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1989
v.13

[Shoreline evaluations, 1989].

Volume 13

Aguliak Island, Squirrel Island, New Year Island, Clam Island, Mummy Island,
Pass Island, Squire Island, Pleiades Island

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(version 5/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): AGULIAK ISLAND BLOCK

Includes Shoreline Segments: AG-1

Submitted : *[Signature]* Date: 7/8/89
(for Exxon)

ISCC Approval: *Shawn K. Christopher* Date: 7/14/89

FOSC Approval: *David Zaroefski* Date: 7/15/89

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

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7/10/89
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PASSA

AGULIAK ISLAND
BLOCK
AG-1

ACTIVE BALD EAGLE
NEST

ACTIVE BALD EAGLE
NEST

ACTIVE BALD
EAGLE NEST

ACTIVE BALD
EAGLE NEST

Channel Rock Chan

Aguliak Is

LOWER

HERRING

Johnson

Bay

21 Squirrel Is

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/1/89

SHORELINE SEGMENT AG-1

LOCATION: (see enclosed map) Aguliak Island

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/21/89

Recommended Cleanup Activity(ies):

- Manually remove contaminated drift material (fucus) and patches of mousse.
- Flood/flush with warm to hot water (up to 140 F) on low angle beaches.
- Use moderate to high pressure washing on rock.
- Use other approved methods as appropriate.

Priorities Considerations:

Class 2: Heavy oil.

A: Resources present

Ecological Constraints (from site survey): Work at mid tide and/or take appropriate measures to protect lower intertidal zone. Avoid seal haulout on rocks to west of Aguliak Island.

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: July 7, 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: 31 June 89 Time: 1100-1300Observer: J. M. Sempel

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fog**LOCATION**LOCATION Western Long Pt. IslandSEGMENT NUMBER A9-1LENGTH OF SHORELINE SEGMENT: 1000 m

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

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

Slope: LANG/HANG/VER

Wave Exposure: High/Med/LowSediment: B 10 % / C 10 % / P 10 % / G % / S % / M % / R 60 %Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type **OIL**Degree of Oiling: Heavy/Moderate/Light/No Oil/UnobservedArea of Beach Impact: SU / SP / H / M / LContinuous: Y/N % of Segment 50 % Width of Band: 3-6 mSporadic: Y/N % of Segment 50 %Est. Oil Thickness where > 1cm: cm Est. Oil Penetration: 20 cmPooled Oil: % "Free" Oil: % Coated: H 100 % / M % / L %Fresh % Mousse % Tar Formation: 10 %Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H/M/L

Comments:

See notes and map

SEGMENT AG-1

The general shoreline type of this segment consists of steeply sloping or cliffed bedrock with few narrow pocket beaches in fractured zone. Pocket beaches are made up mixed poorly sorted sediments, cobbles, gravel and sand.

1: Steep bedrock shoreline very few sediments in fractured zone

Continuous 3-6 m wide band generally < 0.2 cm thick, occasionally 2-5 cm thick at the base of fractures. or in 2-5 cm diameter bumpy splatters. Tarry and very adherent in the upper intertidal zone. Some neighbouring islands and reefs are also oiled in a similar manner. In pocket beaches, oiled seaweed strandlines are present at H.F. water line. Few oiled logs are also present in the upper intertidal zone. In sediments, oil has penetrated ≤ 20 cm in the upper intertidal zone.

2: Pocket beach of angular cobble - pebble over mud and sand.

Beach is gently sloping and covered by a 15 m wide, 300 m long patch of oil. The oil cover is continuous and appears to have penetrated ≤ 20 cm in the upper intertidal zone.

On adjacent bedrock, the oil has formed a thin (< 0.2 cm) but continuous 1-2 m band.

There are also pockets of oiled seaweed and oiled logs in the upper intertidal zone and beachline.

12
3 Generally similar distribution of oil around the eastern, northern and western parts of Aguliak Island, including the numerous reefs and small islands to the west of Aguliak.

4: Pocket beach of mixed sediment. Little oil only a few splatters and narrow bands on bedrock in the upper intertidal zone.

ECOLOGICAL EVALUATION

LOCATION: AGULIAK IS SITE: _____ OBSERVER: A JAWN

LOCATION PREFIX: AG SEG. NO.: 1 LENGTH: 1000 (M)

DATE: 6/21/89 TIME (HHMM): 1100-1215 TIDE HT.: 0 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

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

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

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

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

OTHER OBSERVATIONS: _____

CLEANUP PRECAUTIONS: avoid west side of Island - seal habitat + heavy other use

MAMMALS: Otters ≥ 10 Harbor Seals ≥ 6 Sea Lions _____ Whales _____
Other _____

BIRDS: Oystercatcher, terns

GENERAL OBSERVATIONS: mammals very abundant in rocks to west of head island(s). Intertidal at Aguliak looks like that of ^{nearby stretch of} Knight Is., except it is oiled.

CULTURAL RESOURCE EVALUATION

AGULIAK IS.

ate June 21 Location Knight Is Site Lower Herring Bay
Location Prefix AG Segment # 1 Length 1 km

Survey Method:

Air 7 (A - indicate on map) Boat 80 (A - indicate on map)
Ground 20 (G - indicate on map)

Known cultural resources (AHRS #) None Data Source _____

Oil conditions/beach visibility badly heavily oiled / poor in heavily oiled

Width of beach zone surveyed to 20 m Tree fringe surveyed to 15 m

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) CMT

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

Shore Profile Mostly steep beach. Some pocket beaches of poorly sorted sediments.

Fresh Water Sources Seepage

Sea Exposure Exposed, but some rocky areas in virtually all areas.

Access/Safety good in light winds.

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) M. Ebbidge

Time survey started 11:00 AM Time survey ended 13:00

Cultural resource considerations/restraints:

If hitherto undiscovered etc. etc. No other cultural resource constraints.

SEGMENT A9-1

Page 1 of 3

Aguliak Is

Afipet

LOWER

K

HER



AG-1
SEG AG-1 INSPECTION # 1
DATE 7/26/89

SEGMENT INSPECTION RECORD

TREATMENT MANUAL, 6/15/89

Shoreline Treatment Process(es) Completed for this Segment



Hot water wash



Mechanical



Warm water wash

Non-mechanical FOU-POU IN LOCATED AREAS

Water deluge



Other

Exxon

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

Comments TREATMENT OF SEGMENT AG-1 IS COMPLETE.

READY FOR DEMOBILIZATION & DEPLOYMENT TO A NEW SEGMENT.

Signature

[Signature]Date: 7/26/89 Time: 6:42 PM

Printed Name

JOHN C. PONTICELLO

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil

Percent Degree of Oiling

 Heavy
 Medium
15% Light
5% Very Light
20% None

100 %

Subsurface Oil



Yes



No

Comments MINOR LIGHTSUBSURFACE OIL ASSOCIATED@ LIGHTLY OILED AREAS

Reassessment



Yes - necessary



No - not necessary unless re-oiled

ADEC rep

Comments

NOTPRESENT[Signature]

Signature

Date: / / Time:

Printed Name

FOSC rep

Demobilization Approved/disapprovedComments MAINTAIN SNARE BOOM @ PRESENT LOCATIONSREPLACE AS NECESSARY - REMOVE WHEN OILING OF SNARE

Signature

[Signature]Date: 7/26/89 Time: 18:57

Printed Name

THOMAS D HARRISONLT USCG

(version 8/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): SOUTH AGULIAK ISLAND BLOCK

Includes Shoreline Segments: AG-09

Submitted :

W E Voshamp
(for Exxon)

Date: 8-25-89

ISCC Recommendation:

Sharon K. Christopher

Date: 8-28-89

FOSC Approval:

David Zampieri

Date: 8/28/89

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.

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USFS

(version 5/02/89)

8/30/89

SHORELINE CLEANUP PROGRAM

DATE 8/24/89

SHORELINE SEGMENT AG-09

LOCATION: (see enclosed map) SOUTH AGULIAK ISLAND

(SOUTH AGULIAK ISLAND BLOCK)

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 8/21/89

Recommended Cleanup Activity(ies):

Manually remove contaminated drift debris and patches of mousse.

Priorities Considerations:

Class 2-4: Heavy to light oil

Ecological Constraints (from site survey):

Work at mid tide + or take appropriate measures to protect lower intertidal zone. Use small crew to avoid trampling of intertidal organisms. Minimize boat traffic around island to disturbance to seagrass beds and harbor seal haulout.

Archeological Constraints (from site survey):

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

[Signature]
State Historic Preservation Officer *

Date: 8/25/89

ISCC: Sharon K. Christopher

Date: 8/28/89

EXXON: [Signature]

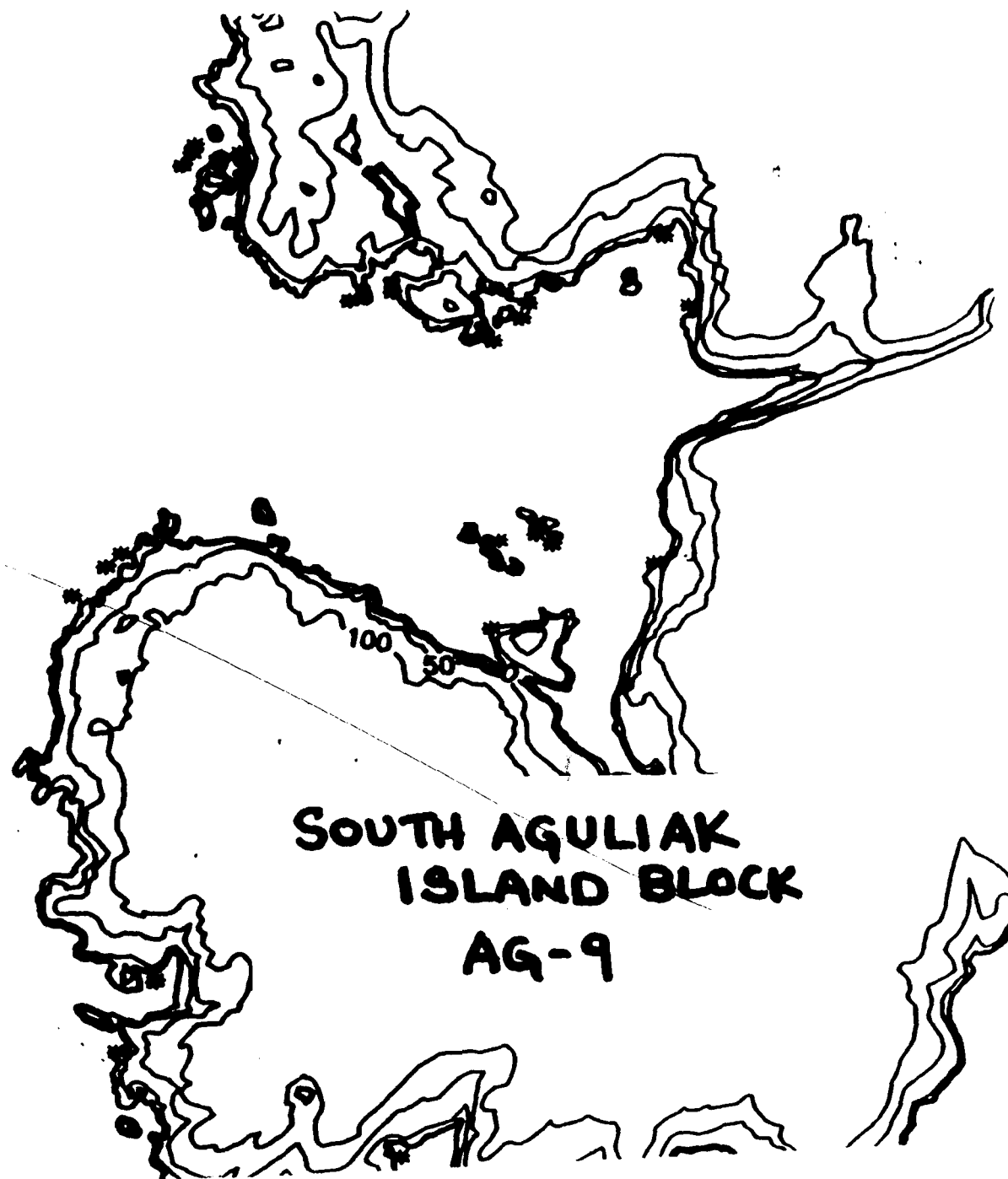
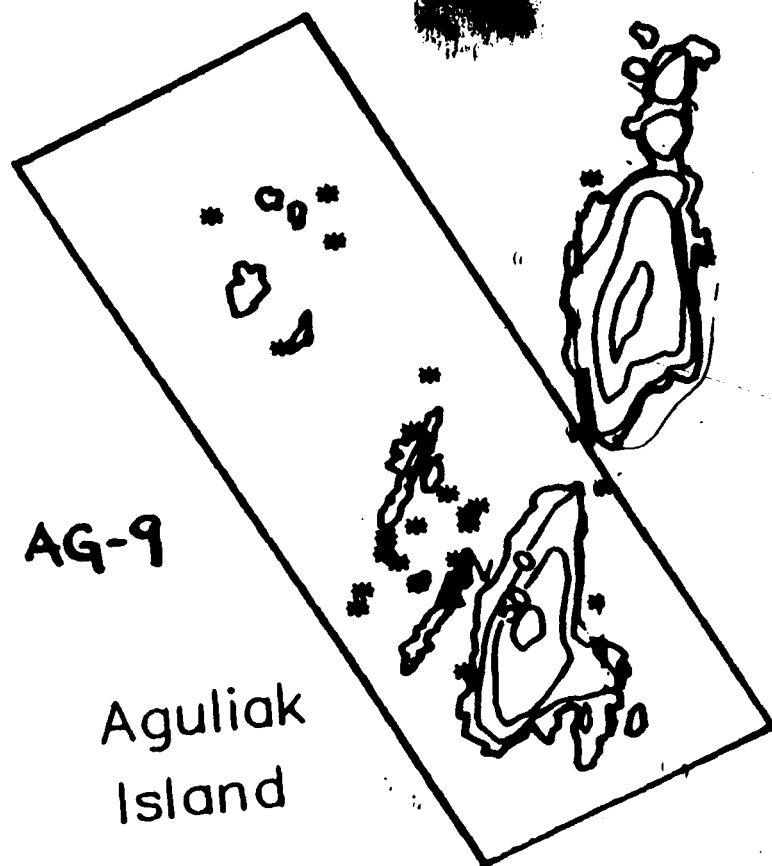
Date: 8.28.89

FOSC: [Signature]

Date: 8/28/89

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

9/1/89
Empty eagle
nest - north
end of north
island.



SHORELINE OIL EVALUATION

Date: 8/21/89 Time: 09:30

Observer: G. MACDONALD

Surveyed From: Foot Boat Helio Plane

Weather: Sun Cloud Rain Snow Fog

LOCATION

LOCATION Aguliek Island, South.

SEGMENT NUMBER AG-9

LENGTH OF SHORELINE SEGMENT: approx 1200 m (w/ N. Island, approx 2600 m)

ACCESS: Foot Vehicle Boat Barge Helio Float Plane

SHORELINE:

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

Wave Exposure: High Med Low - WEST EAST

Sediment: B 5 / C 5 / P 5 / G 5 / S 5 / M 100 / R 85

Drift Debris on Beach: Yes No Supra Upper Mid Lower Type logs (small)

OIL

Degree of Oiling: Heavy Moderate Light No Oil Unobserved

Area of Beach Impact: SU SP H M L

LIGHT - Continuous: Y N % of Segment 40 Width of Band: ≤ 2 m

SPRINKLY - Sporadic: Y N % of Segment ≤ 5

Est. Oil Thickness where > 1cm: cm Est. Oil Penetration: < 5 cm

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

Fresh % Mousse 5 % Tar Formation: 95 %

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

Comments:

SMALL ISLANDS w/ submerged rocks abundant; most
oil on NE, E & south aspects; beach areas have
irregular stain and coatings of tar, thin coat;

(N. island has heavy oil as coating in bedrock pockets.)

DOCUMENTATION:

Map/Aerial photo marking segment boundaries Attached

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

Photography: Y/N Roll Number(s) Ti-G1, #'s 31, 32

Sample Numbers Collected: NONE

31 Heavily sited "pucker" beach on E. of South
Agulhas Island, looking SE

32 light oil tar bands typical of this segment.

8/21/89 SEGMENT AG-9
09.30 hrs Aguliak Is.

low relief, steep rocky islands w/
submerged rocks and islets; exposed
on west, mod. sheltered on east;

light oil as thin sticky tar bands
< 1/2 m wide total oil cover, @ up.
HITZ → supra;

(1) heavily oiled area; mud & organic
cover over bedrock prevents penetration
photo # 31, view SE.

ice scoured pillow greenstone s.; some
minor self-cleaning evident;

(2) benches w/ stain & tar coat;
some debris-laden mounds/tar balls.
photo # 32 - light oil bands.
light oil amount covering wide bench,
irregular coating.

10.30 hrs Entering S. Island/
SEGMENT

Aer-1 re-scattered.

AG-1, re-sampled
for continuity & context.

approx. 1500 FT

5 Harbor Seals

≤ 2 m wide tar line
@ up. HRTZ.

light oil spread
over 6 m bench.

≤ 2 m light oil
band.

Sea Grass

10m wide x 17m long x ~ 5m
mousse & tar coated pub-
cob-gul beach & outcrop.
oiled seaweed & small logs.
@ up. HRTZ - supra.
photo #31

faint trace thin
tar lines,

Sea Grass

photo
#32

ice scoured outcrop benches, mod. exposed,
fresh tar coat splattered over bench tops to 20 m
wide. - discontinuous coating; thin - < 1mm;
sheared / altered greenstones crumbling easily thru
weathering; black lichen present!

8/21/89

G. MACDONALD

KEY

.. trace oil
• light oil

•• moderate oil
■■ heavy oil

ECOLOGICAL EVALUATION

LOCATION: Prize William Sound SITE: S. Aguliak Island OBSERVER: S. Dearn
 (W. Knight Island)
 LOCATION PREFIX: _____ SEG. NO.: AG-9 LENGTH: ~ 1,200 (M)
 DATE: 08 / 21 / 89 TIME (HHMM): 0930-1030 TIDE HT.: 20-0.5
 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, continuous band of Fucus present. Oiled plants present in upper Fucus zone - some of these plants are now dead.

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
 Widespread distribution across pocket cove areas, in amongst pebbles/cobbles. Some clusters on tops/sides of larger cobbles/boulders are lightly oiled. Dead empty gaping shells present. (no signs of Urechis predation here).

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
 Patchy on tops of larger cobbles + boulders, continuous on sides of vertical rocky outcrops. Oiled individuals present - some dead.

Littorina

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

Scattered across HITZ, even on oiled Fucus plants + oiled surfaces.

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

Scattered across HITZ

OTHER OBSERVATIONS: Zostera ^{seagrass} beds are present relatively consistently around island.
 Subsurface Kelps (Agarum + Hedophyllum) also present in shallow subtidal / low intertidal areas around island.
 Organisms below oil (i.e. in mid-low intertidal) appear healthy.

CLEANUP PRECAUTIONS: Avoid further disturbance/damage to healthy intertidal organisms
Manually remove oiled debris. Minimize # people/crew to reduce trampling in intertidal zone
Clear at tides greater than +4 ft

MAMMALS: Otters _____ Harbor Seals ^{5 Hauled out in adjacent segment.} _____ Sea Lions _____ Whales _____
 Other _____

BIRDS: Glaucous-winged gulls, Murrelets, Black-legged Kittiwakes.

GENERAL OBSERVATIONS: Oil has had detrimental effects on organisms in the upper high intertidal, however organisms in mid, low ^{intertidal} subtidal areas appear healthy.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 8-21-89 Location AGULIAK IS Site Southern Is.

Location Prefix AG Segment # AG-9 Length ~1200m

Survey Method:

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

Ground ☒ _____ (G - indicate on map)

Known cultural resources (AHRS #) none Data Source AHRS File

Oil conditions/beach visibility Heavy to trace, fair to good

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

Cultural resources observed in beach zone (AHRS code) none (poss. PAC)

Cultural resources observed in tree fringe (AHRS code) none

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

Shore Profile Steep pillow basalts with pocket beaches (moderate angle)

Fresh Water Sources none observed

Sea Exposure moderately exposed to fairly protected

Access/Safety Very reef choked area

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 —

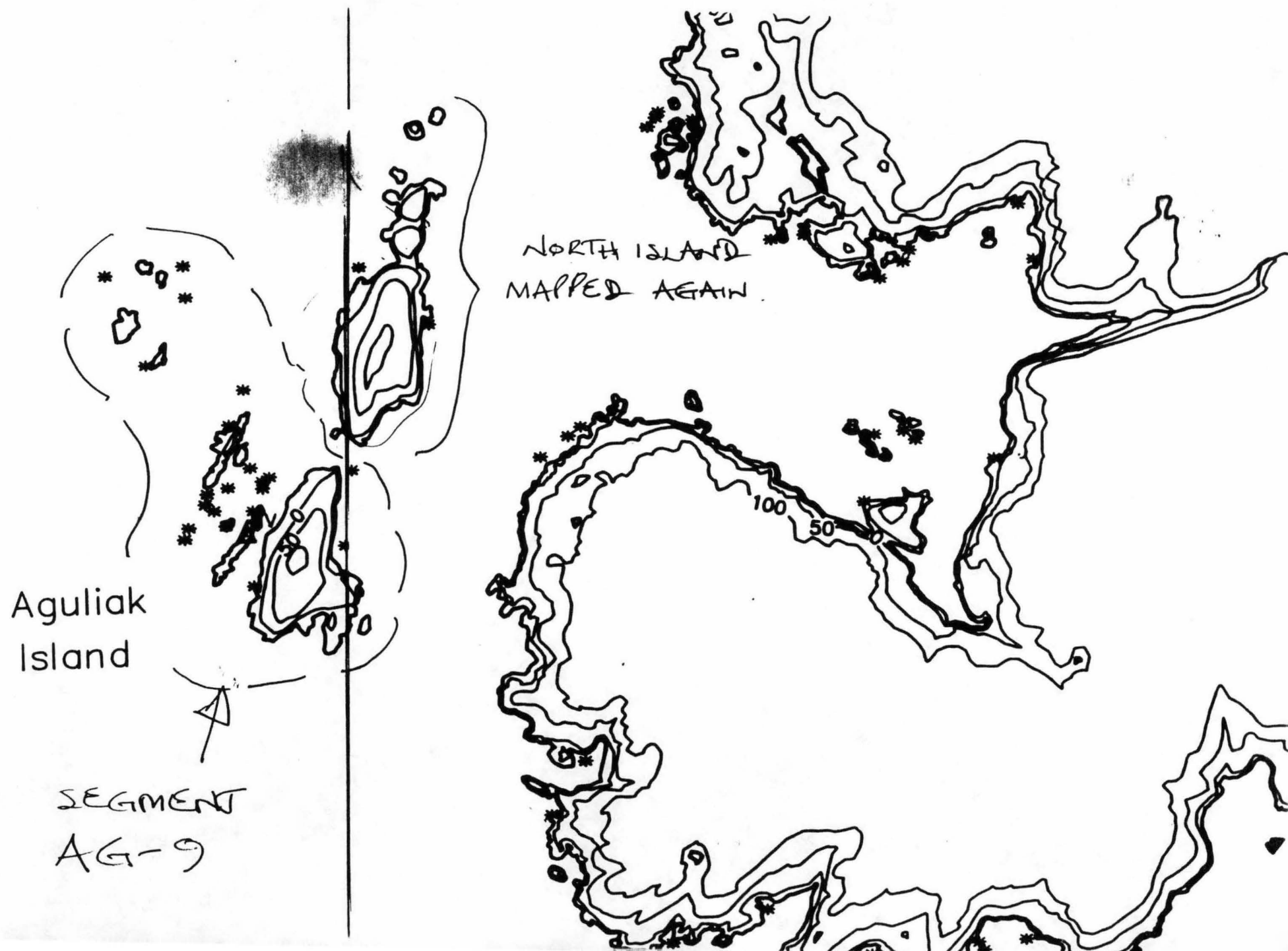
Observer(s) R.G. Phlipsen

Time survey started 0915 Time survey ended 1030

Cultural resource considerations/restraints:

Standard Constraints

REF. MAP FOR AG-9



NO 2490146-09

DATE 8-30-89

PAH

INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

☒
☐
☐

Hot water wash
Warm water wash
Water deluge

☐
☐
☐

Mechanical
Non-mechanical
Other

Exxon

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

Comments

Signature

Date: 8/30/89 Time: 17:55

Printed Name

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil
Percent Degree of Oiling

0%
5%
12%
25%
92%
100 %

Heavy
Medium
Light
Very Light
None

Existing Shoreline Condition As Visually Determined by ADEC

Surface Oil
Percent Degree of Oiling

0%
50%
50%
0%
0%
100 %

Heavy
Medium
Light
Very Light
None

Subsurface Oil

☒

Yes

☐

No

COMMENT BELOW

Reassessment

☐

Yes - necessary

☒

No - not necessary unless re-oiled

Subsurface Oil

☒

Yes

☐

No

COMMENT BELOW

Reassessment

☒

Yes - necessary

☐

No - not necessary unless re-oiled

ADEC rep

Comments

Only N.E. section of Island appeared contaminated. Beach cleanup was removing oil as we inspected.

Signature

Date: 8/30/89 Time: 17:55

Printed Name

FOSC rep

Comments

Demobilization approved/disapproved. Beach cleanup was removing oil as we inspected.

Signature

Date: 8/30/89 Time: 18:00

Printed Name

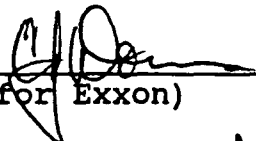
COPY: EXXON ADEC FOSC ISCC

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): SQUIRREL ISLAND BLOCK

Includes Shoreline Segments: SL-1

Submitted:  Date: 7/4/89
(for Exxon)

ISCC Recommendation: Sharon K. Christopher Date: 7/12/89

8 FOSC Approval:  Date: 7/12/89

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.

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A.DEC
A.FG
A.DNR
CAC
PWSCA

K N I G H T

7/9/89 USFWS
NO ACTIVE
Bald Eagle
nests in
this
block

SQUIRREL ISLAND
BLOCK

SL-1

SEABIRD
COLONY (500 birds)

SL-1

New Year
Islands

Clam Is

Rocky Pt

Doan's Rocky I

Eva Range I

D R I E R

258 Cat Head

Mallard Head

Mummy Island
Channel

Cathead Bay

1980

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6/30/89

SHORELINE SEGMENT SL-1

LOCATION: (see enclosed map) Squirrel Island - Western Knight Island

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/21-24/89

Recommended Cleanup Activity(ies):

- Manually remove contaminated drift material (fucus) on strand lines.
- Flood/flush with warm to hot water (up to 140 F) on low angle pocket beaches.
- Use moderate to high pressure washing on rock.
- Use other approved methods as appropriate.

Priorities Considerations:

Class 2: Heavily oiled

A: Resources present

Ecological Constraints (from site survey): Work at mid tide and/or take appropriate measures to protect lower intertidal zone. ~~Eagle nest near cabin site on southeast corner of island. Do not disturb.~~

Seabird colony on west side of island - see advisory

*No
active
nest*

Archeological Constraints (from site survey):

Archaeological monitor required sometime prior to and during cleanup of cove #8 in SE portion of segment. If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Charles F. Holmes
State Historic Preservation Officer *

Date: July 4, 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 EVALUATION21 and 24 June - 21 - 2900 - 2300
Date: 1989 / Time: 24 - 1300 - 1400Observer: J M Sempich

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fog**LOCATION**LOCATION Squirrel Island, Western Knight Island SEGMENT NUMBER SL-1LENGTH OF SHORELINE SEGMENT: 4400 mACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane**SHORELINE:**Shoreline Type: SPI/Island/BEA/COV/HLD/STRTSlope: LANG/HANG/VERWave Exposure: High/Med/LowSediment: B10% / C10% / P10% / G10% / S % / M % / R50%Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type **OIL**Degree of Oiling: Heavy/Moderate/Light/No Oil/UnobservedArea of Beach Impact: SU / SP / H / M / LContinuous: Y/N % of Segment 50% Width of Band: 20 mSporadic: Y/N % of Segment 50%Est. Oil Thickness where > 1cm: cm Est. Oil Penetration: 20 cmPooled Oil: % "Free" Oil: % Coated: H100% / M % / L %Fresh % Mousse % Tar Formation: 100%Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H/M/L

Comments:

See attached notes and map.

SEGMENT SL-1

Mostly steeply sloping or cliffed bedrock with some pocket beaches of coarse mixed sediments.

1. Bedrock cliffs, continuous 3-4 m^{wide} bank in the middle and upper intertidal zone; ≤ 0.5 m thick and tarry oil. Occasional heavier patches in fractured bedrock.
2. Steeply sloping or cliffed bedrock, few pocket beaches of angular boulders and cobbles and gravel. Heavy continuous oiling on the pocket beaches up to 15 m wide. Key 200 m long banks in the upper and middle intertidal zone. Oiled algae strand lines at high water line. Occasional log (not oiled) on the beach. Penetration at least 20 cm in the coarse ^{mixed} sediments. Some of the oil is washed by drainage of the beach and forms a sheen on the water.
3. Small pocket beaches of pebble, cobble, and gravel. Steeply sloping bedrock shoreline. Heavy coating of the intertidal zone (~ 20 m wide), penetration at least 20 cm in the upper intertidal zone. Sheen present on nearshore water.

4: Narrow pocket beach of pebbles and cobbles, and gravel. Light coating of oil over entire beach face and steeply sloping bedrock sides of this pocket beach. Oiled seaweed strand line at high water level. Penetration ~ 10 cm in upper intertidal zone.

5: Pocket beach of pebbles, cobbles and boulders. Continuous light oil cover of the beach face ~ 10 cm penetration in the upper intertidal zone. Oiled seaweed strand line in the upper intertidal zone and some oiled logs in the backshore.

6: Pocket beach of pebbles, cobbles and boulders near the steeply sloping bedrock sides of this beach. Heavy coating of oil over entire beach face and bands of oil ~ 3 m. wide on adjacent bedrock. Some free oil in the landward side of rocks and boulders, on some fracture surfaces, the oil is still dripping down. 10-20 cm thick ^{oiled} seaweed strand line at high water level. Shear present on water by natural drainage of the beach face.

1: Sharp bedrock shoreline, with occasional pocket beach of pebbles, cobbles and boulders. Less oil than in the previous coastal unit. discontinuous patches on beach face.

2: Bay head beach of well sorted gravel and pebbles. Few patches of light oil in the upper intertidal zone. Oiled seaweed strand lines in the upper intertidal zone and discontinuous patches of oil < 50m wide on adjacent bedrock.

ECOLOGICAL EVALUATION

LOCATION: Squirrel Is SITE: _____ OBSERVER: A. JAIN

LOCATION PREFIX: SL SEG. NO.: 1 LENGTH: 4,400 (M)

DATE: 6/24/89 TIME (HHMM): 1300-1400 TIDE HT.: 0 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

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

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: Dead Nacella on beach, west side. Live limpets on rocks

CLEANUP PRECAUTIONS: none

MAMMALS: Otters 2 (1 + pup) Harbor Seals _____ Sea Lions _____ Whales _____
Other Numerous others on rocks between squirrel + Appleton Is.

BIRDS: eagle nest near old cabin site, south end of island; sea birds abundant N of island

GENERAL OBSERVATIONS: This island is heavily oiled - gives off sticks in light rain. No ecological research out to clean here.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date June 21, 24 Location Squirrel Is. Site _____

Location Prefix SL Segment # 1 Length 4,400 m

Survey Method:

Air _____ (A - indicate on map) Boat ✓ 80% (A - indicate on map)

Ground ✓ 20% (G - indicate on map)

Known cultural resources (AHRS #) SEW-241 Data Source _____

Oil conditions/beach visibility heavy - poor - good

Width of beach zone surveyed to 30 m Tree fringe surveyed to 30 m

Cultural resources observed in beach zone (AHRS code) *FCR, HTI, HTD, PAG

Cultural resources observed in tree fringe (AHRS code) CMT, CBN, HTD

General observations justifying survey method and segment's site probability

Shore Profile wide pocket beaches, long sandy, separated by bedrock cliffs

Fresh Water Sources small stream

Sea Exposure relatively sheltered: alternate access available

Access/Safety good in light winds

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

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

Photos: Color Roll # — Frames _____

B/W Roll # ME 3 / 4 Frames 24, 25 / 8-21

Observer(s) Morley Eldridge

Time survey started 20:00; 13:00 Time survey ended 2400; 16:00

Cultural resource considerations/restraints:

No cleanup of beaches SE of island marked #8 on oil map, G on arch maps. If cleanup occurs, then area should first be systematically surface collected prior to cleanup, then monitored during cleanup.

SEGMENT SL-1

60
120

SL-1

44

60

5

21

Squirrel

6

7

4

3

2

8

0

1

300

28

186

Clam Is

100

Rocky

22

500

15

22

21

SEG SL1 INSPECTION # 1
DATE 8-3-89

SEGMENT
INSPECTION RECORD

TREATMENT MANUAL, 6/13/89

☒	Hot water wash	☐	Mechanical
☒	Warm water wash	☒	Non-mechanical <u>Pom Pom in Isolated ARE.</u>
☒	Water deluge	☒	Other <u>Shore Boom in T. R. Zone</u>

Exxon

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

Comments TREATMENT OF THIS SEGMENT IS COMPLETE.
READY FOR DEMOBILIZATION & DEPLOYMENT TO A NEW SEGMENT
Signature Leonard Herbst Date: 8/3/89 Time: 19:15
Printed Name GOS GARCIA LEONARD HERBST, EXXON

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil		Subsurface Oil	
Percent	Degree of Oiling	☒ Yes	☐ No
<u>3%</u>	Heavy	Comments <u>IMPACTED COBBLE/GRAVEL</u> <u>along shore will continue to</u> <u>show.</u>	
<u>10%</u>	Medium		
<u>15%</u>	Light		
<u>72%</u>	Very Light		
<u>100%</u>	None		

Reassessment

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

ADEC rep Comments OIL IMPACT GREAT ENOUGH FOR AREA
TO NEED REEVALUATION AT A LATER DATE

Signature Dale Gardner Date: 8/3/89 Time: 19:25
Printed Name DALE GARDNER

FOSC rep

Demobilization approved / disapproved
Comments NO OIL COVERS TO UPPER TIDE INTERTIDAL
AREAS. NO CROSS-CONTAMINATION w/in SEGMENT
Signature Thomas D. Harrison Date: 8/3/89 Time: 1926
Printed Name THOMAS D. HARRISON LT USCG

(version 5/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): NEW YEAR ISLANDS BLOCK

Includes Shoreline Segments: NY-1

Submitted : *C/O* Date: 7/8/89
(for Exxon)

ISCC Approval: *Sharon K. Christopher* Date: 7/14/89

FOSC Approval: *David Zimofski* Date: 7/15/89

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

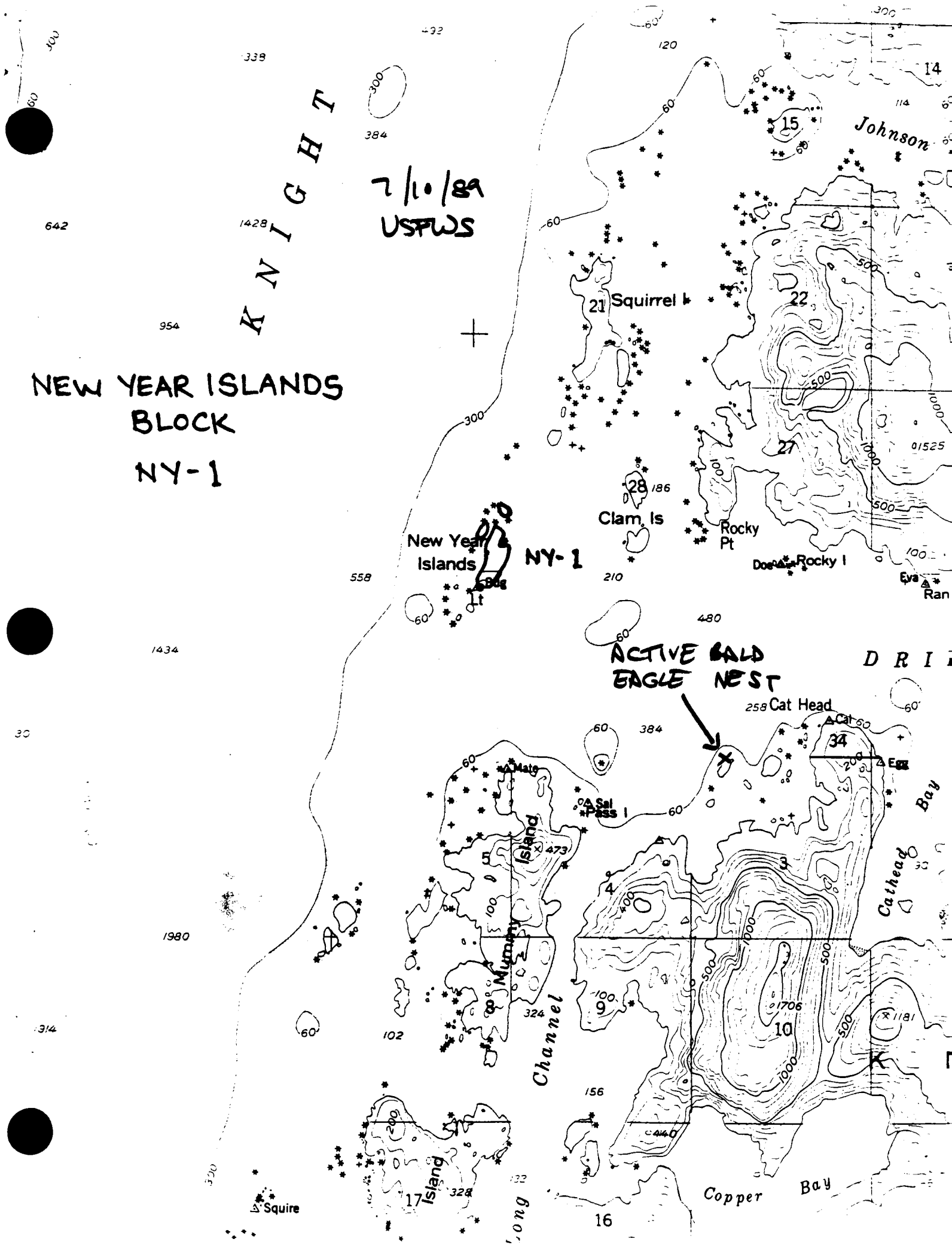
Distribution:

Exxon Shoreline Coordinator
Exxon Shoreline Supervisor
Exxon SCAT file

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

7/10/89
USFWS

NEW YEAR ISLANDS
BLOCK
NY-1



(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/1/89

SHORELINE SEGMENT NY-1

LOCATION: (see enclosed map) New Year Islands

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/21/89

Recommended Cleanup Activity(ies):

- Manually remove contaminated drift material (fucus) and patches of mousse.
- Flood/flash with warm to hot water (up to 140 F) on low angle beaches.
- Use moderate to high pressure washing on rock.
- Use other approved methods as appropriate.

Priorities Considerations:

Class 2: Heavy oil

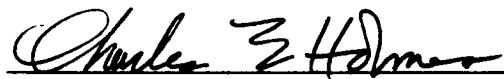
A: Resources present

Ecological Constraints (from site survey):

Work at mid tide and/or take appropriate measures to protect lower ontertidal zone.

Archeological Constraints (from site survey):

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



State Historic Preservation Officer *

Date: July 7, 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: 2 June 89 Time: 21:20-2200Observer: JM SempelSurveyed From: Foot/Boat/Helio/PlaneWeather: Sun/Cloud/Rain/Snow/Fog**LOCATION**LOCATION Newport Island
Western Knight IslandSEGMENT NUMBER 14-1LENGTH OF SHORELINE SEGMENT: 2200 mACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane**SHORELINE:**Shoreline Type: SPI/BEA/COV/HLD/STRT IslandSlope: LANG/HANG/VERWave Exposure: High/Med/LowSediment: B 10 % / C 10 % / P % / G % / S % / M % / R 80 %Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type **OIL**Degree of Oiling: Heavy/Moderate/Light/No Oil/UnobservedArea of Beach Impact: SU / SP / H / M / LContinuous: Y/N % of Segment 40 Width of Band: 3-4 mSporadic: Y/N % of Segment 40Est. Oil Thickness where > 1cm: cm Est. Oil Penetration: cmPooled Oil: % "Free" Oil: % Coated: H 100 % / M % / L %Fresh % Mousse % Tar Formation: 100 %Drift Debris Oiled ? Yes/No Supra/Upper/Mid/Lower Amount: H/M/L

Comments:

See attached notes and map

SEGMENT NY-1

Mainly steep bedrock or bedrock cliff shoreline
Many few pocket beaches of mixed coarse sediments

- 1: Steep or cliffed bedrock shoreline. Thick discontinuous band of tarry oil (~3 m wide) in the upper intertidal zone. The oil appears thicker and wider in fractured zones and crevasses.
- 2: Steep or cliffed bedrock, 3-4 m wide continuous band in the upper intertidal zone. Oil also present on the numerous nearby reefs if they extend vertically to the upper intertidal zone.
- 3: Bedrock cliffs. Continuous band 2-4 m wide of tarry oil in the upper intertidal zone. Occasional heavy coating 2-3 m wide on fractured bedrock and a few pockets of oiled logs in the upper intertidal zone.
- 4: Bedrock cliffs: heavy continuous band of tarry oil about 3-4 m wide in upper intertidal zone.
- 5: Same as 4
- 6: Same as 3, heavier oiling on the south shore of small nearby islands.

ECOLOGICAL EVALUATION

LOCATION: New Year Is SITE: _____ OBSERVER: A. JOHN

LOCATION PREFIX: NY SEG. NO.: 1 LENGTH: 2,200 (M)

DATE: 6/21/89 TIME (HHMM): ~~10:50~~ 22:00 TIDE HT.: +1 m (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks ^{mostly} Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

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

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

Littorina

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

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

OTHER OBSERVATIONS: _____

CLEANUP PRECAUTIONS: Harbor Seal w/pup hauled out on rock ~30m offshore south end of island - near marker. Others w/ pups as well.

MAMMALS: Otters ~5 Harbor Seals 2 (9+ pup) Sea Lions _____ Whales _____
Other _____

BIRDS: 2 eagles

GENERAL OBSERVATIONS: typical P.W.S. intertidal zone

CULTURAL RESOURCE EVALUATION

Date JUNE 21 Location New Year Islands Site Lower Herring / Mamm. Is.

Location Prefix NK Segment # 1 Length

Survey Method:

Air — (A - indicate on map) Boat 100% (A - indicate on map)

Ground — (G - indicate on map)

Known cultural resources (AHRS #) None Data Source

Oil conditions/beach visibility Moderate - heavy / Fair

Width of beach zone surveyed to 10 m Tree fringe surveyed None

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 steep to vertical bedrock, one small steep cobb. pocket beach.

Fresh Water Sources Seeps

Sea Exposure very exposed, all wind

Access/Safety Fair in light winds

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

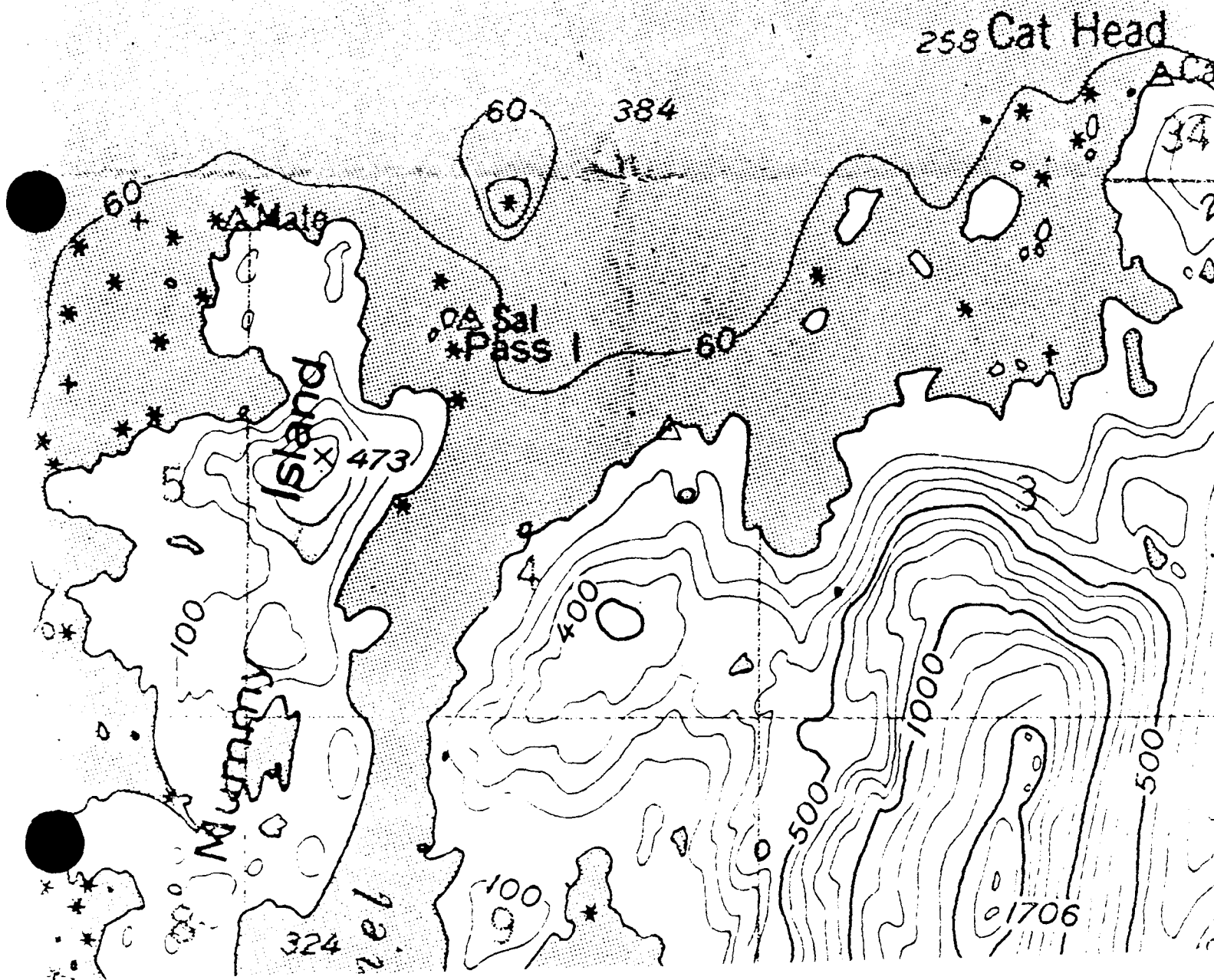
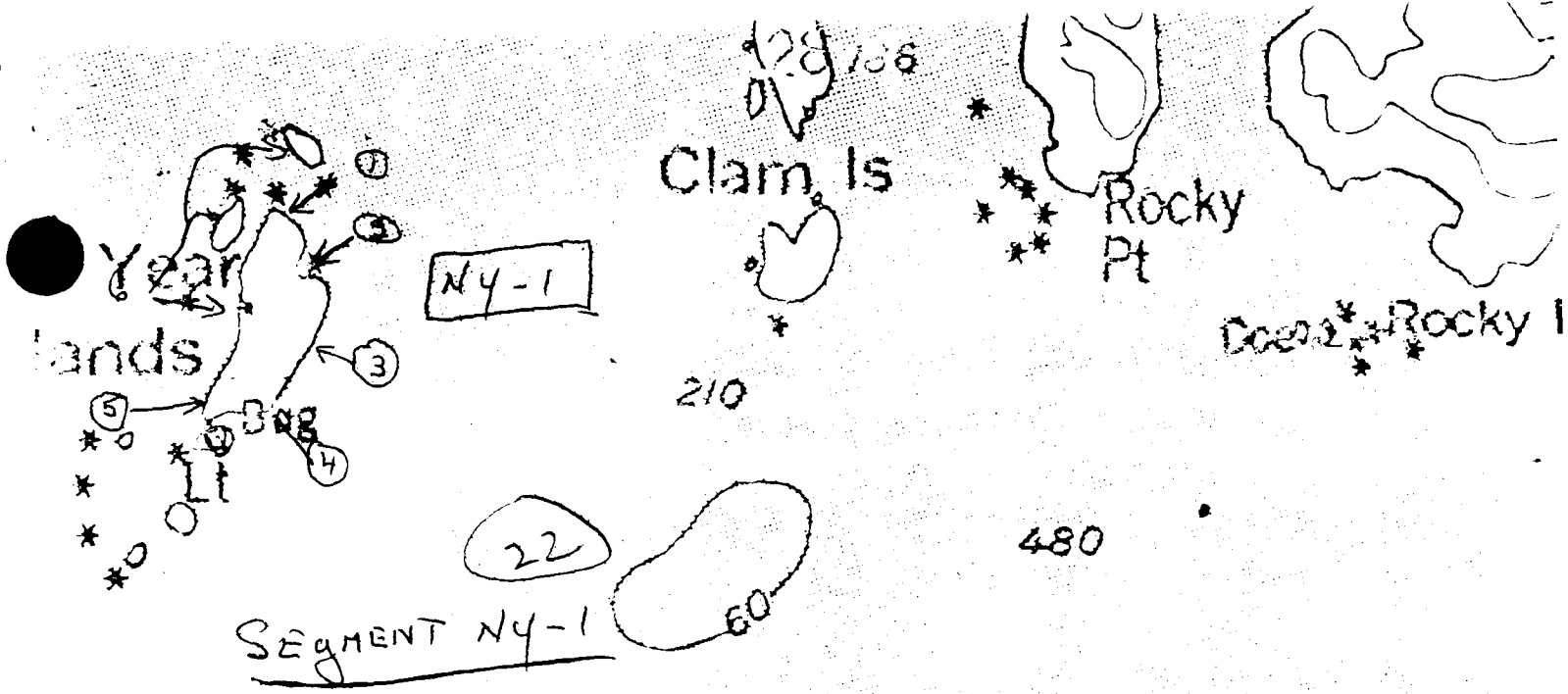
B/W Roll # — Frames

Observer(s) Moby Eldridge

Time survey started 21:30 Time survey ended 22:00

Cultural resource considerations/restraints:

If hitherto undiscovered etc. etc. No additional cultural
resource constraints.



7/27/89

200B

TREATMENT MANUAL, 6/15/89

SEG NY-1 INSPECTION # 1

SEGMENT

DATE 7/2/89

INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment



Hot water wash



Mechanical



Warm water wash

Non-mechanical for 100' in isolated areas

Water deluge



Other

Exxon

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

Comments Treatment on segment NY-1 is complete.Request for demobilization + equipment to a new segment.Signature J. C. (L. R.)Date: 7/26/89 Time: 1:12 PMPrinted Name JOHN C. FANTIGELLO

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil

Subsurface Oil

Percent Degree of Oiling

☒ Yes☐ No

Heavy

Medium

Light

Very Light

None

100 %

Comments MINOR AMTS IN SOME
CORALS / GRAVEL AREAS.

Reassessment



Yes - necessary



No - not necessary unless re-oiled

ADEC rep

Comments NO PRESENT

Signature

Date: / / Time:

Printed Name

FOSC rep

Demobilization approved / disapprovedComments Remove HARB & SWAMP FROM SEGMENTSignature Thomas D. [Signature]Date: 7/2/89 Time: 1:51Printed Name THOMAS D. [Signature] LT USCG

(version 5/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): CLAM ISLAND BLOCK

Includes Shoreline Segments: CL-1

Submitted : *G. J. De...* Date: 7/8/89
(for Exxon)

ISCC Approval: *Shawn K. Christopher* Date: 7/14/89

FOSC Approval: *David Zaroff* Date: 7/15/89

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

Distribution:

Exxon Shoreline Coordinator
Exxon Shoreline Supervisor
Exxon SCAT file

FOSC
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CAC
PWSCA
USFS

(version 5/04/89)

125 F 7/14

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): CLAM ISLAND BLOCK

Includes Shoreline Segments: CL-1

Submitted : *C. J. De...* Date: 7/8/89
(for Exxon)

ISCC Approval: _____ Date: _____

FOSC Approval: _____ Date: _____

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

Distribution:

Exxon Shoreline Coordinator
Exxon Shoreline Supervisor
Exxon SCAT file

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

339

432

120

14

114

Johnson

15

1428

7/10/89
USFWS

642

954

K N I G H T

CLAM ISLAND
BLOCK
CL-1

CL-1

Clam Is

New Year
Islands

Bug

558

Rocky Pt

Doer Rocky I

Eva Rang

1434

ACTIVE BALD
EAGLE NEST D R I E

258 Cat Head

Cat

34

Egg

Bay

Cathead

1980

Channel

1914

Copper Bay

Bay

16

Squire

Island

Long

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE July 05, 1989

SHORELINE SEGMENT CL-1

LOCATION: (see enclosed map) CLAM ISLAND

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/21/89

Recommended Cleanup Activity(ies):

Manually remove contaminated drift material (fucus) and patches of mousse.

Use other approved methods as appropriate.

Priorities Considerations:

Class 4: light oil.

Class B: resources absent.

Ecological Constraints (from site survey): Work at mid tide and/or take appropriate measures to protect lower intertidal zone.

Archeological Constraints (from site survey):

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

Charles H. Jones
State Historic Preservation Officer *

Date: July 6, 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: 21 June 89 Time: 9000 ZObserver: J M SempelsSurveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fog

LOCATIONLOCATION Clem Island
Western Knight IslandSEGMENT NUMBER CR-1LENGTH OF SHORELINE SEGMENT: 1900 mACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane**SHORELINE:**Inland

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

Slope: LANG/HANG/VERWave Exposure: High/Med/LowSediment: Bl / Cl / Pl / Gl / Sl / Ml / RlDrift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type _____**OIL**Degree of Oiling: Heavy/Moderate/Light/No Oil/UnobservedArea of Beach Impact: SU / SP / H / M / L

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

Sporadic: Y/N % of Segment 8%Est. Oil Thickness where > 1cm: _____ cm Est. Oil Penetration: 10 cmPooled Oil: _____ % "Free" Oil: _____ % Coated: H / M / LFresh _____ % Mousse _____ % Tar Formation: 100 %Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H/M/L

Comments:

See attached notes and map

SEGMENT CL-1

Segment CL-1 is made up of steep or cliffed bedrock shoreline with very few pocket beaches.

Clam Island South

1. Pocket beach of angular pebbles, cobbles and boulders around bedrock outcrops. Moderately sloping ($\sim 20^\circ$) intertidal zone. Discontinuous band of oil ~ 1 m wide and 20 m long in the upper intertidal zone. Some oiled seaweed strands at High water line. On adjacent bedrock cliffs, the oil forms a 1-2 m. wide band and occasional discontinuous 1 m diameter patches in the upper intertidal zone.

2. Steep bedrock shoreline. 1-2 m wide discontinuous bands on bedrock surfaces in the upper intertidal zone. Thin coating of tarry oil.

3. Cliffed or steep bedrock shoreline. Little or no oil. Very discontinuous, few splatters < 20 cm diameter in upper intertidal zone.

Clam Island north

4. Steeply sloping or cliffed bedrock, discontinuous band of tarry oil, ≤ 1 m wide in the upper intertidal zone. Also a few splatters < 1 m diameter.

5. Small pocket beach mixed sediments
surrounded by steep bedrock outcrops.

Light discontinuous oil patches in the upper intertidal zone
very little penetration. Bands < 1 m wide on steep
bedrock surfaces, in the upper intertidal zone. Thin and
fairy.

6. Same as 5

7. Same as 5

8. Same as 4

ECOLOGICAL EVALUATION

LOCATION: Clam Islands SITE: _____ OBSERVER: A. TANN

LOCATION PREFIX: CL SEG. NO.: 1 LENGTH: 1,900 (M)

DATE: 6 / 21 / 89 TIME (HHMM): 2000-²¹⁰⁰~~2030~~ TIDE HT.: + 1 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

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

thick on gravel beaches, in cracks on fixed rock - no dense beds

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

on Fucus

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

OTHER OBSERVATIONS: light, patchy oiling

CLEANUP PRECAUTIONS: none

(mother w/ pup)

MAMMALS: Otters 2 Harbor Seals _____ Sea Lions _____ Whales _____
Other _____

BIRDS: 2 eagles - no nest seen, black at gulls

GENERAL OBSERVATIONS: _____

CULTURAL RESOURCE EVALUATION

Date JUNE 21 Location Clara Islands Site Lower Herring Lagoon

Location Prefix C1 Segment # 1 Length _____

Survey Method:

Air _____ (A - indicate on map) Boat 90 (A - indicate on map)

Ground 10 (G - indicate on map)

Known cultural resources (AHRS #) None Data Source _____

Oil conditions/beach visibility Light / good

Width of beach zone surveyed to 15 m Tree fringe surveyed to 15m

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) CMT

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

Shore Profile Beach cliff with a few pocket beaches

Fresh Water Sources seeps

Sea Exposure Very exposed but small size gives alternate landing places.

Access/Safety good in light winds

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 _____

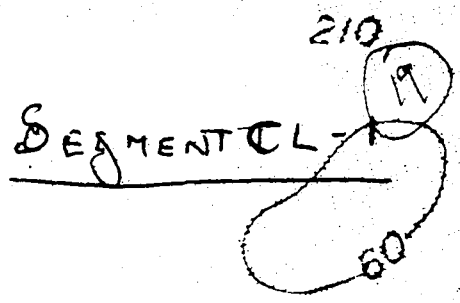
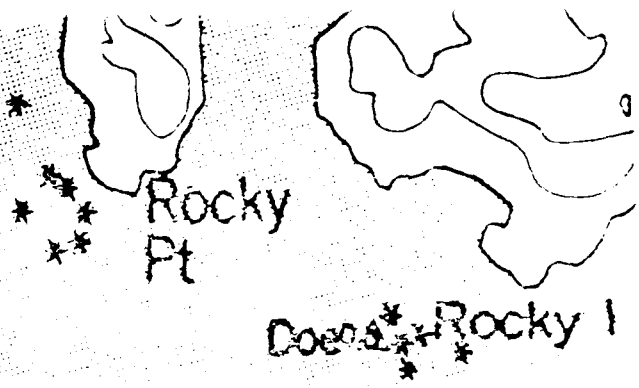
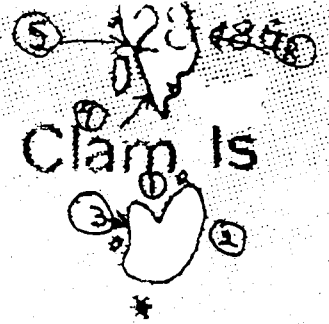
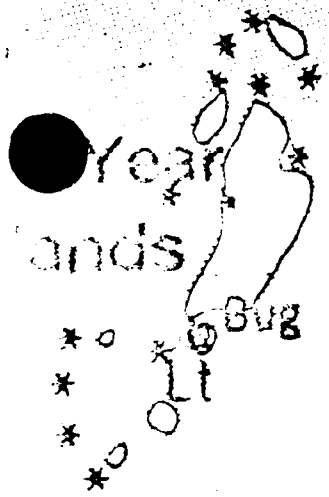
B/W Roll # - Frames _____

Observer(s) Merley Eldridge

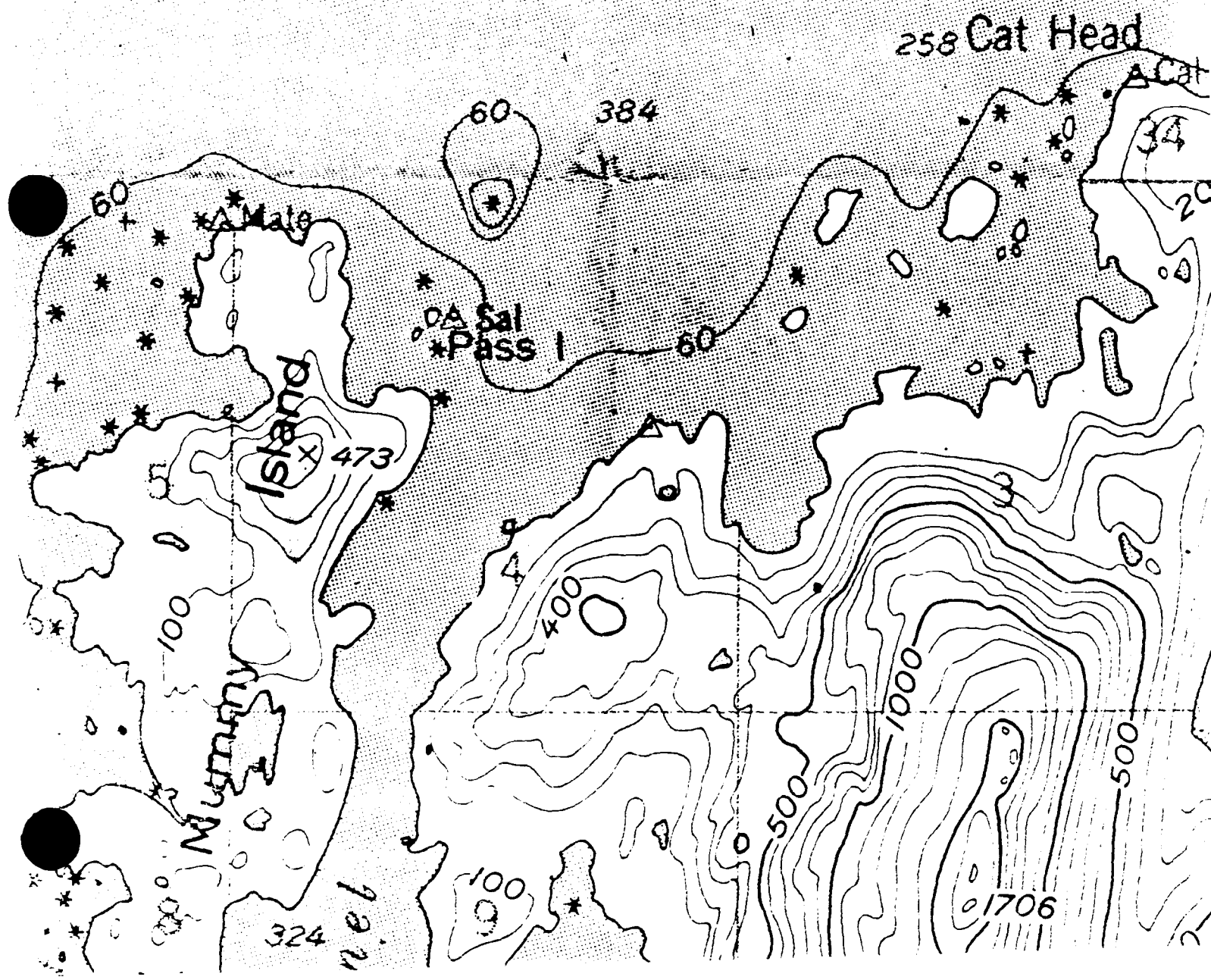
Time survey started 20:00 Time survey ended 21:15

Cultural resource considerations/restraints:

IF hitherto etc. etc. No other cultural resource constraints



480



TREATMENT MANUAL, 6/15/89

SEG CL-1 INSPECTION # 1

SEGMENT

DATE 7/26/89

INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

☐

Hot water wash

☐

Mechanical

☐

Warm water wash

☒Non-mechanical POM-POM IN ISOLATED AREA☐

Water deluge

☐Other ALL OILS REMOVED

Exxon

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

Comments TREATMENT OF SEGMENT CL-1 IS COMPLETE.REQUEST FOR DEMOBILIZATION - REQUESTED TO A NEW SEGMENT.Signature [Signature]Date: 7/26/89 Time: 6:41 PMPrinted Name THOMAS C. ESTERLINO

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil

Subsurface Oil

Percent Degree of Oiling

☐ Yes☒ No

Heavy

Medium

Light

Very Light

None

100 %

Comments NO OIL OBSERVED

Reassessment

☒

Yes - necessary

☐

No - not necessary unless re-oiled

ADEC rep Comments NOT PRESENT

Signature

Date: 7/26/89 Time: 1849

Printed Name

FOSC rep

Demobilization approved/disapprovedComments REMOVE HAZARD & SWAMP FROM THIS SEGMENTSignature [Signature]Date: 7/26/89 Time: 1849Printed Name THOMAS C. ESTERLINO LT USCG

(version 5/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): MUMMY ISLAND BLOCK

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

Submitted : *B. Messinger* Date: 7/16/89
(for Exxon)

ISCC Approval: ~~*[Signature]*~~ S.K. Christopher Date: 7/15/89

FOSC Approval: *[Signature]* Date: 7/22/89

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

Distribution:

Exxon Shoreline Coordinator
Exxon Shoreline Supervisor
Exxon SCAT file

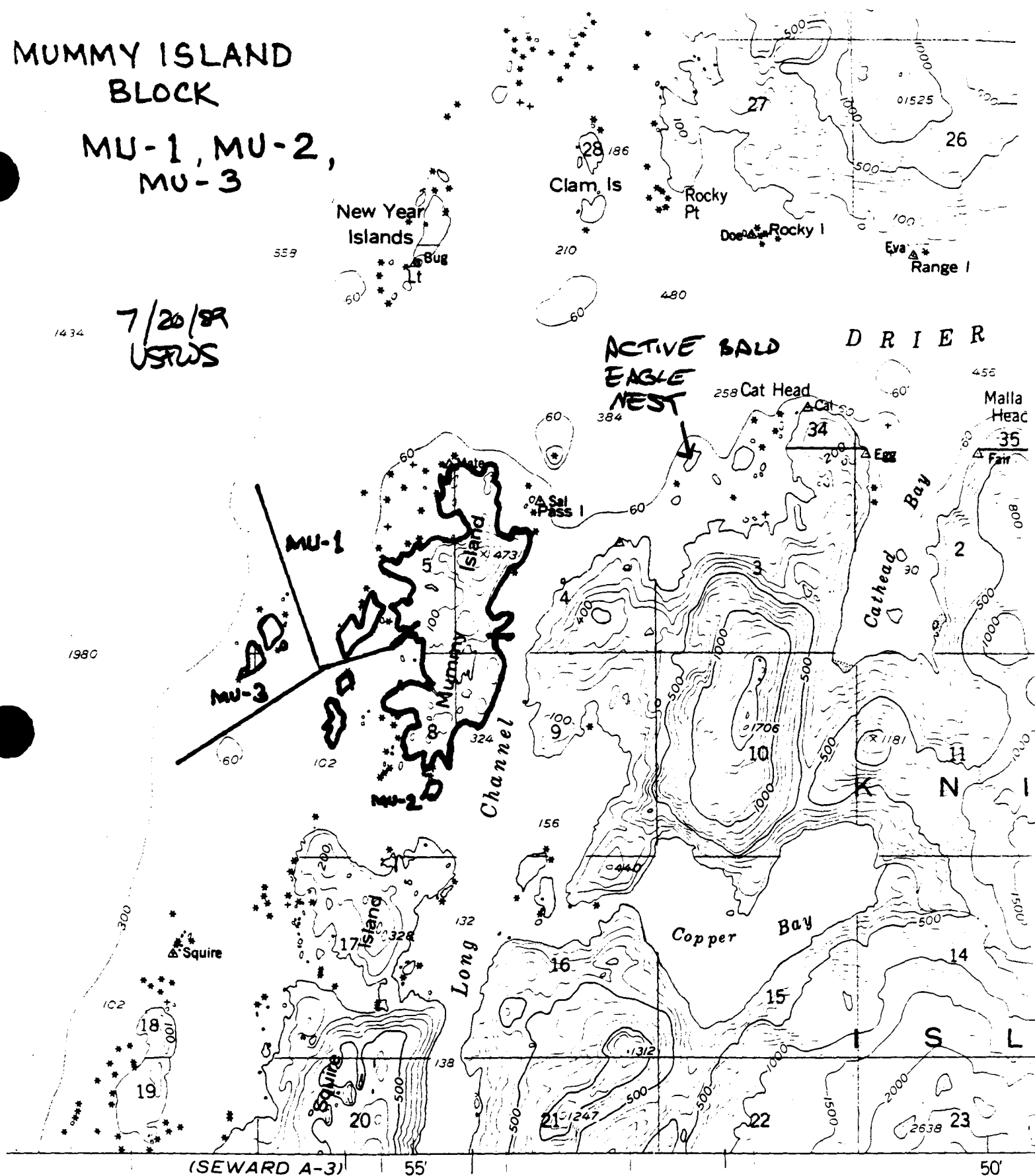
FOSC
CDFU
NOAA
EPA
USDA (FS)
USFW
A.DEC
A.FG
A.DNR
CAC
PWSCA
USFS
SHPO

ACA
7/22

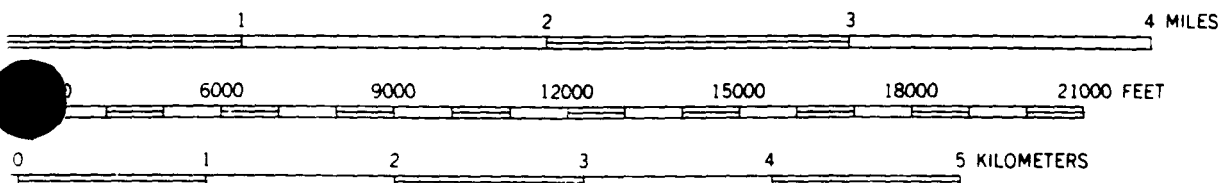
MUMMY ISLAND BLOCK

MU-1, MU-2,
MU-3

7/20/88
USFWS



SCALE 1:63360



CONTOUR INTERVAL 100 FEET

NATIONAL GEODETIC VERTICAL DATUM OF 1929

CURVES AND SOUNDINGS IN FEET DATUM IS MEAN LOWER LOW WATER



(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 7/08/89

SHORELINE SEGMENT MU-1

LOCATION: (see enclosed map) MUMMY ISLAND-NORTH SIDE

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/25/89

Recommended Cleanup Activity(ies):

- Manually remove contaminated drift material (fucus).
- Flood/flush with warm to hot water (up to 140 F) on low angle beaches
- Use moderate to high pressure warm to hot water washing on rock.
- Use other approved methods as appropriate

Priorities Considerations:

Class 3-4: Moderate to light oil.

A: Resources present.

Ecological Constraints (from site survey): Work at mid tide + or take appropriate measures to protect lower intertidal zone.

Archeological Constraints (from site survey):

*7/21/89
890721*
Inspection by Archaeological monitor required during cleanup in the far southwest and far north portions of the segment. If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Charles Z. Holmes
State Historic Preservation Officer *

Date: July 12, 1989

ISCC: Sharon K. Christopher

Date: 7/21/89

EXXON: L. H. H. H.

Date: 890721

FOSC: P. E. Doherty

Date: _____

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

26 June 89 → 1000-1200 **SHORELINE OIL EVALUATION**Date: 25 June 89 → 1030-1500
Time: _____Observer: SempelsSurveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fog

LOCATIONLOCATION Mummy Island SEGMENT NUMBER MU-1LENGTH OF SHORELINE SEGMENT: 7 KmACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane**SHORELINE:**Shoreline Type: SPI/Island BEA COV HLD /STRT Slope: LANG/HANG/VERWave Exposure: High/Med/LowSediment: B 0 % / C 20 % / P 5 % / G 5 % / S 0 % / M 0 % / R 80 %Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type NA**OIL**Degree of Oiling: Heavy/Moderate/Light/No Oil/UnobservedArea of Beach Impact: SU / SP / H / M / LContinuous: Y/N % of Segment 80 Width of Band: 2-6 mSporadic: Y/N % of Segment 20Est. Oil Thickness where > 1cm: NA cm Est. Oil Penetration: ≥ 30 cmPooled Oil: 0 % "Free" Oil: 0 % Coated: H 100 % / M 0 % / L 0 %Fresh 0 % Mousse 0 % Tar Formation: 100 %Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H/M/L/

Comments:

(see attached notes and map)

(Site descriptions)

- 1 Steeply sloping bedrock with boulder talus
Discontinuous band of tarry oil ≤ 1 m wide in the upper intertidal zone.
- 2 Steeply sloping angular boulder talus.
Discontinuous tarry band 2-3 m w in upper intertidal zone.
Occasional 2 m. diameter splatter on bedrock surfaces.
- 3 Steep talus of angular boulders, gravel and pebbles in lower intertidal zone. Discontinuous 2 m. wide band of tarry oil on boulders in the upper intertidal zone.
- 4 Shoreline similar to 3 above but no oil.
- 5 Shoreline similar to 3 above, discontinuous oil bands ≤ 20 cm wide and a few splatters ~ 1 m. diameter in the upper intertidal zone. Occasional oiled log in upper intertidal or backshore zone.
- 6 Bedrock ~~cliff~~, continuous 3 m. wide band of tarry oil in upper ~~and~~ middle intertidal zone.
- 7 Pebble gravel beach, discontinuous 4 m wide band on the beach on the north side of the cove, approximately 200 m long to the next headland north. Tarry surface coating, little penetration. On the beach itself, there is a 6 m wide continuous band in the upper intertidal zone.

The oil has penetrated at least 20 cm into the sediments and is not readily visible on the surface. Some lightly oiled fucus strand lines at high water level. Some oiled logs in the backshore.

- 8 : Step bedrock ramp few or no sediments. Continuous band 3 m wide by approximately 100 m long in the upper intertidal zone. Relatively heavy oiling ~ 0.5 cm thick.
- 9 : Step bedrock ramp, bedrock cliff and steep boulder talus. Discontinuous banding of oil ~ 3 m w. heavier on north facing sides of headlands.
- 10 : Step bedrock or bedrock cliffs. Discontinuous tar band 10-20 cm wide in upper intertidal zone.
- 11 : Steep bedrock, heavy oiling ~ 2-3 m. wide in fractured zones in the bedrock upper intertidal zone.
- 12 : Same shoreline type as 11, heavy continuous patches 4-5 m wide by 10 m long in the upper intertidal zone.
- 13 : Same ~~shoreline~~ type as 11, heavy patches of oil in fractured rocks on the upper, intertidal zone.
and middle
- 14 : Same shoreline type as 11, light oiling only.
- 15 : Bedrock cliffs and overhangs, talus of angular boulders. Heavy oiling 5-6 m wide continuous band in the middle and upper intertidal zone. Shown on water from natural

16 : Same shoreline type as 15, Heavy patches of oil ~ 3m diameter.

17 : Same shoreline type as 15, discontinuous patches of tarry oil in upper intertidal zone

18 : Same shoreline type as 15, No oil.

19 : Pocket beach of pebbles and gravel. 5-6 m wide continuous band on upper intertidal sediments with at least 20-30 cm penetration. Oiled seaweed strand lines at high water level. Continuous 3-4 m wide band of tarry oil in the middle and upper intertidal zone of the bedrock cliffs surrounding this pocket beach

20 : Gently sloping pocket beach of sand and gravel between bedrock cliffs headlands. Oil present in the upper 20 m of the intertidal zone. Not readily visible on the surface but there is a light coating on sediment down to a depth of at least 20 cm.

Discontinuous light coating on adjacent bedrock surfaces. The tarry oil bands reach a maximum width of about 3 meters.

= low near of pebble coarse and gravel

Moderately sloping $\sim 20^\circ$.

Moderately oiled on complete intertidal surface. Oiled seaward strand lines at high water level and oiled logs in the backshore and upper intertidal zone. Continuous band of tarry oil, 3 m wide on the bedrock cliffs on the north side of the cove. In the upper intertidal zone of the pocket beach, the oil has penetrated at least 30 cm

22 Bedrock cliffs, discontinuous bands ~ 2 m wide in the upper intertidal zone. lightly oiled.

23 Boulder talus shoreline. No oil

24 Steep bedrock shoreline. No oil.

25 Pocket beach, bedrock bluff backshore, boulder, cobble upper intertidal zone, cobble and pebble middle and lower intertidal zone. Continuous 2 m band of tarry oil in upper intertidal zone on the beach sediments and surrounding bedrock cliffs.

26 Steep bedrock shoreline, 3-4 m continuous band in the upper intertidal zone.

27 Gravel pebble pocket beach between steep or cliffed bedrock. Boulders in mid intertidal zone. Few small splatters and discontinuous bands ~ 1 m wide

in the middle and upper intertidal zone.
Seaweed (oiled) strand lines at high water level
and some logs in backshore.

28 : Bedrock cliffs, discontinuous band of tarry oil
1-2 m wide in the upper intertidal zone.

29 : Same shoreline type as 28, Fine bands < 10 cm wide
of tarry oil and few splatters $\leq$ 50 cm dia in
upper intertidal zone.

30 : Same shoreline type as 28, few narrow pocket
beaches. Few splatters of oil and few narrow
discontinuous bands.

31 : Steep bedrock shoreline. Discontinuous band ~ 1 m wide
in the upper intertidal zone.

32 : Bedrock cliff. No oil except a few splatters
< 30 cm in diameter on upper intertidal zone.

33 : Pocket beach gravel, pebbles cobbles. No oil.

34 : Pocket beach gravel pebbles cobbles. Heavy oiling,
upper intertidal zone, tarry on surface,
at least 20 cm penetration.

35 : Bedrock cliffs, 1-2 m wide continuous band of tarry oil
in upper intertidal zone.

36 : Same as 35

37 : Pocket beach, boulder and cobble, narrow (< 50 cm)
discontinuous band of lightly oiled sediments in the upper intertidal zone.

39 : Same as 38

40 : Same as 38

41 : 15 m. wide pocket beach of gravel cobble pebbles
Few splatters < 10 cm dia in the upper intertidal zone.

42 : Steeply sloping bedrock with few narrow pocket beaches of coarse sediments. No oil.

43 : Steep bedrock shoreline. Few small splatters (< 10 cm diameter) in upper intertidal zone.

44 : Pocket beach of coarse mixed sediments.
6 m wide band of continuous heavy oiling in the upper intertidal zone.

45 : Steep bedrock shoreline, continuous band (~1 m wide) in upper intertidal zone.

ECOLOGICAL EVALUATION

LOCATION: Mummy Is SITE: Western Knight Island OBSERVER: _____

LOCATION PREFIX: MU SEG. NO.: 1 LENGTH: 700 (M)

DATE: 6/25/89 TIME (HHMM): 1030-1500 TIDE HT.: -0.5 to +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

Sparse on eastern shore, but dense on west + on islet to S.W.

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

small patches, and on gravel beaches + sometimes on Fucus

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

mainly on boulders on outside - dense on west

Littorina

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

common in splash zone pools, west side

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

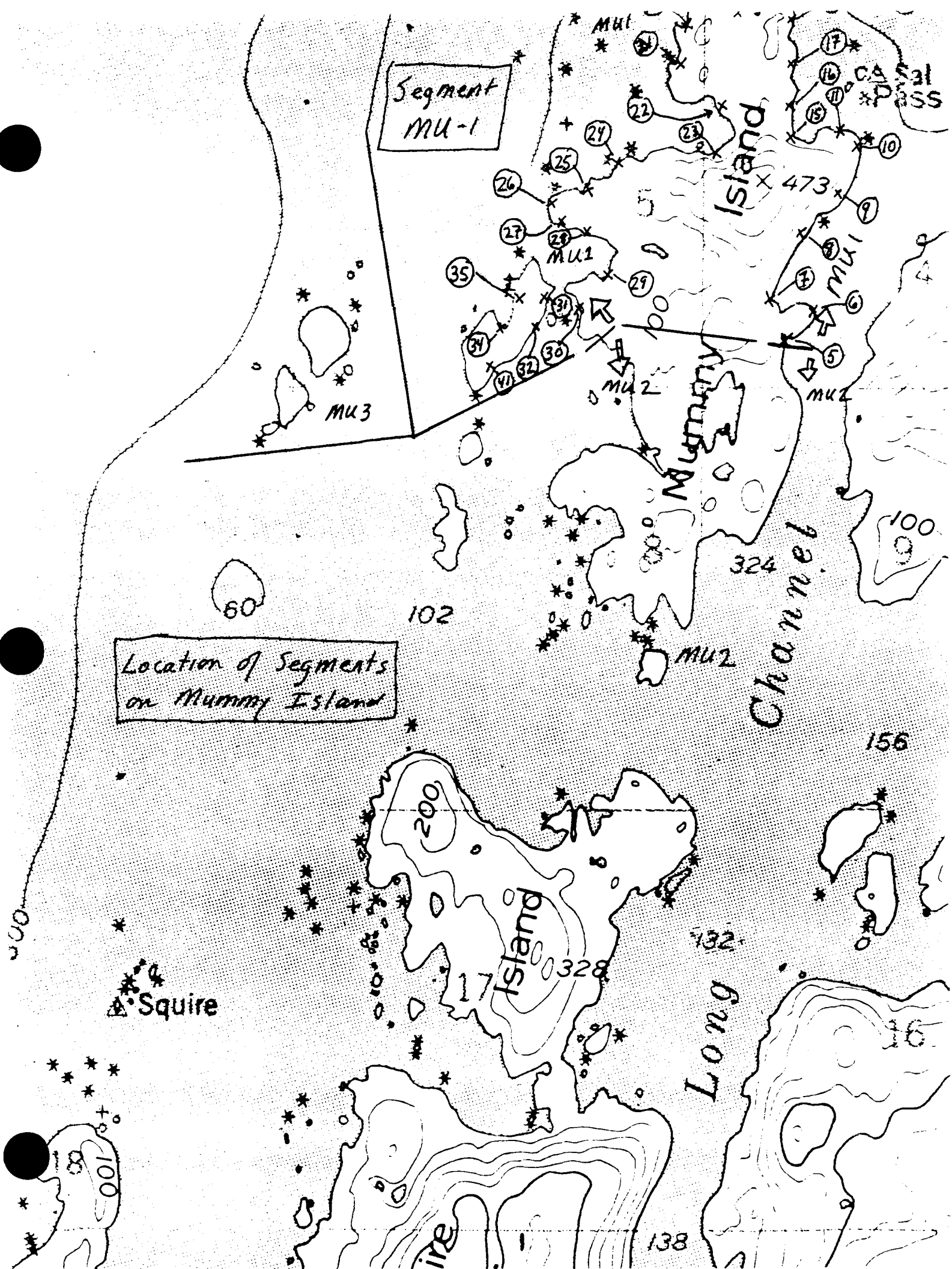
OTHER OBSERVATIONS: islets to S.W. heavily used by otters and seals, seal haul out in segment MU-2.

CLEANUP PRECAUTIONS: None

MAMMALS: Otters 2 Harbor Seals _____ Sea Lions 1 Whales _____
Other _____

BIRDS: ducks, gulls

GENERAL OBSERVATIONS: south end + west side are biologically richer + apparently more productive than east side near Knight Is.



(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date JUNE 25+26 Location W. Knight Is. Site Mummy Is.
Location Prefix MU Segment # 1, 2, 3 Length 12, 800

Survey Method:

Air _____ (A - indicate on map) Boat 95 (A - indicate on map)
Ground 5 (G - indicate on map)

Known cultural resources (AHRS #) SEW- 73, 249 Data Source _____

Oil conditions/beach visibility locally heavy/poor

Width of beach zone surveyed to 30 m Tree fringe surveyed to 15 m.

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) BRL, PIC, CAU, CMT

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

Shore Profile Generally steep cliff.

Fresh Water Sources Several small creeks.

Sea Exposure western Is. is exposed to westerlies

Access/Safety good light winds

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 # ME 4/6 Frames 22-25 / 1-12

Observer(s) Morby Eldridge

Time survey started 10:30; 10:00 Time survey ended 15:00; 12:00

Cultural resource considerations/restraints: (oil map).

No cleanup is preferred option at locations 2/26 p. Otherwise, a monitor
must be present.

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 7/08/89

SHORELINE SEGMENT MU-2

LOCATION: (see enclosed map) MUMMY ISLAND-SOUTH END

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6-26-89

Recommended Cleanup Activity(ies):

- Manually remove contaminated drift material (fucus).
No other cleanup recommended at this time (subject to FOSC reassessment at a later date), due to light oil and medium wave exposure.

Priorities Considerations:

Class 4-5: Light to no oil.
A: Resources present.

Ecological Constraints (from site survey): Work at mid tide + or take appropriate measures to protect lower intertidal zone.

Archeological Constraints (from site survey):

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

Charles E. Adams
State Historic Preservation Officer *

Date: July 12, 1989

ISCC: Sharon K. Christopher

Date: 7/21/89

EXXON: L. H. H.

Date: 89-07-21

FOSC: C. E. Robbins

Date: 7-22-89

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

SHORELINE OIL EVALUATIONDate: 25 June → 1000 - 1200
26 June Time: 1030 - 1500Observer: SempelsSurveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fog

LOCATIONLOCATION South end of MUMRAY Island SEGMENT NUMBER MU2LENGTH OF SHORELINE SEGMENT: 8 KmACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane**SHORELINE:**Shoreline Type: SPI/BEA/COV/HLD/STRTSlope: LANG/HANG/VERWave Exposure: High/Med/LowSediment: B10 % / C5 % / P5 % / G0 % / S0 % / M0 % / R80 %Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type seaweed**OIL**Degree of Oiling: Heavy/Moderate/Light/No Oil/UnobservedArea of Beach Impact: SU / SP / H / M / LContinuous: Y/N % of Segment 45 Width of Band: 2-3 mSporadic: Y/N % of Segment >95%Est. Oil Thickness where > 1cm: NA cm Est. Oil Penetration: NA cmPooled Oil: 0 % "Free" Oil: 0 % Coated: H 0 % / M 10 % / L 90 %Fresh 0 % Mousse 0 % Tar Formation: 100 %Drift Debris Oiled ? Yes/No Supra/Upper/Mid/Lower Amount: H/M/L

Comments:

(see attached notes and map)

(Site descriptions)

1. Steeply sloping bedrock with boulder talus.
Discontinuous band of tarry oil ≤ 1 m wide in the upper intertidal zone.
2. Steeply sloping angular boulder talus.
Discontinuous tarry band 2-3 m w in upper intertidal zone.
Occasional 2 m. diameter splatter on bedrock surfaces.
3. Steep talus of angular boulders, gravel and pebbles in lower intertidal zone. Discontinuous 2 m. wide band of tarry oil on boulders in the upper intertidal zone.
4. Shoreline similar to 3 above but no oil.
5. Shoreline similar to 3 above. discontinuous oil bands ≤ 20 cm wide and a few splatters ~ 1 m. diameter in the upper intertidal zone. Occasional oiled log in upper intertidal or backshore zone.
6. Bedrock ~~cliff~~, continuous 3 m. wide band of tarry oil in upper ~~and~~ middle intertidal zone.
7. Pebble gravel beach, discontinuous 4 m wide band on the beach on the north side of the cove; approximately 200 m long to the next headland north. Tarry surface coating, little penetration. On the beach itself.
There is a 6 m wide continuous band in the upper intertidal zone.

The oil has penetrated at least 20 cm into the sediments and is not readily visible on the surface. Some lightly oiled fucus strand lines at high water level. Some oiled logs in the beachshore.

- 8 Steep bedrock ramp few or no sediments. Continuous band 3 m wide by approximately 100 m long in the upper intertidal zone. Relatively heavy oiling ~ 0.5 cm thick.
- 9 Steep bedrock ramp, bedrock cliff and steep boulder talus. Discontinuous banding of oil ~ 2 m wide. Reservoir on north facing sides of headlands.
- 10 Steep bedrock or bedrock cliffs. Discontinuous tar band 10-20 cm wide in upper intertidal zone.
- 11 Steep bedrock, heavy oiling ~ 2-3 m wide in fractured zones in the bedrock upper intertidal zone.
- 12 Same shoreline type as 11, heavy continuous patches 4-5 m wide by 10 m long in the upper intertidal zone.
- 13 Same shoreline type as 11, heavy patches of oil in fractured rocks on the upper, intertidal zone and middle.
- 14 Same shoreline type as 11, light oiling only.
- 15 Bedrock cliffs and overhangs, talus of angular boulders. Heavy oiling 5-6 m wide continuous band in the middle and upper intertidal zone. Shown on water from natural

16 : Same shoreline type as 15, Heavy patches of oil ~ 3 m diameter.

17 : Same shoreline type as 15 discontinuous patches of tarry oil in upper intertidal zone

18 : Same shoreline type as 15, No oil.

19 : Pocket beach of pebbles and gravel. 5-6 m wide continuous beach on upper intertidal sediments with at least 20-30 cm penetration. Oiled seaweed strand lines at high water level. Continuous 3-4 m wide band of tarry oil in the middle and upper intertidal zone of the bedrock cliffs surrounding this pocket beach

20 : Gently sloping pocket beach of sand and gravel between bedrock cliffs headlands. Oil present in the upper 20 m of the intertidal zone. Not readily visible on the surface but there is a light coating on sediment down to a depth of at least 20 cm. Discontinuous light coating on adjacent bedrock surfaces. The tarry oil bands reach a maximum width of about 3 meters.

22 Low near of pebble coarse and gravel

Moderately sloping $\sim 20^\circ$.

Moderately oiled on complete intertidal surface. Oiled seaward strand lines at high water level and oiled logs in the backshore and upper intertidal zone. Continuous band of tarry oil, 3 m. wide on the bedrock cliffs on the north side of the cove. In the upper intertidal zone of the pocket beach, the oil has penetrated at least 30 cm

23 Bedrock cliffs, discontinuous bands ~ 2 m wide in the upper intertidal zone. lightly oiled.

23 Boulder talus shoreline. No oil

24 Steep bedrock shoreline. No oil.

25 Pocket beach, bedrock bluff backshore, boulder, cobble upper intertidal zone, cobble and pebble middle and lower intertidal zone. Continuous 2 m band of tarry oil in upper intertidal zone on the beach sediments and surrounding bedrock cliffs.

26 Steep bedrock shoreline, 3-4 m continuous band in the upper intertidal zone.

27 Gravel pebble pocket beach between steep or cliffed bedrock. Boulders in mid intertidal zone. Few small splatters and discontinuous bands ~ 1 m wide

in the middle and upper intertidal zone.
Seaweed (oiled) strand lines at high water level
and some logs in backshore.

- 28 : Bedrock cliffs, discontinuous band of tarry oil
1-2 m wide in the upper intertidal zone.
- 29 : Same shoreline type as 28, Fine bands < 10 cm wide
of tarry oil and few splatters $\leq$ 50 cm dia in
upper intertidal zone.
- 30 : Same shoreline type as 28, few narrow pocket
beaches. Few splatters of oil and few narrow
discontinuous bands.
- 31 : Steep bedrock shoreline. Discontinuous band ~ 1 m wide
in the upper intertidal zone.
- 32 : Bedrock cliff. No oil except a few splatters
< 3 cm. in diameter on upper intertidal zone.
- 33 : Pocket beach gravel, pebbles cobbles. No oil.
- 34 : Pocket beach gravel pebbles cobbles. Heavy oiling,
upper intertidal zone, tarry on surface,
at least 20 cm penetration.
- 35 : Bedrock cliffs, 1-2 m. wide continuous band of tarry oil
in upper intertidal zone.
- 36 : Same as 35
- 37 : Pocket beach, boulder and cobble, narrow (< 50 cm)
discontinuous band of lightly oiled sediments in the upper intertidal zone.

39 : Same as 38

40 : Same as 38

41 : 15 m. wide pocket beach of gravel cobble pebbles
Few splinters < 10 cm dia in the upper intertidal zone.

42 : Steeply sloping bedrock with few narrow pocket beaches of coarse sediments. No oil.

43 : Steep bedrock shoreline. Few small splinters (< 10 cm diameter) in upper intertidal zone.

44 : Pocket beach of coarse mixed sediments.
6 m wide band of continuous heavy oiling in the upper intertidal zone.

45 : Steep bedrock shoreline, continuous band (2 m wide) in upper intertidal zone.

ECOLOGICAL EVALUATION

LOCATION: Mummy Is SITE: South End OBSERVER: _____

LOCATION PREFIX: MU SEG. NO.: 2 LENGTH: 800 (M)

DATE: 6/25/89 TIME (HHMM): ¹⁰³⁰⁻¹⁵⁰⁰1000-1200 TIDE HT.: -0.5 to +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

Sparse on eastern shore, but dense on west + on islet to SW

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

small patches, and on gravel beaches + sometimes on Fucus

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

mainly bunches on boulders on outside - bedrock on west

Littorina

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

common in splash zone pools, west side

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

OTHER OBSERVATIONS: islets to SW heavily used by otters and seals

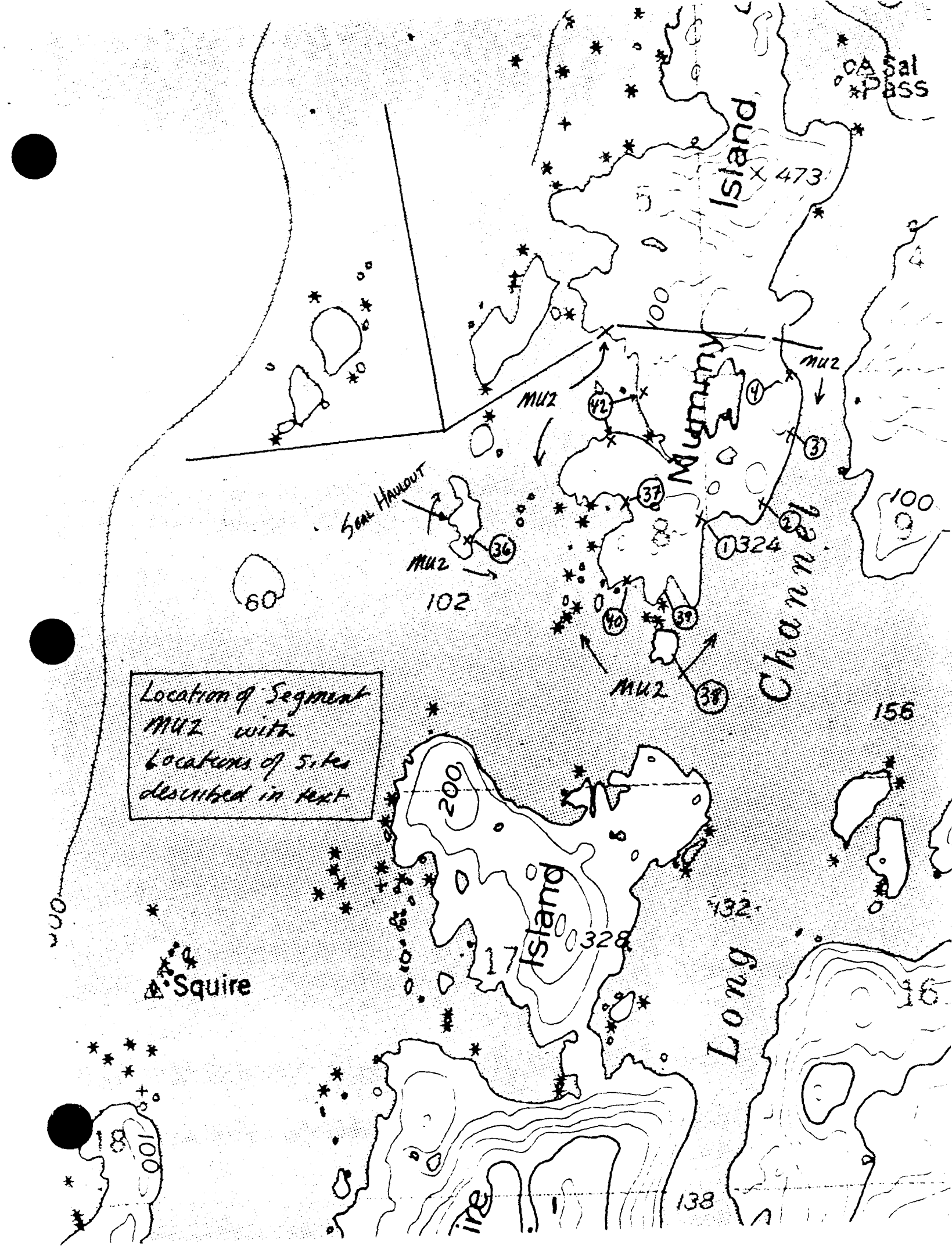
CLEANUP PRECAUTIONS: Seal haul-out on west side of islet, SW corner of Mummy Is. - see QGr. map

MAMMALS: Otters ≥12 ^(seal w/ pups) Harbor Seals ≥20 ^(seal w/ pups) Sea Lions 1 Whales 2 ^{killer}
Other _____

BIRDS: ducks, gulls, eagle

GENERAL OBSERVATIONS: South end + west side are biologically richer + apparently more productive than east side near Knight Is.

Location of Segment
MU2 with
Locations of sites
described in text



(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date JUNE 25+26 Location W. Knight Is. Site Mummy Is.
Location Prefix MU Segment # 1, 2, 3 Length 12, 800

Survey Method:

Air _____ (A - indicate on map) Boat 95 (A - indicate on map)
Ground 5 (G - indicate on map)

Known cultural resources (AHRS #) SEW- 73, 249 Data Source _____

Oil conditions/beach visibility locally heavy / poor

Width of beach zone surveyed to 30 m Tree fringe surveyed to 15 m.

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) BRL, PIC, CAU, CMT

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

Shore Profile Generally steep cliff.

Fresh Water Sources Several small creeks.

Sea Exposure western Is. is exposed to westerlies

Access/Safety good light winds

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 # ME 4/5 Frames 22-25 / 1-12

Observer(s) Morby Eldridge

Time survey started 10:30; 10:00 Time survey ended 15:00; 12:00

Cultural resource considerations/restraints: (oil map).

No cleanup is preferred option at locations 21+26. Otherwise, a monitor must be present.

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 7/08/89

SHORELINE SEGMENT MU-3

LOCATION: (see enclosed map) MUMMY ISLAND-ISLETS OFF WEST SIDE

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6-26-89

Recommended Cleanup Activity(ies):

- Manually remove contaminated drift material (fucus).
- Flood/flush with warm to hot water (up to 140 F) on low angle beaches.
- Use moderate to high pressure warm to hot water washing on rock.
- Use other approved methods as appropriate.

Priorities Considerations:

Class 2-4: Heavy to light oil.

A: Resources present.

Ecological Constraints (from site survey): Work at mid tide + or take appropriate measures to protect lower intertidal zone.

Archeological Constraints (from site survey):

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

Charles E. Holmes
State Historic Preservation Officer *

Date: July 12, 1989

ISCC: Sharon K. Christophers

Date: 7/21/89

EXXON: L. Martin

Date: 89-07-21

FOSC: CE Robbins

Date: 7-22-89

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

SHORELINE OIL EVALUATION

25 June 1030-1500

26 June 1000-1200

Date: _____ / Time: _____

Observer: SempelsSurveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fog

LOCATIONLOCATION Mummy Island
islets off west coast of A SEGMENT NUMBER MU 3LENGTH OF SHORELINE SEGMENT: 2 KmACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane**SHORELINE:**Shoreline Type: SPI/BEA/COV/HLD/STRTSlope: LANG/HANG/VERWave Exposure: High/Med/LowSediment: B 10 % / C 5 % / P 5 % / G 0 % / S 0 % / M 0 % / R 80 %Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type seaweed**OIL**Degree of Oiling: Heavy/Moderate/Light/No Oil/UnobservedArea of Beach Impact: SU / SP / H / M / LContinuous: Y/N % of Segment 10 Width of Band: 2-6 mSporadic: Y/N % of Segment 90Est. Oil Thickness where > 1cm: NA cm Est. Oil Penetration: 5-10 cmPooled Oil: 0 % "Free" Oil: 0 % Coated: H 5 % / M 5 % / L 90 %Fresh 0 % Mousse 0 % Tar Formation: 100 %Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H/M/L

Comments:

(see attached notes and map)

(Site descriptions)

1. Steeply sloping bedrock with boulder talus.
Discontinuous band of tarry oil ≤ 1 m wide in the upper intertidal zone.
2. Steeply sloping angular boulder talus.
Discontinuous tarry band 2-3 m wide in upper intertidal zone.
Occasional 2 m. diameter splatter on bedrock surfaces.
3. Step talus of angular boulders; gravel and pebbles in lower intertidal zone. Discontinuous 2 m. wide band of tarry oil on boulders in the upper intertidal zone.
4. Shoreline similar to 3 above but no oil.
5. Shoreline similar to 3 above. Discontinuous oil bands ≤ 20 cm wide and a few splatters ~ 1 m. diameter in the upper intertidal zone. Occasional oiled log in upper intertidal or backshore zone.
6. Bedrock cliff, continuous 3 m. wide band of tarry oil in upper and middle intertidal zone.
7. Pebble gravel beach, discontinuous 4 m wide band on the beach on the north side of the cove; approximately 200 m long to the next headland north. Tarry surface coating, little penetration. On the beach itself.
There is a 6 m wide continuous band in the upper intertidal zone.

The oil has penetrated at least 20 cm into the sediments and is not readily visible on the surface. Some lightly oiled fucus strand lines at high water level. Some oiled logs in the backshore.

- 8 Steep bedrock ramp few or no sediments. Continuous band 3 m wide by approximately 100 m long in the upper intertidal zone. Relatively heavy oiling ~ 0.5 cm thick.
- 9 Steep bedrock ramp, bedrock cliff and steep boulder talus. Discontinuous banding of oil ~ 3 m wide, heavier on north facing sides of headlands.
- 10 Steep bedrock or bedrock cliffs. Discontinuous tar band 10-20 cm wide in upper intertidal zone.
- 11 Steep bedrock, heavy oiling ~ 2-3 m wide in fractured zones in the bedrock upper intertidal zone.
- 12 Same shoreline type as 11, heavy continuous patches 4-5 m wide by 10 m long in the upper intertidal zone.
- 13 Same ~~shoreline~~ type as 11, heavy patches of oil in fractured rocks on the upper, intertidal zone.
and middle
- 14 Same shoreline type as 11, light oiling only.
- 15 Bedrock cliffs and overhangs, talus of angular boulders. Heavy oiling 5-6 m wide continuous band in the middle and upper intertidal zone. Sheen on water from natural

16 : Same shoreline type as 15, Heavy patches of oil ~ 3 m diameter.

17 : Same shoreline type as 15, discontinuous patches of tarry oil in upper intertidal zone

18 : Same shoreline type as 15, No oil.

19 : Pocket beach of pebbles and gravel. 5-6 m wide continuous band on upper intertidal sediments with at least 20-30 cm penetration. Oiled seaweed strand lines at high water level. Continuous 3-4 m wide band of tarry oil in the middle and upper intertidal zone of the bedrock cliffs surrounding this pocket beach

20 : Gently sloping pocket beach of sand and gravel between bedrock cliffs headlands. Oil present in the upper 20 m of the intertidal zone. Not readily visible on the surface but there is a light coating on sediment down to a depth of at least 20 cm.

Discontinuous light coating on adjacent bedrock surfaces. The tarry oil bands reach a maximum width of about 3 meters.

21 Pocket beach of pebbles, cobbles and gravel

Moderately sloping $\sim 20^\circ$.

Moderately oiled on complete intertidal surface. Oiled seaweed strand lines at high water level and oiled logs in the backshore and upper intertidal zone. Continuous band of tarry oil, 3 m wide on the bedrock cliffs on the north side of the cove. In the upper intertidal zone of the pocket beach, the oil has penetrated at least 30 cm

22 Bedrock cliffs, discontinuous bands ~ 2 m wide in the upper intertidal zone. Lightly oiled.

23 Boulder talus shoreline. No oil

24 Steep bedrock shoreline. No oil.

25 Pocket beach, bedrock bluff backshore, boulder, cobble upper intertidal zone, cobble and pebble middle and lower intertidal zone. Continuous 2 m band of tarry oil in upper intertidal zone on the beach sediments and surrounding bedrock cliffs.

26 Steep bedrock shoreline, 3-4 m continuous band in the upper intertidal zone.

27 Gravel pebble pocket beach between steep or cliffed bedrock. Boulders in mid intertidal zone. Few small splatters and discontinuous bands ~ 1 m wide

in the middle and upper intertidal zone.
Seaweed (collected) strand lines at high water level
and some logs in backshore.

- 23 : Bedrock cliffs, discontinuous band of tarry oil
1-2 m wide in the upper intertidal zone.
- 29 : Same shoreline type as 28, Fine bands < 10 cm wide
of tarry oil and few splatters $\leq$ 50 cm dia in
upper intertidal zone.
- 30 : Same shoreline type as 28, few narrow pocket
beaches. Few splatters of oil and few narrow
discontinuous bands.
- 31 : Steep bedrock shoreline. Discontinuous band ~ 1 m. wide
in the upper intertidal zone.
- 32 : Bedrock cliff. No oil except a few splatters
< 30 cm. in diameter on upper intertidal zone.
- 33 : Pocket beach gravel, pebbles cobbles. No oil.
- 34 : Pocket beach gravel pebbles cobbles. Heavy oiling,
upper intertidal zone, tarry on surface,
at least 20 cm penetration.
- 35 : Bedrock cliffs, 1-2 m. wide Continuous band of tarry oil
in upper intertidal zone.
- 36 : Same as 35
- 37 : Pocket beach, boulder and cobble, narrow (< 50 cm
discontinuous band of lightly oiled sediments in the upper intertidal zone.

39 : Same as 38

40 : Same as 38

41 : 15 m. wide pocket beach of gravel cobbles pebbles
Few splinters < 10 cm dia in the upper intertidal
zone.

42 : Steeply sloping bedrock with few narrow
pocket beaches of coarse sediments. No oil.

43 : Steep bedrock shoreline. Few small splinters (< 10 cm
diameter) in upper intertidal zone.

44 : Pocket beach of coarse mixed sediments.
6 m wide band of continuous heavy oiling in
the upper intertidal zone.

45 : Steep bedrock shoreline, continuous band (2 m
wide) in upper intertidal zone.

ECOLOGICAL EVALUATION

LOCATION: Mummy Is SITE: Islets off west coast OBSERVER: _____
 LOCATION PREFIX: MU SEG. NO.: 3 LENGTH: 200 (M)
 DATE: 6/25/48 TIME (HHMM): 1030-1500 TIDE HT.: -0.5 to +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
Sparse on eastern shore, but dense on west + on islet to S.W.

Mytilus (Mussels): (Patchy) Y/N Contin. Y/N (Dense) Y/N Sparse Y/N None Y/N
small patches, and on gravel beaches + sometimes on Fucus

Balanus (Barnacles): Patchy Y/N (Contin.) Y/N Dense Y/N (Sparse) Y/N None Y/N
mature barnacles only on boulders on east side - broken on west

Littorina

(Patchy) Y/N Contin. Y/N Dense Y/N (Sparse) Y/N None Y/N
common in splash zone pools, west side

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

OTHER OBSERVATIONS: islets to S.W. heavily used by otters and seals, seal haulout present in MU2

CLEANUP PRECAUTIONS: None

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

BIRDS: ducks, gulls

GENERAL OBSERVATIONS: south end + west side are biologically richer + apparently more productive than east side near King Is.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date JUNE 25+26 Location W. Knight Is. Site Mummy Is.
Location Prefix MU Segment # 1, 2, 3 Length 12, 800

Survey Method:

Air _____ (A - indicate on map) Boat 95 (A - indicate on map)
Ground 5 (G - indicate on map)

Known cultural resources (AHRS #) SEW-73, 249 Data Source _____

Oil conditions/beach visibility locally heavy/poor

Width of beach zone surveyed to 30 m Tree fringe surveyed to 15 m.

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) BRL, PIC, CAU, CMT

General observations justifying survey method and segment's site probability

Shore Profile Generally steep cliff.

Fresh Water Sources Several small creeks.

Sea Exposure western Is. is exposed to westerlies

Access/Safety good light winds

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 _____

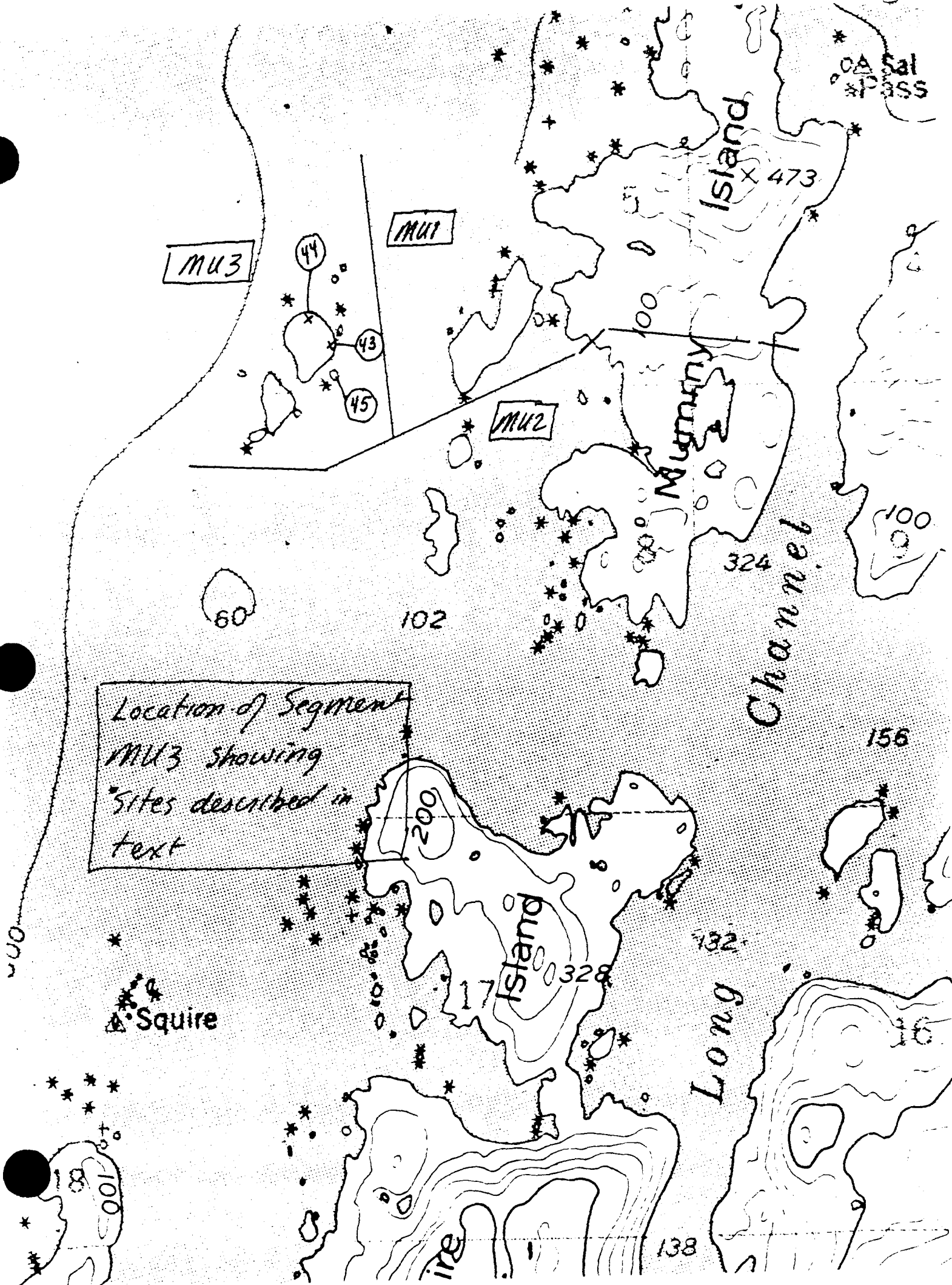
B/W Roll # ME 4/6 Frames 22-25 / 1-12

Observer(s) Morby Eldridge

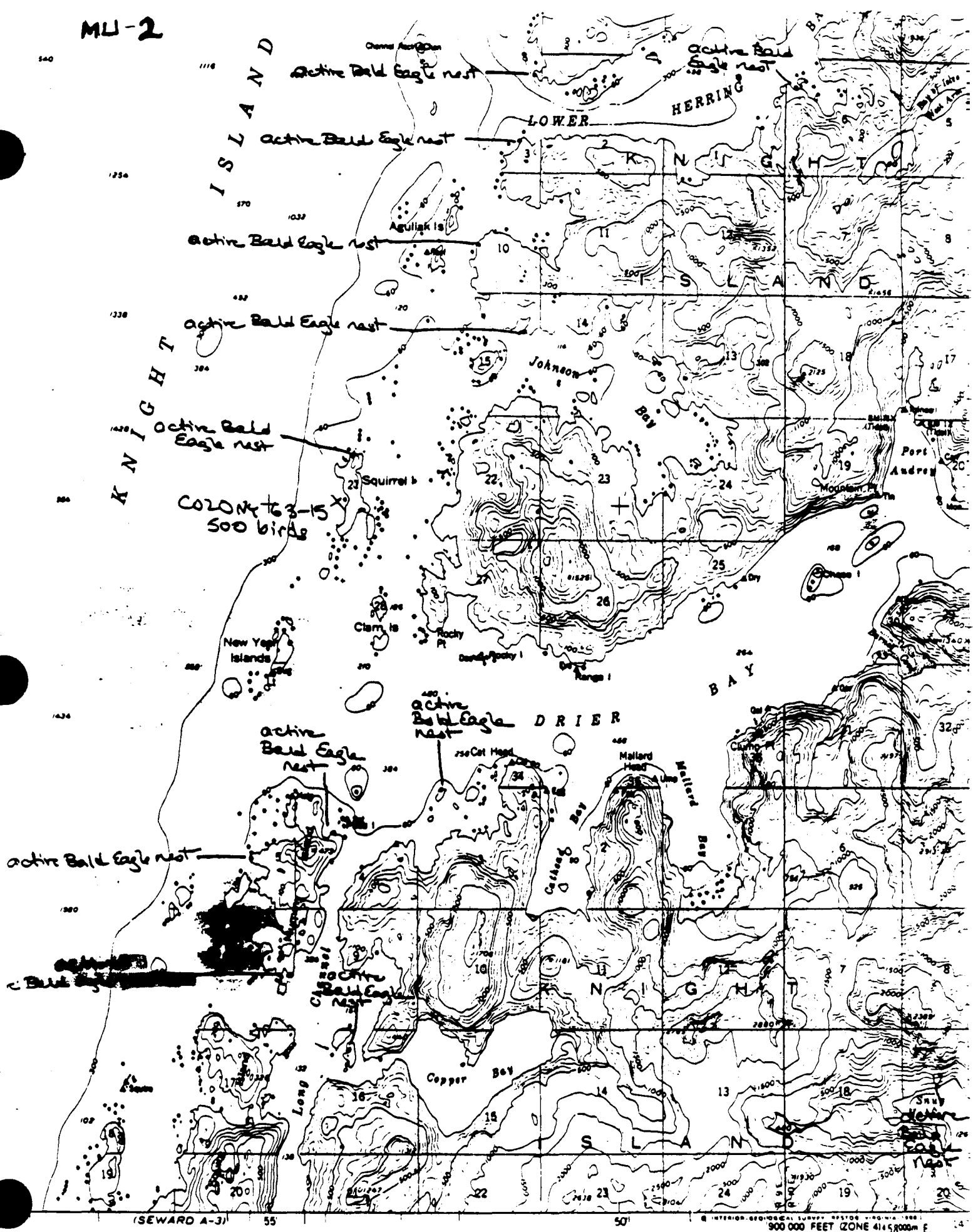
Time survey started 10:30; 10:00 Time survey ended 15:00; 12:00

Cultural resource considerations/restraints: (oil map).

No cleanup is preferred option at locations 2/26 p. Otherwise, a monitor
must be present.



ML-2



SCALE 1.63360

KNIGHT ISLAND

ROAD CLASSIFICATION

SEG MU 1 INSPECTION # 1DATE 8-3-89SEGMENT
INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

☒	Hot water wash	☐	Mechanical
☒	Warm water wash	☒	Non-mechanical <u>Pen Am in Isolated AREA</u>
☐	Water deluge	☒	Other <u>Shore Boom in Tidal Zone</u>

Exxon

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

Comments TREATMENT OF THIS SEGMENT IS COMPLETE.

READY FOR DEMOBILIZATION & DEPLOYMENT TO A NEW SEGMENT

Signature Leonard Herbst Date: 8/3/89 Time: 19:15

Printed Name GOS GARCIA - LEONARD HERBST, EXXON 3

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil
Percent Degree of Oiling

Subsurface Oil

☒ Yes ☐ No

<u> </u>	Heavy
<u>3%</u>	Medium
<u>10%</u>	Light
<u>15%</u>	Very Light
<u>72%</u>	None

100 %

Comments SOME OF THE CORBLE
BEACHES HAD MINOR AMTS OF MARINE
OIL IN WATER TAILLINE.

Reassessment

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

ADEC rep Comments OIL IMPACT ENOUGH FOR SHORE TO NEED
ANOTHER EVALUATION AT A LATER DATE

Signature Dale Gardner Date: 8/3/89 Time: 19:15

Printed Name DALE GARDNER

FOSC rep

Demobilization approved disapproved

Comments CORBLE / GRAVEL AREAS WILL CONTINUE TO SHEEN -
COAST CONTAMINATION NOT RESOLVED.

Signature Thomas D. Garrison Date: 8/3/89 Time: 19:15

Printed Name THOMAS D. GARRISON

COPY: EXXON ADEC FOSC ISCC

SEG AU 2 INSPECTION # 1DATE 8-3-89SEGMENT
INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

☐	Hot water wash	☐	Mechanical
☐	Warm water wash	☒	Non-mechanical <u>Pen Pen IN Isolated AREA</u>
☐	Water deluge	☐	Other

Exxon

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

Comments TREATMENT OF THIS SEGMENT IS COMPLETE.
READY FOR DEMOBILIZATION & DEPLOYMENT TO A NEW SEGME.

Signature Leonard Herbst Date: 8/13/89 Time: 19:15

Printed Name GOS GARCIA LEONARD HERBST, EXXON 3

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil
Percent Degree of Oiling

Subsurface Oil

☒ Yes ☐ No

_____	Heavy
_____	Medium
_____	Light
<u>2%</u>	Very Light
<u>98%</u>	None

100 %

Comments thin film ^{on some} ~~along~~ ^{along} ~~near~~ ^{near} ~~with~~ ^{with} ~~segment~~ ^{segment}

Reassessment

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

ADEC rep Comments

Signature Dale Gardner Date: 8/13/89 Time: 19:25

Printed Name DALE GARDNER

FOSC rep

Demobilization approved/disapproved

Comments LITTLE CONTAMINATION W/IN THIS SEGMENT

Signature Thomas D. Harrison Date: 8/13/89 Time: 19:21

Printed Name THOMAS D. HARRISON LT USCG

COPY: EXXON ADEC FOSC ISCC

SEG mu 3 INSPECTION # 1
DATE 8-3-89

SEGMENT
INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment



Hot water wash



Mechanical



Warm water wash



Non-mechanical Pen Pen IN ISOLATED AREA



Water deluge



Other Shore Boom IN TIDAL ZONE

Exxon

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

Comments TREATMENT OF THIS SEGMENT IS COMPLETE.

READY FOR DEMOBILIZATION & DEPLOYMENT TO A NEW SEGMENT

Signature Leonard Herbst Date: 8/3/89 Time: 19:15

Printed Name SSG GARCIA LEONARD HERBST, EXXON 3

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil

Percent Degree of Oiling

Subsurface Oil

☒ Yes

☐ No

100 Heavy
22 Medium
57 Light
92 Very Light
100 None

100 %

Comments COASTAL AREAS HAVE
SOME OIL THAT WILL CONTINUE
TO SUBSIDY

Reassessment



Yes - necessary



No - not necessary unless re-oiled

ADEC rep Comments

Signature Dale Gardner Date: 8/3/89 Time: 19:20

Printed Name DALE GARDNER

FOSC rep

Demobilization approved / disapproved

Comments SEGMENT HAS NO SIGNIFICANT OILING

Signature Thomas D. Harrison Date: 8/3/89 Time: 19:20

Printed Name THOMAS D. HARRISON LT USCG

COPY: EXXON ADEC FOSC ISCC

(version 8/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): PASS ISLAND BLOCK

Includes Shoreline Segments: MU-900

Submitted :

NR Wesbany
(for Exxon)

Date: 8-25-89

ISCC Recommendation:

Sharon K. Christopherson

Date: 8-28-89

FOSC Approval:

David Zausner

Date: 8/28/89

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:

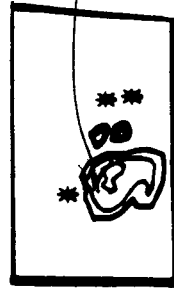
Exxon Shoreline Coordinator
Exxon Shoreline Supervisor
Exxon SCAT file

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

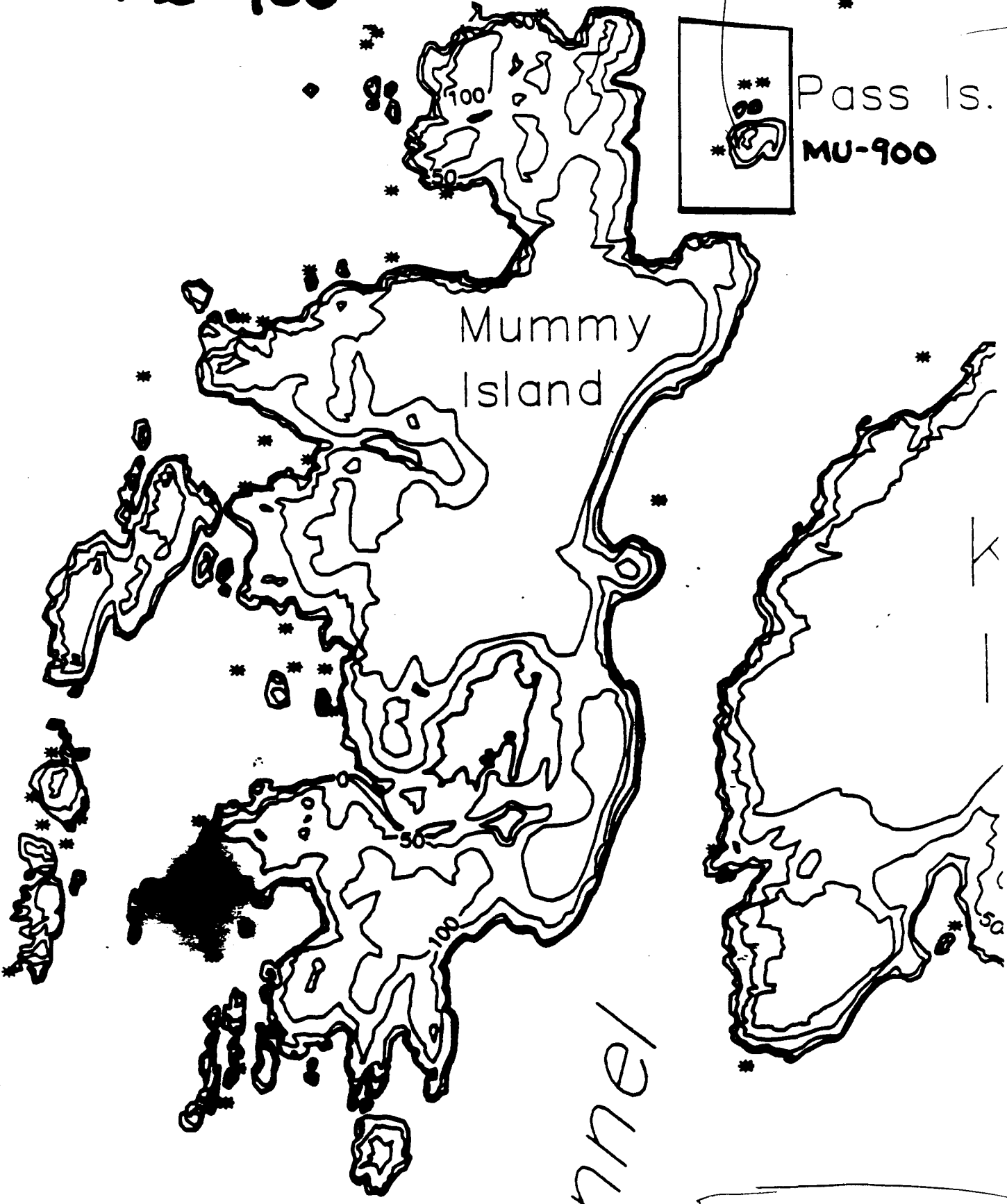
Eagle Nest on
MU 900
failed.

PASS ISLAND
BLOCK
MU-900

Eagle Nest
failed



Pass Is.
MU-900



inner

MU900 eagle nest
failed

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 8/24/89

SHORELINE SEGMENT MU-900

LOCATION: (see enclosed map) PASS ISLAND-NORTH END OF

MUMMY ISLAND (PASS ISLAND BLOCK)

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 8/21/89

Recommended Cleanup Activity(ies):

- Manually remove contaminated drift material (fucus), pooled oil and patches of mousse.
- Flood/flush with warm to hot water (up to 140 F) on low angle beaches.
- Use moderate to high pressure warm to hot water washing on rock.
- Use other approved methods as appropriate.

Priorities Considerations:

Class 2-4: Heavy to light oil

A:

Ecological Constraints (from site survey): Work at mid tide + or take appropriate measures to protect lower intertidal zone.

Use a small crew to avoid trampling intertidal organisms.

Archeological Constraints (from site survey):

If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended. NO UPLAND ACCESS.

SC 8/28/89
JAT 8-28-89

Rolf Byzell
State Historic Preservation Officer *

Date: 8/25/89

ISCC: Sharon K. Christopher

Date: 8/28/89

EXXON: Samuel S. Tipton

Date: 8-28-89

FOSC: David Zanghi

Date: 8/28/89

* Signature required to satisfy stipulations in Alaska DNR land

SHORELINE OIL EVALUATION

Date: 8/21/89 Time: 11:30

Observer: G. MACDONALD

Surveyed From: Foot Boat Helio/Plane

Weather: Sun Cloud/Rain/Snow/Fog

LOCATION

LOCATION Pass Island,

SEGMENT NUMBER MU-900

LENGTH OF SHORELINE SEGMENT: about 450 m

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

SHORELINE:

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

Wave Exposure: High/Med/Low NE side only.

Sediment: B ___ % / C ___ % / P ___ % / G 5 % / S ___ % / M ___ % / R 95 %

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

OIL

NE side only

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

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

GH - Continuous: Y/N % of Segment 80 Width of Band: < 2 m

HEAVY - Sporadic: Y/N % of Segment 10

Est. Oil Thickness where > 1cm: ___ cm Est. Oil Penetration: < 3 cm

Pooled Oil: RARE % "Free" Oil: 20 % Coated: H ___ % / M 40 % / L 40 %

Fresh ___ % Mousse 20 % Tar Formation: 80 %

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

Comments:

Heavy oil in rock channels on NE side of
islet only;
remainder of islet is light - trace oil on
thin tar bands and lines.

DOCUMENTATION:

(Map) Aerial photo marking segment boundaries Attached

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

Photography: Y/N Roll Number(s) TIG1, #'s 33, 34, 35

Sample Numbers Collected: NONE

33-35 Heavily oiled bedrock channels on
NE side of islet.

PASS ISLAND.

SEGMENT MU-900

8/21/89 a.m.

G. MACDONALD



Sea Grass

trace tar band
@ up. H.T.Z.

low relief, ice-scoured islet,
steep sides w/ bench top; v. exposed
on NE side, remainder is sheltered.

heavily oiled channels in bedrock;
* fresh tar → ~~fresh~~ mouse & trace
poiled mouse; up. H.T.Z. - supra. Z.
1/2 → 5mm thick, trapped in
small crevices; some oiled
scoured; lower oiled zone has
no free mouse. Grass on supra.
bench oiled in part. ≤ 15 m wide
x 30 m long.

MUMMY IS.

photos 33, 34, 35

light tar band at up. H.T.Z.
≤ 2 m wide.

KEY

• trace oil
• light oil

■ heavy oil

1,000 FT
approx.

8/21/89 SEGMENT MJ-900

11:30 HRS.

heavily oiled channels in
beach on NE side;

remainder of island has no-
light oil.

photos 33-35 illustrate oiled
channels.

12:00 END of SEGMENT.

ECOLOGICAL EVALUATION

LOCATION: Prince William Sound SITE: Pass Island, W. Munday Is. OBSERVER: S. Dearn
 LOCATION PREFIX: _____ SEG. NO.: MV-900 LENGTH: ~ 450m (M)
 DATE: 08 / 21 / 89 TIME (HHMM): 1115 - 1200 hrs. 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
 Dense, continuous zone. Many dead plants found within heavy oil area (SEE MAP)

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
 Scattered across pebble/cobble/gravel areas of beach and ^{clusters} on sides of larger boulders + rocks.
 Dead or oiled individuals within oiled area (SEE MAP).

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
 Dense patches on tops of large cobbles + boulders on beach areas + dense, continuous band present on vertical sides of rock outcroppings. Many dead individuals coated w/ oil in heavily oiled area (SEE MAP).

Littorina

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

Small aggregations present under some Fucus plants, also scattered across H I T Z.

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

Present under Fucus blades

OTHER OBSERVATIONS: Grasses up in the supra/terrestrial area above heavily oiled area are also oiled. Majority of mid-low organisms appear healthy. ^{now} Pink + Silver Salmon jumping near oiled debris is very much present.

CLEANUP PRECAUTIONS: Manually remove oiled debris from upper high intertidal. Minimize # people/crew to reduce trampling of healthy intertidal organisms. Restrict foot traffic to oiled area only - intertidal mussel beds should not be disturbed. Clean only at greater than + 4.0 ft tides

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

BIRDS: 1 Skuller Jay, Black-legged Kittiwakes

GENERAL OBSERVATIONS: Most of the intertidal + subtidal organisms w/in the segment appear healthy - the exception being those ^{area} of heavy oil. Mussel beds + subtidal sea beds are present. - these are ecologically sensitive areas + should not be disturbed

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 8-21-89 Location Pass Is. / Murray Site IS.

Location Prefix MU Segment # MU-900 Length 450 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 AHRS Files

Oil conditions/beach visibility Heavy to trace

Width of beach zone surveyed 5 m Tree fringe surveyed On

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 steep greenstone, one pocket beachy, moderate L.

Fresh Water Sources none observed

Sea Exposure NE corner high exposure, remainder is protected

Access/Safety fair access, fairly 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 # PGP #15 Frames 15-17

Observer(s) Phlippen

Time survey started 1130 Time survey ended 1200

Cultural resource considerations/restraints:

Standard Constraints
(Drowned peat / forest beds)

SEGMENT MU-900



MU 900

DATE 8-30-89 PAE 043

INSPECTION RECORD

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 Exxon has been removed from this segment.

Signature [Signature] Date 8/30/89 Time 14:00

Printed Name Timothy Dulin

Existing Shoreline Condition As Visually Determined by USCG

Percent	Degree of Oiling
<u>0</u>	Heavy
<u>0</u>	Medium
<u>0</u>	Light
<u>11%</u>	Very Light
<u>99%</u>	None
100 %	

Existing Shoreline Condition As Visually Determined by ADEC

Percent	Degree of Oiling
<u>0</u>	Heavy
<u>0</u>	Medium
<u>0</u>	Light
<u>11%</u>	Very Light
<u>99%</u>	None
100 %	

Subsurface Oil

- ☐ Yes ☒ No

COMMENT BELOW

Reassessment

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

Subsurface Oil

- ☐ Yes ☒ No

COMMENT BELOW

Reassessment

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

ADEC rep

Comments Beach lightly impacted with oil water contaminated.

Signature [Signature] Date 8/30/89 Time 15:55

Printed Name David H. Zehn

FOSC rep

Comments Beach

Signature [Signature] Date 8/30/89 Time 15:55

Printed Name STEVEN RICHMOND

COPY: EXXON ADEC FOSC ISCC

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): SQUIRE ISLAND EAST BLOCK

Includes Shoreline Segments: SO-1

Submitted: Colin Baat Date: 6/12/89
(for Exxon)

ISCC Recommendation: Shawn K. Christopher Date: 6-20-89

FOSC Approval: J. W. Kane Date: 6-25-89

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

Distribution:

Exxon Shoreline Coordinator
Exxon Shoreline Supervisor
Exxon SCAT file

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

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6/12/89

SHORELINE SEGMENT SQ-1

LOCATION: (see enclosed map) SQUIRE ISLAND EASTERN SHORE

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/10/89

Recommended Cleanup Activity(ies): ~~REASSESS~~ ^{REASSESSMENT} ~~AT A LATER DATE~~
- No cleanup recommended at this time due to light discontinuous oil and ecological constraints.

Priorities Considerations:

- Class 4: light oil.
- Class A: resources present.

Ecological Constraints (from site survey): This area supports healthy marine mammals, birds, fish and invertebrates. To avoid detrimental effects, disturbance in the this area must be minimized. ACTIVE BALD EAGLE NEST PRESENT- SEE ADVISORY.

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. Hodner
State Historic Preservation Officer *

ISCC: Sharon K. Christopher

EXXON: [Signature]

FOSC: [Signature]

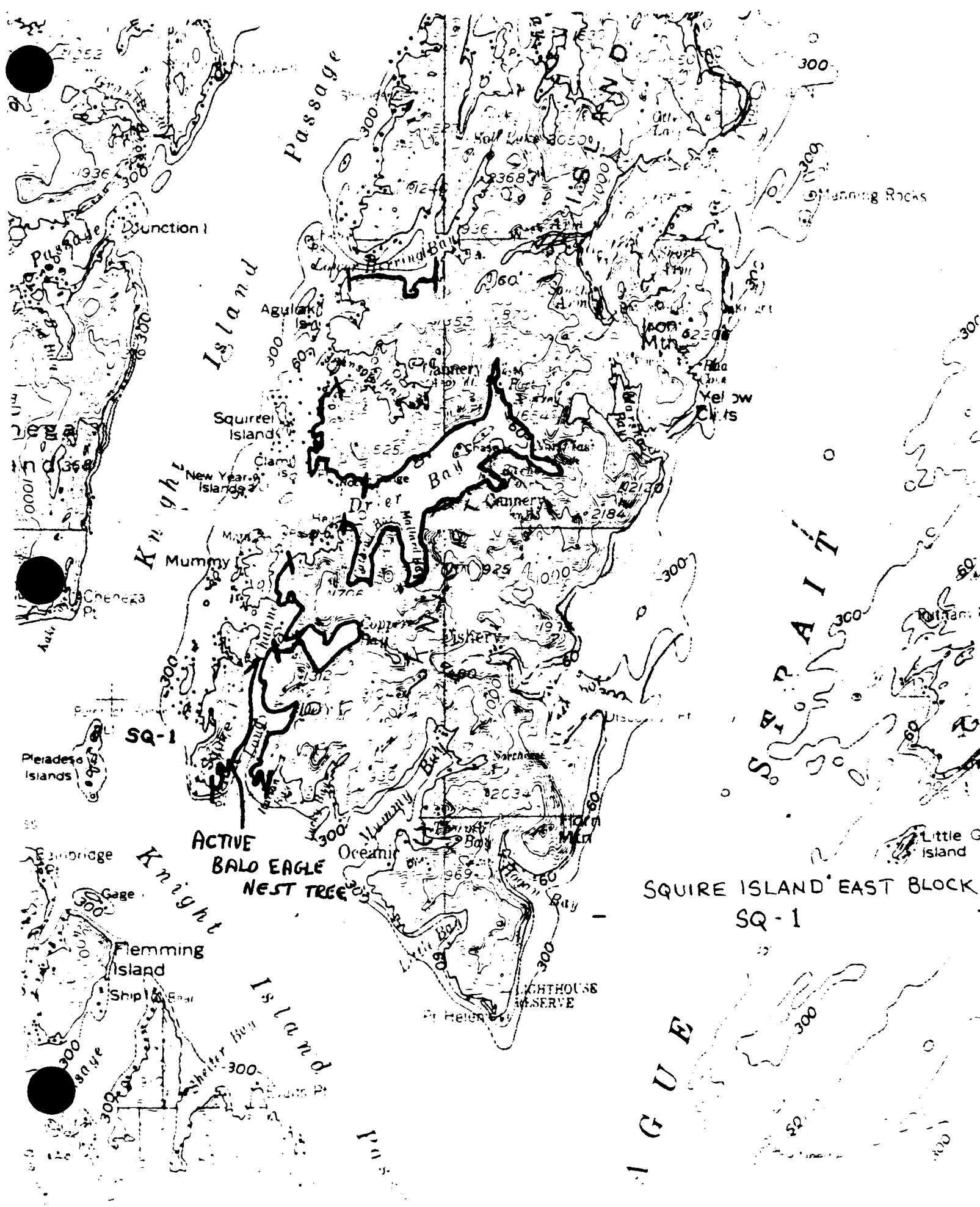
Date: June 12, 1989

6-20-89

Date: June 21, 1989

Date: 6-25-89

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



SQUIRE ISLAND EAST BLOCK
SQ-1

Date: 6/10/89 Time: 14:50

Observer: G. MACDONALD

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fc

LOCATION EAST COAST of

LOCATION SQUIRE ISLAND

SEGMENT NUMBER SQ-1

LENGTH OF SHORELINE SEGMENT: 6,100 m

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

SHORELINE:

1 BEACH ONLY

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

Slope: LANG/HANG/VER

Wave Exposure: High/Med/Low SOUTHERLY STORMS ONLY

Sediment: B / C / PTR / GTR / S / M / R 99

Drift Debris on Beach: Yes/No 5% 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 < 10% Width of Band: < 0.5 m

Sporadic: Y/N % of Segment < 0.1

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

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

Fresh _____ % Mousse 60 % Tar Formation: 40 %

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

Comments:

THE OILING IS VERY DISCONTINUOUS AND SPARSE IN
DISTRIBUTION AND AMOUNT ; — AS THIN (<20cm wide)
TAR BANDS (<20m long) AND SPARSE NATURE
MOUSSE SPLATS AT THE LOCATIONS MARKED ON
THE ATTACHED MAP.

GM.

SEGMENT :

KN-578

6/10/89

SEGMENT
BOUNDARY

TRACE-LIGHT OIL
MOD. OIL
1 MILE

6/10/89
SQUIRE
ISLAND.
SEGMENT : **SQ-1**

v. light oiled,
small mousse splats

trace
small mousse
splats

very light oil as 3 distinct thin
scum lines, @ HWL

seal
haulout

DEER
COVE

trace mousse
splat @ HWL

TRACE THIN
MOUSSE LINE
@ HWL
($\leq 20m$ long)

1 ← mouse in gravel in small
cove M-H.W.L.

very light oil
as thin ($< 10cm$)
dot mousse lines
@ HWL

2 ← Mod. oiled small cove : oiled
[LAND HERE HAS RISEN ~ 5-10 FT] @ HWL

LONG
CHANNEL

trace oiled
scum

ITALIAN
BAY

v. light, thin
oil bands ($< 5cm$)
@ HWL

SQUIRE POINT

14. 50 hrs SEGMENT SQ-1 v. wet!

Squire Pt ; most sheltered of rocky coast; old mantle in dissection band @ HWL, $\leq 0.5m$ wide x $10m$ long at most; no contain. of coarse cobble/gvl; (granite float on shore); H. oil; 3 @ $\leq 5m$ bands @ HWL, discont. in part, more persistent northward up long ch; rare mousse spots also.

clean cliffs til trace mousse spots @ headland. 3.75 miles

16.00 HRS

END of SEGMENT

ECOLOGICAL EVALUATION

LOCATION: Squire Island SITE: SEVERN Shoals OBSERVER: S.M. B. & W.

LOCATION PREFIX: BQ SEG. NO.: 1 LENGTH: 6,100 (M)

DATE: 6/10/89 TIME (HHMM): 1450 TIDE HT.: 1.2 to 0 (M)

OILED ZONE: Splash High Medium Low Trace

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

Dense and continuous on Rock faces - not oiled

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

Heavy population by Noctella

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

Dense spot a Noctella. Heavy population by Noctella

Littorina

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

Healthy - dense in littoral and U/V zone

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

Not oiled in littoral

OTHER OBSERVATIONS: Littorastrea, Pinnaster, + Schisto-
poria, etc. etc. 12 Whales spotted off shore of
Squire Point

CLEANUP PRECAUTIONS: No clean up needed - No oiled debris
to be collected or removed

MAMMALS: Otters 3 Harbor Seals Sea Lions Whales 3
Other

BIRDS: Seagulls

GENERAL OBSERVATIONS: Most of this segment is dark face

with some occasional splash of green line of oil.

Disturbance in the area must be avoided

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date June 10, 1989 Location Squire Island Site E shore
Location Prefix SQ Segment # 1 Length 6,100 m.

Survey Method:

Air _____ (A - indicate on map) Boat X (95%) (A - indicate on map)
Ground X (5%) (G - indicate on map)

Known cultural resources (AHRS #) none Data Source N/A

Oil conditions/beach visibility light to non-existent; very good visibility

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

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 sheltered rocky shore; steep profile

Fresh Water Sources numerous small streams

Sea Exposure protected

Access/Safety N/A as no cleanup is required.

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 # none Frames N/A

B/W Roll # none Frames N/A

Observer(s) Jim Haggerty

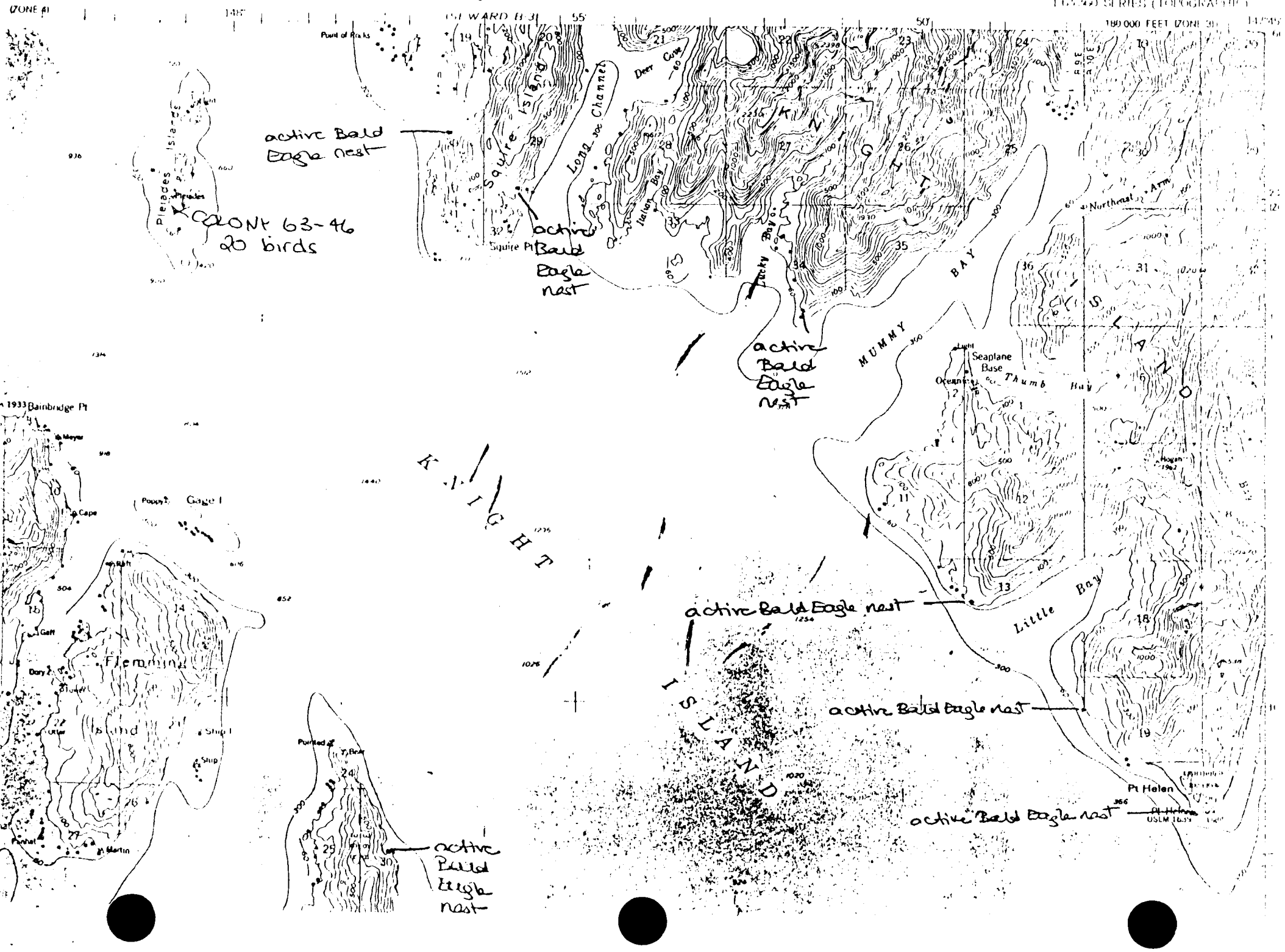
Time survey started 1450 Time survey ended 1530

Cultural resource considerations/restraints:

Standard constraints; no monitor required.

Seaward A-3 5/21/64

1:50,000 SERIES (TOPOGRAPHIC)



SQUIRE
ISLAND

SEGMENT: SQ-1

KNIGHT
ISLAND

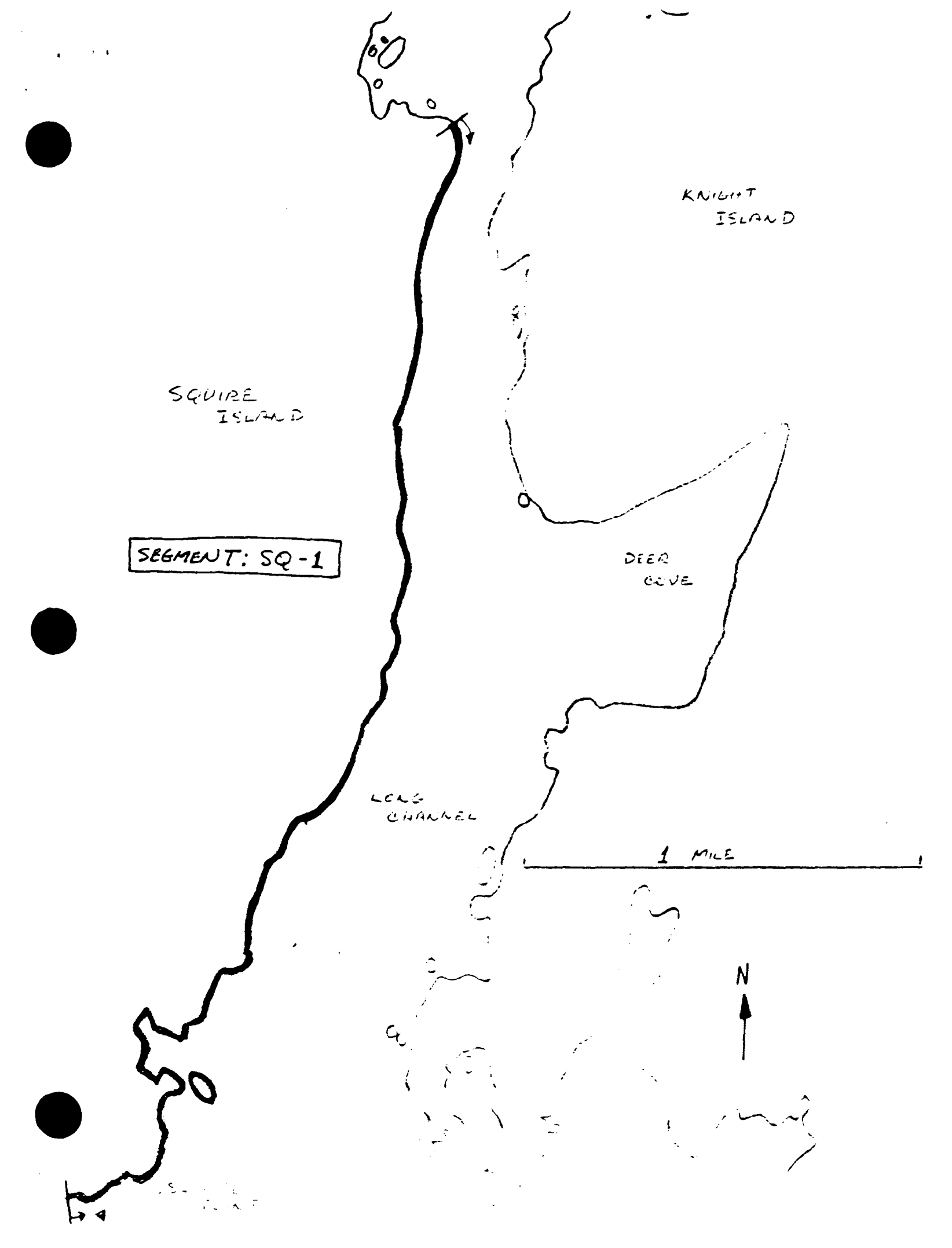
DEER
COVE

LONG
CHANNEL

1 MILE

N

5-10
POINT



7/27/89
RKBSEG SQ-1 INSPECTION # 1
DATE 7/26/89

TREATMENT MANUAL, 6/15/89

SEGMENT
INSPECTION RECORD

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 NO CLEANUP REQUIREDSignature [Signature]Date: 7/28/89 Time: 6:42 PMPrinted Name JOHN C. PONTICELLO

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil

Subsurface Oil

Percent Degree of Oiling

☐ Yes☒ No

_____	Heavy
_____	Medium
_____	Light
<u>2%</u>	Very Light
<u>98%</u>	None

100 %

Comments NO? OIL SPILL

Reassessment

☒

Yes - necessary

☐

No - not necessary unless re-oiled

ADEC rep Comments NOT PRESENT

Signature

Date: / / Time:

Printed Name

FOSC rep

MOBILIZATION NOT REQUIRED @ THIS TIME
Demobilization approved/disapproved
 Comments REIF SURVEY CONSISTANT W/ SCAT REPORT - NO

ADDITIONAL OIL OBSERVED. WORK NOT REQUIRED @ THIS TIME

Signature

Date: 7/26/89 Time: 1859Printed Name THOMAS D. HARRISON LT USCG

(version 5/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): Squire Island West Block

Includes Shoreline Segments: SQ-2, SQ-3, SQ-4, SQ-5

Submitted : *[Signature]* Date: 7/15/89
(for Exxon)

ISCC Approval: *Sharon K. Christopher* Date: 7/21/89

FOSC Approval: *C. E. Debbin* Date: 7/21/89

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

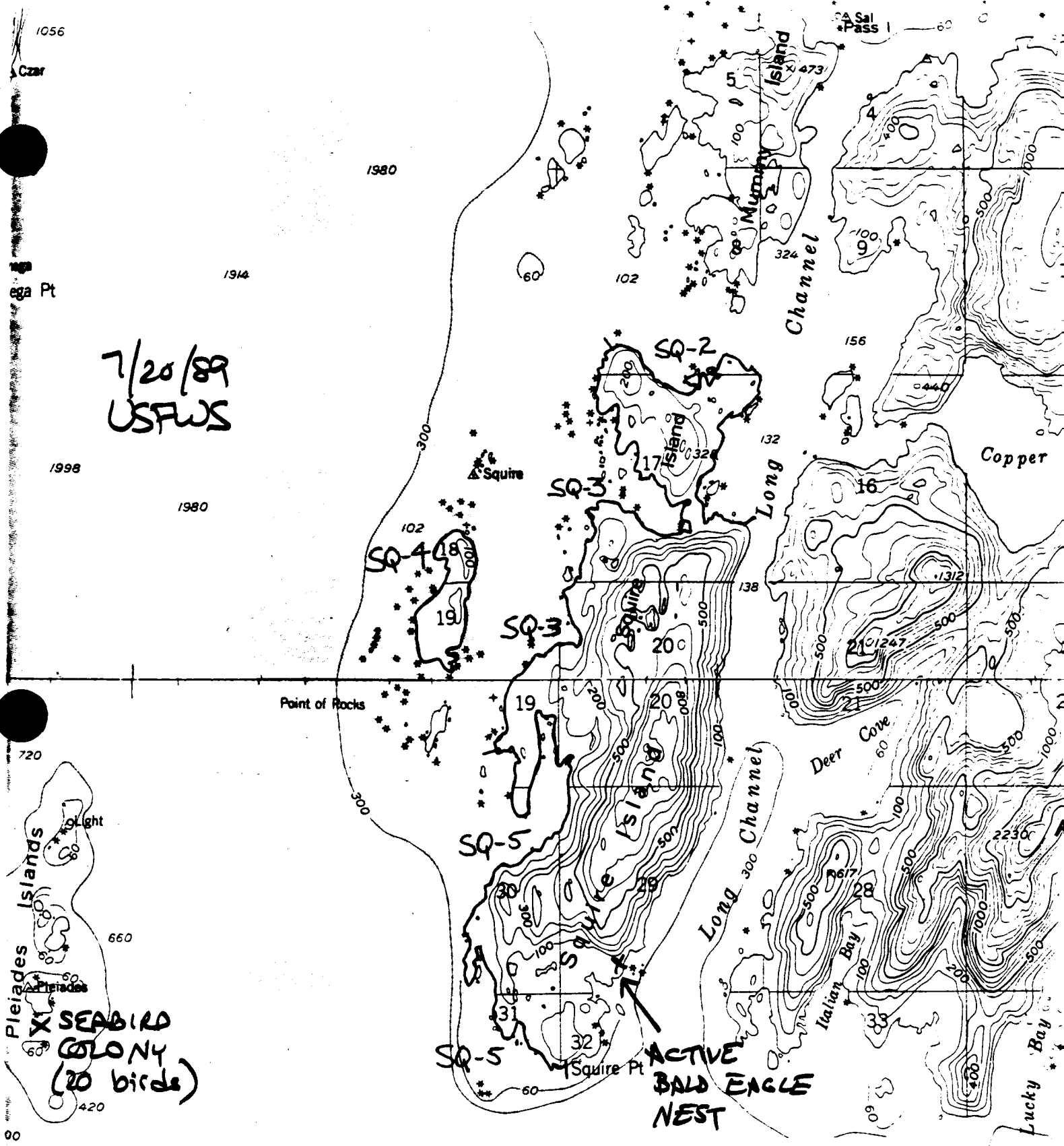
Distribution:

Exxon Shoreline Coordinator
Exxon Shoreline Supervisor
Exxon SCAT file

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

*SCOT: emphasize
upland restrictions due
to archeological concerns*

*ACA
7/21*



Squire Island West Block

SQ-2, SQ-3, SQ-4,
SQ-5

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/10/89

SHORELINE SEGMENT SQ-2

LOCATION: (see enclosed map) Northern part of Squire Island

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

Recommended Cleanup Activity(ies):

- Manually remove contaminated drift material (fucus) and free oil.
- Use other approved methods as appropriate.

Priorities Considerations:

Class 3-4: Moderate to light oil.
B: Resources absent.

Ecological Constraints (from site survey): Work at mid tide + or take appropriate measures to protect lower intertidal zone.

Archeological Constraints (from site survey):

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

Charles E. Hanna
State Historic Preservation Officer *

Date: July 12, 1989

ISCC: Sharon K. Christopherson
EXXON: [Signature]

7/21/89

Date: 89-07-21

FOSC: C. S. Robbins

Date: 7/21/89

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

SHORELINE OIL EVALUATION

Date: 29 June 89 Time: 130 PM → 5 PM

Observer: Dan Mann

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

LOCATION Squire Island, North END

SEGMENT NUMBER 5Q2

LENGTH OF SHORELINE SEGMENT: 4.6 km m (2.9 miles)

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

SHORELINE:

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

Slope: LANG/HANG/VER *bedrock cliffs and headlands w pocket beaches*

Wave Exposure: High/Med/Low

Sediment: B 40% / C 27% / P 2% / G 1% / S 41% / M 0% / R 30%

Drift Debris on Beach: Yes/No

Supra/Upper/Mid/Lower Type logs and seaweed
↑ sup.

OIL

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

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

Continuous: Y/N % of Segment NA Width of Band: 0 m

Sporadic: Y/N % of Segment 100%

Est. Oil Thickness where > 1cm: NA cm Est. Oil Penetration: max 5cm cm

Pooled Oil: 0% "Free" Oil: 1% Coated: H 2% / M 18% / L 80%

Fresh 0% Mousse 1% ± Tar Formation: 99%

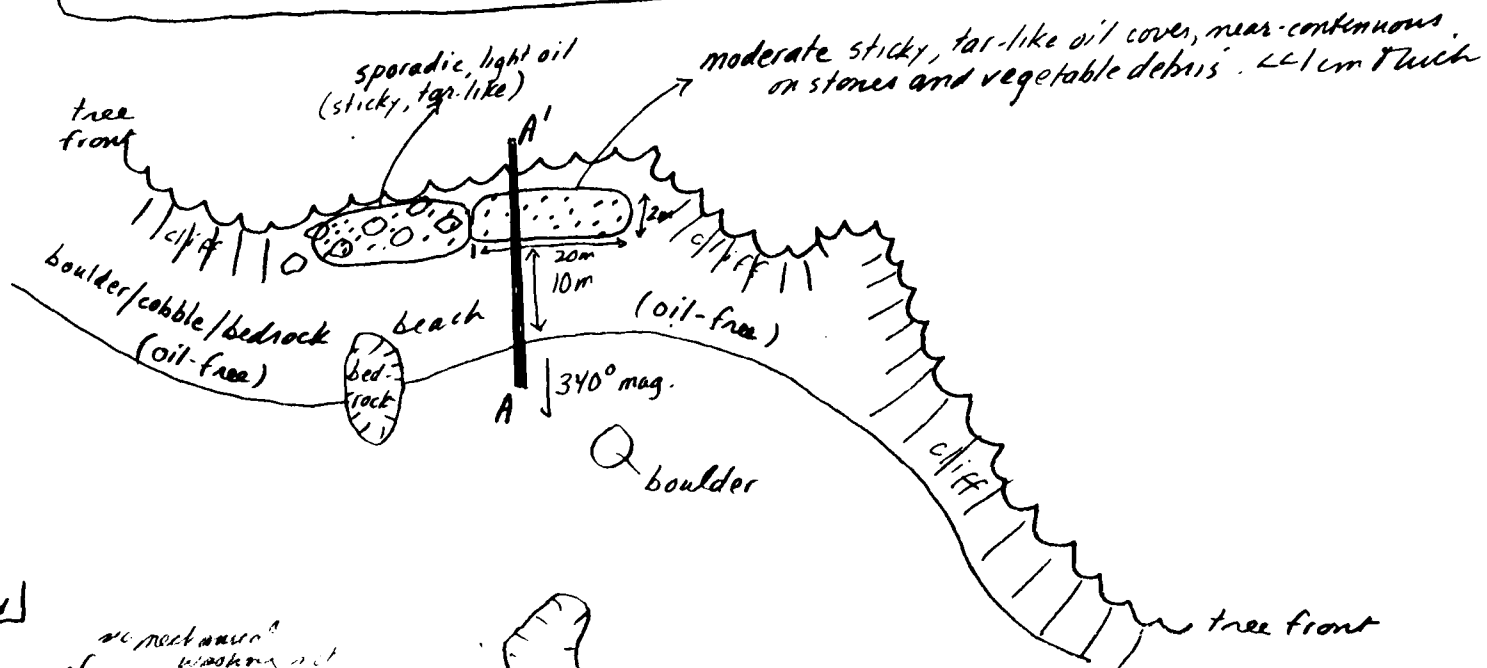
Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H/M/L

Comments:

(see attached sketch maps of the 5 most oiled sites in segment 5Q2)

SKETCH MAP of Site SQ2a 2:10 PM 29 June 89

(see index map for location)



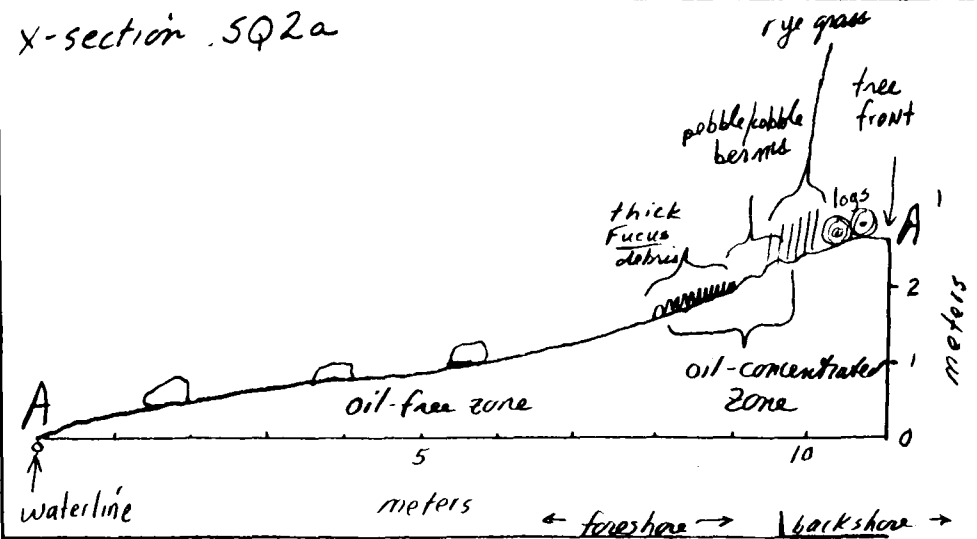
recommendations

- > manual cleanup of debris recommended
- > washing unwise because rinsed oil will contaminate the presently oil-free foreshore below the oil-thick zone
- > use of absorbent pads possible

no mechanical washing not recommended



X-section SQ2a



Sketch Map of Site SQ26

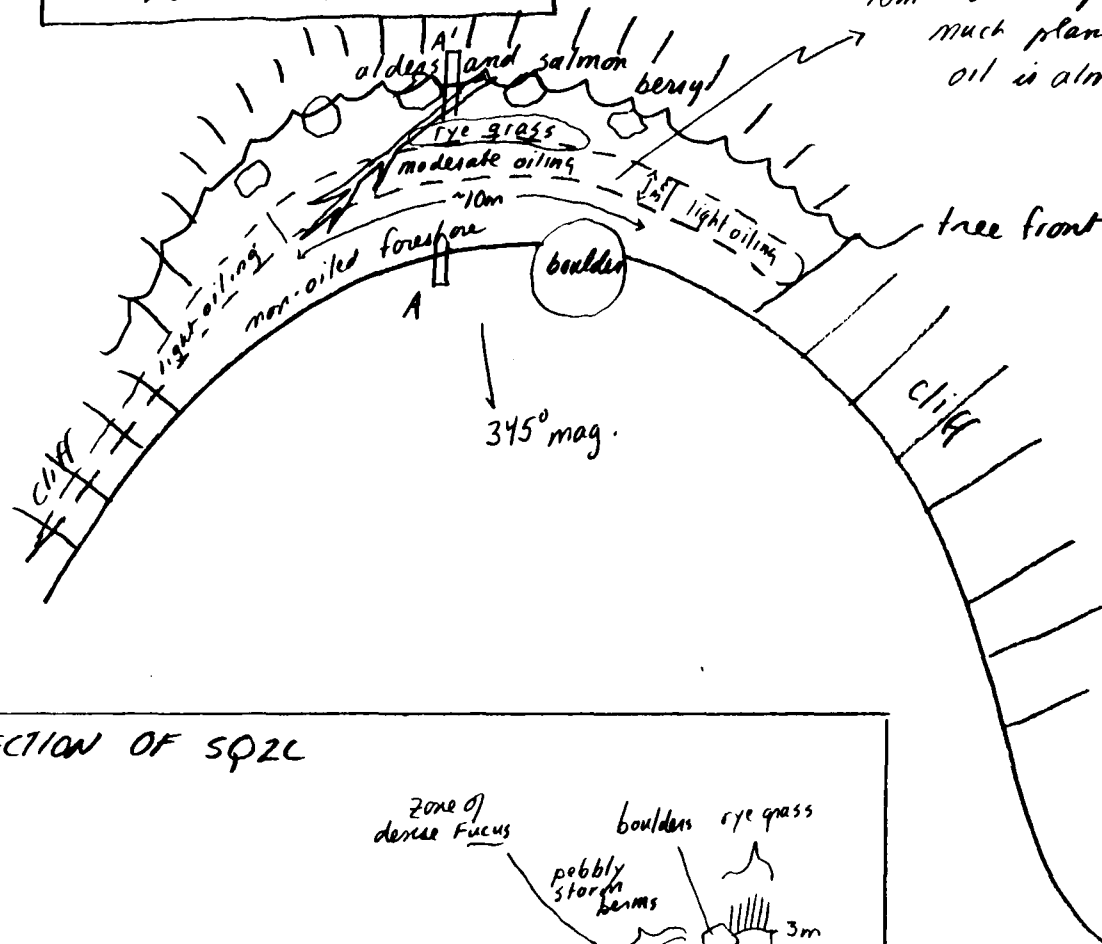
230 PM 29 June 89



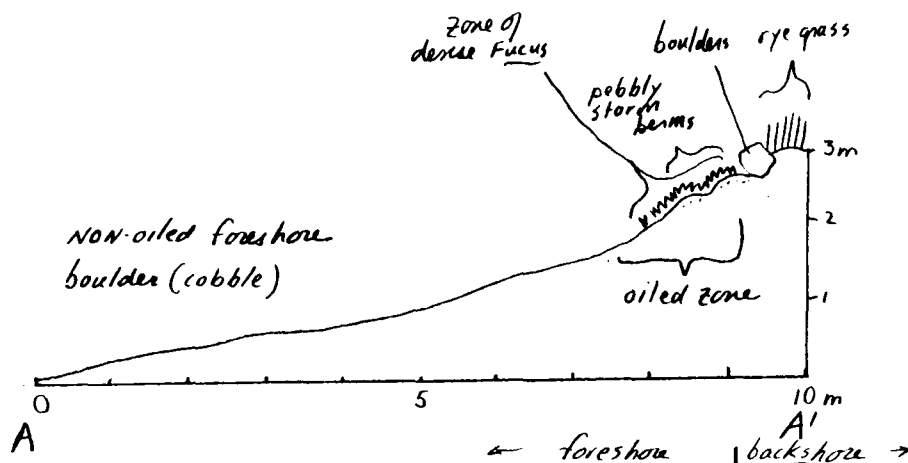
recommendations

- > manual cleanup only
- > pickup oiled wood debris and seaweed
- > sponging of oil possible w absorbent pads
- > washing likely to re-contaminate shoreface below oily zone

SKETCH MAP OF SQ2C
250 PM 29 June 89



X-SECTION OF SQ2C



general

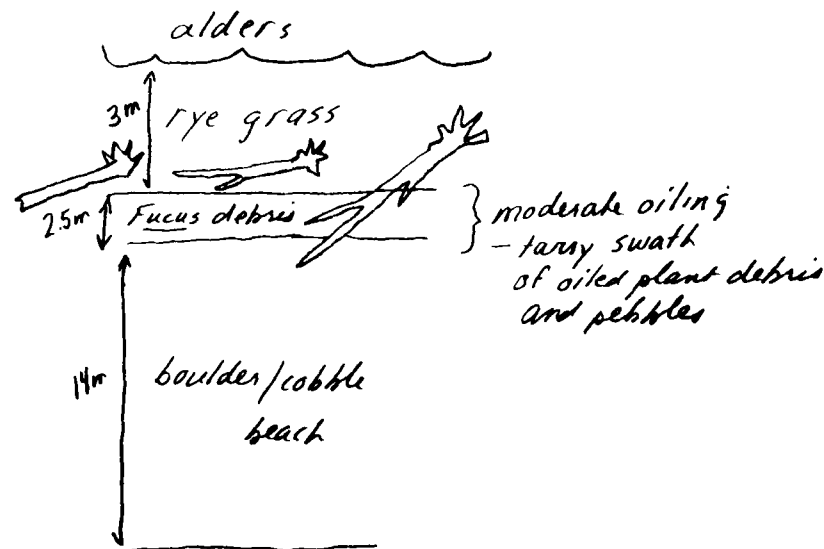
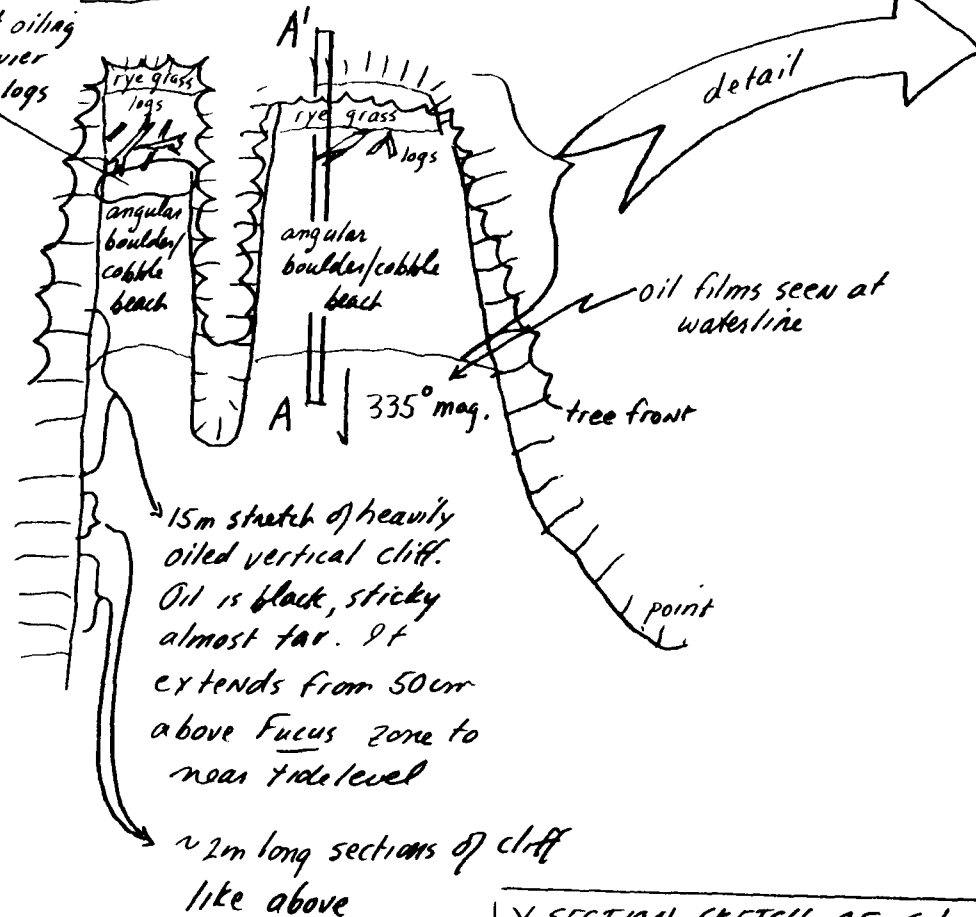
> a relatively steep, high-energy pocket beach

recommendations

- > manual cleanup of oiled seaweed and woody debris
- > washing would contaminate lower, ± pristine shoreface
- > sponging w absorbant material may be helpful as oil is still relatively wet here

SKETCH MAP OF SQ2D 4PM, 29 JUNE 89

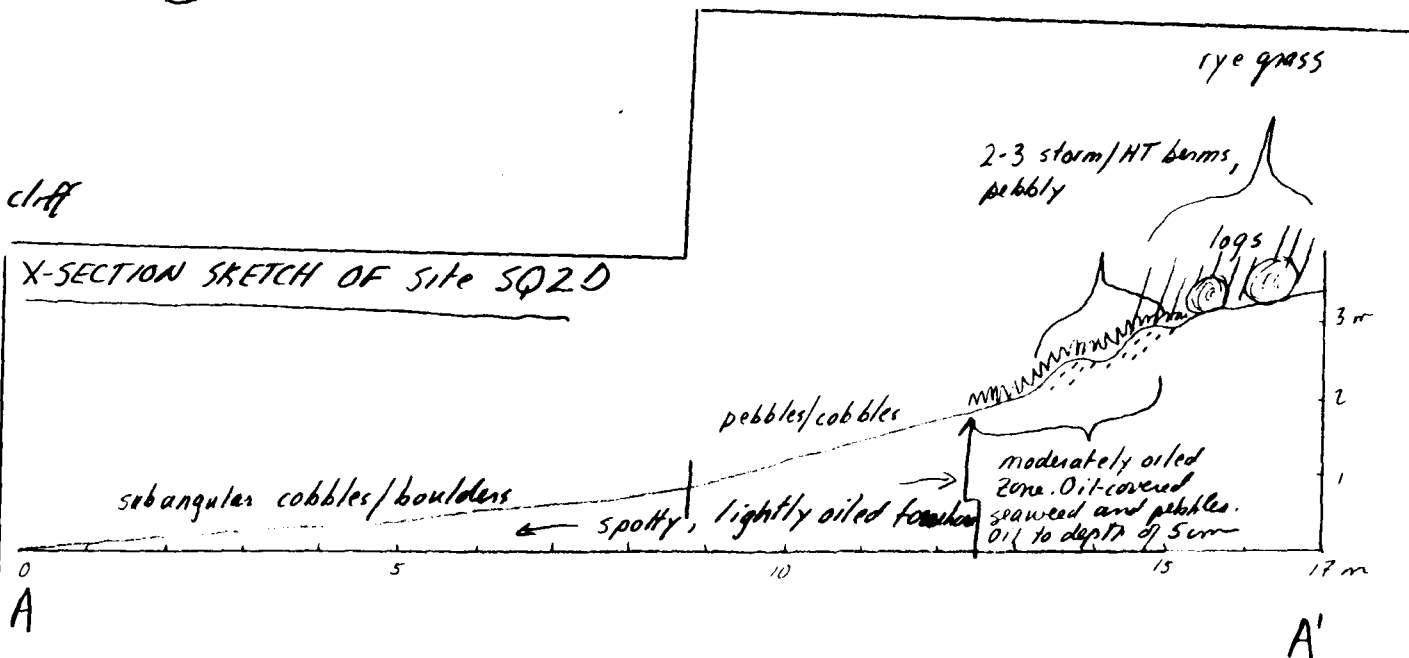
spotty, light oiling
getting heavier
towards



recommendations

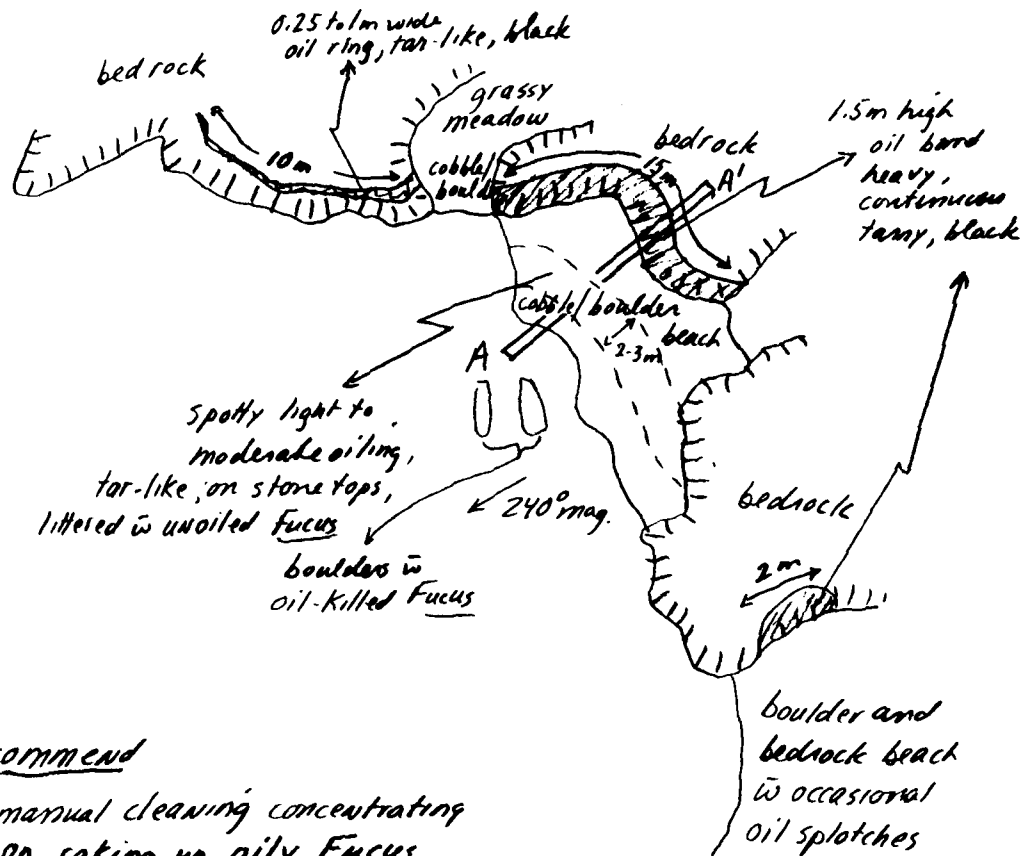
- > manual cleanup of oily vegetation and logs
- > steam(?) cleaning of heavily oiled cliff walls
- > avoid washing beaches due to danger of contaminating relatively uncontaminated foreshore areas

X-SECTION SKETCH OF site SQ2D



SKETCH MAP OF SITE SQ2 E
430 PM 29 June 89

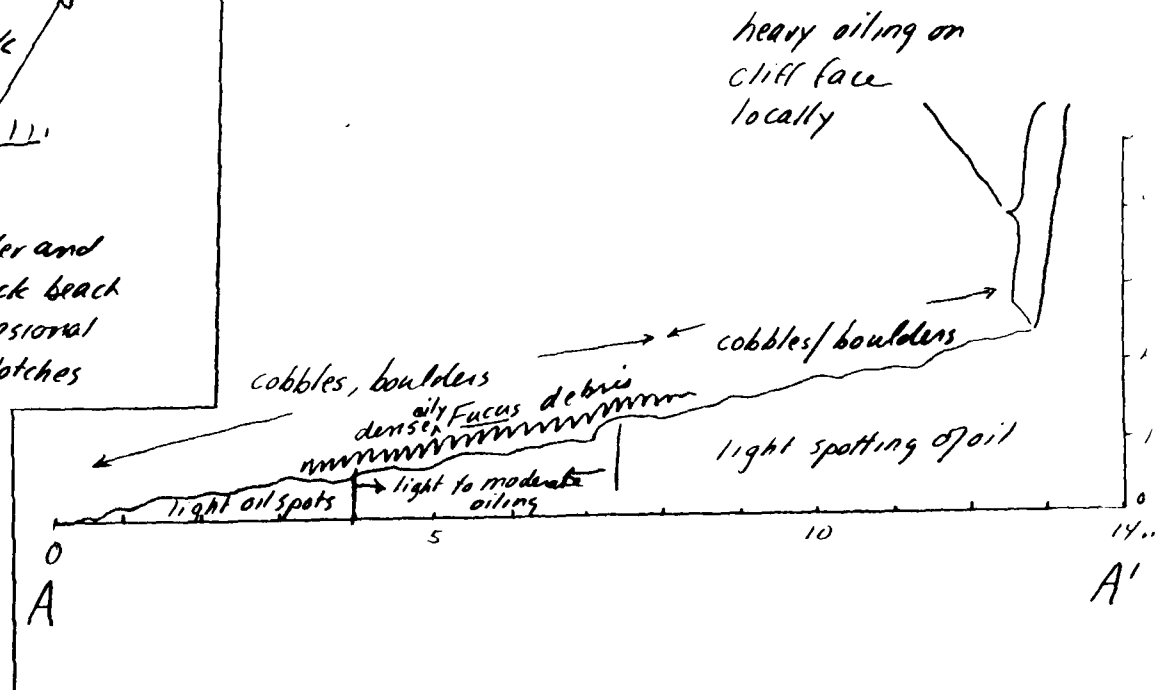
general. This site has a very complex shoreline so these sketches are crude



Recommend

- > manual cleaning concentrating on raking up oily Fucus
- > washing may recontaminate lightly oiled foreshore areas (?)
- > heavy oiling on walls too dry to absorb with pads

X-SECTION SKETCH OF Site SQ2 E



ECOLOGICAL EVALUATION

LOCATION: Squire Is SITE: _____ OBSERVER: A. JAHN
 LOCATION PREFIX: SQ SEG. NO.: 2 LENGTH: 4,600 (M)
 DATE: 6/29/89 TIME (HHMM): 1310-1645 TIDE HT.: +2 to +1 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

dense on fixed rock only (~60% of segment)

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

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

dense set of immature, but large barnacles sparse

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

mostly under boulders - very few seen otherwise

OTHER OBSERVATIONS: dead (furry) otter at small bay, north end of island

(also old skeleton, east side - see O.G.'s map). Eastern of No 2 bays shown @ north end is a brackish pond ~4m above MLLW. It contains insects and sticklebacks, marsh vegetation.

CLEANUP PRECAUTIONS: NONE

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

BIRDS: 3 eagles

GENERAL OBSERVATIONS: other than manual cleanup would generally foul

the mid + lower tidal zones + i.e. only manual cleanup should be done as indicated in O.G. Rpt.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 29 JUNE 1989 Location Squire Island Site _____

Location Prefix SQ Segment # SQ-2 Length 4600 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 Light to Moderate

Width of beach zone surveyed 10 m Tree fringe surveyed UP TO 10A

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 PRIMARYLY ROCKY WITH SMALL COVES

Fresh Water Sources ONLY A FEW SMALL STREAMS - MAY BE RUN-OFF STREAMS

Sea Exposure PROTECTED TO EAST

Access/Safety NONE

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 # NONE Frames —

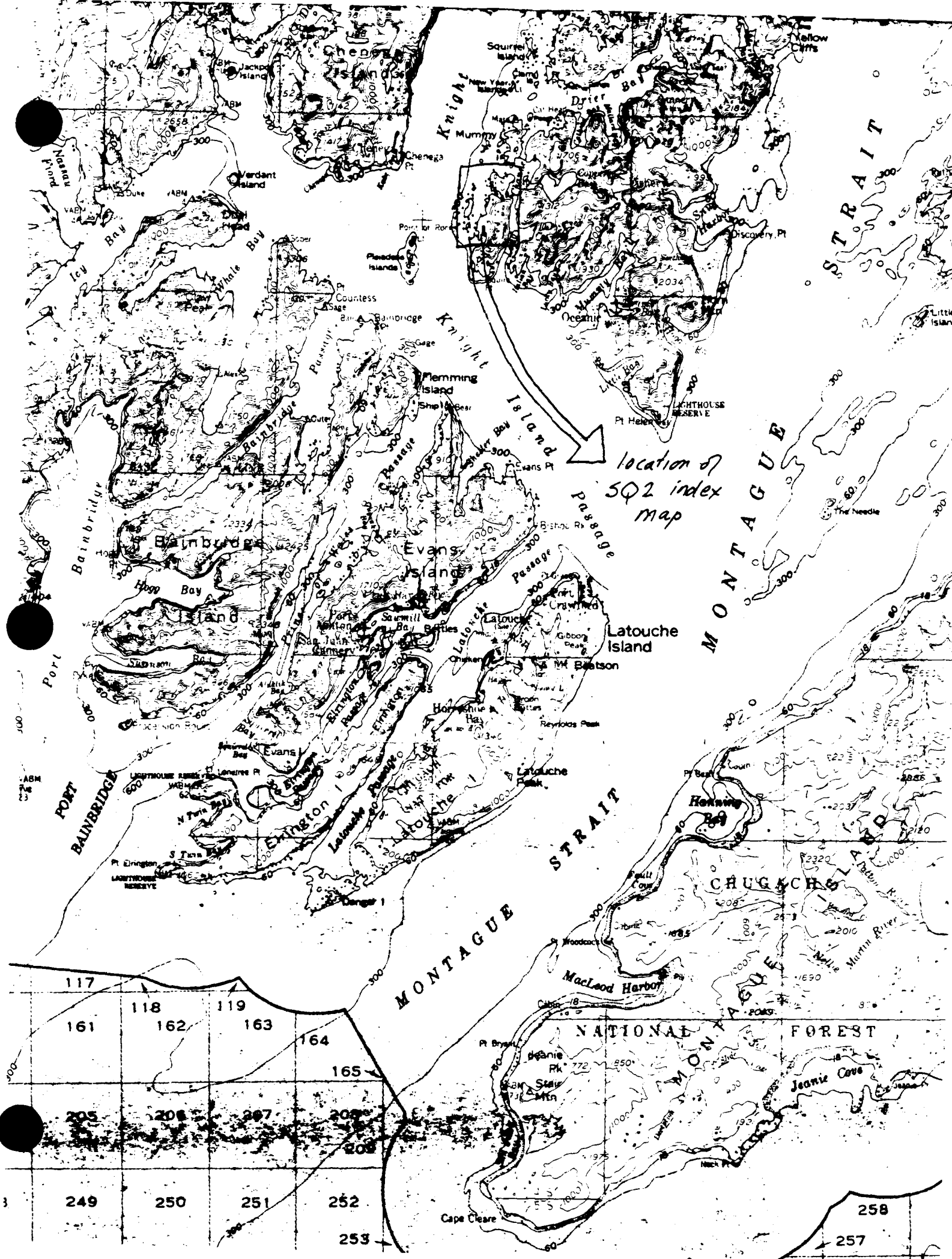
B/W Roll # NONE Frames —

Observer(s) TY L. DILLIPLANE

Time survey started 1310 HRS Time survey ended 1445 HRS

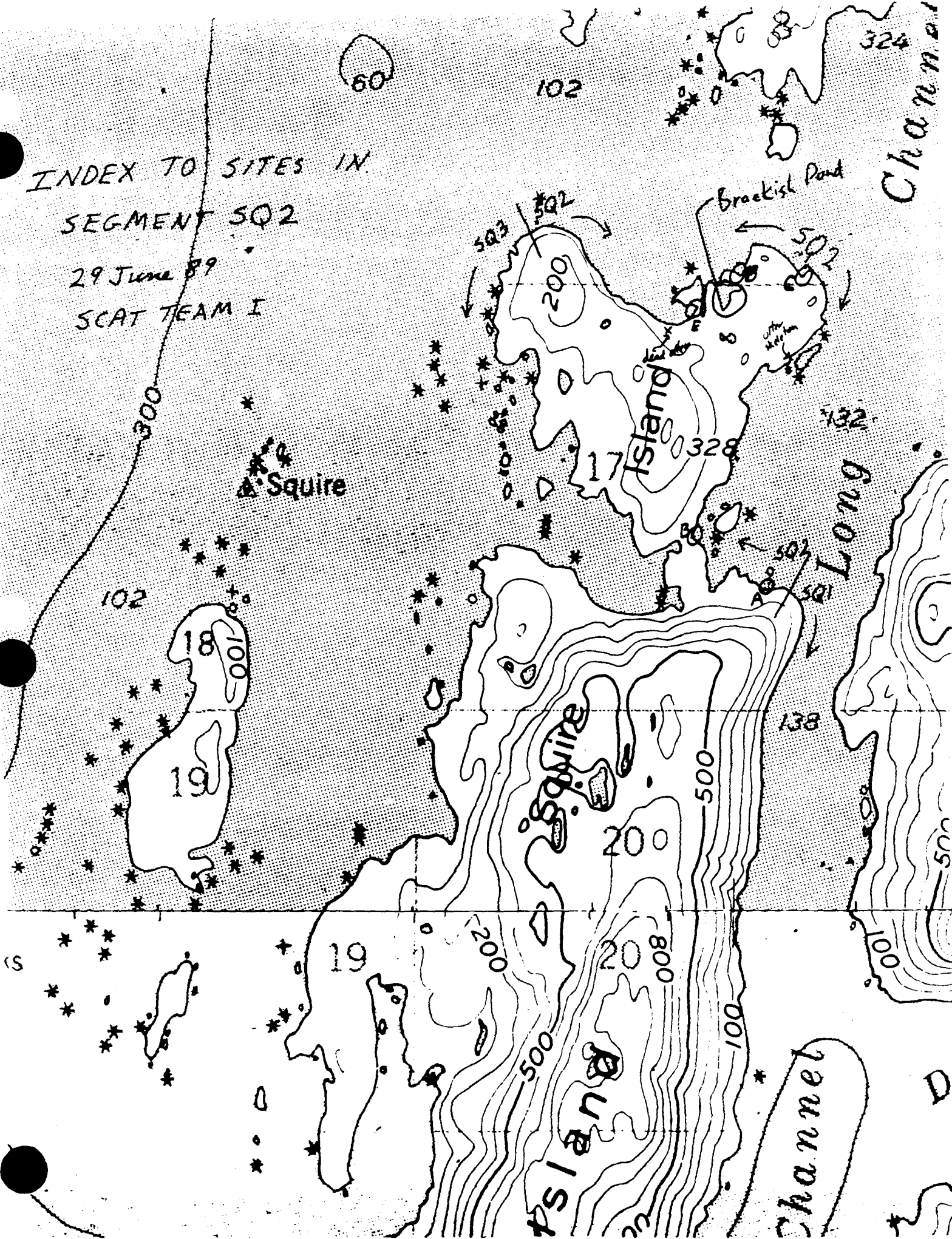
Cultural resource considerations/restraints:

If heretofore undiscovered cultural resources are discovered during any cleanup activities, contact the Exxon archaeological field director, C. Mobley, immediately.



102

SCAT TEAM I



(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 7/10/89

SHORELINE SEGMENT SQ-3

LOCATION: (see enclosed map) Northwest corner of Squire Island.

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

Recommended Cleanup Activity(ies):

- No cleanup recommended at this time (subject to FOSC reassessment at a later date). Very light sporadic tar-like ring on high-angle rocks.

Priorities Considerations:

Class 4-5: Light to no oil.

B: Resources absent.

Ecological Constraints (from site survey):

No ecological constraints, no cleanup 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 date 4/21/89 as amended.

Charles Z. Holmes
State Historic Preservation Officer *

Date: July 12, 1989

ISCC: Shayn K. Christopher

7/21/82

EXXON: [Signature]

Date: 89-07-21

FOSC: C. E. Dobbin

Date: 7/21/89

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

SHORELINE OIL EVALUATION

29-
Date: 30 June 89 Time: 16:45 29 June - 0603, 30 June Observer: Manr
Surveyed From: Foot/Boat/Helio/Plane Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

LOCATION NW coast, Squue Island SEGMENT NUMBER 503

LENGTH OF SHORELINE SEGMENT: 6.4 km

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 5% / G <1% / S 0% / M 0% / R 75%

Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type logs, sea weed

OIL

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

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

Continuous: Y/N % of Segment NA Width of Band: NA m

Sporadic: Y/N % of Segment 10

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

Pooled Oil: 0 % "Free" Oil: 0 % Coated: H % / M % / L <1 %

Fresh 0 % Mousse 0 % Tar Formation: <1 %

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

Comments:

very lightly oiled - intermittent $\pm$ 25 cm oil ring on
high angle rocks; this oil is dry and tar-like

ECOLOGICAL EVALUATION

LOCATION: Squire Is SITE: _____ OBSERVER: A. Jain

LOCATION PREFIX: SQ SEG. NO.: 3 LENGTH: _____ (M)

DATE: 6/29/89 TIME (HHMM): 1045-1500 (2.5 hr)
0442-0600 (30 min) TIDE HT.: -0.3 to +2 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

large sections on bedrock - sparse + patchy on gravel bed of long embayments

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

more dense clumps on exposed rocky shores

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

many newly-settled, but few mature

Littorina

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

abundant, but not dense

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

OTHER OBSERVATIONS: Pemphigus abundant in lower Tidal Zone

CLEANUP PRECAUTIONS: best not to clean this segment - it is essentially clean now.

MAMMALS: Otters 6 Harbor Seals 10 ^(probable haul-out) Sea Lions _____ Whales _____
Other 1 Mink

BIRDS: 1 Eagle, gulls (Littorina) abundant on offshore rocks

GENERAL OBSERVATIONS: very spotty, light oiled, in upper tidal zone

CULTURAL RESOURCE EVALUATION

Date 29³⁰ JUNE 1989 Location SQUIRE ISLAND Site

Location Prefix SQ Segment # SQ-3 Length 6.4 km

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 Very Light to Light Oiling

Width of beach zone surveyed 10m m Tree fringe surveyed up to 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 Primarily rocky w/ small coves - only a few small streams seen & those may be for run-off. Alders, cobble beaches.

Fresh Water Sources See above.

Sea Exposure Mostly exposed to the West

Access/Safety None

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

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

Photos: Color Roll # NONE Frames —

B/W Roll # NONE Frames —

Observer(s) Ty L. DILLIPLANE

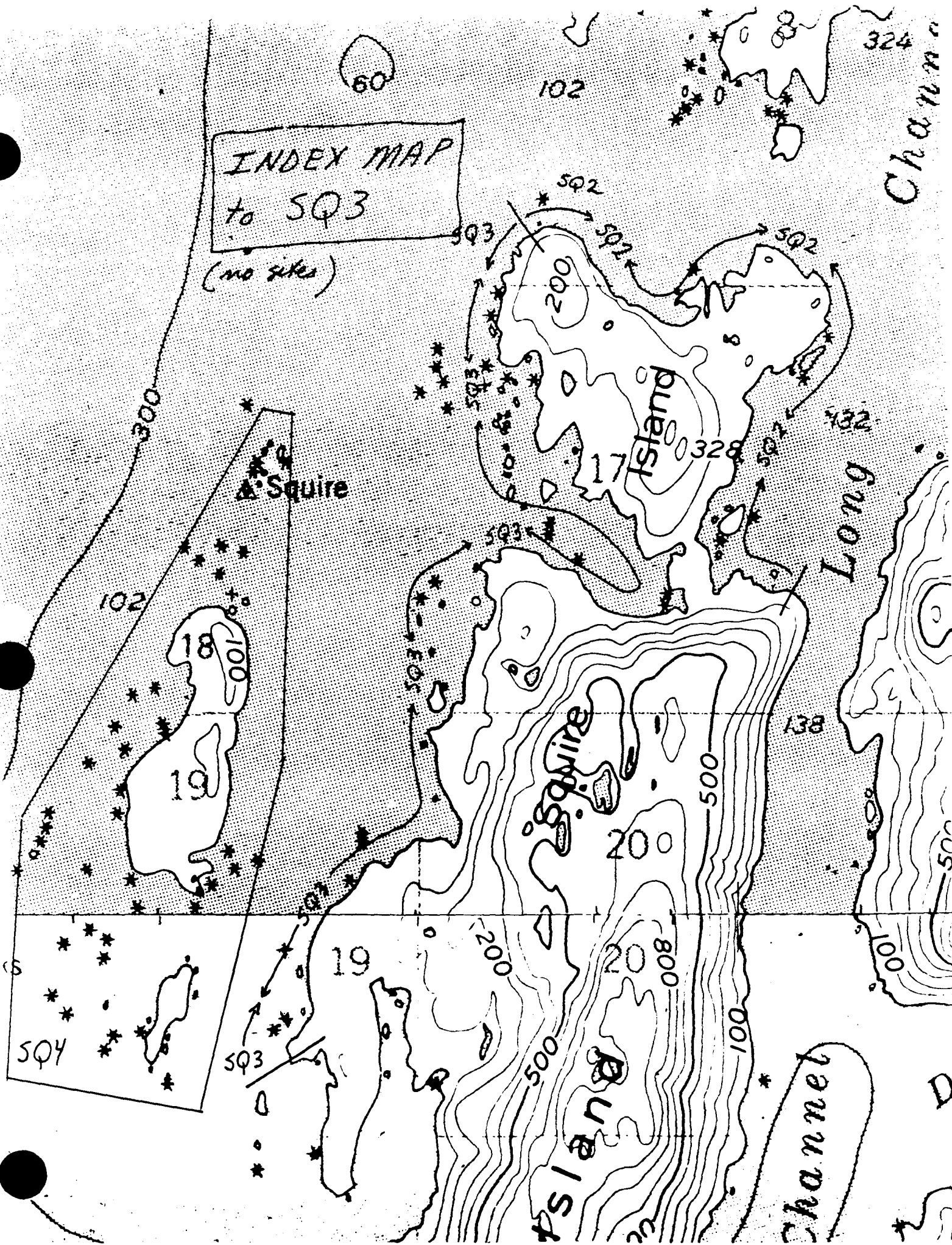
Time survey started 1645, 29 JUNE '89 Time survey ended 0603, 30 June '89

Cultural resource considerations/restraints:

If heretofore cultural resources are found during any clean-up activities, notify Exxon Archaeological Field Director immediately.
(C. Mobley)

INDEX MAP
to SQ3

(no sites)



(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/10/89

SHORELINE SEGMENT SQ-4

LOCATION: (see enclosed map) Northwest side of Squire Island

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/30/89

Recommended Cleanup Activity(ies):

- Manually remove contaminated driftwood and fucus.
- Flood/flush with warm to hot water (up to 140 F) on low angle beaches (SQ-4A).
- Use moderate to high pressure warm to hot water on boulders (SQ-4A).
- Use other approved methods as appropriate.

Priorities Considerations:

Class 2-4: Heavy to light oil.

B: Resources absent.

Ecological Constraints (from site survey):

7/21/89
21
WORK AT MID TIDE + OR TAKE APPROPRIATE MEASURES TO PROTECT LOWER INTERTIDAL ZONE.

Archeological Constraints (from site survey):

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

Charles E. Johnson
State Historic Preservation Officer *

ISCC: Sharon K. Christopher

EXXON: [Signature]

FOSC: [Signature]

Date: July 12, 1989

7/21/89
Date: 89-07-21

Date: 7-21-89

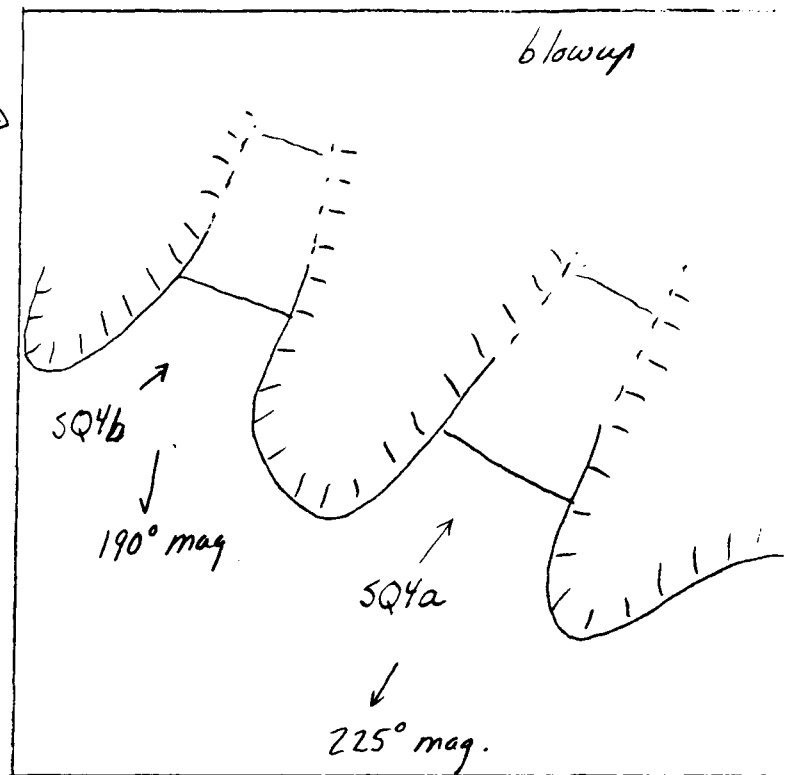
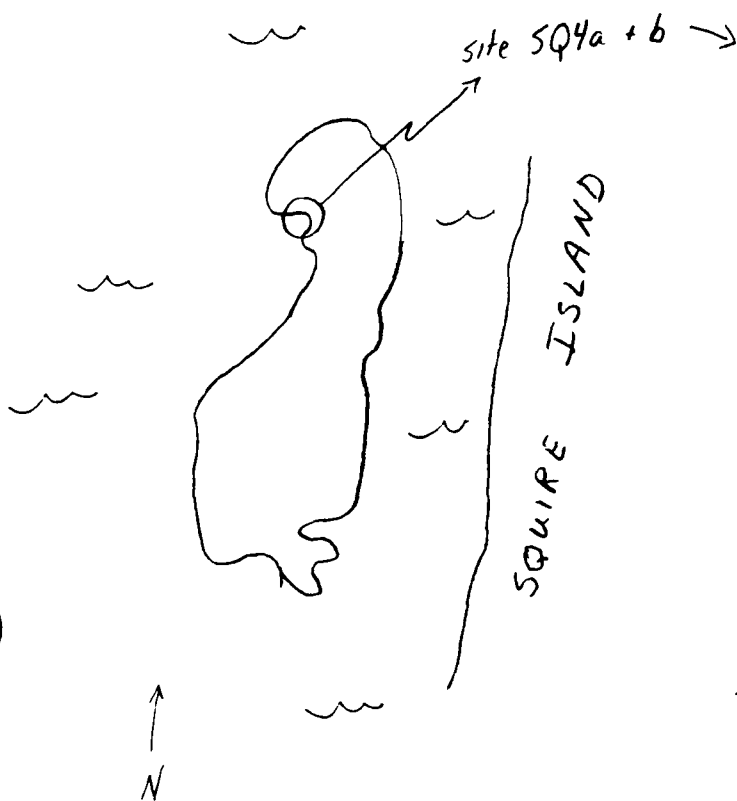
* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATIONDate: 30 June 89 Time: 0603-0933 30 JuneObserver: MannSurveyed From: Foot/Boat/Helio/PlaneWeather: Sun/Cloud/Rain/Snow/FogLOCATIONLOCATION 2 islands (unnamed) off of NW end of
Squire IslandSEGMENT NUMBER 504LENGTH OF SHORELINE SEGMENT: 4.5 km mACCESS: Foot/Vehicle/Boat/Barge/Helio/Float PlaneSHORELINE:Shoreline Type: SPI/BEA/COV/HLD/STRTSlope: LANG/HANG/VERWave Exposure: High/Med/LowSediment: B 25% / C 10% / P 4% / G <1% / S 0% / M 0% / R 60%Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type logs, sea weedOILDegree of Oiling: Heavy/Moderate/Light/No Oil/UnobservedArea of Beach Impact: SU / SP / H / M / LContinuous: Y/N % of Segment 50% Width of Band: 1-2 mSporadic: Y/N % of Segment 50%Est. Oil Thickness where > 1cm: NA cm Est. Oil Penetration: 2-5 cmPooled Oil: 0% "Free" Oil: 0% Coated: H 10% / M 40% / L 50%Fresh 0% Mousse <5% # Tar Formation: 100%Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H/M/L

Comments:

(see sketch maps of sites 504a and 504b for
specifics of oiling on the only 2 places where
cleanup recommended)

segment SQ4

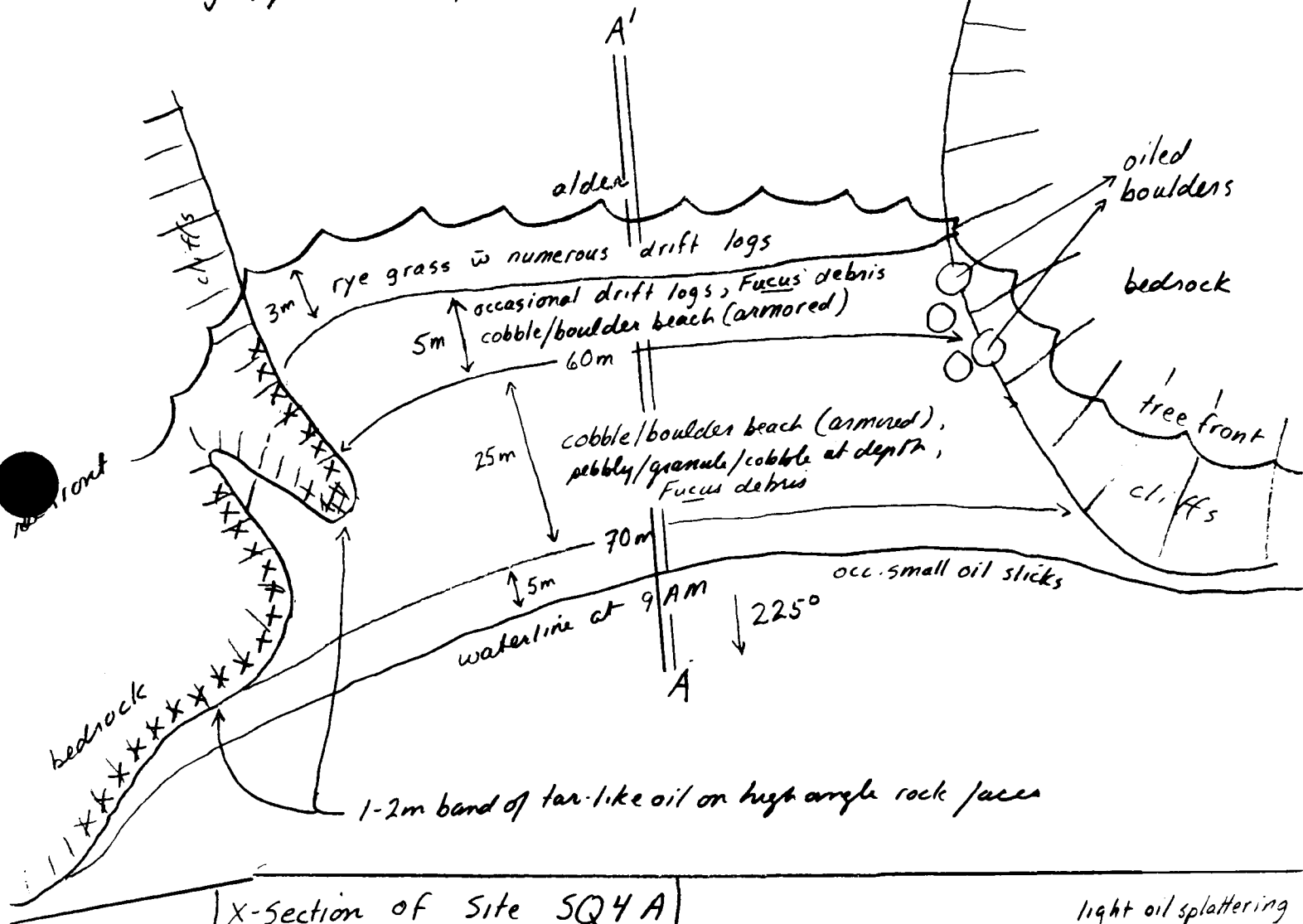


Site SQ4A

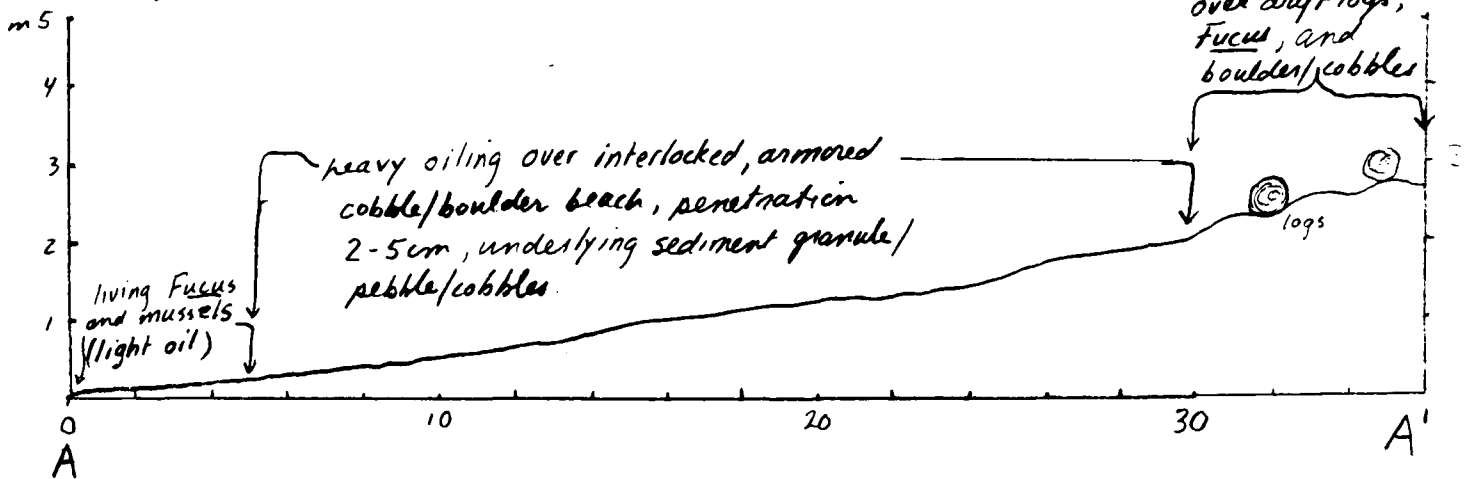
30 June 89

recommendations

- < manual cleanup of oiled logs, Fucus, etc (manual removal + driftwood removal)
- < use of sorbents prob. not practical due to tarry condition
- < use of warm water/moderate-to-high pressure probably justified because of stickiness of oil



X-Section of Site SQ4A

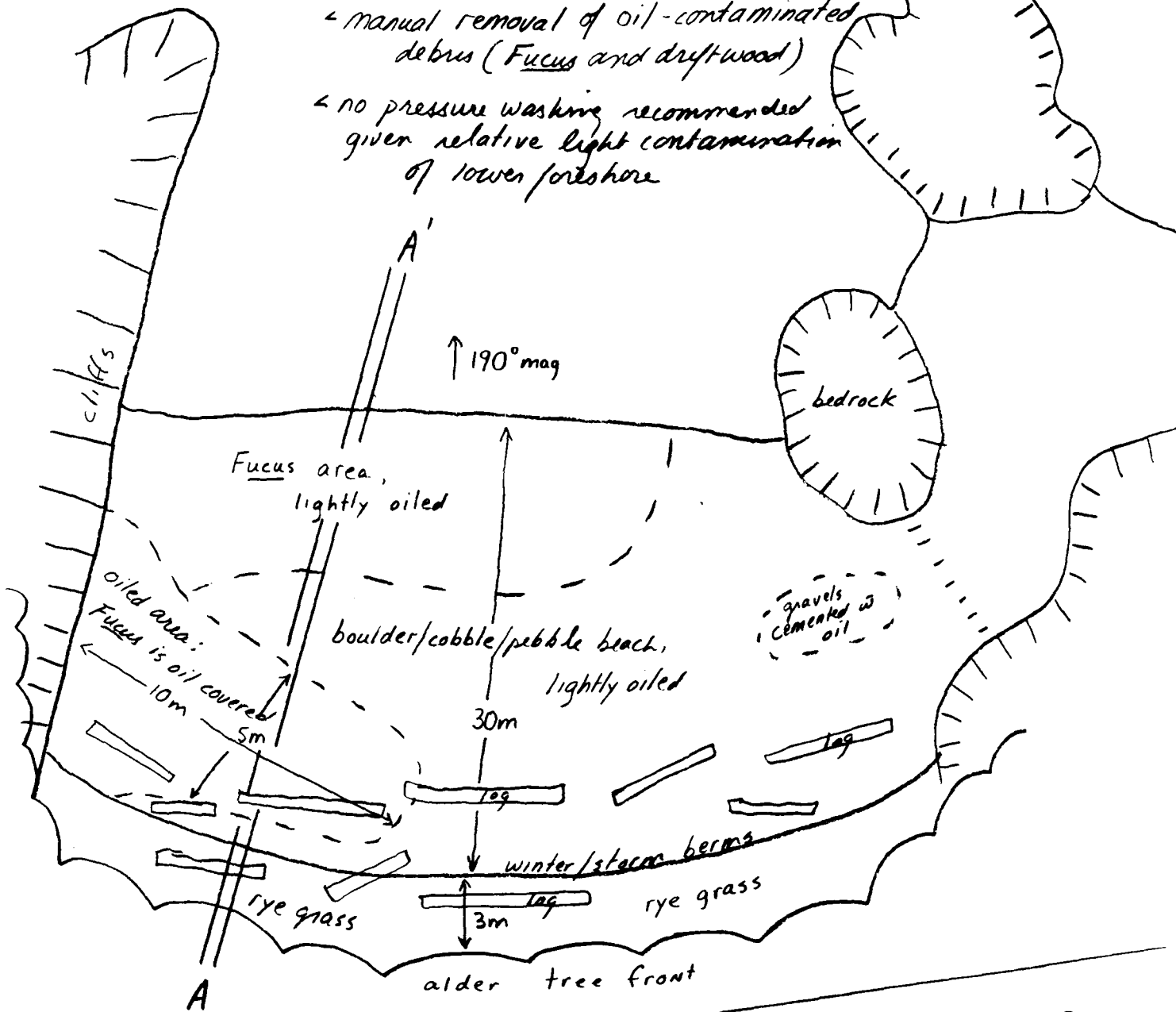


Site SQ4B

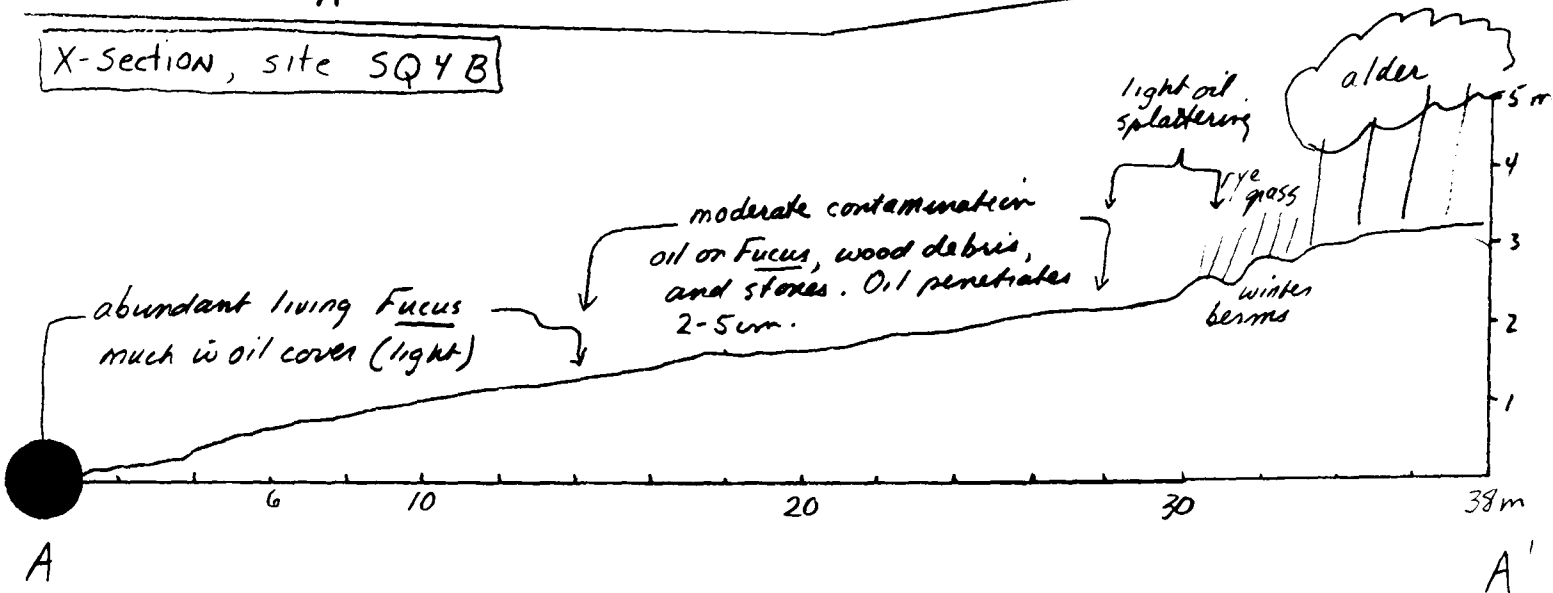
rock

recommend

- manual removal of oil-contaminated debris (Fucus and driftwood)
- no pressure washing recommended given relative light contamination of lower foreshore



X-section, site SQ4B



ECOLOGICAL EVALUATION

LOCATION: Squire Is (offshore islets to west) SITE: _____ OBSERVER: A JAHN

LOCATION PREFIX: 8SQ SEG. NO.: 4 LENGTH: _____ (M)

DATE: 6/30/89 TIME (HHMM): 0610-0930 TIDE HT.: -0.3 to +1 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

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

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

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
oiled limpets on clean rock, SE corner of south island

OTHER OBSERVATIONS: peat soil ponds, SE end of north island - sticklebacks.
400m long x ~50m wide bedrock bench w/ tide pools, mussel beds SW quarter of north island
Beach oiled bench, NW corner of north island

CLEANUP PRECAUTIONS: none

MAMMALS: Otters 6 Harbor Seals 2 Sea Lions _____ Whales _____
Other _____

BIRDS: 1 eagle

GENERAL OBSERVATIONS: _____

CULTURAL RESOURCE EVALUATION

Date 30 JUNE 1989 Location (2 islands (unnamed) off of NW end of Squire Island) Site
Location Prefix SQ Segment # SQ-4 Length 4.5 Km

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 oiling w/ rare pockets of moderate to heavy.

Width of beach zone surveyed 5-15 m Tree fringe surveyed Up to 10 m

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 No freshwater streams seen and no particularly good beach lines noted for village sites. Shore characterized by rocky beaches and thick tree fringes.

Fresh Water Sources See Above.

Sea Exposure Light to Moderate

Access/Safety None

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 # None Frames

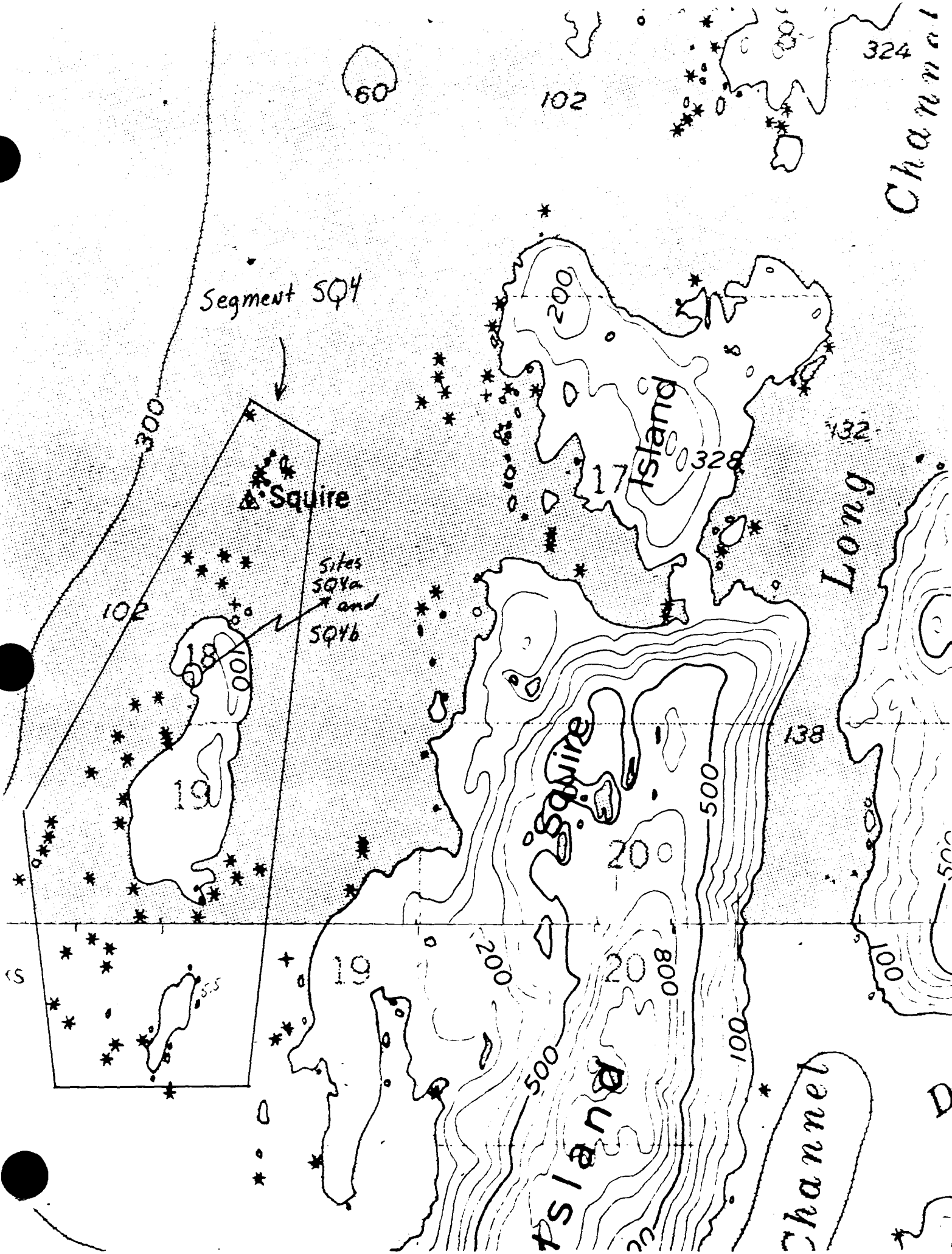
B/W Roll # None Frames

Observer(s) Ty L. DILLIPLANE

Time survey started 0603 hr Time survey ended 0933 hr

Cultural resource considerations/restraints:

If heretofore undiscovered cultural resources are found during any clean-up activities, notify the Exxon Archaeological Field Director, C. Mobley, immediately.



(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/10/89

SHORELINE SEGMENT SQ-5

LOCATION: (see enclosed map) Southwest shore of Squire Island

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/1/89

Recommended Cleanup Activity(ies):

- Manually remove contaminated driftwood and fucus.
- Flood/flush with warm to hot water (up to 140 F) on low angle beaches (SQ-5A)
- Use moderate to high pressure warm to hot washing on rock (SQ-5A).
- Use other approved methods as appropriate.

c 7/21/89
89-07-21
Priorities Considerations: CLASS 4 - LIGHT OIL
RESOURCES PRESENT

Ecological Constraints (from site survey):

Work at mid tide + or take appropriate measures to protect lower intertidal zone. Avoid oiling the clean fucus and associated biota along SQ-5A.

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. Hines
State Historic Preservation Officer *

ISCC: Sharon K. Christopher

EXXON: [Signature]

FOSC: [Signature]

Date: July 12, 1989

7/21/89

Date: 89-07-21

Date: 7/21/89

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

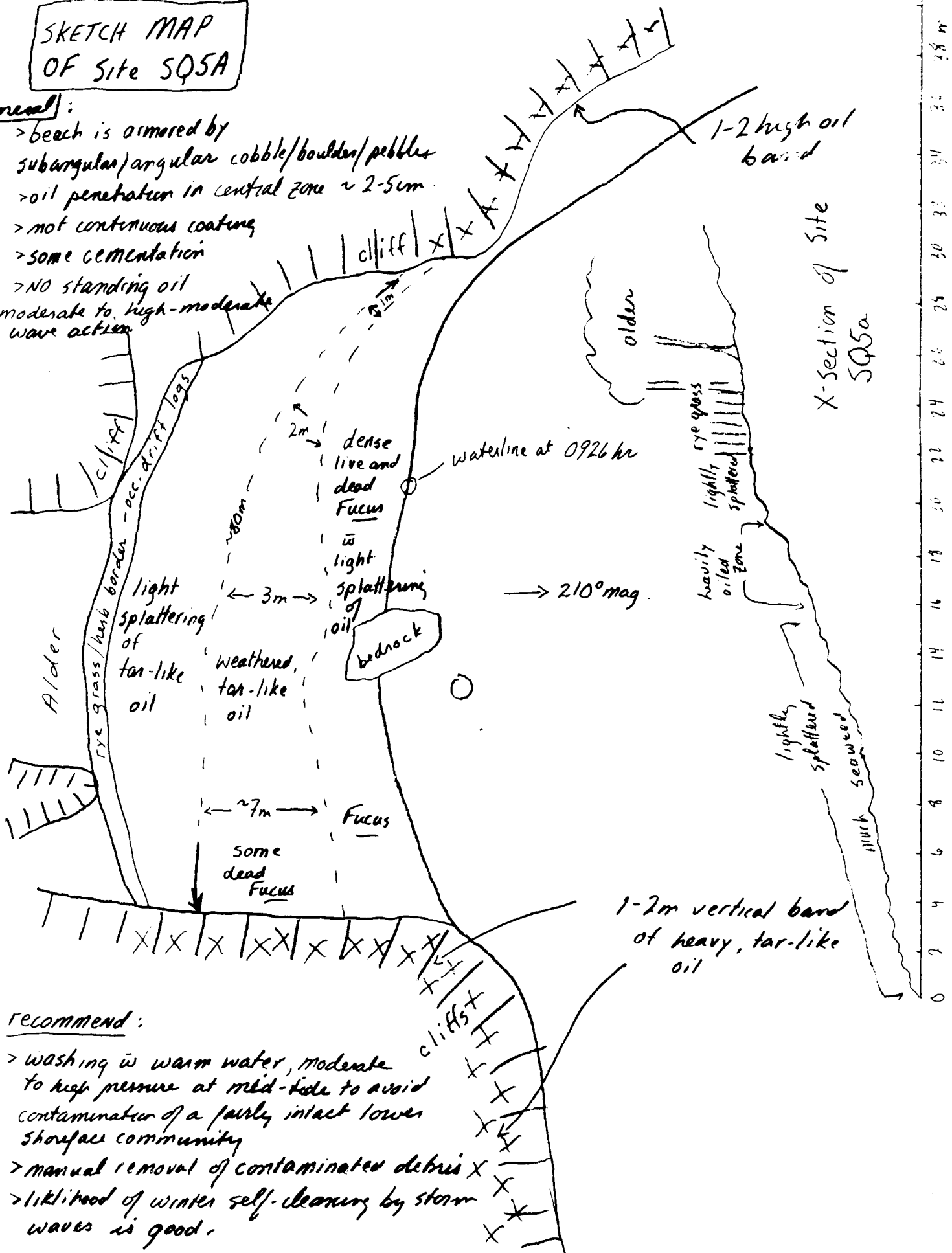
SHORELINE OIL EVALUATIONDate: 1 July 89 Time: 0602 - 1000hrObserver: MannSurveyed From: Foot/Boat/Helio/PlaneWeather: (Sun/Cloud/Rain/Snow/Fog)LOCATIONLOCATION SW side of Squire Island SEGMENT NUMBER 5Q5LENGTH OF SHORELINE SEGMENT: 6.4 Km mACCESS: (Foot/Vehicle/Boat/Barge/Helio/Float Plane)SHORELINE:Shoreline Type: SPI/BEA/COV/HLD/STRTSlope: (LANG/HANG/VER)Wave Exposure: High/Med/Low → relative high for PWSSediment: B 10 % / C 10 % / P 5 % / G 4 % / S 0 % / M 0 % / R 75 %Drift Debris on Beach: Yes/NoSupra/Upper/Mid/Lower Type logs
seaweedOILDegree of Oiling: Heavy/Moderate/Light/No Oil/UnobservedArea of Beach Impact: SU / (SP / H / M) / LContinuous: (Y/N) % of Segment < 5 % Width of Band: 1 - 3 mSporadic: (Y/N) % of Segment 95 %Est. Oil Thickness where > 1cm: NA cm Est. Oil Penetration: 2-5 cmPooled Oil: 0 % "Free" Oil: 0 % Coated: H 4 % / M 50 % / L 50 %Fresh 0 % Mousse < 1 % Tar Formation: 99 %Drift Debris Oiled ? (Yes/No) Supra/Upper/Mid/Lower Amount: H/M/LComments:

This segment is generally very lightly to lightly oiled.
The only beach with moderate contamination is
described as Site 5Q5a on attached sketch map.

SKETCH MAP OF Site SQ5A

general:

- > beach is armored by subangular/angular cobble/boulder/pebbles
- > oil penetration in central zone ~ 2-5cm
- > not continuous coating
- > some cementation
- > NO standing oil
- > moderate to high-moderate wave action



recommend:

- > washing in warm water, moderate to high pressure at mid-tide to avoid contamination of a fairly intact lower shoreface community
- > manual removal of contaminated debris
- > likelihood of winter self-cleaning by storm waves is good.

ECOLOGICAL EVALUATION

LOCATION: Squire Island SITE: SW Shore OBSERVER: MEYER

LOCATION PREFIX: 5Q SEG. NO.: 5 LENGTH: 2400 (M)

DATE: 07 / 01 / 89 TIME (HHMM): 0600 TIDE HT.: -1.0 FT (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

Site A (oiled area) - ^{patches of} sparse fucus heavily oiled; healthy un-oiled fucus in mid-low tide zone below oiled area

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

Mytilus throughout gravel/puddle beaches on parts of segment, some denser beds on rocks; many open in un-oiled areas. (→ winter kill)

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

^{No spot in Site A}
Acorn barnacles common, spot occasional; Site A: few barnacles in oiled zone, most un-oiled and healthy in W2/W3

Littorina

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

^(sparse) Littorina in both oiled and un-oiled fucus, ^(abundant) Littorina abundant in patches on cobble; Nucella patchy; many empty nucella shells at Site A (un-oiled). 1 Semostella.

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

Fairy common @ lower tide zone, present throughout intertidal — not oiled & healthy.

OTHER OBSERVATIONS: ^(leather star) 2 Eagles + NEST @ Squire Point; Diverse seastars, pycnogonids and dermatarians very abundant ^(6-ray star)

in patches; Leptasterias common under rocks at Site A, occasionally in oiled zone; Eusasterias, Pycnogonids also present. Hermit crabs abundant in brackish area, occasional tide pools with ammonites.

CLEANUP PRECAUTIONS: Protect un-oiled fucus and associated biota when cleaning Site A, preferably working only when un-oiled area is covered with water.

MAMMALS: ^{Sea} Otters 1 Harbor Seals 1 Sea Lions 4 Whales 0
Other MINK-1 Near Segment: 2 deer swimming in water

→ In the Intertidal Area

BIRDS: ♀ Common Merganser w/ 2 chicks; ♀ Common Merganser; 10 Black-legged Kittiwakes; total eagles (1 immature); Stellar Jay - 1
Hermit Thrush - 2; Varied Thrush - 1; Oystercatchers - 2;

GENERAL OBSERVATIONS: Most of segment is free of oil or lightly oiled with little impact to biota.

Only Site A (see map) is recommended for cleanup.

CULTURAL RESOURCE EVALUATION

Date 1 JULY 1989 Location JALIFE ISLAND Site _____

Location Prefix 8Q Segment # 8Q-5 Length 6.4 Km.

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 VERY LIGHT TO LIGHT OILING

Width of beach zone surveyed 1-35 M m Tree fringe surveyed Up to 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 ROCKY, COBBLED BEACH. FRINGED W/ USUAL DENSE VEGETATION. NO STREAMS OF ANY SIGNIFICANCE SEEN. MANY PROTECTED COVES

Fresh Water Sources NOTHING SIGNIFICANT.

Sea Exposure EXPOSED TO THE SOUTH WEST.

Access/Safety NONE

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 # NONE Frames _____

B/W Roll # NONE Frames _____

Observer(s) Ty L. DYLLPANE

Time survey started 0602 HRS Time survey ended 1000 HRS

Cultural resource considerations/restraints:

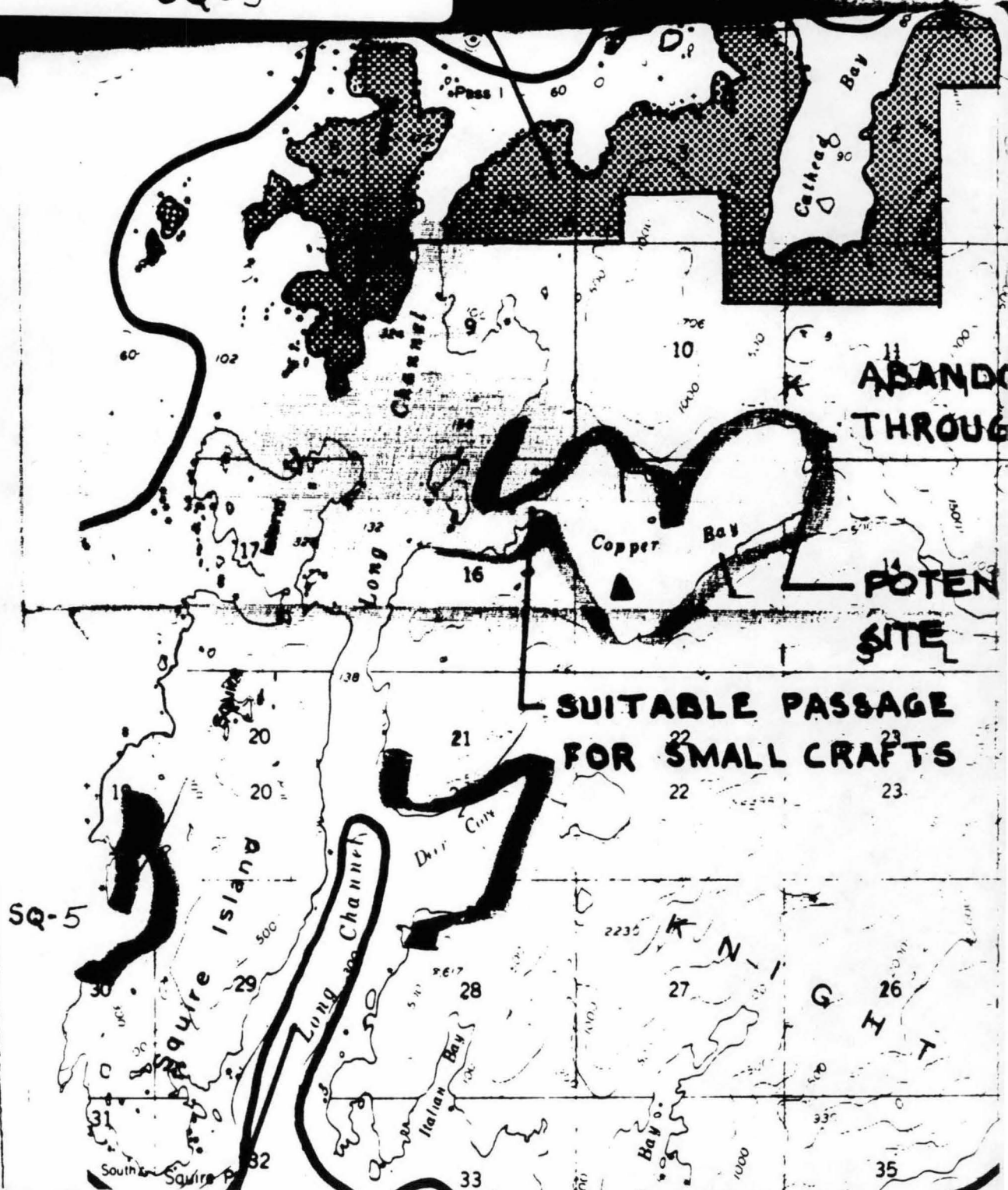
IF HERETOFORE UNDISCOVERED CULTURAL MATERIALS ARE FOUND DURING CLEANUP, CONTACT EXXON ARCHAEOLOGICAL DIRECTOR, C. NOBLEY, IMMEDIATELY.

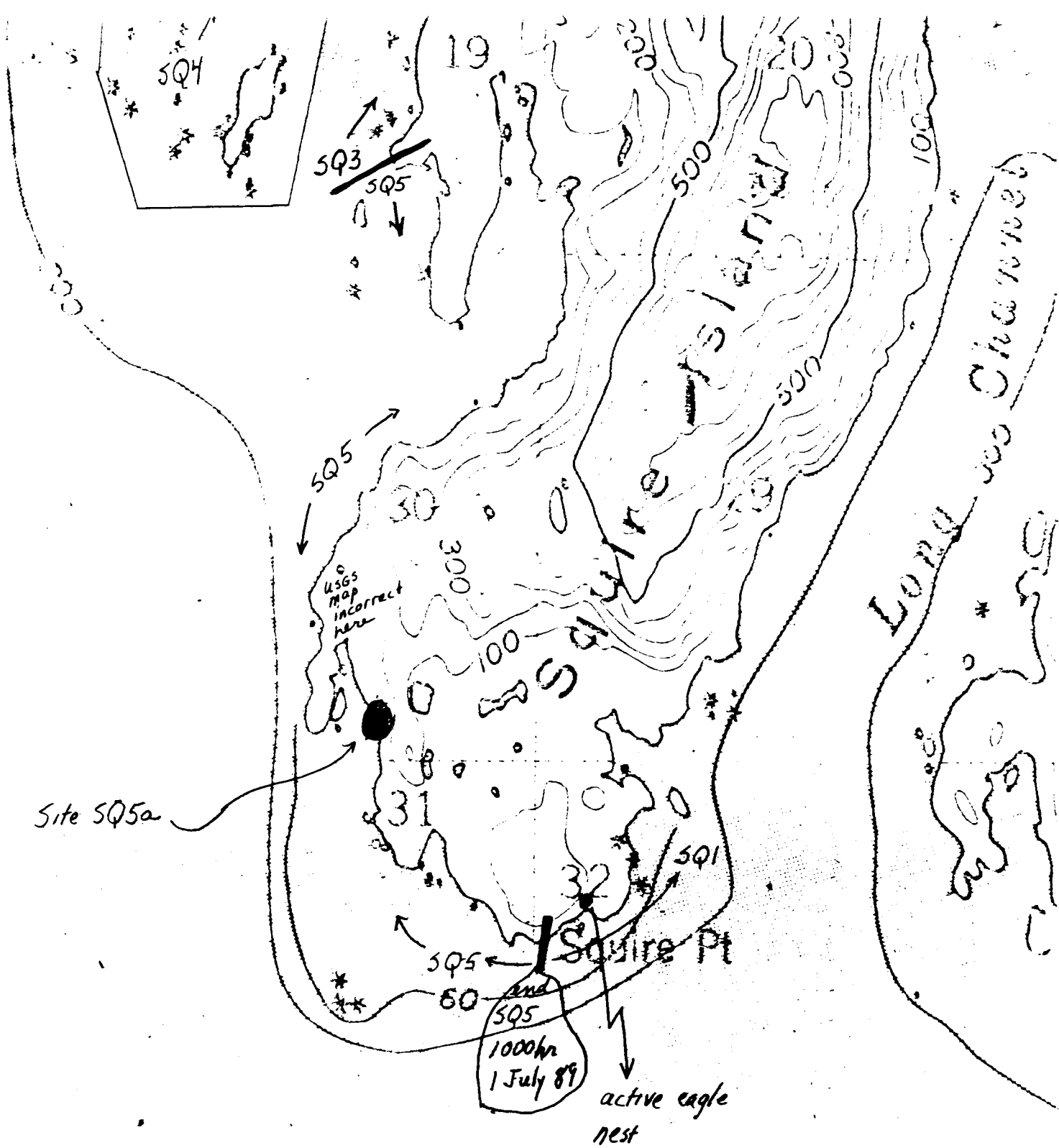
LES (TOPOGRAPHIE)



MEDIUM
RECREATIONAL
USE

SQ-5





INDEX MAP TO SEGMENT

SQ5

(1 July 89)

TREATMENT MANUAL, 6/15/89

SEG SQ-2 INSPECTION # 1

SEGMENT

DATE 7/29/89

INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

☐

Hot water wash

☐

Mechanical

☐

Warm water wash

☒Non-mechanical FOR-PON IN ISOLATED AREA☐

Water deluge

☒Other HAND WIPING

Exxon

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

Comments TREATMENT OF SEGMENT SQ-2 IS COMPLETEREADY FOR DEMOBILIZATION + DEPLOYMENT TO A NEW SEGMENTSignature J. C. PATICELLODate: 7/28/89 Time: 8:01 PMPrinted Name JAMES C. PATICELLO

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil

Percent Degree of Oiling

Subsurface Oil

☒ Yes☐ No

_____	Heavy
<u>10%</u>	Medium
<u>30%</u>	Light
<u>3%</u>	Very Light
<u>93%</u>	None

100 %

Comments SOME MINOR SUBS-
OIL @ GRAVEL / CORALS AREA
OIL SPORADIC ALONG SEAWALL

Reassessment

☒

Yes - necessary

☐

No - not necessary unless re-oiled

ADEC rep Comments ADEC NOT PRESENT DURING INSPECTION.

Signature _____

Date: / / Time: _____

Printed Name _____

FOSC rep

DEMobilization FOR-PON APPROVEDDemobilization approved / disapproved

Comments MUST REMOVE MINOR AMT OF DEBRIS @ EAST END
OF SEGMENT IDENTIFIED DURING INSPECTION.

Signature Thomas D. [Signature]Date: 7/28/89 Time: 2015

Printed Name _____

TREATMENT MANUAL, 6/15/89

SEG SQ-3 INSPECTION # 1

SEGMENT

DATE 7/26/89

INSPECTION RECORD

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 NO CLEANUP REQUIRED

Signature

J C PINTICELLODate: 7/26/89 Time: 6:42 PM

Printed Name

JOHN C. PINTICELLO

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil

Subsurface Oil

Percent Degree of Oiling

☐ Yes☒ No

Heavy

Medium

Light

Very Light

None

100 %

Comments None observed.

Reassessment

☐

Yes - necessary

☐

No - not necessary unless re-oiled

ADEC rep

Comments

ADEC NOT PRESENT

Signature

Date: / / Time:

Printed Name

FOSC rep

MOBILIZATION NOT REQUIRED @ THIS TIMEDemobilization approved/disapprovedComments BEIF SURVEY CONSISTENT W/ SAT REPORT - NOADDITIONAL OIL OBSERVED WORK NOT REQUIRED @ THIS TIME

Signature

Thomas D. HarrisonDate: 7/26/89 Time: 1905

Printed Name

THOMAS D. HARRISONLT USCG

SEG SQ-4 INSPECTION # 1
DATE 8/3/89SEGMENT
INSPECTION RECORD

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 TREATMENT OF SEGMENT SQ-4 IS COMPLETE
READY FOR DEMOB AND DEPLOYMENT TO NEW SEG.
 Signature Richard C. Harrelson Date: 8/3/89 Time: 1920
 Printed Name Richard C. Harrelson

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil		Subsurface Oil
Percent	Degree of Oiling	☐ Yes ☒ No
<u>0</u>	Heavy	Comments _____ _____ _____ _____ _____
<u>0</u>	Medium	
<u>5</u>	Light	
<u>5</u>	Very Light	
<u>90</u>	None	
100 %		

Reassessment

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

ADEC rep Comments Concur w/ 7% and demobilization. No gross
contamination, 10% of whole segment was oiled.
Move to heavier oiled segment.

Signature Denny R. Timmons Date: 8/3/89 Time: 1910
 Printed Name Denny R. Timmons, Env. Engr., ADEC

FOSC rep

Demobilization approved / disapproved
 Comments No Gross Contamination, Very
little oiled area
 Signature Arthur J. Smith Date: 8/3/89 Time: 1906 hrs
 Printed Name Arthur J. Smith LTJ5

SEG SQ-5 INSPECTION # 1DATE 8/3/89SEGMENT
INSPECTION RECORD

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 Treatment of Segment SQ-5 is complete
Ready for demob and deployment to new seg

Signature

Richard C. HarrisonDate: 8/3/89 Time: 19:02

Printed Name

Richard C. Harrison

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil

Percent Degree of Oiling

0

Heavy

0

Medium

20

Light

0

Very Light

80

None

100 %

Subsurface Oil



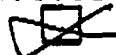
Yes



No

Comments

Reassessment



Yes - necessary



No - not necessary unless re-oiled

ADEC rep

Comments Concur w/ 7% and demobilization. No gross
oil contamination on segment. Light oiling in bands
and patches. Recommend moving to heavily oiled segment

Signature

Denny R. TimmonsDate: 8/3/89 Time: 19:10 hrs

Printed Name

Denny R. Timmons, Envir. Engr, ADEC

FOSC rep

Demobilization approved/disapproved

Comments

No Gross ContaminationSome areas asphalted in sand

Signature

Arthur J. SmithDate: 8/3/89 Time: 19:08 hrs

Printed Name

Arthur J. Smith LTJG

(version 5/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): PLEIADES ISLANDS BLOCK

Includes Shoreline Segments: PL-01

Submitted :

(for Exxon)

WFW/Isbump

Date:

8-4-89

ISCC Recommendation:

Sharon K. Christopherson

Date:

8-9-89

FOSC Approval:

[Signature]

Date:

8-12-89

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

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 8/03/89 SHORELINE SEGMENT PL-01

LOCATION: (see enclosed map) PLEIADES ISLANDS

(Pleiades Islands Block)

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 8/02/89

Recommended Cleanup Activity(ies):

- Flood/flush with warm to hot water (up to 140 F) on low angle beaches.
- Use moderate to high pressure washing on rocks.
- Use other approved methods as appropriate.

Priorities Considerations:

Class 2-4: Heavy to light oil

Class A: Resources present

Ecological Constraints (from site survey): Work at mid tide + or take appropriate measures to protect lower intertidal zone. A seabird colony is located on the southern end of this segment. SEE SEABIRD ADVISORY.

Archeological Constraints (from site survey):

If heretofore undiscovered cultural materials are uncovered during cleanup, 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: August 4 '89

ISCC: Shayne K. Christopher

Date: 8-9-89

EXXON: David S. Tipton

Date: 8-9-89

FOSC: E. C. C. C.

Date: 8-12-89

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

SHORELINE OIL EVALUATION

Date: 8/2/89 / Time: 08:10

Observer: Mike Foget

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

LOCATION Pleiades Islands

SEGMENT NUMBER PL-01

LENGTH OF SHORELINE SEGMENT: 300 m

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

Caution, shallow rocks surround Island

SHORELINE:

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

Slope: LANG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B 10 % / C — % / P — % / G 5 % / S — % / M — % / R 85 %

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 maximum

Continuous: Y/N % of Segment 5 Width of Band: 15 m

Sporadic: Y/N % of Segment 15

Est. Oil Thickness where > 1cm: — cm Est. Oil Penetration: max > 20 cm

Pooled Oil: — % "Free" Oil: — % Coated: H — % / M — % / L 15 %

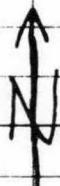
Fresh — % Mousse 5 % Tar Formation: 80 %

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

Comments:

The Pleiades consist of 5 larger rocky Islands with some outlying smaller rock Islands which lay just offshore. Island 4 + 5 are relatively clean with only a few tar splashes observed. Island 1 and 2 have some moderate oiling (see map). Island 3 has the heaviest oiling which is located at the center of the Island. Clean up is recommended for heavy oiling located on Island 3 and moderate oiling on Islands 1 and 2 (see map).

— Oil present



Island 5

Island 4

Discontinuous light oiling

Island 3

Pocket beach w/ Heavy oiling
15m band

Island 2

Moderate oil film band
in the HITZ

Island 1

Pocket beach

Heavy oiling, 15m band

LITZ to the HITZ

Gravel, rock beach

Penetration > 20cm

Oil sheen present on
water

Pocket beach

Moderate oiling in the
HITZ, 2m band

Boulder cobble beach

light tar band 0.5m wide in
the + HITZ

ECOLOGICAL EVALUATION

LOCATION: Pleiades SITE: _____ OBSERVER: Crank
 LOCATION PREFIX: PL SEG. NO.: 01 LENGTH: 3000 (M)
 DATE: 08/12/89 TIME (HHMM): 0810 TIDE HT.: -2 ft ~~FM~~
 OILED ZONE: Splash High Medium Low *Moderate on or around 1.*
Moderate to heavy on island 2.
 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 and continuous on beaches. Moderate and dense patches on vertical rock faces.
Moderately to heavily oiled on Island 3 beach 20-40% mortality.

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 *Moderate*

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

OTHER OBSERVATIONS: Dense patches of sea stars and anemones
Edgrass and Kelp beds around island

CLEANUP PRECAUTIONS: Use appropriate methods to protect the
lower intertidal zone.

MAMMALS: Otters 2 Harbor Seals 1 Sea Lions _____ Whales _____
 Other _____

BIRDS: Crows, Pigeon Guillemots, Arctic Terns, 4 shore birds Black Turnstone (?)

GENERAL OBSERVATIONS: _____

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 5/2/89 Location P. leader Site 3.0 CW
Location Prefix PL Segment # PL-01 Length 2.3 km

Survey Method:

Air _____ (A - indicate on map) Boat ✓ _____ (A - indicate on map)
Ground ✓ _____ (G - indicate on map)

Known cultural resources (AHRS #) None Data Source None

Oil conditions/beach visibility moderate to heavy on beach

Width of beach zone surveyed 5-8 m Tree fringe surveyed 10m

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) CMT?

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

Shore Profile Pocket beaches and vertical walls

Fresh Water Sources none

Sea Exposure open in all directions

Access/Safety difficult

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 _____

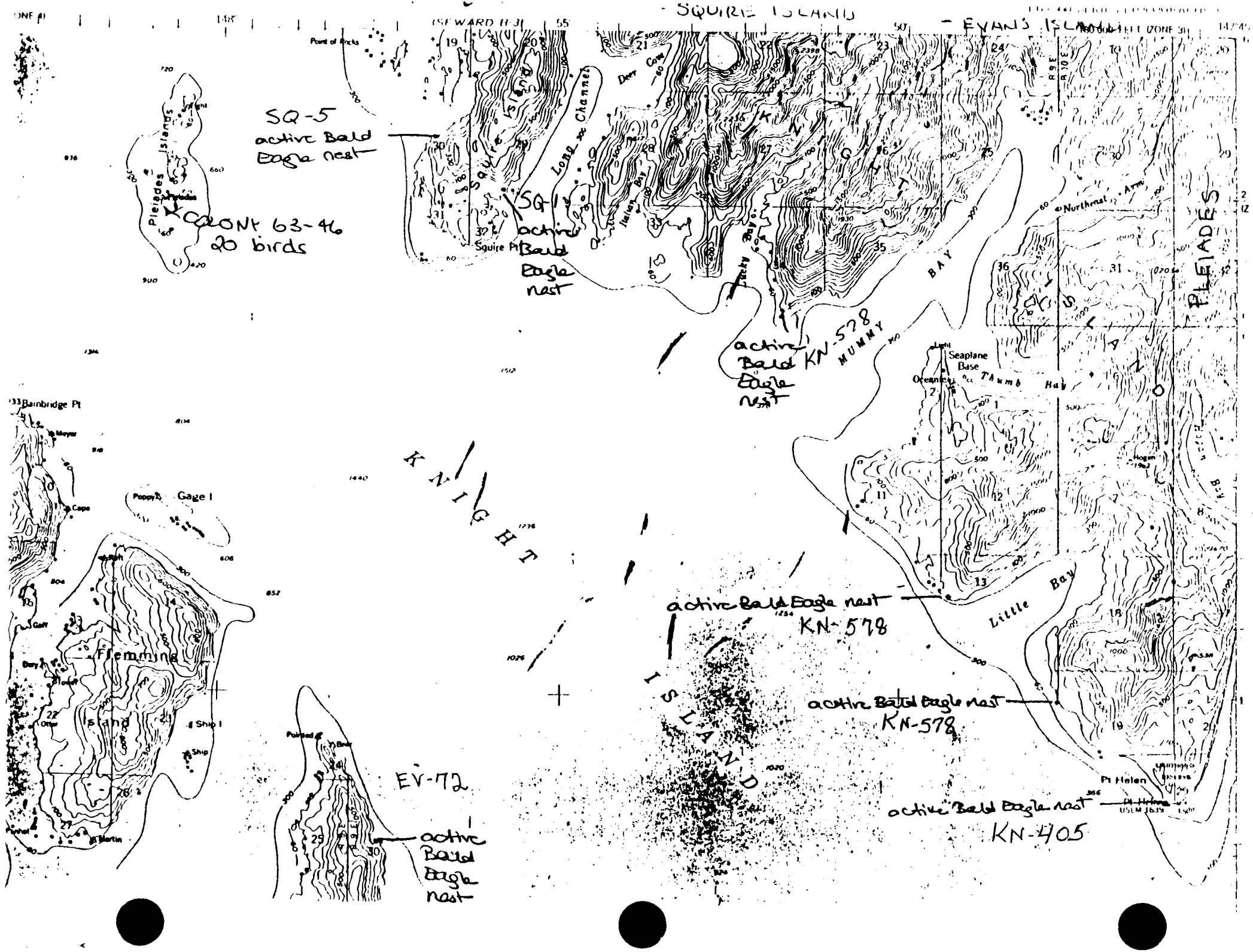
Observer(s) C. Nelson

Time survey started 0810 Time survey ended 0930

Cultural resource considerations/restraints:

Standard

14749



PL-01

Pleiades
Island

