[Shoreline evaluations, 1989].

Volume 17

Elrington Island

Title supplied by cataloger. This title page is supplied by Alaska Resources Library and Information Services (ARLIS).

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): ELRINGTON ISLAND NORTHWEST BLOCK

Includes Shoreline Segments: ER-01, ER-02, ER-03, ER-04, ER-05, ER-06, ER-07

Submitted: Jerry H Barley (for Exxon) Date: 6-29-89

ISCC Reccomendation: Jacquelin Michel Date: 7/5/89

FOSC Approval: J S Robbins Date: 7/6/89

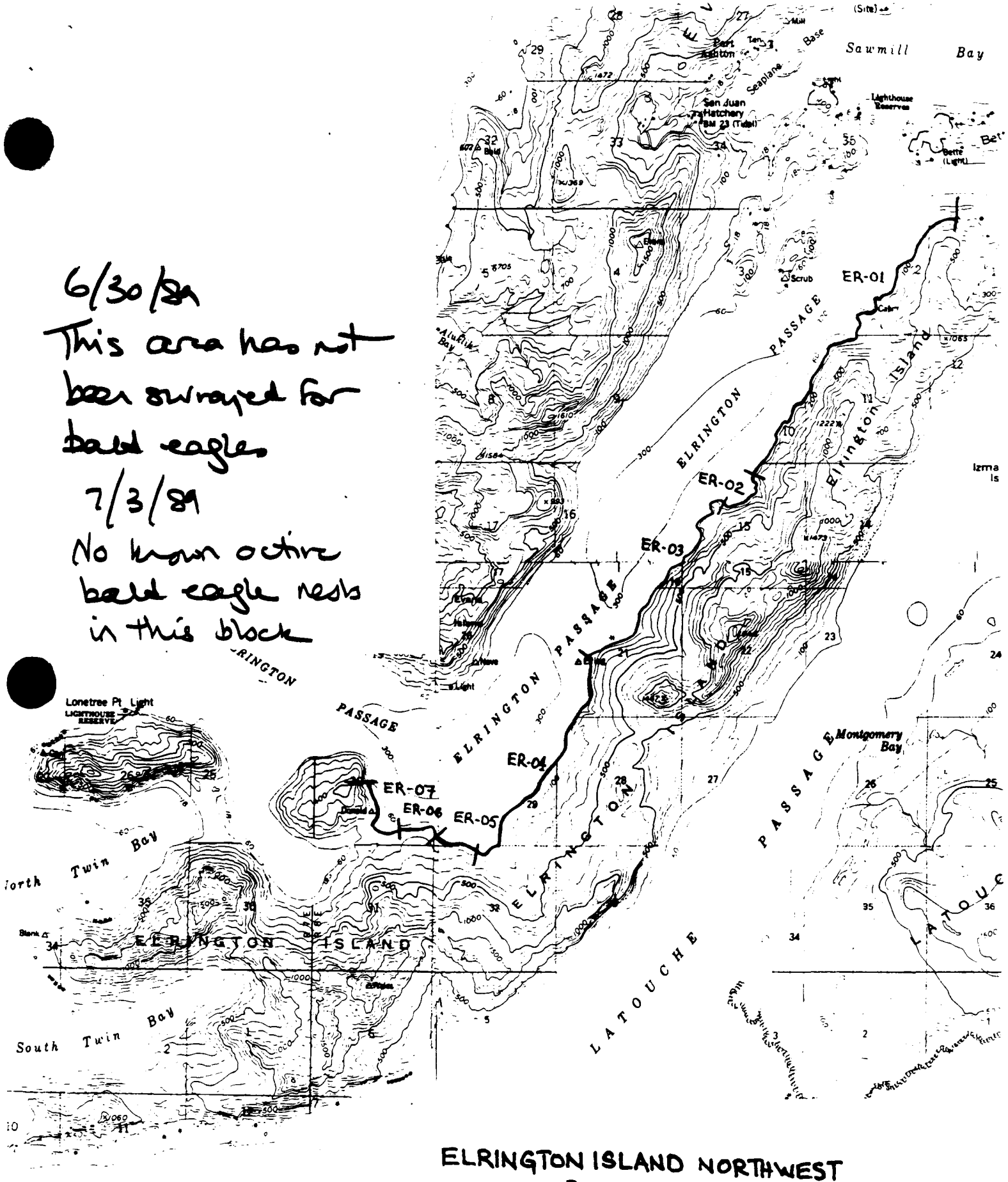
The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative 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

6/30/89
This area has not been surveyed for bald eagles
7/3/89
No known active bald eagle nests in this block



ELRINGTON ISLAND NORTHWEST BLOCK

ER-01, ER-02, ER-03, ER-04, ER-05, ER-06, ER-07

Elrington / Northwest

********** SCOT NOTE **********

THERE ARE ITEMS OF GREAT CONCERN IN THIS APPROVAL BLOCK THAT AFFECT THE DEPLOYMENT OF CREWS AND EQUIPMENT.

READ THIS FIRST

SPECIAL PRECAUTIONS SHOULD BE TAKEN TO CONTAIN SHEEN BECAUSE OF CLOSE PROXIMITY OF HATCHERY IN SAWMILL BAY

CONCERNING OILED FUNGUS ALONG THIS BLOCK, ONLY ATTACHED FUNGUS WHICH IS HEAVILY OILED SHOULD BE REMOVED.
A RAT MEMBER SHOULD BE CONSULTED ABOUT THE EXTENT OF FUNGUS REMOVED.

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 6/28/89 SHORELINE SEGMENT ER-01

LOCATION: (see enclosed map) ELRINGTON ISLAND-ELRINGTON PASSAGE

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/22/89

Recommended Cleanup Activity(ies):
Possibly cut and collect oiled fucus.
No other cleanup recommended at this time subject to FOSC approval. Sensitive ecological area and very light oiling. Use other approved methods as appropriate.

Priorities Considerations:
Class 1: Time sensitive resource.
Class A: San Juan Fishery restriction/subsistence resources present 6/5/89 JM

Ecological Constraints (from site survey):
Cleanup should be with as few people and as little disturbance as possible. No mechanical cleanup.

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

Douglas Reger — Date: 6/29/89
State Historic Preservation Officer *

ISCC: Jacquel Michel — Date: 7/5/89

EXXON: [illegible] — Date: July 5 - 1989 [illegible]

FOSC: C E Robbins — Date: 7-6-89

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

SHORELINE OIL EVALUATION

Date: 6/22/89 Time: 08:00 Observer: RICK GILLIE

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

LOCATION

LOCATION ELRINGTON ISLAND SEGMENT NUMBER ER-01

LENGTH OF SHORELINE SEGMENT: 4,700 m

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

SHORELINE:

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

Wave Exposure: High/Med/Low

Sediment: 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/Unobserved - VERY LIGHT

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

Continuous: Y/N % of Segment_____ Width of Band: _____m

Sporadic: Y/N % of Segment 5

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

Pooled Oil: — % "Free" Oil: — % Coated: H___% /M___% /L 100 %

Fresh — % Mousse — % Tar Formation: 100 %

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

Comments:

(1) VERY LIGHT OIL BAND (SPORADIC) NEAR H.T.Z.

(2) SOME OILED FUCUS GROWING ON ROCKS.

6/21/89

Rick Gillie

SEGMENT ER-01

@ 20:00 RAIN, CLOUD

- R - 80
  B - 15
  C - 5
  P - 1%

① Steep rock shore some large boulders beach has rare cobble (angular) pocket beaches

② Very ~~little~~ LIGHT or NO OIL
- very light band of HT
- sporadic, 0.3m ~~thick~~ ~~high~~ wide
- Mostly no oil!

③ V. Light band of oil on beach south of cabin sporadic, 0.5m wide

④ Light oil patch in corner of pocket beach

6/22/89

- Continue south along ER-01

- NO OIL

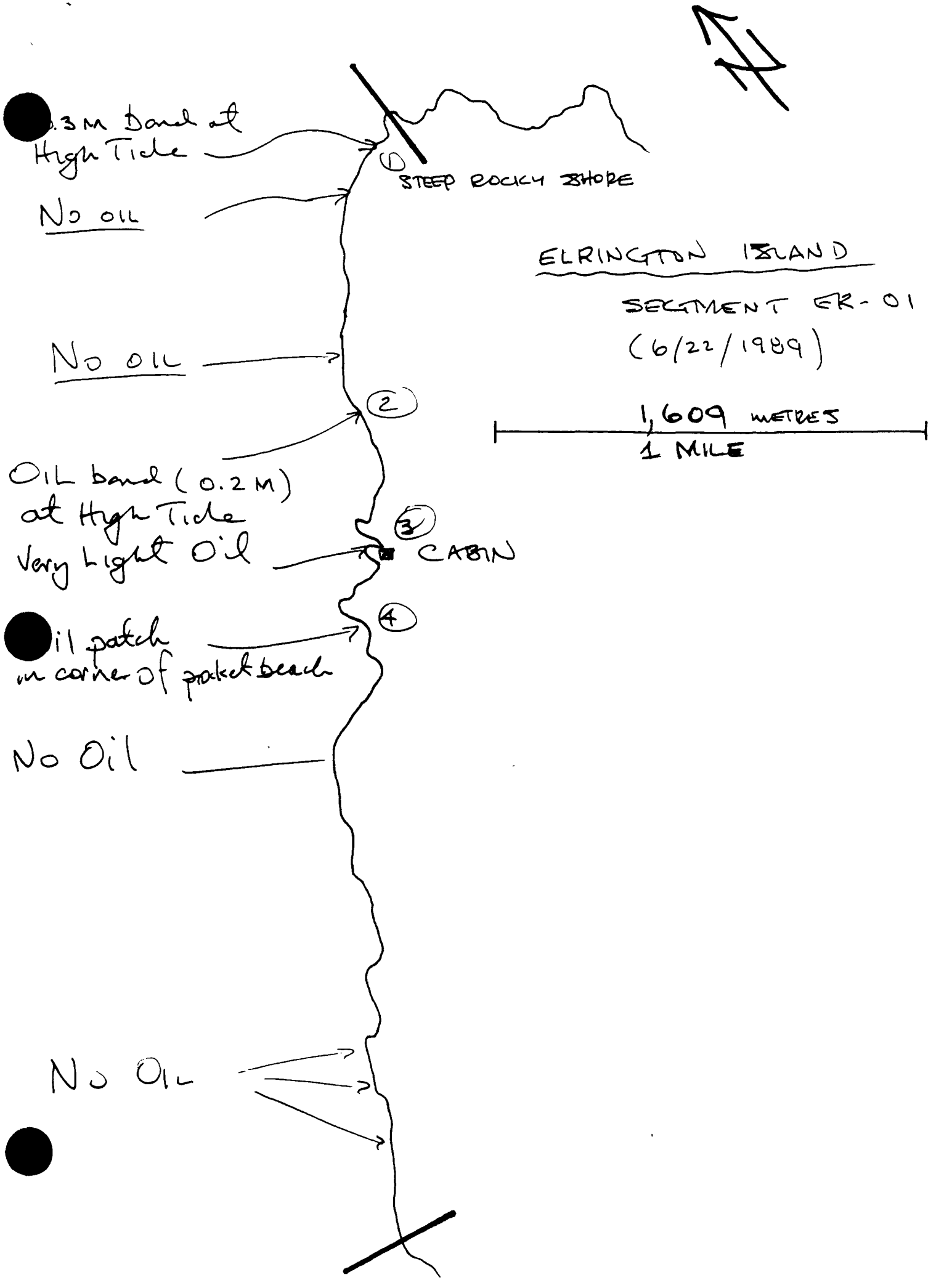
80 10 10

- Rock / Boulders, cobble
- Cove / Hill

FILM ROLL # TAG-6

Rick Gillie

FRAME	DATE	SEGMENT	DESCRIPTION
1	6/21/89	ER-01	TITLE PAGE
2	✓	✓	- View north at cabin site
3	✓	✓	- View of pocket beach at cabin site
4	6/22/89	ER-02	- Title page
5	✓	✓	- North end
6	✓	✓	- South end
7	✓	✓	- Close-up, oil barrel
8	✓	✓	- Close-up, Fucus
9	✓	✓	- Close-up, Fucus (R. Gillie)
10	✓	✓	- South End - Fucus Debris at HT
11	✓	ER-04	- TITLE PAGE
12	✓	✓	- North End Beach (Site 1)
13	✓	✓	- View to south (Site 1
14	✓	✓	- Close-up of top of oil barrel (Site 1)
15	✓	✓	- Site 2 (Oiled Boulders)
16	✓	✓	- Large Delta (Site 4)
17			
18			
19			


.3 M Band at High Tide
No oil
No oil
Oil band (0.2 M) at High Tide
Very Light Oil
Oil patch in corner of pocket beach
No Oil
No Oil
1
STEEP ROCKY SHORE
2
3
CABIN
4
ELRINGTON ISLAND
SEGMENT ER-01
(6/22/1989)
1,609 METRES
1 MILE

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Elrington Is SITE: NW Shore OBSERVER: Stoker

LOCATION PREFIX: ER SEG. NO.: 1 LENGTH: 4700 (M)

DATE: 6/21/89 6/22/89 TIME (HHMM): 2000-2140 0800-0900 TIDE HT.: _____ (M)

OILED ZONE: Splash (High) Medium Low

SUBSTRATUM: (Rocks Boulder Cobble Gravel) Sand Mud

LIVE BIOTA

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

Variable. Generally dense on rock & boulders, sparse on cobble/gravel in caves.

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

Generally sparse. Consists of scattered patches on rock faces & boulders.

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

Generally dense and continuous, but sparse in some areas both on rock and cobble/gravel.

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

Dense where observed on foot. Probably continuous and relatively dense

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

Very dense where observed on foot. Probably continuous and relatively dense.

OTHER OBSERVATIONS: Nucella dense, continuous. Various species of sea stars common to dense. Stream near abandoned cabin (marked on map) probably hosts salmon spawning.

CLEANUP PRECAUTIONS: ~~No cleanup recommended~~ Oil very light and sporadic. Possibly cut & remove oiled fucus, with as little disturbance and few people as possible.

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

BIRDS: _____

GENERAL OBSERVATIONS: Segment consists of steep rock faces, boulders, occasional small boulder/cobble/gravel beaches in shallow coves. Fucus & mytilus density seems to increase toward south. Low intertidal & shallow subtidal algae very dense; at least 6 common species.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/22/89 Location Elrington Island Site

Location Prefix EL Segment # EL-1 Length 4700

Survey Method:

Air (A - indicate on map) Boat ✓ THE REST (A - indicate on map)

Ground ✓ CABIN (G - indicate on map)

Known cultural resources (AHRS #) None Data Source None

Oil conditions/beach visibility light to none

Width of beach zone surveyed ~~30~~ 0 m Tree fringe surveyed 30

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) CBN

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

Shore Profile vertical wall face with pocket beaches

Fresh Water Sources none

Sea Exposure protected to west

Access/Safety poor

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

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

Photos: Color Roll # Frames

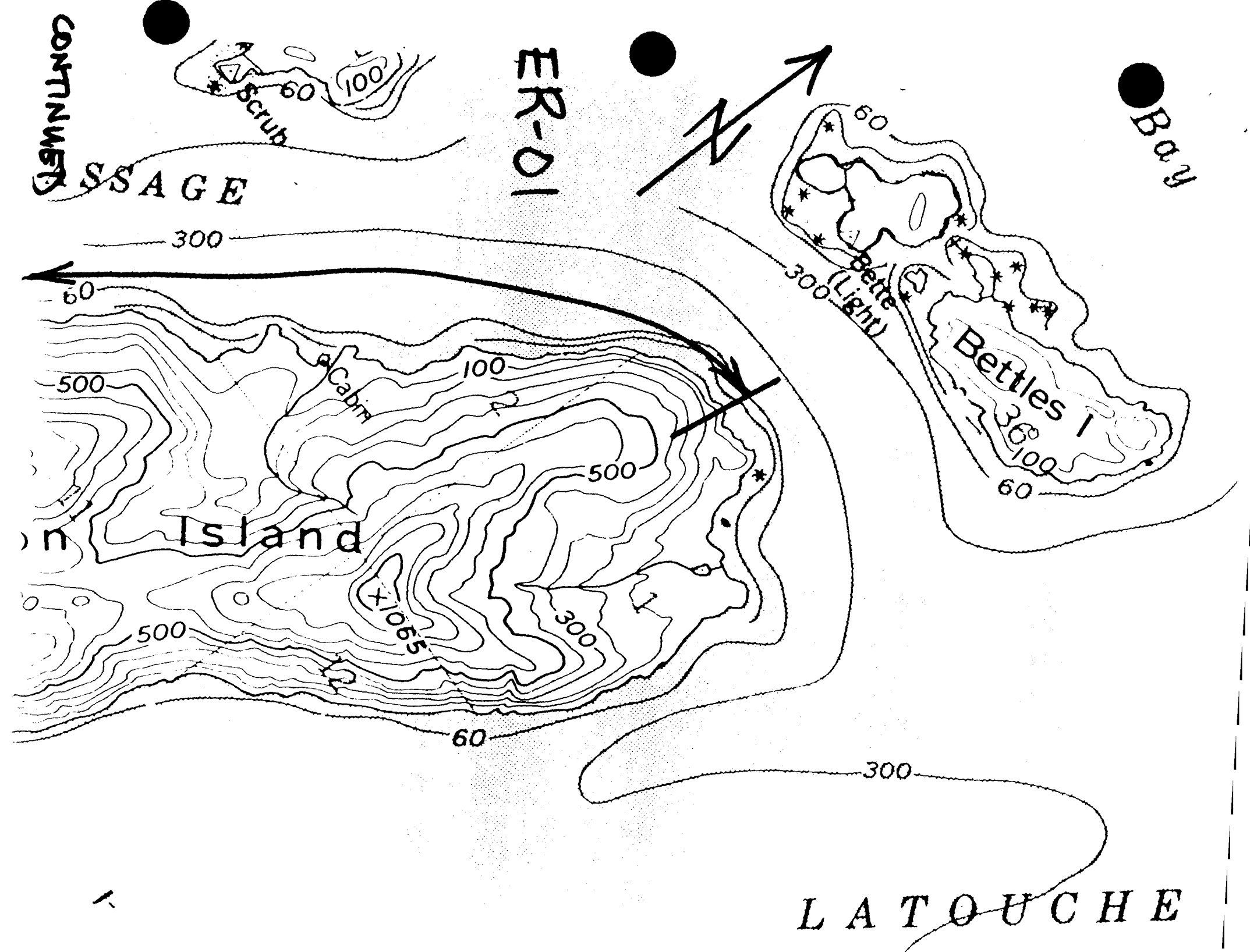
B/W Roll # Frames

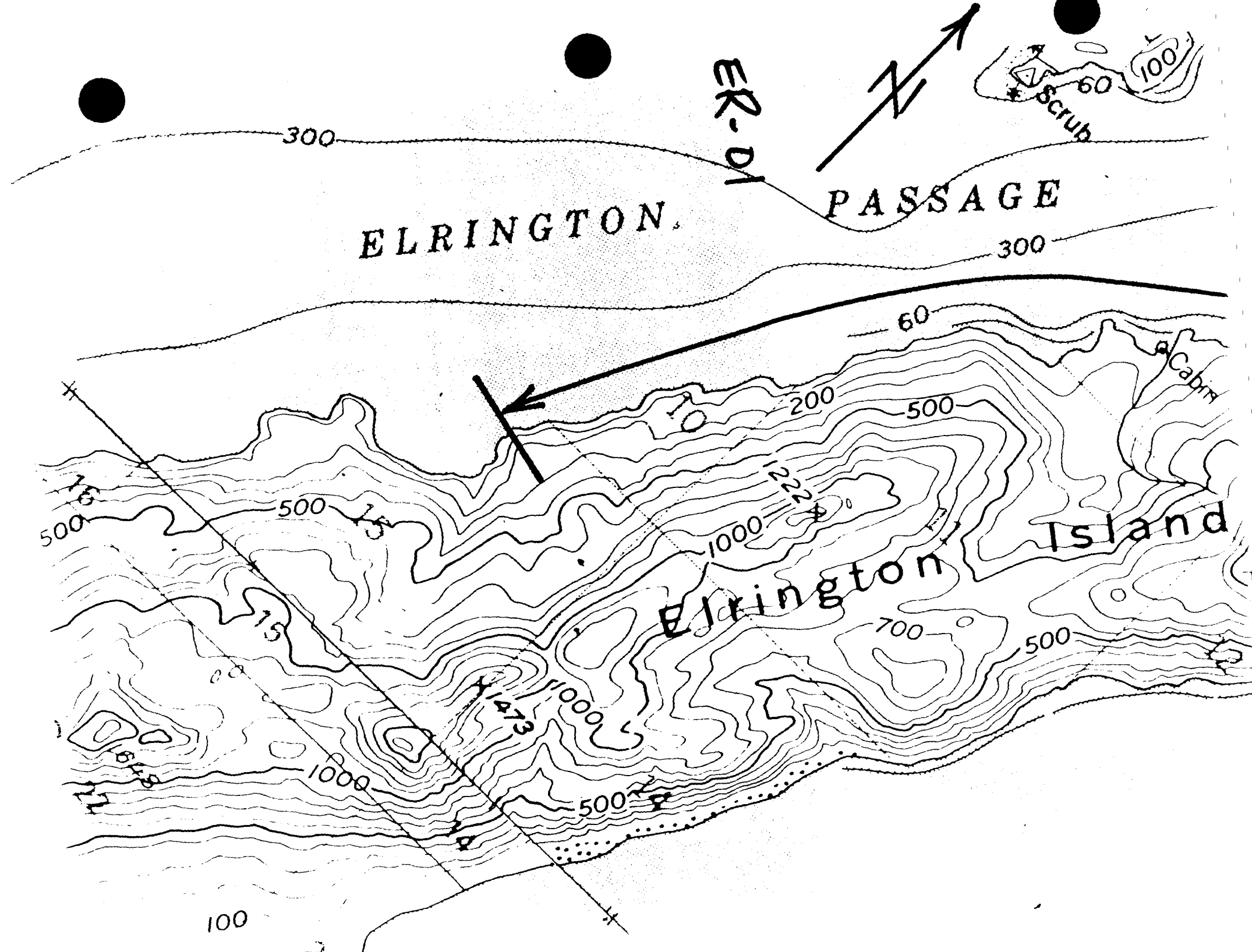
Observer(s) C Wilson

Time survey started 6/21/89 2000 Time survey ended 6/22/89 0400

Cultural resource considerations/restraints:

If heretofore undiscovered cultural resources are uncovered during cleanup contact Exxon archeologist, C. Mobley, immediately.


CONTINUED
SSAGE
Scrub
60
100
ER-01
N
Bay
60
Bette
(Light)
300
Bettles I
36
100
60
300
60
100
500
Cabin
500
Island
1065
300
500
60
300
LATOUCHE


ER-01
N
ELRINGTON PASSAGE
300
300
60
100
Scrub
60
Cabin
200
500
10
222
1000
Elrington Island
700
500
16
500
15
15
1473
1000
1000
500
648
100

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 6/28/89 SHORELINE SEGMENT ER-02

LOCATION: (see enclosed map) ELRINGTON ISLAND-ELRINGTON PASSAGE

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/22/89

Recommended Cleanup Activity(ies):
Cut and collect oiled fucus.
Manual removal of oiled fucus debris, especially at the south end at high intertidal zone.
Use other approved methods as appropriate.

Priorities Considerations:
Class 1: Time sensitive resources.
Class A: San Juan Fishery restriction/subsistence resources present 7/5/89 JM

Ecological Constraints (from site survey):
Cleanup should be manual only, with as few people and as little disturbance as possible.

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

Douglas Reger — Date: 6/29/89
State Historic Preservation Officer *

ISCC: Jacquel Michel — Date: 7/5/89

EXXON: [illegible] — Date: July 5 -1989

FOSC: [illegible] — Date: 7/6/89

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

SHORELINE OIL EVALUATION

Date: 6/22/89 Time: 09:05 Observer: Rick Gillie

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

LOCATION

LOCATION ELRINGTON IS. SEGMENT NUMBER ER-02

LENGTH OF SHORELINE SEGMENT: 700 m

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

SHORELINE:

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

Wave Exposure: High/Med/Low

Sediment: B 40 % / C 20 % / P___ % / G___ % / S___ % / M___ % / R 40 % Fucus Logs

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

OIL

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

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

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

Sporadic: Y/N % of Segment 80

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

Pooled Oil: — % "Free" Oil: — % Coated: H___ % / M 10 % / L 90 %

Fresh — % Mousse — % Tar Formation: 100 %

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

Comments:

(1) LIGHT OIL IN BAND (SPORADIC) 0.5-1.0 M WIDTH AT HIGH TIDE. OILED FUCUS

(2) NO FREE OIL OR MOUSSE.

(3) RIDGES (2) OF OILED FUCUS DEBRIS, 100 M LONG AT HIGH TIDE IN SOUTH END.

6/22/89 Rick Grillie

SEGMENT ER-02

@ 09:05

① Bay with cobble beach
- wid to ~40m
rock / cobble / boulder
40 20 40
- angular

Oil - in band 0.5-1.0m wide at HT.

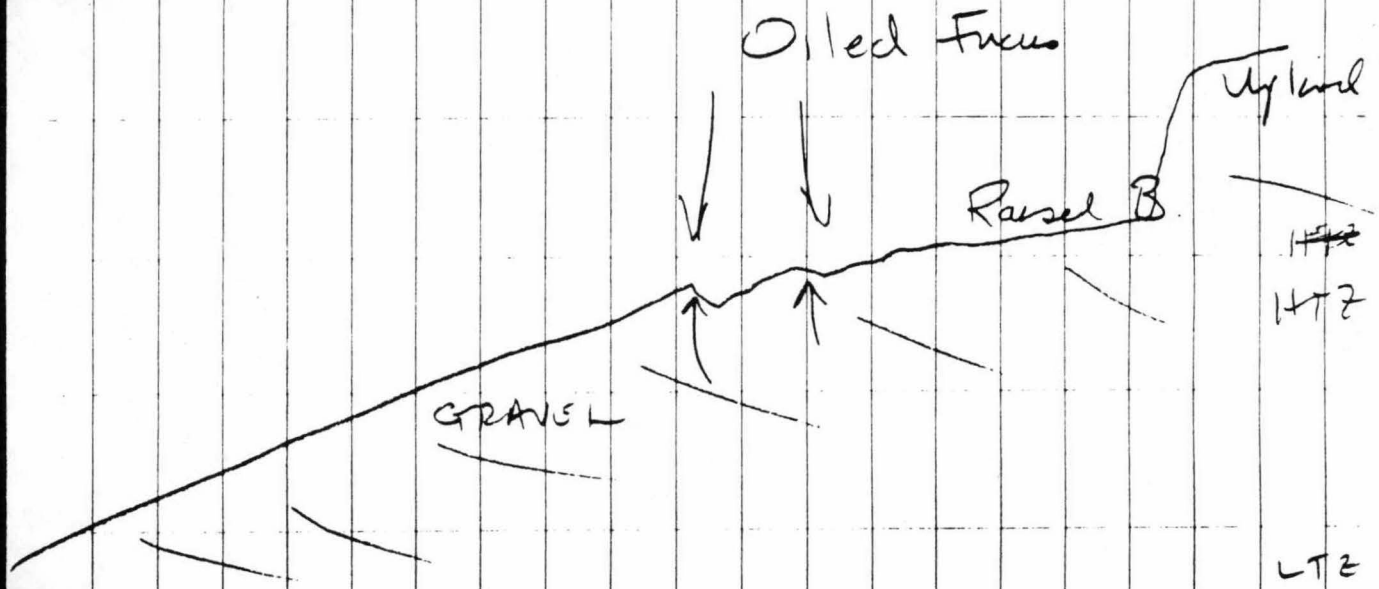
- Oiled Fucus

- Moderate coating (1mm)
- No "Free" oil!!

② No oil in contact rocks even

③ 100m long band (2) of oiled Fucus dry at HT.
- rake + bag

ER-02 PROFILE



Rick Gillie

FILM ROLL # TAG-6

Rick Gillie

FRAME	DATE	SEGMENT		DESCRIPTION
1	6/21/89	ER-01		TITLE PAGE
2	✓	✓		- View north at cabin site
3	✓	✓		- View of pocket beach at cabin site
4	6/22/89	ER-02		- Title page
5	✓	✓		- North end
6	✓	✓		- South end
7	✓	✓		- Close-up, oil barrel
8	✓	✓		- Close-up Fucus
9	✓	✓		- Close-up Fucus (R. Gillie)
10	✓	✓		- South End - Fucus Debris at HT
11	✓	ER-04		- TITLE PAGE
12	✓	✓		- North End Beach (Site 1)
13	✓	✓		- View to south (Site 1
14	✓	✓		- Close-up of top of oil barrel (Site 1)
15	✓	✓		- Site 2 (Oilers Bunkers)
16	✓	✓		- Large Delta (Site 4)
17				
18				
19				

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Erlington Is SITE: W. side Cove OBSERVER: Stokker

LOCATION PREFIX: ER SEG. NO.: 2 LENGTH: 700 (M)

DATE: 6/22/89 TIME (HHMM): 0900-1000 TIDE HT.: _____ (M)

OILED ZONE: Splash (High) Medium Low

SUBSTRATUM: (Rocks Boulder Cobble Gravel) Sand Mud

LIVE BIOTA

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

Variable. Generally dense to upper mid-tide on rocks, patchy & less dense on cobble/gravel.

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

Variable. Patchy, sparse to moderate on both rock and cobble.

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

Variable. Dense on rock, less so on cobble/gravel.

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

Variable. Generally dense & continuous on both rock and cobble/gravel. Small individuals.

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

Variable. Generally dense and continuous on both rock & cobble/gravel. Small individuals.

OTHER OBSERVATIONS: Nucella dense in clusters. Asteroidea abundant, at least 4 species. Pagurus common, dense clusters of small individuals. Amphipods, isopods, blennies, nereid worms, nemertean worms common under rocks. Dense sustidal anemones.

CLEANUP PRECAUTIONS: If cleanup proceeds it should be done with as few people and as little disturbance as possible. No mechanical cleanup needed or recommended.

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

BIRDS: merganser, gulls

GENERAL OBSERVATIONS: Dense non-fucus low intertidal & subtidal algae. At least 6 species common. Segment consists of shallow cove with moderate angle cobble/gravel beach bounded by rock headlands and steep boulder beaches. Possible anadramous stream in cove; little in-stream spawning potential.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/22/89 Location Elrington Island Site

Location Prefix ER Segment # ER-1 Length 700

Survey Method:

Air (A - indicate on map) Boat ✓ THE REST (A - indicate on map)

Ground ✓ 2 BEACHES (G - indicate on map)

Known cultural resources (AHRS #) None Data Source None

Oil conditions/beach visibility light to none

Width of beach zone surveyed 10-15 m Tree fringe surveyed 10m

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) None

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

Shore Profile steep cobble beaches

Fresh Water Sources heads, has two streams

Sea Exposure protected to west

Access/Safety good

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

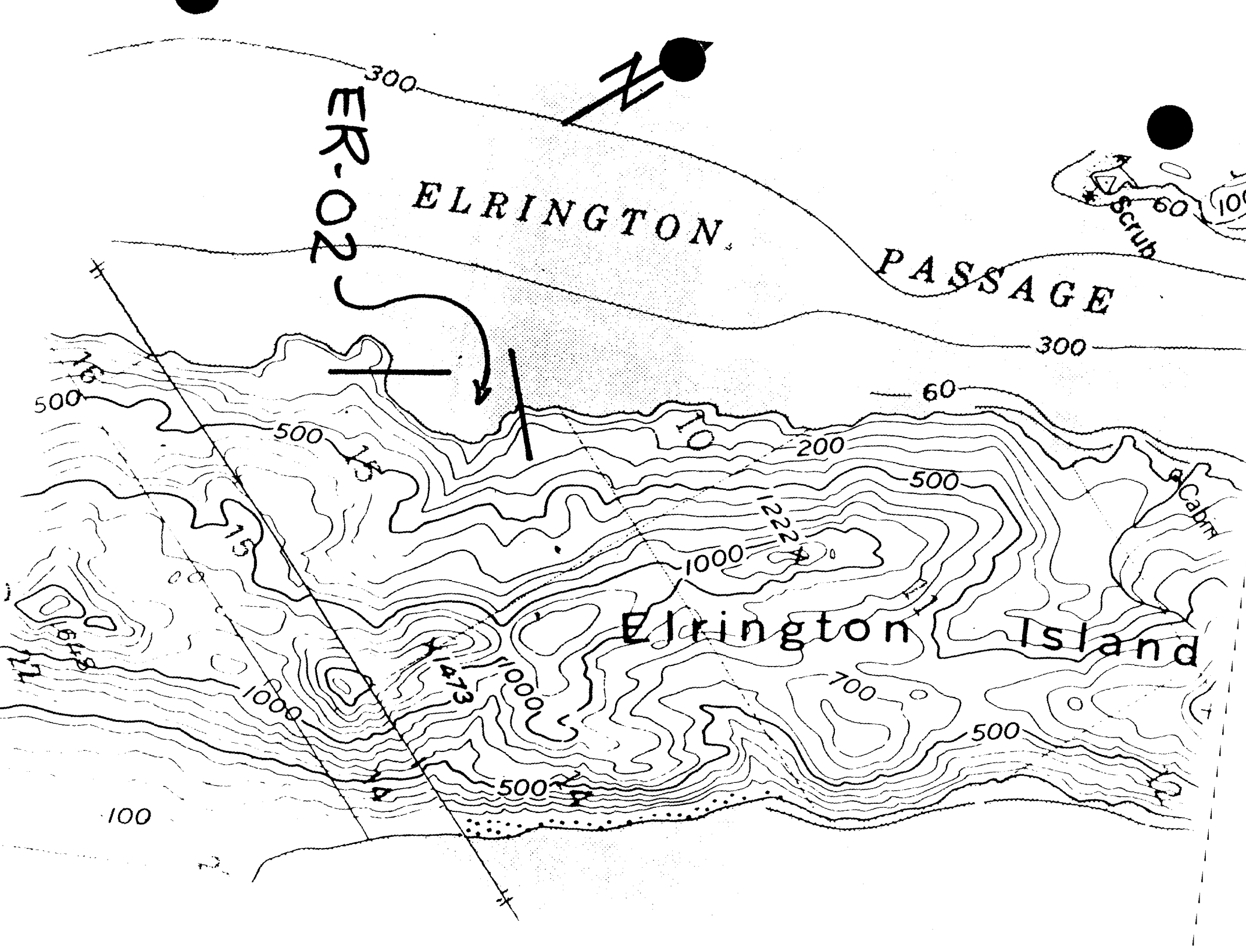
B/W Roll # Frames

Observer(s) C. Wilson

Time survey started 0900 Time survey ended 1000

Cultural resource considerations/restraints:

If heretofore undiscovered cultural materials are discovered during cleanup contact Exxon archaeologist, C. Mobley, immediately


ER-02
N
ELRINGTON
PASSAGE
300
300
60
Scrub
60
100
500
500
200
500
1224
1000
Cabin
Elrington Island
700
500
1473
1000
1000
500
1648
100

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 6/28/89 SHORELINE SEGMENT ER-03

LOCATION: (see enclosed map) ELRINGTON ISLAND-ELRINGTON PASSAGE

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/22/89

Recommended Cleanup Activity(ies):
Cut, collect and remove oiled fucus and fucus debris. No mechanical cleanup recommended at this time subject to FOSC approval. Sensitive ecological area and light oiling. Use other approved methods as appropriate.

Priorities Considerations:
Class 1: Time sensitive resources.
Class A: San Juan Fishery restraint/subistence resources present 7/5/89 jm

Ecological Constraints (from site survey):
Cleanup should be manual only, done with as few people and as little disturbance as possible.

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

Douglas Reger Date: 6/29/89
State Historic Preservation Officer *

ISCC: [signature] Date: 7/5/89

EXXON: [signature] Date: July 5 - 1989

FOSC: [signature] Date: 7/6/89

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

SHORELINE OIL EVALUATION

Date: 6/22/89 Time: 10:30 Observer: Rick Gerlke

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

LOCATION

LOCATION ELRINGTON ISLAND SEGMENT NUMBER ER-03

LENGTH OF SHORELINE SEGMENT: 2,900 m

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

SHORELINE:

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

Wave Exposure: High/Med/Low

Sediment: B 20 % / C 20 % / P 20 % / G ___ % / S ___ % / M ___ % / R 40 % Fines Logs

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 /

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

Sporadic: Y/N % of Segment 10

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

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

Fresh — % Mousse — % Tar Formation: 100 %

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

Comments:

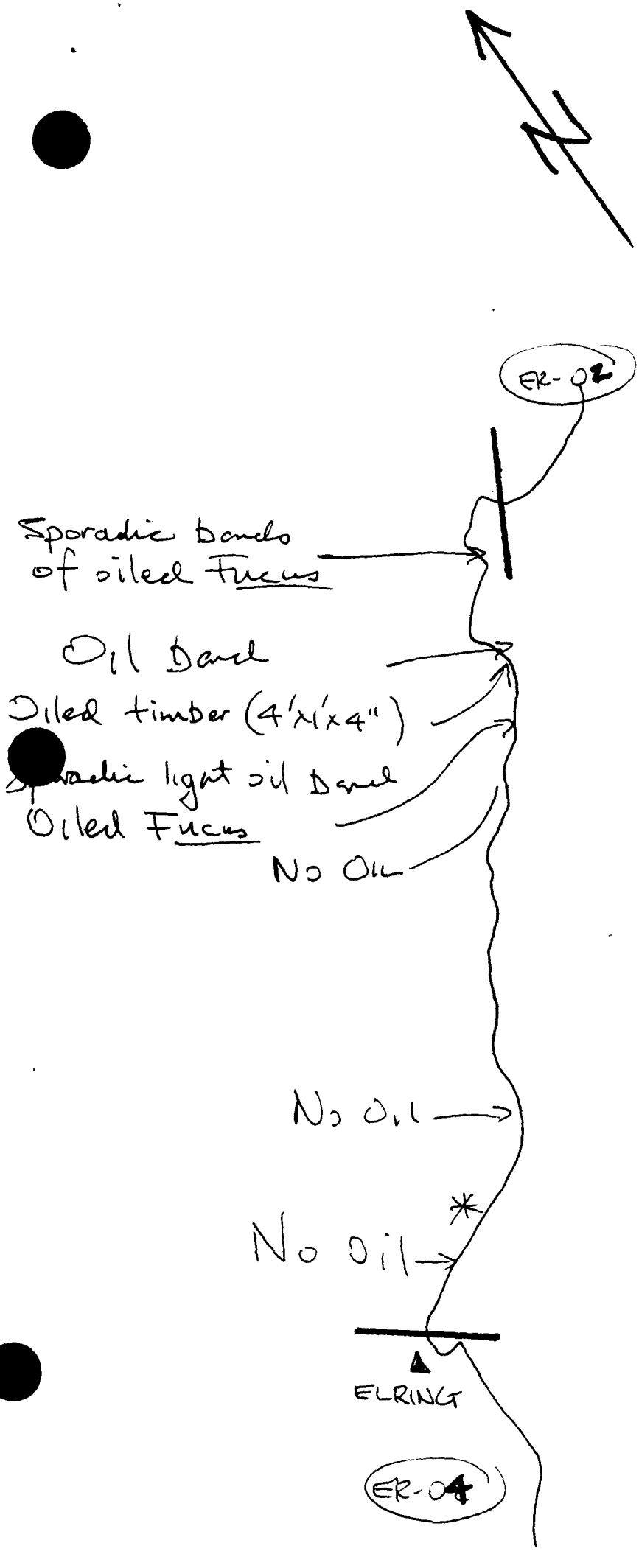
06/22/1999 Rick Grillo

SEGMENT E12-03

1. Sporadic oil Fucus

2. Clean-up by collecting Cutting Fucus.

3. No oil for rest of segment.



ELRINGTON ISLAND

ER-03
(6/22/1989)

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Elrington Is. SITE: North Elring OBSERVER: Stoker

LOCATION PREFIX: ER SEG. NO.: 3 LENGTH: 2900 (M)

DATE: 6/22/89 TIME (HHMM): 1000-1120 TIDE HT.: _____ (M)

OILED ZONE: Splash (High) Medium Low

SUBSTRATUM: (Rocks Boulder Cobble Gravel) Sand Mud

LIVE BIOTA

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

Variable. Generally dense upper mid-tide on rocks; patchy & less dense on cobble/gravel

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

Variable. Extremely patchy and generally sparse.

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

Variable. Generally more dense, larger individuals on rock/boulders.

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

Variable. Generally dense & continuous. Larger individuals on rock outcroppings.

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

Variable. Generally very dense, mostly small individuals.

OTHER OBSERVATIONS: Nucella in dense clusters. Pagurus, Amphipods, Nereids, Isopods, blennies under rocks. Algae dense low intertidal - shallow subtidal. Asteroidea & Anemones common.

CLEANUP PRECAUTIONS: If cleanup proceeds it should be done with as few people and as little disturbance as possible. No mechanical cleanup needed or recommended.

MAMMALS: Otters 6 Harbor Seals ____ Sea Lions 1 Whales ____
Other _____

BIRDS: Eagle, Gulls, Crows.

GENERAL OBSERVATIONS: Small streams probably no in-stream spawning potential. Two otters with pups, appear to be OK.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/28/89 Location Ellington Island Site

Location Prefix ER Segment # ER-3 Length 2900

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 light to none

Width of beach zone surveyed 0-10 m Tree fringe surveyed -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 beach is moderately sloped and fed by a stream

Fresh Water Sources stream

Sea Exposure protected to 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 # Frames

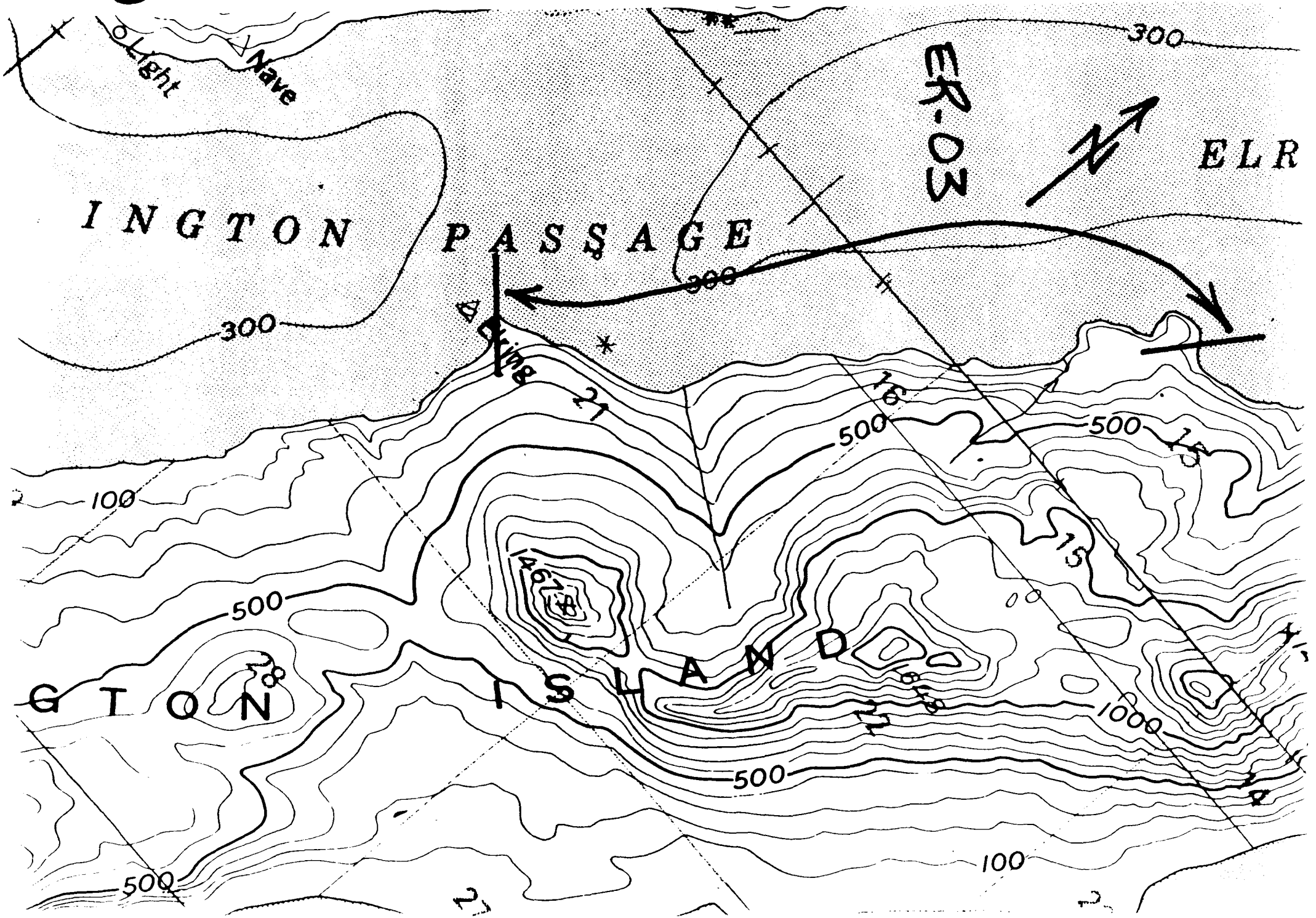
B/W Roll # Frames

Observer(s) C. Wilson

Time survey started 1000 Time survey ended 1130

Cultural resource considerations/restraints:

If heretofore undiscovered cultural ~~resources~~ materials are uncovered during cleanup contact Exxon archeologist, C. Mobley, immediately.


Light
Nave
INGTON
PASSAGE
ELR
EP-03
N
300
300
300
Spine
27
16
500
500
16
100
15
1467
500
GTON
ISLAND
1000
500
100
500

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6/29/89 SHORELINE SEGMENT ER-04

LOCATION: (see enclosed map) ERLINGTON ISLAND-ELRINGTON PASSAGE

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/22/89

Recommended Cleanup Activity(ies):
Cut and collect oiled fucus.
Remove oiled fucus debris.
Use other approved methods as appropriate.
No mechanical cleanup recommended at this time, subject to FOSC approval. Sensitive ecological area and light oiling.

Priorities Considerations:
Class 1: Time sensitive resources.
Class A: San Juan Fishery restrictions for cleanup/ Subsistence resources present 7/5/89 jm

Ecological Constraints (from site survey):
Cleanup should be manual only, with as few people and as little disturbance as possible.

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

Douglas Reger Date: 6/29/89
State Historic Preservation Officer *

LSCC ~~EXXON~~: [signature] Date: 7/5/89
Exxon [signature]
FOSC: [signature] Date: July 5, 1989 7-6-89

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

SHORELINE OIL EVALUATION

Date: 6/22/1989 Time: 11:30 Observer: Rick Gillie

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

LOCATION

LOCATION ELRINGTON ISLAND SEGMENT NUMBER ER-04

LENGTH OF SHORELINE SEGMENT: 3,100 m

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

SHORELINE:

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

Wave Exposure: High/Med/Low

Sediment: B 20 % / C 30 % / P___% / G___% / S___% / M___% /R 50 % Fines

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

OIL

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

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

Continuous: Y/N % of Segment_____ Width of Band: _____m

Sporadic: Y/N % of Segment 10

Est. Oil Thickness where > 1cm: — cm Est. Oil Penetration: 10 cm

Pooled Oil: — % "Free" Oil: — % Coated: H___% /M 10 % /L 90 %

Fresh — % Mousse — % Tar Formation: 100 %

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

Comments:

① GENERALL NO OIL OR VERY LIGHT EXCEPT LIGHT TO MOD. IN LOCAL SITES (SEE MAP).

6/22/1989

Rick Grillo

SEGMENT ERA 4

@ 11:30

① Starts at ELRING ▲ island and continues to the south

- Substrate
- Cobble / Cobble / Boulders
- 5° beach

Oil
- Moderate band of oil
- 5 m wide
- Light to Mod coating
- 10 cm penetration

- Access - good

Site 2
- Oiled Boulder Beach
- 40 m wide sub-angular boulders
- 5-10 light oil band at HTZ, for 100 m along the beach
- Oiled Fucus on rock approx 100 m to the south

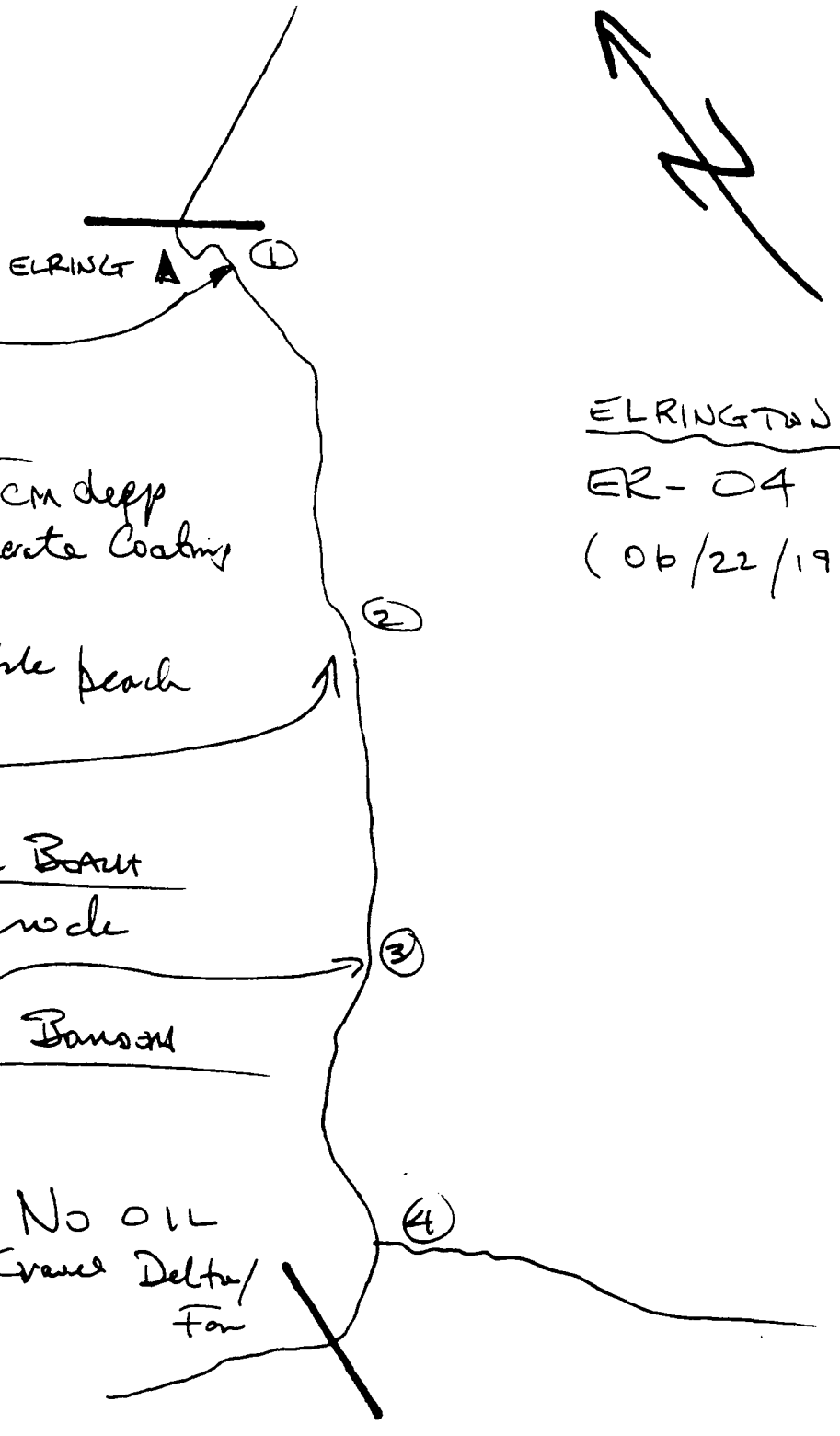
Site 3
- Oiled rocks / boulders on N end of small ~~se~~ coastal units

Site 4
- Large delta - No oil
- Sand / Gravel

FILM ROLL # TAG-6

Rick Gillie

FRAME	DATE	SEGMENT		DESCRIPTION
1	6/21/89	ER-01		TITLE PAGE
2	✓	✓		- View north at cabin site
3	✓	✓		- View of pocket beach at cabin site
4	6/22/89	ER-02		- Title page
5	✓	✓		- North end
6	✓	✓		- South end
7	✓	✓		- Close-up, oil barrel
8	✓	✓		- Close-up, Fucus
9	✓	✓		- Close-up, Fucus (R. Gillie)
10	✓	✓		- South End - Fucus Debris at HT
11	✓	ER-04		- TITLE PAGE
12	✓	✓		- North End Beach (Site 1)
13	✓	✓		- View to south (Site 1
14	✓	✓		- Close-up of top of oil barrel (Site 1)
15	✓	✓		- Site 2 (Oilers Bunkers)
16	✓	✓		- Large Delta (Site 4)
17				
18				
19				



ELRINGTON ISLAND

ER-04

(06/22/1989)

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Elrington Is. SITE: South Elring OBSERVER: Stokker

LOCATION PREFIX: _____ SEG. NO.: 4 LENGTH: 3100 (M)

DATE: / / TIME (HHMM): 1130-1330 TIDE HT.: _____ (M)

OILED ZONE: Splash (High) Medium Low

SUBSTRATUM: (Rocks Boulder Cobble Gravel Sand) Mud

LIVE BIOTA

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

Extremely variable. Generally sparser & discontinuous on cobble/gravel/shale/sand, dense on rock outcrops, patchy on boulders.

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

Patchy, discontinuous. Generally denser, larger patches near point (Elring) at N. end segment.

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

Extremely variable. Generally larger individuals on rock outcrops; recent settlement on boulder/cobble.

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

Extremely variable. Generally denser around mid tide level. Very dense clusters on rock outcrops, sparser and scattered on cobble.

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

Variable. Sparse on shale/sand, denser on rock & boulder.

OTHER OBSERVATIONS: Nucella patchy & variable; some dense clusters. Pagurus common, some dense clusters; blennies common; Asteroidea common; chitons sparse shallow subtidal algae dense, at least 6 species common. Amphipods, Nereids common.

CLEANUP PRECAUTIONS: _____

MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales 1
Other 1 Minke whale near Elring point.

BIRDS: Eagle, Gulls.

GENERAL OBSERVATIONS: Long beach of cobble/gravel/sand/shale grading to boulder/cobble/gravel with rock outcroppings and steep boulder slopes. Biota sparse on shale/sand. Small streams toward S. end of segment (on map), little in-stream spawning potential.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/22/89 Location Elrington Island Site

Location Prefix ER Segment # ER-4 Length 3100

Survey Method:

Air (A - indicate on map) Boat ✓ THE REST (A - indicate on map)

Ground ✓ 3 BEACHES (G - indicate on map)

Known cultural resources (AHRS #) None Data Source None

Oil conditions/beach visibility light to none

Width of beach zone surveyed 10-15 m Tree fringe surveyed 10

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 variably sloped beaches and vertical wall face

Fresh Water Sources streams

Sea Exposure protected to west

Access/Safety good

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

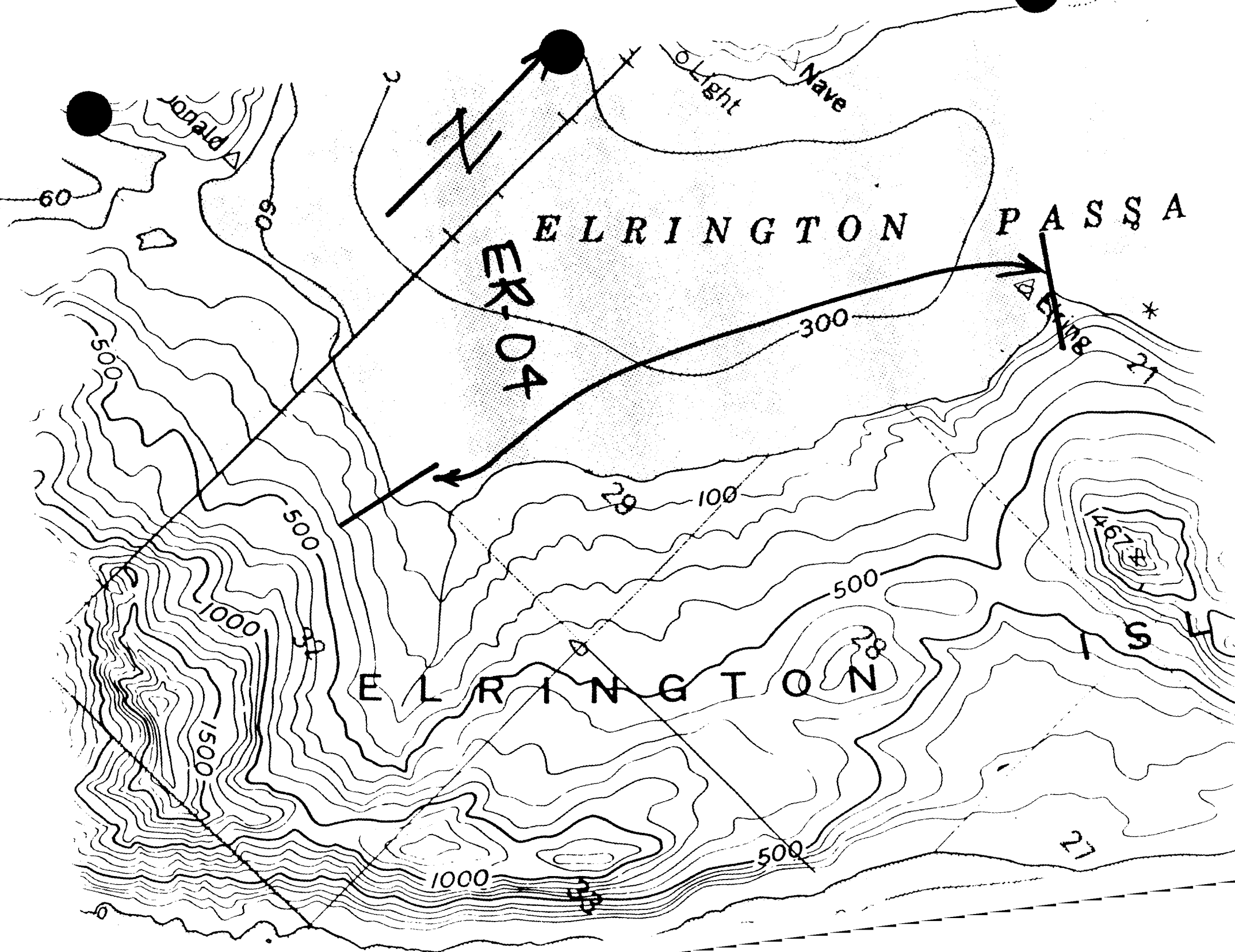
B/W Roll # Frames

Observer(s) C. Nelson

Time survey started 1130 Time survey ended 1330

Cultural resource considerations/restraints:

If heretofore undiscovered cultural material are found during cleanup contact Eyman archaeologist, C. Mobley, immediately.


Donald
Light
Nave
N
ER.04
ELRINGTON PASSA
Pine
60
60
300
500
500
100
1000
1500
500
1000
500
1467
ELRINGTON
ISL
27
28
29
32
28
27

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 6/28/89 SHORELINE SEGMENT ER-05

LOCATION: (see enclosed map) ELRINGTON ISLAND-ELRINGTON PASSAGE SOUTH END

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/23/89

Recommended Cleanup Activity(ies):
Manual cleanup of oiled popweed debris.
Consider manual removal of 2" thick asphalt oil/sand layer (possibly with rakes, shovels and wheel barrows).
Use other approved methods as appropriate.
No mechanical cleanup recommended.

Priorities Considerations:
Class 1: Oil present, time sensitive resources.
Class A: San Juan Fishery restrictions on oil cleanup after July 15, 1989 / subsistence resources present 7/5/89

Ecological Constraints (from site survey):
Use as few people and cause as little disturbance as possible. No mechanical measures recommended.

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

Douglas Reger Date: 6/29/89
State Historic Preservation Officer *

ISCC: [signature] Date: 7/5/89

EXXON: [signature] Date: July 5 1989

FOSC: [signature] Date: 7/6/89

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

SHORELINE OIL EVALUATION

Date: 6/23/89 Time: 08:50 Observer: RICK GILLIE

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

LOCATION

LOCATION ELRINGTON ISLAND SEGMENT NUMBER ER-05

LENGTH OF SHORELINE SEGMENT: 700 m

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

SHORELINE:

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

Wave Exposure: High/Med/Low

Sediment: B 40 % / C 40 % / P 20 % / G ___ % / S ___ % / M ___ % / R ___ %

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

OIL

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

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

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

Sporadic: Y/N % of Segment 20

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

Pooled Oil: — % "Free" Oil: — % Coated: H 10 % / M 30 % / L 60 %

Fresh — % Mousse 10 % Tar Formation: 90 %

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

Comments:

(1) Light oil band (0.5 m wide) in HTZ. Sporadic.

(2) Band of lightly coated oil on cobble beach from HTZ to MTZ (20 M WIDE).

(3) Incipient asphalt band at HTZ in river delta. Approx 0.5-1.0 m wide and 5 cm thick.

6/23/99

Rick Grillie

SEGMENT ER-05 (Site 1)

@ 08:50

Substrate

- boulder / cobble / pebble beach
- 40 40 20

- Light oil band (0.5 m high) in HTZ

- No oiled Fucus, no Fucus debris

- Band is very sparse (< 5%) coverage

- Access - GOOD.

ER-05 Site 2

- Cobble beach / changing to mud delta with gravel / cobble

- Band (20 m) of light oil coating on cobble from HT to upper LTZ.
- No recoverable oil.

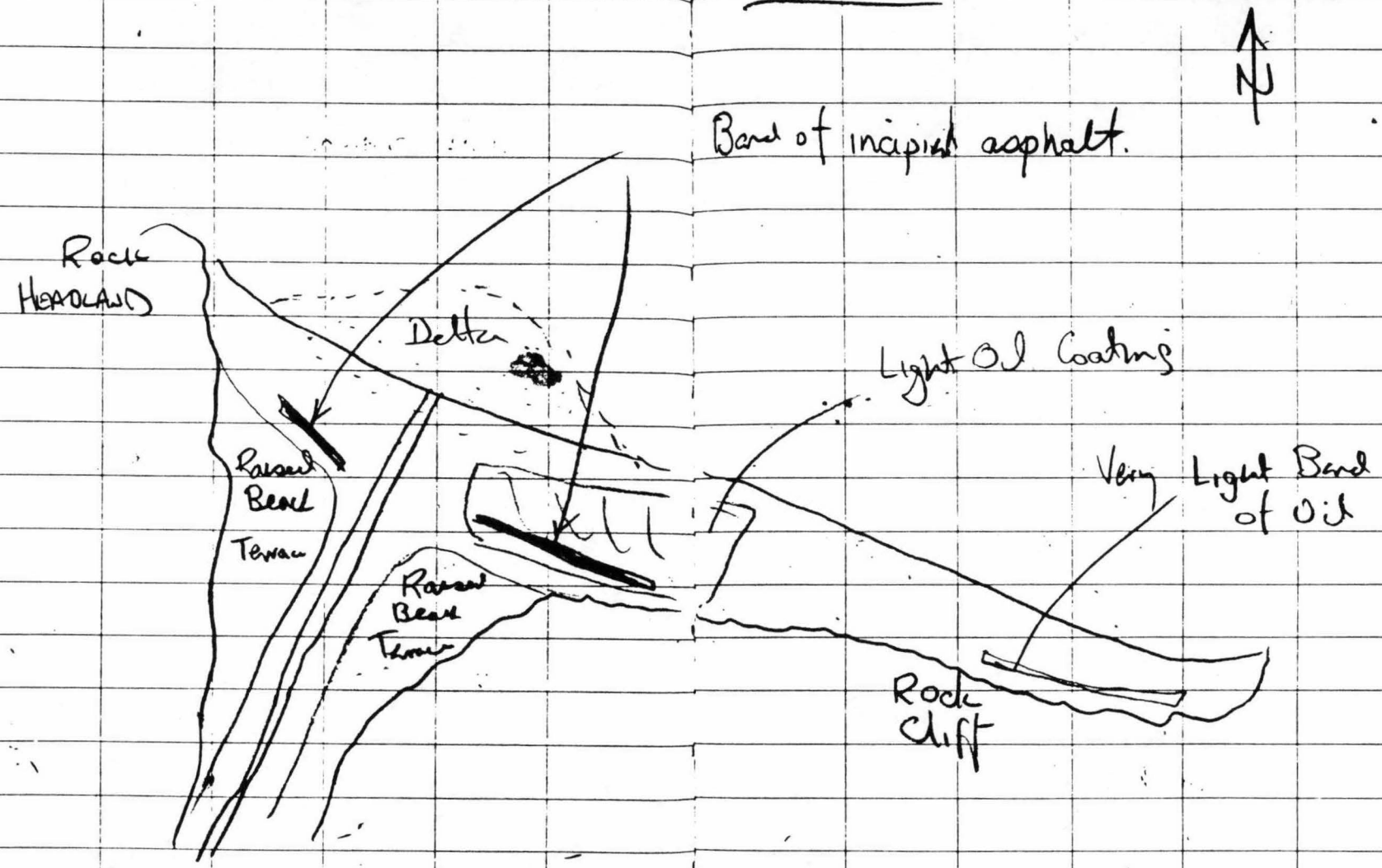
- Also incipient asphalt band at HTZ. Approx 0.5-1 m wide and 2-5 cm thick.

- Some oiled Fucus

- Sand in a hand clean-up area.

Rick Grillie

ER-05



version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Elrington Is. SITE: SW Shore OBSERVER: STOKER

LOCATION PREFIX: ER SEG. NO.: 5 LENGTH: 700 (M)

DATE: 6/23/89 TIME (HHMM): 0850-1000 TIDE HT.: _____ (M)

OILED ZONE: Splash (High Medium) Low

SUBSTRATUM: Rocks (Boulder Cobble) Gravel Sand Mud

LIVE BIOTA

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

Patchy & variable sparse to dense at high-mid level. Sparser on cobble/shale toward S. end segment.

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

Patchy & variable. Sparse on boulder/cobble; some dense patches in shale at S. end.

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

Variable. Sparse to dense, large individuals, on large rocks, dense recent settlement on boulder/cobble. Sparse on shale at south end.

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

Dense band large individuals upper mid-tide on boulder/cobble to North, sparser, smaller individuals in lower tide zone. Sporadic and sparse on shale to South.

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

Dense at mid level on boulder/cobble to N, sparse in lower zone, sparse on shale to south.

OTHER OBSERVATIONS: Nucella continuous, with dense patches. Amphipods dense under rocks. Pagurus in clusters under rocks. Blennies, Nereids, under rocks. Sea stars sparse. At least 6 common non-fucus algae in lower intertidal - shallow subtidal.

CLEANUP PRECAUTIONS: If cleaning is to proceed it should be done with as few people and as little disturbance as possible.

MAMMALS: Otters 8 Harbor Seals 1 Sea Lions 2 Whales _____
Other 1 otter with pup.

BIRDS: Gulls, Kittiwakes, Merganser, Guillemots

GENERAL OBSERVATIONS: Small stream at south end, unlikely in-stream spawning potential. Mytilus denser in shale toward S. end; all other biota very sparse on shale.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/23/89 Location Ellington Island Site

Location Prefix EL Segment # EP-X5 Length 706

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 light

Width of beach zone surveyed 10-12 m Tree fringe surveyed 10

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 boulder/cobble/gravel beach that is steep to moderate in slope

Fresh Water Sources several small streams

Sea Exposure protected to west

Access/Safety fair

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

Monitoring during cleanup needed yes/no Collection yes/no

Photos: Color Roll # Frames

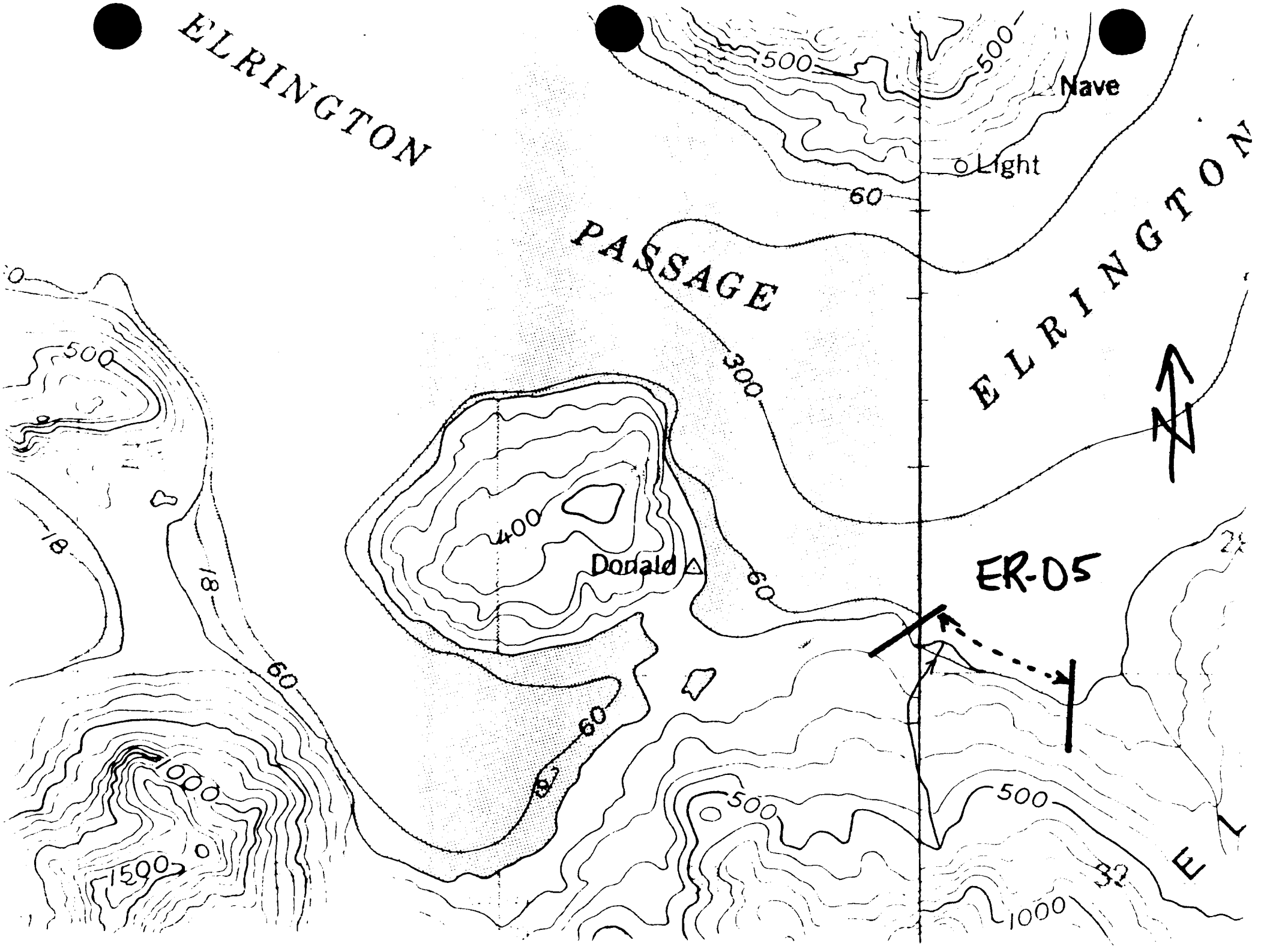
B/W Roll # Frames

Observer(s) C. Wilson

Time survey started 0900 Time survey ended 1045

Cultural resource considerations/restraints:

If heretofore undiscovered cultural ~~sites~~ material are uncovered during cleanup contact Exxon archeologist, C. Mobley, immediately.


ELRINGTON
PASSAGE
ELRINGTON
Nave
Light
Donald
ER-05
500
500
60
300
400
60
60
60
60
18
18
1000
1500
500
500
1000
32

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 6/28/89 SHORELINE SEGMENT ER-06

LOCATION: (see enclosed map) ELRINGTON ISLAND-ELRINGTON PASSAGE SOUTH END

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/23/89

Recommended Cleanup Activity(ies):

Cut and remove oiled fucus (popweed) and popweed debris.
Wipe band (10m) of rocks with absorbent pads and/or pom-poms.
Use other approved methods as appropriate.
No mechanical cleanup recommended at this time subject to FOSC approval. Sensitive ecological area and very light oiling.

Priorities Considerations:

Class 1: Time sensitive resources.
Class A: San Juan Fishing restriction / SUBSISTENCE RESOURCES PRESENT 7/5/89 JC

Ecological Constraints (from site survey):

Use as few people and cause as little disturbance as possible. No mechanical measures recommended.

Archeological Constraints (from site survey):

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

Douglas Reger — Date: 6/29/89
State Historic Preservation Officer *

ISCC: [signature] — Date: 7/5/89

EXXON: [signature] — Date: July 5 - 1989

FOSC: [signature] — Date: 7-6-89

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

SHORELINE OIL EVALUATION

Date: 6/23/89 Time: 10:10 Observer: RICK GILLIE

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

LOCATION

LOCATION ELRINGTON ISLAND SEGMENT NUMBER ER-06

LENGTH OF SHORELINE SEGMENT: 600 m

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

SHORELINE:

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

Wave Exposure: High/Med/Low

Sediment: B 40 % / C___ % / P___ % / G___ % / S___ % / M___ % / R 60 %

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

OIL

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

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

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

Sporadic: Y/N % of Segment 50

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

Pooled Oil: — % "Free" Oil: — % Coated: H___ % / M 50 % / L 50 %

Fresh — % Mousse — % Tar Formation: 100 %

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

Comments:

① See Notes and hand drawn map for location

6/23/89

Rick Grilla

SEGMENT ER-06

@ 10:10

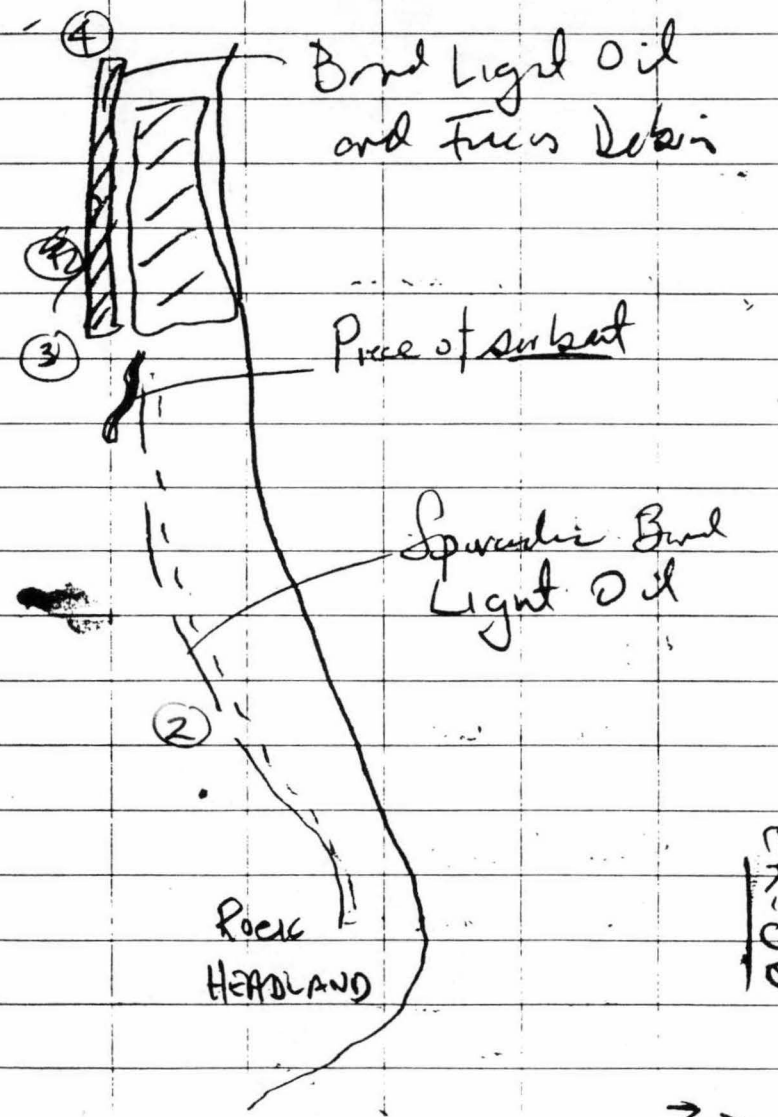
① Rocky / boulder steep structure

② Light oil sporadic band (1m) on east side

③ Light oil band (1m) on west side

④ Oiled Fucus debris at west end

⑤ Manual oil
No mechanical
Oil snare - wipe rag
- Fucus - cut / bag



version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Elrington Is. SITE: Sw shore OBSERVER: Stallar

LOCATION PREFIX: ER SEG. NO.: 6 LENGTH: 600 (M)

DATE: 6/23/89 TIME (HHMM): 1000-1030 TIDE HT.: _____ (M)

OILED ZONE: Splash (High) Medium Low

SUBSTRATUM: (Rocks Boulder Cobble) Gravel Sand Mud

LIVE BIOTA

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

Variable. Generally continuous & dense on rock/boulder, sparser & patchy on cobble.

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

Variable. Generally sparse, small individuals on rock/boulder. Some dense patches in cobble.

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

Variable. Generally dense & continuous on rock, sparse on smaller boulder/cobble.

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

Variable. Continuous, sparse to moderate density.

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

Variable. Continuous, sparse to moderate density.

OTHER OBSERVATIONS: Nucella patchy, some dense clusters. Sea stars sparse. Amphipods, blennies common under rocks. Some dense clusters of barnacles under rocks.

CLEANUP PRECAUTIONS: Proceed with as few people and as little disturbance as possible. Mechanical means not needed and not recommended

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

BIRDS: _____

GENERAL OBSERVATIONS: At least 6 common non-fucus species of algae in low intertidal, shallow subtidal.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/23/89 Location Ellington Island Site

Location Prefix ER Segment # ER-6 Length 600

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 light to none

Width of beach zone surveyed 10 m Tree fringe surveyed 10

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 moderately sloped boulder field

Fresh Water Sources two small streams

Sea Exposure protected to west

Access/Safety fair

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

Monitoring during cleanup needed yes/no Collection yes/no

Photos: Color Roll # Frames

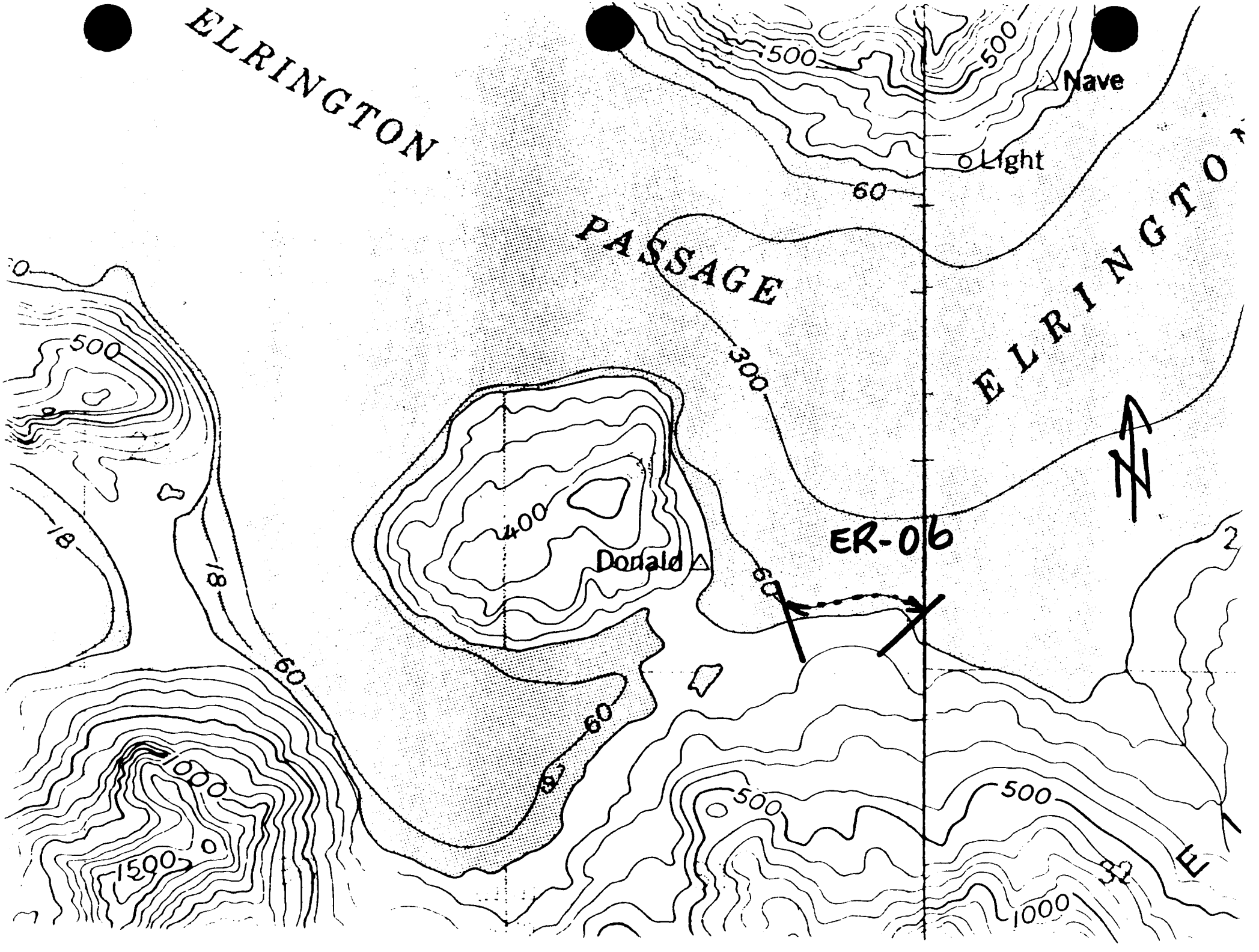
B/W Roll # Frames

Observer(s) C. Multon

Time survey started 1045 Time survey ended 1100

Cultural resource considerations/restraints:

If heretofore undiscovered cultural resources are uncovered during cleanup contact Exxon archeologist, C. Mobley, immediately


ELRINGTON
PASSAGE
ELRINGTON
Nave
Light
Donald
ER-06
500
500
60
300
400
18
18
60
60
60
600
1500
500
500
1000
32

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 6/28/89 SHORELINE SEGMENT ER-07

LOCATION: (see enclosed map) ELRINGTON ISLAND-ELRINGTON PASSAGE SOUTH END

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/23/89

Recommended Cleanup Activity(ies):

Cut and remove oiled fucus (popweed) on rocks. Remove oiled fucus and other debris.
Manually remove mousse asphalt with small work crews (10 workers at most).
No mechanical cleanup recommended at this time subject to FOSC approval; sensitive ecological area and light oiling.
Use other approved methods as appropriate.

Priorities Considerations:

Class 1: Oil present, time sensitive resources.
Class A: San Juan Fishery restrictions / SUBSISTENCE RESOURCES PRESENT 7/5/89 JM

Ecological Constraints (from site survey):

Use as few people and cause as little disturbance as possible. Do not disturb stream bed. Keep personnel out of the small lake vicinity.

Archeological Constraints (from site survey):

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

Douglas Reger — Date: 6/29/89
State Historic Preservation Officer *

ISCC: Jacquel Michel — Date: 7/5/89

EXXON: [illegible] — Date: July 5 1989

FOSC: [illegible] — Date: 7-6-89

SHORELINE OIL EVALUATION

Date: 6/23/89 Time: 10:40 Observer: RICK GILLIE

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

LOCATION ELRINGTON IS.

LOCATION ~~1,100~~ SEGMENT NUMBER ER-07

LENGTH OF SHORELINE SEGMENT: 1,100 m

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

SHORELINE:

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

Wave Exposure: High/Med/Low

Sediment: B 10 % / C 40 % / P 30 % / G 20 % / S ___ % / M ___ % / R ___ %

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

OIL

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

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

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

Sporadic: Y/N % of Segment 50

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

Pooled Oil: — % "Free" Oil: — % Coated: H 10 % / M 30 % / L 60 %

Fresh _____ % Mousse 10 % Tar Formation: 90 %

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

Comments:

(1) POTENTIAL ANADRAMOUS STREAMS.

(2) PATCHES (UP TO 100 m²) OF MOUSSE ASPHALT IN LTZ to HTZ. MATRIX IS SAND / GRANULES / BARNACLES / MUD.

6/23/1999

SEGMENT ER-07

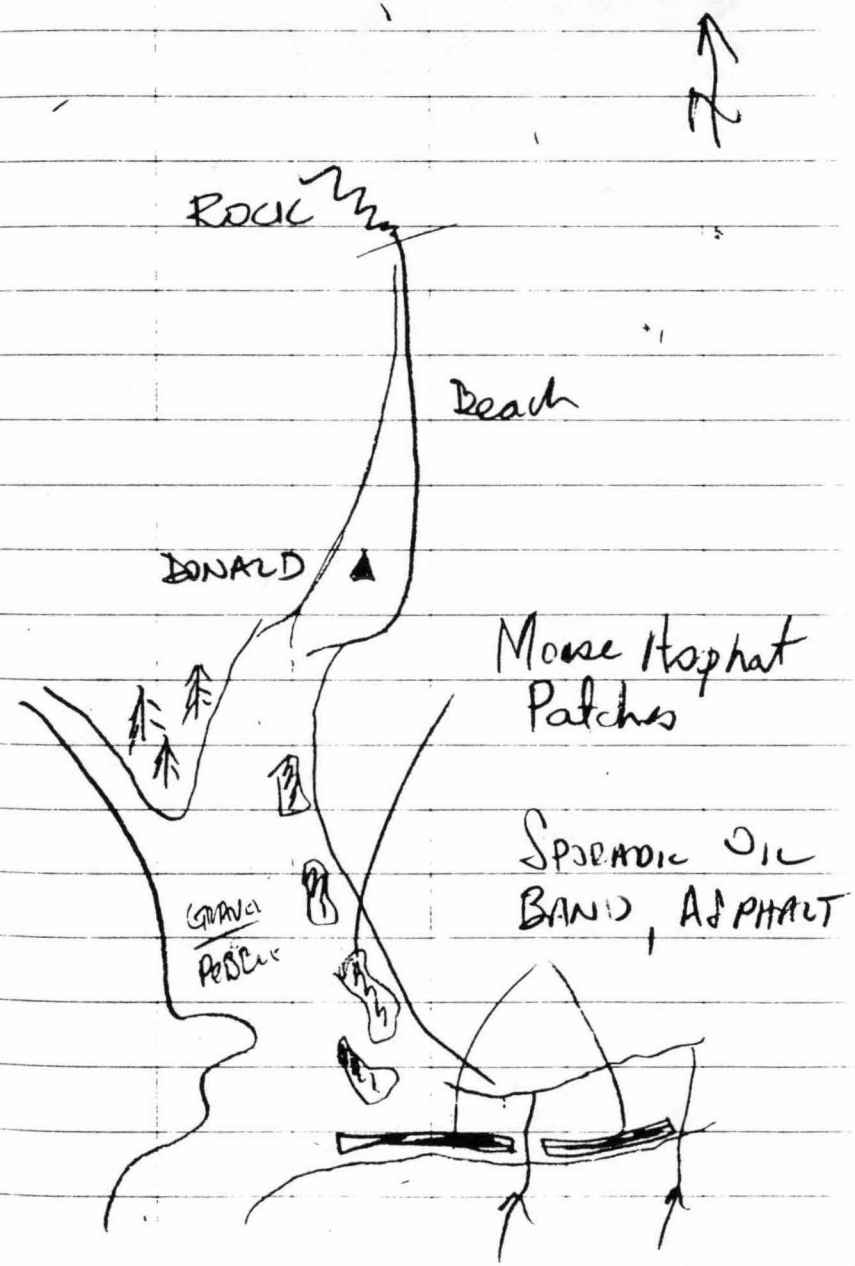
@ 10:40

(1) Wide ~~sand~~ ~~tidal~~ intertidal
aerial/terrestrial
- Mostly pebble/granule, with
some sand and cobble

(2) Oiled in HTZ
- Light coating in 1 cm wide
Band
- Some ~~of~~ incorporated asphalt
patches and bands (1m wide)
5cm deep.
- Oiled Fucus on rocks and
some Fucus debris

(3) Potential Anachamous stream

ER-07



version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Elrington Is. SITE: N. Tombolo OBSERVER: Stoller

LOCATION PREFIX: ER SEG. NO.: 7 LENGTH: 1100 (M)

DATE: 6/23/89 TIME (HHMM): 1030-1115 TIDE HT.: _____ (M)

OILED ZONE: Splash (High Medium) Low

SUBSTRATUM: Rocks Boulder (Cobble Gravel Sand) Mud

LIVE BIOTA

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

Small plants, variable density & distribution. Generally dense from high to mid tide zone.

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

Generally dense & continuous, broad beds in cobble/shale.

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

Variable & patchy. Generally sparse

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

Variable distribution & density. Generally sparse, some dense patches.

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

Generally sparse, variable.

OTHER OBSERVATIONS: Numerous bivalve shells on beach (saxidomus? cardites, other?). Gulls feeding on dense fish spawn on beach.
Deer tracks on beach.

CLEANUP PRECAUTIONS: If cleanup is to proceed do so with as few people and as little disturbance as possible. Do not remove mussel beds. Do not disturb stream bed or go into lake vicinity.

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

BIRDS: _____

GENERAL OBSERVATIONS: Segment consists of a shallow tombolo (isthmus?) flooded at high tide. Small stream & lake may provide spawning habitat for anadromous fish.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date ~~ER~~ 6/23/89 Location Ellington Island Site

Location Prefix ER Segment # ER-7 Length 1000

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 light to none

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

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) None

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

Shore Profile flat beach and flat ~~grassy~~ grassy upland

Fresh Water Sources stream

Sea Exposure protected to the west

Access/Safety good

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 _____

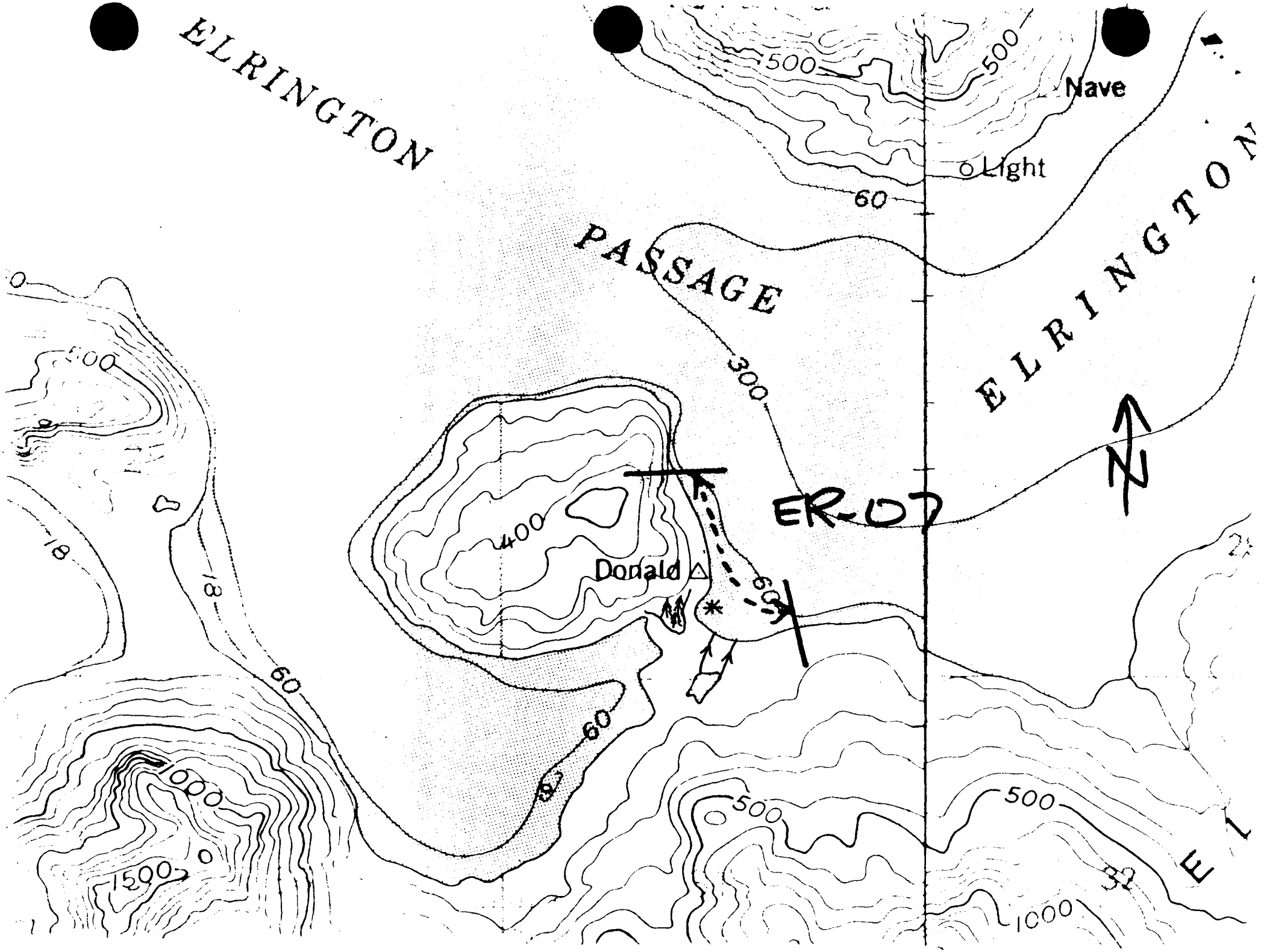
B/W Roll # _____ Frames _____

Observer(s) C Wilson

Time survey started 1100 Time survey ended 1130

Cultural resource considerations/restraints:

If heretofore undiscovered cultural materials are uncovered during cleanup contact Exxon archeologist, C Motley, immediately


ELRINGTON
PASSAGE
ELRINGTON
Nave
Light
500
500
60
300
400
Donald
ER-07
N
18
18
60
60
60
1000
1500
500
500
32
1000

(version 5/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): ERLINGTON PASSAGE SOUTH BLOCK

Includes Shoreline Segments: ER-08, ER-09, ER-10

Submitted : _____ Date: 7/8/89
(for Exxon)

ISCC ~~Approval~~ Recommendation: Sharon K. Christopherson Date: 7/17/89

08 FOSC Approval: _____ Date: 7/17/89

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.

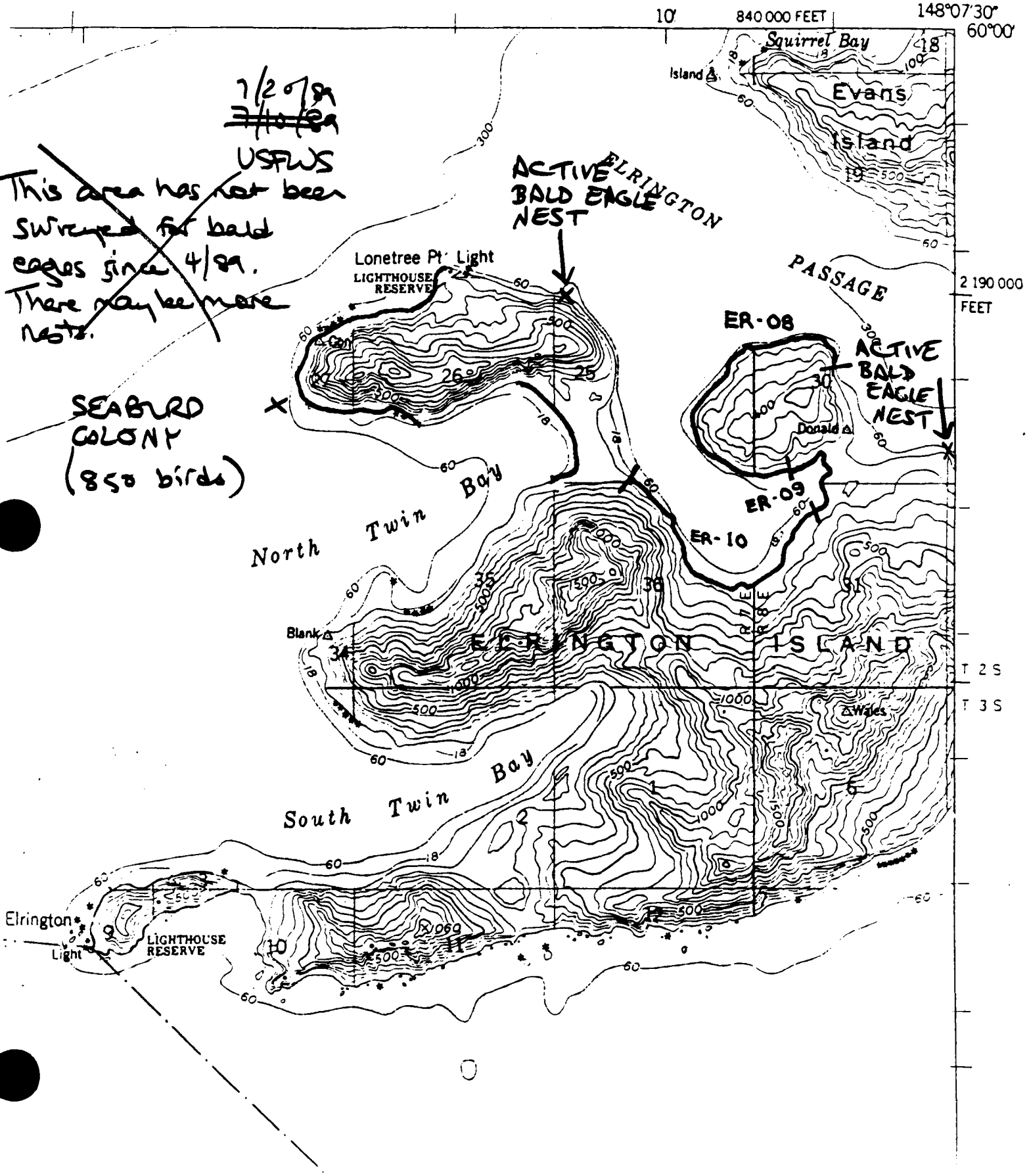
Distribution:

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

ELRINGTON PASSAGE
SOUTH BLOCK
ER-08, ER-09, ER-10

BLYING SOUND (D-4) QUADRANGLE
ALASKA
1:63 360 SERIES (TOPOGRAPHIC)



(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE July 1,1989 SHORELINE SEGMENT ER-08

LOCATION: (see enclosed map) Elrington Island - South end

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

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material (fucus).
- Use moderate to high pressure washing on vertical surfaces of rock and oiled logs.
- Use other approved methods as appropriate.

SC 7/17/89
7/17/89

Priorities Considerations:
Class 4: Light oil
A: Subsistence resources present

Ecological Constraints (from site survey): Work at mid tide and/or take appropriate measures to protect lower intertidal zone. An active bald eagle nest is located in the Eastern end of this segment. 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 E. Holmes — Date: July 7, 1989
State Historic Preservation Officer *

ISCC: Sharon K. Christopherson — Date: 7/17/89

EXXON: [illegible] — Date: 7/17/89

FOSC: [illegible] — Date: 7/17/89

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

SHORELINE OIL EVALUATION

Date: 6/25/89 Time: 09:50 Observer: RICK GILLIE

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

LOCATION

LOCATION ELRINGTON ISLAND SEGMENT NUMBER ER-08

LENGTH OF SHORELINE SEGMENT: 2,700 m

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

SHORELINE:

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

Wave Exposure: High/Med/Low

Sediment: B 20 % / C 10 % / P___ % / G___ % / S___ % / M___ % / R 70 % LOGS

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

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved - VERY LIGHT

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

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

Sporadic: Y/N % of Segment 30

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

Pooled Oil: — % "Free" Oil: — % Coated: H___ % / M___ % / L 100 %

Fresh — % Mousse — % Tar Formation: 100 %

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

Comments:

(1) REMOVED OILED DEBRIS.

6/25/89

Rick Gillie

SEGMENT ER-08

- @ 09:50

① Rock cliff / steep boulder slope with rare, short boulder beaches

② Oiling is sporadic. From very light to light coating (1-2 m) high on rock.

③ Some oiled debris (logs) Some oiled Fucus

④ Poor access because of steep rocky coast. Poor working conditions

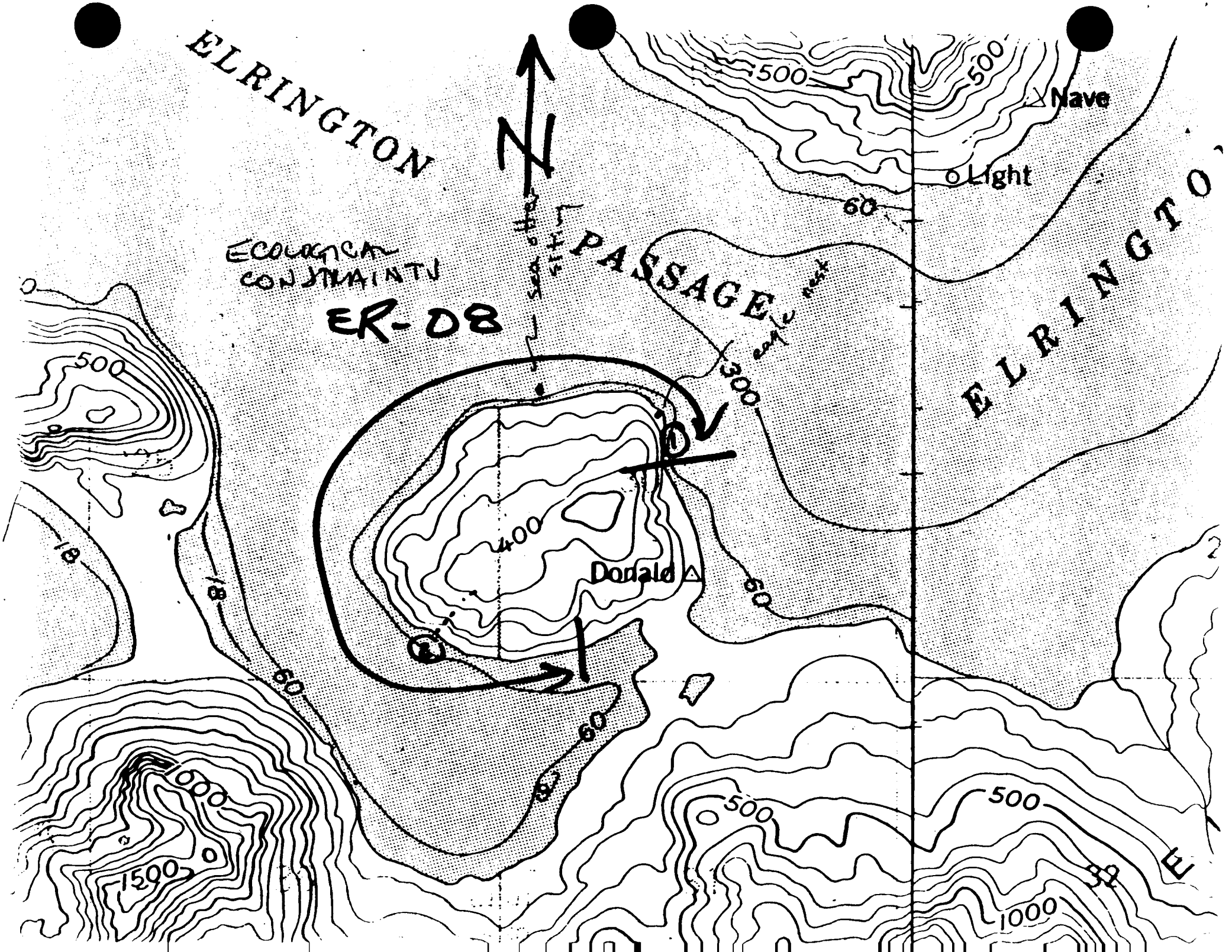
Sites ①

① Oil band on rocks. Site 1. (1 m high band in HTZ

- may have recoverable oil
- Moderate coating
- Oiled logs and driftwood
- Remove oiled sections
- Becomes light and discontinuous to the west

Site 2

- oil band (1 m) high
- 100-200 m long
- oiled logs


ELRINGTON
PASSAGE
ELRINGTO
ECOLOGICAL CONSTRAINTS
ER-08
Nave
Light
Donald
500
400
300
60
18
1000
1500

ECOLOGICAL EVALUATION

LOCATION: Prince William Sd SITE: Elrington Is. OBSERVER: ER White

LOCATION PREFIX: ER SEG. NO.: 08 LENGTH: 2700 (M)

DATE: 06 / 25 / 89 TIME (HHMM): 10:08 TIDE HT.: 1.5 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

- with other algae interspersed & macrocystis bed offshore onti

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

- larger of spud near high tide level

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

- some Nucella among barnacles.

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

OTHER OBSERVATIONS: dense schools of 10-15cm silver fish among kelp beds (Capelin?)

CLEANUP PRECAUTIONS: - protect lower intertidal & subtidal zones from oiling resulting from clean up on beaches.

MAMMALS: Otters 8 (sea otters in cove) Harbor Seals ____ Sea Lions ____ Whales ____

Other ____

BIRDS: 3 eagles (bald) near point - assume that they're a nesting pa & the nest in the vicinity (see map)

GENERAL OBSERVATIONS: ____

→ keep well clear of eagle area with all crews unless cleared with fish & wildlife.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/25/89 Location Elrington Island Site

Location Prefix ER Segment # ER-8 Length 2700

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 light + patchy

Width of beach zone surveyed 0 m Tree fringe surveyed 0

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) None

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

Shore Profile vertical wall face

Fresh Water Sources none

Sea Exposure protected to north + west

Access/Safety poor

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

Monitoring during cleanup needed yes no Collection yes no

Photos: Color Roll # Frames

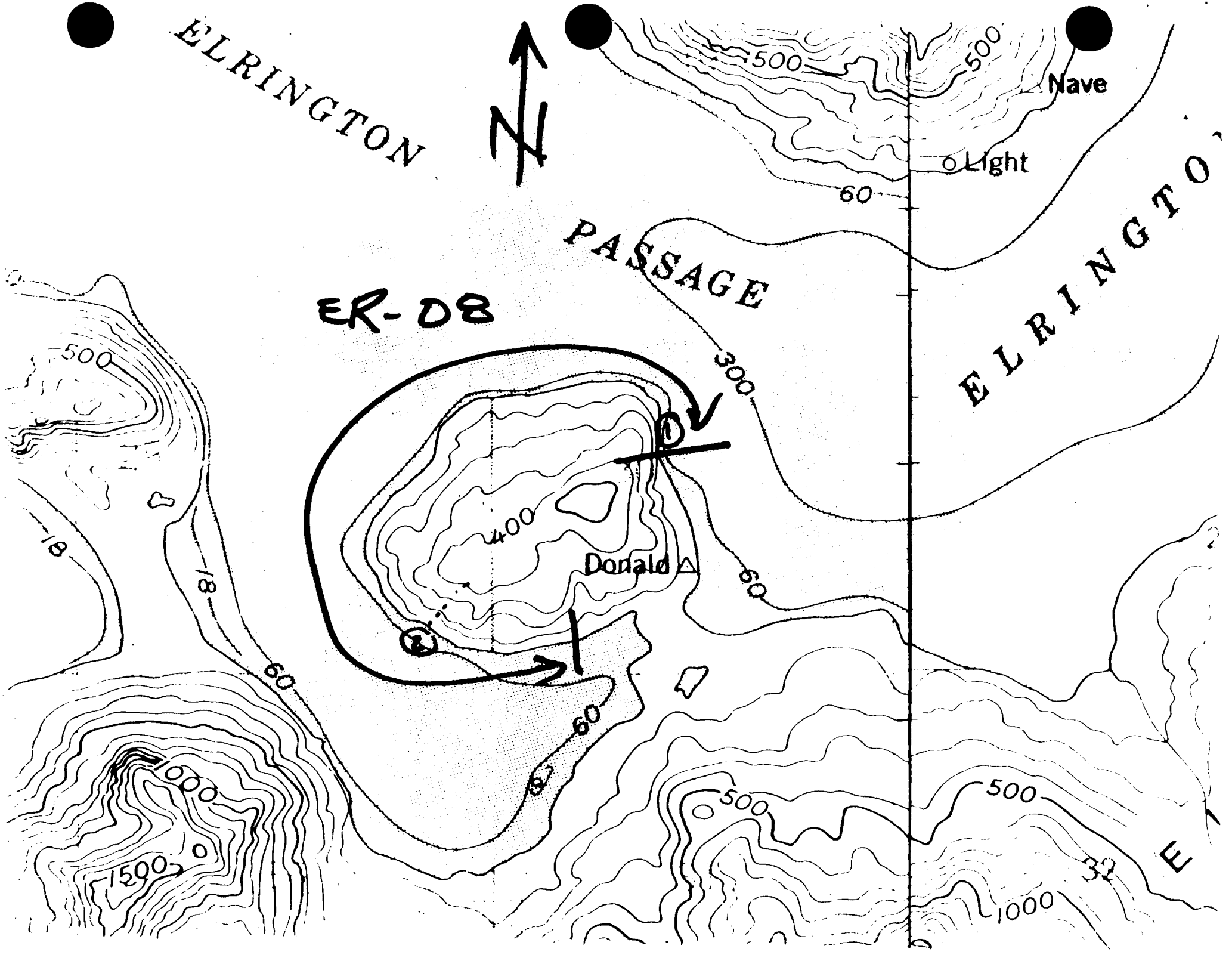
B/W Roll # Frames

Observer(s) C. Wilson

Time survey started 0930 Time survey ended 1130

Cultural resource considerations/restraints:

If heretofore undiscovered cultural resources are discovered during cleanup contact Exxon archaeologist, C Mobley immediately


ELRINGTON
PASSAGE
ELRINGTO
ER-08
N
Nave
Light
Donald
500
60
300
400
18
1000
1500
32

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/1/89 SHORELINE SEGMENT ER-09

LOCATION: (see enclosed map) Elrington Island - South end

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

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material (fucus) and patches of mousse.
- ~~Use other approved methods as appropiate.~~

SC 7/17/89
CO 7/17/89

Priorities Considerations:
Class 4: Light oil
A: Subsistance resources present

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

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

Charles E. Holmes — Date: July 7, 1989
State Historic Preservation Officer *

ISCC: Sharon K. Christopherson — Date: 7/17/89

EXXON: [illegible] — Date: 7/17/89

FOSC: [illegible] — Date: 7/17/89

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

SHORELINE OIL EVALUATION

Date: 6/25/89 Time: 11:30 Observer: RICK GILLIE

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

LOCATION

LOCATION ELRINGTON ISLAND SEGMENT NUMBER ER-09

LENGTH OF SHORELINE SEGMENT: 850 m

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

SHORELINE:

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

Wave Exposure: High/Med/Low

Sediment: B 20 % / C 20 % / P 30 % / G 10 % / S ___ % / M ___ % / R 20 %

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

OIL

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

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

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

Sporadic: Y/N % of Segment 30

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

Pooled Oil: — % "Free" Oil: — % Coated: H ___ % / M 40 % / L 60 %

Fresh — % Mousse 10 % Tar Formation: 90 %

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

Comments:

6/25/89

Rick Gribble

SEGMENT ER-09

@ 11:30

① Substrate
- Cobble / pebble / gravel beaches.
- Fan delta / tombolo
- Depositional
- Raised beach behind

② Oiling
- variable (see map)

③ Good Access
Low wave energy

Site ①
- Occasional mousse patches (up to 0.3m diameter) about 1 every 10m in band at HTZ
- Very light, discontinuous band of oil, very rare asphalt pads.

Site ②
- 1m Band (discontinuous) of incipiant asphalt
- 2-3cm thick HT
- remove with shovels

Site ③
- Discontinuous band of oil asphalt in HTZ
- 2-5 cm penetration

6/25/89 ER-09 (cont)

Rich Gillie

Site ③ Continued

- asphaltic surface has been partially buried and transported along the HTZ part of the beach by waves and current

Site ④

- Approx 100m of moderate oil band in HTZ on rocks.
- Oiled Fucus
- Cut and bag.

Site ⑤

- 100 m long cobble / pebble beach
- rare tar balls
- 5m band of light oil at HTZ
- manual cleanup
- oil band, stretches into MTZ(?)

ECOLOGICAL EVALUATION

LOCATION: Pr. William Sud. SITE: Elrington Is. OBSERVER: E.R. White

LOCATION PREFIX: ER SEG. NO.: 09 LENGTH: 850 (M)

DATE: 06/25/89 TIME (HHMM): 1100 TIDE HT.: 1 m (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

- dense beds of laminaria in sub tidal zone.
Zp or laminaria-type brown algae

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

occasional dense colony on individual rocks.

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

Some Nucella

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

OTHER OBSERVATIONS: obvious clam beds in sub tidal zone
species - Clinocardium spp.; Macoma spp & Saxidomus sp

CLEANUP PRECAUTIONS: protect sub tidal zone from wash down - sorbent booms/pads; recommend hand clean up only

MAMMALS: Otters 1 sea otter offshore. Harbor Seals ___ Sea Lions ___ Whales ___
Other black bear seen 3 times during site visit

BIRDS: 15-20 glaucous winged gulls on beach;

GENERAL OBSERVATIONS:

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/25/89 Location Ellington Island Site

Location Prefix ER Segment # ER-9 Length 850

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 light & patchy

Width of beach zone surveyed 30 m Tree fringe surveyed 10 m

Cultural resources observed in beach zone (AHRS code) ~~FXF, HT1~~

Cultural resources observed in tree fringe (AHRS code) FXF, HT1

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

Shore Profile flat, horseshoe shaped beach

Fresh Water Sources stream

Sea Exposure protected to west

Access/Safety good

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

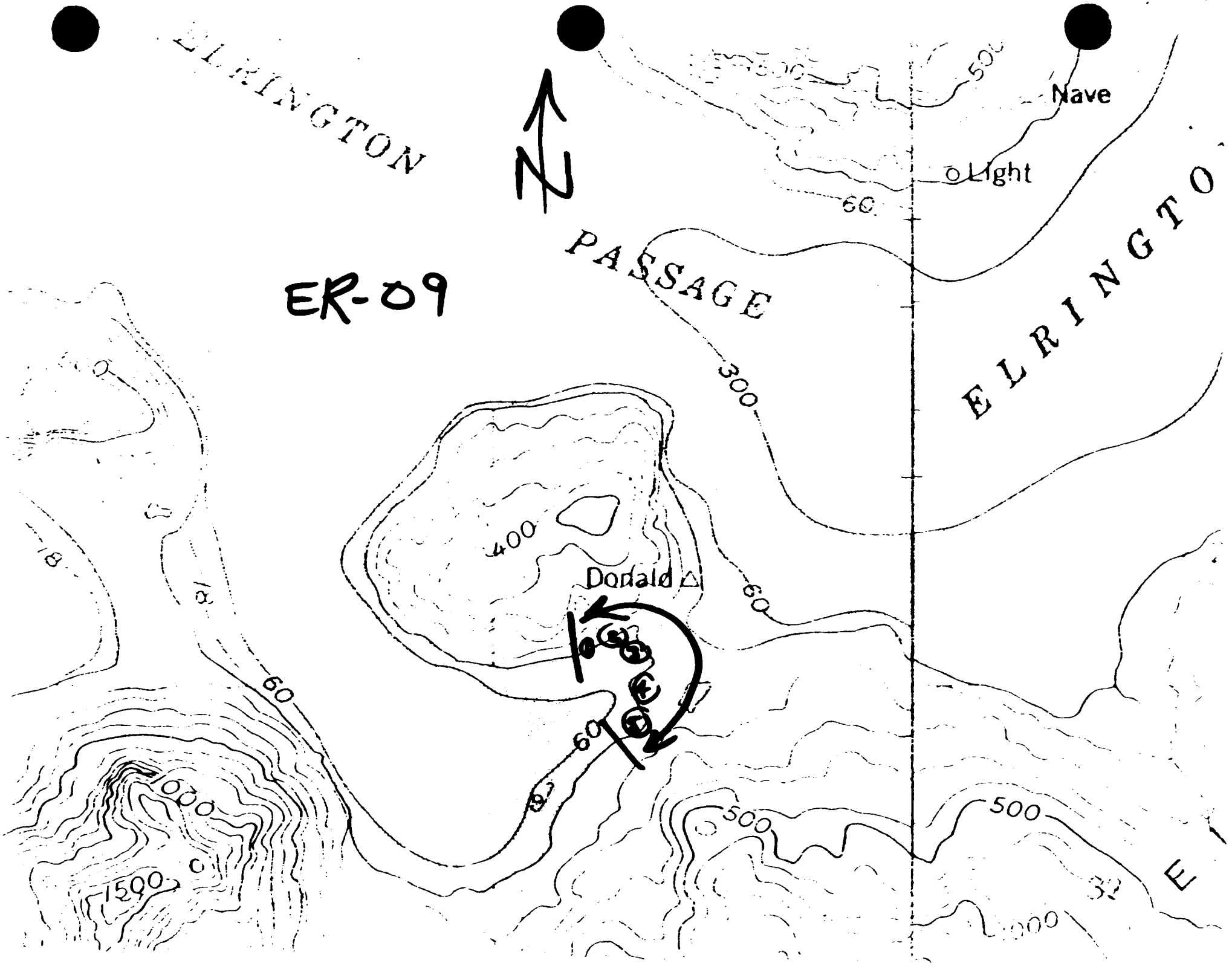
B/W Roll # Frames

Observer(s) C. Wilson

Time survey started 1130 Time survey ended 1400

Cultural resource considerations/restraints:

Prohibition of access to the wetlands should be particularly enforced. If heretofore undiscovered cultural resources are uncovered during cleanup contact Exxon archaeologist, C. Mobley, immediately


ER-09
ELRINGTON
PASSAGE
ELRINGTO
Nave
Light
Donald
N
300
400
500
1000
1500
60
32

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/1/89 SHORELINE SEGMENT ER-10

LOCATION: (see enclosed map) Elrington Island - South end

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

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material (fucus) and patches of mousse.
- ~~Use moderate to high pressure washing on rock and oiled logs.~~
- Use other approved methods as appropiate.

SC 7/17/89 7/17/89 CO

Priorities Considerations:
Class 4: Light oil
A: Subsistance resoures present

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

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 Holmes — Date: July 7, 1989
State Historic Preservation Officer *

ISCC: Sharon K. Christopherson — Date: 7/17/89

EXXON: [signature] — Date: 7/17/89

FOSC: [signature] — Date: 7/17/89

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

SHORELINE OIL EVALUATION

Date: 6/25/99 Time: 12:45 Observer: RICK GILLIE

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

LOCATION

LOCATION ELRINGTON IS. SEGMENT NUMBER ER-10

LENGTH OF SHORELINE SEGMENT: 1,750 m

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

SHORELINE:

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

Wave Exposure: High/Med/Low

Sediment: B 30 % / C 20 % / P 10 % / G ___ % / S ___ % / M ___ % / R 40 % LOGS

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

OIL

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

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

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

Sporadic: Y/N % of Segment 20

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

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

Fresh — % Mousse 5 % Tar Formation: 95 %

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

Comments:

6/25/89 Rick Gillie

SEGMENT ER-10

-@ 12:45

① - Oil band (1m) around island

② Patches of oiled Fucus in the band of oil on rocks.

R = 40
B = 30
C = 20
P = 10

③ Sporadic band of oil

④ Patches of moussed ~~band~~ mussel beds around creek mouth. Some small pools (0.1m) of mousse.

- Recommend removal of oiled sediments / mussels by shovel and bags

⑤ Patch of oil band on east side of debris/stream delta

⑥ Rest of segment has very light or no oil band.

ECOLOGICAL EVALUATION

LOCATION: Pr. William Sd. SITE: Elrington Is. OBSERVER: E.R. White

LOCATION PREFIX: ER SEG. NO.: 10 LENGTH: 1750 m. (M)

DATE: 06/25/89 TIME (HHMM): 1400 TIDE HT.: 1.5 (M)

OILED ZONE: Splash (High) Medium Low

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

LIVE BIOTA

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

- laminaria-type brown algae covering bottom subtidally

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

- some dense colonies on beaches.

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

- good spat set near high tide line.

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

- several species of Nucella observed + concentrations of Littorina near high tide line

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

OTHER OBSERVATIONS: - encrusting bryozoans amongst algae on vertical rock faces. / several *Nereis brandti* seen under rock

CLEANUP PRECAUTIONS: recommend hand cleanup on beaches only / protect lower intertidal from oiling

MAMMALS: Otters 3 (~sea otters.) Harbor Seals ____ Sea Lions ____ Whales ____
Other ____

BIRDS: 3 marbled murrelets offshore / 4 immature mergansers + 10-25 glaucous winged gulls.

GENERAL OBSERVATIONS: ____

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/25/89 Location Ellington Island Site

Location Prefix ER Segment # ER-1D Length 175-0

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 light and patchy

Width of beach zone surveyed 0-10 m Tree fringe surveyed 10m

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) None

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

Shore Profile Mostly boulder field

Fresh Water Sources two streams

Sea Exposure protected to north

Access/Safety poor

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

Monitoring during cleanup needed yes no Collection yes no

Photos: Color Roll # Frames

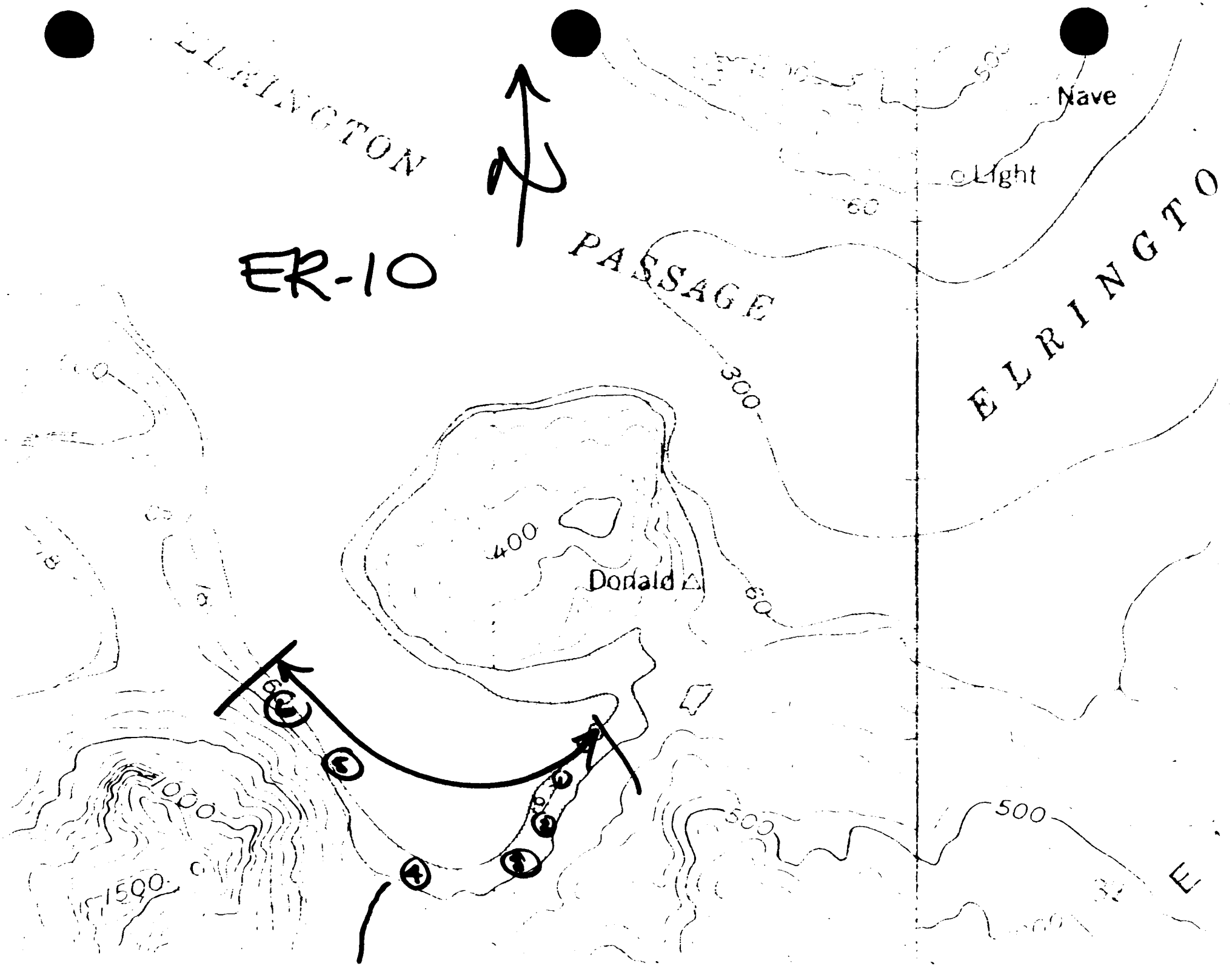
B/W Roll # Frames

Observer(s) C. Wilson

Time survey started Time survey ended

Cultural resource considerations/restraints:

If heretofore undiscovered cultural materials are uncovered during cleanup contact Gypson arch-archeologist, C. McKay, immediately.


ER-10
ELRINGTON
PASSAGE
ELRINGTO
Nave
Light
Donald
300
400
500
1000
1500
60
1
2
3
4
5
6

(version 5/13/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): Lonetree Point East Block

Includes Shoreline Segments: ER-11, ER-12

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

ISCC Approval: Sharon K. Christopherson Date: 7/12/89

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.

Distribution:

Exxon Shoreline Coordinator
Exxon Shoreline Supervisor
Exxon SCAT file

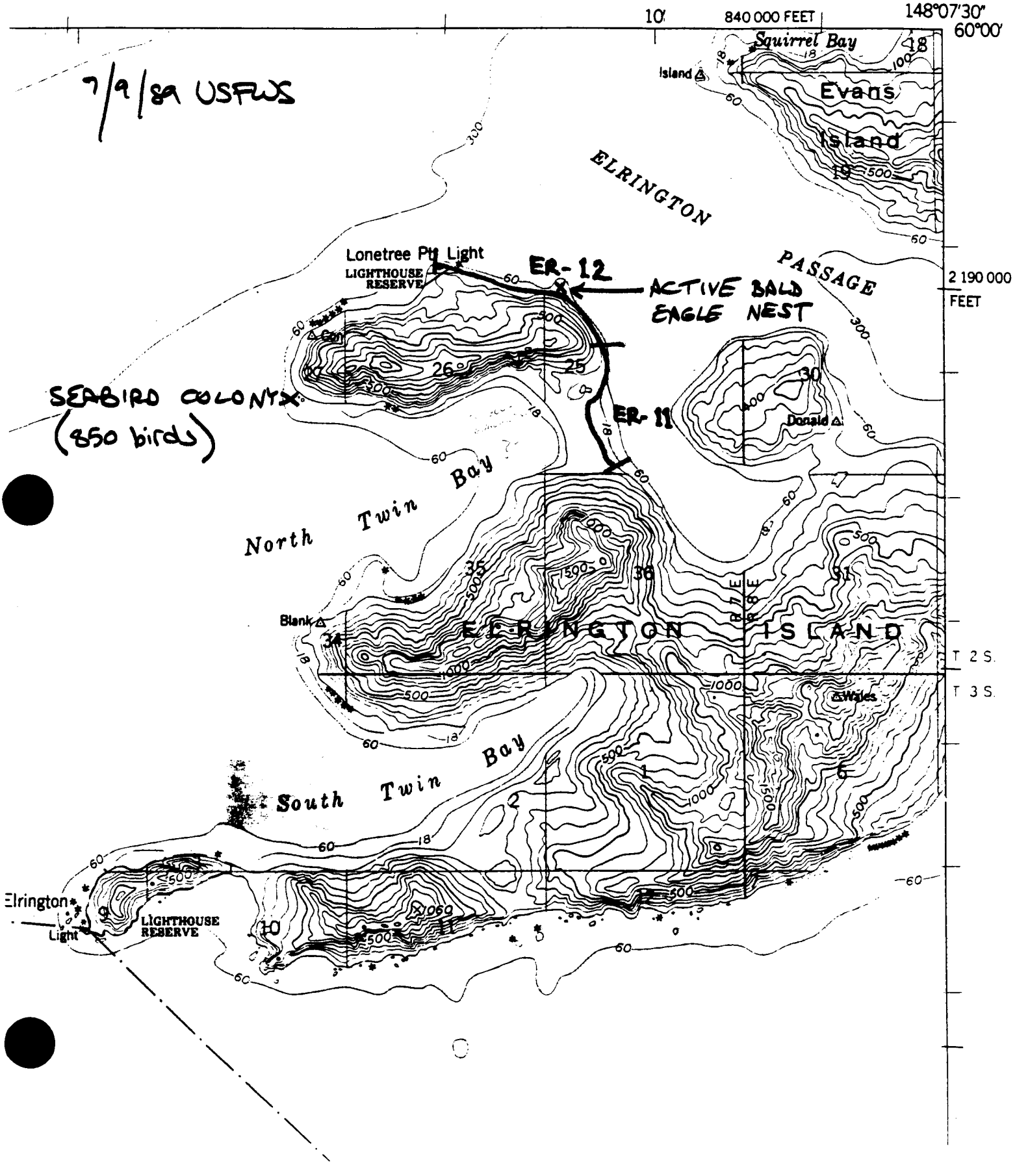
FOSC
CDFU
NOAA
EPA
USDA (FS)
USFW
A.DEC
A.FG
A.DNR
CAC
PWSCA
USFS
SHPO

LONETREE POINT EAST BLOCK

ER-11, ER-12

BLYING SOUND (D-4) QUADRANGLE
ALASKA
1:63 360 SERIES (TOPOGRAPHIC)

(SEWA



(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6/30/89 SHORELINE SEGMENT ER-11

LOCATION: (see enclosed map) Elrington Island Unnamed Cove at south end

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

Recommended Cleanup Activity(ies):
- Manually removed contaminated drift material (fucus), pooled oil and patches of mousse.
- Flood/flush with warm to hot water (up to 140 F) on low angle cobble beaches.
- Use moderate to high pressure washing on oiled logs.
- ~~Raking or tilling by~~ bobcat or similar vehicle may be necessary to break up incipient asphalt pavement.
- Use other approved methods as appropriate

Priorities Considerations:
Class 2-3: Heavy to moderate oil
A: Subsistance resources present

Ecological Constraints (from site survey): Work at mid tide and/or take measures to protect lower intertidal zone. An active bald eagle nest is located in the southern 1/3 of this segment. Any cleanup activity in area of lagoon should be limited to a small crew. ?

Archeological Constraints (from site survey):
Wash but not disturb pieces of pipe in intertidal zone. If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Charles E Holmes Date: July 4, 1989
State Historic Preservation Officer *

ISCC: _____ Date: _____

EXXON: _____ Date: _____

FOSC: _____ Date: _____

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

Date: June 26 1989 Time: 0945 Observer: David Wilke

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

LOCATION

LOCATION Unnamed Cove, S. Elrington Island SEGMENT NUMBER ER-11

LENGTH OF SHORELINE SEGMENT: 805 m

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

SHORELINE:

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

Wave Exposure: High/(Med)/(Low)

Sediment: B 15 % / C 30 % / P 25 % / G 15 % / S 15 % / M — % /R — %

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

OIL

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

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

Continuous: (Y)/N % of Segment 85 } Width of Bands 1—10 m

Sporadic: (Y)/N % of Segment 45 } (2 bands, occasionally 3) See section sketches attached.

Est. Oil Thickness where > 1cm: 2—4 cm Est. Oil Penetration: 2—8 cm

Pooled Oil: 5 % "Free" Oil: 15 % Coated: H 45 % /M 30 % /L 5 %

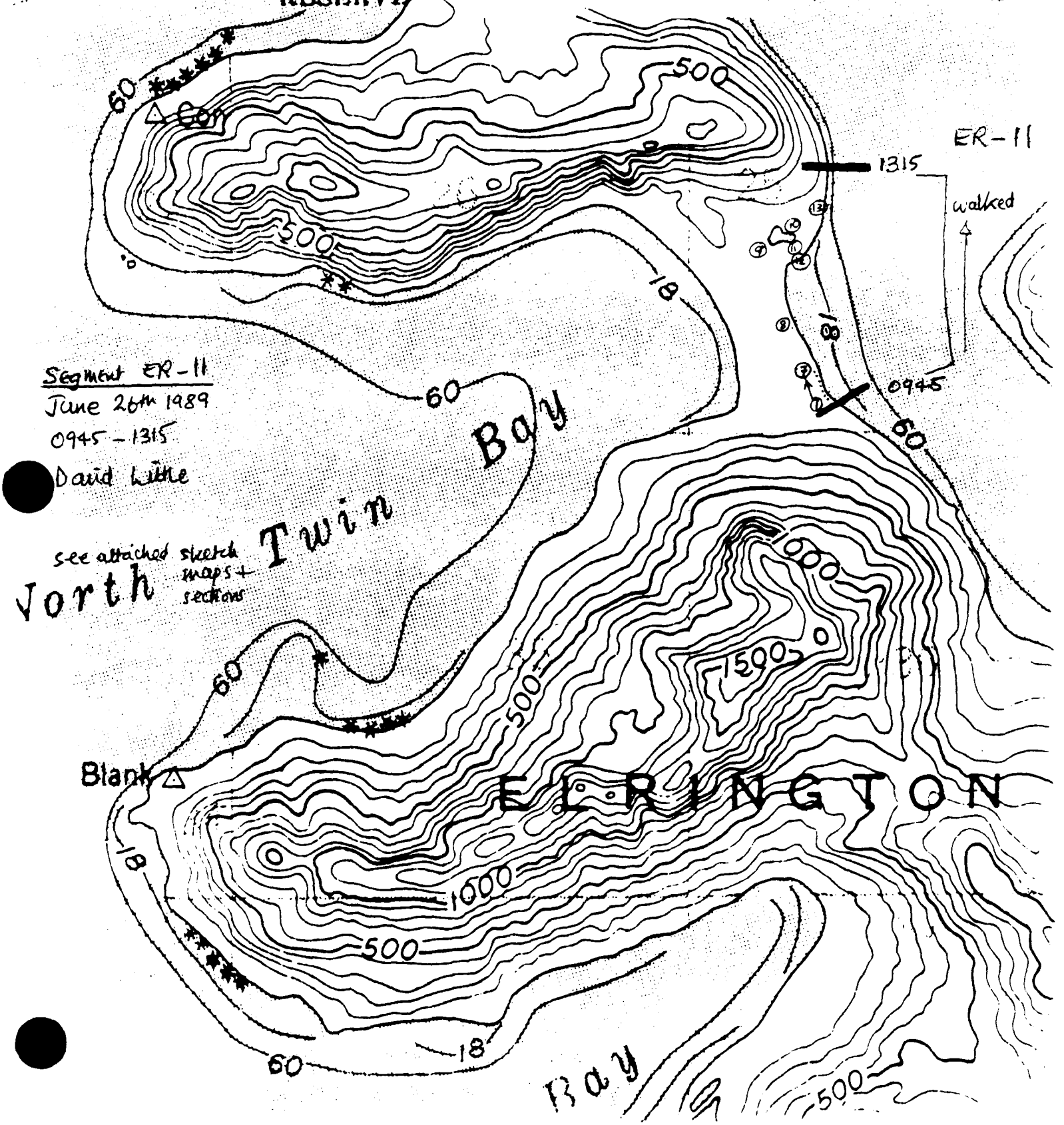
Fresh 65 % Mousse 5 % Tar Formation: 30 %

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

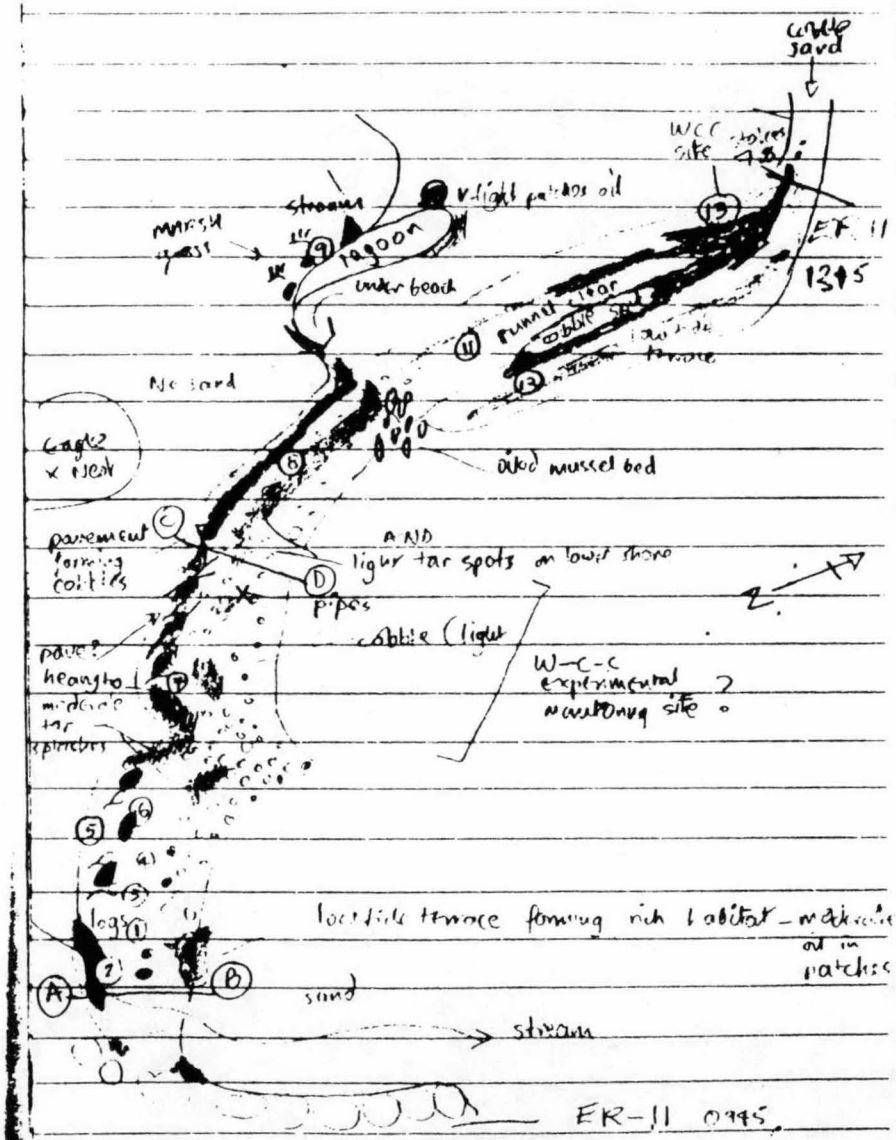
Comments:

Upper beachface and strandline heavily-oiled. In sandy areas, more sporadic oiling forming 'pedastals' of oiled sand up to 2 cm in height. In Pebble and cobble areas, a continuous band of oiling almost the full length of shore, except near the lagoon. Low tide cobbly terrace moderately oiled, particularly at northern and southern ends of segment. Drift logs and algae drift heavily oiled in patches, including sensitive marsh grass at locality (9). Pits dug at localities (1)—(13) (see attached maps). Joined at end of segment by Steve Henrig, Peggy Fox and Jim Wolf of Chugach National Forest.

2	30	sand / granule	mousse 4 cm thick
3	33	sand / pebble	no oil – oiled rizo
4	35	sand / pebble	" "
5	37	sand	" "
6	25	sand / pebble	mousse 4 cm thick, 3-5 cm pen
7	12	cobble / pebble / sand	oil 3 cm → pavement ?
8	25	" " "	oiled sediment 6–8 cm dee
9	6	sand / peat	oil 2 cm thick on surface
10	25	sand / granules	1 cm oil penetration under
11	30	sand	thin layer oil buried at 3 cm
12	15	cobble / granule	oiled to 4 cm depth
13	10	cobble / sand beneath	free oil to 3 cm, 2 cm pen



Heavy ? OIL
Moderate ?

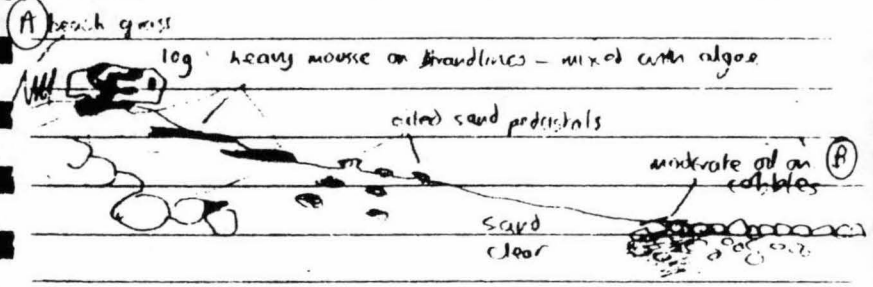


location (2) oil 'peeling' in heat = 'free' oil.
Some parts at location (12) too.

ER-11

- in Southern tenner, upper beachface and strandline heavily oiled with mousse – "weeping" up from surface sand in hot weather (1)-(2)
- oiled sand (penetration / buried 4 cm – 6 cm) and algae also forming 'pedestals' of oiled 'pavement' at mid tide level. but pits at this locality were not oiled.
- At low tide – rich cobble and pebble/sand terrace terrace.

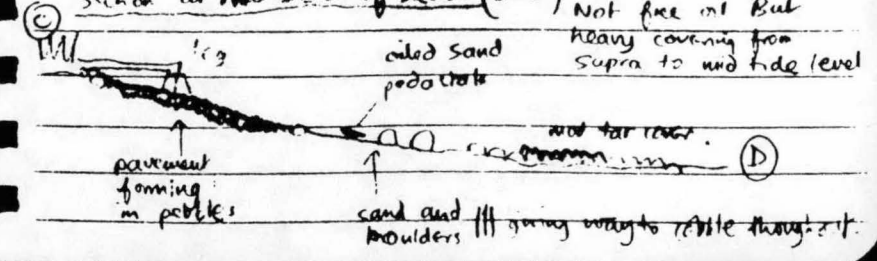
Section at SE end of Beach. (A–B).



- at EHLOT (supra?) well sorted sand clean except for occasional mousse patches.

Section at mid section of Beach. (C–D)

Not free oil But heavy covering from supra to mid tide level



ECOLOGICAL EVALUATION

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

LOCATION PREFIX: ER SEG. NO.: 11 LENGTH: 800 (M)

DATE: 06 / 26 / 89 TIME (HHMM): 600-1300 TIDE HT.: 1.6 - 0.6 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks / Boulder Cobble Gravel Sand / Mud

sand / cobble on beach face
boulder / cobble in low / mid tide

LIVE BIOTA

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

- good growth on cobbles in mid-low tide. good growth of laminarea-type algae in sub tidal

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

some dense colonies in low/mid tide range - no mussels on beach face

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

on cobbles generally low on beach face & low tide terrace

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

on cobbles generally low on beach / Nucella among Fucus

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

on cobbles among Fucus

OTHER OBSERVATIONS: - very active & healthy sub tidal zone / healthy ecologically diverse lagoon on N.E. end of beach with small salt marsh in backsh
- many annelid worms & hermit crabs among cobbles [See over] B

CLEANUP PRECAUTIONS: - clear any & all activities with ADF&G prior to any initiation of cleanup due to eagle nest. NO major activities in area of lagoon [see over] A

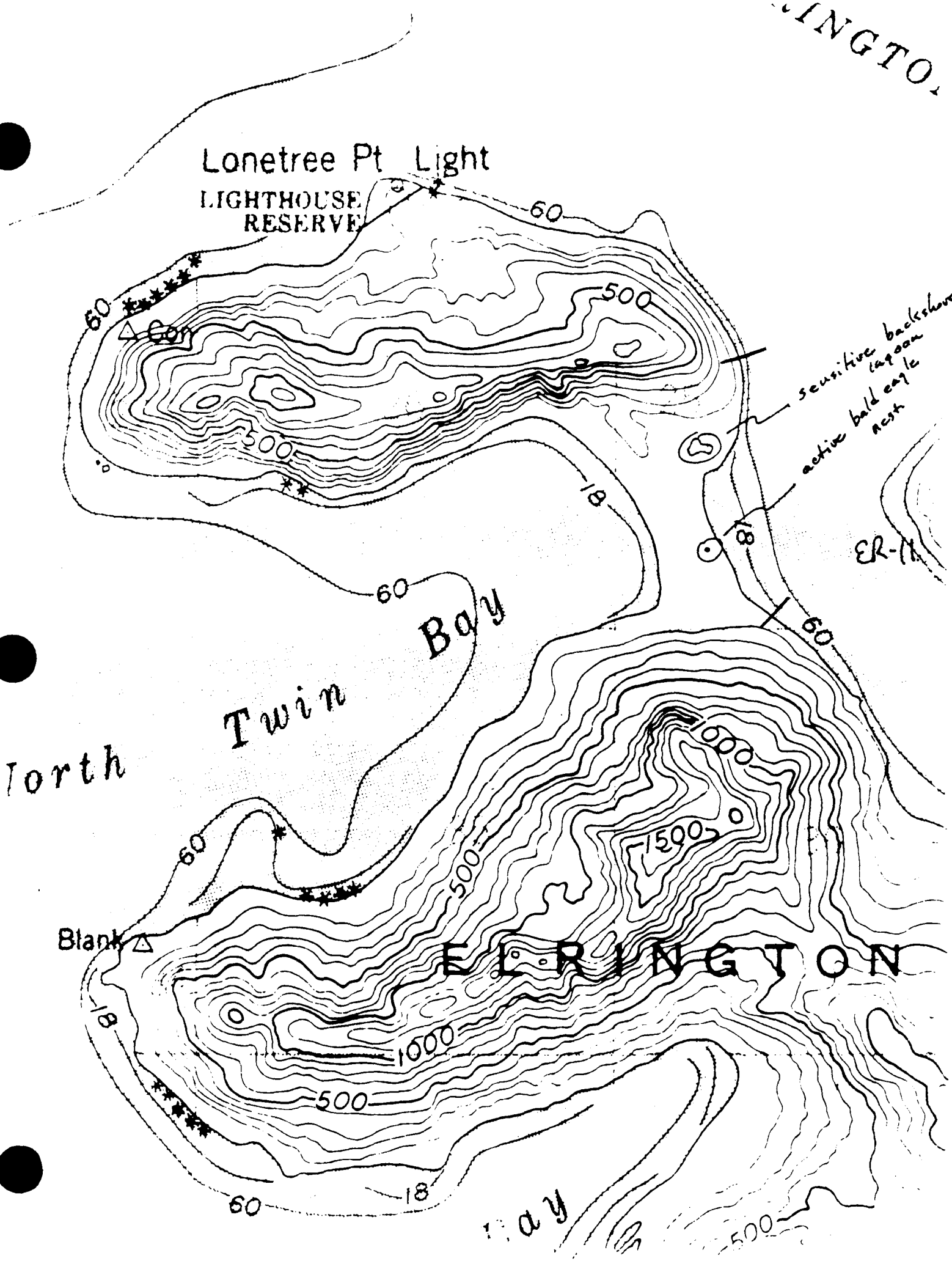
MAMMALS: Otters ___ river otter tracks seen @ south end of segment Harbor Seals ___ Sea Lions ___ Whales ___
Other ___

BIRDS: 1 dunlin in lagoon / 6 terns on beach / 2 eagles with nest (see map)

GENERAL OBSERVATIONS: segment is badly oiled but has 2 ecologicall sensitive features - an active bald eagle nest & the back shore lagoon which need to be protected.

? LOCATION ?

SEE NEXT PAGE


Lonetree Pt Light
LIGHTHOUSE RESERVE
60
500
Con
sensitive backshore lagoon
active bald eagle nest
18
ER-1
Twin Bay
North
1000
1500
ELRINGTON
Blank
Bay

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/26/89 Location Ellington Island Site

Location Prefix EL Segment # EA-11 Length 805

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 heavy oil

Width of beach zone surveyed 10-30 m Tree fringe surveyed 10

Cultural resources observed in beach zone (AHRS code) ~~None~~ HT1

Cultural resources observed in tree fringe (AHRS code) ~~None~~ RCS

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

Shore Profile segment begins as a sand/gravel beach and below a small cobble beach for most of its length

Fresh Water Sources none

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 # Frames

B/W Roll # T4-A2-24,32 Frames

Observer(s) C. Wilson

Time survey started 0945 Time survey ended 1430

Cultural resource considerations/restraints:

Cleanup the metal pipe on the beach. If heritage or undiscovered cultural material is discovered during cleanup notify Exxon archaeologist, C. Mobley, immediately.

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6/30/89 SHORELINE SEGMENT ER-12

LOCATION: (see enclosed map) Elrington Island - East of Lonetree Point

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

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material (fucus), pooled oil and patches of mousse.
- Use moderate to high pressure washing on rock and oiled logs.
- Use other approved methods as appropriate.

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

Ecological Constraints (from site survey): Work at mid tide and/or take appropriate measures to protect lower intertidal zone, and offshore kelp beds.
Active bald eagle nest - 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.

Charlon Z. Holmes Date: July 4, 1989
State Historic Preservation Officer *

ISCC: _____ Date: _____

EXXON: _____ Date: _____

FOSC: _____ Date: _____

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

SHORELINE OIL EVALUATION

Date: June 26 '89 / Time: 1430 Observer: David Little

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

LOCATION

LOCATION Lonetree Point, Elrington Is. SEGMENT NUMBER ER-12

LENGTH OF SHORELINE SEGMENT: 1630 m

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

SHORELINE:

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

Wave Exposure: High/Med/Low

Sediment: B 40 % / C 30 % / P 10 % / G 10 % / S 5 % / M — % / R 5 %

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

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: 3—15 M. m

Sporadic: Y/N % of Segment 40

Est. Oil Thickness where > 1cm: 4 cm Est. Oil Penetration: 2—25 cm

Pooled Oil: 5 % "Free" Oil: 10 % Coated: H 20 % / M 30 % / L 35 %

Fresh 65 % Mousse 5 % Tar Formation: 30 %

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

Comments:

One heavily-oiled band of oil measuring 130 m x 15 m. was observed in boulders and cobbles at location (3)→(4). This band was occasionally composed of mousse pools and elsewhere a moderate coating of oil down to 25 cm. depth in the sediment (4). Where sediment was sand grade beneath cobbles, penetration was only 2 cm. (3) Rocks were oiled at locations (2) and (5) ~ moderately coated and splashed above HWM at (5).

ECOLOGICAL EVALUATION

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

LOCATION PREFIX: ER SEG. NO.: 12 LENGTH: 1630 (M)

DATE: 06 / 26 / 89 TIME (HHMM): 1400 - 1520 TIDE HT.: 0.6 - 1.6 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA - all live biota on this beach are infaunal - within the beach not on the surface

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

- some laminarea-type brown algae in subtidal - kelp bed offshore of segment.

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

- some dense colonies on rock stacks & large boulders; otherwise sparse occurance under boulders.

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

- under boulders & large cobbles

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

- under boulders & large cobbles.

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

- under boulders & large cobbles.

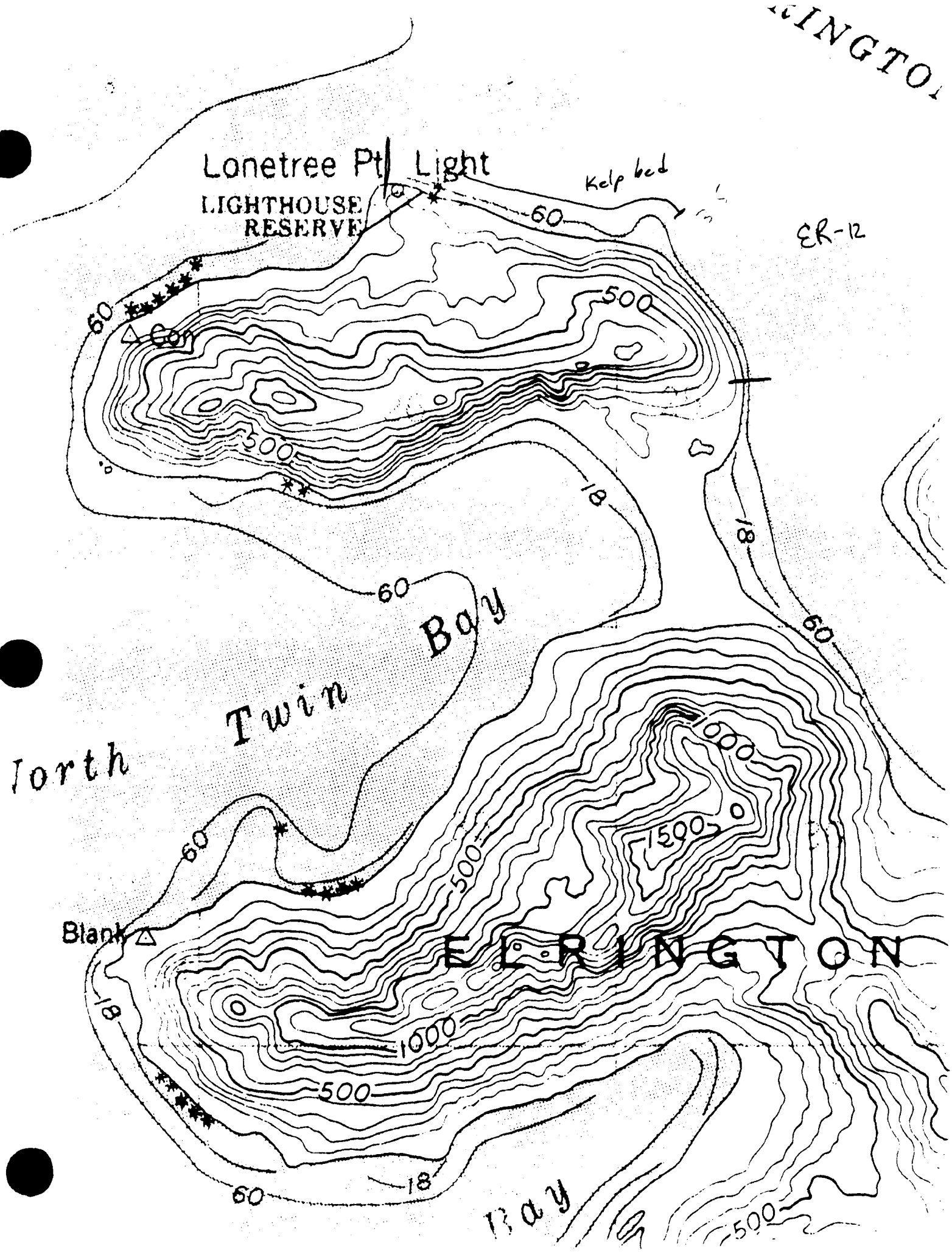
OTHER OBSERVATIONS: - lower portion of beach face supports a healthy population of infaunal biota; kelp bed offshore is valuable fish habitat & forms a forage ground for sea otters & sea lions.

CLEANUP PRECAUTIONS: - minimize damage to offshore kelp bed & protect lower beach face from oiling & physical disturbance

MAMMALS: Otters 4 Harbor Seals ____ Sea Lions 4 Whales ____
Other ____

BIRDS: ____

GENERAL OBSERVATIONS: ____


Lonetree Pt Light
LIGHTHOUSE RESERVE
Kelp bed
ER-12
60
500
Con
18
Twin
Bay
North
1000
1500
Blank
ELRINGTON
Bay

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/26/89 Location Ellington Island Site

Location Prefix ER Segment # ER-12 Length 1630

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 light to moderate

Width of beach zone surveyed 0-10 m Tree fringe surveyed 10

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 boulder beach with vertical wall face containing small rock overhangs

Fresh Water Sources small streams

Sea Exposure protected to ~~east~~ west

Access/Safety fair

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

Monitoring during cleanup needed yes/no Collection yes/no

Photos: Color Roll # Frames

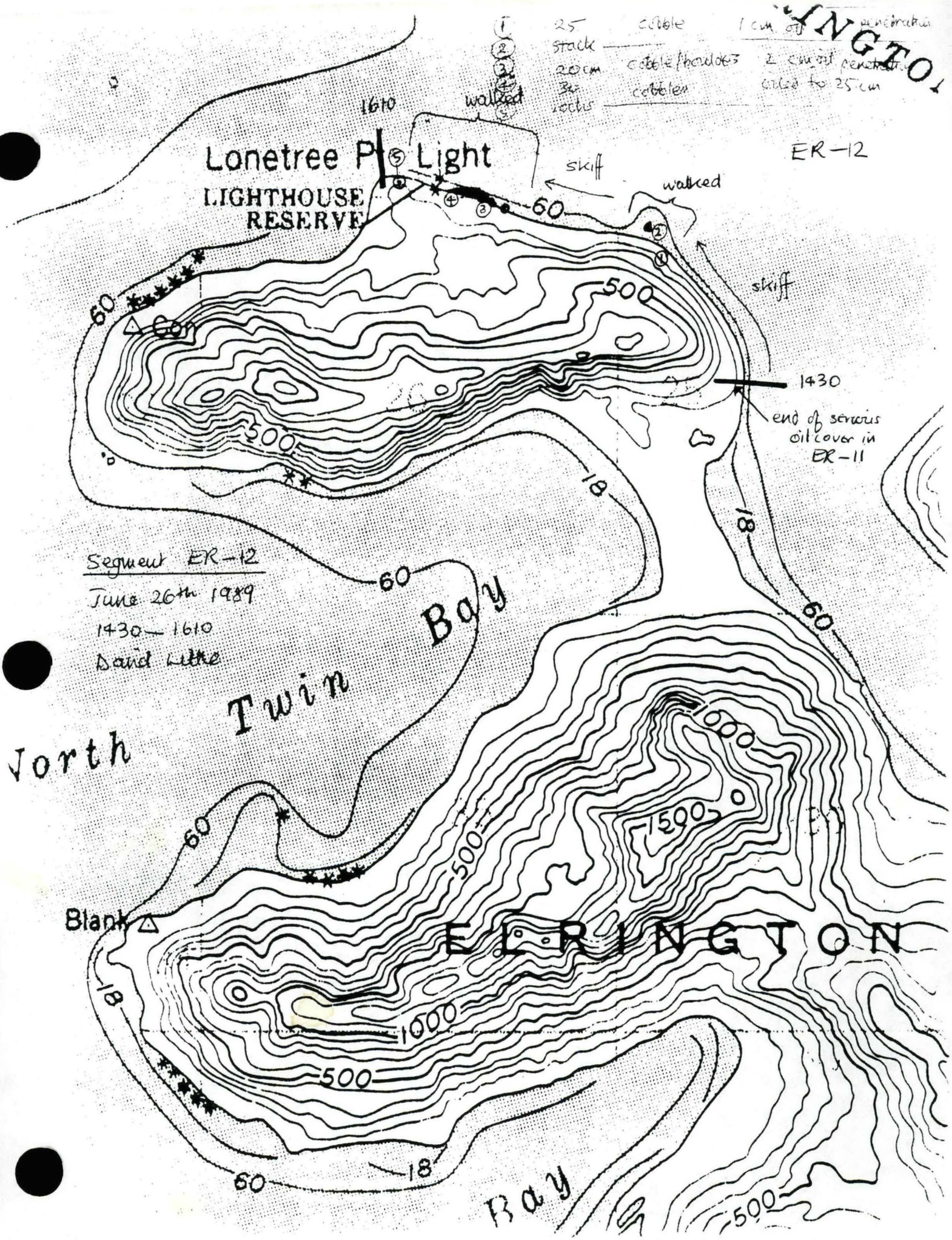
B/W Roll # Frames

Observer(s) C. Mobley

Time survey started 1430 Time survey ended 1615

Cultural resource considerations/restraints:

If heretofore undiscovered cultural material is found during cleanup contact Exxon archeologist, C. Mobley, immediately


ER-12
1610
walked
Lonetree Pt Light
LIGHTHOUSE RESERVE
skiff
walked
skiff
60
500
1430
end of serious oil cover in ER-11
18
Segment ER-12
June 26th 1989
1430 — 1610
David Lithe
Twin Bay
North
Blank
ELRINGTON
1000
1500
Bay

FINAL ASSESSMENT LOG

SEGMENT ER-11 DATE 9/17/89

1. COVERAGE BY SURFACE OIL

- [ ] NONE
- [x] INTERMITTENT
- [ ] LIGHT (<10%)
- [ ] MODERATE (10-50%)
- [ ] HEAVY (>50%)

DESCRIPTION: 1" thick thin band of tar/sand mix about 100 yd long

2. SUBSURFACE OIL DEPTH: 1 INCHES

NOTES:

3. SHEEN IN AREA? [ ] YES [x] NO

NOTE:

4. OBVIOUS DAMAGE

FLORA	[ ] YES	[x] NO
FAUNA	[ ] YES	[x] NO
ARCHAEOLOGICAL	[ ] YES	[x] NO

NOTES:

5. DEBRIS FOR PICKUP [x] YES [ ] NO

DESCRIPTION: Fuel Bladder & 4 cases motor oil

6. COMMENTS: Marked by flourescent triangle

J Kemen
SIGNATURE

SCOT Commander
POSITION

Cleared For M 7/~~24~~ 17

(version 5/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): LONE TREE POINT WEST BLOCK

Includes Shoreline Segments: ER-13, ER-14

Submitted : _____ 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:

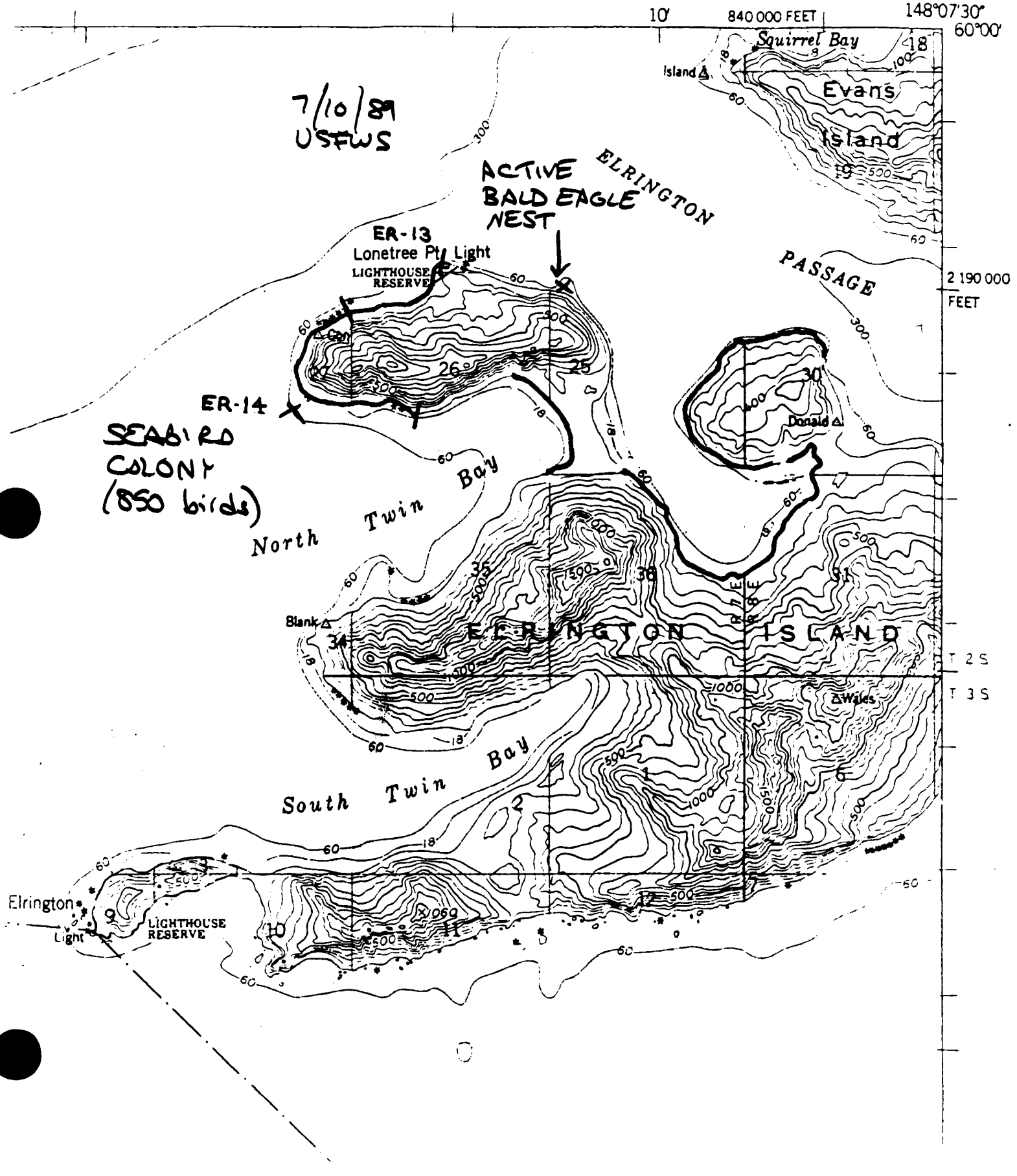
Exxon Shoreline Coordinator
Exxon Shoreline Supervisor
Exxon SCAT file

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

LONETREE POINT WEST BLOCK

ER-13, ER-14

BLYING SOUND (D-4) QUADRANGLE
ALASKA
1:63 360 SERIES (TOPOGRAPHIC)



(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 6/30/89 SHORELINE SEGMENT ER-13

LOCATION: (see enclosed map) ELRINGTON ISLAND-WEST OF LONETREE POINT

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/27/89

Recommended Cleanup Activity(ies):

- Manually remove contaminated drift material (fucus), pooled oil and patches of mousse. 7-07-17
- Flood/flush with warm to hot water (up to 140 F) MAY BE APPROPRIATE on low angle beaches. ~~To Remove FREE OIL~~ NEAR LOCATION 3. 7/17/89
- ~~Use moderate to high pressure washing on rock and oiled logs.~~ 7/17/89
- Use other approved methods as appropriate. 7-07-17

Priorities Considerations:

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

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

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 — Date: July 7, 1989
State Historic Preservation Officer *

ISCC: Sharon K. Christopherson — Date: 7/17/89

EXXON: [illegible] — Date: 89-07-17

FOSC: [illegible] — Date: 7/17/89

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

SHORELINE OIL EVALUATION

Date: June 27th 89 Time: 1355 Observer: David Little

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

LOCATION

LOCATION Lighthouse Reserve SEGMENT NUMBER ER-13

LENGTH OF SHORELINE SEGMENT: 950 m

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

SHORELINE:

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

Wave Exposure: (High/Med)/Low

Sediment: B 65 % / C 10 % / P 5 % / G — % / S 5 % / M — % / R 15 %

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

OIL

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

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

Continuous: Y/(N) % of Segment — Width of Band: 0.5 m

Sporadic: (Y)/N % of Segment 0.5

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

Pooled Oil: — % "Free" Oil: 50 % Coated: H 20 % / M 20 % / L 10 %

Fresh 75 % Mousse — % Tar Formation: 25 %

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

Comments:

This segment was lightly but very sporadically oiled. One 2m x 50 cm band of "free" oil was found on shoreward face of a stack at location (3). Some random patches of tar were also found on vertical cliffs at eastern end of segment, and on small cobbles at locations (1) and (3). Boulders at western end of segment (W. of location (4)) and rocks at western end, and also pits at locations (1) and (2) were all free of oil (See attached map.)

ECOLOGICAL EVALUATION

LOCATION: Pr. William Sd. SITE: Elrington Is. OBSERVER: E.R. White

LOCATION PREFIX: ER SEG. NO.: 13 LENGTH: 950 (M)

DATE: 06/27/89 TIME (HHMM): 1400 - 1600 TIDE HT.: 0.6 - 1.0 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA - no visible epi fauna on beach face.

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

- Fucus, enteromorpha; Halosaccion on outcrops / offshore kelp beds.

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

- occur in sheltered areas of rock outcrops

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

- Balanus cariosus & B. glandula & wide spread spat set on bed rock outcrops

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

- on rock outcrops & under larger boulders.

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

- esp. on outcrops & large boulders.; also slipper shells Collisella & chitons Katharina tunicata

OTHER OBSERVATIONS: - segment is fronted by a continuous kelp bed Nereocystis luetkeana

CLEANUP PRECAUTIONS: no washing &/or flushing on beach - do not introduce hydrocarbons into the water column

MAMMALS: Otters 1 sea otter Harbor Seals ____ Sea Lions 1 → probably ♀ or immature Whales ____
Other ____

BIRDS: one bald eagle in trees - no nest observed

GENERAL OBSERVATIONS: visible epi fauna limited to large boulders & outcrops; 2 sand lance (dead) were on beach & dense schools of small (5-8 cm) fish were seen inshore of kelp bed

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 27 JUNE 1989 Location Elrington Island Site _____

Location Prefix ER Segment # ER-13 Length approx ~~750m~~ 950

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 oiling

Width of beach zone surveyed 30-50 m Tree fringe surveyed 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 Medium - sloping large cobble beach fringed w/ rock out croppings and a mix of Spruce, Alder, etc.

Fresh Water Sources NONE

Sea Exposure Exposed beach facing Northwest.

Access/Safety Exposure to surf and weather.

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 —

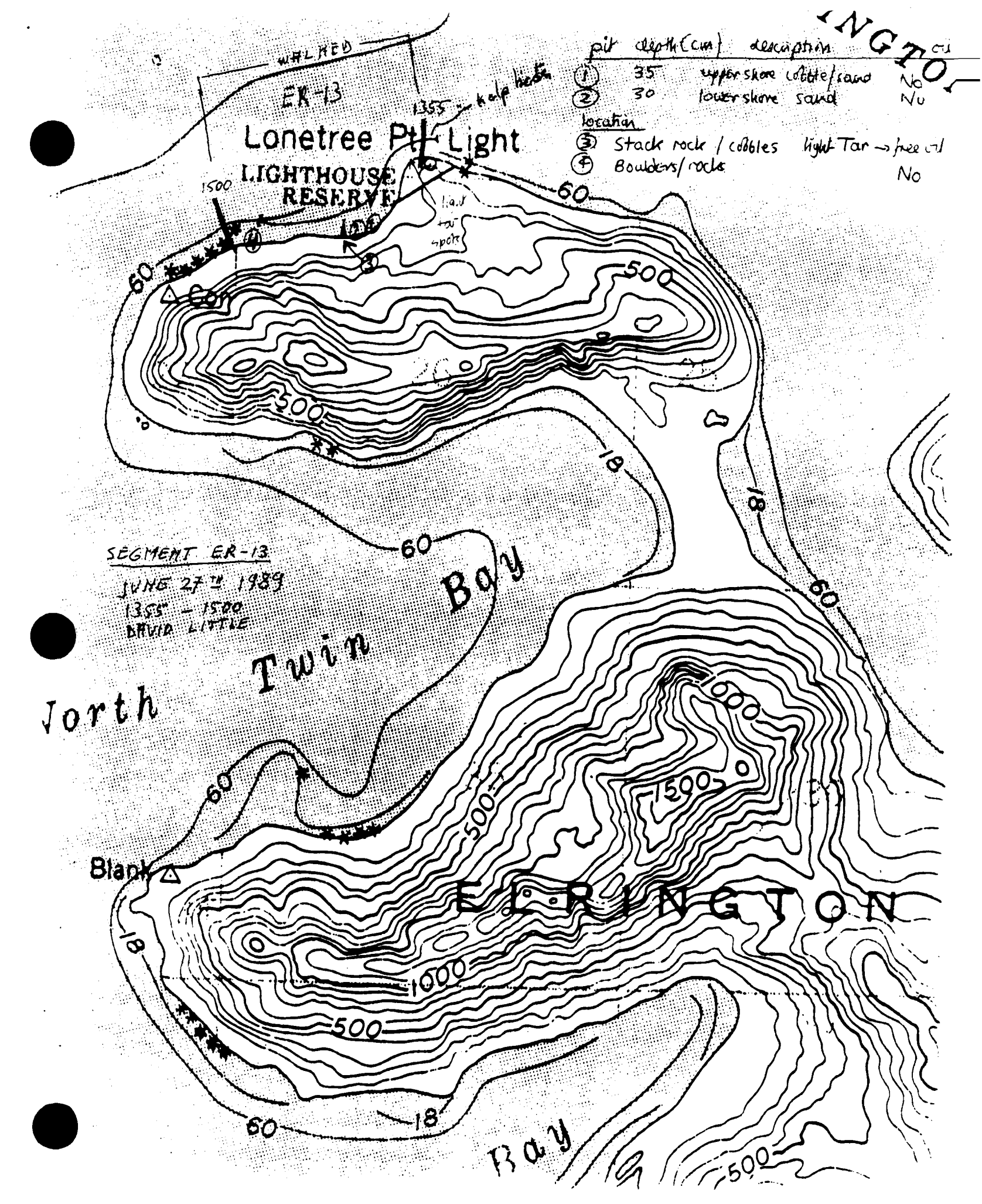
B/W Roll # NONE Frames —

Observer(s) TY L. DILLIPLANE

Time survey started 1355 Time survey ended 1515

Cultural resource considerations/restraints:

If heretofore undiscovered cultural resources are discovered during cleanup, notify Exxon archaeologist, C. Mobley, immediately.


WALKED
ER-13
Lonetree Pt Light
LIGHTHOUSE RESERVE
1355 - kelp heavy
1500
60
500
18
1000
Twin Bay
North
Blank
ERRINGTON
Bay
SEGMENT ER-13
JUNE 27TH 1989
1355 - 1500
DAVID LITTLE
pit depth (cm) description
1 35 upper shore cobble/sand No
2 30 lower shore sand No
location
3 Stack rock / cobbles light Tar → free oil
4 Boulders/rocks No

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 6/30/89 SHORELINE SEGMENT ER-14

LOCATION: (see enclosed map) ELRINGTON ISLAND-NORTH END OF NORTH TWIN BAY

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/27/89

SC 7/17

Recommended Cleanup Activity(ies):
No cleanup recommended at this time (subject to FOSC ~~approval~~) REASSESSMENT AT A LATER DATE due to no oil.

CP 89-07

Priorities Considerations:
No oil.

Ecological Constraints (from site survey):
A sensitive seabird colony is located in this segment.

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

Charles E Holmes — Date: July 7, 1989
State Historic Preservation Officer *

ISCC: Sharon K Christopherson — Date: 7-17-89

EXXON: [illegible] — Date: 89-07-17

FOSC: [illegible] — Date: [illegible]

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

SHORELINE OIL EVALUATION

Date: June 27th 89 Time: 1515 Observer: David Little

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

LOCATION

LOCATION Headland N. of N-Twin Bay SEGMENT NUMBER ER-14

LENGTH OF SHORELINE SEGMENT: 1830 m

ACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane None

SHORELINE:

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

Wave Exposure: (High)/Med/Low

Sediment: B 25 % / C 5 % / P — % / G — % / S — % / M — % / R 70 %

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

OIL

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

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

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

Sporadic: Y/N % of Segment —

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

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

Fresh — % Mousse — % Tar Formation: — %

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

Comments:

Survey by skiff only since no landing was possible. Binoculars were used in excellent light conditions and no oil was observed. Basaltic rock cliffs and active screes, offshore rocks, etc. make it possible that unobserved oil patches were present.

ECOLOGICAL EVALUATION

LOCATION: Pr. William Sd. SITE: Elrington Is OBSERVER: E.R. White

LOCATION PREFIX: ER SEG. NO.: 14 LENGTH: 1830 (M)

DATE: 06 / 27 / 89 TIME (HHMM): ~~[illegible]~~ 15:15-1600 TIDE HT.: 1.0 - 1.6 (M)

OILED ZONE: Splash High Medium Low no oil observed - skiff survey only

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

also Halosaccion; Laminarea; Maria etc - healthy rocky exposed coast commu
- intermittent kelp beds around headland

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

- couldn't observe from skiff

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

- couldn't observe from skiff.

OTHER OBSERVATIONS:

CLEANUP PRECAUTIONS: - impossible to access this segment safely; do not disturb seabird colony on North shore of North twin bay.

MAMMALS: Otters 2 sea otters. Harbor Seals ____ Sea Lions 1 - large ♂ Whales ____
Other

BIRDS: 20-30 kittiwakes (black legged); 7-10 puffins - horned; 2 pidgeon guillemots; bald eagl
10± red faced cormorants

GENERAL OBSERVATIONS:

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 27 JUNE 1989 Location ELRINGTON ISLAND Site _____

Location Prefix ER Segment # ER-14 Length 1830 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 NO OIL OBSERVED

Width of beach zone surveyed 5 m Tree fringe surveyed N/A

Cultural resources observed in beach zone (AHRS code) NONE

Cultural resources observed in tree fringe (AHRS code) N/A

General observations justifying survey method and segment's site probability

Shore Profile STEEP ROCK FACES

Fresh Water Sources NONE

Sea Exposure Fully exposed to open sea w/ no bays or coves.

Access/Safety Exposure to surf & weather.

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 —

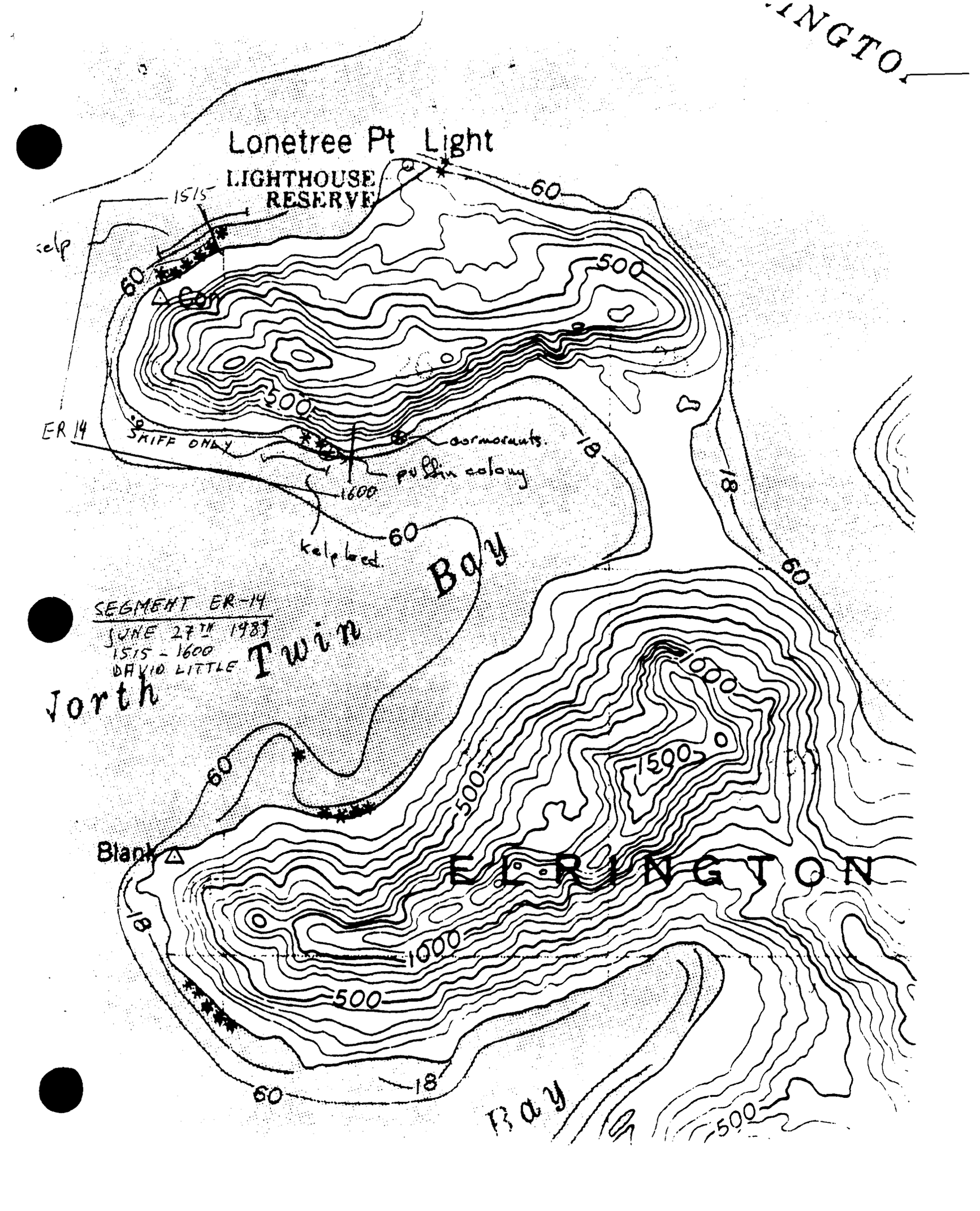
B/W Roll # NONE Frames —

Observer(s) TY L. DILLIPLANE

Time survey started 1515 Time survey ended 1600

Cultural resource considerations/restraints:

If heretofore undiscovered cultural resources are discovered during cleanup, notify Exxon archaeological director, C. Mobley, immediately.


Lonetree Pt Light
LIGHTHOUSE RESERVE
1515
kelp
60
500
ER 14
SKIFF ONLY
cormorants.
puffin colony
1600
kelp bed.
18
Bay
SEGMENT ER-14
JUNE 27TH 1989
1515 - 1600
DAVID LITTLE
Twin
Jorth
1000
1500
Blank
ELRINGTON
Bay

(version 5/24/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): North Twin Bay East Block

Includes Shoreline Segments: ER - 15

Submitted : _____ Date: 6/30/89
(for Exxon)

ISCC Approval: Sharon K. Christopherson Date: 7/7/89

FOSC Approval: C E Mollin Date: 7/8/89

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

Distribution:

Exxon Shoreline Coordinator
Exxon Shoreline Supervisor
Exxon SCAT file

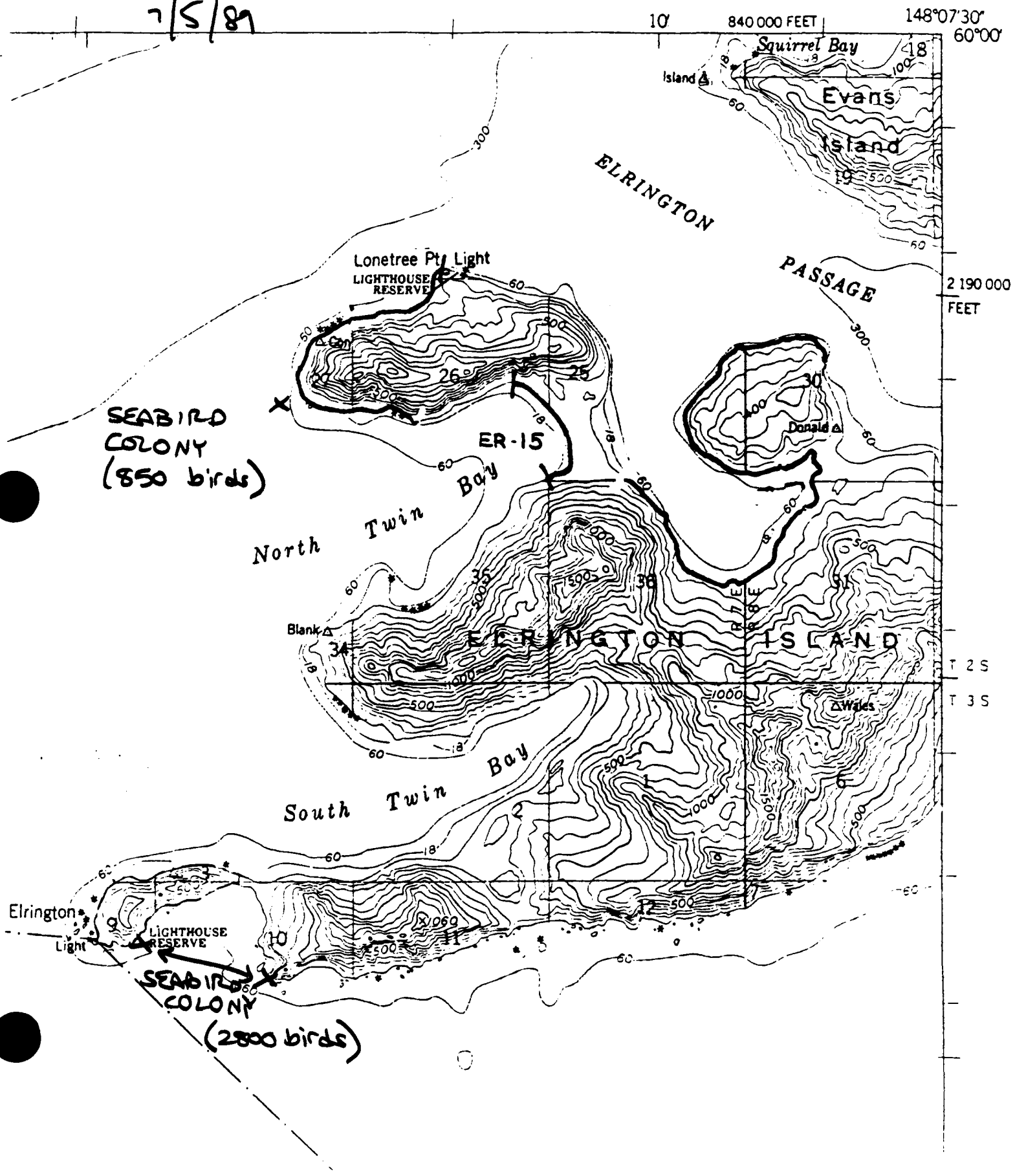
FOSC
CDFU
NOAA
EPA
USDA (FS)
USFW
A.DEC
A.FG
A.DNR
CAC
PWSCA

NORTH TWIN BAY EAST
BLOCK

ER-15

7/5/89

BLYING SOUND (D-4) QUADRANGLE
ALASKA
1 : 63 360 SERIES (TOPOGRAPHIC)



(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6/30/89 SHORELINE SEGMENT ER-15

LOCATION: (see enclosed map) Elrington Island - Eastern beach of North Twin Bay.

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6-27-89

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material (fucus) and patches of mousse.
- No other cleanup activities recommended at this time (subject to ~~FOSC approval)~~ due to ecological constraints. FOSC reassessm. at a later date.
- After the fall bird migration, a reassessment should be conducted and further cleanup activities considered.

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

Ecological Constraints (from site survey):
A large seabird colony is located in this segment. Further cleanup activities should be conducted only after fall bird migration.

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. NOTE PRESENCE OF HISTORICAL CABIN SITE. CAUTION BE ALERT FOR ANY ~~REMAINTS~~ REMNANTS WHICH MAY HAVE ENDED UP IN THE INTERTIDAL ZONE.

Douglas Reger Date: 6/30/89
State Historic Preservation Officer *

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

EXXON: R L Mott (for Cody Teel) Date: July 7, 1989

FOSC: C E Nelson Date: 7/21/89

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

SHORELINE OIL EVALUATION

Date: June 27th 89 Time: 1700 Observer: David Little

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

LOCATION

LOCATION North Twin Bay. SEGMENT NUMBER ER-15

LENGTH OF SHORELINE SEGMENT: 1130 m

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

SHORELINE:

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

Wave Exposure: (High)/Med/Low

Sediment: B 25 % / C 25 % / P 25 % / G 10 % / S 10 % / M — % / R 5 %

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

OIL

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

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

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

Sporadic: (Y)/N % of Segment 90

Est. Oil Thickness where > 1cm: — cm Est. Oil Penetration: 6—15 cm

Pooled Oil: — % "Free" Oil: 10 % Coated: H 70 % /M 15 % /L 5 %

Fresh 90 % Mousse — % Tar Formation: 10 %

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

Comments:

Most heavily-oiled portion of segment occurred at location (3), some 300 m from start (N.) of segment. Heavily-coated sand was buried by about 50 cm of pebbles forming the present HW berm. (see sketch section (3)). Due to difficulty of fully excavating cobble berm, full extent of buried oil layer (2—15 cm thick) was not observable. However, light heavily oil-coated pebbles were present down to 30 cm in a 40 cm. pit at location (3). Oil was also found at 1 pebble depth at location (2)(a). Very sporadic (tar) coating (swash splattered) was found at locations (1) to (7), of which the most significant was about 100 m of lightly to moderately tar-spotted cobbles and boulders ca. 10 m wide between locations (6) and (7). High energy wave action of beach will cause mobility of sediments, thus hindering retention of oil in any approved cleanup. (See attached map and sections).

ECOLOGICAL EVALUATION

LOCATION: Pr. William Sd. SITE: Elrington Is. OBSERVER: E.R. White

LOCATION PREFIX: ER SEG. NO.: 15 LENGTH: 1130 (M)

DATE: 06/27/89 TIME (HHMM): 1700-1820 TIDE HT.: 2.3 - 3 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

- also Halosaccion & Iridea spp on outcrops / also

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

in shelter of large rocks & outcrops only

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

in shelter of large rocks & outcrops.

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

in shelter of outcrops & under large boulders.

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

in shelter of outcrops & large boulders - also Collisella sp.

OTHER OBSERVATIONS: - all observed epifauna were found on stable boulders or bedrock outcrops; no epi fauna or infauna observed

CLEANUP PRECAUTIONS: - all cleanup activities in North Twin Bay must be cleared with ADF&G or USFWS, as appropriate due to seabird colony on north shore of bay

MAMMALS: Otters ~~2~~ Harbor Seals ___ Sea Lions ___ Whales ___

Other ___

BIRDS: Black legged Kittiwakes; Tufted Puffins; 1 (dead) red faced cormorant

GENERAL OBSERVATIONS: - this is obviously a highly productive bay in that many seabirds & sea otters & sea lions are using its waters for forage habitat (feeding). This should be considered if any cleanup operations are planned.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 27 JUNE '89 Location ELRINGTON ISLAND Site _____

Location Prefix ER Segment # ER-15 Length 1138 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 OVERALL LIGHT OILING, BUT HEAVY IN PATCHE

Width of beach zone surveyed 100 m Tree fringe surveyed 10-50 M

Cultural resources observed in beach zone (AHRS code) NONE

Cultural resources observed in tree fringe (AHRS code) CBN

General observations justifying survey method and segment's site probability

Shore Profile Large cobbled beach, sloping moderately, w/ Spruce, Alder, Bestel's Club fringe.

Fresh Water Sources NONE

Sea Exposure Protected to the east.

Access/Safety No special access/safety considerations

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 1700 Time survey ended 1915

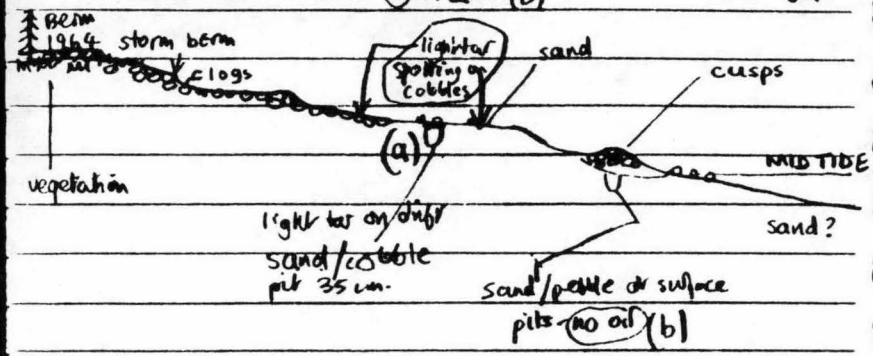
Cultural resource considerations/restraints:

Historic cabin is collapsed + small. Site is out of impact area for any cleanup activities that may occur. If heretofore undiscover cultural resources are discovered during cleanup, notify Exxon archaeological director, C. Malley, immediately.

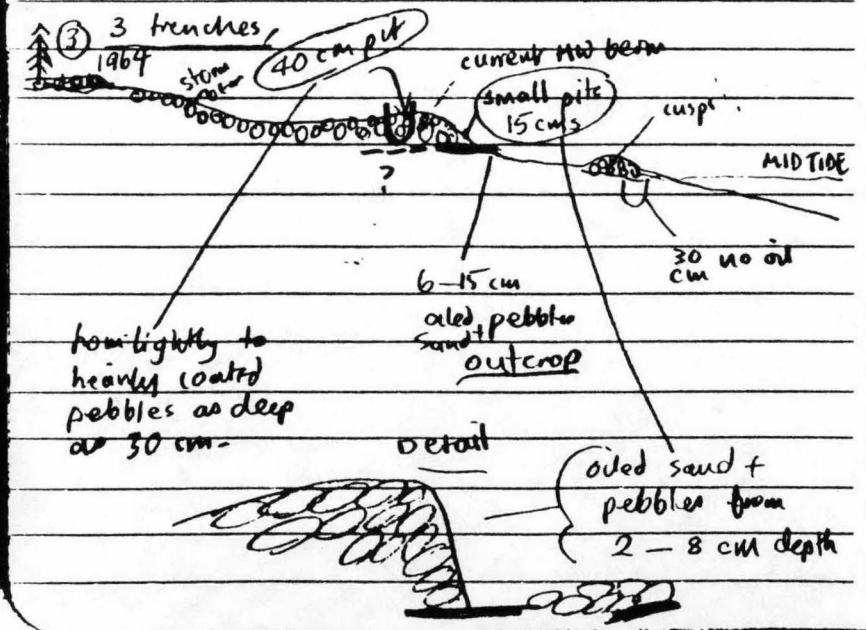
CR. 15 N. TWIN RPM 27/6/89

(1) Light tar spots on rocks and pebbles/cobbles at N. end of beach. 2 Trenches to 30 cm — no oil. sand + cobble algae drift not oiled.

(2) Series of trenches 35 cm (a) sand/pebble 1 pebble thick or oil layer
Section at location (2) .32 cm (b) " no oil



(3) 3 trenches,

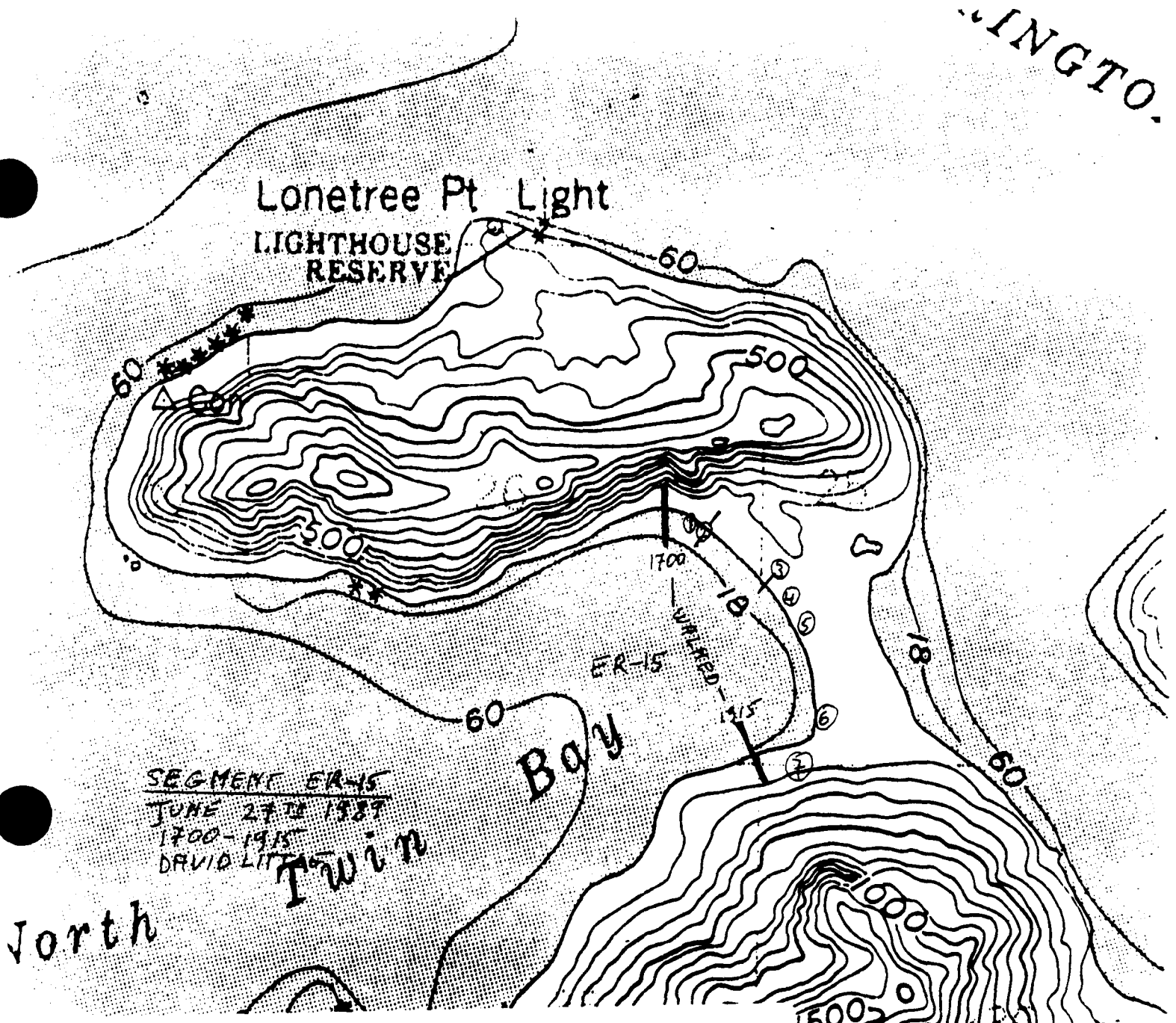


(4) No surface sign of outcrop (Fresh oil)
However, moderately → heavily tar spotted pebbles on face of HW berm.

(5) moderate tar spotting on cobbles
" " " " "

(6) moderately oiled drift algae and ditto

(6)–(7) ca 80–100 m. of lightly → moderately tar spotted cobbles → boulders in band ca. 10 m wide. Sporadic patches thereafter to rocks.



No.	Location	Pit / feature	Description	Oil?
1		2 pits to 30 cm.	sand + cobble	No
2	a)	pit 35 cm.	sand + pebble	oil layer, 1 pebble thick
	b)	pit 32 cm.	"	No
3		See attached sketch sections of oil distribution		
4		No surface expression of oiled sand outcrop. Tar spots, HUM		
5		Moderate tar spotting on cobbles		
6		" " " " "		
		moderately oiled dirty algae and ditto		
7		80–100 m. of lightly → moderately tar spotted cobbles/boulders in band 10 m. wide. Sporadic patches thereafter.		

:sion 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): Elrington Island West

Includes Shoreline Segments: ER-16, ER-17, ER- 18

Submitted: _____ Date: 7/15/89
(for Exxon)

ISCC Reccomendation: Sharon K. Christopher Date: 7/21/89

FOSC Approval: _____ 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:

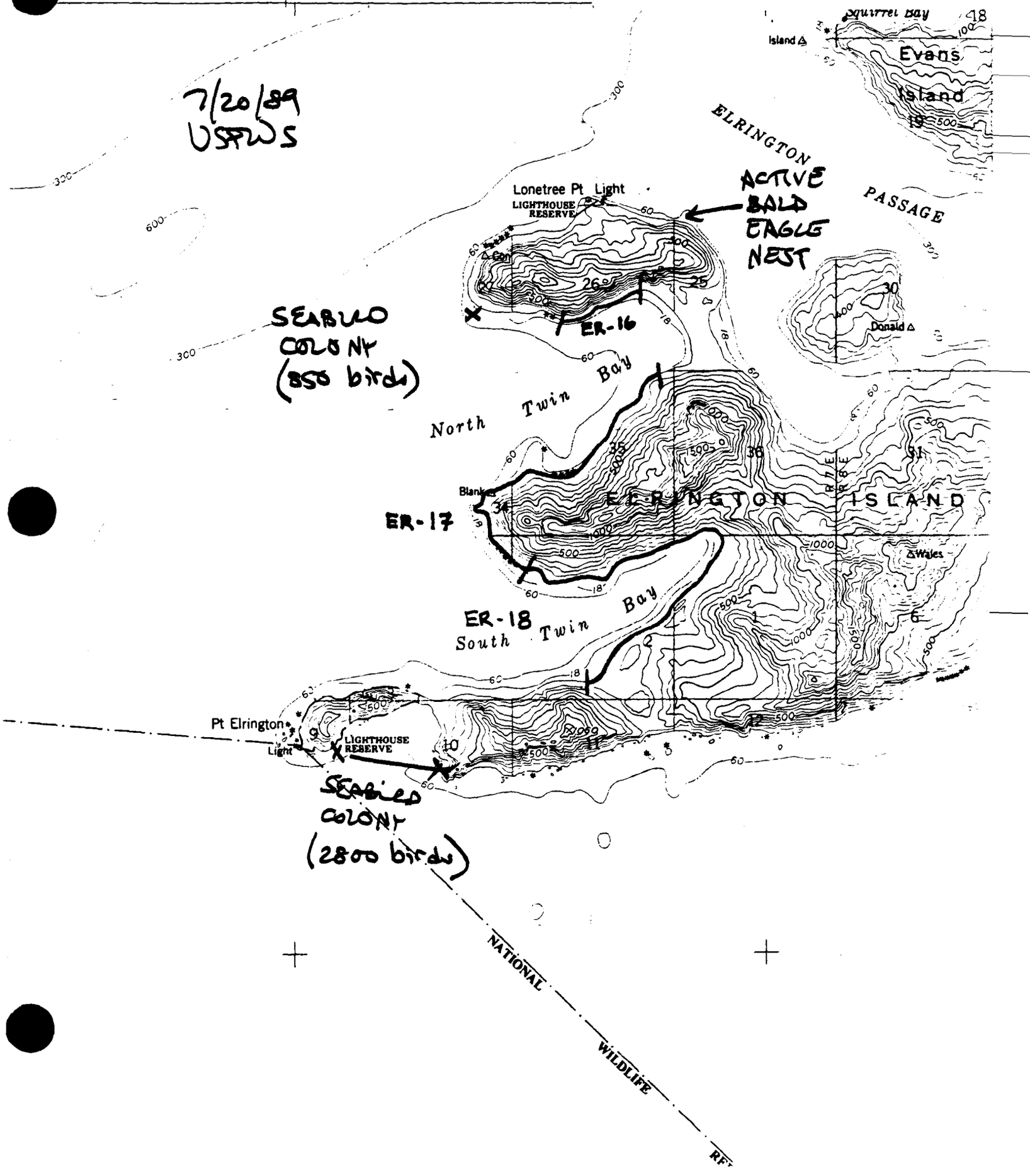
Exxon Shoreline Coordinator
Exxon Shoreline Supervisor
Exxon SCAT file

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

AK 7/21

ELRINGTON ISLAND WEST BLOCK

ER-16, ER-17, ER-18



(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/10/89 SHORELINE SEGMENT ER-16

LOCATION: (see enclosed map) North Shore Of North Twin Bay.

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). No oil observed.

c 7/21/89
, 89-07-21

Priorities Considerations: NO OIL OBSERVED.
Resources present

Ecological Constraints (from site survey):
Any future cleanup activities considered in North Twin Bay must be ~~cleaned~~ CLEARED by ~~ADFG and/or~~ the USFWS, as appropiate due to the seabird colony on cliffs along the North Shore.

7/21/89
, 89-07-21

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

Charles E. Holmes
State Historic Preservation Officer * Date: July 12 1989

ISCC: Sharon K. Christopherson 7/21/89

EXXON: [signature] Date: 89-07-21

FOSC: [signature] Date: 7/21/89

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

SHORELINE OIL EVALUATION

Date: 6/29 / Time: 5:45-6:25 AM Observer: KAROLIEN DERUSSCHE

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

LOCATION

LOCATION NORTH SHORE OF NORTH TWIN BAY SEGMENT NUMBER ER-16

LENGTH OF SHORELINE SEGMENT: 840 m

ACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane (NONE)

SHORELINE:

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

Wave Exposure: (High)/Med/Low

Sediment: B 20 % / C 10 % / P — % / G — % / S — % / M — % /R 70 %

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

OIL

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

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

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

Sporadic: Y/N % of Segment —

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

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

Fresh — % Mousse — % Tar Formation: — %

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

Comments:

SEGMENT OBSERVED BY SKIFF ONLY SINCE IMPOSSIBLE TO LAND. BINOCULARS WERE USED IN MODERATE LIGHT CONDITIONS AND SOME OF THE OFFSHORE STACKS WERE INSPECTED CLOSELY. NO OIL WAS OBSERVED. THE OFFSHORE ROCKS, ACTIVE SCREES, SMALL COVES.. MAKE IT POSSIBLE THAT UNOBSERVED OIL PATCHES WERE PRESENT.

version: 4/24/89

ECOLOGICAL EVALUATION

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

LOCATION PREFIX: ER SEG. NO.: 16 LENGTH: 840 (M)

DATE: 06 / 29 / 89 TIME (HHMM): 0545-0625 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

also Laminaria sp & Alaria sp.

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

scattered dense colonies

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

B. cariosus & B. glandula

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

none observed

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

none observed

OTHER OBSERVATIONS: several dense populations of Pisaster (10-20 animals) & several Solaster starfish observed

CLEANUP PRECAUTIONS: this segment is adjacent to a seabird colony. All cleanup activities in North Twin Bay should be cleared with ADF&G &/or USFWS as appropriate

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

BIRDS: 6-10 pigeon guillemots on water, 4 perched on cliff, 8-10 cormorants & 15-20 gulls observed.

GENERAL OBSERVATIONS: ____

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/29/89 Location BLYING SOUND (0-4) QUAD N SIDE N TWIN BAY Site —

Location Prefix ER Segment # 16 Length 840

Survey Method:

Air _____ (A - indicate on map) Boat ✓ (100%) (A - indicate on map

Ground _____ (G - indicate on map)

Known cultural resources (AHRS #) AHRS FILES UNAVAILABLE Data Source —

Oil conditions/beach visibility NO/VERY LIGHT OIL, GOOD BEACH VISIBILITY

Width of beach zone surveyed 60 M 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 BOULDER BEACH / ROCKY HEADLAND

Fresh Water Sources SMALL STREAMS

Sea Exposure SOMEWHAT PROTECTED

Access/Safety BARGE ACCESS POSSIBLE IN SOME LOCATIONS

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 —

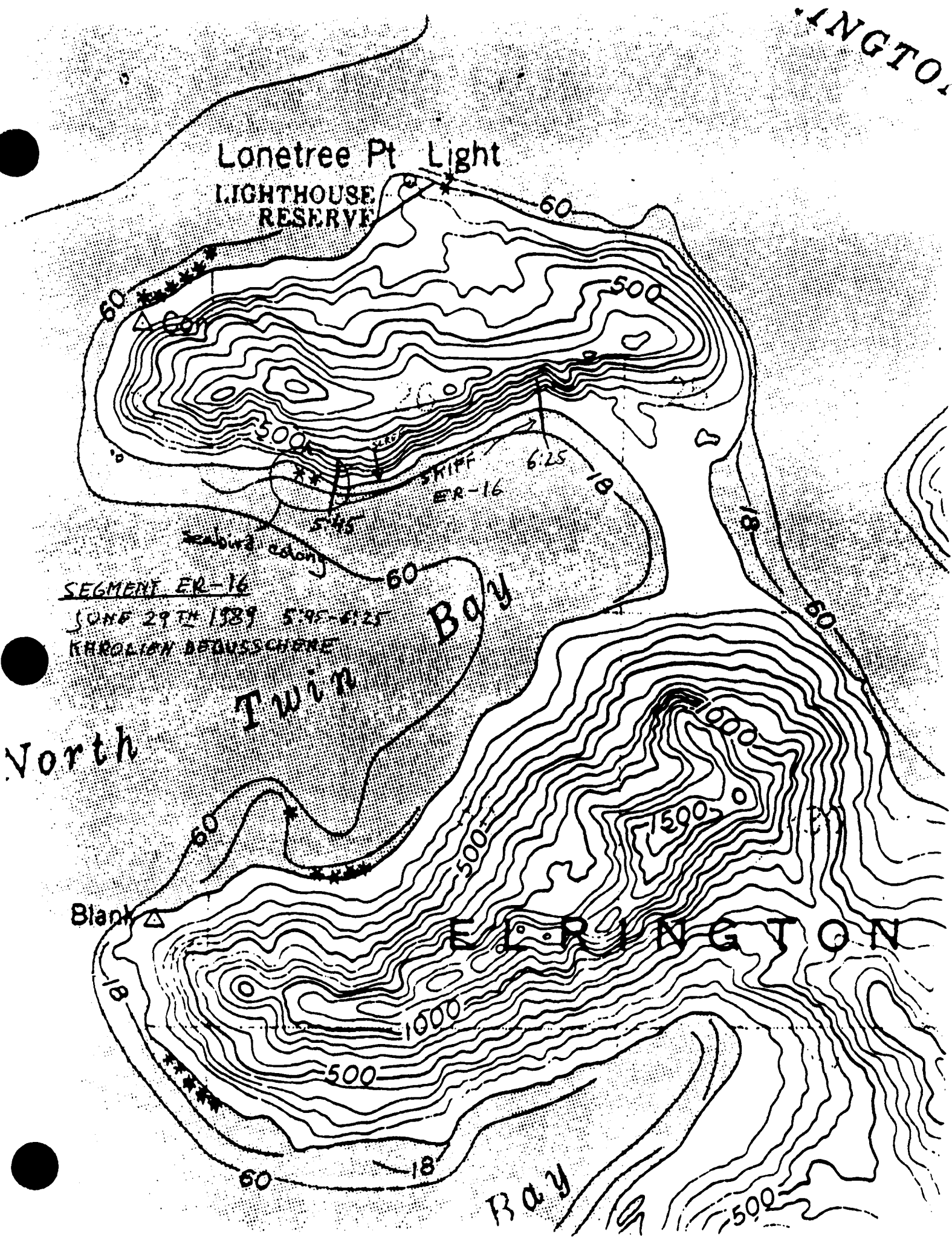
B/W Roll # NONE Frames —

Observer(s) P. BUCK

Time survey started 0530 Time survey ended 0625

Cultural resource considerations/restraints:

"STANDARD CONSTRAINTS"


Lonetree Pt Light
LIGHTHOUSE RESERVE
60
500
1000
1500
18
SKIFF
ER-16
6:25
5:45
Seabird colony
SEGMENT ER-16
JUNE 29TH 1989 5:45-6:25
KAROLIAN DEGUSSCHERE
North Twin Bay
Blank
ERRINGTON
Bay

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/10/89 SHORELINE SEGMENT ER-17

LOCATION: (see enclosed map) South Shore and Headland South Of North Twin Bay.

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

Recommended Cleanup Activity(ies):
- Manually remove light patches of mousse and oil.
- Use other approved methods as appropriate.

SC 7/21/89
89 07 21

Priorities Considerations: LIGHT OIL RESOURCES PRESENT

7/21/89
89-21

Ecological Constraints (from site survey):
Work at mid tide + or take appropriate measures to protect lower intertidal zone. Contact ~~ADFG and~~ USFW prior to cleanup near the seabird colony on the north shore of North Twin Bay.

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

State Historic Preservation Officer * Date: July 12, 1989

ISCC: Sharon K. Christopher 7/21/89

EXXON: _____ Date: 89-07-21

FOSC: _____ Date: 7/21/89

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

SHORELINE OIL EVALUATION

Date: 6/29 / Time: 6:30-8:30 Observer: KAROLIEN DEBUSSCHE

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

LOCATION

LOCATION SOUTH SHORE AND HEADLAND SOUTH OF NORTH TWIN BAY SEGMENT NUMBER ER-17

LENGTH OF SHORELINE SEGMENT: 3380 m

ACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane NONE

SHORELINE:

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

Wave Exposure: High/Med/Low

Sediment: B 25 % / C 25 % / P 10 % / G 5 % / S 5 % / M — % / R 30 %

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

OIL

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

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

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

Sporadic: Y/N % of Segment <1

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

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

Fresh — % Mousse — % Tar Formation: 100 %

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

Comments:

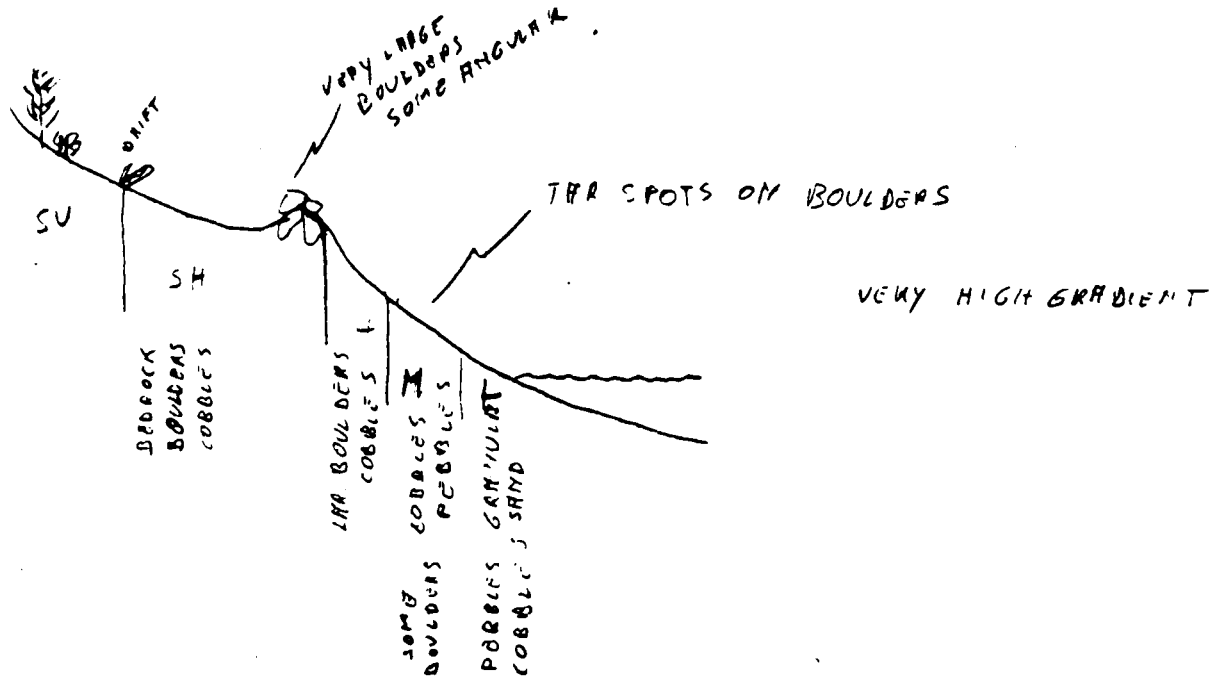
MOST OF THE SEGMENT WAS OBSERVED BY SMIFF SINCE IT WAS ONLY POSSIBLE TO LAND ON ONE BEACH. THE SEGMENT CONSISTS OF ALTERNATING STEEP CLIFFS AND HIGH GRADIENT BEACHES (BOULDERS, COBBLES, PEBBLES - MAINLY) FEW OIL PATCHES WERE OBSERVED. THE LARGEST AREA COVERED 1.5 X .2

! NOTE THAT SOME PARTS OF THE SEGMENT ARE INACCESSIBLE

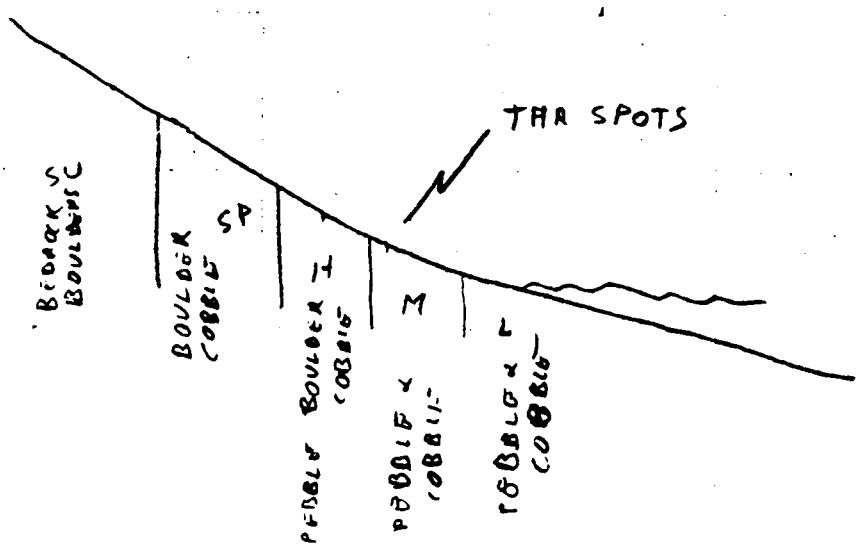
DEBUSSCHERE

ER-17 6:30 – 7:30

(1)



(2)



6/29 DEBUSSCHERE

ER-16 5:45

SMIFF

SERIES OF COVES FACING SW ON NW FACING SLOPE OF ANTICLINE / SCREE BEDROCK OUTCROPS OFFSHORE / SOME OF THE STACKS INSPECTED CLOS-
- NO OIL OBSERVED

6:25

ER-17 6:30

SMIFF

* 1ST SECTION - SMALL HEADLAND / CLIFF - PILLOW LAVA
LARGE LICHENE COLONIES
6:40

* WALKED
L.I.T.2 EXPOSED / VERY HIGH GRADIENT BEACH / LARGE SIZE B. NO INTER-
HEALTHY LOWER TIDAL / DRIFT (WOOD & ALGAE) ALL ALONG SEGMENT
LIGHT TAR SPOTS ON BOULDERS IN MID-TIDE ZONE; LARGEST AREA IS ±
1.5 M X .25 M
CROSSECTIONS ON THIS BEACH (1) / (2)

* SMIFF — 7:30
ALTERNATING CLIFFS & COVES/BEACH - BASALT/VOLCANIC SCREES
COVES W BOULDERS, PEBBLES, COBBLES, SOME GRANULE
VERY HIGH GRADIENT NO BARRES / NARROW BEACHES
MOST COVES HAVE VERY LARGE BOULDERS AT WATERLINE
8:30

ECOLOGICAL EVALUATION

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

LOCATION PREFIX: ER SEG. NO.: 17 LENGTH: 3380 (M)

DATE: 06 / 29 / 89 TIME (HHMM): 0625-0825 TIDE HT.: 0.0 - 1.3 m (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

- good growth on rock outcrops; none on benches also Laminaria; Alaria & Agarum & Halosaccion
- offshore kelp beds.

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

- scattered dense colonies on rock outcrop; some can be ≤1.5 m² in area

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

- Balanus crenatus & B. glandula occur in scattered beds also lots of spat observed

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

- occur on bedrock outcrops & among larger boulders in sheltered areas

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

- ~~other~~ observed on rock outcrops in sheltered areas of segment

OTHER OBSERVATIONS: dense populations of sand flea (amphipods) found under large cobbles in areas where there was sand/gravel under the cobble/boulder cover. also dense schools of small (5-10 cm) fish observed among kelp & 1 adult fish

CLEANUP PRECAUTIONS:

MAMMALS: Otters ___ Harbor Seals 2 Sea Lions 3 → observed feeding in kelp bed Whales ___

Other

BIRDS: 1 bald eagle; 30-40 gulls (black-legged kittiwakes; glaucous winged gulls) observed on north shore of South Twin Bay; 1 common merganser &

GENERAL OBSERVATIONS:

→ - offshore kelp beds provide foraging habitat for marine mammals & birds.

- rocky outcrops & headlands support a healthy community of algae & invertebrates; beaches are high energy & ~~relatively~~ support a more limited ~~a lower~~ epifauna

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/29 Location N. SIDE N TWIN BAY (BLYING SOWNS (D-4) QUAD) Site —

Location Prefix ER Segment # 17 Length 3975

Survey Method:

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

Ground ✓ (10%) (G - indicate on map)

Known cultural resources (AHRS #) AHRS FILES UNAVAILABLE Data Source —

Oil conditions/beach visibility ZERO / V. LIGHT OIL, GOOD BEACH VISIBILITY

Width of beach zone surveyed 40 M 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 ROCKY HEADLANDS / HIGH GRADIENT BOULDER BEACH

Fresh Water Sources SMALL STREAMS & WATERFALLS.

Sea Exposure OPEN TO PROTECTED

Access/Safety POSSIBLE BARGE ACCESS;

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 —

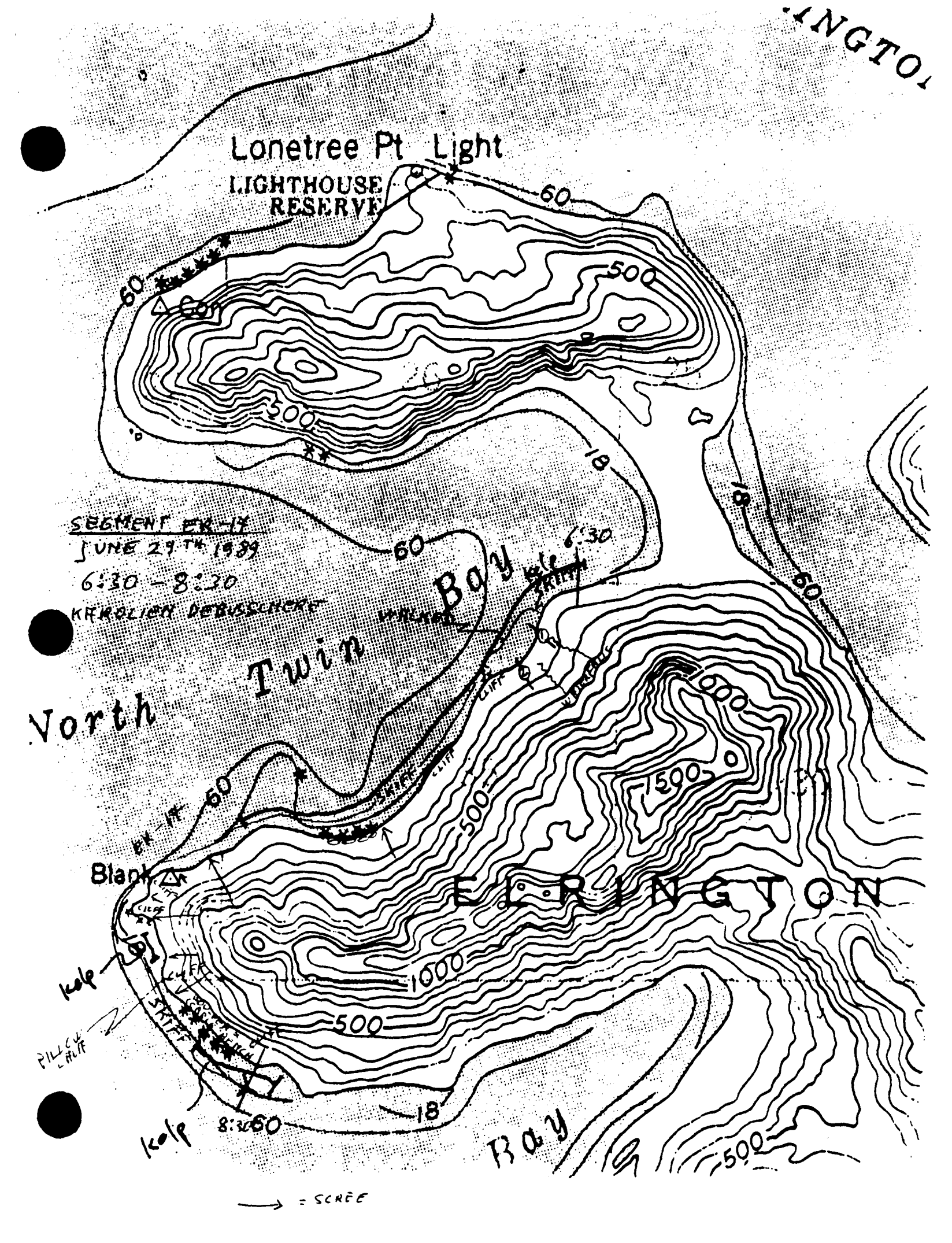
B/W Roll # PERTMY 5 Frames 1-4

Observer(s) P. BUCK

Time survey started 0637 Time survey ended 0830

Cultural resource considerations/restraints:

"STANDARD CONSTRAINTS"


Lonetree Pt Light
LIGHTHOUSE RESERVE
60
500
18
SEGMENT EK-14
JUNE 29TH 1989
6:30 - 8:30
KAROLIEN DEBUSSCHERE
Twin
Bay
North
EK-14
Blank
ELRINGTON
1000
1500
kelp
PILLOW LAVA
SCREE
8:30
6:30
Bay

→ = SCREE

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/10/89 SHORELINE SEGMENT ER-18

LOCATION: (see enclosed map) North Shore of South Twin Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/29/-6/30/89

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift materials (fucus), and free oil.
- Flood/flush with warm to hot water (up to 140 F) on low angle beaches.
- Use moderate to high pressure warm to hot water on rock and oiled logs.
- Use other approved methods as appropriate.

SC 7/21/89
FO 89-07-21

Priorities Considerations: MODERATE OIL RESOURCES PRESENT

Ecological Constraints (from site survey):
Work at mid tide + or take appropriate measures to protect lower intertidal zone. Avoid disturbing or reoiling kelp beds during cleanup.

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

State Historic Preservation Officer * Date: July 12, 1989

ISCC: Sherm K. Christopherson Date: 7/21/89

EXXON: _____ Date: 89-07-21

FOSC: _____ Date: 7/21/89

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

SHORELINE OIL EVALUATION

Date: 6/29/89 6/30/89 Time: 15:30 - 18:30 16:30 - 17:20 Observer: KAROLIEN DERUSSCHE

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

LOCATION

LOCATION NORTH SHORE OF S. TWIN BAY SEGMENT NUMBER ER-18

LENGTH OF SHORELINE SEGMENT: 1970 m

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

SHORELINE:

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

Wave Exposure: High/Med/Low

Sediment: B 35 % / C 25 % / P 20 % / G 10 % / S 5 % / M — % / R 5 %

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

OIL

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

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

Continuous: Y/N % of Segment 30 Width of Band: 3-5 m

Sporadic: Y/N % of Segment 70

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

Pooled Oil: — % "Free" Oil: 10 % Coated: H 25 % / M 40 % / L 25 %

Fresh 10 % Mousse — % Tar Formation: 90 %

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

Comments:

SEGMENT CONSISTS OF ALTERNATING COVES & HEADLANDS
MOST OIL IS AT HIGH WATER, SOME AT MID
OIL FORMS 1 CONT BANDS INTERRUPTED BY ± OIL FREE
STRETCHES. OIL IS CONCENTRATED ON E-WALLS

version: 4/24/89

ECOLOGICAL EVALUATION

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

LOCATION PREFIX: ER SEG. NO.: 18. LENGTH: 1970 (M)

DATE: 06/29/89 TIME (HHMM): 1530-1700 TIDE HT.: 1.5-1.2-1.5 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

no algae on active cobble beaches good growth on rocks & boulders also Plocamium & Eutromorpha

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

- small mussels growing among barnacles in mid to low tide level
- small dense colonies on bedrock outcrops in the west end of segment

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

- continuous spat set at high tide line; continuous sparse B. cariosus in low tide range

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

some areas have dense colonies of Nucella

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

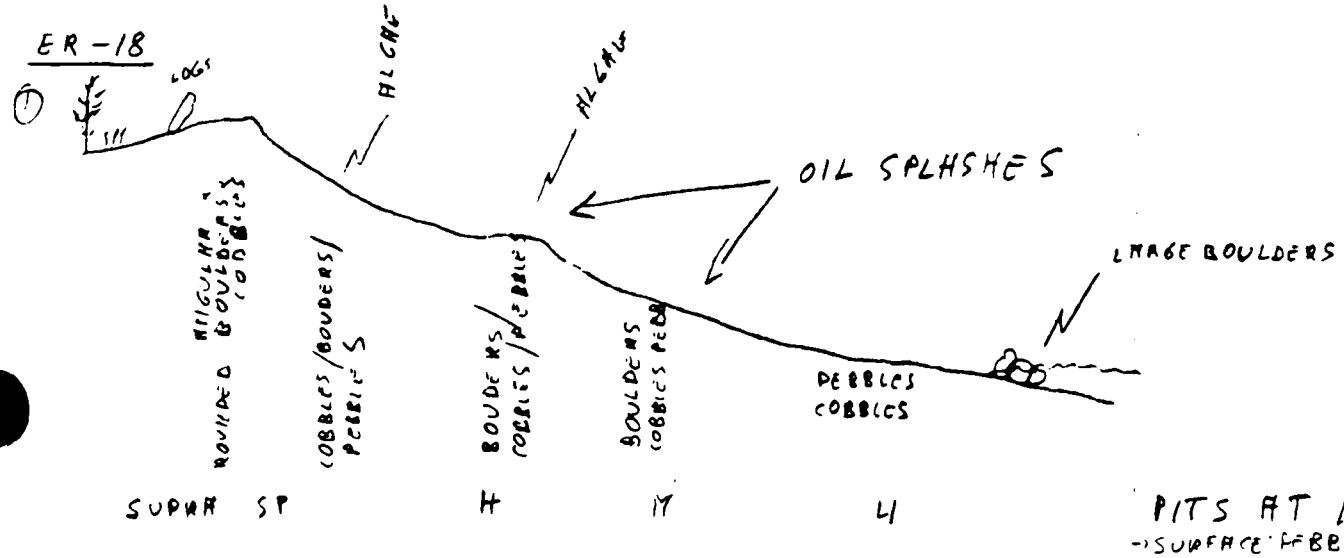
OTHER OBSERVATIONS: beaches with gravel under cobble support dense populations of amphipods - esp in West end of segment

CLEANUP PRECAUTIONS: - protect healthy lower intertidal areas from oiling unless already oiled.

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions 1 Whales ___
Other ___

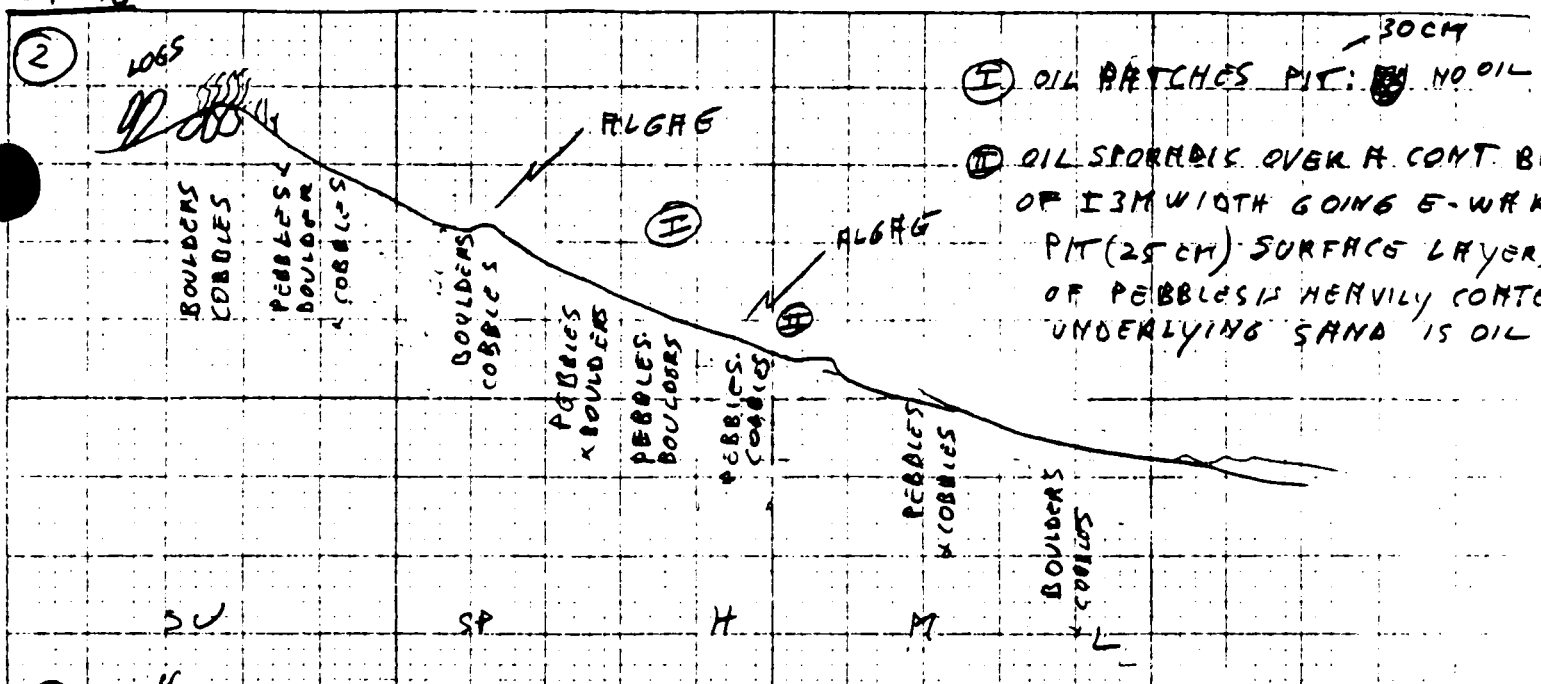
BIRDS: Bay is a feeding area for cormorants; gulls - black legged kittiwakes herring gulls & pigeon guillemots - all were observed in the

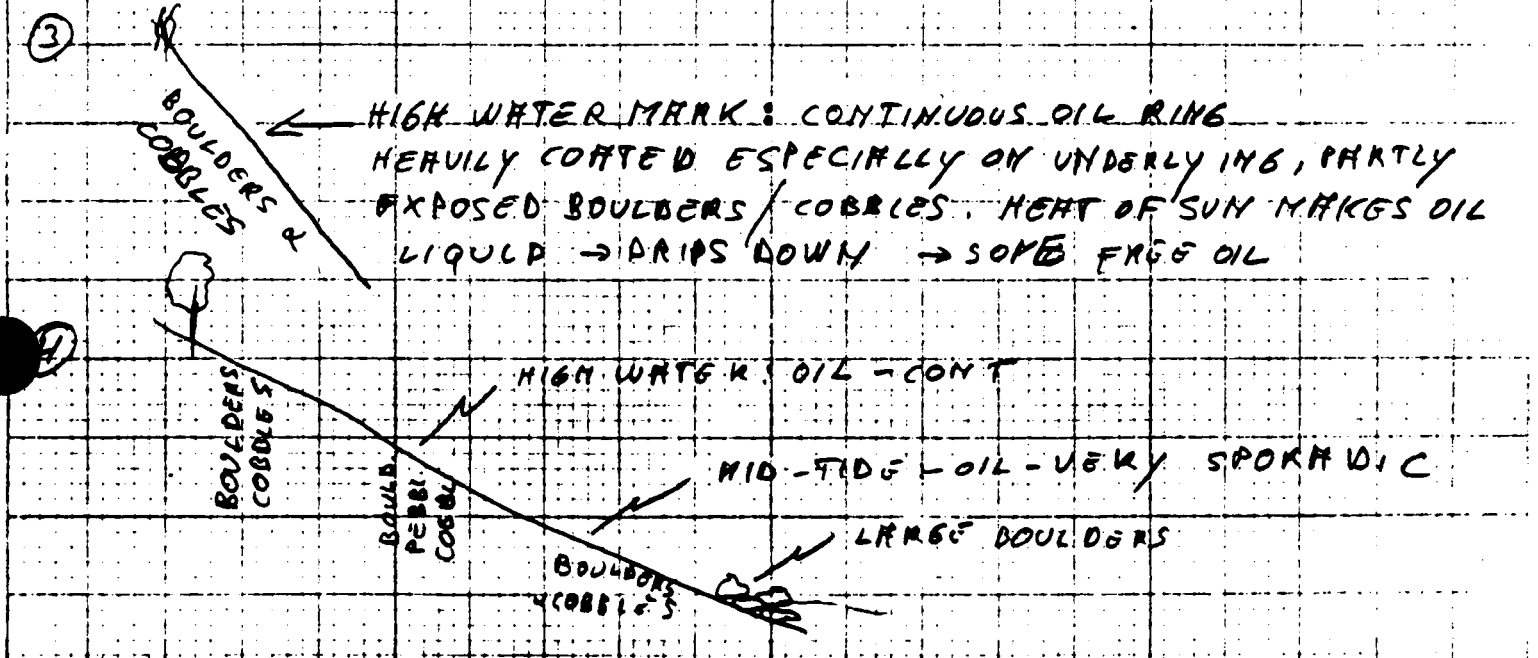
GENERAL OBSERVATIONS:

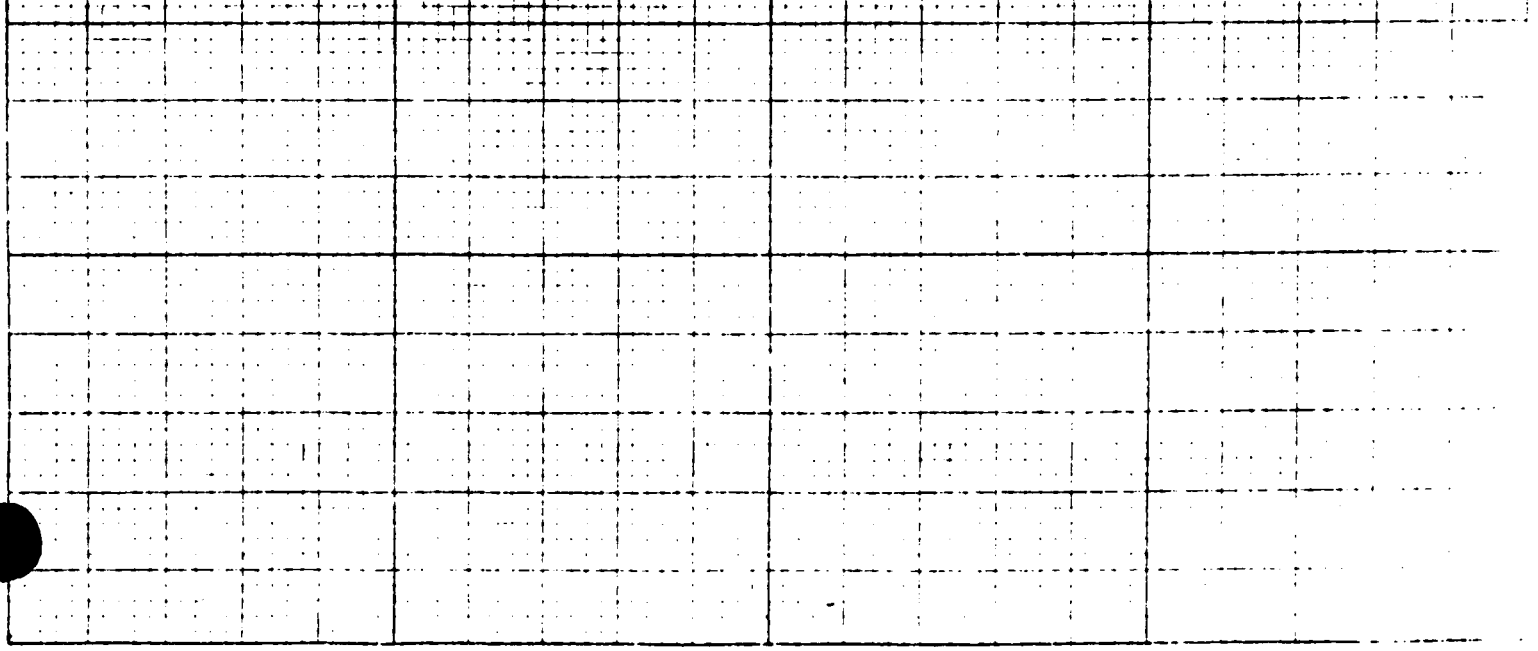


PITS AT H & M (30C
→ SURFACE PEBBLES
→ BELOW COBBLES W/O

ER-18


2
LOGS
ALGAE
ALGAE
I
II
BOULDERS COBBLES
PEBBLES & BOULDERS & COBBLES
BOULDERS COBBLES
PEBBLES & BOULDERS
PEBBLES BOULDERS
PEBBLES COBBLES
PEBBLES & COBBLES
BOULDERS & COBBLES
SU
SP
H
M
L
30CM
I OIL PATCHES PIT: NO OIL
II OIL SPORADIC OVER A CONT BF
OF 13M WIDTH GOING E-WAR
PIT (25 CM) SURFACE LAYERS
OF PEBBLES IS HEAVILY COATE
UNDERLYING SAND IS OIL


3
BOULDERS & COBBLES
HIGH WATER MARK: CONTINUOUS OIL RING
HEAVILY COATED ESPECIALLY ON UNDERLYING, PARTLY
EXPOSED BOULDERS / COBBLES. HEAT OF SUN MAKES OIL
LIQUID → DRIPS DOWN → SOME FREE OIL


4
BOULDERS COBBLES
BOULD
PEBBL
COBBL
BOULDERS & COBBLES
HIGH WATER: OIL - CONT
MID-TIDE - OIL - VERY SPORADIC
LARGE BOULDERS

ER-18 15:30

*WALKED

OIL ON BOULDERS AT HIGH WATER MARK ①. CROSSECTION
HIGH ENERGY BEACH - STEEP GRADIENT - ALMOST NO SAND OR
GRANULE. OIL SPLASHES ARE VERY SPORADIC AND VERY THIN
MORPHOLOGY OF BEACH IS VERY DIVERSE
HARDLY ANY DRIFT WOOD ALONG HIGH WATER LINE
VERY LARGE LOGS IN SUPRATIDAL ZONE

* CROSSECTION AT LOCATION (2)
OIL IS ON HIGH SPRING TIDAL ZONE. THE OIL IN ZONE IS ONLY ON SURFACE LAYER, OR INDIVIDUAL COBBLES BELOW SURFACE → PROBABLY RESULT OF ALREADY OILED COBBLES BEING RELOCATED IN SWASH ZONE
BEACH HAS HIGH GRADIENT & HIGH ENERGY
THE OIL BAND CONTINUES E ALONG M-TIDE AROUND HEAD..
* CROSSECTION AT LOCATION (3)
BEACH IS HERE MUCH STEEPER THAN MAP IMPLIES
OIL IS CONTINUOUS BUT HAS NARROWED IN WIDTH FROM (2)
(<→ STEEPER) P(8): INITIAL P(9) OIL-SHOT P(10) AREA OF
* X-SECTION AT LOC. (4)
OIL STILL AT HIGHWATER
BEACH IS LESS STEEP → OIL IN BAND OF 3-5 M
SPORADIC IN MID TIDE P(11) OIL CONTINGIN HIGH TIDAL
MATERIALS ARE VERY ANGULAR
* NOTE BAY EXPOSED TO WSW → MOST OIL ON E WALLS, PERPENDICULAR TO
!!! 6:30: WE HAD TO INTERRUPT SEGMENT B/C TIDES WERE TOO HIGH → SHIFTED TOWARDS POSSIBLE END OF SEGMENT TO GET A GENERAL FEEL. ANTICIPATED CONTINUATION 5:00 AM 6/30/89

6/30/89
EARLY TIDE WAS EMERGENCY AT BELTESS IS
ER-18 - 16:30
WE PICKED UP AT LOC (1).
* FROM (1) ON → SERIES OF ALTERNATING BAYS & COVES
VERY SPORADIC OIL ON W-SIDE OF BAYS, E-SIDE (OR W FACING) SIDES HAVE MORE CONT OIL MID-TIDE & HIGH-TIDE
* LOCATION (6)
LOW CLIFFS W OIL AT HIGH TIDE MARK
* LOCATION (7) - WATERFALL
VERY GENTLE PROFILE: SOME OIL SPLASHES AT MID & HIGH TIDE
* E-WARD: SURFICIAL | HIGH TIDE SPLASHES
| UPPER TIDAL

17:20 END

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/30/89 Location SOUTH TWIN BAY (BLYING SOUND (D-4) QUAD) Site

Location Prefix ER- Segment # 18 Length 1970 M

Survey Method:

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

Ground ✓ (20%) (G - indicate on map)

Known cultural resources (AHRS #) AHRS FILES UNAVAILABLE Data Source

Oil conditions/beach visibility LIGHT OIL, BEACH VISIBILITY GOOD

Width of beach zone surveyed 50 m Tree fringe surveyed 0-10 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 probabili

Shore Profile MOSTLY ROCKY HEADLAND, SOME SMALL BOULDER POCKET

Fresh Water Sources SMALL STREAMS

Sea Exposure PROTECTED AT HEAD OF SOUTH TWIN BAY

Access/Safety BARGE ACCESS POSSIBLE

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 # PEBTMY 5 Frames 5-11

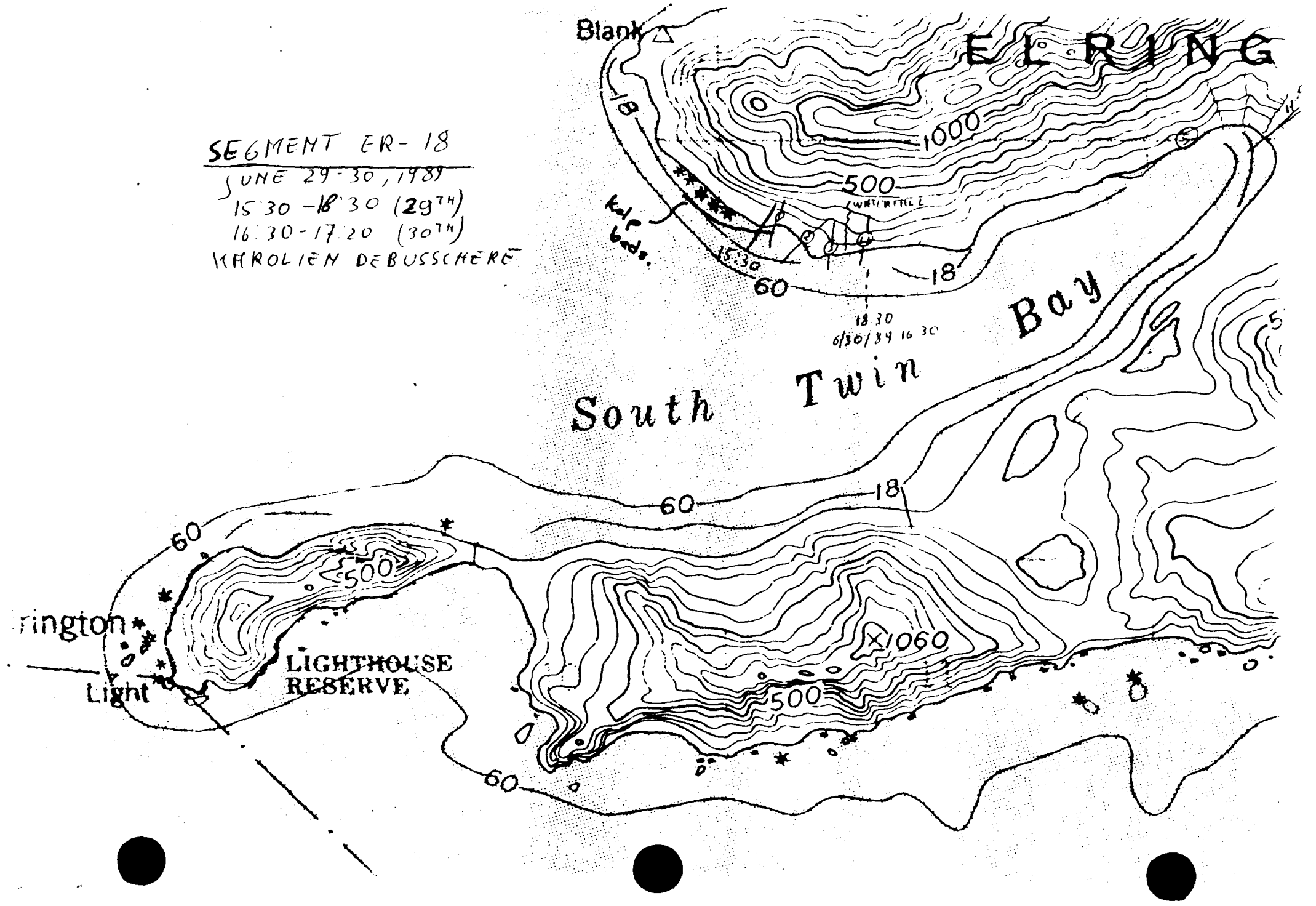
Observer(s) P. BUCK

Time survey started 6/29/89 15:30 - 18:10 Time survey ended 6/30/89 1638 - 170

Cultural resource considerations/restraints:

"STANDARD CONSTRAINTS"

SEGMENT ER-18
JUNE 29-30, 1989
15:30 - 18:30 (29TH)
16:30 - 17:20 (30TH)
KAROLIEN DEBUSSCHERE



(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): Point Elrington Block

Includes Shoreline Segments: ER-19, ER-22, ER-23, ER-24

Submitted: _____ Date: 7/15/89
(for Exxon)

ISCC Reccomendation: Sharon K. Christopher Date: 7/21/89

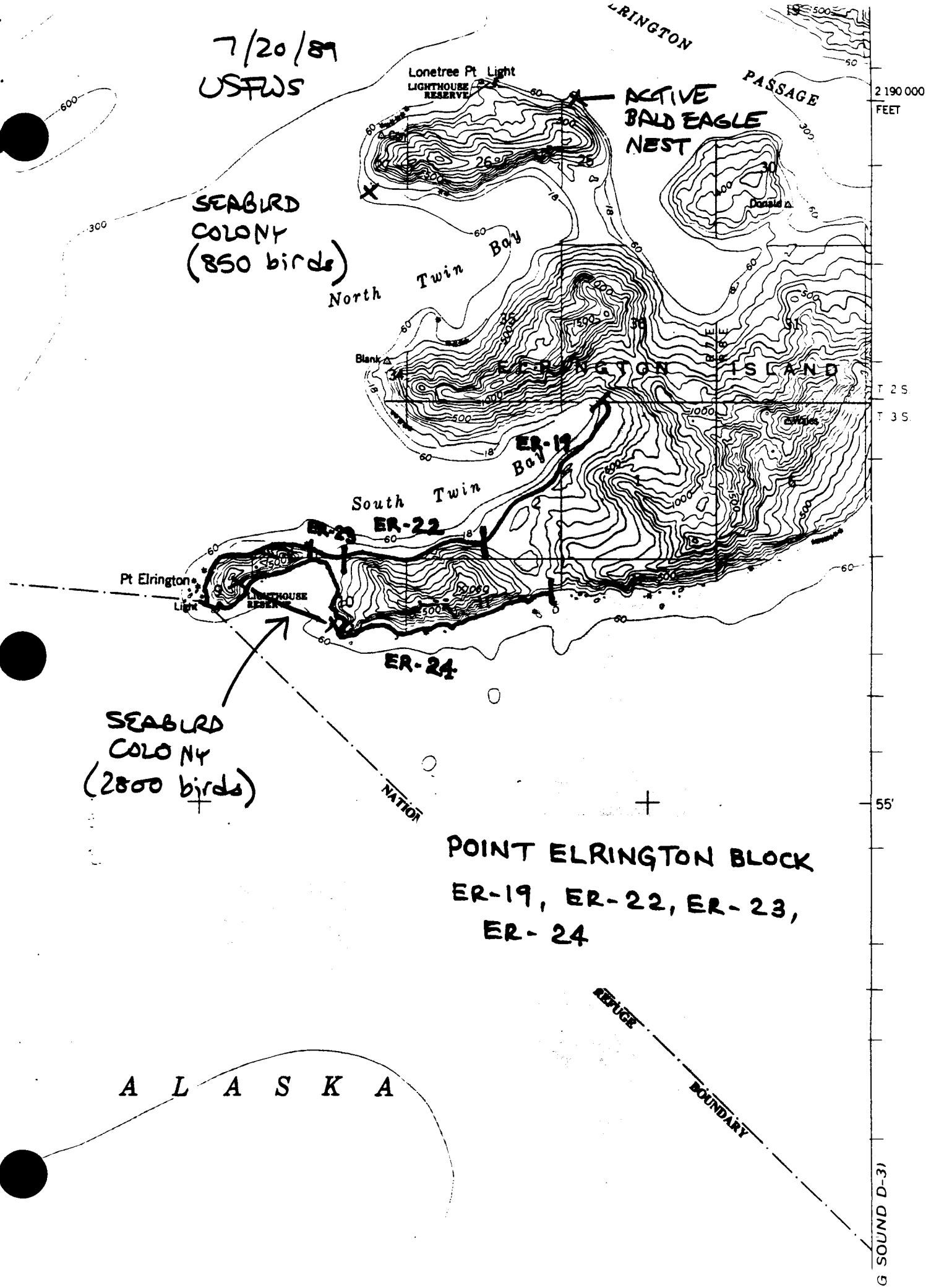
FOSC Approval: _____ Date: 7/21/89

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

AGA
7/21

7/20/89
USFWS


ELRINGTON
PASSAGE
Lonetree Pt Light
LIGHTHOUSE RESERVE
ACTIVE BALD EAGLE NEST
SEABIRD COLONY (850 birds)
North Twin Bay
South Twin Bay
ELRINGTON ISLAND
Blank
Donald
ER-19
ER-22
ER-23
ER-24
Pt Elrington Light
LIGHTHOUSE RESERVE
SEABIRD COLONY (2800 birds)
NATION
POINT ELRINGTON BLOCK
ER-19, ER-22, ER-23, ER-24
REFUGE
BOUNDARY
ALASKA
2 190 000 FEET
T 2 S
T 3 S
55'
G SOUND D-31

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/12/89 SHORELINE SEGMENT ER-19

LOCATION: (see enclosed map) Elrington Island-South Twin Bay

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

Recommended Cleanup Activity(ies):
- Manually remove oiled drift material.
- Flood/flush with warm to hot water (up to 140 F) on low angle beaches.
- Use high pressure washing on rock and oiled logs.
- 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. This segment contains a ~~suspected~~ possible anadromous fish stream. ~~Contact ADFG and RAT 48 hours prior to beginning cleanup~~.

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

Charles E. Fohner — Date: July 12, 1989
State Historic Preservation Officer *

ISCC: Sharon K. Christopherson — Date: 7/21/89

EXXON: [signature] — Date: 89-07-21

FOSC: C E Nelson — Date: 7/21/89

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

SHORELINE OIL EVALUATION

Date: 6/30/89 / Time: 17:20 - 19:00 Observer: KAROLIEN DERUSSCH

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

LOCATION

LOCATION SE END OF S-SHORE OF S. TWIN BAY SEGMENT NUMBER EK-19

LENGTH OF SHORELINE SEGMENT: 2080 ft m

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

SHORELINE:

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

Wave Exposure: High/(Med)/(Low)

Sediment: B___% / C 45 % / P 40 % / G 10 % / S 5 % / M 0 % / R 0 %

Drift Debris on Beach: (Yes)/No (Supra)/(Upper)/Mid/Lower Type ALGAE & LOG

OIL

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

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

Continuous: (Y)/N % of Segment 5 Width of Band: 3 m

Sporadic: (Y)/N % of Segment 95

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

Pooled Oil: — % "Free" Oil: — % Coated: H 5 % / M 10 % / L 85 %

Fresh — % Mousse — % Tar Formation: 100 %

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

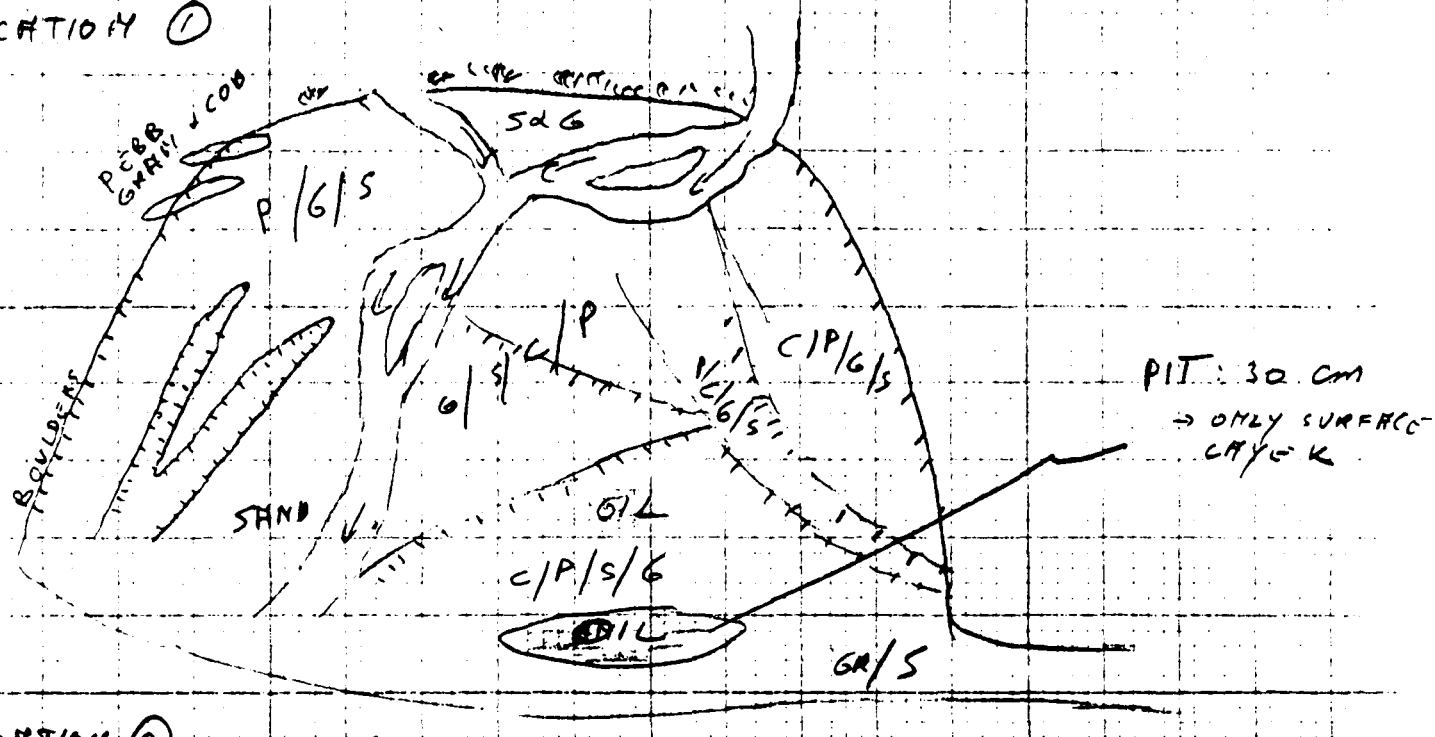
Comments:

THE MOST SIGNIFICANT OIL IMPACT IS AT THE FAR EAST SIDE IN THE LITTLE DELTA AREA; SURFACE LAYER IS DENSE. REMAINDER AND BULK OF BEACH IS VERY UNIFORM; OIL IS VERY SPORADIC AND MINIMAL EXCEPT FOR A SMALL AREA TO THE EAST WHERE AN AREA OF ± 3x10 FT IS COVERED BY OIL

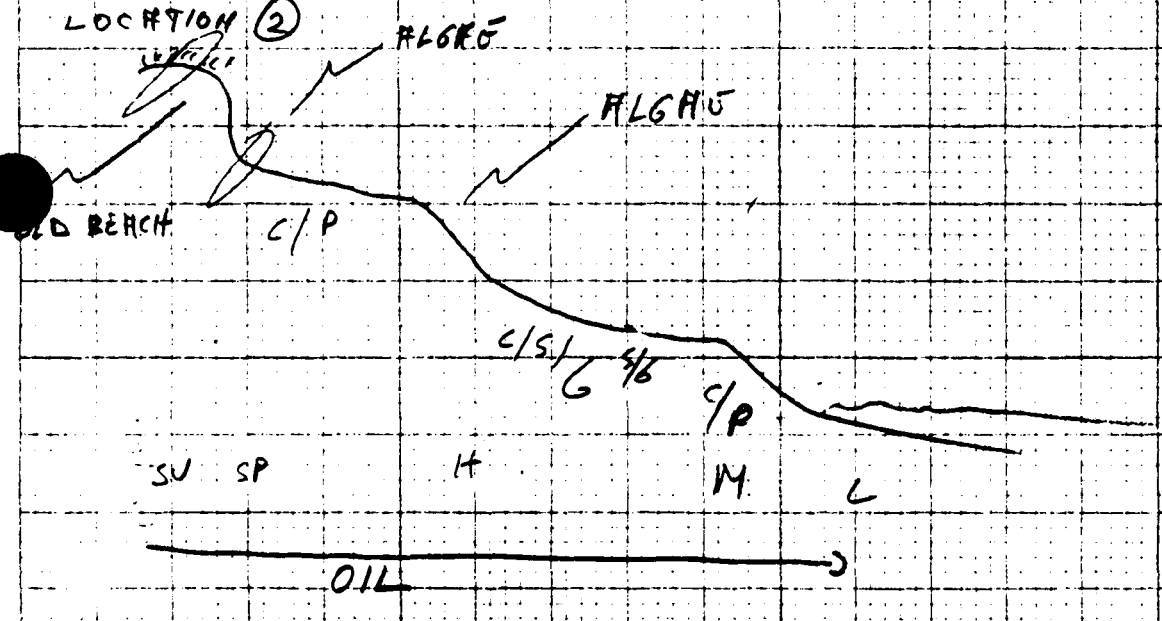
6/30/89 K. DEBUSSCHERE

ER-19

LOCATION ①



LOCATION ②



ER-19 17:20

LOCATION (1)

CREEK IS COMING INTO BEACH → SAND AREA

OIL PATCHES HIGH TIDE ON OLD

LARGE PATCH OF OIL → DENSE BUT NO PAVEMENT

→ IN LOW TIDE AREA

LOCATION (2)

REPRESENTATIVE X-SECTION FOR WHOLE SEGMENT

OIL IN EVERY ZONE → VERY SPORADIC

↳ M & H ES MOST

LARGEST OIL COVER IS 10M LONG & 3M WIDE

SEGMENT IS VERY UNIFORM REL LOW-MED ENERGY BEA

MOSTLY C & P, VERY FEW BLD

LOCATION (P)

P (23) 18:37 : VIEW ESE OF THE SEGMENT

P (24) 18:38 : EXTEND OF OIL

ECOLOGICAL EVALUATION

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

LOCATION PREFIX: ER SEG. NO.: 19 LENGTH: 2080 (M)

DATE: / / TIME (HHMM): 1724-1820 TIDE HT.: 1.3 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

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

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
- occasional animals on larger cobbles.

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: lower beach face supports a continuous, dense population of amphipods; appears to be continuous growth of Laminaria & Gigartina subtidally

CLEANUP PRECAUTIONS: do not contaminate lower beach face and subtidal nearshore with oil

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions 1 Whales ___
Other ___

BIRDS: 4 surf scoters; black-legged kittiwakes offshore.

GENERAL OBSERVATIONS: The creek at the head of South Twin Bay has the potential to be used by pink salmon for spawning. This should be checked out with ADF&G prior to initiation of any cleanup activity. (See map)

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 7/1/89 Location SOUTH TWIN BAY, ELRINGTON (BLYING SOUND (D-4) QUAD) Site

Location Prefix ER- Segment # 19 Length

Survey Method:

Air (A - indicate on map) Boat ✓ (40%) (A - indicate on ma

Ground ✓ (60%) (G - indicate on map)

Known cultural resources (AHRS #) AHRS FILES UNAVAILABLE Data Source —

Oil conditions/beach visibility ZERO TO LIGHT OIL; GOOD BEACH VISIBILITY.

Width of beach zone surveyed 60 M m Tree fringe surveyed 10 M

Cultural resources observed in beach zone (AHRS code) RCS

Cultural resources observed in tree fringe (AHRS code) NONE

General observations justifying survey method and segment's site probabilit

Shore Profile MODERATELY SLOPING COBBLE/GRAVEL BEACH

Fresh Water Sources SMALL STREAM AT HEAD OF S. TWIN BAY.

Sea Exposure SOMEWHAT PROTECTED

Access/Safety GOOD BARGE ACCESS.

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 —

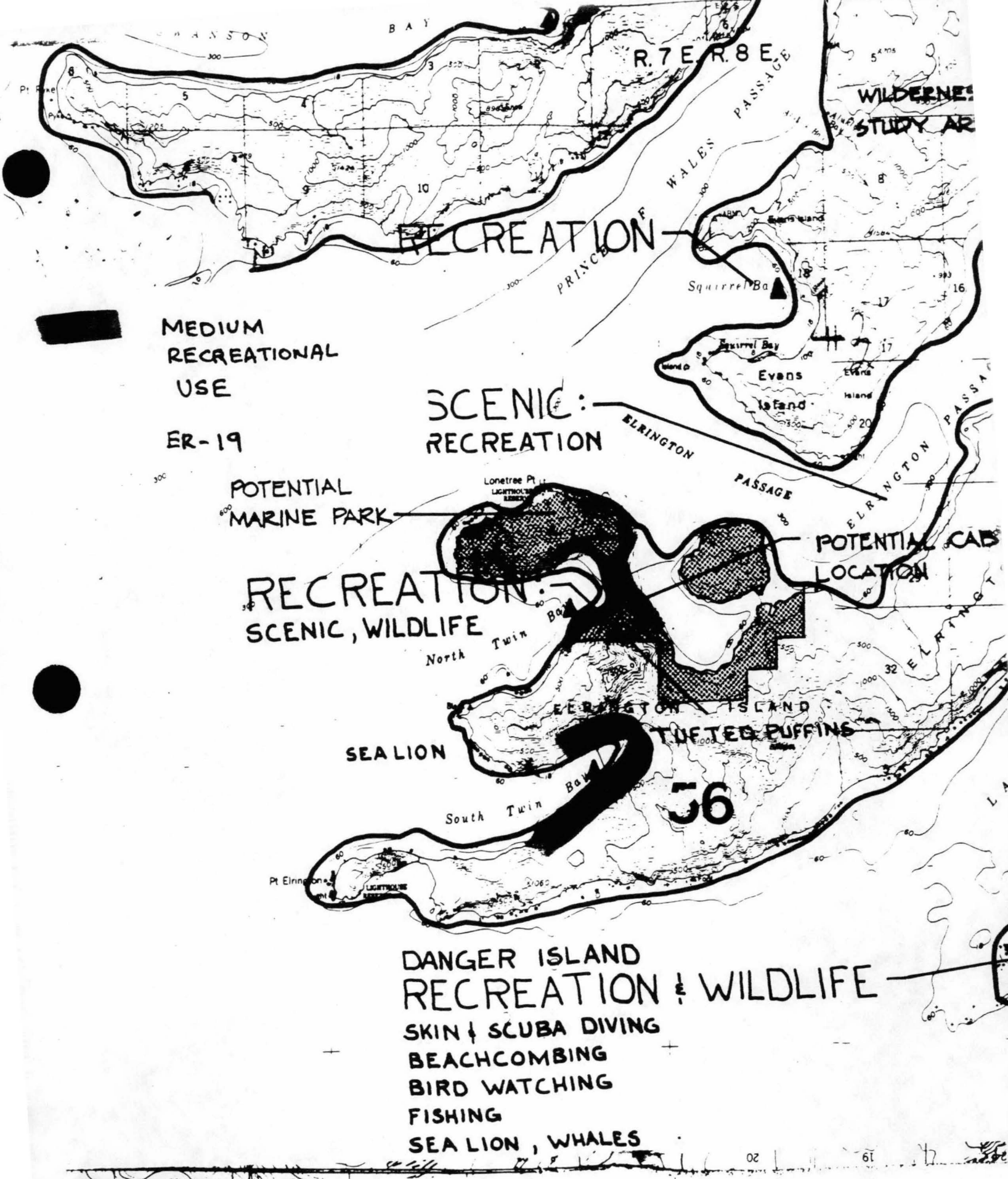
B/W Roll # PERTINY 5 Frames 27-31

Observer(s) P. BUCK

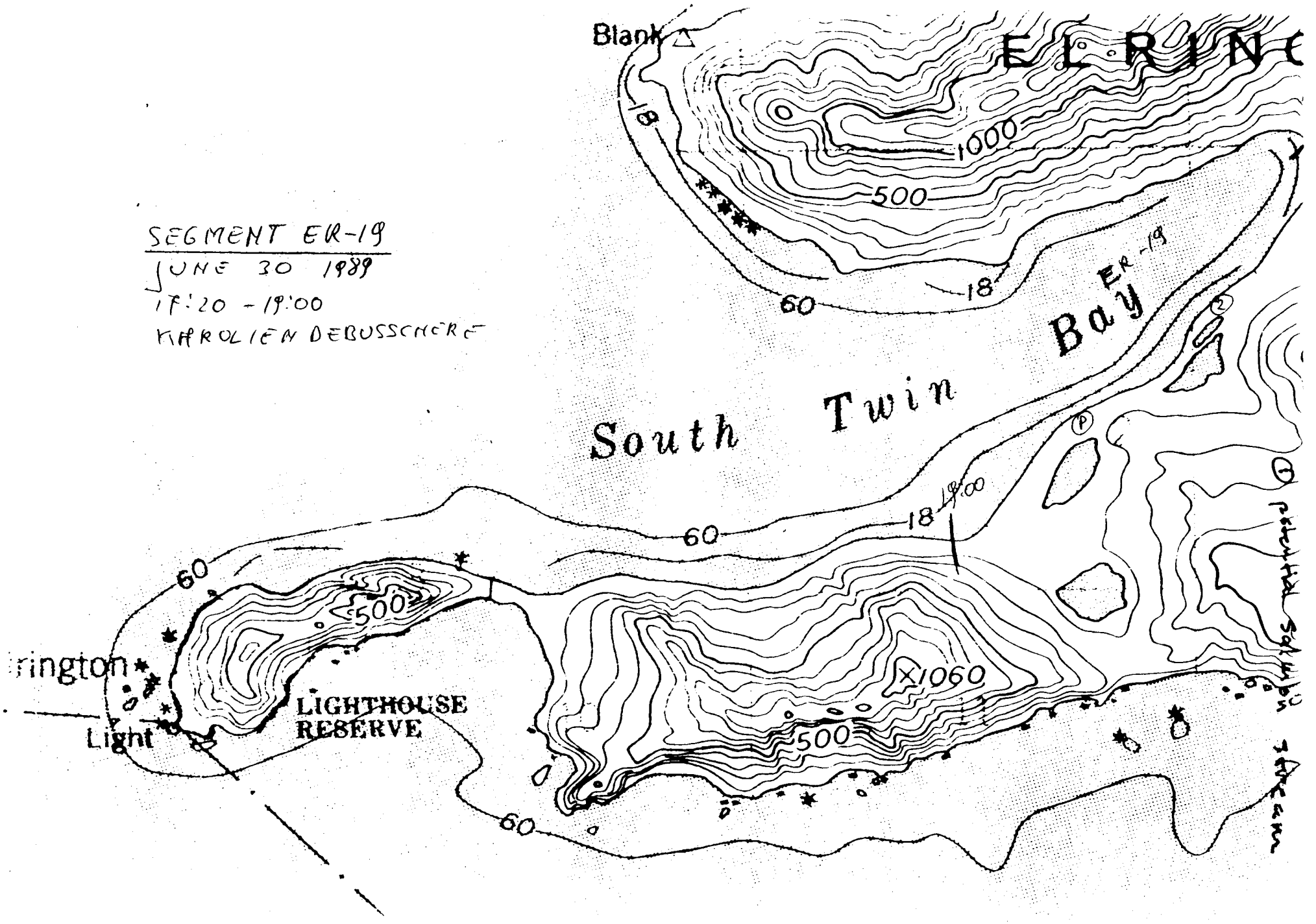
Time survey started 6/30/89 1700 HRS Time survey ended 1900 HRS

Cultural resource considerations/restraints:

ACCESS TO AREA OF STORM BERM/UPPER TIDAL SHOULD BE RESTRICTED - OTHERWISE STANDARD CONSTRAINTS.


R. 7 E. R. 8 E.
WILDERNES
STUDY AR
RECREATION
MEDIUM
RECREATIONAL
USE
ER-19
SCENIC:
RECREATION
POTENTIAL
MARINE PARK
POTENTIAL CAB
LOCATION
RECREATION:
SCENIC, WILDLIFE
SEA LION
TUFTED PUFFINS
56
DANGER ISLAND
RECREATION & WILDLIFE
SKIN & SCUBA DIVING
BEACHCOMBING
BIRD WATCHING
FISHING
SEA LION, WHALES

SEGMENT ER-19
JUNE 30 1989
17:20 - 19:00
KAROLIEN DEBUSSCHERE



(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/11/89 SHORELINE SEGMENT ER-22

LOCATION: (see enclosed map) Elrington Island - South Twin Bay

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

Recommended Cleanup Activity(ies):
- No cleanup recommended at this time (subject to FOSC reassessment at a later date). No oil observed.

c 7/21/89
o 89-07-21

Priorities Considerations: NO OIL OBSERVED.

Ecological Constraints (from site survey):
If cleanup is to be conducted, work at mid tide + or take appropriate measures to protect lower intertidal zone

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

Charles E. Holmes — Date: July 12, 1989
State Historic Preservation Officer *

ISCC: Sharon K. Christopherson — 7/21/89

EXXON: [signature] — Date: 89-07-21

FOSC: [signature] — Date: 7/21/89

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

SHORELINE OIL EVALUATION

Date: 7/1/89 / Time: 18:30-18:55 Observer: K. DERUSSCHERE

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

LOCATION

LOCATION S-SHORE OF S. TWIN BAY SEGMENT NUMBER ER-22

LENGTH OF SHORELINE SEGMENT: 1560 m

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

SHORELINE:

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

Wave Exposure: High/Med/Low

Sediment: B 15 % / C 20 % / P 10 % / G 5 % / S — % / M — % / R 20 %

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

OIL

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

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

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

Sporadic: Y/N % of Segment —

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

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

Fresh — % Mousse — % Tar Formation: — %

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

Comments:

SEGMENT WAS MAINLY OBSERVED BY SKIFF USING BINOCULARS SINCE LANDING WAS IMPOSSIBLE IN ALL BUT ONE AREA. NO OIL WAS FOUND IN THAT LOCATION (①) NOR WAS OIL OBSERVED IN THE SECTIONS WHERE SKIFF WAS USED

7/1/89

ER-22 17:30

BOAT PROBLEM → START AGAIN 18:30

ALTERNATING CLIFFS & COVES W L. OLD'S

SOME DRIFTWOOD

LOCATION (1)

COVE OF BLD BEACH → BLD/C/P/G

NO OIL

VERY HIGH ENERGY

END 18:55

BIOLOGICAL EVALUATION

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

LOCATION PREFIX: ER SEG. NO.: 22 LENGTH: 1550 (M)

DATE: 07 / 01 / 89 TIME (HHMM): 1830 - 1700 TIDE HT.: 1.3 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

other algae growing in mid-low tide - Cladophora spp, Scytosiphon p + Alaria spp

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

- occaisional colonies on stable, sheltered rocks

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

- B. glandula on larger rocks + rock faces ; B. cariosus on rock stacks which are clear (offshore) of beach sediments.

Littorina

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

- on rock faces.

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

on rock faces.

OTHER OBSERVATIONS: · beach faces have no visible epifauna + little infauna. ; continuous kelp bed offshore

CLEANUP PRECAUTIONS: Θ

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions 1 → feeding in kelp beds. Whales ___

Other ___

BIRDS: offshore waters used by puffins (tufted + horned); pidgeon guillemots + gulls.

GENERAL OBSERVATIONS:

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 7/1/89 Location BLYING SOUND (D-4) QUAD SOUTH SIDE SOUTH TWIN ISL Site

Location Prefix ER- Segment # 22 Length 1550

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 AHRS FILES

Oil conditions/beach visibility ZERO - LIGHTNING; GOOD BEACH VISIBILITY

Width of beach zone surveyed 30 m m Tree fringe surveyed N/O

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 HEADLAND / BOULDER - COBBLE BEACH.

Fresh Water Sources NONE NOTED

Sea Exposure SOMEWHAT PROTECTED.

Access/Safety POSSIBLE BARGE ACCESS.

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 # PERTINY 6 Frames 14

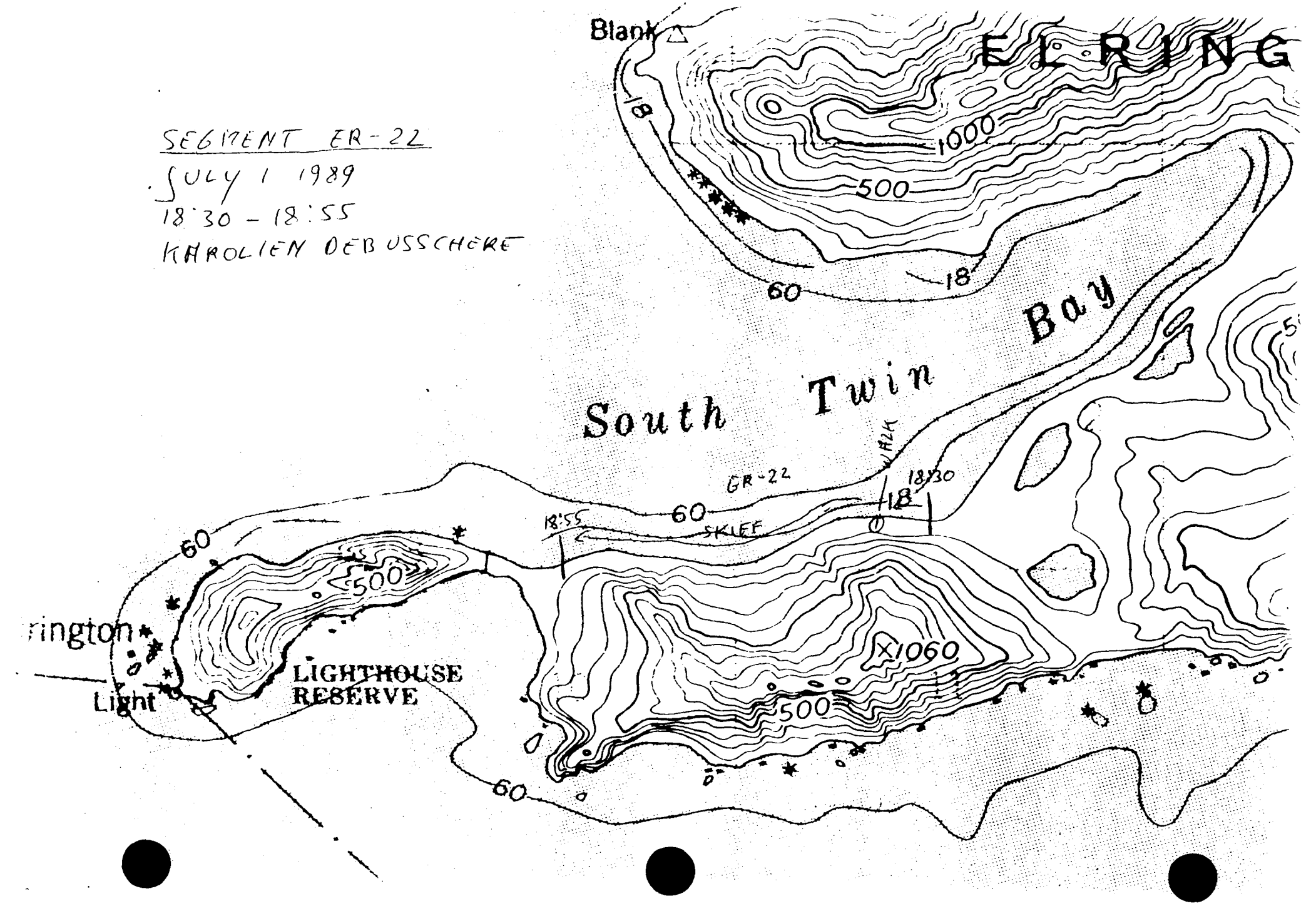
Observer(s) D. BUCK

Time survey started 1730 Time survey ended 1855

Cultural resource considerations/restraints:

"STANDARD CONSIDERATIONS"

SEGMENT ER-22
JULY 1 1989
18:30 - 18:55
KAROLIEN DEBUSSCHERE



(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/11/89 SHORELINE SEGMENT ER-23

LOCATION: (see enclosed map) Elrington Island- South Twin Bay

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

Recommended Cleanup Activity(ies):
- Manually remove oiled drift material (fucus and driftwood) and free oil.
- Flood/flush with warm to hot water (up to ~~1~~140 F) on low angle beaches.
- Use other approved methods as appropriate.

7/21/89
89-07-21

Priorities Considerations:
Class 2: Heavy oil.
B: Resources absent.

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

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.

Marla Zuttermeister
State Historic Preservation Officer * Date: July 12, 1989

ISCC: Sharon K. Christopherson 7/21/89

EXXON: _____ Date: 89-07-21

FOSC: _____ Date: 7/21/89

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

SHORELINE OIL EVALUATION

Date: 7/1 89 / Time: 19-20:00 Observer: KAROLIEN DERUSSCHER

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

LOCATION

LOCATION S. SHORE OF S. TWINRAY SEGMENT NUMBER ER-23

LENGTH OF SHORELINE SEGMENT: 400 m

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

SHORELINE:

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

Wave Exposure: (High)/(Med)/Low

Sediment: B 40 % / C 25 % / P 20 % / G 10 % / S 5 % / M — % / R — %

Drift Debris on Beach: (Yes)/No Supra/(Upper)/Mid/Lower Type AL GAE & WO

OIL

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

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

Continuous: (Y)/N % of Segment 90 Width of Band: 4-10 m

Sporadic: (Y)/N % of Segment 10

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

Pooled Oil: — % "Free" Oil: 5 % Coated: H 60 % / M 30 % / L 5 %

Fresh 65 % Mousse — % Tar Formation: 35 %

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

Comments:

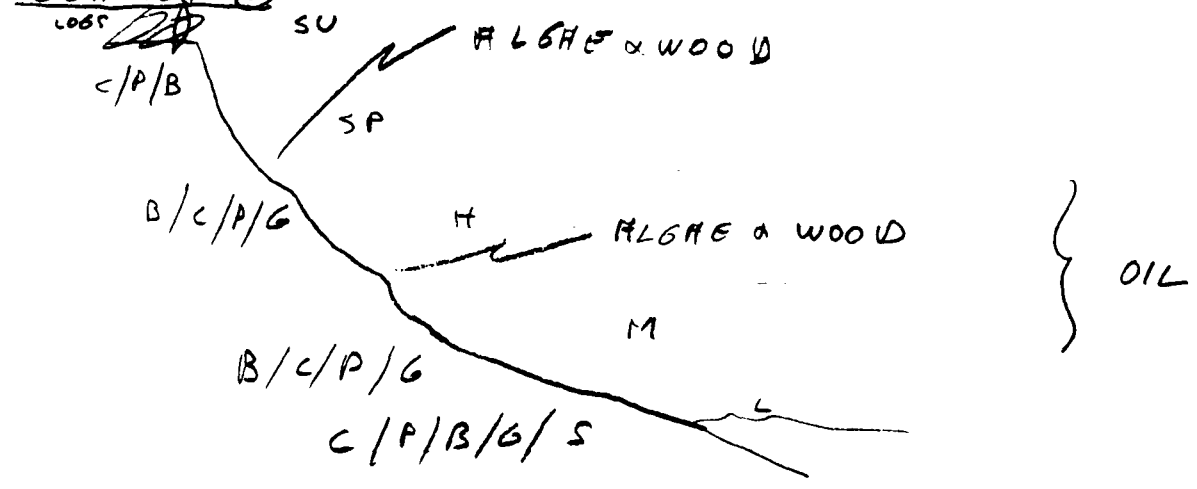
OIL IS MOST EXTENSIVE ON EASTERN THIRD OF SEGMENT WHERE IT THICKLY COATS THE B/C/P/...

THE BEACH GRADIENT IS HIGH AND THE BEACH IS MAINLY EXPOSED TO MEDIUM WAVE ENERGY DUE TO THE CONFIGURATION OF SHORELINE (CER MAP) NATURAL WASHING WILL OCCUR BUT IT IS DOUBTFULL THAT ALL OIL WOULD BE WASHED AWAY!

ER-23 19:00

LARGE BEACH B/W THIN ISLAND & PENINSULA

* LOCATION (1)



OIL IS ON H & MID TIDAL ZONE 4-5 M WIDE AT LOC (1)

SOME OIL SPLASH IN SP

OILED DRIFT

* GOING EAST

OIL THINS OUT AND DISAPPEARS EXCEPT FOR VERY SPORADIC

OIL SPLASHES IN H & SP

* GOING WEST

EXTEND OF OIL COVER INCREASES → TO 10 M

THICKLY COATED OIL ≥2 LAYERS DEEP → THINS OUT IN LAST 1 SK

→ ONLY 1/3 OF SEGMENT HAS OIL → EAST SIDE

(ALSO MORE ANGULAR MATERIAL THAN WEST SIDE

WHY ONLY THERE?? COMING OUT OF BAY?

END 20:00

ECOLOGICAL EVALUATION

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

LOCATION PREFIX: ER SEG. NO.: 23. LENGTH: 400 (M)

DATE: 07 / 01 / 89 TIME (HHMM): 1900 - 1930 TIDE HT.: 1.3 (M)

OILED ZONE: Splash (High) Medium Low

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

LIVE BIOTA

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

- some cladophora; Scytosiphon @ higher tide / Alaria & laminaria @ low tide

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

- some on large, stable rocks in low/mid tide areas.

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

B. cariosus @ mid-low tide levels.

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

on large stable boulders

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

on large stable boulders.

OTHER OBSERVATIONS: segment is fronted by offshore kelp bed.

CLEANUP PRECAUTIONS: do not use techniques which will reintroduce hydrocarbons to water - to protect kelp bed.

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions 4 (feeding in kelp bed.) Whales ___
Other ___

BIRDS: 40-50 Glaucous-winged gulls resting on lower inter tidal rocks - observed on 07.02.89

GENERAL OBSERVATIONS: ___

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 7/1/89 Location S. SIDE S. TWIN BAY BLYING SOUND (D-9) QUAD Site

Location Prefix ER- Segment # 23 Length 400 m

Survey Method:

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

Ground ✓ (100%) (G - indicate on map)

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

Oil conditions/beach visibility VARIABLE - LONG TO MODERATE OIL, GOOD VISIBILITY

Width of beach zone surveyed 20 m m Tree fringe surveyed NO TREE FRINGE

Cultural resources observed in beach zone (AHRS code)

Cultural resources observed in tree fringe (AHRS code) NONE

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

Shore Profile STEEP BOULDER BEACH

Fresh Water Sources NONE OBSERVED.

Sea Exposure OPEN

Access/Safety BARGE ACCESS POSSIBLE

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 # PERTMY 6 Frames 15-21

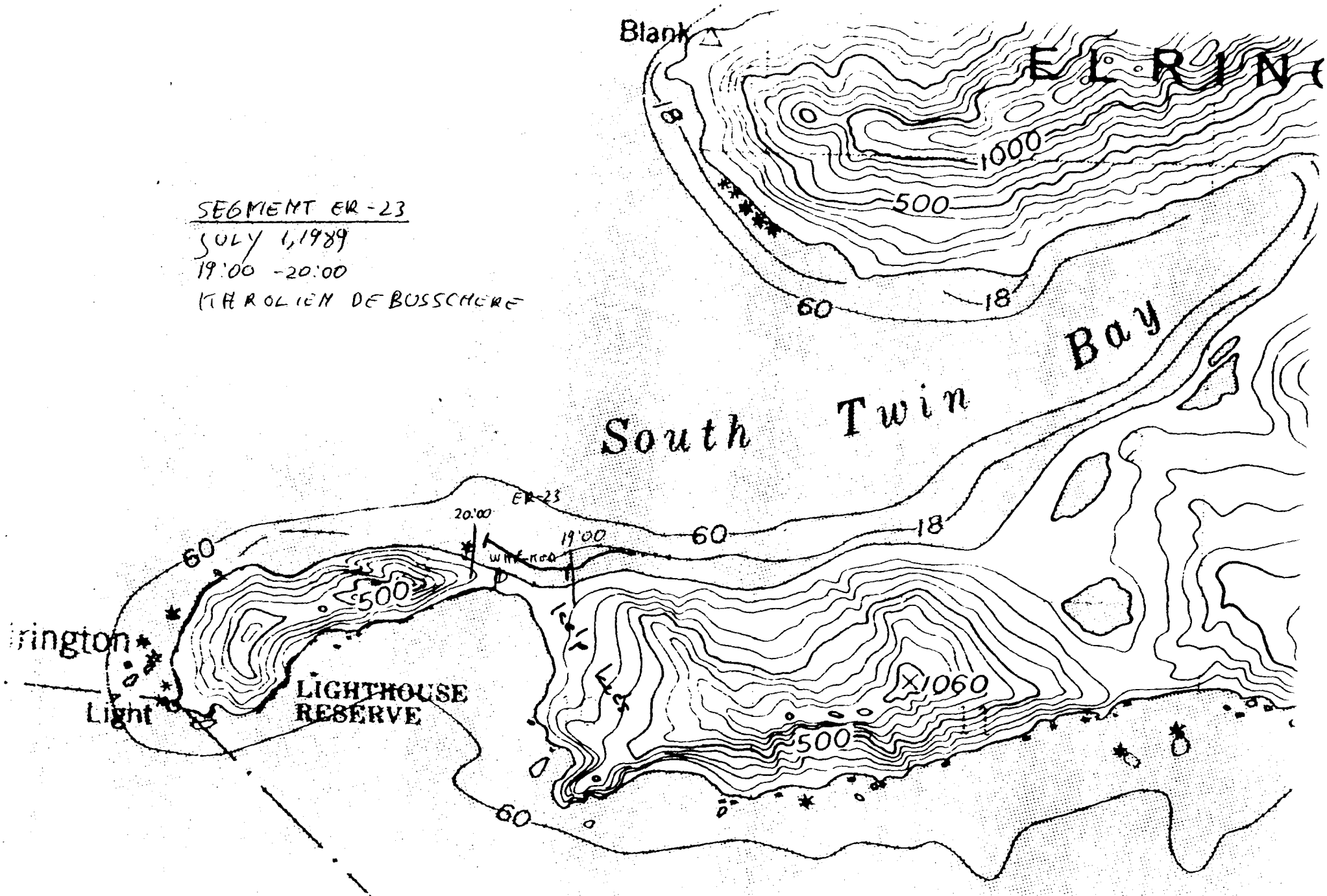
Observer(s) P. BUCK

Time survey started 1855 Time survey ended 1955

Cultural resource considerations/restraints:

"STANDARD CONSTRAINTS"

SEGMENT ER-23
JULY 1, 1989
19:00 - 20:00
THEOLIEN DE BOSSCHERE



(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/11/89 SHORELINE SEGMENT ER-24

LOCATION: (see enclosed map) Elrington Island- Peninsula at Southwest end.

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/2/89

Recommended Cleanup Activity(ies):
- No cleanup recommended at this time (subject to FOSC reassessment at a later date) due to light oil, high wave exposure, and ecological constraints.

Priorities Considerations:
Class 4: Light oil.
A: Resources present.

Ecological Constraints (from site survey):
There is a major sealion haulout area and two seabird colonies within this segment. Any cleanup activities should be cleared by ~~ADFG and/or~~ USFWS, ~~as appropriate.~~ AND NOTIFY NMFS BEFORE CLEANING.

89
8907-21

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

Charles E. Holmes — Date: July 12, 1989
State Historic Preservation Officer *

ISCC: Sharon K. Christopherson — 7/21/89

EXXON: [signature] — Date: 8907-21

FOSC: [signature] — Date: 7/21/89

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

SHORELINE OIL EVALUATION

Date: 7/2/89 Time: 7:00 - 9:30 Observer: K. DEBOSSCHERE

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

LOCATION

LOCATION SW ERLINGTON IS & PENINSULA SEGMENT NUMBER ER-24

LENGTH OF SHORELINE SEGMENT: 5800 m

ACCESS: Foot/Vehicle/(Boat)/(Barge)/Helio/(Float Plane) (NONE)

SHORELINE:

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

Wave Exposure: (High)/Med/Low

Sediment: B 15 % / C 10 % / P 10 % / G 3 % / S 2 % / M — % / R 60 %

Drift Debris on Beach: (Yes)/No (Supra)/(Upper)/(Mid)/Lower Type ALGAE & LOGS

OIL

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

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

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

Sporadic: (Y)/N % of Segment 100

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

Pooled Oil: 0 % "Free" Oil: 0 % Coated: H 0 % / M 0 % / L 100 %

Fresh 0 % Mousse 0 % Tar Formation: 100 %

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

Comments:

MOST OF THE SHORELINE WAS OBSERVED BY STIFF LOC. (2) COULD ONLY BE REACHED FROM THE N-SIDE. THE OBSERVED OIL COVER WAS VERY SPORADIC. THE AREAS AFFECTED EXPERIENCE VERY STRO WAVE ACTION SO THAT THE OIL WILL PROBABLY BE WASHED NATURALLY. THE ONLY EXCEPTION TO THIS IS A PIECE OF LUMBER IN LOC. (2) IN THE SU ZONE. THE OIL ON THIS LOG IS MOSTLY THE RESULT OF TREATMENT WITH CREOSOTE

ER-24: 5:30

BOAT TROUBLE - SWITCH SKIFFS

H_2O IS CALM → GO AROUND PENIN TO DO S-SIDE

7:00 AM

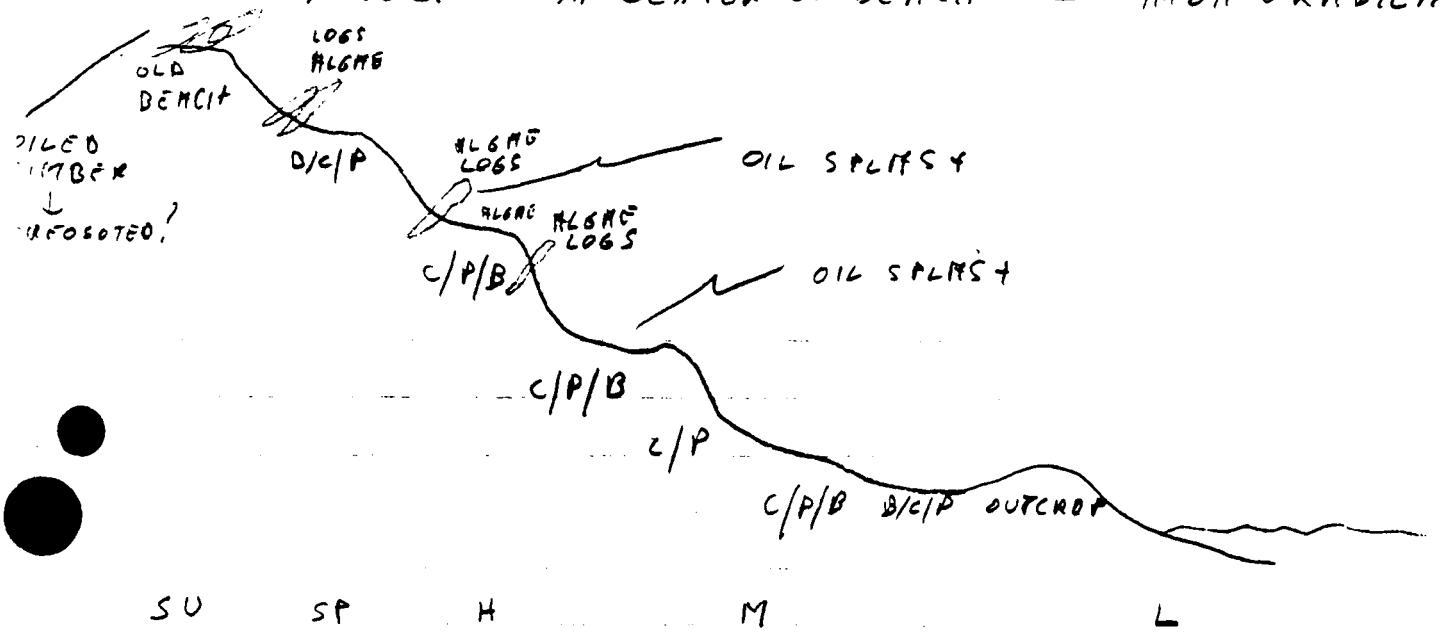
* LOC ① BEACH POCKET

VERY HIGH ENERGY / SURF

NO OIL VISIBLE

* LOC ②

X-SECTION IN CENTER OF BEACH — HIGH GRADIENT



TOWARDS ENDS OF BEACH → LARGER MAT & THEN CLIFFS

VERY SPORADIC OIL SPLASHES

SEA LION COLONY ON PENINSULA

MOST OF SEGMENT AT S-SIDE IS CLIFF

ON N-SIDE CLIFF W SEVERAL ACTIVE SCREES, LGBLD/C/P/C x BEACH POCK

* LOC ③

SOME OIL SPLASH ON LARGE BLD FACING EAST

9:30 - END

ALL SHORELINE SEGMENTS REQUIRED IN THIS AREA AT THIS POINT ARE FINISHED

→ GO TO SHAMMIL BAY

BIOLOGICAL EVALUATION

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

LOCATION PREFIX: ER SEG. NO.: 24 LENGTH: 5800 m (M)

DATE: 07 /02 / 89 TIME (HHMM): 0700-0730 TIDE HT.: 1.0 - -0.6 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

- some Enteromorpha; Halosaccion & Scytosiphon @ high tide / Alaria, Laminaria & a palm-like brown alga 30-40 cm tall (Postelsia or Lessoniopsis?)

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

- colonies occur in protected crevices of rock faces

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

- mostly B. cariosus growing in mid-low intertidal / some B. glandula growing in protected areas

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

- growing in splash zone & among algae in mid-low tide

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

- ~~grow~~ occur in splash zone & among algae in mid/low tide

OTHER OBSERVATIONS: intermittent kelp beds offshore.

CLEANUP PRECAUTIONS: clear all cleanup activities with ADF&G &/or USFWS as appropriate, due to Sealion haulout @ Pt Elrington & 2 seabird colonies

MAMMALS: Otters ____ Harbor Seals ____ Sea Lions 100-150 Whales ____
Other ____

BIRDS: tufted puffins; horned puffins; common murres; black-legged kittiwakes & glaucous winged gulls. 500 - 2000 total

GENERAL OBSERVATIONS:

- this segment is inaccessible to work crews.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 7/2/89 Location ELRINGTON PT. (BLYING SOUND (D-4) QUAD) Site

Location Prefix ER- Segment # 24 Length 5800 m

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 AHRS FILES

Oil conditions/beach visibility ZERO TO LIGHT OIL; BEACH OBSERVED BY SKIFF

Width of beach zone surveyed 0 - 40 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 ROCKY HEADLAND / WAVE DOMINATED BOULDER BEACHES

Fresh Water Sources SMALL STREAMS NOTED

Sea Exposure OPEN

Access/Safety ACCESS VERY DIFFICULT - NO BARGES, SKIFF, HELICOPTERS.

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 # PBSTMY 6 Frames 22, 23

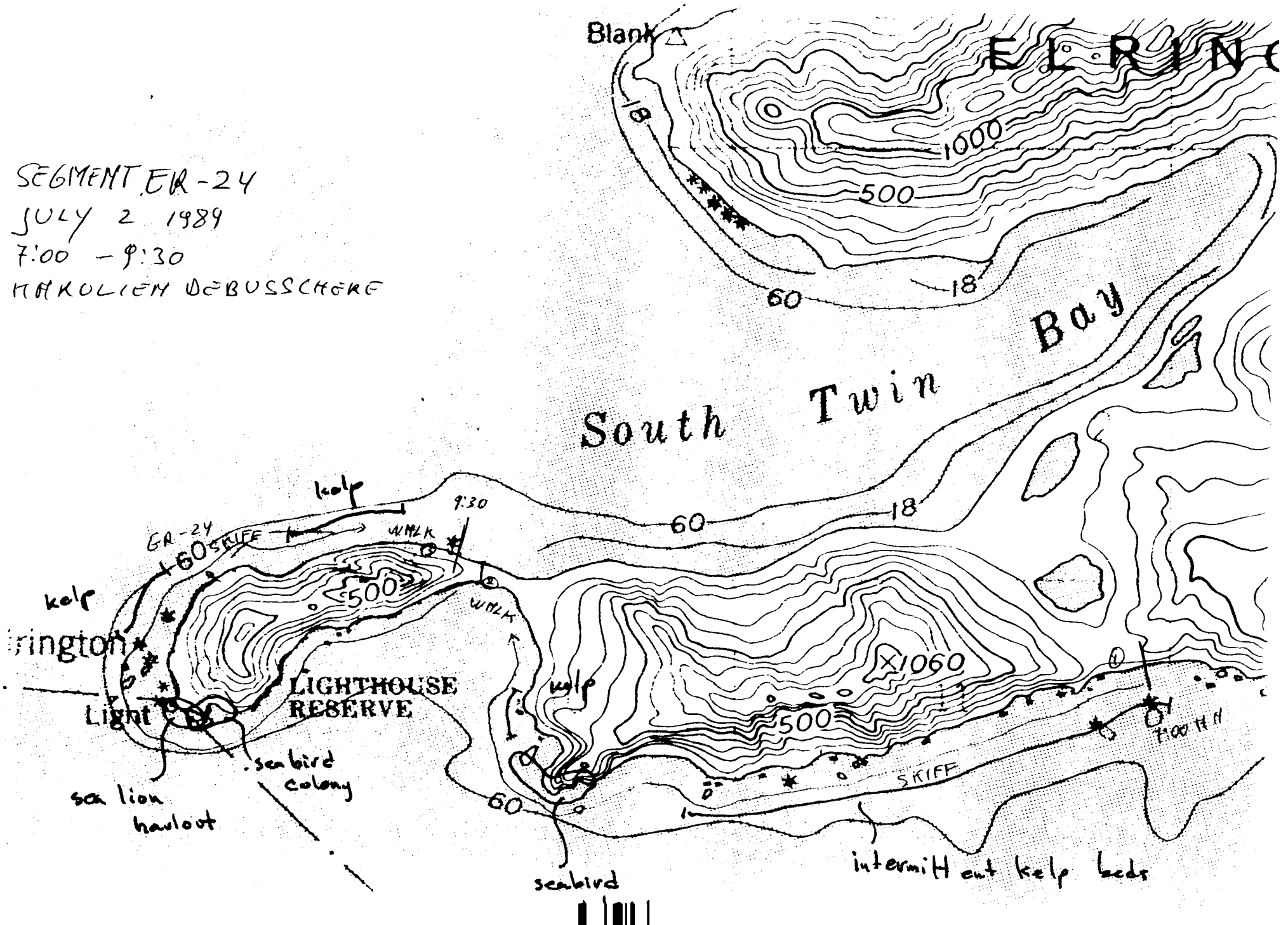
Observer(s) D. BUCK

Time survey started 0603 Time survey ended 0920

Cultural resource considerations/restraints:

"STANDARD CONSTRAINTS"

SEGMENT ER-24
JULY 2 1989
7:00 - 9:30
MARCELIEN DEBUSSCHERE



(version 5/13/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): Elrington Island Northeast Block

Includes Shoreline Segments: ER-20, ER-21

Submitted : _____ (for Exxon) Date: 7/2/89

ISCC ~~Approval~~ Recommendation: _____ Date: 7/5/89

FOSC Approval: _____ Date: 7/6/89

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.

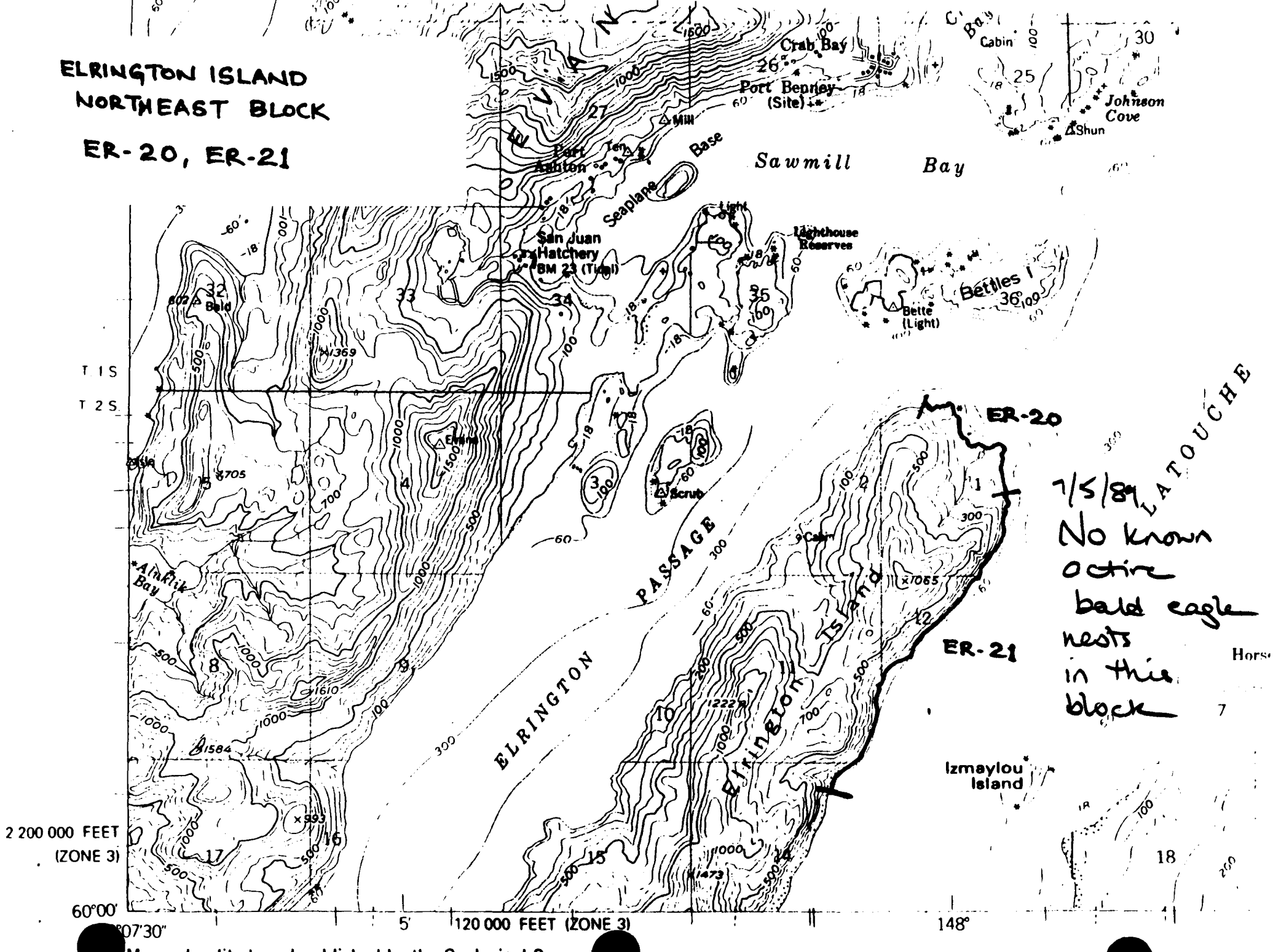
Distribution:

- 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

ELRINGTON ISLAND
NORTHEAST BLOCK

ER-20, ER-21



7/5/89
No known active bald eagle nests in this block

Mapped, edited, and published by the Geological Survey

Ellington Northeast

********** SCOT NOTE **********

THERE ARE ITEMS OF GREAT CONCERN IN THIS APPROVAL BLOCK THAT AFFECT THE DEPLOYMENT OF CREWS AND EQUIPMENT.

READ THIS FIRST

SPECIAL PRECAUTIONS SHOULD BE TAKEN TO CONTAIN SHEEN BECAUSE OF CLOSE PROXIMITY OF HATCHERY IN SAWMILL BAY

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7-2-89 SHORELINE SEGMENT ER-20

LOCATION: (see enclosed map) Elrington Island - North end

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

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material (fucus), free oil and patches of mousse.
- Flood/flush with warm to hot water (up to 140 F) on low angle beaches. Hot water/air injection may be necessary to remove asphalt layer beneath surface gravels.
- Use moderate to high pressure washing on rock and oiled logs.
- Use other approved methods as appropriate.

Priorities Considerations:
Class 1 ~~2A~~: Heavy to light oil / TIME SENSITIVE
A: Subsistence resources present. / HATCHERY VERY NEARBY

7/5/89 gm

Ecological Constraints (from site survey): Work at mid tide + or take appropriate measures to protect lower intertidal zone, eelgrass and kelp beds. Avoid freshwater stream.

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

Charles E. Holmes Date: July 2, 1989
State Historic Preservation Officer *

ISCC: Jacqueline Michael Date: 7/5/89

EXXON: [signature] Date: July 5 1989

FOSC: C E Robbins Date: 7-6-89

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

SHORELINE OIL EVALUATION

Date: 7/1/89 Time: 6:00 AM - 8:40 AM Observer: KAROLIEN DEBUSSCHE

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

LOCATION

LOCATION NNE ERLINGTON IS SEGMENT NUMBER ER-20

LENGTH OF SHORELINE SEGMENT: 1500 m

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

SHORELINE:

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

Wave Exposure: High/Med/Low

Sediment: B 25% / C 20% / P 10% / G 15% / S 5% / M — % / R 25%

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

OIL

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

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

Continuous: Y/N % of Segment 40 Width of Band: ≤ 20 m

Sporadic: Y/N % of Segment 60

Est. Oil Thickness where > 1cm: ____ cm Est. Oil Penetration: 20 cm

Pooled Oil: 0 % "Free" Oil: 45 % Coated: H 25 % / M 15 % / L 15 %

Fresh 65 % Mousse 20 % Tar Formation: 15 %

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

Comments:

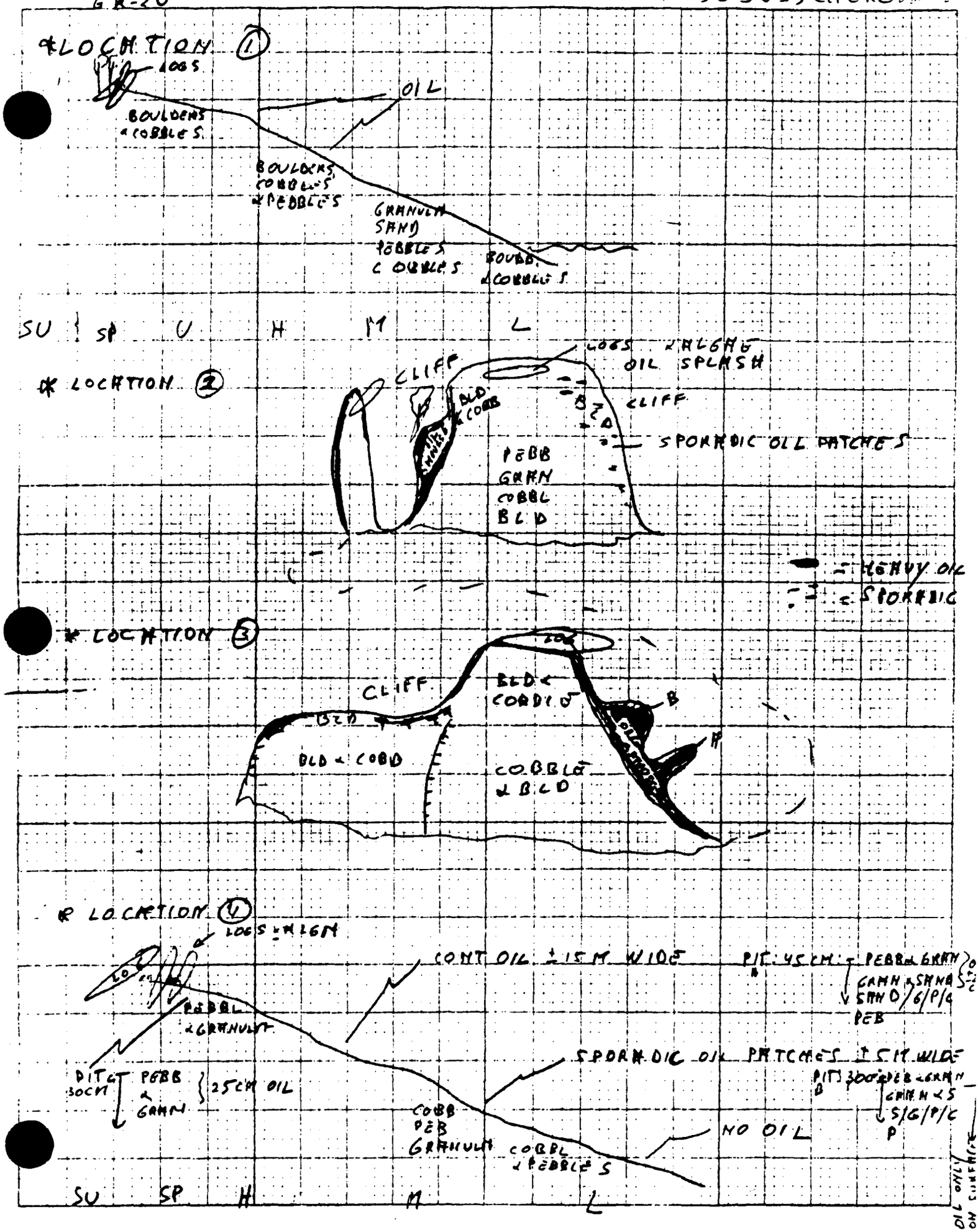
WORST OIL COVER IS IN LOCATION (4) WHERE ± 250M X 20M CONT. OIL COVER IS PRESENT W. PENETRATION TO 20CM THE BEACH IS RELATIVELY LOW ANGLE WITH GRANULA/PEBBLE. SOME HEAVY COATED BOULDERS ARE ALSO FOUND IN CONT. BANDS (LOC (2), (3), ..) THIS SEGMENT HAS EXPERIENCED EXTENSIVE IMPACT

NO ACCESSABLE HIGH ENERGY AREA IS CLOSE BY TO REMOVE EASILY OILED MATERIAL, WASH IT, & REPLACE IT

7/1/81

GR-20

K. DEBUSSCHERE



7/1/89 K. DEBUSSCHERE

GR-20 6:00 AM

* LOCATION (1) (START TO THE E OR CLIFF) DEER COVE: HIGH GRADIENT BEACH
OIL SPLASH AT H & M TIDE ON LARGE BOULDERS AND CLIFF BORDERING COVE
MOST OIL ON E-WALL: BAND OF 1.5 X 4 M TYPE (A)
P (26) TIME? LIMPETS ON OIL BLOB W FUCUS
P (27) " ? " " " " " "
CLIFF TO →

* LOCATION (2)
PEBBLE-GRAIN BEACH
DRIF (ALGAE & WOOD) → OILED
OIL IN HIGH TIDE & UPPER
MOST OIL ON E-WALL (W-FACING) I 4m WIDE BAND

* LOCATION (3)
→ EXTENSION OF (2)
BOULDER BEACH
WORST OIL COVER ON NW-W-WALL → EXTENSIVE MOUSE
ALGAE & LOGS ARE OILED
HIGH TIDE & SOME SPLASH ON UPPER
OIL THINS OUT TOWARD NE & E
P (28) 6:56 LOC 3 → OIL IN CREVICE (A ON SKETCH)
P (29) 6:57 " → OIL & DRIFT (OILED) (B " ") } WORST OIL COVE

* FURTHEREAST
ALTERNATING CLIFFS & BLD BEACHES W SAME CHARACT.
EX P (30) - 7:30 : COVE W OIL ON NE-FACING WALL
ON CLIFF B/W: OIL RING - SPORADIC

* LOCATION (4)
LARGE GRANULA BEACH HEAVILY OILED
P (31) 7:16 GENERAL VIEW OF BEACH
P (32) 7:18 TAKEN FROM M/H TIDE TOWARDS SE OVERVIEW OF EXTENSIVE OIL COVER.

K. DEBUSSCHERE

7/1/89

ER-20 - CONT

BAND OF OIL ± 250 X 20 M 20-25 CM DEEP
LOW TIDE IS OIL FREE
COATED OIL - HEAVY
SOME FREE OIL
HEAT OF SUN MAKES THE OIL WELL UP (ABSORBENT)
P(33) 7:48 PIT B → OIL IN PIT

AT LOCATION (4) SOME AREAS HAVE BEDROCK OUTCROP
AT SEAWARD SIDE OF BENCH → BEDROCK IS THICKLY COATED
AT SHORELINE HIGHTIDE HOTWASH?
LITTLE CREEK IN SE CORNER OF BAY
→ DANGER FOR PAVEMENT IN COAT BAND

P(34)? LOCATION FROM OFFSHORE OF (4)

* LOCATION (5) CLIFFS HIGHTIDE OIL MARK
MOSTLY (SE-WALL) NW FACING ± 1 M WIDE
* LOC (6) LITTLE BAY AS IN (4)
* " (7) - HIGH GRADIENT BLD BENCH ± 1.5 M WIDE - OIL
- CLIFF - OIL
- BENCH AS IN (4)
- HOLD
- BLD BENCH AROUND HOLD = (4)
- CLIFF
* LOC (8) COBBLE & PEB BENCH: OIL PATCH IN NW-CORNER
± 10 X 3 M → SUREICIAL
CREEK
- CLIF
- PEBBLE BENCH → N: ± CONT ON SURFACE
→ S: FINE: OIL ± 15 CM THICK 5-10 CM
DEEP & ON SURFACE = (4)

ALL BENCHES ± LOW ANGLE 2 CREEKS
END 8:40

ECOLOGICAL EVALUATION

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

LOCATION PREFIX: ER SEG. NO.: 20 LENGTH: 1500 (M)

DATE: 07 / 01 / 89 TIME (HHMM): 0600-0830 TIDE HT.: -0.3 - +0.3 (M)

OILED ZONE: Splash (High) (Medium) Low

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

LIVE BIOTA

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

diverse algal community in Low tide zone - Halosaccion; Alaria; Ulva; Cladophora

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

- sparse mussel set on rock faces; some dense mussel beds in mid-tide level of beaches

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

continuous colonization of B. Glandula in high tide zone; scattered colonies of B. Cariosus in mid-low tide zone

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

also Nucella lamellosa and Scarlesia stria

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

- distributed through out mid-low tide elevations.

OTHER OBSERVATIONS: lower beaches support a very productive & diverse fauna - including hermit crabs; star fish; gunnels; amphipods & several species of clams. There are intermittent kelp beds & eelgrass beds offshore.

CLEANUP PRECAUTIONS: protect lower intertidal; offshore kelp beds & subtidal eelgrass beds from contamination (see map)

MAMMALS: Otters 2 (Sea) Harbor Seals ___ Sea Lions 1 Whales ___
Other one small whitetail deer observed in intertidal zone; several deer tracks (sets of) found on beaches.

BIRDS: 2 bald eagles; 3 ravens; 2 magpies

GENERAL OBSERVATIONS: There is one stream in this segment which has the potential to be used by anadromous fish. Check with ADF&G before initiating clean up operations. (See map)

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 7/1/89 Location N. END ELRINGTON ISLAND (BLYNG SOUND (C-3) QUAD) Site

Location Prefix ER- Segment # 20 Length 1500 m

Survey Method:

Air (A - indicate on map) Boat ✓ (50%) (A - indicate on map)

Ground ✓ (50%) (G - indicate on map)

Known cultural resources (AHRS #) AHRS FILES UNAVAILABLE Data Source —

Oil conditions/beach visibility MODERATE/HEAVY OIL; POOR BEACH VISIBILITY

Width of beach zone surveyed 60 m m Tree fringe surveyed 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 MODERATE GRADIENT GRAVEL BEACH/ROCKY HEADLANDS

Fresh Water Sources YEAR AROUND STREAM

Sea Exposure SOMEWHAT PROTECTED.

Access/Safety BARGE ACCESS POSSIBLE

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 # PEB TMY 5 Frames 32-36
PEB TMY 6 1-11

Observer(s) P. BUCK

Time survey started 0607 Time survey ended 0840

Cultural resource considerations/restraints:

"STANDARD CONSTRAINTS"

Bette (Light)
kelp beds
ER-20
6:00 AM
WALK
SKIFF
8:40 AM
exposed rocks
gibantel salamp stream
Cabin
Island
Arlington
PASSAGE
TON.
Scrub
1065
1222
SEGMENT ER-20
JULY 1 1989
6:00 - 8:40 AM
CAROLIEN DEBUS

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7-2-89 SHORELINE SEGMENT ER-21

LOCATION: (see enclosed map) Elrington Island - Northeast Side

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

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material (fucus) and free oil.
  Flood/flush with warm to hot water (up to 140 F) on low angle beaches.
  Use moderate to high pressure washing on rock and oiled logs.
  Use other approved methods as appropriate.

Priorities Considerations:
Class 1B: Moderate oil / TIME SENSITIVE 7/5/89
A: Subsistence 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 Date: July 2, 1989
State Historic Preservation Officer *

ISCC: [signature] Date: 7/5/89

EXXON: [signature] Date: July 5 1989

FOSC: C E Robbins Date: 7-6-89

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

SHORELINE OIL EVALUATION

Date: 7/1/89 Time: _____ Observer: KAROLIEN DEBUSSCHER

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

LOCATION

LOCATION NE SECTION OF S-SHORE OF ERLINGTON IS. SEGMENT NUMBER GR 21

LENGTH OF SHORELINE SEGMENT: 3250 m

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

SHORELINE:

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

Wave Exposure: High/Med/Low

Sediment: B 30 % / C 25 % / P 20 % / G 10 % / S 5 % / M — % / R 10 %

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

OIL

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

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

Continuous: Y/N % of Segment 20 Width of Band: 0.5-2 m

Sporadic: Y/N % of Segment 80

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

Pooled Oil: — % "Free" Oil: 5 % Coated: H 5 % / M 25 % / L 65 %

Fresh 5 % Mousse — % Tar Formation: 95 %

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

Comments:

OIL IS VERY SPORADIC AND CONCENTRATED MAINLY IN HIGH TIDAL ZONE. ACCESS IS DIFFICULT B/C MOSTLY HIGH RANGE THE FREE OIL IS VERY SPORADIC IN INTERSTI. AT HIGH WATER MARK

7/1/89 K. DEBUSSCHERE

GR-21 8:40

STEEP BLD BENCHES (ANGULAR) AT FOOT OF CLIFFS RARELY ONL CLIFF

OIL MTM-TIDE (SPORADIC)

& SP-" (")

*LOC (1)

P (35) 8:47 EX. OF RING ON BLD

OIL RING MOSTLY ON SE-FACING BLD'S

*LOC (2)

P (36) 8:55 DETAIL OF OIL ON BLD BEACH MID-TIDE

1-2 M WIDE IN INTERST

COATED 2-3 LAYERS DEEP IN COBB & PEB - FREEOIL

→ SPORADIC

*LOC (3)

BROAD LOW ANGLE BLD/COB BEACH

SURFICIAL OIL IN MID TIDE CREEK

⇒ MEDIUM WAVE ENERGY

END 9:50

ECOLOGICAL EVALUATION

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

LOCATION PREFIX: 2R SEG. NO.: 21 LENGTH: 3200 (M)

DATE: 07 / 01 / 89 TIME (HHMM): 0850-0940 TIDE HT.: 0.3 - 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

- lower intertidal supports a diverse algal comunity inc. Halosaccion; Alaria; Plocamium; continuous cover of Gigartina subtidally

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

- some colonies on rock faces & some dense colonies in beaches @ mid-high tide esp those beaches with creeks

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

- B. glandula continuous along high tide elevations; B. cariosos intermittent in mid-low tide elevations.

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

also Nucella lamellosa

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

OTHER OBSERVATIONS: lower beach faces very productive; infauna include dense populations of Hermit crabs & gunnels, pisaster & Dermasterias on rock faces

CLEANUP PRECAUTIONS: do not contaminate lower beach faces & subtidal fauna.

MAMMALS: Otters - Harbor Seals 2 Sea Lions ___ Whales ___
Other ___

BIRDS: 2 bald eagles (one with oiled tail feathers); 3 ravens

GENERAL OBSERVATIONS: ___

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 7/1/89 Location BLYING SOUND (C-3) QUAD EAST SIDE ELRINGTON I. Site

Location Prefix ER- Segment # 21 Length 3250 M

Survey Method:

Air (A - indicate on map) Boat ✓ (90%) (A - indicate on ma

Ground ✓ (10%) (G - indicate on map)

Known cultural resources (AHRS #) AHRS FILES UNAVAILABLE Data Source —

Oil conditions/beach visibility ZERO TO LIGHT OIL; GOOD BEACH VISIBILITY

Width of beach zone surveyed 30 m Tree fringe surveyed 0-5 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 STEEP BOULDER BEACHES / ROCKY HEADLAND

Fresh Water Sources SMALL STREAM

Sea Exposure OPEN

Access/Safety BARGE ACCESS POSSIBLE

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 —

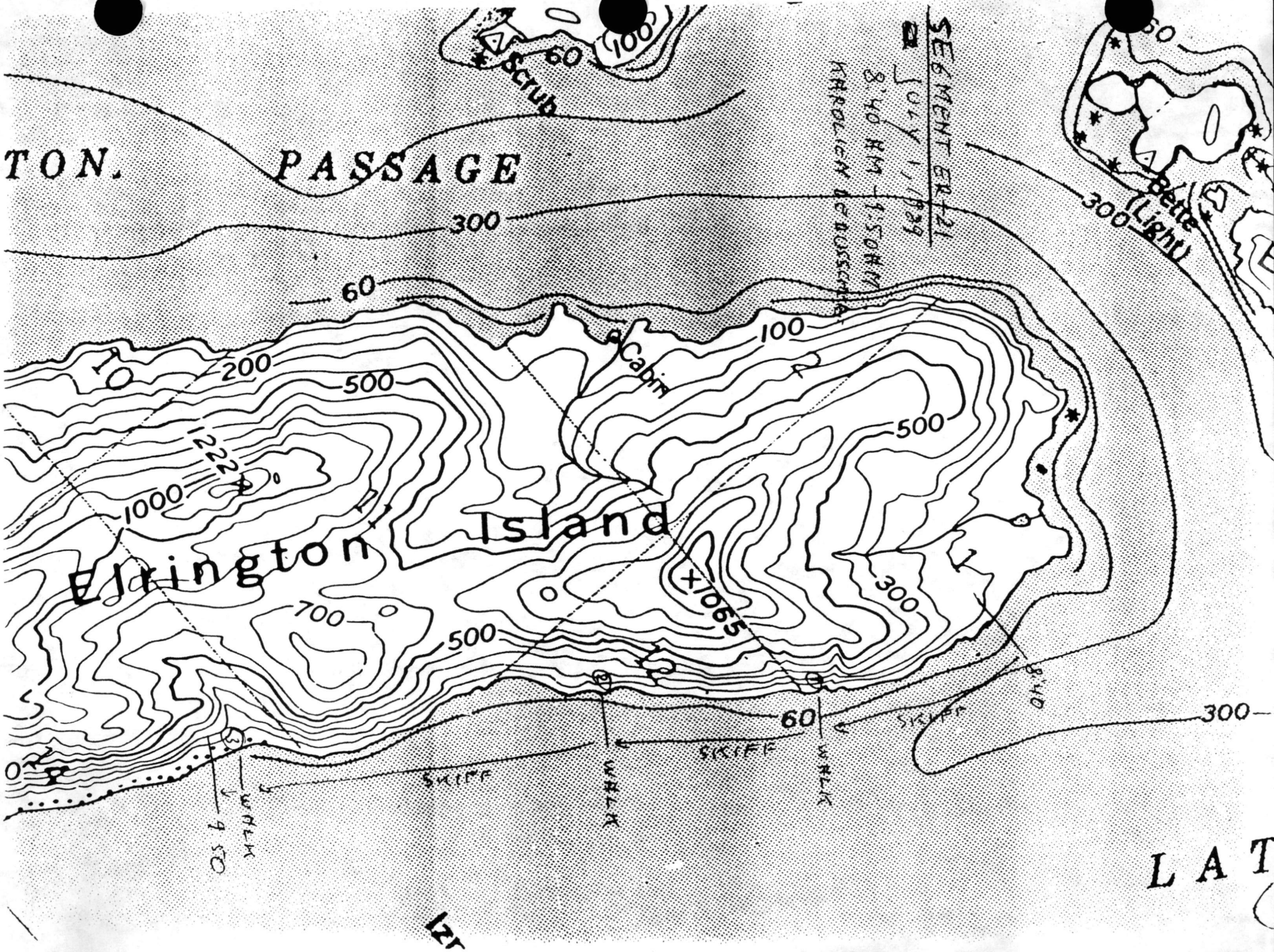
B/W Roll # PCB TMY 6 Frames 12, 13

Observer(s) P. BUCK

Time survey started 0840 Time survey ended 0940

Cultural resource considerations/restraints:

"STANDARD CONSTRAINTS"


SEGMENT FR 21
JULY 1, 1929
8:40 AM - 1:50 PM
HYDROLICH & DOUSSARD
TON.
PASSAGE
Scrub
60
100
300
60
100
Cabin
200
500
500
222
1000
Ellrington
Island
700
500
1065
300
60
300
300
Pelle
(Light)
SKIFF
SKIFF
SKIFF
WALK
WALK
WALK
WALK
LAT

FINAL ASSESSMENT LOG

SEGMENT ER-20 DATE 9/17/89

1. COVERAGE BY SURFACE OIL

- [ ] NONE
- [ ] INTERMITTENT
- [x] LIGHT (<10%)
- [ ] MODERATE (10-50%)
- [ ] HEAVY (>50%)

DESCRIPTION: OIL COVERAGE IS MAINLY CONCENTRATED IN GRAVEL AND COBBLE BEACHES IN N.E. COVE INCLUDING ROCK AND BOULDER SHORELINE TO EITHER SIDE

2. SUBSURFACE OIL DEPTH: 4-5 INCHES

NOTES: THESE DEPTHS WERE IN SCATTERED POCKETS ON GRAVEL AND COBBLE BEACHES, ALL OTHER AREAS WERE LIGHT TO MODERATE COATINGS.

3. SHEEN IN AREA? [x] YES [ ] NO

NOTE: SHEEN OBSERVED COMING OFF AREAS DESCRIBED ABOVE. MOST GRAVEL AND COBBLE WASHED OFF THESE BEACHES DURING TREATMENT WAS BEING WASHED BACK UP.

4. OBVIOUS DAMAGE

FLORA	[ ] YES	[x] NO
FAUNA	[ ] YES	[x] NO
ARCHAEOLOGICAL	[ ] YES	[x] NO

NOTES: LOWER TIDAL ZONE WAS COVERED, AT OBSERVATION TIME IT WAS MID TIDE AND COMING IN.

5. DEBRIS FOR PICKUP [x] YES [ ] NO

DESCRIPTION: POLYPROPYLENE CORDS (YELLOW) WERE SIGHTED ON ROCKS. ONE WAS RETRIEVED BY SCOT TEAM.

6. COMMENTS:

MKC [signature] SIGNATURE

SCOT I POSITION

SENT BY: ; 9-13-89 9:34AM ;

ER-20

DATE 9/13/89

INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

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

Exxon

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

Comments Beach was well washed. Recommend application of bioremediation.

Signature R C Harrelson Date: 9/13/89 Time: 10:30

Printed Name R C HARRELSON

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
5	Heavy
~~25~~ 30	Medium
~~45~~ 20	Light
Ø	Very Light
45	None
100 %	

Subsurface Oil
- [x] Yes
- [ ] No

COMMENT BELOW

Reassessment
- [x] Yes - necessary
- [ ] No - not necessary unless re-oiled

Existing Shoreline Condition As Visually Determined by ADEC

Surface Oil Percent	Degree of Oiling
5	Heavy
30	Medium
20	Light
2	Very Light
45	None
100 %	

Subsurface Oil
- [x] Yes
- [ ] No

COMMENT BELOW

Reassessment
- [x] Yes - necessary
- [ ] No - not necessary unless re-oiled

ADEC rep

Comments Heavy oil in subsurface - Medium oil on surface.

Signature [illegible] Date: 9/13/89 Time: 1049

Printed Name [illegible]

FOSC rep Demobilization approved/disapproved

Comments HEAVY OIL REMAINS IN GRAVEL AREA - BIOREMEDIATION *

Signature [illegible] Date: 9/13/89 Time: 1049

Printed Name PAUL TUTKER CDR

COPY: EXXON ADEC FOSC ISCC

* Recommended

GK -20
8/13/89
Rev 1

Shoreline Treatment Process(es) Completed for this Segment

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

Exxon

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

Comments Beach was well washed. Recommend application of bioremediation

Signature RC Harrelson Date: 9/14/89 Time: 11:32

Printed Name RC Harrelson

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
5 ~~20~~	Heavy
30 ~~30~~	Medium
20 ~~40~~	Light
0 ~~0~~	Very Light
45 ~~20~~	None
100 %	

Subsurface Oil
- [x] Yes
- [ ] No

COMMENT BELOW

Reassessment
- [x] Yes - necessary
- [ ] No - not necessary unless re-oiled

Existing Shoreline Condition As Visually Determined by ADEC

Surface Oil Percent	Degree of Oiling
5	Heavy
30	Medium
20	Light
0	Very Light
45	None
100 %	

Subsurface Oil
- [x] Yes
- [ ] No

COMMENT BELOW

Reassessment
- [x] Yes - necessary
- [ ] No - not necessary unless re-oiled

ADEC rep

Comments Heavy oil in subsurface. Medium oil on surface. More treatment required.

Signature [illegible] Date: 9/15/89 Time: 1118

Printed Name Michele Rapp

FOSC rep Demobilization approved/disapproved

Comments Treatment not complete, excessive ~~oil~~ heavy oil remains.

Signature [illegible] Date: 9/14/89 Time: 1118

Printed Name Paul Poskey Lewis

COPY: EXXON ADEC FOSC ISCC

Bioremediation Treatment 5.75 Recommended

(version 8/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): ELRINGTON ISLAND NORTHEAST BLOCK

8/29/89 (REASSESSED)

Includes Shoreline Segments: ER-21R

Submitted : [signature] Date: 8-29-89
(for Exxon)

ISCC Recommendation: Sharon K. Christopherson Date: 9-1-89

FOSC Approval: [signature] Date: 9-1-89

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

Distribution:

- Exxon Shoreline Coordinator
- Exxon Shoreline Supervisor
- Exxon SCAT file

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

(version 08/02/89)

SHORELINE CLEANUP REASSESSMENT

DATE 8/29/89 SHORELINE SEGMENT: ER-21R

REASSESSMENT DATE 8/23/89

PURPOSE FOR REASSESSMENT "Seven weeks since initial assessment"

Revised Recommended Cleanup Activity(ies):
No cleanup recommended at this time (subject to FOSC reassessment at a later date), due to discontinuous, light oil and medium to high wave exposure.

Priorities Considerations:
Class 4: Light oil
Class A: Subsistence resources present

Revised Ecological Constraints:
If cleanup is planned, work at mid tide + or take appropriate measures to protect lower intertidal zone.

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

State Historic Preservation Officer * Date: Aug 29, 1989

ISCC: Sharon K. Christopherson Date: 9-1-89

EXXON: Daniel L. Tafet Date: 9·1·89

FOSC: C E McCall Date: 9-1-89

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

C. Dillon
G. Chaney
J. Tarpley

(version 6/05/89)

SHORELINE CLEANUP REASSESSMENT

DATE 8/23/89 SHORELINE SEGMENT ER-21R

ADEC NO. _____ REASSESSMENT DATE: 8/23/89

Revised Recommended Cleanup Activity(ies):
Map Locations

1. No oiled debris observed
2. Oiling is very light to no oil observed. Oil is present mostly as a tarry stain or thin residue with very low or no possibility of remobilization or recovery. No treatment recommended for majority of segment due to difficulty of mobilizing and recovering tar.
3. 2-3 meter wide by 10 meter long band of light tar and weathered mousse coated on beach boulders and cobbles. Tar band is located at approximately +5 ft tide level. Band is located in Mid Intertidal Zone near south boundary of segment.

Priority Class 4B

Revised Ecological Constraints:

No revisions of ecological constraints are necessary at this time. Previous constraints listed in original SCAT report still apply.

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

_____ Date: _____
State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

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

********** SCOT NOTE **********

THERE ARE ITEMS OF GREAT CONCERN IN THIS APPROVAL BLOCK THAT AFFECT THE DEPLOYMENT OF CREWS AND EQUIPMENT.

READ THIS FIRST

ALL SHORELINE SEGMENTS WITHIN THE LATOUCHE ISLAND SOUTH BLOCK ARE ON LANDS OWNED BY CHUGACH ALASKA CORPORATION. PERMIT NO ACCESS TO UPLAND AREAS AT ANY TIME.

ER-21

DATE 9/6/89 INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

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

Exxon

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

Comments Manually removed debris. No significant oiling remaining.

Signature R C Harrelson Date: 9/6/89 Time: 15:37

Printed Name R C Harrelson

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil

Percent	Degree of Oiling
Ø	Heavy
Ø	Medium
Ø	Light
Ø	Very Light
100	None
100 %	

Subsurface Oil

- [ ] Yes
- [x] No

COMMENT BELOW

Reassessment

- [ ] Yes - necessary
- [x] No - not necessary unless re-oiled

Existing Shoreline Condition As Visually Determined by ADEC

Surface Oil

Percent	Degree of Oiling
0	Heavy
0	Medium
0	Light
5	Very Light
95	None
100 %	

Subsurface Oil

- [x] Yes
- [ ] No

COMMENT BELOW

Reassessment

- [ ] Yes - necessary
- [x] No - not necessary unless re-oiled

ADEC rep

Comments No significant oiling.

Signature Dale W. Gardner Date: 9/6/89 Time: 15:45

Printed Name DALE GARDNER, ADEC INSPECTOR

FOSC rep **Demobilization approved/disapproved**

Comments No measurable oil found

Signature [illegible] Date: 9/6/89 Time: 1540

Printed Name Paul Fossey

COPY: EXXON ADEC FOSC ISCC

(version 8/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): ELRINGTON ISLAND EAST BLOCK

Includes Shoreline Segments: ER-25, ER-26, ER-27, ER-28

ER-29, ER-30, ER-31

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

ISCC Recommendation: _____ Date: 8/21/89

FOSC Approval: _____ Date: 8/21/89

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:

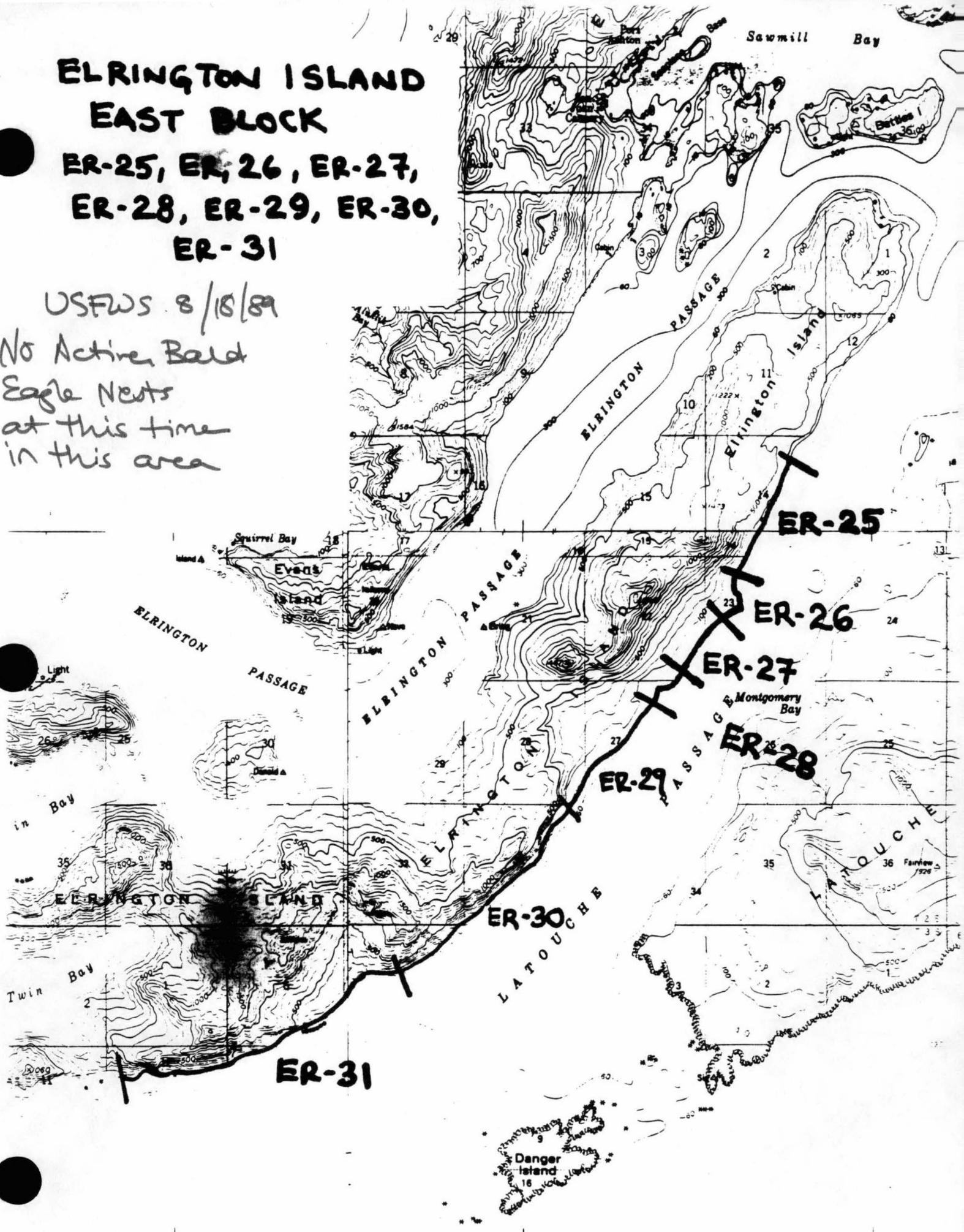
- Exxon Shoreline Coordinator
- Exxon Shoreline Supervisor
- Exxon SCAT file

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

ELRINGTON ISLAND EAST BLOCK

ER-25, ER-26, ER-27, ER-28, ER-29, ER-30, ER-31

USFWS 8/18/89
No Active Bald Eagle Nests at this time in this area



(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/16/89 SHORELINE SEGMENT ER-25

LOCATION: (see enclosed map) ELRINGTON ISLAND-NORTHEAST SHORELINE (ELRINGTON ISLAND EAST BLOCK)

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 8/3/89

Recommended Cleanup Activity(ies):
No cleanup is recommended (subject to FOSC reassessment) because oil contamination is light and shows evidence of self-cleaning under the medium wave exposure of this shoreline.

Priorities Considerations:

4B

Ecological Constraints (from site survey):
Cleanup activities not recommended. A healthy, diverse biota presently inhabits the intertidal zone along this segment.

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

Robbe Bussell
State Historic Preservation Officer * Date: 8/16/89

ISCC: Jacquel Michel Date: 8/21/89

EXXON: [illegible] Date: 8/21/89

FOSC: David Fanaselli Date: 8/21/89

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

SHORELINE OIL EVALUATION

Date: Aug 3 '89 Time: 7:30 Observer: Greg Chaney

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

LOCATION

LOCATION N.E. Elrington Is. SEGMENT NUMBER ER-25

LENGTH OF SHORELINE SEGMENT: 1850 m

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

SHORELINE:

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

Wave Exposure: High/Med/Low

Sediment: B 80 % / C 20 % / P — % / G — % / S — % / M — % / R — %

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

OIL

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

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

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

Sporadic: Y/N % of Segment 70%

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

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

Fresh — % Mousse — % Tar Formation: 100 %

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

Comments:

Most of the boulders along a former high tide line have a discontinuous tar dripline up to 25 cm high. In 2 locations this band widens up to 50 cm. The tar is generally stable and beginning to wash off the rock faces. Clean up is not recommended at this time due to the low concentratio of tar and its stable nature.

ECOLOGICAL EVALUATION

LOCATION: NE Esquimalt [illegible] SITE: _____ OBSERVER: [illegible]

LOCATION PREFIX: ER SEG. NO.: 35 LENGTH: 1850 (M)

DATE: [illegible] TIME (HHMM): [illegible] TIDE HT.: -2 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

[illegible]

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

[illegible] segment.

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

[illegible] also present.

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

OTHER OBSERVATIONS: Shaster [illegible] coastal. Few [illegible] and one small stream. Observed one chiton. There are [illegible] shells on the beach. [illegible]

CLEANUP PRECAUTIONS: Biota [illegible] appears to be healthy. A[illegible] operation would cause a great impact [illegible] amount [illegible]

MAMMALS: Otters ____ Harbor Seals — Sea Lions One traveling north Whales _____
Other _____

BIRDS: [illegible]

GENERAL OBSERVATIONS: [illegible] segment is such an [illegible] Salmon are jumping [illegible] present.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

SEWARD (A-3) & BLYNN SOUND (D-3) QUADS

Date 7/5/89 Location ELRINGTON PENINSULA Site

Location Prefix ER Segment # 25 Length 1850 M

Survey Method:

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

Ground ✓ (100%) (G - indicate on map)

Known cultural resources (AHRS #) NONE Data Source 14(4)(1) MAPS AHRS FILES

Oil conditions/beach visibility ZERO TO LIGHT OIL, GOOD BEACH VISIBILITY

Width of beach zone surveyed 10-30 m m Tree fringe surveyed 0-50 M

Cultural resources observed in beach zone (AHRS code) NONE

Cultural resources observed in tree fringe (AHRS code) CMT (10)

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

Shore Profile MODERATE GRADIENT BOULDER/COBBLE BEACH.

Fresh Water Sources SMALL STREAM, OCCASIONAL SEEPS

Sea Exposure OPEN TO LATOUCHE PASSAGE.

Access/Safety GOOD BANK ACCESS

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 —

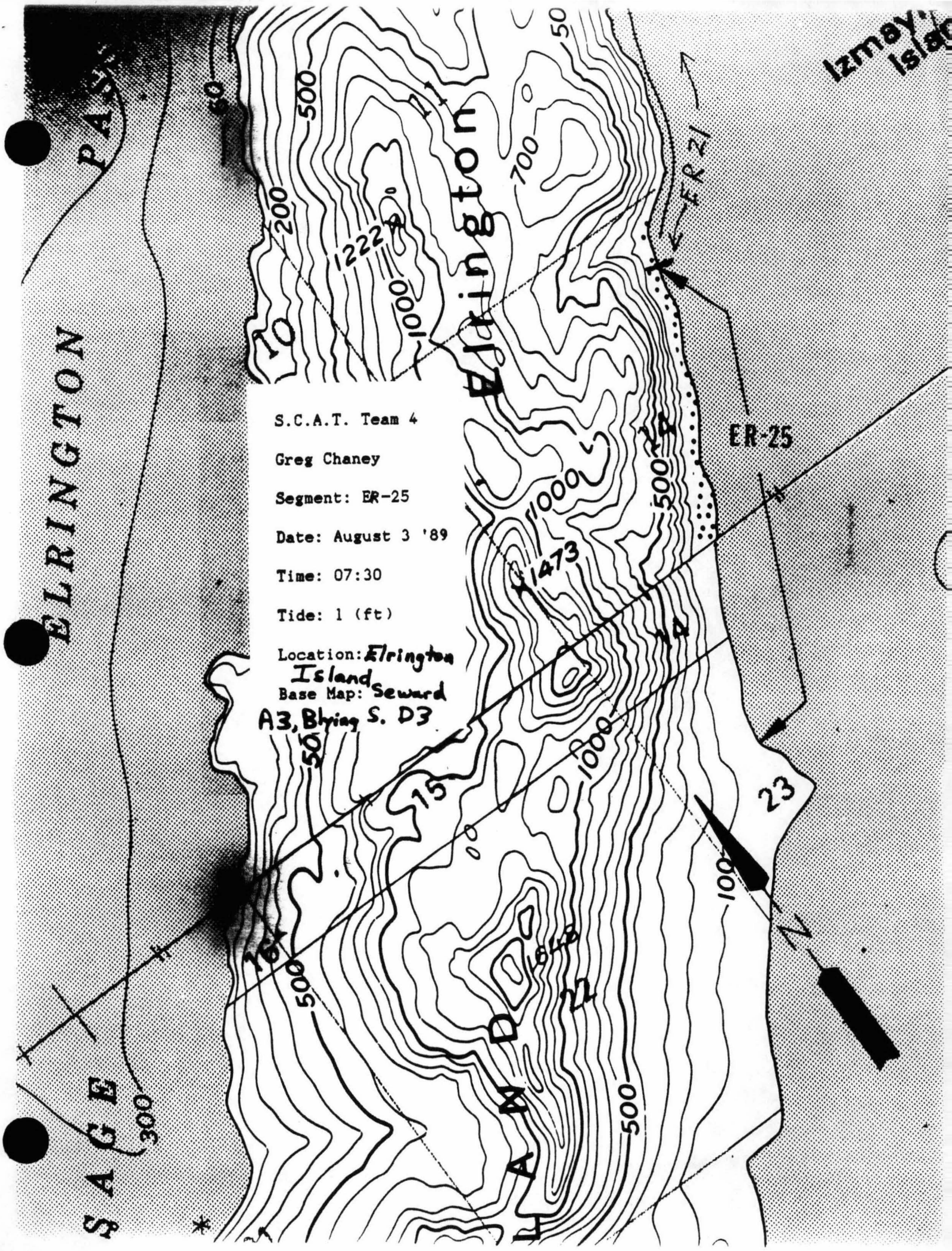
B&W Roll # PEBTM4 19 Frames 1, 2, 3

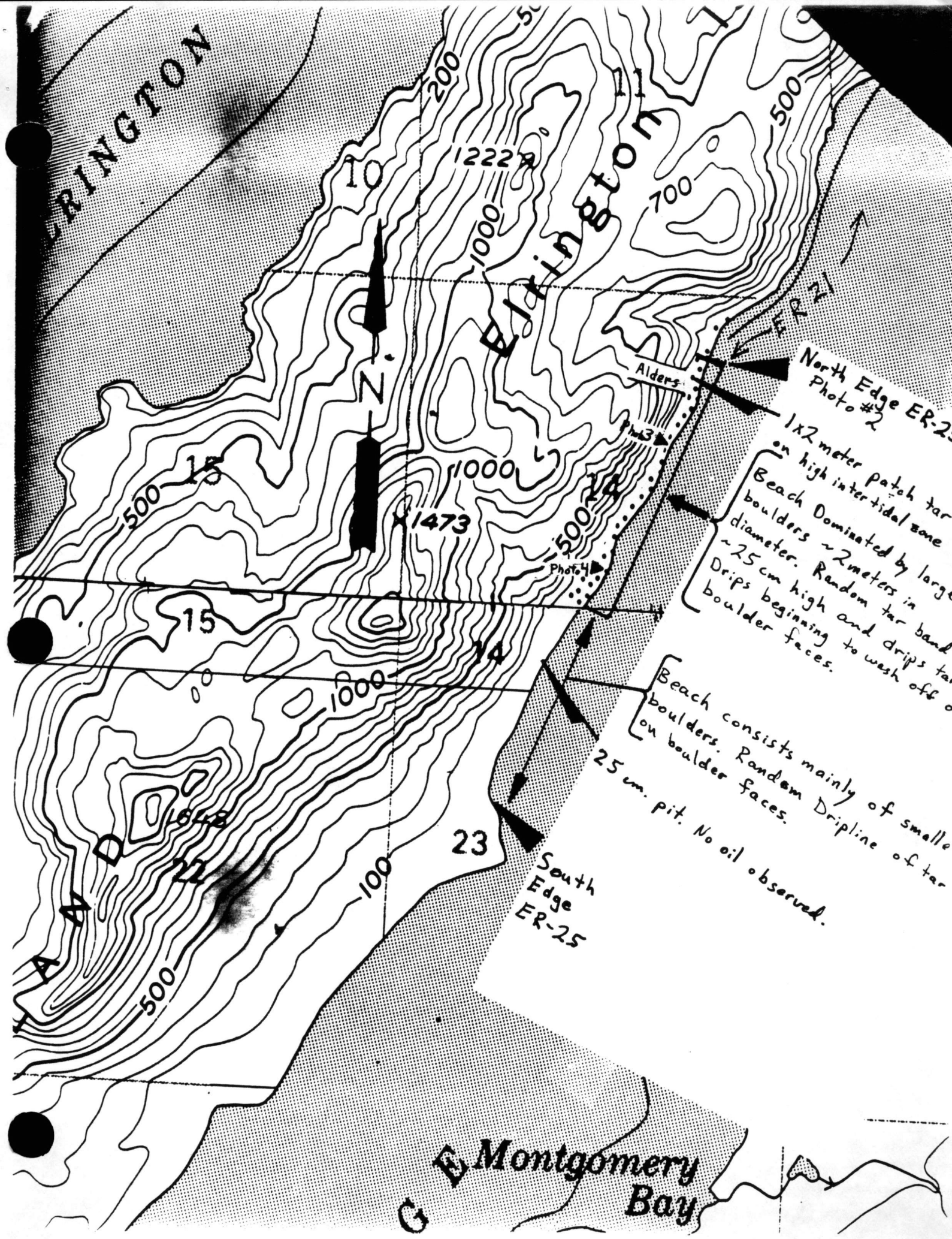
Observer(s) P. BUCK

Time survey started 0730 Time survey ended 0940

Cultural resource considerations/restraints:

"STANDARD CONSTRAINTS"


S.C.A.T. Team 4
Greg Chaney
Segment: ER-25
Date: August 3 '89
Time: 07:30
Tide: 1 (ft)
Location: Elrington Island
Base Map: Seward A3, Blying S. D3
ER-25
ER-21
Elrington
ELRINGTON
PASS
SAGE
Izmayl Island
1222
1473
1000
500
200
300
100
50
700
14
15
16
22
23


ERINGTON
200
500
1222
700
1000
N. Edrington
ER 21
North Edge ER-25
Photo #2
Alders
Photo 3
1x2 meter patch tar on high intertidal zone
Beach Dominated by large boulders ~2meters in diameter. Random tar band ~25 cm high and drips tar. Drips beginning to wash off o boulder faces.
500
15
1000
1473
500
14
Photo 4
15
14
1000
Beach consists mainly of smalle boulders. Random Dripline of tar on boulder faces.
25 cm. pit. No oil observed.
23
South Edge ER-25
100
500
Montgomery Bay

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/16/89 SHORELINE SEGMENT ER-26

LOCATION: (see enclosed map) ELRINGTON ISLAND-NORTHEAST

SHORELINE (ELRINGTON ISLAND EAST BLOCK)

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 8/3/89

Recommended Cleanup Activity(ies):
- bioremediation for sand/granule/pebble/cobble portions of this segment, especially the berm areas on the northeast facing beach.
- hot water flooding/flushing of storm berm area of northeast facing beach. AT SANDY BEACHES, USE LOWER PRESSURES TO PREVENT EROSION OF SAND. 8/21/89

Priorities Considerations:

3B

Ecological Constraints (from site survey):
Use appropriate means to protect the middle and lower intertidal biota. Restrict access to the grass meadow at the point, AND CONTROL OVERSPRAY IN THIS AREA IF INIPOL IS USED. 8/21/89

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

State Historic Preservation Officer * Date: 8/16/89

ISCC: Jacquel Michael Date: 8/21/89

EXXON: [illegible] Date: 8/21/89

FOSC: Denise Zamorski Date: 8/21/89

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

SHORELINE OIL EVALUATION

Date: Aug 3 '89 / Time: 9:40 AM Observer: Greg Chaney

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

LOCATION

LOCATION NE Elrington Is. SEGMENT NUMBER ER-26

LENGTH OF SHORELINE SEGMENT: 550 m

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

SHORELINE:

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

Wave Exposure: High/Med/Low

Sediment: B 15 % / C 30 % / P 15 % / G 15 % / S 25 % / M — % / R — %

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

OIL

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

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

Continuous: Y/N % of Segment 10% Width of Band: 3 m

Sporadic: Y/N % of Segment 40%

Est. Oil Thickness where > 1cm: — cm Est. Oil Penetration: 25 cm (Max Observed)

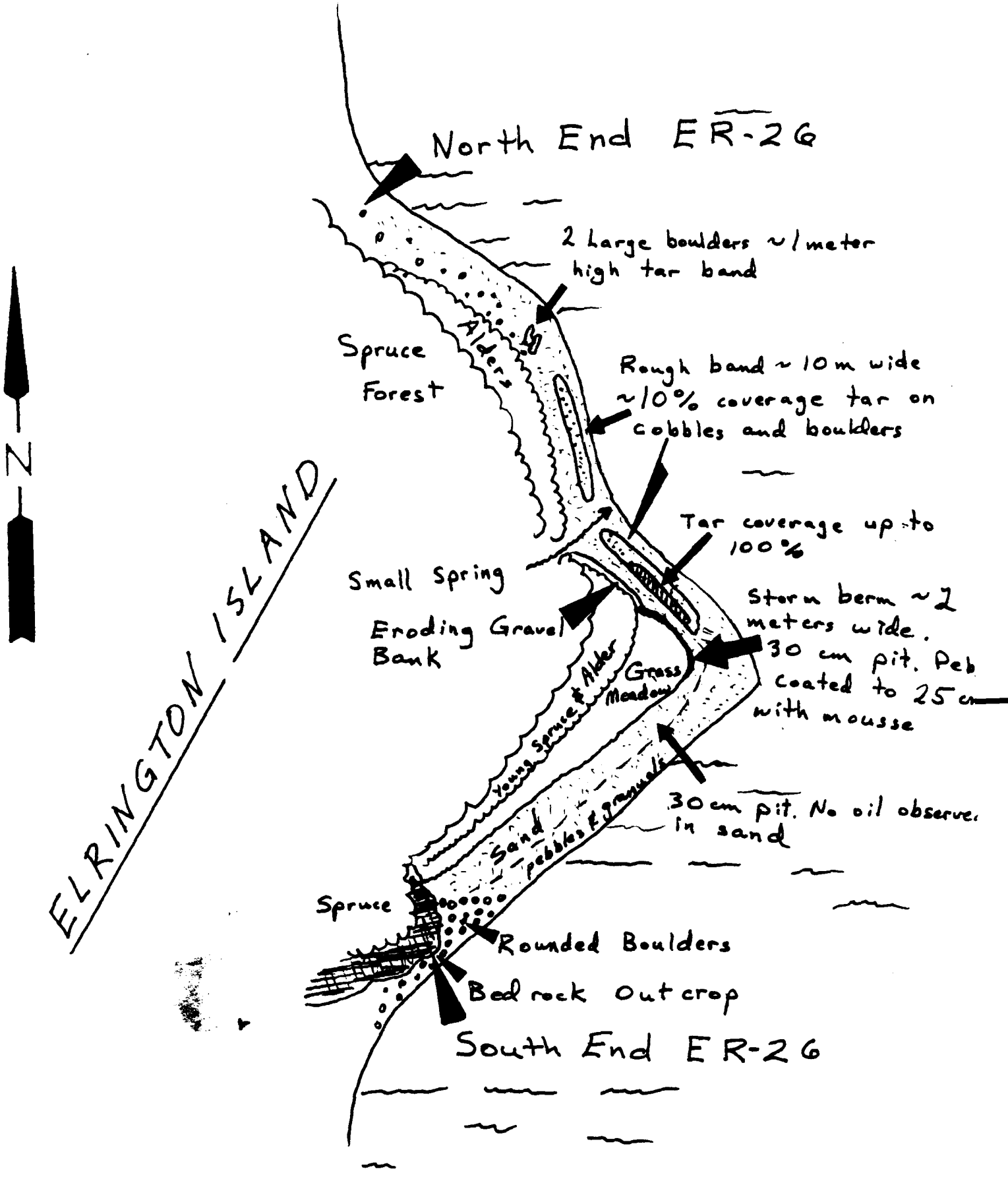
Pooled Oil: — % "Free" Oil: — % Coated: H 20 % / M 20 % / L 60 %

Fresh — % Mousse 10 % Tar Formation: 80 %

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

Comments:

Majority of oil is spread out on N.E. facing beach in discontinuous coating on cobbles and boulders. Heaviest oil concentration along storm berm at base of grass. Penetration here is up to 25 cm but coverage of cobbles at depth is moderate. SE facing beach is mostly oil free but random oiled stones were observed.


North End ER-26
2 Large boulders ~1 meter high tar band
Spruce Forest
Alders
Rough band ~10 m wide ~10% coverage tar on cobbles and boulders
Tar coverage up to 100%
Small Spring
Storm berm ~2 meters wide. 30 cm pit. Peb coated to 25 cm with mousse
Eroding Gravel Bank
Young Spruce & Alder
Grass Meadow
30 cm pit. No oil observed in sand
Sand pebbles & granuels
Spruce
Rounded Boulders
Bedrock Outcrop
South End ER-26
N
ELRINGTON ISLAND

ECOLOGICAL EVALUATION

LOCATION: East side Ellington Island SITE: _____ OBSERVER: Crane

LOCATION PREFIX: ER SEG. NO.: [illegible] LENGTH: 550 (M)

DATE: 08/03/89 TIME (HHMM): 1055 TIDE HT.: -1 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 and continuous on cobble, patchy and sparse on sandy [illegible]

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

Not [illegible] population at southern cobble [illegible]

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

Dense on boulders sparse on sandy/gravel beach

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: Bird [illegible] at southern end
Fish are jumping frequently

CLEANUP PRECAUTIONS: Use appropriate means to protect the mid and lower intertidal zone biota.

MAMMALS: Otters 1 adult 1 pup Harbor Seals ____ Sea Lions ____ Whales 2 Harbor porpoise 1 Gray 1D by [illegible]
Other deer scat

BIRDS: Herring gull, Terns, Gulls, Eiders, Mergansers

GENERAL OBSERVATIONS: This segment is a sandy/gravel pond beach with cobble boarders.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 8/3/89 Location LLKINGTON/ JS. BLYING SOUND (D-3) QUAD Site

Location Prefix ER- Segment # 26 Length 550 m

Survey Method:

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

Ground ✓ (100%) (G - indicate on map)

Known cultural resources (AHRS #) NONE Data Source AHRS FILES 14(4)(1) MAP

Oil conditions/beach visibility LIGHT TO MODERATE OILING, GOOD BEACH VISIBILITY

Width of beach zone surveyed 50 m m Tree fringe surveyed 30 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 LOW GRADIENT GRAVEL/SAND BEACH

Fresh Water Sources SEVERAL SMALL STREAMS

Sea Exposure VARIABLE, GENERALLY OPEN TO LATOUCHE PASSAGE

Access/Safety GOOD BARGE ACCESS

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 —

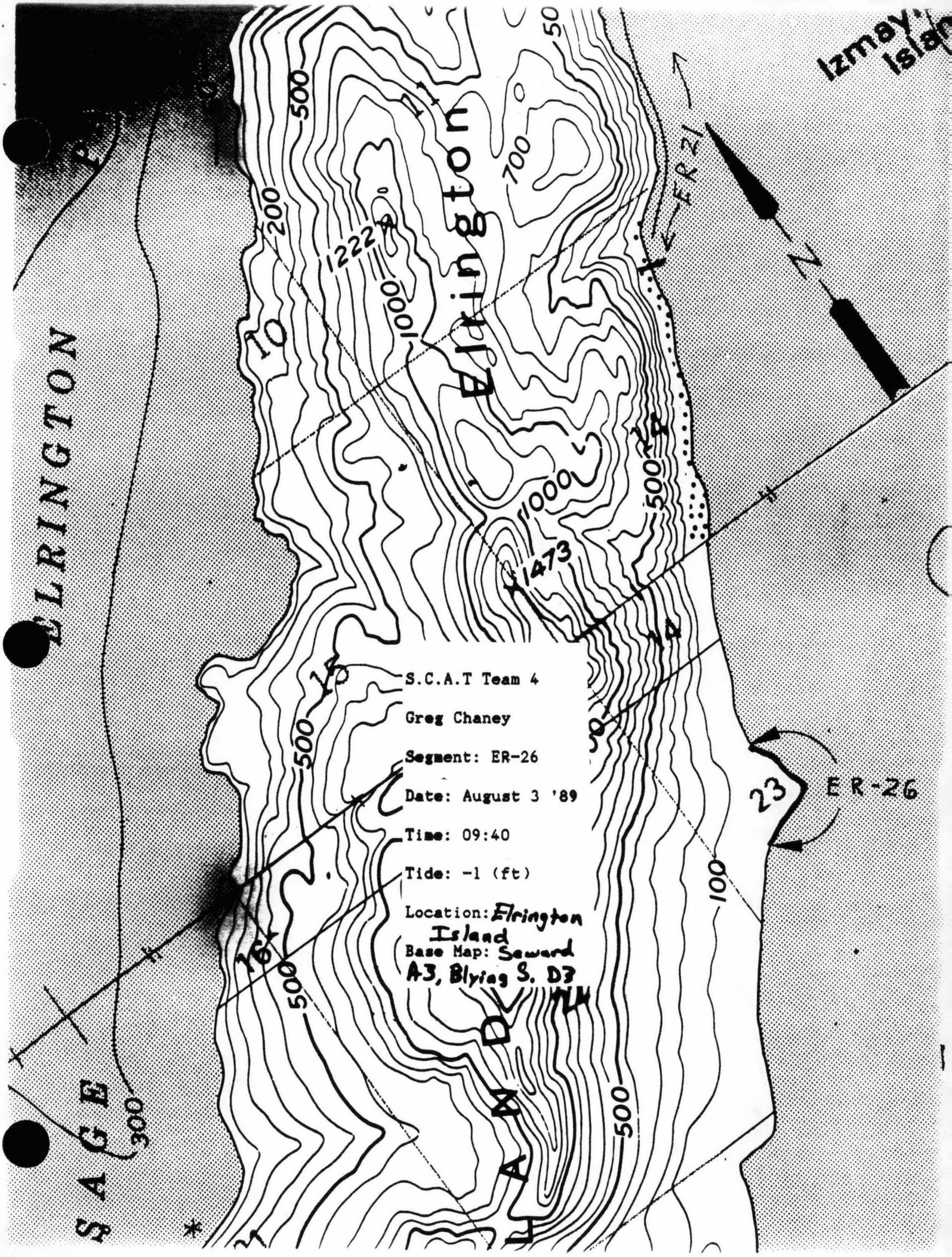
B/W Roll # POSTMY 19 Frames 4-8

Observer(s) P. BUCK

Time survey started 0940 Time survey ended 1140

Cultural resource considerations/restraints:

"STANDARD CONSTRAINTS"


S.C.A.T Team 4
Greg Chaney
Segment: ER-26
Date: August 3 '89
Time: 09:40
Tide: -1 (ft)
Location: Elrington Island
Base Map: Seward A3, Blying S. D3
Elrington
ELRINGTON
SAGE
Izmaylov Island
ER-26
ER-21
N
1222
1473
500
200
700
1000
100
300
23

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/16/89 SHORELINE SEGMENT ER-27

LOCATION: (see enclosed map) ELRINGTON ISLAND-EAST SHORE

(ELRINGTON ISLAND EAST BLOCK)

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 8/3/89

Recommended Cleanup Activity(ies):
No cleanup is recommended at this time due to the light nature of oil contamination here and its evident self-cleaning,

Priorities Considerations:
4B

Ecological Constraints (from site survey):
Cleanup not recommended. Biota would be adversely impacted by cleanup activities.

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

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

ISCC: Jacquel Michael Date: 8/21/89

EXXON: [illegible] Date: 8/21/89

FOSC: David Zaunafi Date: 8/21/89

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

SHORELINE OIL EVALUATION

Date: Aug 3 '89 / Time: 11:40 AM Observer: Greg Chaney

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

LOCATION

LOCATION East Elrington Is. SEGMENT NUMBER ER-27

LENGTH OF SHORELINE SEGMENT: 900 m

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

SHORELINE:

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

Wave Exposure: High/Med/Low

Sediment: B 30 % / C 35 % / P 5 % / G 5 % / S 5 % / M — % / R 20 %

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

OIL

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

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

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

Sporadic: Y/N % of Segment 60%

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

Pooled Oil: — % "Free" Oil: — % Coated: H ___ % / M 20 % / L 80 %

Fresh — % Mousse — % Tar Formation: 100 %

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

Comments:

Most of the boulders along a former high tide line have a discontinuous tar dripline up to 50 cm high. The tar is generally stable and beginning to wash off the rock faces. Cleanup is not recommended at this time due to low concentration of tar and its stable nature.

ECOLOGICAL EVALUATION

LOCATION: Erlington Island SITE: _____ OBSERVER: Crane

LOCATION PREFIX: ER SEG. NO.: 27 LENGTH: 900 (M)

DATE: 08/03/89 TIME (HHMM): 1105 TIDE HT.: +4 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

[illegible]

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

[illegible] at the [illegible] end of segment.

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: Dense Bull Kelp, waterfall with small [illegible]

CLEANUP PRECAUTIONS: Biota on the sediment would be impacted [illegible] cleanup operation that present at the cleanup not seen at this time.

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

BIRDS: ~50 gulls, Bald Eagle

GENERAL OBSERVATIONS: _____

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 8/3/89 Location ELRINGTON ISLAND (BLYING SOUND (D-3) QUAD) Site

Location Prefix ER- Segment # 27 Length 900 M

Survey Method:

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

Ground ✓ (100%) (G - indicate on map)

Known cultural resources (AHRS #) NONE Data Source AHRS FILES (14(A)(1) MAP.

Oil conditions/beach visibility LIGHTLY OILED; GOOD BEACH VISIBILITY.

Width of beach zone surveyed 40 m m Tree fringe surveyed 30 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 sit probability:

Shore Profile MODERATE GRADIENT BOULDER/COBBLE BEACH

Fresh Water Sources SMALL STREAMS

Sea Exposure OPEN TO LATOUCHE PASSAGE

Access/Safety GOOD BARGE ACCESS

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 —

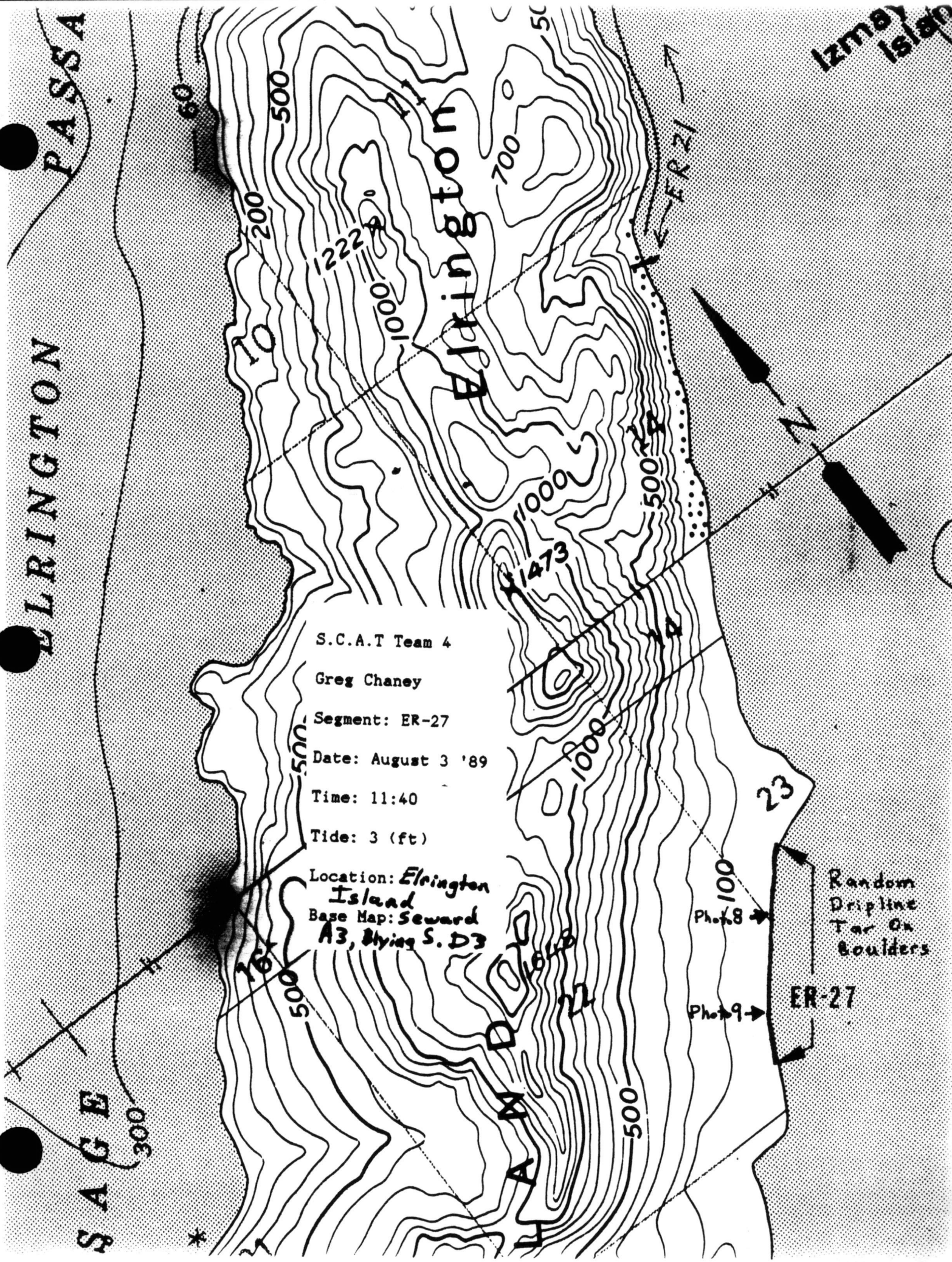
B&W Roll # PERTMY 19 Frames 9

Observer(s) P. BUCK

Time survey started 1140 AKDS Time survey ended 1230 AKDS.

Cultural resource considerations/restraints:

"STANDARD CONSTRAINTS"


S.C.A.T Team 4
Greg Chaney
Segment: ER-27
Date: August 3 '89
Time: 11:40
Tide: 3 (ft)
Location: Elrington Island
Base Map: Seward A3, Blying S. D3
Elrington
ELRINGTON
PASSA
SAGE
Izmaylov Island
ER 21
N
Random Dripline Tar On Boulders
Photo 8
Photo 9
ER-27
1222
1473
1000
500
200
100
700
300
60
23
22
21
20
19
18
16

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/16/89 SHORELINE SEGMENT ER-28

LOCATION: (see enclosed map) ELRINGTON ISLAND-EAST SHORE

(ELRINGTON ISLAND EAST BLOCK)

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 8/3/89

Recommended Cleanup Activity(ies):
-bioremediation on the portions of this segment not dominated by boulders
-flood/flush with hot water (to 140^{0}F the tarband area near the north edge of this segment

Priorities Considerations:
3B

Ecological Constraints (from site survey):
No constraints-biota is not rich and will not be adversely impacted by bioremediation.

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

State Historic Preservation Officer * Date: 8/16/89

ISCC: Jacquel Michel Date: 8/21/89

EXXON: [illegible] Date: 8/21/89

FOSC: David Zavagli Date: 8/21/89

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

SHORELINE OIL EVALUATION

Date: Aug 3 '89 Time: 19:00 Observer: Greg Chaney

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

LOCATION

LOCATION East Elrington Is. SEGMENT NUMBER ER-28

LENGTH OF SHORELINE SEGMENT: 450 m m

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

SHORELINE:

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

Wave Exposure: High/Med/Low

Sediment: B 40 % / C 30 % / P 5 % / G 5 % / S 20 % / M – % / R – %

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

OIL

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

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

Continuous: Y/N % of Segment 20 % Width of Band: 3 to 4 m

Sporadic: Y/N % of Segment 40 % Max Observed

Est. Oil Thickness where > 1cm: – cm Est. Oil Penetration: 30 cm

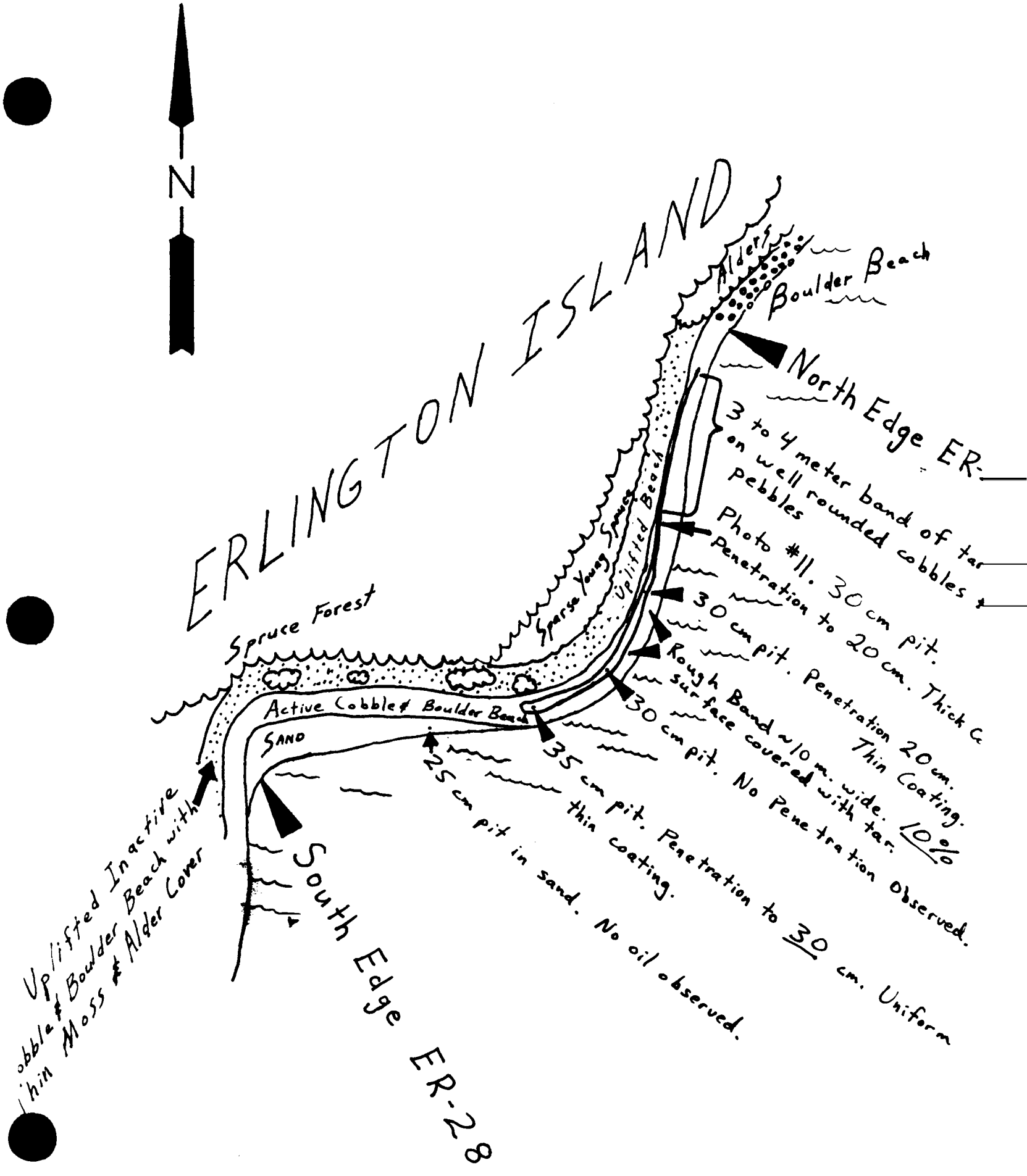
Pooled Oil: – % "Free" Oil: – % Coated: H 20 % / M 30 % / L 50 %

Fresh – % Mousse 10 at depth % Tar Formation: 90 %

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

Comments:

In the southern portion of this segment, little to no oil was observed. In the north it seems that oil was once heavy but has been subjected to natural cleansing due to wave action. A rough band of tarred cobbles ~10 meters wide is located in the north. The tar only covers ~10% of the cobbles surface but several pits show penetration to 30 cm. Oil is most concentrated near the north end of segment where a 3 to 4 meter distinct band of oil was observed.


N
ERLINGTON ISLAND
Alder & Boulder Beach
North Edge ER-
3 to 4 meter band of tar on well rounded cobbles & pebbles
Photo #11. 30 cm pit. Penetration to 20 cm. Thick & Thin Coating.
30 cm pit. Penetration 20 cm.
Rough Band ~10 m. wide. surface covered with tar. 10%
30 cm pit. No Penetration Observed.
35 cm pit. Penetration to 30 cm. Uniform thin coating.
25 cm pit in sand. No oil observed.
Sparse Young Spruce
Uplifted Beach
Spruce Forest
Active Cobble & Boulder Beach
SAND
Uplifted Inactive Cobble & Boulder Beach with Thin Moss & Alder Cover
South Edge ER-28

ECOLOGICAL EVALUATION

LOCATION: Erlington Island SITE: _____ OBSERVER: Crank

LOCATION PREFIX: ER SEG. NO.: 28 LENGTH: _____ (M)

DATE: 08/03/89 TIME (HHMM): 1910 TIDE HT.: +5 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 (Moderate) None Y/N

[illegible] present in dense patches. Fucus sparse [illegible] moderate patches at southern end

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

[illegible] of step cobble, continuous and dense south of step cobble

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

[illegible] on step cobble portion of segment

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

[illegible] found on the step cobble portion of this segment

OTHER OBSERVATIONS: 1 living urchin ≈5 cm diameter

[illegible] beach with a large amount of drifted algae - several [illegible]

CLEANUP PRECAUTIONS: Use appropriate means to protect the [illegible] and lower intertidal [illegible]

MAMMALS: Otters 1 adult 1 pup Harbor Seals ____ Sea Lions ____ Whales _____
Other Bear trails

BIRDS: 2 blue jays, gulls, [illegible], cormorants, small [illegible]

GENERAL OBSERVATIONS: A portion of this segment is a steep active cobble beach with only sparse biota found of the [illegible]

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 8/3/89 Location ELRINGTON ISLAND (BLYING SOUND (D-3) QUAD) Site

Location Prefix EL- Segment # 28 Length 450 M

Survey Method:

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

Ground ✓ (100 %) (G - indicate on map)

Known cultural resources (AHRS #) NONE Data Source AHRS FILES 14(4)(1) MAPS

Oil conditions/beach visibility LIGHT OILING, GOOD BEACH VISIBILITY

Width of beach zone surveyed 15 M m Tree fringe surveyed 30 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 ACTIVE STEEP GRADIENT COBBLE BEACH

Fresh Water Sources SMALL SEEPS

Sea Exposure OPEN TO LATOUCHE PASSAGE

Access/Safety GOOD BARGE ACCESS

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

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

Photos: Color Roll # — Frames —

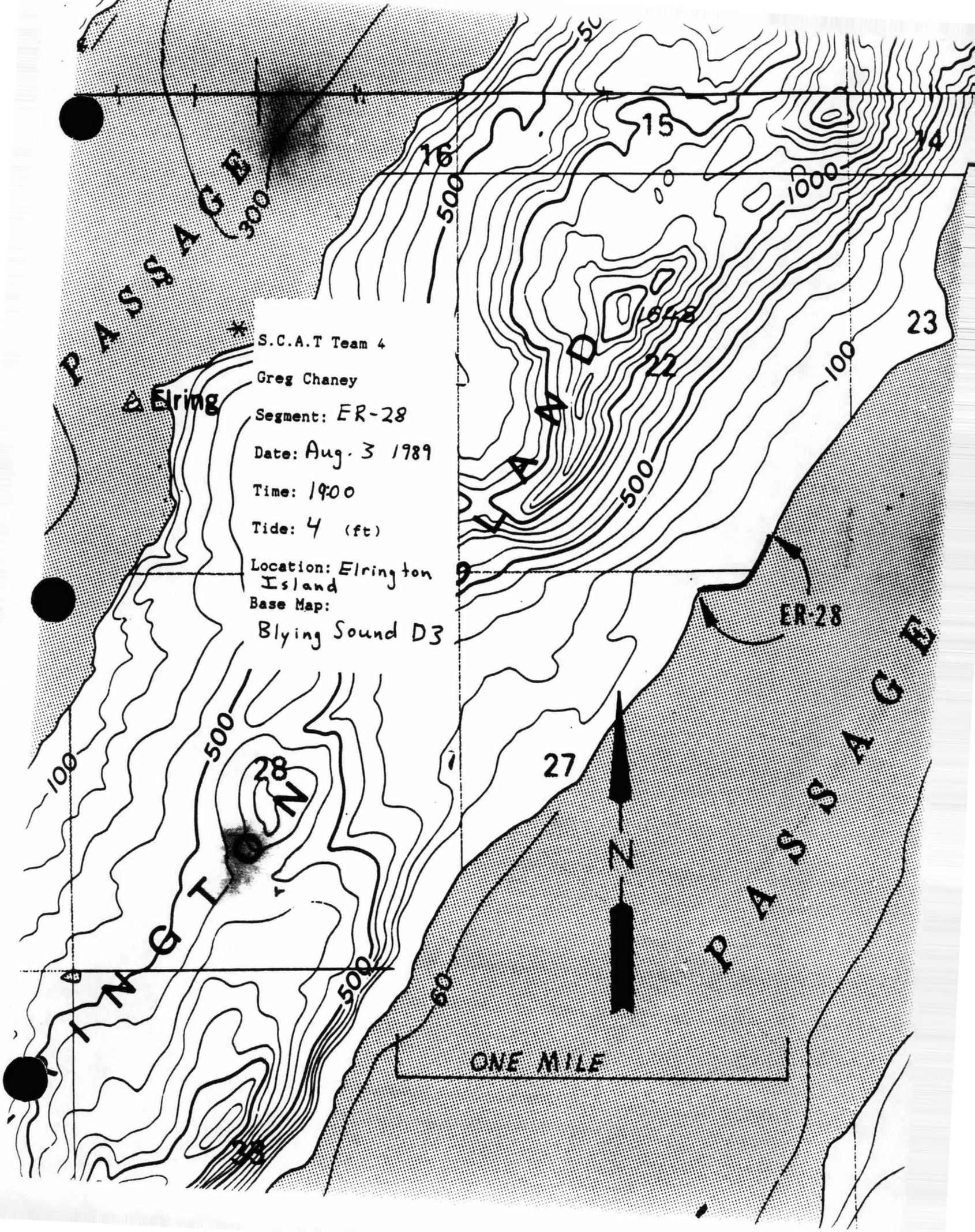
B/W Roll # — Frames —

Observer(s) P. BUCK

Time survey started 1905 Time survey ended 2015

Cultural resource considerations/restraints:

"STANDARD CONSTRAINTS"


S.C.A.T Team 4
Greg Chaney
Segment: ER-28
Date: Aug. 3 1989
Time: 1900
Tide: 4 (ft)
Location: Elrington Island
Base Map:
Blying Sound D3
Elring
PASSAGE
ISLAND
INGT
PASSAGE
ER-28
ONE MILE
N
500
1000
100
60
300
15
16
14
23
22
27
28
33

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/16/89 SHORELINE SEGMENT ER-29

LOCATION: (see enclosed map) ELRINGTON ISLAND-EASTERN SHORE

(ELRINGTON ISLAND EAST BLOCK)

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 8/7/89

-bioremediation on pebble/cobble areas
-hot water (to 140°F) flooding/flushing areas ONLY with heaviest oil concentration. AT SANDY BEACHES, USE LOWER PRESSURES TO PREVENT EROSION OF SAND. 8/21/89

Priorities Considerations:

3B

Ecological Constraints (from site survey):

No constraints. No unique biotic qualities here and the biota not adversely impacted by bioremendiation.

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

State Historic Preservation Officer * Date: 8/16/89

ISCC: Jacquel Michel Date: 8/21/89

EXXON: Date: 8/21/89

FOSC: David Zamorski Date: 8/21/89

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

SHORELINE OIL EVALUATION

Date: Aug 7 89 / Time: 09:00 AM Observer: Greg Chaney

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

LOCATION

LOCATION Elrington Island SEGMENT NUMBER ER-29

LENGTH OF SHORELINE SEGMENT: 1950 m

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

SHORELINE:

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

Wave Exposure: High/Med/Low

Sediment: B 60 % / C 10 % / P 5 % / G – % / S 20 % / M – % / R 5 %

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

OIL

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

Area of Beach Impact: SU / SP / H / M / L 50% coverage

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

Sporadic: Y/N % of Segment 10 %

Est. Oil Thickness where > 1cm: – cm Est. Oil Penetration: Max Observed 20 cm

Pooled Oil: – % "Free" Oil: – % Coated: H 5 % / M 20 % / L 75 %

Fresh 5 %. Mousse some at depth % Tar Formation: 95 %

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

Comments:

In the Northern portion of this segment several boulders have tar bands. It appears that there was heavy oil present in the past and it has been subjected to some natural cleansing by wave action. In regions of heaviest concentration as indicated on the sketch map some mobile oil may still be present. No oil was observed in the southern portion of this segment

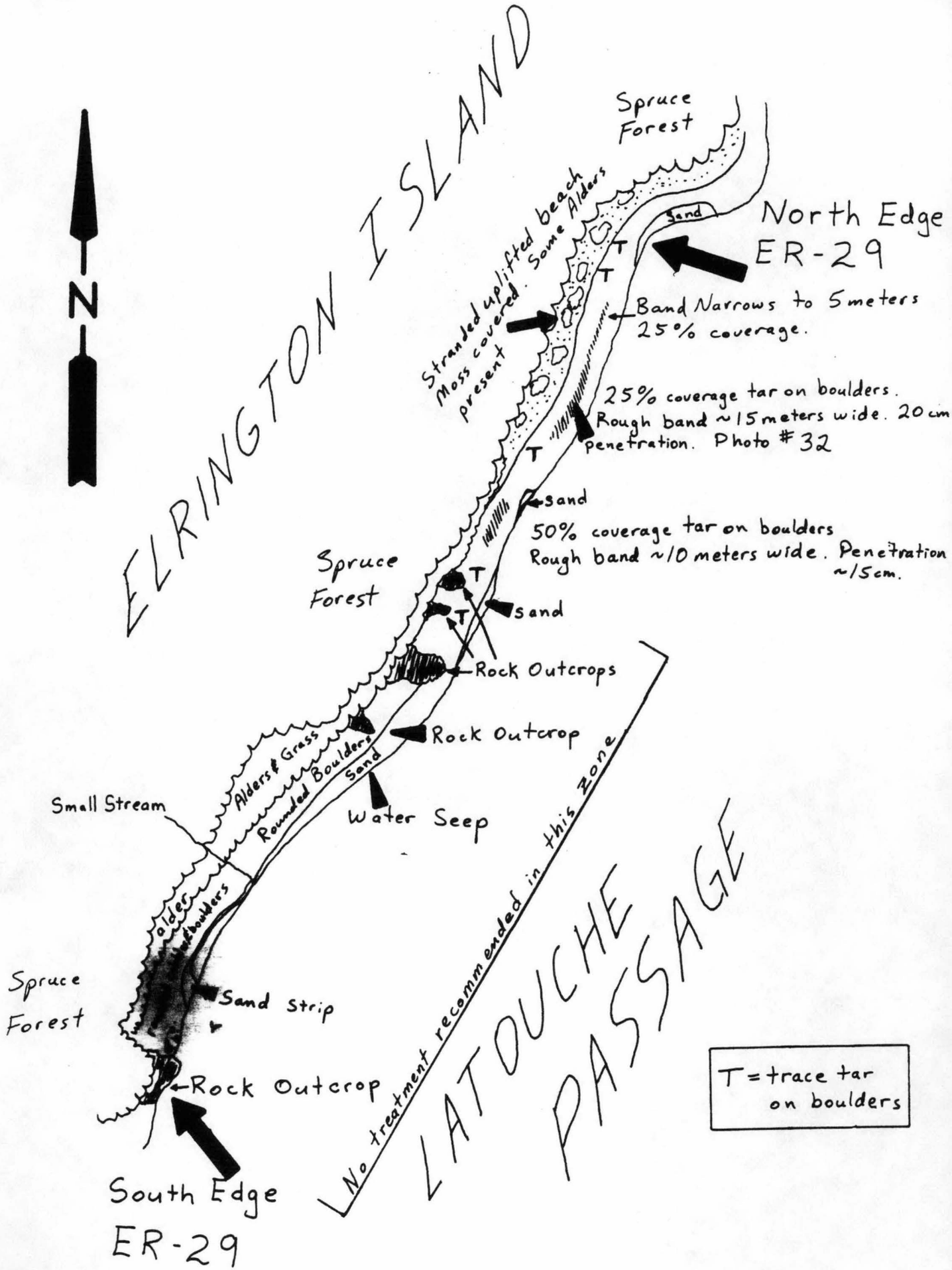
DOCUMENTATION:

Map/Aerial photo marking segment boundaries Blying Sound D3

VTR: Y/N **Tape Number(s)** —

Photography: Y/N **Roll Number(s)** T4G100

Sample Numbers Collected: —


ELRINGTON ISLAND
N
Spruce Forest
North Edge
ER-29
Sand
T
T
Stranded uplifted beach Moss covered. Some Alders present
Band Narrows to 5 meters 25% coverage.
25% coverage tar on boulders. Rough band ~15 meters wide. 20 cm penetration. Photo # 32
T
sand
50% coverage tar on boulders Rough band ~10 meters wide. Penetration ~15 cm.
Spruce Forest
T
T
sand
Rock Outcrops
Rock Outcrop
Alders & Grass
Rounded Boulders
Sand
Water Seep
Small Stream
alder
boulders
Spruce Forest
Sand Strip
Rock Outcrop
No treatment recommended in this zone
LATOUCHE PASSAGE
T = trace tar on boulders
South Edge
ER-29

ECOLOGICAL EVALUATION

LOCATION: Elrington Island **SITE:** _____ **OBSERVER:** [illegible]

LOCATION PREFIX: ER **SEG. NO.:** 29 **LENGTH:** 1950 (M)

DATE: 08 10 89 **TIME (HHMM):** 0910-1245 **TIDE HT.:** +5-+2 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

North of stream, population is sparse with a few areas [illegible]; South of stream, population is dense with a few [illegible].

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

North of stream the mussel population is small and sparse. South of stream, the population is quite dense with the exception of ≈ 50 m area beginning ≈ 400 m south of stream where the population is sometimes moderate to sparse.

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

Continuous [illegible] the most [illegible]

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

[illegible] most [illegible] segment.

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

Continuous sparse population with a few dense patches both north and south of stream

OTHER OBSERVATIONS: Provides Salmon Stream. Middle Intertidal biota appears to start around the +3 ft tide level. Future surveys should be made at a +3 or lower tide.

CLEANUP PRECAUTIONS: At this time, cleanup may cause a greater impact to the biota than present oil. If cleaned 1) Avoid stream banks 2) Use appropriate means to protect the middle and lower intertidal zones.

MAMMALS: Otters 3 **Harbor Seals** ___ **Sea Lions** 5 **Whales** ___
Other _____

BIRDS: [illegible] gulls, 3 [illegible], 6 Least Sandpipers, ≈30 Gulls & [illegible]

GENERAL OBSERVATIONS: Biologically the segment has two sections: one north of stream the other south of stream. The northern section is comparatively sparsely populated while the northern section is [illegible]. Oiling is also split. The southern section has some tarring and light coating in the [illegible]. No oil was observed in the southern [illegible]

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 8/7/89 Location SEWARD (A-3) QUAD ELRINGTON ISLAND Site

Location Prefix ER- Segment # 29 Length 1950 m

Survey Method:

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

Ground ✓ (100%) (G - indicate on map)

Known cultural resources (AHRS #) NONE Data Source 14(n)(1) MAP AHRS FILES

Oil conditions/beach visibility ZERO TO LIGHTLY OILED; GOOD BEACH VISIBILITY

Width of beach zone surveyed 60 M m Tree fringe surveyed 15 M

Cultural resources observed in beach zone (AHRS code) NONE

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

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

Shore Profile MODERATE & STEEP GRADIENT BOULDER/COBBLE/PEBBLE BEACH

Fresh Water Sources NUMEROUS SMALL STREAMS

Sea Exposure OPEN TO LATOUCHE PASSAGE

Access/Safety GOOD LCM & BARGE ACCESS IN CALM WEATHER

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 —

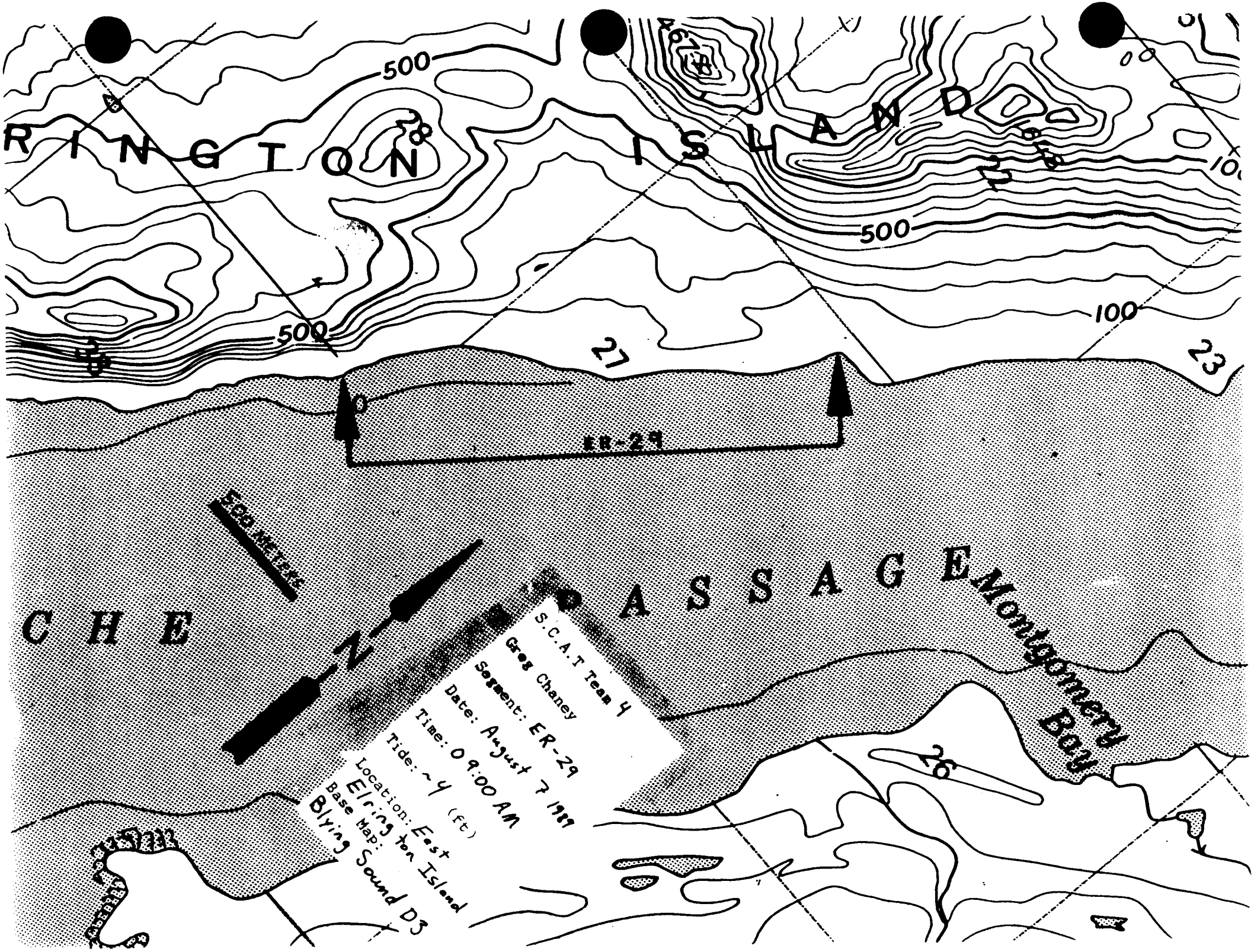
B/W Roll # PEBTMY 19 Frames 27-30

Observer(s) P. BUCIC

Time survey started 0905 HRS Time survey ended 1152 HRS

Cultural resource considerations/restraints:

"STANDARD CONSTRAINTS"


RINGTON ISLAND
500
500
500
100
27
23
26
ER-29
500 METERS
CHE
PASSAGE
Montgomery Bay
S.C.A.T Team 4
Greg Chaney
Segment: ER-29
Date: August 7 1989
Time: 09:00 AM
Tide: ~4 (ft)
Location: East Elrington Island
Base Map: Blying Sound D3

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/16/89 SHORELINE SEGMENT ER-30

LOCATION: (see enclosed map) ELRINGTON ISLAND-EASTERN SHORE

(ELRINGTON ISLAND EAST BLOCK)

ADEC NO._____ SHORELINE ASSESSMENT DATE: 8/7/89

Recommended Cleanup Activity(ies):

No cleanup recommended (subject to FOSC reassessment due to lack of oil) because oil is absent.

Priorities Considerations:

No oil

Ecological Constraints (from site survey):

No constraints because no oil is present.

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

State Historic Preservation Officer * Date: 8/16/89

ISCC: Date: 8/21/89

EXXON: Date: 8/21/89

FOSC: Date: 8/21/89

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

SHORELINE OIL EVALUATION

Date: Aug 7 89 Time: [illegible] Observer: Greg Chaney

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

LOCATION

LOCATION South East Elrington Island SEGMENT NUMBER ER-30

LENGTH OF SHORELINE SEGMENT: 3350 m

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

SHORELINE: Calm weather only

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

Wave Exposure: (High)/Med/Low

Sediment: B 20% / C 30% / P — % / G — % / S — % / M — % / R 50 %

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

OIL

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

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

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

Sporadic: Y/N % of Segment —

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

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

Fresh — % Mousse — % Tar Formation: — %

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

Comments:

No oil observed. Sunny & dry rocks made observations straight forward. Several small pocket beaches seperated by bed rock out crops.

ECOLOGICAL EVALUATION

LOCATION: Elrington Island SITE: _____ OBSERVER: Cook

LOCATION PREFIX: ER SEG. NO.: 30 LENGTH: 3350 (M)

DATE: 08/07/89 TIME (HHMM): 1245-1330 TIDE HT.: +3-+5' (M)

OILED ZONE: Splash High Medium Low No oil observed.

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud Rocky headlands with pocket boulder/cobble beaches

LIVE BIOTA

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

Dense: cont on headlands - Patchy: moderate on beaches

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

Dense and cont. on headlands with dense to moderate patches on beaches

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

Dense and continuous on headlands while patchy and moderate on beaches.

Littorina

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

Sparse to Moderate patches on beaches - Surveyed headlands from boat - unable to make distribution observation

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

Sparse to moderate patches on beaches. Surveyed headlands from boat and was unable to make distribution observations.

OTHER OBSERVATIONS: Two bald eagles - probable nesting site - not reported as nesting area Contact ADFG.

CLEANUP PRECAUTIONS: No oil observed. Cleanup not recommend at this time. Possible Puffin nesting site near sea arches

MAMMALS: Otter _____ Harbor Seals ____ Sea Lions ____ Whales _____

Other

BIRDS: 2 Bald Eagles, 3 Tufted Puffins, >10 Pigeon Guillemots, >50 Gulls, Kittiwake, ~12 Least Sandpipers

GENERAL OBSERVATIONS: On cobble/boulder beach, population distributions are patchy, dense on the headlands.

Note: On Aug 8, 1989 about 0920 we passed through this segment in zodiac [illegible] the island cliffs. This area may be a puffin [illegible]

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 8/7/89 Location SEWARD (A-3) QUAD ELRINGTON ISLAND Site

Location Prefix ER- Segment # 30 Length 3350 m

Survey Method:

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

Ground ✓ (5%) (G - indicate on map)

Known cultural resources (AHRS #) NONE Data Source AHRS FILE 14(a)(1)

Oil conditions/beach visibility NO OIL OBSERVED

Width of beach zone surveyed 15 M m Tree fringe surveyed -0-

Cultural resources observed in beach zone (AHRS code) NONE

Cultural resources observed in tree fringe (AHRS code) NONE

General observations justifying survey method and segment's site probability

Shore Profile ROCKY HEADLANDS AND STEEP BOULDER/COBBLE BEACHES

Fresh Water Sources SEVERAL SMALL STREAMS AND SEEPS.

Sea Exposure OPEN TO LATOUCHE PASSAGE & GULF OF ALASKA

Access/Safety ACCESS DIFFICULT - TIDE RIPS, ROCKS IN ITZ.

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 —

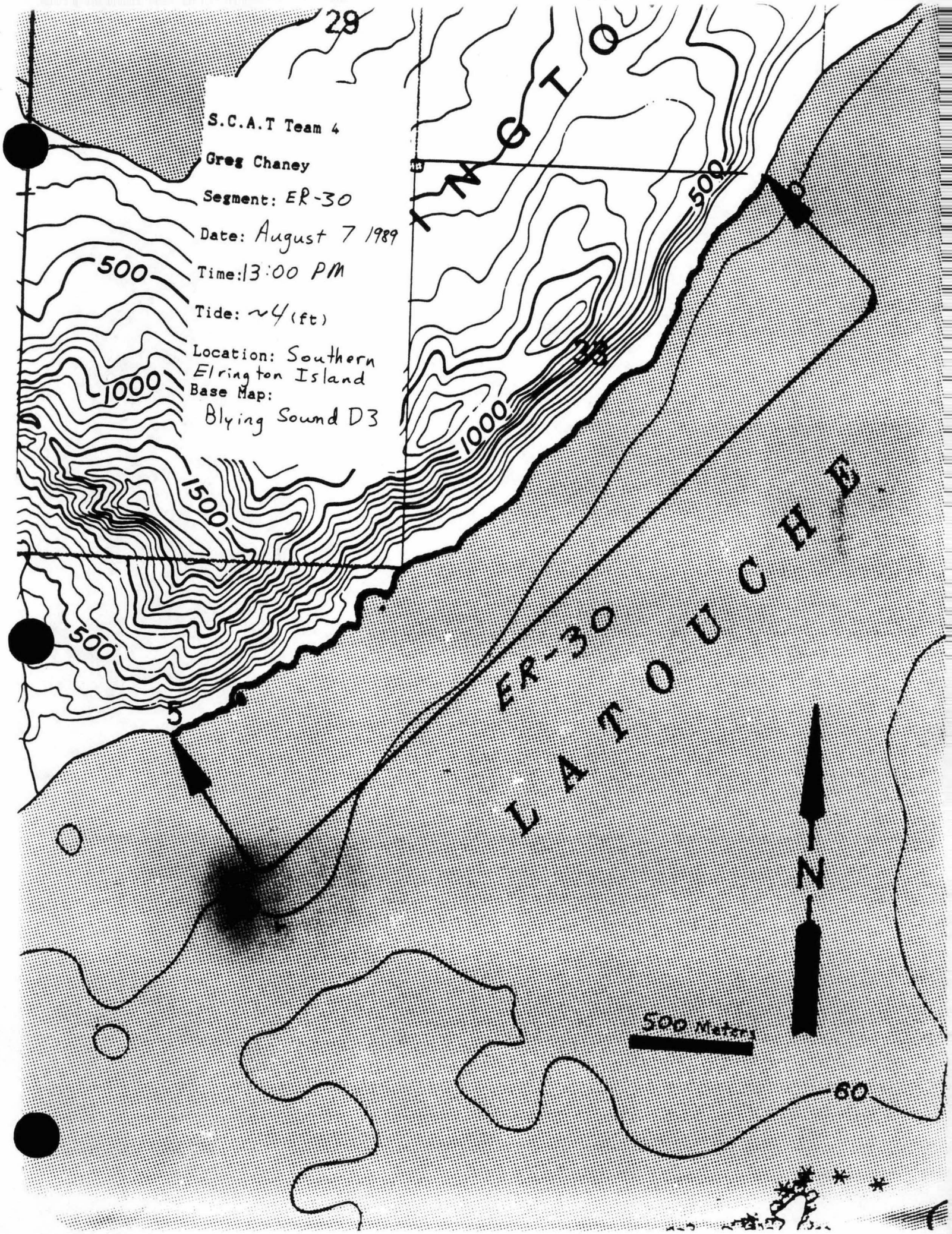
B/W Roll # PEBTMY-19 Frames 31

Observer(s) P. BUCK

Time survey started 1235 Time survey ended 1330

Cultural resource considerations/restraints:

"STANDARD CONSTRAINTS"


28
S.C.A.T Team 4
Greg Chaney
Segment: ER-30
Date: August 7 1989
Time: 13:00 PM
Tide: ~4 (ft)
Location: Southern Elrington Island
Base Map: Blying Sound D3
500
1000
1500
500
1000
500
ER-30
LATOUCHE
N
500 Meters
60

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/16/89 SHORELINE SEGMENT ER-31

LOCATION: (see enclosed map) ELRINGTON ISLAND-SOUTHERN SHORELINE (ELRINGTON ISLAND EAST BLOCK)

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

Recommended Cleanup Activity(ies):
No cleanup recommended at this time (subject to FOSC reassessment) due to extreme scarcity of oil contamination.

Priorities Considerations:

4B

Ecological Constraints (from site survey):
No cleanup recommended. Biota appear healthy and would be adversely effected by human activity.

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

State Historic Preservation Officer * Date: 8/16/89

ISCC: Jacqueline Michael Date: 8/21/89

EXXON: [illegible] Date: 8/21/89

FOSC: David Zavagli Date: 8/21/89

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

SHORELINE OIL EVALUATION

Date: Aug 8 1989 Time: 9:30 Observer: Greg Chaney

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

LOCATION

LOCATION South Elrington Island SEGMENT NUMBER ER-31

LENGTH OF SHORELINE SEGMENT: 4250 m

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

calm weather only

SHORELINE:

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

Wave Exposure: High/Med/Low

Sediment: B 70 % / C 5 % / P 5 % / G trace % / S trace % / M — % / R 20 %

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

OIL

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

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

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

Sporadic: Y/N % of Segment 1 %

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

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

Fresh — % Mousse — % Tar Formation: 100 %

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

Comments:

A few random drops of tar were located on the high intertidal boulders in the eastern portion of the segment. The vast majority of the segment appeared untouched by oil.

ECOLOGICAL EVALUATION

LOCATION: Eastern Island SITE: _____ OBSERVER: _____

LOCATION PREFIX: ER SEG. NO.: 31 LENGTH: 4250 (M)

DATE: 08/08/89 TIME (HHMM): 0930-1300 TIDE HT.: +5-+3 ft (M)

OILED ZONE: Splash High Medium Low a few tar splatters

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

[illegible]

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

There are few areas where the mussels are patchy and sparse [illegible]

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

[illegible]

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

[illegible] boulders south of point. North [illegible] population [illegible]

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

[illegible] south of point. North [illegible]

OTHER OBSERVATIONS: There is a large soft kelp bed about 300-[illegible] Extensive algal drift caught in the boulders. Possible small [illegible]

CLEANUP PRECAUTIONS: Beach [illegible] is healthy and [illegible] by cleanup [illegible] at this time.

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

BIRDS: ≈12 Tufted Puffins, ≈10 Pigeon Guillemots, ≈15 Cormorants, 4 Marbled Murrelets [illegible]

GENERAL OBSERVATIONS: This segment is exposed to the Gulf [illegible] and is difficult to access because of surge and [illegible]

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 8/8/89 Location BLYING SOUND (D-4) QUAD ELRINGTON ISLAND Site

Location Prefix EL— Segment # 31 Length 4250 m

Survey Method:

Air (A - indicate on map) Boat ✓ (55%) (A - indicate on map

Ground ✓ (45%) (G - indicate on map)

Known cultural resources (AHRS #) NONE Data Source 14(h)(1) MAI AHRS FILES

Oil conditions/beach visibility NO OIL, GOOD BEACH VISIBILITY.

Width of beach zone surveyed 60 m Tree fringe surveyed 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 LOW GRADIENT BOULDER BEACH / ROCKY HEADLAND W/STEEP CLIFFS

Fresh Water Sources 6 SMALL STREAMS

Sea Exposure OPEN TO LATOUCHE PASSAGE & GULF OF ALASKA

Access/Safety ACCESS POSSIBLE FOR SKIFFS

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 —

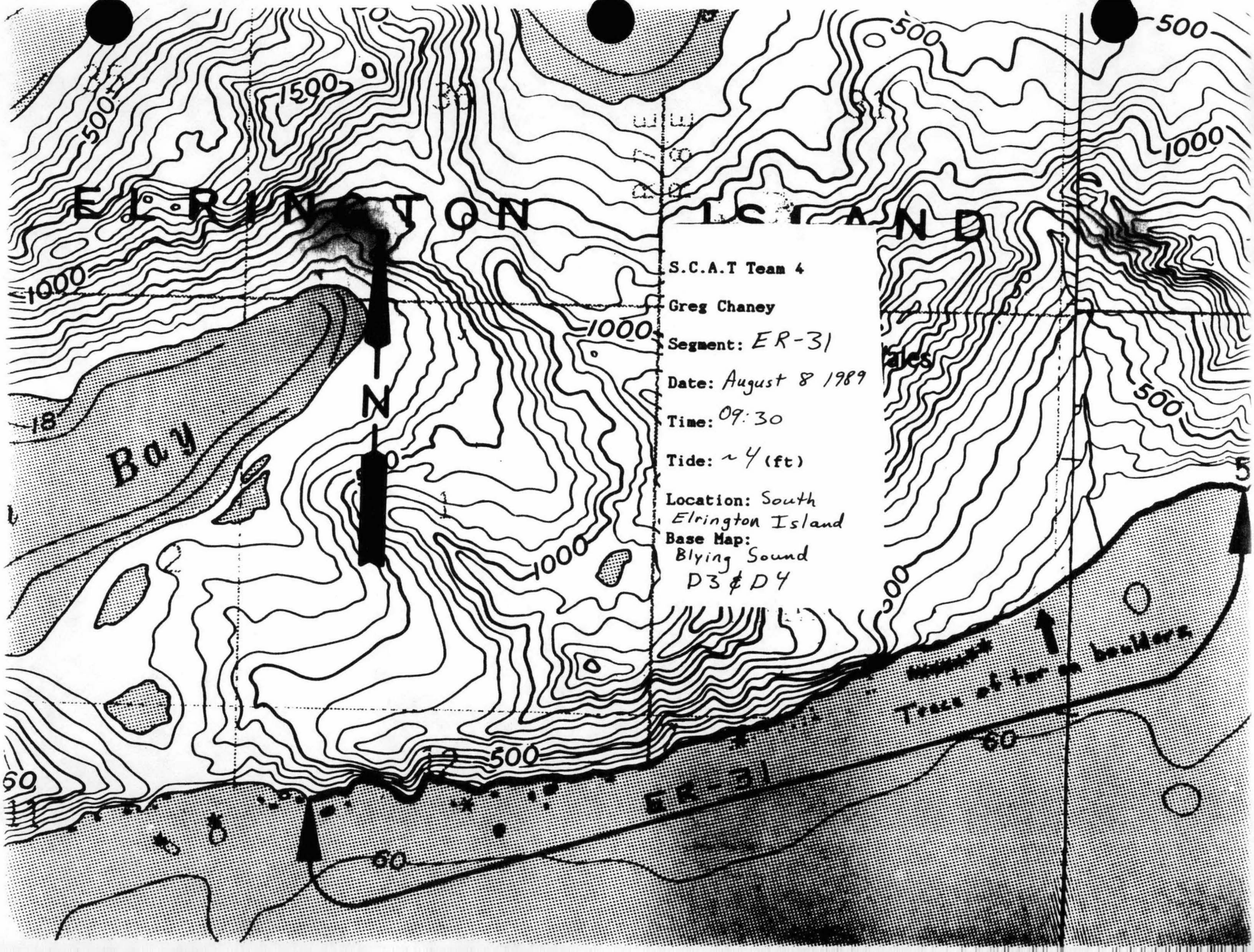
B/W Roll # PORTRY 19 Frames 32-35

Observer(s) P. BUCK

Time survey started 0930 HRS Time survey ended 1240 HRS

Cultural resource considerations/restraints:

"STANDARD CONSTRAINTS"


ELRINGTON ISLAND
Bay
N
1500
1000
500
60
ER-31
S.C.A.T Team 4
Greg Chaney
Segment: ER-31
Date: August 8 1989
Time: 09:30
Tide: ~4 (ft)
Location: South Elrington Island
Base Map: Blying Sound D3 & D4

ER-25

9/6/89

INSPECTION REPORT

Shoreline Treatment Process(es) Completed for this Segment

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

Exxon

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

Comments Manually removed debris

Signature R C Harrelson Date: 9/6/89 Time: 15:38

Printed Name RC HARRELSON

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
0	Medium
0	Light
0	Very Light
100	None
100 %	

Subsurface Oil
- [ ] Yes
- [x] No

COMMENT BELOW

Reassessment
- [ ] Yes - necessary
- [x] No - not necessary unless re-oiled

Existing Shoreline Condition As Visually Determined by ADEC

Surface Oil Percent	Degree of Oiling
0	Heavy
0	Medium
0	Light
5	Very Light
95	None
100 %	

Subsurface Oil
- [ ] Yes
- [x] No

COMMENT BELOW

Reassessment
- [ ] Yes - necessary
- [x] No - not necessary unless re-oiled

ADEC rep

Comments No significant oiling

Signature Dale W. Gardner Date: 9/6/89 Time: 15:55

Printed Name DALE GARDNER

FOSC rep Demobilization (approved)/disapproved

Comments no measurable oil found

Signature [illegible] Date: 9/8/89 Time: 1554

Printed Name [illegible]

COPY: EXXON ADEC FOSC ISCC

ER-26

Date 9/6/89

INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

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

Exxon

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

Comments Manually removed debris. No significant oiling remaining

Signature R C Harrelson Date: 9/6/89 Time: 1540

Printed Name R C HARRELSON

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
0	Medium
0	Light
0	Very Light
100	None
100 %	

Subsurface Oil
- [ ] Yes
- [x] No

COMMENT BELOW

Reassessment
- [ ] Yes - necessary
- [x] No - not necessary unless re-oiled

Existing Shoreline Condition As Visually Determined by ADEC

Surface Oil Percent	Degree of Oiling
0	Heavy
0	Medium
0	Light
5	Very Light
95	None
100 %	

Subsurface Oil
- [ ] Yes
- [x] No

COMMENT BELOW

Reassessment
- [ ] Yes - necessary
- [x] No - not necessary unless re-oiled

ADEC rep

Comments No measurable oil found

Signature Dale W. Gardner Date: 9/6/89 Time: 15:55

Printed Name DALE GARDNER

FOSC rep Demobilization approved/disapproved

Comments NO MEASURABLE AMOUNT OF OIL

Signature [illegible] Cwoz Date: 9/6/89 Time: 1552

Printed Name Paul Murray Cwoz

COPY: EXXON ADEC FOSC ISCC

4.25

ER-27

9/6/89

INSPECTION REPORT

Shoreline Treatment Process(es) Completed for this Segment

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

Exxon

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

Comments Manually removed debris. No significant oiling remaining

Signature R C Harrelson Date: 9/6/89 Time: 1541

Printed Name R C HARRELSON

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil

Percent	Degree of Oiling
∅	Heavy
∅	Medium
∅	Light
∅	Very Light
100	None
100 %	

Subsurface Oil

☐ Yes ☒ No

COMMENT BELOW

Reassessment

☐ Yes - necessary

☒ No - not necessary unless re-oiled

Existing Shoreline Condition As Visually Determined by ADEC

Surface Oil

Percent	Degree of Oiling
0	Heavy
0	Medium
0	Light
5	Very Light
95	None
100 %	

Subsurface Oil

☐ Yes ☑ No

COMMENT BELOW

Reassessment

☐ Yes - necessary

☑ No - not necessary unless re-oiled

ADEC rep

Comments

Signature Dale W. Gardner Date: 9/6/89 Time: 16:00

Printed Name DALE GARDNER

FOSC rep **Demobilization approved/disapproved**

Comments NO [illegible]

Signature [illegible] Date: 9/6/89 Time: 1554

Printed Name [illegible]

COPY: EXXON ADEC FOSC ISCC

ER-28

DATE 9/6/89

Shoreline Treatment Process(es) Completed for this Segment

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

Exxon

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

Comments Manually removed debris. No significant oiling remaining

Signature R C Harrelson Date: 9/6/89 Time: 15:42

Printed Name R C HARRELSON

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil

Percent	Degree of Oiling
Ø	Heavy
2 + 8	Medium
5 2 8	Light
Ø	Very Light
93	None
100 %	

Subsurface Oil

- [x] Yes
- [ ] No

COMMENT BELOW

Reassessment

- [x] Yes - necessary
- [ ] No - not necessary unless re-oiled

Existing Shoreline Condition As Visually Determined by ADEC

Surface Oil

Percent	Degree of Oiling
0	Heavy
10	Medium
10	Light
10	Very Light
70	None
100 %	

Subsurface Oil

- [x] Yes
- [ ] No

COMMENT BELOW

Reassessment

- [x] Yes - necessary
- [ ] No - not necessary unless re-oiled

ADEC rep

Comments

Signature Dale W. Gardner Date: 9/6/89 Time: 16:05

Printed Name DALE GARDNER

FOSC rep **Demobilization approved/disapproved**

Comments no cross contamination

Signature [illegible] Date: 9/6/89 Time: 1555

Printed Name [illegible]

COPY: EXXON ADEC FOSC ISCC

ER-29

Date 9/6/89

INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

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

Exxon

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

Comments Manually removed debris. No significant oiling remaining

Signature R C Harrelson Date: 9/6/89 Time: 1545

Printed Name R C HARRELSON

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
0	Medium
21	Light
0	Very Light
79	None
100 %	

Subsurface Oil
- [ ] Yes
- [x] No

COMMENT BELOW

Reassessment
- [ ] Yes - necessary
- [x] No - not necessary unless re-oiled

Existing Shoreline Condition As Visually Determined by ADEC

Surface Oil Percent	Degree of Oiling
0	Heavy
0	Medium
0	Light
5	Very Light
100	None
100 %	

Subsurface Oil
- [ ] Yes
- [x] No

COMMENT BELOW

Reassessment
- [ ] Yes - necessary
- [x] No - not necessary unless re-oiled

ADEC rep

Comments No significant oil observed

Signature Dale W. Dardner Date: 9/6/89 Time: 16:05

Printed Name DALE GARDNER

FOSC rep **Demobilization approved/disapproved**

Comments no [illegible] contamination

Signature [illegible] Date: 9/6/89 Time: 1556

Printed Name [illegible]

COPY: EXXON ADEC FOSC ISCC

Cleared 8/2/89

(version 5/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): Danger Island Block

Includes Shoreline Segments: DA-1, DA-2

Submitted : _____ Date: 7/17/89
(for Exxon)

ISCC Approval: _____ Date: _____

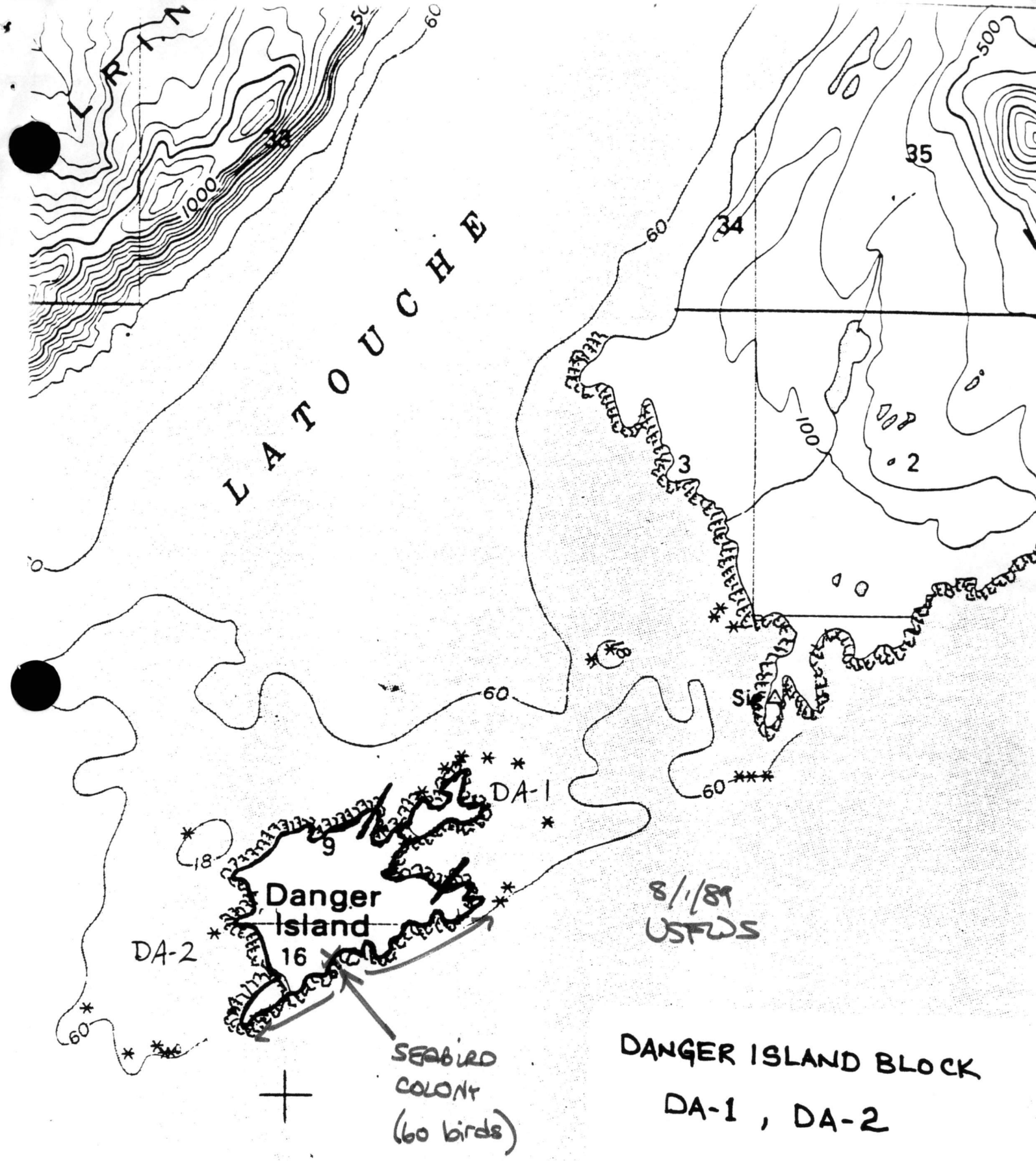
FOSC Approval: _____ Date: _____

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
SHPO


LATOUCHE
Danger Island
DA-1
DA-2
SEABIRD COLONY (60 birds)
8/1/89 USFWS
DANGER ISLAND BLOCK
DA-1 , DA-2

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/15/89 SHORELINE SEGMENT DA-1

LOCATION: (see enclosed map) Northeast shore - Danger Island, southwest tip of LaTouche Island, PWS

ADEC NO._____ SHORELINE ASSESSMENT DATE: 7/11/89

Recommended Cleanup Activity(ies):
If access is possible:

- Manually remove contaminated drift material (fucus) and manually harvest contaminated fucus.
- Break up and remove, if possible, incipient oil pavement on low angle, fine grained beaches.
- Use moderate to high pressure warm to hot water washing on rock and oiled logs.
- Use other approved methods as appropriate.

Priorities Considerations:
Class 2-3: heavy to moderate oil
Class B: resources present

Ecological Constraints (from site survey):
Work at mid tide + or take appropriate measures to protect lower intertidal zone. In cleanup "access corridor", avoid disturbing offshore seal haulouts, seabird roosts, kelp beds and eelgrass beds. Restrict cleanup to manual methods in locations 4 & 5 and limit access and number of people due to ecologically rich and unoiled intertidal/splash zone. Avoid recontamination of shallow subtidal communities during cleanup of location 1, 2 and 3. Removal of heavily oiled fucus is recommended.

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

_____ Date: July 18 89
State Historic Preservation Officer *

ISCC:_____ Date:_____

EXXON:_____ Date:_____

FOSC:_____ Date:_____

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

SHORELINE OIL EVALUATION

Date: 7/11/89 / Time: 12:00-16:00 Observer: KAROLIEN DERUSSCHERE

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

LOCATION

LOCATION NE SHORE OF DANGER ISLAND SEGMENT NUMBER DA-1

LENGTH OF SHORELINE SEGMENT: 1060 m

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

SHORELINE:

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

Wave Exposure: High/Med/Low

Sediment: B 15 % / C 15 % / P 15 % / G 30 % / S 15 % / M 0 % /R 10 %

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

OIL

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

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

Continuous: Y/N % of Segment 80 Width of Band: ≤ 60 m

Sporadic: Y/N % of Segment 20

Est. Oil Thickness where > 1cm: — cm Est. Oil Penetration: 15 cm

Pooled Oil: 5 % "Free" Oil: 40 % Coated: H 35 % /M 15 % /L 5 %

Fresh 60 % Mousse 5 % Tar Formation: 35 %

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

Comments:

MOST OF SEGMENT IS HEAVILY OILED; IMPACTED SEDIMENTS RANGE FROM OUTCROP (SURFICIAL OILING) TO GRANULA/SAMDS (OIL PENETRATION); IN G/S AREAS SOME INCIPIENT PAVEMENT FORMATION

OIL COVER SEEMS LESS IN LOCATION (4) → SURFICIAL - POTENTIAL OF BURIED OIL.

THIS SEGMENT IS + ONLY RELATIVELY EASILY ACCESSABLE AREA ON ISLAND PROVIDING GOOD WEATHER CONDITIONS

7/11/89

DA ①

HAD TO WAIT FOR ROBERT MACK

12:00

LOC ①

AT SE-SIDE: ROCK OUTCROP & B

→ HEAVILY OILED, ALSO IN INTERST. → H & M-TIDE (OILED FUCUS)

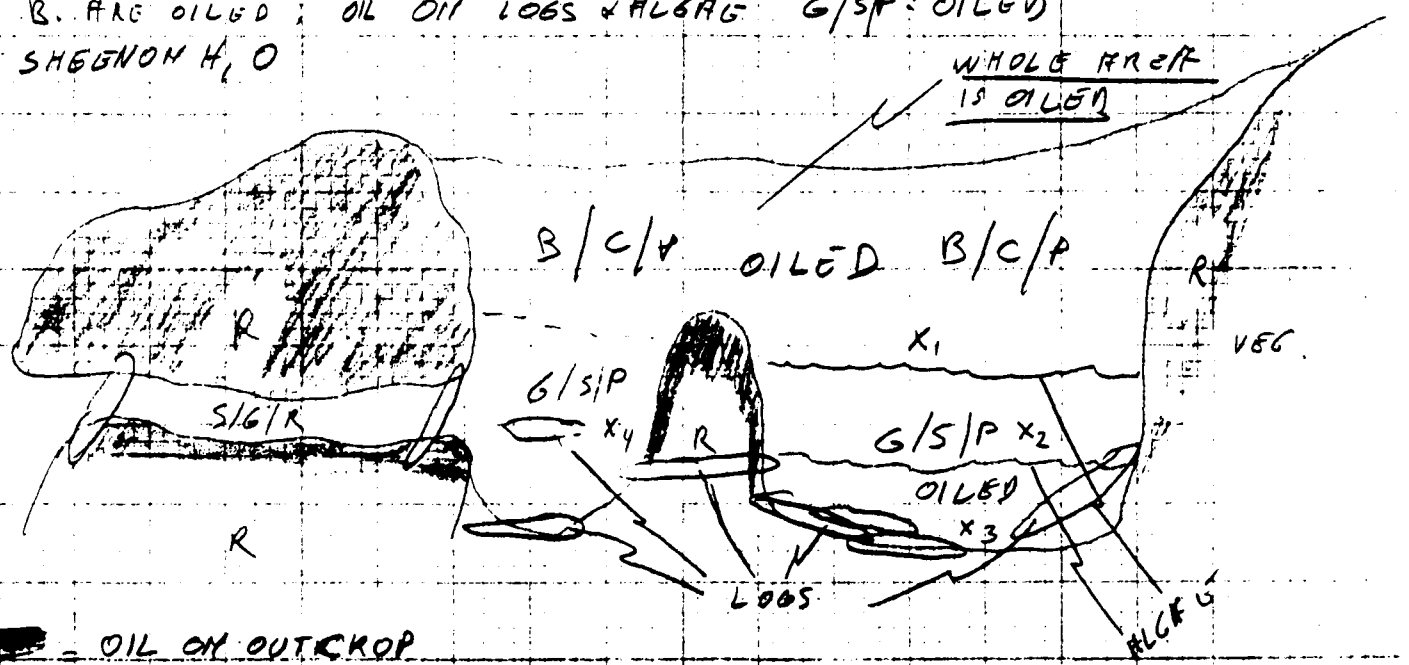
OIL IS FRESH, TAK SOME MOUSSE

LOC ②

B FROM ① EXTEND IN M-TIDE (& LITTLE IN H-TIDE) TO ROCK OUTCROP TOWARD NW → LOW ANGLE BEACH W. G/S|P AT HIGH TIDE; B AT M/L

B. ARE OILED; OIL ON LOGS & ALGAE G/S|P: OILED

SHEEN ON H_2O



[redacted] - OIL ON OUTCROP

X1: PIT 30 CM DEEP TOP IS: G: OILED / FRUG / FRESH
BOTTIS: S/C: NO OIL

X2: PIT 35 CM DEEP ALL G/SOME CO → OIL 1 12 CM

X3: PIT 25 CM " ALL G: OIL 1 4 CM

X4: PIT 20 CM " G: THICK OIL LAYER BURIED UNDER 4 CM OF LIGHTER

→ IN G/S|P INCIPIENT PAVEMENT; H_2O IS UNDER CUTTING OILED TOP LAYER

→ OUTCROP IS ERODING IN "CHANNELS" ⊥ TO SHORE LINE → OIL HAS BEEN ABLE TO GO IN HIGH TO SP ZONE

→ IN "POTHOLES" IN OUTCROP: LITTLE POOLS OF OIL & H_2O; SOME MOUSSE

P 31 13:44 LOC ②: OILED B

P 32 13:45 LOC ②: OILED OUTCROP

P 33 13:55 LOC ②: UNDERCUTTING OF INCIPIENT PAVEMENT

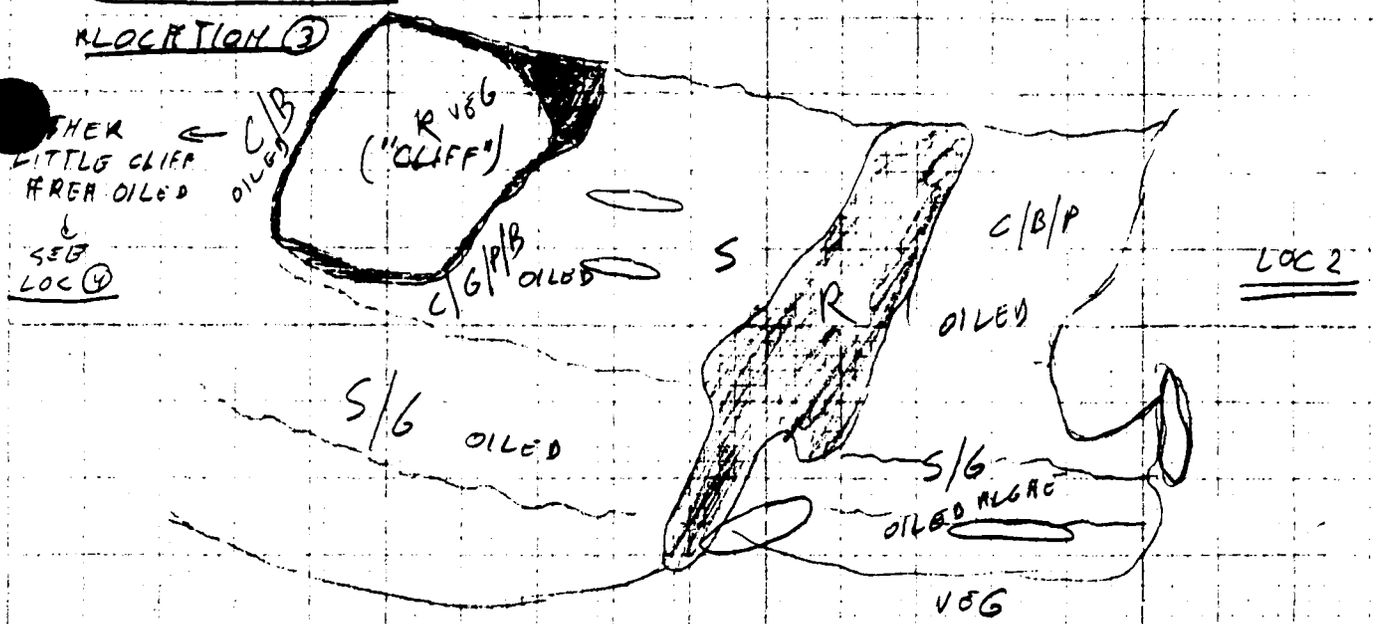
P 34 14:12 LOC ②: OILED OUTCROP IN H/SP TIDE LOOKING INTO

LOC ③

7/11/89

DA ① - CONT

LOCATION ③



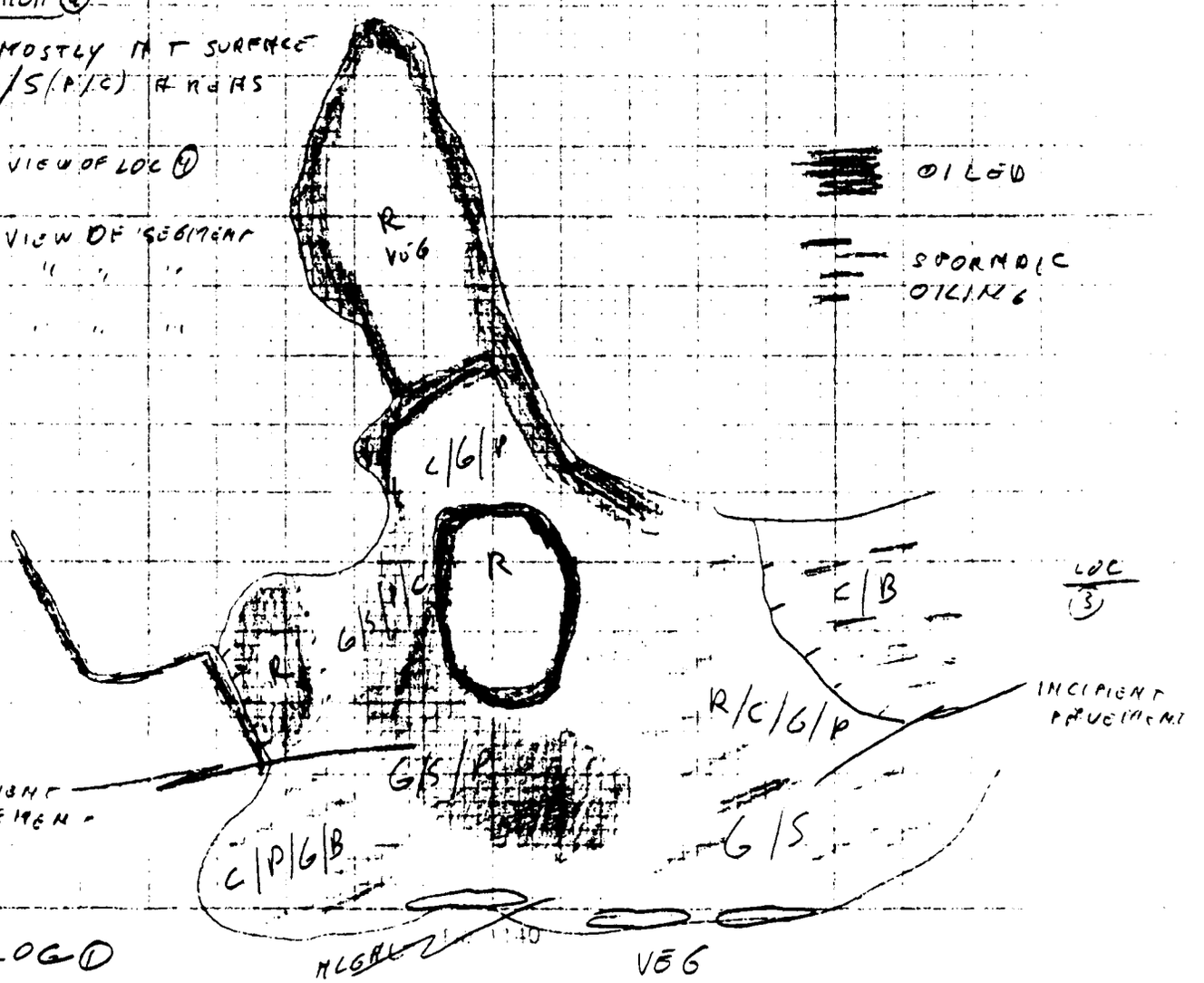
→ EXTENSIVE OIL COVER
SEVERAL PITS SAME AS LOC ②

* OIL TAPERS OUT TOWARDS N → OIL COVER IS STILL EXTENSIVE BUT PENETRATION IS MINIMAL - OIL COULD BE BURIED!!

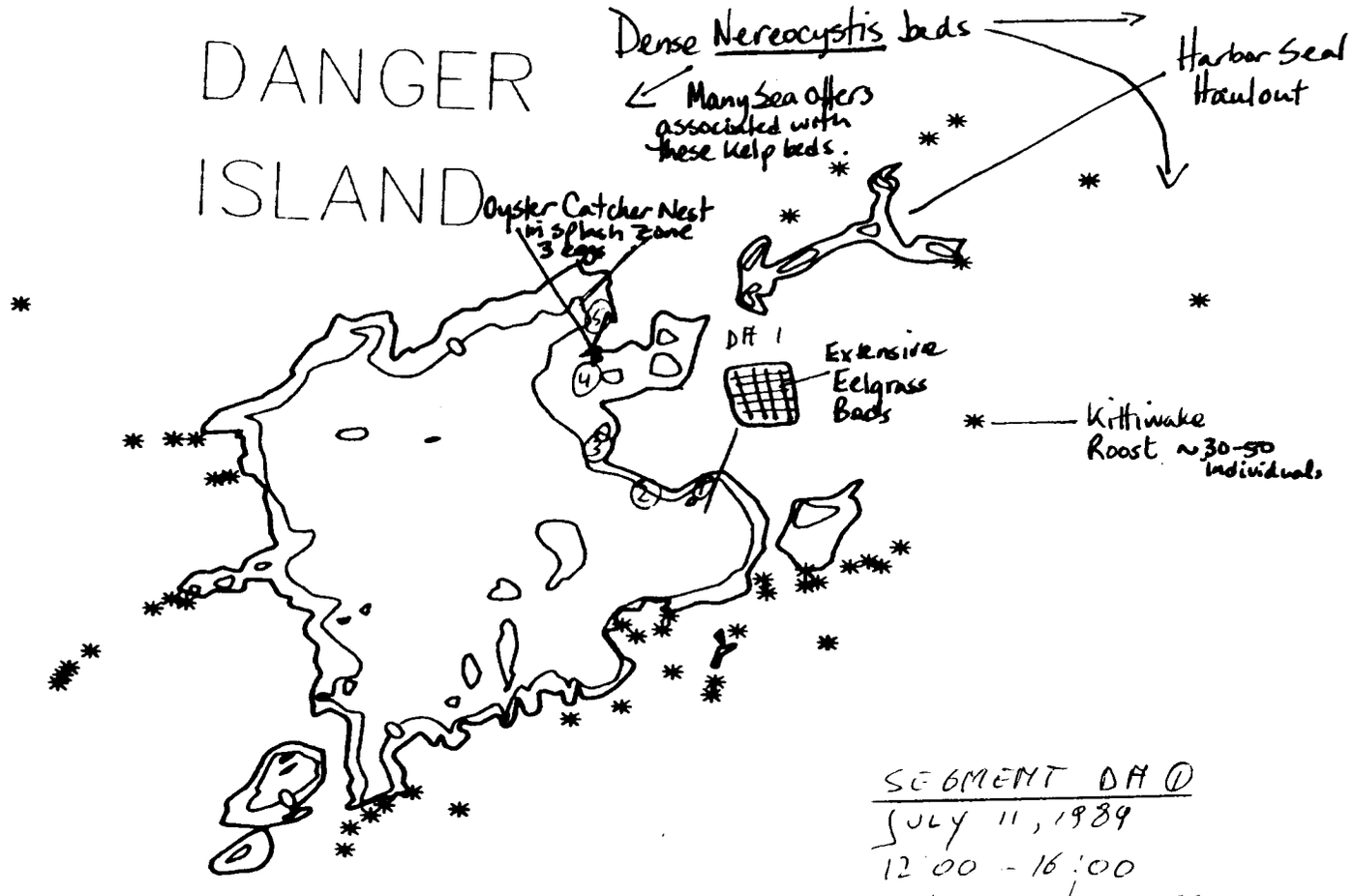
LOCATION ④

OIL MOSTLY AT SURFACE OF G/S(P/C) AREAS

P 35 : 15:05 VIEW OF LOC ④
P 36 : 15:10 VIEW OF SEGMENT
P 37 " " "
P 38 " " "



LOC ⑤ = LOG ①



HV CONTROL

HORIZONTAL CONTROL

VERTICAL CONTROL

ROCK

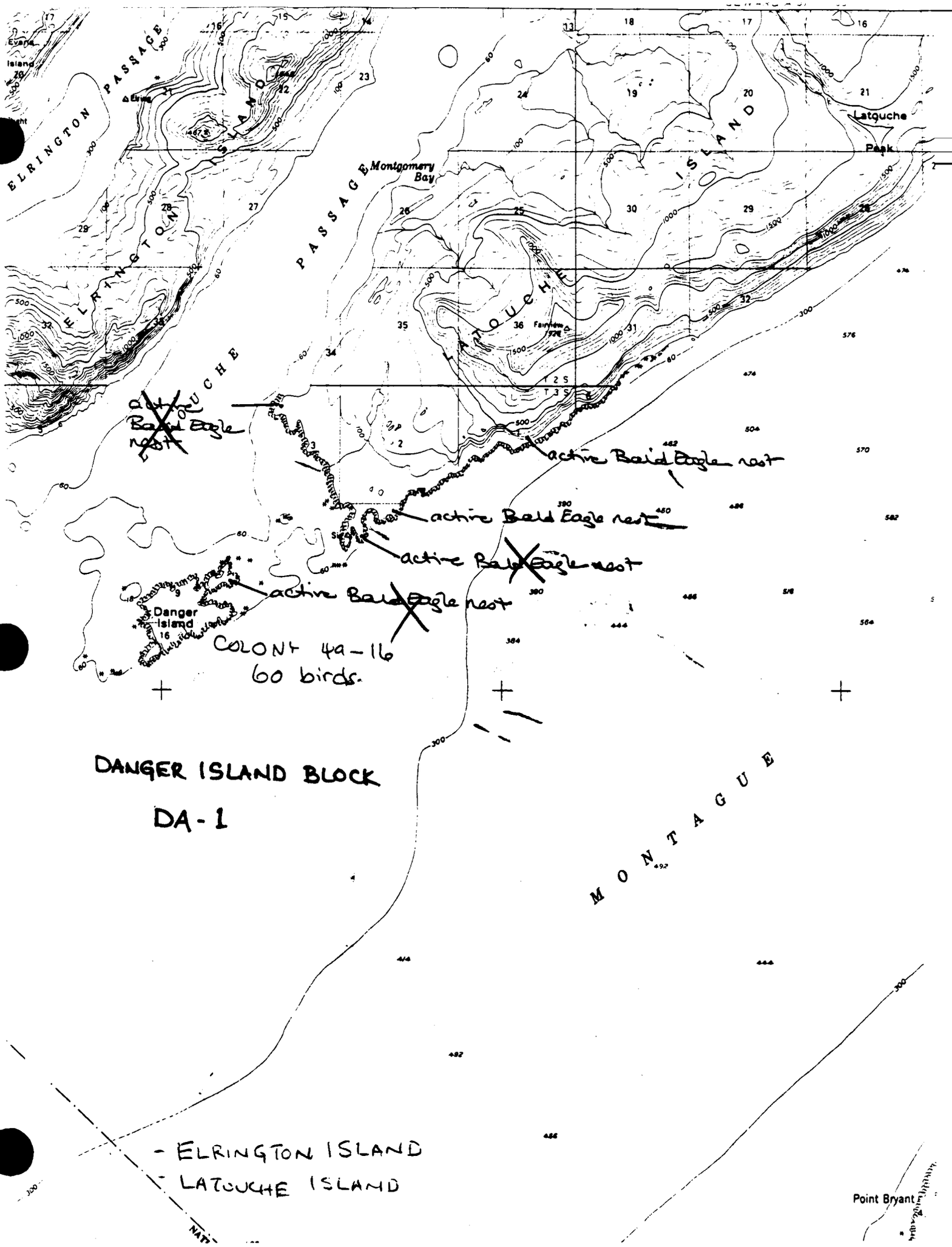
SHORE LINE

CONTOUR

TREE LINE

STRUCTURE

N


ELRINGTON PASSAGE
ELRINGTON ISLAND
PASSAGE
Montgomery Bay
LATOUCHE ISLAND
Latouche Park
Fairview
T 2 S
T 3 S
Danger Island
active Bald Eagle nest
active Bald Eagle nest
active Bald Eagle nest
active Bald Eagle nest
active Bald Eagle nest
COLONY 4a-16
60 birds.
DANGER ISLAND BLOCK
DA-1
MONTAGUE
- ELRINGTON ISLAND
- LATOUCHE ISLAND
Point Bryant

ECOLOGICAL EVALUATION — *** SEE MAP ATTACHED FOR ECOLOGICAL FEATURES OF ENTIRE ISLAND ***

LOCATION: Prince William Sound SITE: ~~NE shore~~ Danger Island OBSERVER: S.L. Dearn

LOCATION PREFIX: DA SEG. NO.: 1 LENGTH: 1060 (M)

DATE: 07 / 11 / 89 TIME (HHMM): 1245 – 1515 TIDE HT.: 3.2 – 4.5 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

Upper 1m of Fucus heavily oiled. Dense growths of Odonthalia, Leathesia, Alaria

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

Several small areas of oiled mussels – these individuals appeared to be still alive.

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

Present mostly on bedrock + rocky outcroppings in high-mid zone

Littorina

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

Aggregations present in cracks + crevices + beneath Fucus blades. Nucella present

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

Few limpets found in upper tidal pools poss. Collisella digitalis, C. paradigitalis, C. pelta

OTHER OBSERVATIONS: ~~Eel~~ Surf Eelgrass present in several upper tidal pools. NE-most region of segment very diverse + healthy. Dense subtidal eelgrass beds present in shallow offshore. Kelp beds very d

CLEANUP PRECAUTIONS: Offshore seal haulouts, kelp beds, + seabird roosts should be disturbed as little as possible. Access to locations 4 + 5 (SEE MAP) should be restricted. Any cleanup in these areas should be manual + should involve as few people as possible due to the sensitivity of the ecosystem there. Much of the oiled Fucus should be removed manually to avoid recontamination of nearby areas. Healthy Fucus plants are abundant in adjacent unoiled areas. *Continued below*

MAMMALS: (SEE MAPS) Otters 34++ (Primarily in kelp bed) Harbor Seals 11 (8+ adults / 3 pups) Associated w/ rocks Sea Lions ____ Whales ____

Other ____

BIRDS: Oyster Catchers - 8, 1 oyster catcher nest (3 eggs) (SEE MAP), Least Sandpiper 1, Harlequin ducks - 2 off

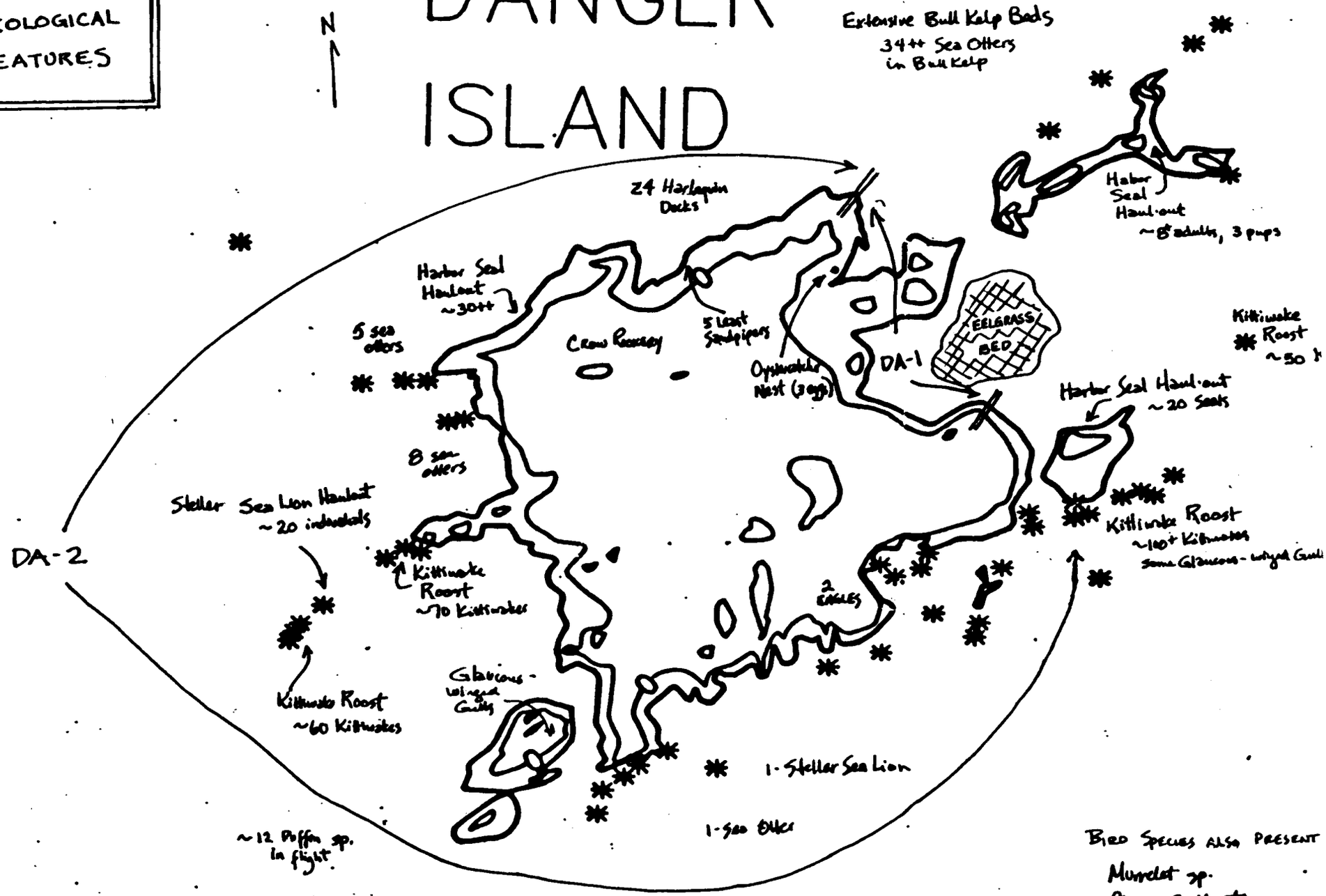
Numerous crows

GENERAL OBSERVATIONS: Much of segment is badly oiled but has several ecologically rich + important habitats, particularly offshore eelgrass beds + extensive bull kelp beds. Small rocks offsh appears to be haulout sites for harbor seals (both adults + juveniles). Seabird roosts are also present. SEE MAPS. Sea otters appear to utilize area.

*Caution should be taken during clean up so as not to recontaminate subtidal eelgrass beds. Ecol. Sensitive areas also exist in adjacent areas outside segment. Disturbance in these areas should also be minimized as much as possible.

ECOLOGICAL FEATURES

DANGER ISLAND



Bird Species Also Present

Murrelet sp.
Pigeon Guillemot
Tufted Puffin
Black Oystercatchers

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 7/11/89 Location DANGER ISLAND (BLYING SOUND (D-3) QUAD) Site

Location Prefix DA — Segment # 1 Length 1060 M

Survey Method:

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

Ground ✓ (100%) (G - indicate on map)

Known cultural resources (AHRS #) SEW-6? Data Source AHRS FILES

Oil conditions/beach visibility MODERATE-HEAVY; FAIR TO POOR BEACH VISIBIL

Width of beach zone surveyed 30 M m Tree fringe surveyed 0-10 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 ROCKY HEADLANDS / EXPOSED BEDROCK / BOULDER-COBBLE-GRAVEL BEACH.

Fresh Water Sources NONE

Sea Exposure OPEN EXPOSURE

Access/Safety LC'S POSSIBLE; SKIFFS OK, HELO DOUBTFUL

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 # PEBTMY 9 Frames 30-37

PEBTMY 10 1-2

Observer(s) P. BUCK, R. MACK, T. DILLIPLANE

Time survey started 1245 HRS Time survey ended 1354 HRS

Cultural resource considerations/restraints:

"STANDARD CONSTRAINTS"

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/15/89 SHORELINE SEGMENT DA-2

LOCATION: (see enclosed map) Danger Island, southwest tip of LaTouche Island, PWS

ADEC NO._____ SHORELINE ASSESSMENT DATE: 7/11/89

Recommended Cleanup Activity(ies):
Access is difficult here due to the high wave energy rocky coastline. If access is possible:

- Manually remove contaminated drift material (fucus), oiled fucus in holdfasts, and patches of mousse.
- Use moderate to high pressure warm to hot water washing on rock and oiled logs.
- Use other approved methods as appropriate.

Priorities Considerations:
Class 3: moderate oil
Class A: resources present

Ecological Constraints (from site survey):
Work at mid tide + or take appropriate measures to protect lower intertidal zone. Avoid disturbing Harbor Seal and Steller Sea Lion haulouts in crew access corridors. Removal of oiled fucus is recommended to minimize contamination of rich, unoiled subtidal and intertidal zones if access permits. Limit numbers of people and equipment to minimize impacts on lower and subtidal zones.
Seabird colony - see advisory

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

_____ Date: July 18, 89
State Historic Preservation Officer *

ISCC:_____ Date:_____

EXXON:_____ Date:_____

FOSC:_____ Date:_____

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

SHORELINE OIL EVALUATION

Date: 11 July 89 / Time: 0110 to 1600 hr Observer: Mann

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

LOCATION

LOCATION Danger Island SEGMENT NUMBER DA-2

LENGTH OF SHORELINE SEGMENT: 3.7 K m

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

SHORELINE:

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

Wave Exposure: High/Med/Low

Sediment: B 9 % / C 1 % / P <1 % / G 0 % / S 0 % / M 0 % / R 90 %

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

OIL

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

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

Continuous: Y/N % of Segment 30 Width of Band: 1-10 m

Sporadic: Y/N % of Segment 70

Est. Oil Thickness where > 1cm: 2 cm Est. Oil Penetration: 20 cm

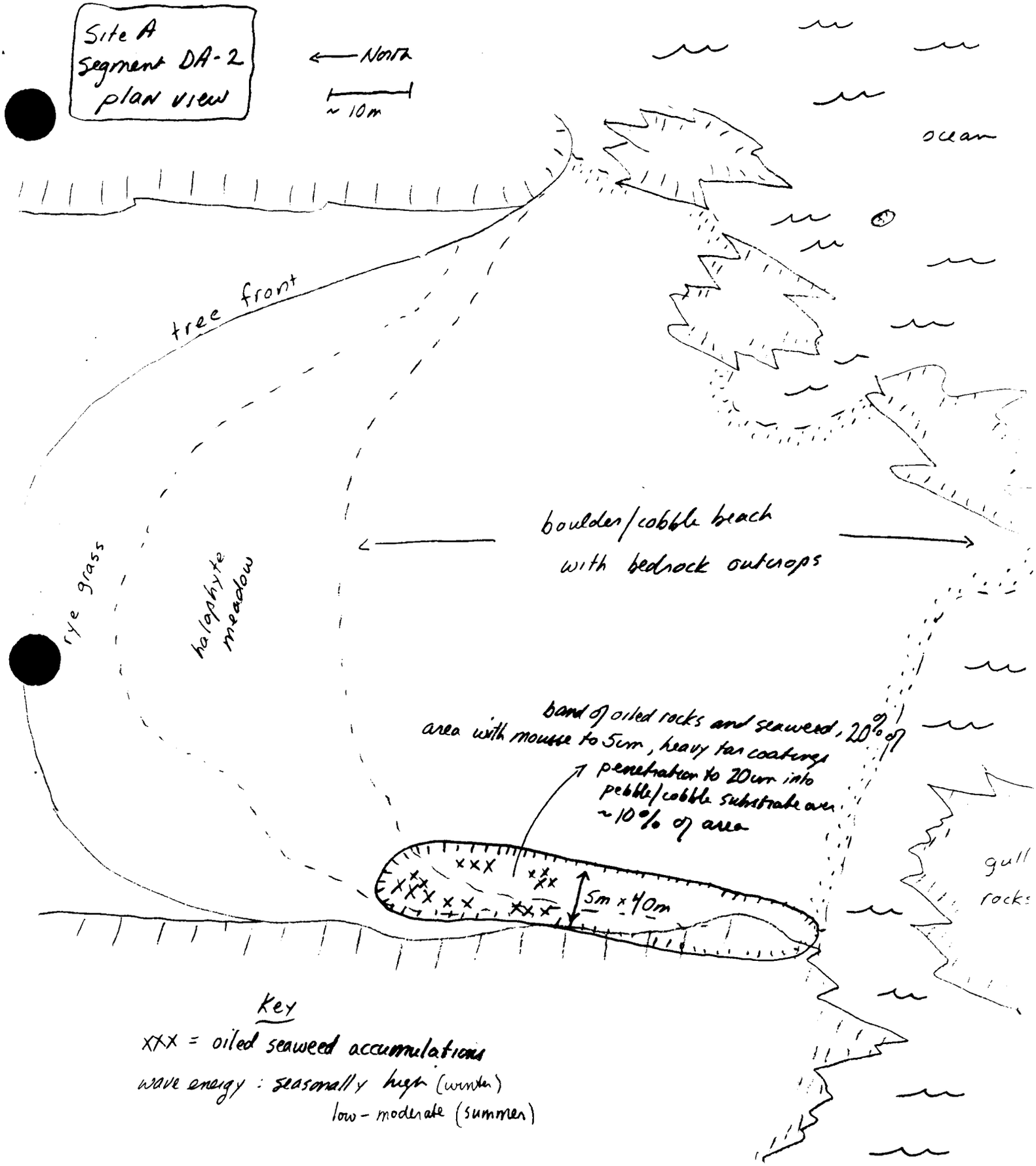
Pooled Oil: 0 % "Free" Oil: 0 % Coated: H 5 % / M 50 % / L 45 %

Fresh 0 % Mousse <1 % Tar Formation: 100 %

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

Comments:

Segment DA2 incorporates a rugged, rocky shoreline experiencing high wave energy. Southwesterly striking meta-sedimentary rocks have been eroded into a series of boulder-lined gullies with numerous offshore reefs. Oil is concentrated in the gullies, coating vertical rock faces and covering boulders. Oiled zones are sporadic. The largest 3 pocket beaches on the western side of the island are only lightly contaminated by tar spots and occasional oily seaweed.

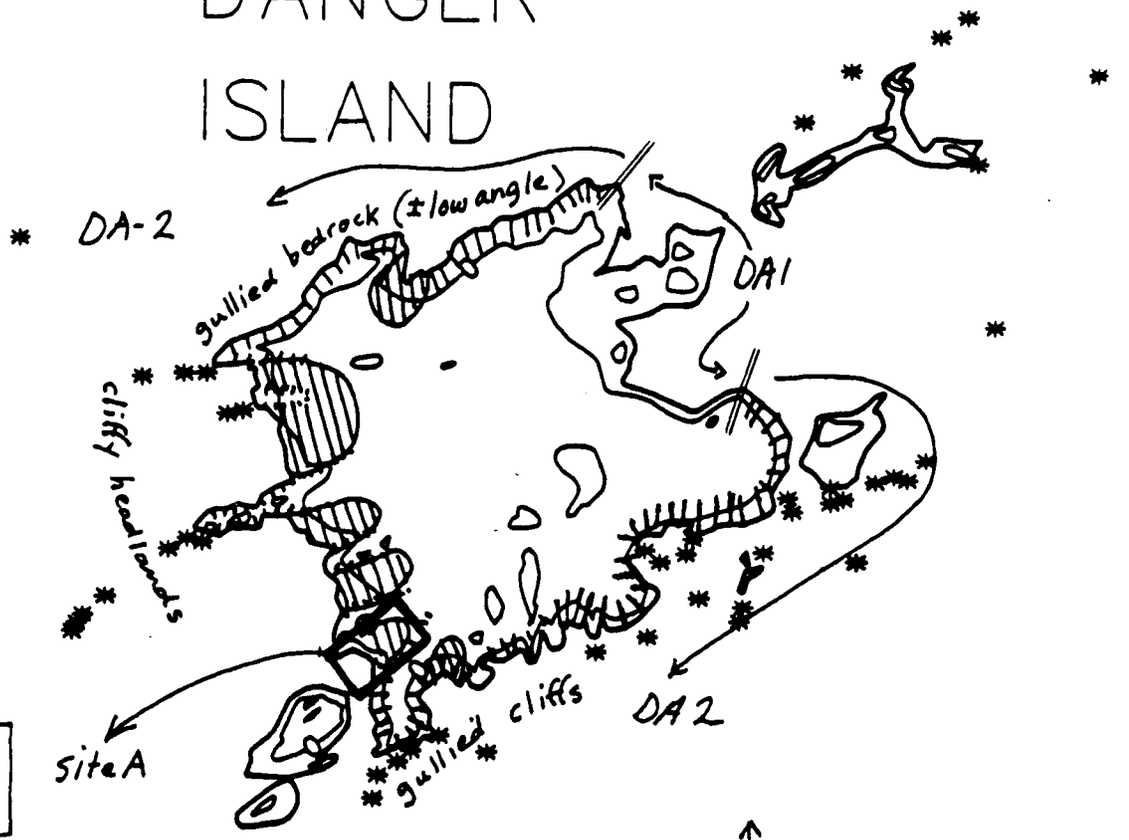


Key

XXX = oiled seaweed accumulations

wave energy : seasonally high (winter)
low - moderate (summer)

DANGER ISLAND



cation of Segments on Danger Island

Key

boulder/cobble pocket beaches on bedrock platforms

cliffs

ECOLOGICAL EVALUATION

LOCATION: Danger Island SITE: off SW tip LaTouche (PWS) OBSERVER: Meyer

LOCATION PREFIX: DA SEG. NO.: 2 LENGTH: 3.7 KM (M)

DATE: 07/10/89 (07 11 89) TIME (HHMM): 1315 TIDE HT.: +2 to +5 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

Patches of heavily coated fucus in oiled areas, generally upper 1 M. Rich + diverse seaweed/algae communities.

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

Small beds of Mytilus more common on South coast than North coast.

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

Mostly in mid-high tidal zone, patches oiled in oiled areas.

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
(South side - common but not as dense)

North side has areas of extremely dense aggregations (1000/ft²); present in mid tidal fucus throughout segment, also on cobble + in rock crevices; in oiled fucus sparsely. Nucella sparse.

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

Limpets most common in tidal pools.

OTHER OBSERVATIONS: Eelgrass present both in upper tidal pools and shallow offshore; dense bull kelp beds off northern end of island, with sea otters abundant (34 sea otters closely associated in one raft). Pisaster seen only in one location, 7 in a tidal rock crevice. Oil Sheen in tidal pools where surrounding area is oiled.

CLEANUP PRECAUTIONS: Steller Sea Lion and Harbor Seal haulouts and Seabird Roosts offshore in cleanup access corridors are sensitive to disturbance (see Ecological Map). Extremely rich and diverse intertidal and subtidal is unoiled and should be protected; limit equipment and number of people. Remove manually heavily oiled fucus to minimize future recontamination of unoiled subtidal and intertidal areas.

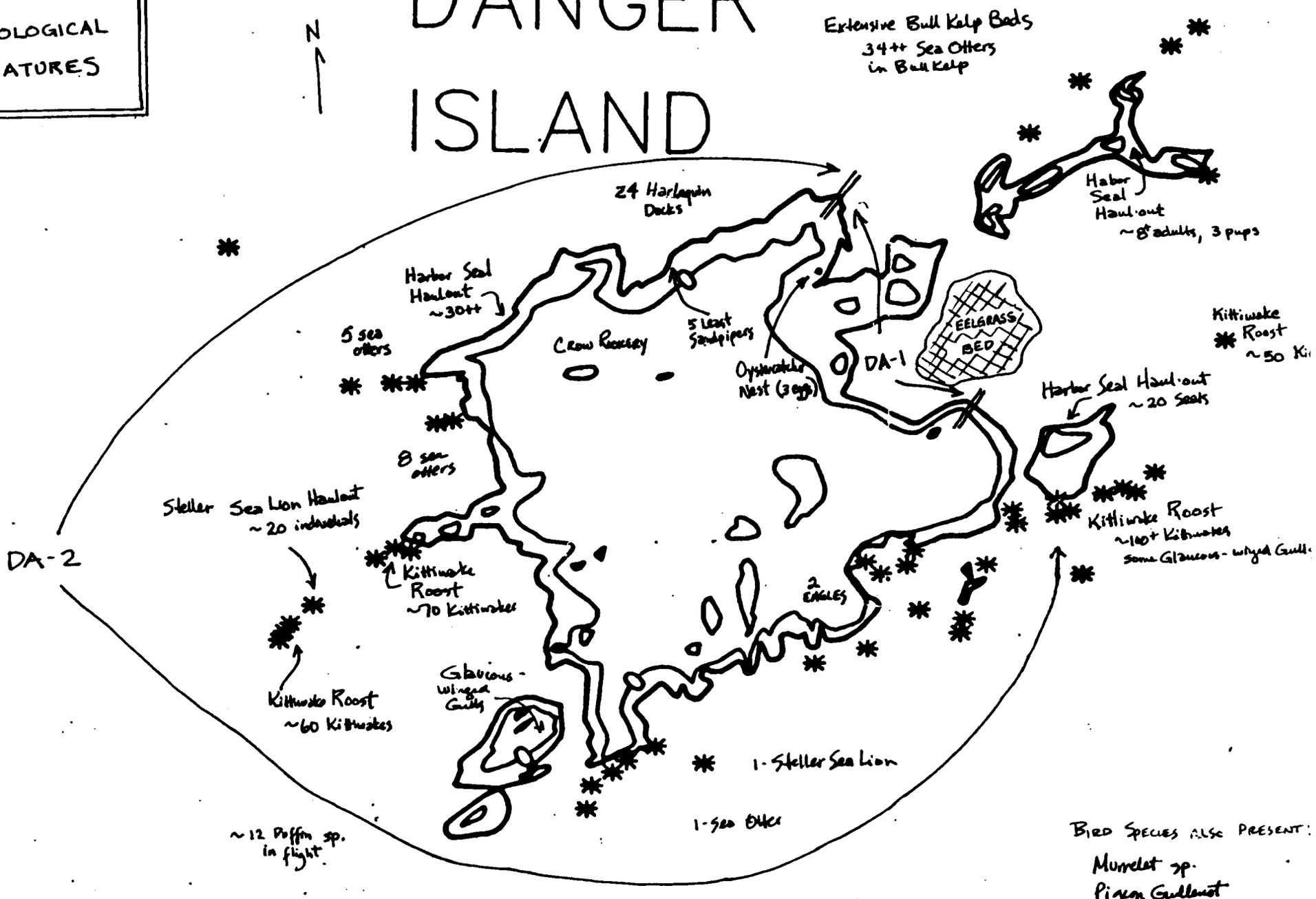
MAMMALS: Sea Otters 14 (count split over 2 days) Harbor Seals ±61 Sea Lions ±21 Whales _____
Other River Otter sign on island

BIRDS: Black Oystercatchers abundant: ~20 seen, generally in pairs; Black-legged Kittiwake colonies ~180+ Kittiwakes counted (see map)
Glaucous-winged gulls ~20; Crow roosting on island, ~25 crows; Least Sandpiper - 5; Fox Sparrows feeding in fucus - 3
Tufted Puffin - 1; Puffin sp. 12; Harlequin Ducks ~24; Pigeon Guillemot - 5; Murrelet sp. - 10; 2 Eagles.

GENERAL OBSERVATIONS: Boated around island once; walked North and South coastline. Oil reaches up deep crevices in rocks sporadically throughout segment but little biota is oiled other than the upper reaches of fucus and patchy barnacles. Access is extremely difficult and onshore travel can be treacherous.

ECOLOGICAL FEATURES

DANGER ISLAND



BIRD SPECIES ALSO PRESENT:

Murrelet sp.
Pigeon Guillemot
Tufted Puffin
Black Oystercatchers

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 10-11 July 1989 Location Danger Island Site

Location Prefix DA Segment # DA-2 Length 3.7 Km

Survey Method:

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

Ground ✓ (G - indicate on map)

Known cultural resources (AHRS #) POSSIBLE SEW-006 Claim # AA11015 Data Source AHRS MAP

Oil conditions/beach visibility MODERATE TO LIGHT

Width of beach zone surveyed 0-100 m Tree fringe surveyed Up to 220 M

Cultural resources observed in beach zone (AHRS code) None

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

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

Shore Profile Gravel, cobbled beaches.... Massive outcrops of sharp slate. Jaw-ering, steep cliffs on SW side.

Fresh Water Sources None noted

Sea Exposure Exposed on SW and W sides.

Access/Safety Landing could be dangerous in stormy weather.

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 1350 HRS, 10 July 89 1317 HRS, 11 JULY 89 Time survey ended 1440 HRS, 10 JULY 89 1515 HRS, 11 JULY 89

Cultural resource considerations/restraints:

Location of CMT is beyond area of impact should cleanup activities occur. Should any heretofore undiscovered cultural resources be found during any cleanup activities, please notify the Exxon Archaeological Director, Dr. C. Mobley, immediately.