (M)

DATE: 08 / 13 / 89 TIME (HHMM): 0715 - 0755 TIDE HT.: 2.0 - 3.0 ft

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

Dense in places - primarily on rocky headlands + on larger boulders.

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

Dense patches of mussels are on sides of rocky outcroppings.

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

Barnacles form dense continuous band on headland points + on tops + sides of boulders

Littorina

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

Littorines are scattered throughout the high intertidal region of this segment

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

1° Under algal blades

OTHER OBSERVATIONS: Kelp beds in nearby shallow subtidal areas (Nereocystis + Pleurophycus)
Rich mid-low intertidal zone. High wave exposure area.

CLEANUP PRECAUTIONS: Clean only at tides greater than ±3.0 ft. Avoid boat traffic through kelp beds. Maintain 300 ft distance from shore near peregrine falcon nest + harbor seal haulouts in adjacent segments (SEE MAP).

MAMMALS: Otters ____ Harbor Seals ____ Sea Lions (Steller) 8 (nearshore) Whales ____
Other _____

BIRDS: Kittiwakes + pigeon guillemots offshore, 1 peregrine falcon w/nest observed in adjacent segment (SEE MAP)

GENERAL OBSERVATIONS: Segment is exposed coastline + has fauna/flora typical of wave exposed areas - eg, Fucus, many barnacles, encrusting coralline algae, Laminarian kelps (subtidally), mussel
Organisms below oiled zone appear healthy.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 8-13-89 Location Little Smith Is. Site _____

Location Prefix LS Segment # LS-61 Length ~900m

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 mod to heavy, good visibility

Width of beach zone surveyed 10 m Tree fringe surveyed 0

Cultural resources observed in beach zone (AHRS code) none

Cultural resources observed in tree fringe (AHRS code) none

General observations justifying survey method and segment's site probability

Shore Profile Vertical rock walls in excess of 30 m, bedrock ledge coast.

Fresh Water Sources none observed

Sea Exposure high energy, east exposure

Access/Safety fair to poor, moderately safe

Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

Monitoring during cleanup needed yes/(no) Collection yes/(no)

Photos: Color Roll # — Frames —

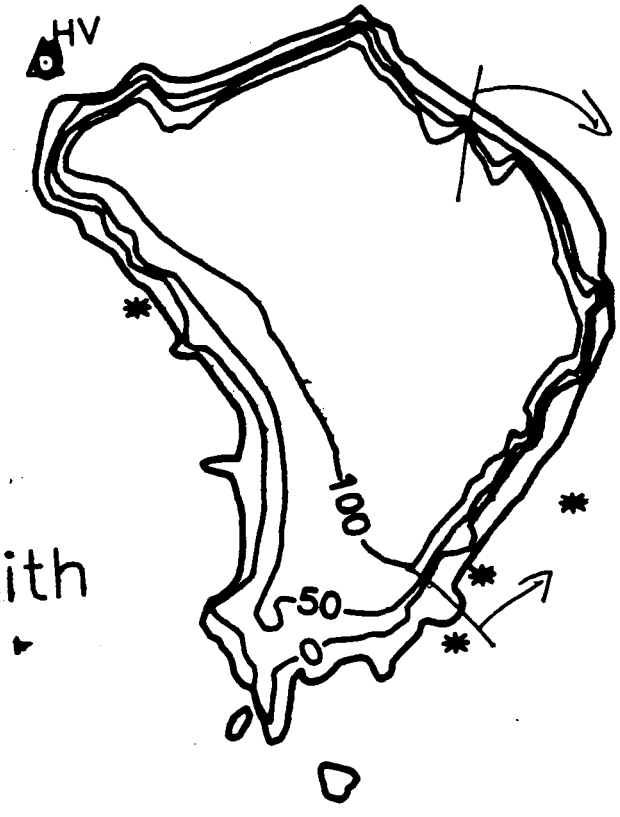
B/W Roll # — Frames —

Observer(s) C.C. Phippen

Time survey started 0715 Time survey ended 0800

Cultural resource considerations/restraints:

Standard



LS-61

Little Smith Island

Sent TR & OR

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE April 29, 1989 SHORELINE SEGMENT SE-41

LOCATION: (see enclosed map) Seal Island Northeast ~~west~~

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 4-20-89

Recommended Cleanup Activity(ies):

Remove pools of heavy oil first if possible.
Use warm/cold water at low to moderate pressures to clean boulders and cobbles.
Use washing and flooding at lower pressures but vigorously on gravel and pebble areas.
Test viability of steam cleaning of rocky faces if necessary to assure reasonable cleanliness. On Scene Coordinator representative at site has authority to approve.
Priorities Considerations: CE Mobley

Remove pooled oil first; cobbles and boulders second and sediment areas last.

Ecological Constraints (from site survey):

Attempt to leave fucus holdfasts and mytilus beds as intact as feasible.

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.

Judith E. Bittner Date: 4/29/89
State Historic Preservation Officer *

EXXON: William J Stirling Date: 4/29/89

FOSC: C E Mobley Date: 4/29/89

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

SHORELINE CLEANUP PROGRAM

DATE: 4/20/89

Shoreline Segment: Seal Island Northeast - SE 41

Shoreline Assessment Date: 4/20/89

Recommended Cleanup Activity(ies):

Heavy oil, pooled in places. Recommend vigorous cleanup, especially of rounded boulders and cobble, using waterflood and cold/warm water under pressure. Be sure to trap and skim oil as removed

Ecological/Arch. Constraints:

If possible, try to leave fucus holdfasts and mytilus beds as intact as feasible. If heretofore unidentified cultural resources are recovered during cleanup contact Exxon archaeologist, C Mobley, immediately.

EXXON: _____ **Date:** _____

OSC: _____ **Date:** _____

[revised 17 Apr 89]

SHORELINE OIL EVALUATION

Date: 4 / 20 /89 Observer: C DILLON

Time: 13 h 00-55 m Weather: (Sun)/Cloud/Rain/Snow/Fog

LOCATION

LOCATION SEAL ISLAND SITE NORTH EAST

LOCATION PREFIX SE SEGMENT NUMBER 41

LATITUDE: 60 d 25 m ____ s LONGITUDE: 147 d 25 m ____ s

LENGTH OF SHORELINE SEGMENT: 500 m

ACCESS: FOot/VEhicle/BOat/BArge/HElio/Float Plane HE/BO

SHORELINE:

SHORELINE CHARACTER:

BEach/SPit/COve/ BE / CO(shallow)

Wave Exposure: (High)/Med/Low

ROck (Y)/N % 10 VErtical/(High Angle)/Low Angle (low lying ~ 30' above sea level)

SEdiment (Y)/N % 90 Types: (B) 10% / (C) 25% / (P) 30% / (G) 15% / S / M / R

Strand Line (Y)/N (Algae) (some)/Debris/(Logs)

OIL

LOCATION OF OIL: SU / SP / H / (M / L)

CONTINUOUS: (Y)/N WIDTH OF BAND: 10 - 30 m % of Segment 90

PATCHY: 10/20/30/40/50/60/70/80/90% coverage % of Segment ____

EST. OIL THICKNESS: 1 - 8 cm EST. OIL PENETRATION: < 15 cm (variable)

POOLED OIL: (Y)/N "FREE" OIL: (Y)/N WEATHERED: Y/(N)

STRAND LINE (CLEAN)/OILED

SUMMARY OILING: Amount (High)/Med/Low
Coverage (Extensive)/Moderate/Light

COMMENTS: SMALLEST SEDIMENT TYPE IS GRAVEL BUT MOSTLY COBBLES + PEBBLES. MANY LARGE OILY POOLS ALONG COMPLETE EXTENT OF SEGMENT

C:\WP\DATA\SHOREVAL.1

ECOLOGICAL EVALUATION

LOCATION Sud Island NE SITE SE 41 OBSERVER Stoker

DATE 4 / 20 /1989 TIME(HHMM) 1300 TIDE HT.(m) 8.0

OILED ZONE: SPLASH (HIGH) (MED) (LOW)

SUBSTRATUM: (ROCKS) (BOULDER) (COBBLE) (GRAVEL) SAND MUD

LIVE BIOTA / DENSITY (#/m² or %cover-algae):

Fucus 20-50% Mytilus Patchy Balanus Patchy Littorina ± 1000/m²

Nucella _____ Pagurus _____ Limpets dead Halosaccion _____

Gelidium _____ Other All faunal densities extremely variable

Oil Damaged Biota Limpets dead or dying, other biota alive

Clean-up Precautions Avoid removing fucus holdfasts and mytilus beds if possible

OILED ZONE: SPLASH HIGH MED LOW

SUBSTRATUM: ROCKS BOULDER COBBLE GRAVEL SAND MUD

LIVE BIOTA / DENSITY (#/m² or %cover-algae):

Fucus _____ Mytilus _____ Balanus _____ Littorina _____

Nucella _____ Pagurus _____ Limpets _____ Halosaccion _____

Gelidium _____ Other _____

Oil Damaged Biota _____

Clean-up Precautions _____

MAMMALS(#): OTTERS _____ HARBOR _____ DALL _____ OTHER _____

OTHER _____

BIRDS: _____

GENERAL OBSERVATIONS: _____

(version of 4/17/89)

CULTURAL RESOURCE EVALUATION FOR OILED SHORELINE

Date 4/20/89 Location SEAL ISLAND Site NORTHEAST

Location Prefix SE Segment # 41 Length 400 m

Survey Method: Air _____ (A - indicate on map)

Ground ✓ (G - indicate on map)

Known cultural resources (AHRS #) [redacted] SEW-339 Data Source NONE

Oil conditions/beach visibility Moderate to heavy

Width of beach zone surveyed 2-10 m Tree fringe surveyed 10m

Cultural resources observed in beach zone (AHRS code) NONE

Cultural resources observed in tree fringe (AHRS code) [redacted] CMT's

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

Shore Profile slightly sloped beach, small cobbles + gravel mixed with jutting bedrock

Fresh Water Sources none

Sea Exposure open to north

Probability of undiscovered sites in beach zone (circle one) 1 2 (3) 4 5

Monitoring during cleanup needed yes (no) Collection yes (no)

Photos: Color Roll # CW-3 Frames 10

B/W Roll # _____ Frames _____

Observor(s) C. Wilson

Time survey started 1305 Time survey ended 1420

Cultural resource considerations/restraints:

If heretofore unidentified cultural material is uncovered during cleanup notify Upon archaeologist, C. Mobley immediately.

C:\WP\DATA\CULTURED.SHO

+Pennsylvania Rock

5/28/89

SEABIRD COLONY (200 birds)

SE-41

ACTIVE BALD EAGLE NEST

25'

(SEWARD B-11)

Applegate Rock

Det

EXXON VALDEZ

SHORELINE TREATMENT APPROVAL

SHORELINE SEGMENT NUMBER SE-41

SHORELINE SEGMENT NAME Seal Haulout

SUBMITTED FOR APPROVAL 5 / 15 / 89

COMMENTS:
Environmentaly clean

William Stelzig
Signature of EXXON rep

ADEC comments on the condition of this shoreline segment and action recommendation.

ADEC not present GAR

Signature of ADEC rep

Coast Guard Comments and Action.

✓ Completed removal of gross contamination to the extent that the oil will not migrate. Site will require reassessment at a later date to determine future treatment. Terminated due to pupping season. GAR

____ The majority of surface oil contamination has been removed. The site will require reassessment at a later date to determine future treatment.

____ All contamination has been removed. No further treatment required unless re-oiled.

G.A. Reitan 5/15/89
Signature of Coast Guard rep

XC: ADEC
EXXON
FSOC

(version 8/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): SEAL ISLAND WEST BLOCK

Includes Shoreline Segments: SE-42

Submitted : _____ Date: 8/16/89
(for Exxon)

ISCC Recommendation: Steven K. Christopherson Date: 8/18/89

FOSC Approval: D.E. Cranz Date: 8-18-89

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

Distribution:

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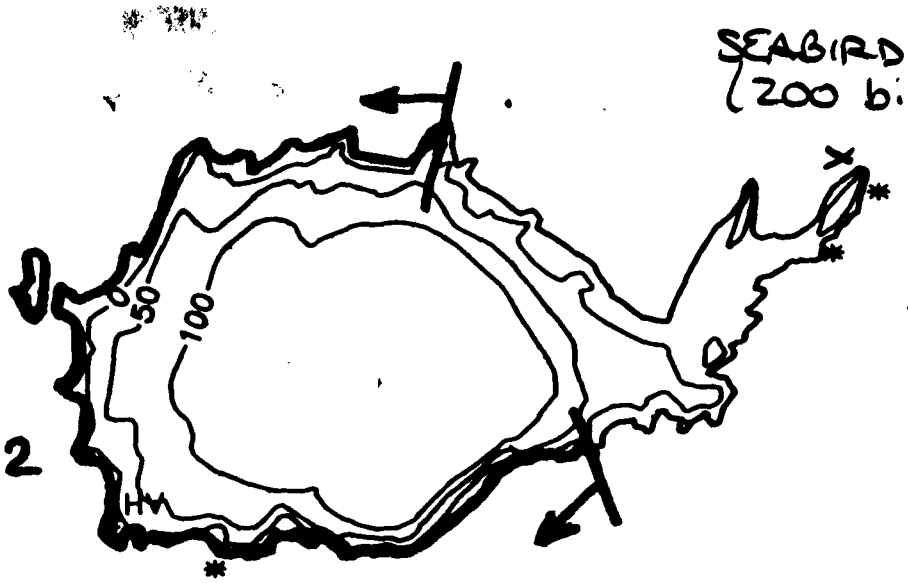


SE-42

SEAL ISLAND WEST
BLOCK

SE-42

No active bald eagle nests on this island at this time

Seal Island

10/17/88
SCHSO

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/16/89 SHORELINE SEGMENT SE-42

LOCATION: (see enclosed map) SEAL ISLAND-WESTERN COAST (SEAL ISLAND WEST BLOCK)

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 8/13/89

Recommended Cleanup Activity(ies):
-Should cleanup take place use moderate pressure/warm to hot water washing in conjunction with warm to hot water flooding/flushing to clean locations 1, 3, and 4.
-Use moderate pressure/warm to hot water washing at locations 5 and 6.
-If cleanup occurs more than a few weeks after 8/13/89, this segment should be reassessed because it is likely that significant self-cleaning will occur in the interim.

** Due to presence of molting activity of Harbor Seals on haulout areas, recommend NO ~~CLEANUP~~ TREATMENT ACTIVITY UNTIL AFTER 20 SEP.

Priorities Considerations:
2A and 3A

Ecological Constraints (from site survey):
Cleanup should occur at tide levels >+5 feet. Avoid the area near the SE boundary of this segment where nesting birds and a seal haulout create special ecological concern.

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: 8/16/89

ISCC: Sharon K. Christopherson Date: 8/18/89

EXXON: Samuel D. Taft Date: 8.18.89

FOSC: D. E. Cameron Date: 8-18-89

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

SHORELINE OIL EVALUATION

Date: 8/13/89 / Time: 09.00 Observer: G. MACDONALD

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

LOCATION

LOCATION Western part of Seal Isl. SEGMENT NUMBER SE-42

LENGTH OF SHORELINE SEGMENT: 2,025 m

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

← no access to W. end — too rocky.

SHORELINE:

Shoreline Type: SPI/(BEA - pockets)/COV/HLD/STRT/(ISL.) Slope: LANG/(HANG)/VER

Wave Exposure: (High)/Med/Low

Sediment: B 10 % / C <10 % / P trace % / G trace % / S ___ % / M ___ % / R 80 %

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

OIL

N.W. of island.

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

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

Continuous: (Y)/N % of Segment < 5 Width of Band: < 1 m

Sporadic: (Y)/N % of Segment < 20

Est. Oil Thickness where > 1cm: _____ cm Est. Oil Penetration: _____ cm

Pooled Oil: _____ % "Free" Oil: ≤10 % Coated: H ___ % / M 30 % / L 60 %

Fresh _____ % Mousse 10 % Tar Formation: 90 %

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

Comments:

Heavy and mod. oil confined to 3 small pockets on N shore & 1 bedrock exposure on W. Wave action and erosion most evident on W & SW shore; — all cobbles & rocks are well rounded Sheen washing out of locn. ① where some free mousse remains @ HHL. Tar coating is fresh, still sticky; Self-cleaning of tar coating off cobs, rocks, bldrs & their bedrock retaining-walls is evident.

Map/Aerial photo marking segment boundaries Attached

VTR: Y/N Tape Number(s) _____

Photography: Y/N Roll Number(s) _____

Sample Numbers Collected: None

8/13 Segment SE-42
09.00 HRS

exposed, steep rocky coast

① once "saturated" pocket, some free mousse @ HITZ, coat thickness ≤ 3 mm on undersides of blths.

② jagged steep outcrop w/ ≤ ½ m discont. tar coat @ upper HITZ.

③ massive blths. over bedrock; mod <; old mousse & tar coat up. HITZ → SF; free mousse trapped in gvl/pebs in bedrock crevices and shallow depressions <. 20 cm deep; 15 m wide x 60 m long; heavy!
some spots / splats @ supra Z.
3 x 10 m cob/peb berm @ SF w/ free mousse bleeding down to exposed bedrock.

④ mod. <. cobble pocket w/ some massive boulders; fresh tar. coat up. HITZ → SF, tar splats and spots @ supra Z;
10 m wide x 20 m long x > 50 cms deep @ HITZ; penetration < 1 cob @ supra -, > 20 cms @ SF, > 50 cm @ upper HITZ;

some self cleaning evident on cobs/pebs - tar stained cobs. @ mid HITZ are prob. derived from up beach, distance covered so far could be as much as 10 m for small cob (≈10 cm dia)

⑤ tar coat on blths & bedrock @ up. HITZ in channels in vertically bedded seds; ≈ 3 m wide max

⑥ steep cob beach on bedrock; mature mousse - tar coat 8 m wide x 100 m long x < 10 cm; @ up. HITZ; self-cleaning evident; well rounded cobs and scoured bedrock.
cobs as veneer on bedrock @ HITZ ± w/ gvls & pebs, scouring bedrock clean.

steep - o'hang rock wall -
trace - V. light < ½ m wide tar-drip
line @ up. HITZ.

H. seals ~ 40.

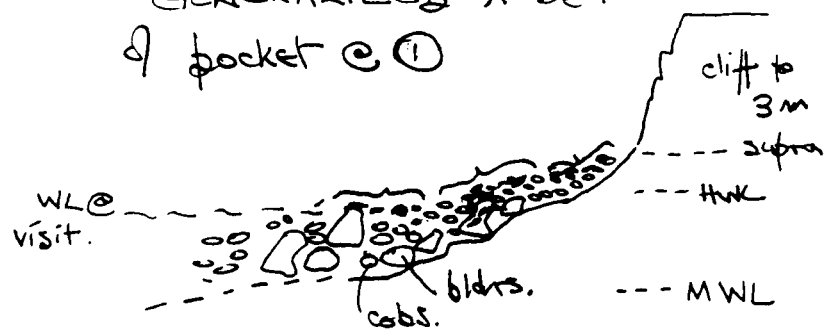
END of SEGMENT 10.40 HRS

N

8/13/89 a.m.
G. MACDONALD
SEAL ISLAND
SE - 42

~ 1,000 FT.

GENERALIZED X-Sect" of pocket @ ①



① bldr-cob pocket over bedrock; strong sheen flushing out @ water's edge.
– free mature mousse – fresh tar @ HITZ; tar coat from MITZ to supra; 30 m wide x 30+ m x to bedrock (>1 m). some self cleaning here, — wave flushing has washed most of free mousse out.

jagged, steep rock w/ some massive bldrs; faint tar line, < ½ m wide, discontin. @ up. HITZ

② SHEEN

steep rock point; discontin tar coat ½-1 m @ upper HITZ

③ ④ ⑤ ⑥

light beacon

mod.-steep bedrock, v. light – no oil; self-cleaning.

GULL ROOST

rock grain

1 Peregrine sighted; nesting Fulmars

SE-41

weather record sta.

~ 40 Harbour Seals

steep rocky shore, v. hi. scouring / wave-worn scarps; discontin. tar band < ½ m wide @ up. HITZ - SP

BULL KELP BED

steep cob-gvl pocket, no oil

bldr-cob pocket, over bedrock; trace tar spots only.

vert.-overhang rock, w/ massive bldrs in places; faint tar line @ up. HITZ; discontin-patchy; < ½ m wide.

KEY

- heavy oil
- moderate oil
- light oil
- trace oil

ECOLOGICAL EVALUATION

LOCATION: Prince William Sound SITE: W. Seal Island OBSERVER: S. Dearn

LOCATION PREFIX: _____ SEG. NO.: SE-42 LENGTH: 2,028 (M)

DATE: 08 / 13 / 89 TIME (HHMM): 0900-1040 TIDE HT.: 5.0 - 8.0 ft (MSL)

OILED ZONE: (Splash) (High) Medium Low

SUBSTRATUM: (Rocks) (Boulder) (Cobble) (Gravel) Sand Mud

LIVE BIOTA

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

Dense on rocky points, rock outcropping + larger boulders. Plants in upper Fucus zone in oiled areas are coated + appear dead.

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

Present in small ($0.25 m^2$) - large ($2 m^2$) patches. Many individuals in oiled areas are coated. Most appear alive, however dead gaping indiv. are present.

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

Continuous bands on vertical sides of rocks + large boulders. Upper 0.5 m of barnacle moderate - heavily oiled. ~15% - 20% dead individuals - mortality appears greater in larger individuals

Littorina

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

Scattered throughout segment. Some dense aggregations associated w/ drift kelp p~~(so it is assumed these are feeding aggregations)~~.

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

Scattered throughout segment — found under cobbles + under Fucus blades.

OTHER OBSERVATIONS: Seagrass beds in low intertidal/shallow subtidal areas. Dense bull kelp beds offshore. Other kelps (Pleurophycus, Laminaria + Alaria) also present subtidally. Many intertidal algae (lush growth). Terrestrial vegetation beyond the supra-zone is also diverse.

CLEANUP PRECAUTIONS: Avoid S.E. end of island — this area contains nesting puffins, harbor seal haulouts (adjacent segment), bull kelp beds, + a potential peregrine falcon nest. Clean only at higher tides than +5.0 ft to avoid damage to healthy intertidal region. Minimize disturbances to nearshore gull roost (SEE MAP).

MAMMALS: Otters ____ Harbor Seals 2 (~40 ~~Harbor Seals hauled out in adjacent segment~~) Sea Lions ____ Whales ____

Other _____

BIRDS: Pigeon guillemots - >12 Oyster Catchers - 2 Sandpipers - 5 Glaucous-winged gulls Marbled murrelets, and Kittiwakes roosting (see map for location), Cormorants, Nesting puffins, 1 peregrine sighted (tufted + horned)

GENERAL OBSERVATIONS: 1 eagle flying overhead.

A species-rich area with high abundance of organisms. Organisms below oiled area appear healthy

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 8-13-89 Location SEAL ISLAND Site _____

Location Prefix SE Segment # SE-42 Length 2025

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 light to heavy

Width of beach zone surveyed 5-10 m Tree fringe surveyed 10m

Cultural resources observed in beach zone (AHRS code) none

Cultural resources observed in tree fringe (AHRS code) none

General observations justifying survey method and segment's site probability

Shore Profile Variable, steep rocky to pocket beach to vertical wall.

Fresh Water Sources small standing ponds and seeps

Sea Exposure high energy, N, W, S.

Access/Safety variable, fair to good; safety fair.

Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

Monitoring during cleanup needed yes (no) Collection yes (no)

Photos: Color Roll # — Frames —

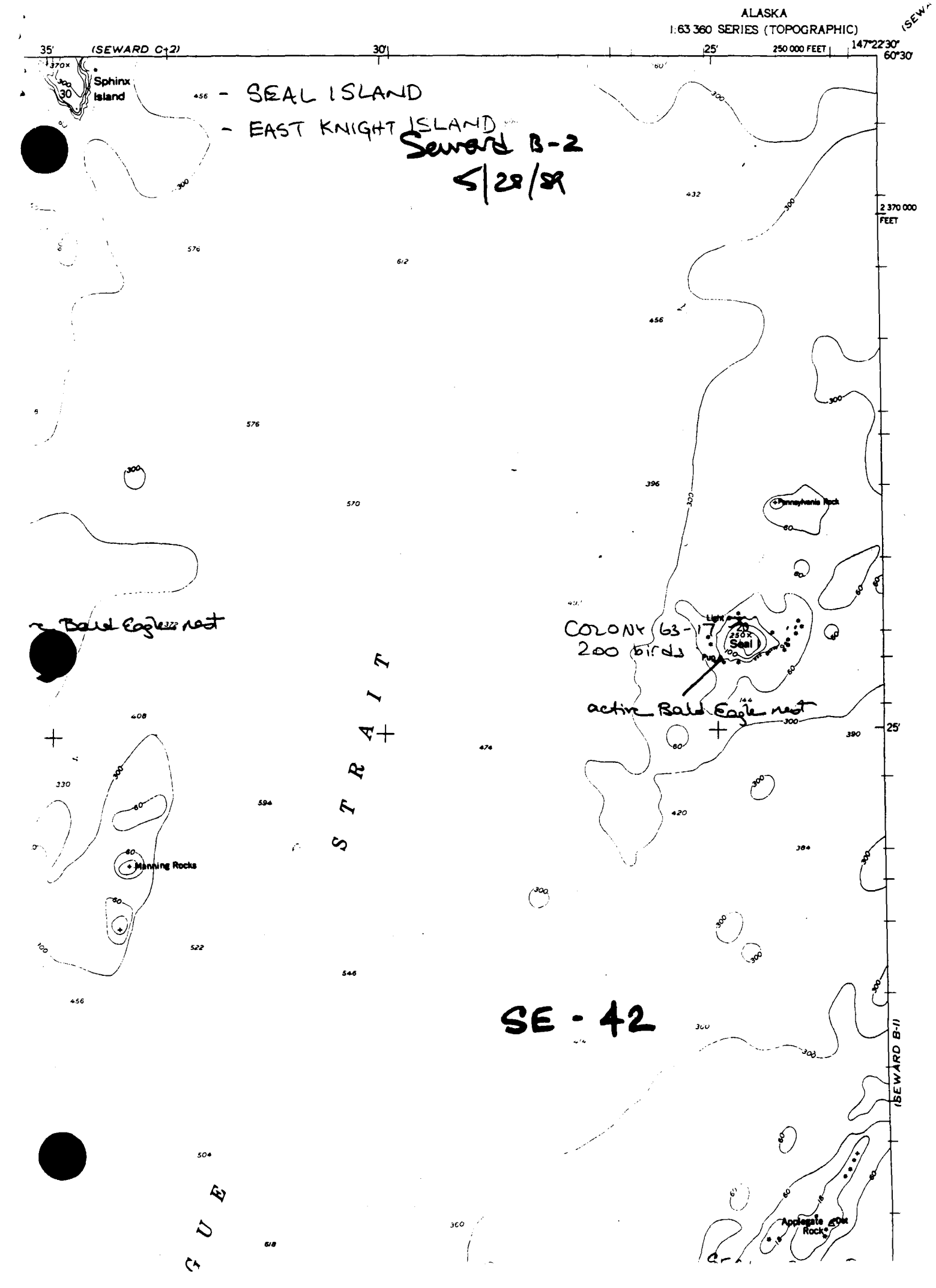
B/W Roll # — Frames —

Observer(s) P G. Pippen

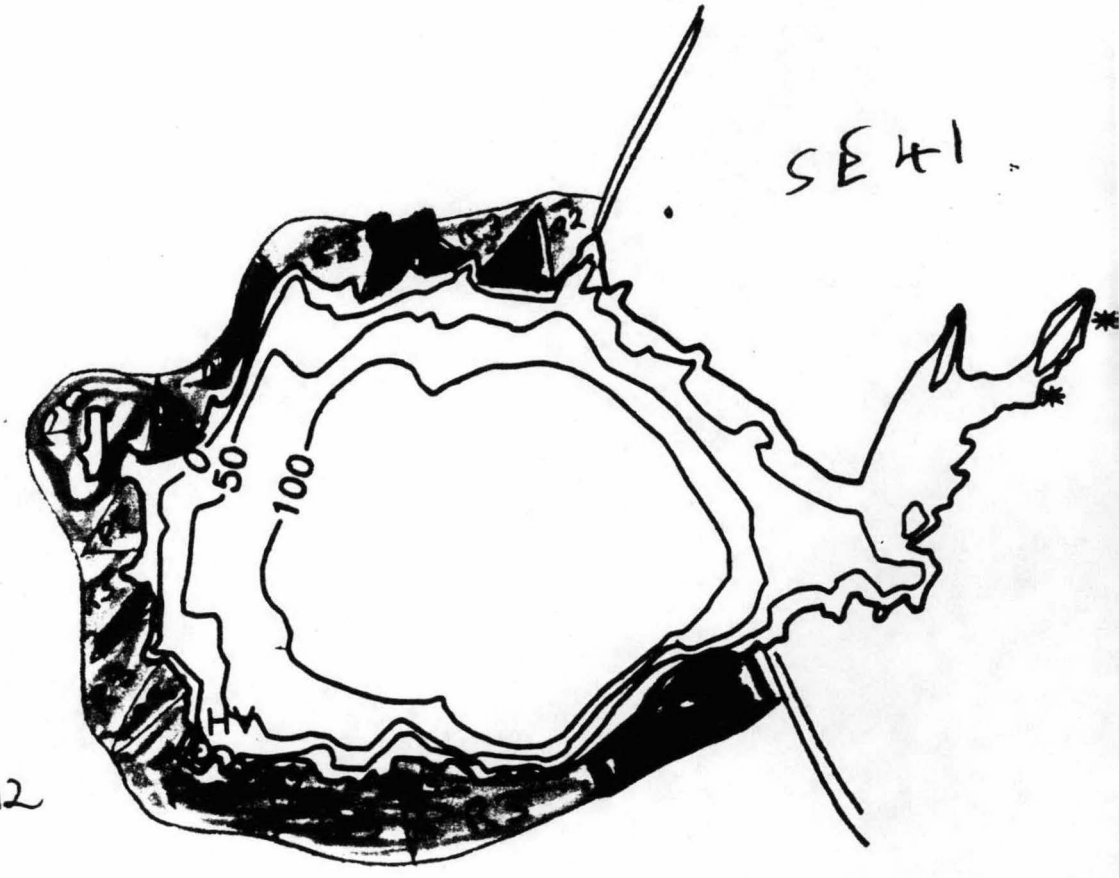
Time survey started 0900 Time survey ended 1040

Cultural resource considerations/restraints:

standard


ALASKA
1:63 360 SERIES (TOPOGRAPHIC)
35'
(SEWARD C-2)
30'
25'
250 000 FEET
147°22'30"
60°30'
2 370 000 FEET
Sphinx Island
- SEAL ISLAND
- EAST KNIGHT ISLAND
Seward B-2
5/28/89
Bald Eagle nest
COLONY 63-17
200 birds
Seal I
active Bald Eagle nest
Pennsylvania Rock
Manning Rocks
STRAIT
Applegate Rock
SEWARD B-II
SE - 42

OIL →	H	M	L	NONE VISIBLE
BOULDER	B1	B2	B3	
CB/PB	C1	C2	C3	
PB/CB	P1	P2	P3	
ROCK	R1	R2	R3	R0



- all oil in mid & upper intertidal
- Fucus / barnacles in lower intertidal appear healthy. Most growth off the rock & boulder zones

Seal 1

Sent to TR & OR

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): Applegate Rock Block

Includes Shoreline Segments: AP-38, AP-39, AP-40

Submitted : W.M. McAdams (for Exxon) Date: 4-21-89

FOSC Approval: _____ Date: _____

Distribution:

Exxon Shoreline Coordinator
Exxon Shoreline Supervisor
Exxon SCAT file

FOSC

NOAA
EPA
USDA (FS)
USFW
A.DEC
A.FG
A.DNR

PWSCA

SHORELINE CLEANUP PROGRAM

DATE: April 21, 1989 SHORELINE SEGMENT AP-38

LOCATION: (see enclosed map) North Applegate Rock

ADEC No. 23

SHORELINE ASSESSMENT DATE: 4-20-89

Recommended Cleanup Activity(ies):
Washing/flooding
High/low pressure washing
Warm water at moderate/high pressure

Priorities Considerations:
Pinneped haulout area.

Ecological Constraints (from site survey):
Avoid removing fucus holdfast and mytilus beds.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural material is uncovered, contact Exxon archaeologist C. Mobley immediately.

Marla Z Adams Date: 4/21/89
State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

* Signature required to satisfy stipulations in Alaska DNR Tideland Permits.

Best professional judgement could be used by onshore team

[revised 17 Apr 89]

SHORELINE OIL EVALUATION

Date: 4 / 20 /89 Observer: C. DILLON

Time: 09 h 00-30 m Weather: Sun/(Cloud)/Rain/Snow/Fog

LOCATION

LOCATION APPLEGATE ISLAND SITE NORTH

LOCATION PREFIX AP SEGMENT NUMBER 38

LATITUDE: 60 d 21 m ____ s LONGITUDE: 147 d 23 m ____ s

LENGTH OF SHORELINE SEGMENT: 350 x 75 m

ACCESS: FOot/VEhicle/BOat/BArge/HElio/Float Plane HE/BO (very hard to drift)

SHORELINE:

SHORELINE CHARACTER:

BEach/SPit/COve/ BE / ____ /

Wave Exposure: (High)/Med/Low

ROck (Y)/N % 20 (VErtical)/High Angle/Low Angle Low lying ~30' above sea

SEdiment (Y)/N % ____ Types: (B) 20% / (C) 50% / (P) 10% / G / S / M / R

Strand Line Y/(N) Algae/Debris/Logs

OIL

LOCATION OF OIL: SU / SP / (H) / (M) moderately oiled / (L) lightly oiled

CONTINUOUS: (Y)/N WIDTH OF BAND: 10-20 m % of Segment 30

PATCHY: 10/20/30/40/50/60/70/80/90% coverage % of Segment ____

EST. OIL THICKNESS: <1 cm EST. OIL PENETRATION: <1 cm

POOLED OIL: Y/(N) "FREE" OIL: Y/(N) WEATHERED: Y/(N)

STRAND LINE CLEAN/OILED N/A

SUMMARY OILING: Amount High/(Med)/Low
Coverage Extensive/(Moderate)/Light

COMMENTS: OIL IS THIN AND BEADED ON ROCKS AND ALGAE. COVERS WEST SIDE OF ISLAND TO CENTERLINE RIDGE. NO DEBRIS, NO SEDIMENT SMALLER THAN LARGE PEBBLES. SHALLOW POOLS OF WATER WITH SOME LIGHT SHEENING.

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SHORELINE CLEANUP PROGRAM

DATE: April 21, 1989 SHORELINE SEGMENT AP-39

LOCATION: (see enclosed map) Center Applegate Rock

ADEC No. 23

SHORELINE ASSESSMENT DATE: 4-20-89

Recommended Cleanup Activity(ies):
Washing/flooding
High/low pressure washing
Warm water at moderate/high pressure

Priorities Considerations:
Pinneped haulout area

Ecological Constraints (from site survey):
Avoid removing fucus holdfast and mytilus beds.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural material is uncovered, contact Exxon archaeologist C. Mobley immediately.

Charles E. Holmes Date: 4/21/89
State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

* Signature required to satisfy stipulations in Alaska DNR Tideland Permits.

[revised 17 Apr 89]

SHORELINE OIL EVALUATION

Date: 4 / 20 /89 Observer: C. DILLON

Time: 10 h 00-15 m Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

LOCATION APPLEGATE ISLAND SITE CENTER

LOCATION PREFIX AP SEGMENT NUMBER 39

LATITUDE: 60 d 21 m ____ s LONGITUDE: 147 d 25 m ____ s

LENGTH OF SHORELINE SEGMENT: 120 X 30 m

ACCESS: FOot/VEhicle/BOat/BArge/HElio/Float Plane HE/BO (VEH if small drainage)

SHORELINE:

SHORELINE CHARACTER:

BEach/SPit/COve/ BE / ____ /

Wave Exposure: (High)/Med/Low

ROck (Y)/N % 10 VErtical/(High Angle)/Low Angle (Low Lying)

SEdiment (Y)/N % ____ Types: (B) 10% / (C) 70% / (P) 10% / G / S / M / R

Strand Line Y/(N) Algae/Debris/Logs

OIL

LOCATION OF OIL: SU / SP / (H) / (M) / (L) only on South half of Island.

CONTINUOUS: Y/N WIDTH OF BAND: ____ m % of Segment ~~50~~

PATCHY: 10/20/30/40/(50)/60/70/80/90% coverage % of Segment 50

EST. OIL THICKNESS: <1 cm EST. OIL PENETRATION: <1 cm

POOLED OIL: Y/(N) "FREE" OIL: Y/(N) WEATHERED: Y/(N)

STRAND LINE CLEAN/OILED N/A

SUMMARY OILING: Amount High/(Med)/(Low) - on S. of segment; on N. of segment

Coverage Extensive/(Moderate)/(Light)

COMMENTS: OIL ON COBBLED HAULOUT BEACH (ON N. SIDE OF SEGMENT) HAD SPATTERINGS ON COBBLES AND ALGAE. BEDROCK & COBBLES (ON S. SIDE OF SEGMENT) ARE COMPLETELY BUT MODERATELY OILED.

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SHORELINE CLEANUP PROGRAM

DATE: April 21, 1989 SHORELINE SEGMENT AP-40

LOCATION: (see enclosed map) South Applegate Rock

ADEC No. 23

SHORELINE ASSESSMENT DATE: 4-20-89

Recommended Cleanup Activity(ies):
Washing/flooding
High/low pressure washing
Warm water at moderate/high pressure

Priorities Considerations:
Pinneped haulout area

Ecological Constraints (from site survey):
Avoid removing fucus holdfasts.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural material is uncovered, contact Exxon archaeologist C. Mobley immediately.

Charles E. Holmes Date: 4/21/89
State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

* Signature required to satisfy stipulations in Alaska DNR Tideland Permits.

[revised 17 Apr 89]

SHORELINE OIL EVALUATION

Date: 4 / 20 /89 Observer: C. DILLON

Time: 10 h 15 m Weather: (Sun) Cloud/Rain/Snow/Fog

LOCATION

LOCATION APPLEGATE ISLAND SITE SOUTH

LOGATION PREFIX AP SEGMENT NUMBER 40

LATITUDE: 60 d 21 m ____ s LONGITUDE: 147 d 26 m ____ s

LENGTH OF SHORELINE SEGMENT: 10-200 m x 70m width

ACCESS: FOot/VEhicle/BOat/BArge/HElio/Float Plane HE/BO

SHORELINE:

SHORELINE CHARACTER:

BEach/SPit/COve/ BE / ____ /

Wave Exposure: (High)/Med/Low

ROck (Y)/N % 10 (Vertical)/High Angle/Low Angle — Low Lying on N and NE sides

SEdiment (Y)/N % 90 Types: B / (C) / (P) / G / S / M / R — 60?, 30%

Strand Line Y/(N) Algae/Debris/Logs

OIL

LOCATION OF OIL: SU / SP / H / (M) / (L)

CONTINUOUS: (Y)/N WIDTH OF BAND: 10-20 m % of Segment 40-50

N/A PATCHY: 10/20/30/40/50/60/70/80/90% coverage % of Segment ____

EST. OIL THICKNESS: 1 cm EST. OIL PENETRATION: 1 cm

POOLED OIL: Y/(N) "FREE" OIL: Y/(N) WEATHERED: Y/(N)

STRAND LINE CLEAN/OILED N/A

SUMMARY OILING: Amount High/(Med)/Low
Coverage Extensive/(Moderate)/Light

COMMENTS: RECOILING LINES EVIDENT ALONG INNERMOST MIDDLE 1/3 ITZ
CONTINUOUS BAND OF MODERATE OIL ~ 10-20 m WIDE AND 150 m long only on West side of S. Applegate Island. Center and East side clean.

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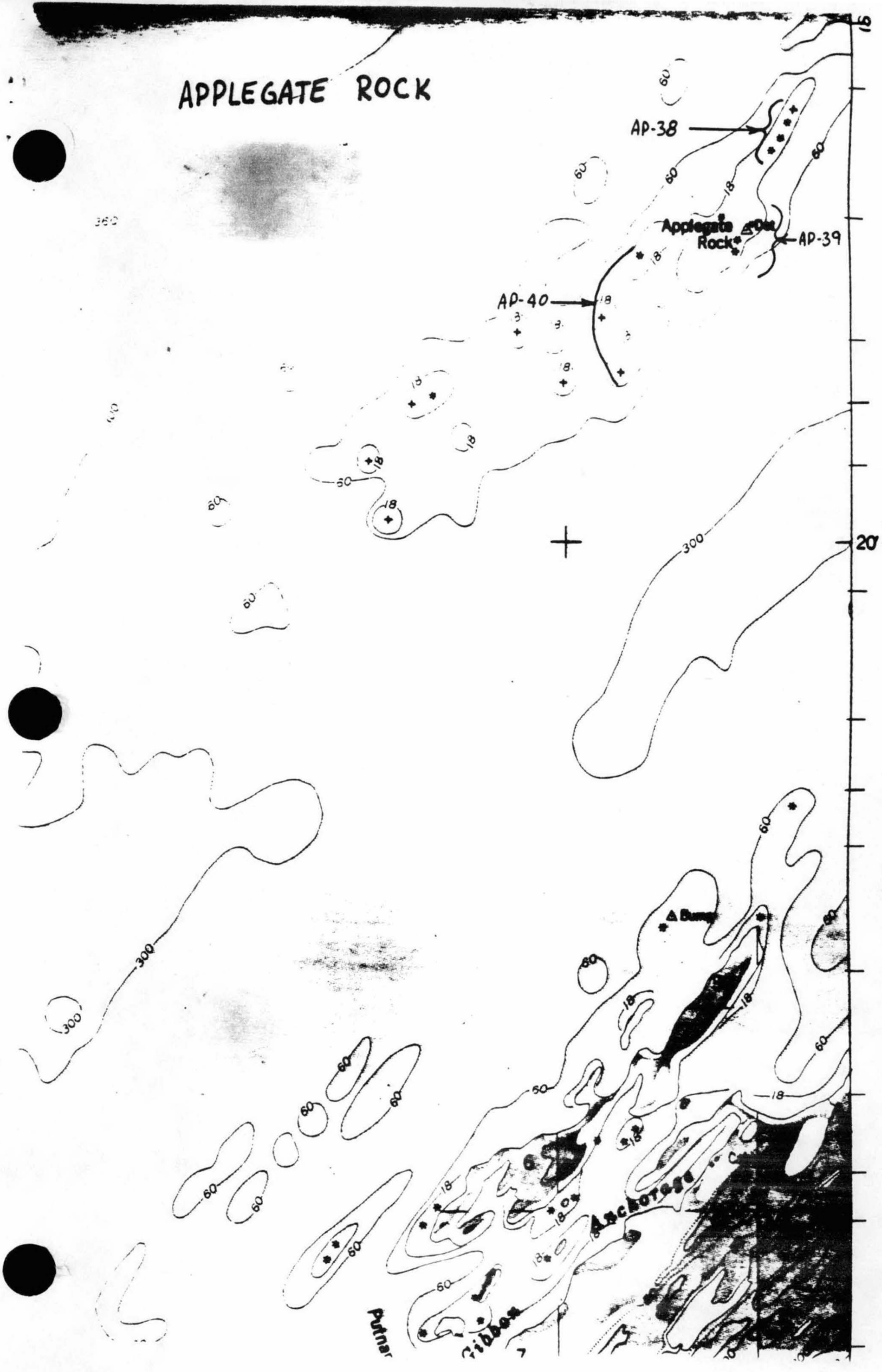
APPLEGATE ROCK
AP-38
Applegate Rock
AP-39
AP-40
20'
Bunge
Anchorage
Tibbetts

EXXON VALDEZ

SHORELINE TREATMENT APPROVAL

SHORELINE SEGMENT NUMBER AP-38

SHORELINE SEGMENT NAME Applegate Rocks Haulout

SUBMITTED FOR APPROVAL 5 / 15 / 89

COMMENTS:
Environmentaly clean

William Stalnaker
Signature of EXXON rep

ADEC comments on the condition of this shoreline segment and action recommendation.

ADEC not present
GAR

Signature of ADEC rep

Coast Guard Comments and Action.

✓ Completed removal of gross contamination to the extent that the oil will not migrate. Site will require reassessment at a later date to determine future treatment.

____ The majority of surface oil contamination has been removed. The site will require reassessment at a later date to determine future treatment.

____ All contamination has been removed. No further treatment required unless re-oiled.

G. A. Kantner 5/15/89
Signature of Coast Guard rep

XC: ADEC
EXXON
FSOC

EXXON VALDEZ

SHORELINE TREATMENT APPROVAL

SHORELINE SEGMENT NUMBER AP-40

SHORELINE SEGMENT NAME Applegate Rocks Haulout

SUBMITTED FOR APPROVAL 5 / 10 / 89

COMMENTS:

Environmentaly clean

William J Stelmp
Signature of EXXON rep

ADEC comments on the condition of this shoreline segment and action recommendation.

ADEC not present GAR

G.A. Kerr
Signature of ADEC rep

Coast Guard Comments and Action.

✓ Completed removal of gross contamination to the extent that the oil will not migrate. Site will require reassessment at a later date to determine future treatment.

____ The majority of surface oil contamination has been removed. The site will require reassessment at a later date to determine future treatment.

____ All contamination has been removed. No further treatment required unless re-oiled.

G.A. Kerr 5/15/89
Signature of Coast Guard rep

XC: ADEC
EXXON
FSOC