

OIL SPILL PUBLIC INFO. CENTER



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1990
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[Shoreline evaluations, 1990].

KO1-02 – KO2-16

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SHORELINE EVALUATION

SEGMENT ST/ K01-02-AS-007 SUBDIVISION A (1 OF 1) DATE 6/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
(Stream ID # 251-65-10040)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

SHPO SIGNATURE: Charles E. Holmes

DATE: June 19, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 106 m: V.Light 3907m: No Oil 4019 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u> </u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u>X</u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u>X</u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommended treatment is manual removal of mousse in areas shown on attached sketch map.

TAG COMMENTS:

TAG APPROVAL DATE: 6/16/90.

ADEC Ray Morris P. Morris

EXXON Andy Tetz Paul

NOAA Joseph C. Kilbott J. A. Reiter

USCG G.A. REITER G.A. Reiter

Monitors Assess MITE.
FOSC: D. Zampieri DATE: 7/8/90

KODIAK ECOLOGICAL CONSTRAINTS

1A
1B

Salmon stream mouth - fry outmigration (4/15 to 7/31)

Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)

No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case contact ADF&G prior to treatment for consultation and/or permit application.

AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299

1C

Salmon fry nursery area (4/31 to 7/31)

No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.

AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214

1D

Kotol Bay Hatchery release

Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.

1H

Remote release site

No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.

AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214

1I

Gill net area

1J

Purse seine area

Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)

East side Kodiak, East side Adognak (7/4 to 10/1)

1K

Purse seine hook-off

1L

Set net sites

Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.

AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791

2M

Herring spawning (4/15 to 6/30)

Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unilled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.

AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791

Harbor seal and sea lion pupping (5/10 to 7/1)

Harbor seal and sea lion molting (5/15 to 9/15)

Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.

AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
ADF&G Don Calkins 267-2403

5R

Seabird colony (5/1 to 9/1)

Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

5S

Shorebird/waterfowl concentration (4/1 to 5/15)

Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
ADF&G Tom Roth 267-2208

5T

All Bald Eagle nests (3/1 to 6/1)

Active Bald Eagle nests (3/1 to 9/1)

Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

6U

Recreation:

Tent sites (5/1 to 9/15)

6V

Anchorage (5/1 to 9/15)

6W

Forest Service cabins (5/1 to 9/15)

6X

Lodge (5/1 to 9/15)

6Y

Special use destination

7Z

Subsistence area: Salmon harvesting (5/1 to 9/30)

Finfish harvesting

Deer harvesting (5/1 to 1/7)

Invertebrate harvesting

Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)

Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.

AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K1000 AS-7 SUBDIVISION: A (of A) DATE 1 June 1990

USCG

NAME Michael B. Millner SIGNATURE Michael B. Millner DCI

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

MANUAL PICK-UP IS recommended for NE segment. LARGE TAR-MAT, 100m x 40m IN SIZE, 4.5cm IN THICKNESS. ACCESSABILITY MAY CAUSE PROBLEMS DUE TO THE TIDE FLUCTUATIONS ON THIS AREA.

ADEC

NAME Francine J. Beards SIGNATURE Francine J. Beards

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

MANUAL PICK-UP OF MOUSSE PATTIES, & MOUSSE 'MAT' RECOMMENDED:

The main concentration of oil in this segment is on the North-Eastern boundary of segment, and extends for approximately 100 meters & spills into adjacent segment, AS-8. It lies in the UITE, but clean-up crew should also check the MITE sand flats for mousse patties. Recoverable oil can be collected by crew using shovels & trowels.

LAND MANAGER

NAME OTTO FLORSCHUITZ SIGNATURE Otto Florschütz FWS

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Agree with above ADEC recommendation to manually recover large concentration of mousse in vicinity of shore line of large tidal flat. Mousse also on 3 small islands off-shore of area. See attachment #2.

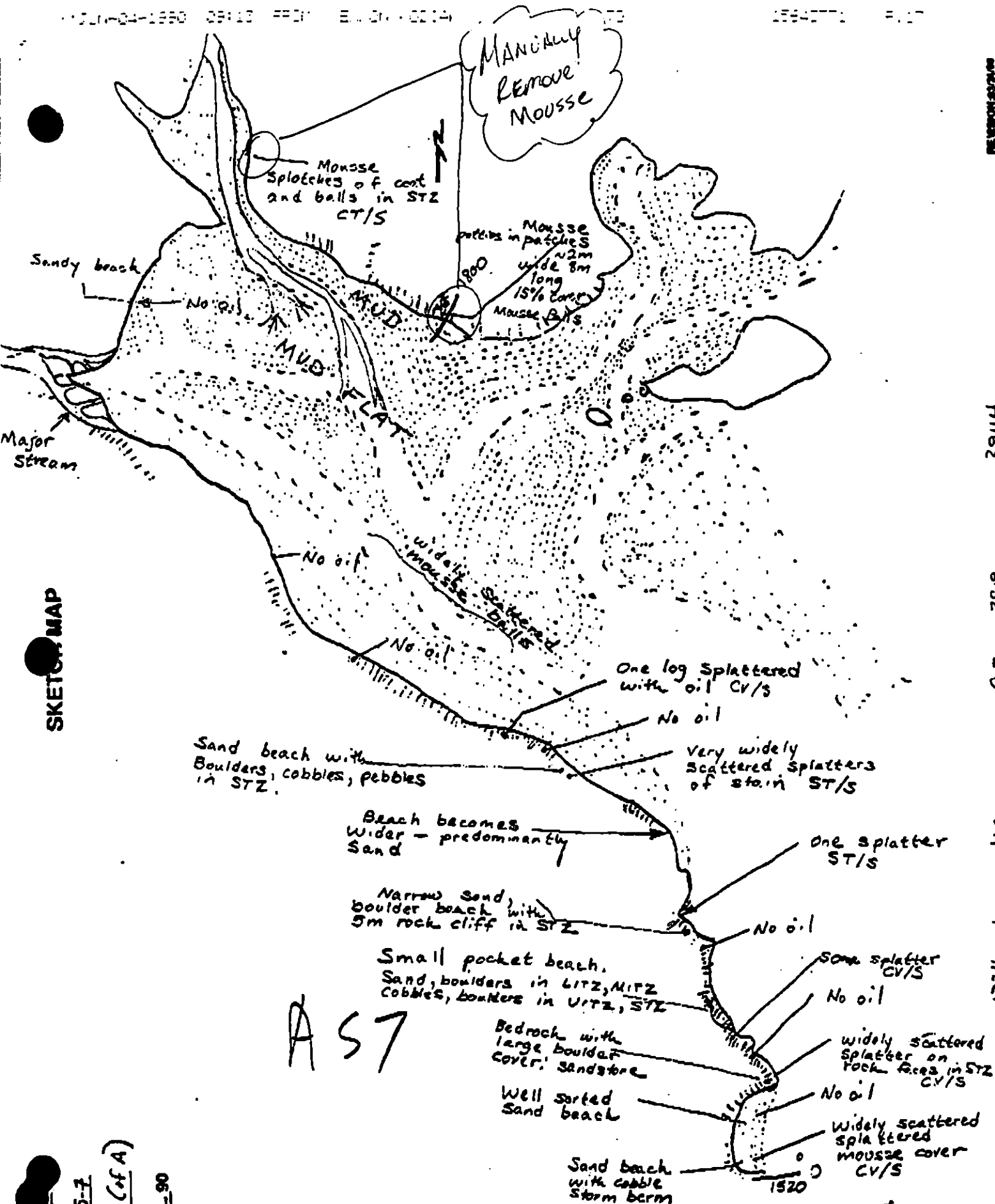
Attachment 2**U.S. Fish and Wildlife Service Shoreline Cleanup Disclaimer**

This comment sheet is based on current observations and is solely for the purpose of planning and scheduling of 1990 response treatment actions. It in no way implies that the State or Federal government will not in the future determine that further restoration or other treatment, or compensation is warranted regarding this area, or that the area is considered by the Federal or State government to be adequately 'clean' or 'restored' for the purpose of any claim which the State or Federal government has brought or may bring against Exxon, Incorporated or any other potentially responsible party.

REVISION NO. 03/22/99

REVIEWED BAT DATE 6 Jun 90

SKETCH MAP



R. Marty

AGENT ST/ AS-7

B DIVISION A (of A)

TE 1 June 90

LEGEND

- N Arrow
- Approx. Scale
- Seafloor Bathymetry
- Oil Dist.
- Width
- Length
- % Cover
- Substrate Character
- Est. HML/LWL
- SSL
- Profile Location(s)
- Profile(s)
- Pt Location(s)
- Photo Location(s)

LEGEND

- 1 A
- No Subsurface Oil

2 A

Subsurface Oil

CT/C

CT/B

Sea Distribution

CT/P

Long Distribution

CT/S

Small Distribution

Q.Q.Q.

Vegetation

No location, direction, number

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST/K10-02 Subdivision AS-007 Date (mo/day/yr) 6/1/90
Time (24 hr) 15:15 Biologist N. Davis

- (A) Substrate type and % of segments:
(1) Bedrock 5 (2) Boulder 5 (3) Cobble — (4) Pebble — (5) Sand 20 (6) Silt 70
- (B) Overall % cover of biota (% of segment): Dense 10% Moderate 10% Low 80% (20%)
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles/adults (X), new settlement (3)

Photographs:
Roll No. ST-20-14
Frames #2-4

BARNACLES Only in rocky areas. Density variable.

Dense			Moderate			Sparse			Rare		
1M	1L		1M	1L		1M	1L		1U	1M	1L
X	X	X	X	X	X	X	X	X	X	X	X
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
S, C

MYTILUS A very few dense patches.

Dense			Moderate			Sparse			Rare		
1M	1L		1M	1L		1U	1M	1L	1U	1M	1L
X	X	X	X	X	X	X	X	X	X	X	X
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
3, 4, 5, 6

GASTROPODS Littorina - Once-Sparse, limpets - Sparse, Nucella - Rare

Dense			Moderate			Sparse			Rare		
1M	1L		1U	1M	1L	1U	1M	1L	1U	1M	1L
X	X	X	X	X	X	X	X	X	X	X	X
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
6

FUCUS Patchy on rocky areas.

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
X	X	X	X	X	X	X	X	X	X	X	X
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
5, 6

Wildlife Observations/ General Comments: Mammals: 8-10 Curion (1 calf) in the uplands. 2 Bears in the brush near brush in the intertidal, and one Fox seen in the intertidal. Birds seen: Glaucous-winged gulls, Semi-palmated Plover, Yellow-legs (quail?), Surfscreeper, Sand piper(?) Eagle, Pintails, and 1 Raven in rocky areas. LTZ: Barnacles, limpets, Littorina, Porphyra, Fucus, Halosaccion and Amphipods. LTZ: Halosaccion, Ulva, Rhodomenia, Rhodomenia, limpets, Barnacles, Littorina, Amphipods, didotia, and mysidus. LTZ: mysidus, Barnacles, Littorina, limpets, amphipods, didotia, Alaria, Fucus, Rhodomenia and

Ecological Considerations: ST-1 No Eagle Nests were seen on the segment but nearby on a pinnacle in AS-006 there was a nest with 2 adult eagles. It was not on the list of Ecological Considerations but stream # 262-65-10040 was in AS007. Pinks, Chum, Land Dolly Varden spawn in the stream.

*Ulva. On the sand flats occasional rocks would have Barnacles, mysidus, limpets, littorina, Ulva, Scytosiphon, didotia and some Fucus. Phoronids, Clinocardium (shells), Macoma, Mya, Saxidomus (shells), and Siligun were also found out on the mudflats.

ROLL NO. ST-20-14 FROM 6/1/90 TO _____
TEAM NO. 20 PWS / KENAI / KODIAK / AK. PENINSULA

[illegible]

262-65-10040
Pinto Creek and Dolly Varden

Bluffs.

Mud Flat

Glaucous-winged
Gull Nesting Colony

Sand Flat

Bedrock, Boulders,
and Cobbles below
Rock Faces. Sand
in LTZ



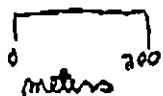
Ecology Map.

6/1/90

K10-02

AS-007

H. Davis



AS-7

inches x450 Normal

NO	8.25	3713	3944
VL	8.0	3600	3824
L	0.2	90	95
		7403	7863

10-3

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

K1602 - AS-7

ADEC Segment Length: 8032m

0 500 1000 1500

Map Key: AKP-AS-7a

Name: R. Marty

Date: June 01 1990

Not Entered

K10-



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

K1002 - AS-7

ADEC Segment Length: 8032m



Map Key: AKP-AS-7b

Name: R. Marty

Date: June 01 1990

SHORELINE EVALUATION

SEGMENT ST/ K01-02-SI-014 SUBDIVISION A (1 OF 1) DATE 5/26/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-1 All Bald Eagle nests (3/1 to 6/1)

Active Bald Eagle nests (3/1 to 9/1)

1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

SHPO SIGNATURE: Charles E. H. [Signature]

DATE: June 19, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 62 m: V.Light 1837m: No Oil 4233 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

 No Treatment Recommended

X Treatment Recommended

X Manual Pickup

 Bioremediation

 Tarmat Removal

 Snare/Absorbent Booms

 Oil Snares (pom poms)

 Absorbents (pads, rolls, etc)

 Spot Washing: Wands

 Beach Cleaner

 Other (see comments)

COMMENTS: Recommended treatment is manual removal of mousse and oiled debris as annotated on attached sketch map.

TAG COMMENTS:

TAG APPROVAL DATE: 6/16/90.

ADEC Ron McLean

EXXON Andy Tate

NOAA Joseph Talbot

USCG G.A. [Signature]

FOSC: [Signature]

DATE: 6-27-90

KODIAK ECOLOGICAL CONSTRAINTS

- 1A** Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 1C** Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D** Kotof Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H** Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I** Gill net area
1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
 East side Kodiak, East side Afognak (7/4 to 10/1)
1K Purse seine hook-off
1L Set net sites
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M** Herring spawning (4/15 to 6/30)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- 3N, 3P** Harbor seal and sea lion pupping (5/10 to 7/1)
3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31).
 Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R** Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S** Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2206
- 5T** All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U** Recreation: Tent sites (8/1 to 9/15)
6V Anchorages (8/1 to 9/15)
6W Forest Service cabins (8/1 to 9/15)
6X Lodge (8/1 to 9/15)
6Y Special use destination
- 7Z** Subsistence area: Salmon harvesting (8/1 to 9/30)
7HH Finfish harvesting
7I Deer harvesting (8/1 to 1/7)
7JJ Invertebrate harvesting
7KK Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1 K102 SI-14 SUBDIVISION: A DATE 5. 2/6 - 90

USCG

NAME STAN SHIELDS SIGNATURE Stan Shields

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

THIS SUBDIVISION HAS A CURTAIN BOOM AND PARTS OF POM POM BOOMS, SORBENT PADS, PLASTIC BAGS, AND SCATTERED PIECES OF POM POMS THAT WOULD WARRANT A SMALL CREW GOING THROUGH SUBDIVISION PICKING UP DEBRIS AND COULD PICK UP SMALL MOUSSE PATCHY AREAS ALSO.

ADEC

NAME Francine W. Bennis SIGNATURE Francine W. Bennis

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

RECOMMEND MANUAL PICK-UP OF CONSIDERABLE MOUSSE CAUGHT BETWEEN BOULDER/COBLES.

Also, clean-up crew should police the segment where walkable to collect clean-up debris (boom material, pom poms) that is scattered throughout area.

LAND MANAGER

NAME Ray Burger AONR SIGNATURE Ray Burger

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

Area being considered for addition to Shuyak Island State Park

- Landable beach + campsite found just southwest of "Pocket 1" on OG map
- Pocket 1 & 2 require manual pick-up
- While retrieving containment boom strung across channel to Big Fort Island, crew can collect "tar splat" from area of pit #7
- Though map shows no oil for most of southern half of segment, there are mousse & tar splat for ~200m north of

SHORELINE OILING SUMMARY

REVISION NO. 04-13-90

IG Mike Foget USCG Stan Shields SEGMENT ST/ K0102 / S1014
 IO Heather Davis LAND REP Ray Geroor DNR SUBDIVISION A (1 OF 1)
 XXON ADEC NIT / From Bennis TIME 7:30 10:12:00 / 12:00-000
 TEAM NO. 20 TIDE LEVEL -4.0 -4.0 / -4.0-2 DATE 5/29/90
 DIST. SUBDIVISION LENGTH: 6466 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 ISLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock steep rocky cliffs in the south. North is forested
 SURVEYED FROM: ☒ Foot ☐ Boat ☒ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 15 % B 40 % C 25 % P 10 % G 10 % S 0 % M 0 % V 0 %
 SLOPE: Long 30 % Hang 65 % Vert 5 % WAVE EXPOSURE: ☒ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 70 m VL 1831 m NO 5065 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	10	15	10	15	10	15	10	15	10	EU	U	M	U
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT			X	X		X				X			
MOUSE			X			X				X	X		
MOUSSE			X	X						X	X		
PATTIES													
TARBALLS				X		X					X		
FILM													
NO OIL											X	X	

PAVEMENT H F S sq. m by cm

PATTIES / TARBALLS 5 BAGS

NEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	X		
Vegetation			
Trash			
Debris	X		

DID YOU COLLECT DEBRIS?

YES ☒ NO ☐

TYPE Pen. Form

#BAGS 1

Photographs:

Roll No. ST-20-12/ST-20-13

Frames 31-38 / #1

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (Y/N)	T	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	10	15	10	15	10	EU	U	M	U				
1	25					X	.	X							X					-	-	P, C, S, C
2	40					X	.	X							X					-	-	C, P
3	30					X	.	X								X				-	-	P, G
4	30					X	.	X							X					-	-	P, S
5	25					X	.	X							X					-	-	P, G, M, S
6	30					X	.	X							X					-	-	P, G, M, S

COMMENTS

The southern end of the segment contains rocky headlands w/ Pocket Boulder / Rock beaches and a medium wave exposure. The mid and Northern part of the segment contains high angle B/C/P beaches with a low wave exposure. there is a rock outcrop which is

SKETCH MAP

Mc Foget

NTS 11 12-14

VISION A

5/24/80

QUEST

Oil

xx Scale

Sub Body

W

W

W

W

W

W

W

W

W

W

W

W

W

W

W

W

W

W

W

W

W

W

W

W

W

W

W

W

W

W

W

W

W

W

W

W

W

scale
0 500m

Legend

Boom

Stream

W - steep rocky back shore

Forest

Pickup Mousse/
SNARE BOOM

Plastic bag
of oil oiled
debris

Removed
Pom Pom

Pom Poms + Debris

tar splashes
observed in
the HITZ

several tar balls observed
HITZ on Cabbie

REMOVE
POM/POMS

Pickup TAR BALLS

Pickup
MOUSSE

2m x 50m CT/S
in Supra on
D/R

Pocket 1

2m x 40m CTIP with Mousse, located in
the supra in a rock channel between an
Island rock overcrop and a rocky headland

2m x 10m CT/S on D/R in the HITZ

0.2m x 10m ST/S on Rock in the supra ITZ

unsurveyed due to
inaccessibility by foot

1m x 10m CTIP w/ localized
mousse in the HITZ
Pocket #2
2m x 20m MS/P on
D/R in the HITZ
5m of
shore boom
1m x 1800m
CT/S on B/C
eagles' Nest
Stream
D12
D11
D37
D9
D10
D8
D7
D35, 36

clear Length (m): AP 0 PO 0 CV 0 CT 20 ST 10 MS 20 PT 0 TB 1 FL 0 NO 5065

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-FT)	BELOW		OIL / FILM COLOR							PIT ZONE				A N A	SHEEN (Y/N)	↓	SURFACE SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	VC	BR	BL	FW	GY	OR	PK	TL	SU	U	M	U				
7	35					X	.		X								X					-	-	P.G.M
8	25					X	.		X									X				-	-	P.F.C.S
9	30					X	.		X									X				-	-	G.S
10	30					X	.		X									X				-	-	G.S
11	25					X	.		X								X					-	-	G.S.C
12	20					X	.		X									X				-	-	G.S.C
							.																	
							.																	
							.																	
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							.																	
							.																	
							.																	

COMMENTS

between the Island and the shoreline, It is a 2m x 40m CT/P on Rock in the Supra ITZ. The northern end of the segment has a splattered distribution of Coat in the HITZ approximately 1800 meters long. Also in the northern section is some shade boom and Poms poms in the Supra. The very northern section has 2m x 20m MS/P and a 1m x 10m CT/P in the HITZ.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / KOI - 07 Subdivision SI - 14 Date (mo / day / yr) 5/24, 26/90

Time (24 hr) 7:15, 11:20 Biologist H. Davis

(A) Substrate type and % of segments:
(1) Bedrock 15 (2) Boulder 40 (3) Cobble 25 (4) Pebble 18 (5) Sand 0 (6) Silt 2

(B) Overall % cover of biota (% of segment): Dense 30% Moderate 35% Low 35% (50%)

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)
Photographs: Roll No. ST-20-12/ST-20-13
Frames 31-38, #1

BARNACLES Continuous along the segment. Dense-Sparse distribution.

Dense			Moderate			Sparse			Rare		
1M	1L		1U	1M	1L	1U	1M	1L	1U	1M	1L
X	X	2	X	X	2	X	X	X	2	2	2
X	X	3	X	X	3	X	X	X	3	3	3
X	X	4	X	X	4	X	X	X	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
5, 6

MYTILUS small, dense, patches on exposed areas. Wide sparse beds in protected area.

Dense			Moderate			Sparse			Rare		
1M	1L		1U	1M	1L	1U	1M	1L	1U	1M	1L
X	X	2	X	X	2	X	X	X	2	2	2
X	X	3	X	X	3	X	X	X	3	3	3
X	X	4	X	X	4	X	X	X	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
5, 6

GASTROPODS limpets - mod/Sparse, Littorina - Dense/Sparse, Urosalpinx - dense, patchy groups.

Dense			Moderate			Sparse			Rare		
1M	1L		1U	1M	1L	1U	1M	1L	1U	1M	1L
X	X	2	X	X	2	X	X	X	2	2	2
X	X	3	X	X	3	X	X	X	3	3	3
X	X	4	X	X	4	X	X	X	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
5, 6

FUCUS Patchy, Dense - Sparse

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
X	X	2	X	X	2	X	X	X	2	2	2
X	X	3	X	X	3	X	X	X	3	3	3
X	X	4	X	X	4	X	X	X	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
5, 6

Wildlife Observations/ General Comments: See Ecology Map for comments.

Ecological Considerations: ST-1. There was an Eagle nest in a tree above the cliffs.
See Map for location. Pink and Coho Salmon spawn in stream #251-82-10000

U.S. GEOLOGICAL SURVEY
 K01-02 SI-14
 5/24, 26/90
 H. Davis

Pink Coho
 Salmon
 # 281-82-10090

Fort Buford

Eagle
 Nest

The southern end of the segment contains rocky headlands with Boulder/Cobble pebble beaches. This area contained a lush algal cover and an extensive fauna. UTZ contained *Balanus glandula*, *Cerastoderma*, *Lithothamnion*, *Mytilus*, *Notosarmella persona*, *scutum*, *Callinectes digitatus*, *Littorina sitkana* - some scutella, *Nucula* sp., *Porphyra*, *Endocladia*, *Halophila* and some *Fucus*. MTZ dominant species were *Cladophora*, *Porphyra*, *Ulva*, *Enteromorpha*, *Fucus*, *Oenothera*, *Rhodomenia*, *Rhodomenia*, *Halosaccion*, *Gloiopeltis*, *Iridaea*, *Corallina*, *Ceramium mitra*, *Notosarmella* sp., *Laminaria*, *Tonicella*, *Katharina*, *Telia crassicornis*, *Anthopleura xanthogramma*, *ameletensis*, *Epiactis* (working?), *Spirorbis*, *Membranoptera*, *Nereis*, *Scaevola*, *Flatworms*, *Henricia*, *Leptasterias*, *Evasteria*, *Halichondria*, *Halichondria*? *pricklybacks* and *sculpins*. Dominant species in the LTZ: *Alaria*, *Piezophyllum*, *Laminaria*, *Halophyllum*, *Iridaea*, *Rhodomenia*, *Corallina*, *Ceramium mitra*, *Tonicella*, *Katharina*, *Mopalia*, *Halichondria*, *Anthopleura xanthogramma*, *ameletensis*, *Telia crassicornis*, *Proserpinaca acinaciformis*, *Pyrosomella helianthoides*, *Evasteria*, *Tanais*, *Eupentacta*, *Nucula lamellosa*, *Neptunaea* sp., *Scaevola*, *dina*, and *sculpins*.

The northern end of the segment is a more protected area with a high angle boulder/cobble/pebble beach over a silt/mud base. Both the flora and fauna in this area is reduced.

UTZ: Barnacles, limpets, littorines, small patches of *Mytilus*, *Porphyra*, *Endocladia*, and *Fucus*. MTZ: Barnacles, limpets, littorines, sparse beds of *Mytilus*, *Fucus*, *Gloiopeltis*, tuft of *Endocladia*, *Ulva*, and some

filamentous algae, diatoms, *Pagurus*, *Saxidomus*, *Protodroma*, *Clinocardium* (shells) and *Macoma*. LTZ *Fucus*, filamentous green algae, *Scytosiphon*, *Ulva*, *Henricia*, *Mytilus* (sparse beds), *Theraps*, *Saxidomus*, *Procladia*, *Clinocardium* (shells only), *Macoma*, *pricklybacks*, *Pagurus*, *Urechis*, and a few *Phoronids*.

Birds found in the area: 4 adult Eagles, Glaucous-winged gulls, Loons (sp?), Song sparrow, Varied Thrush, Pintails, Crows, Raven, Tufted Puffins.

Mammals: Deer tracks in UTZ, Bear scat, and Fox tracks.

* The camera is now taking pictures at random as well as the desired photos.

Control No.
(Office Use Only)

PHOTOGRAPHY LOG

ROLL NO. ST-20-12 FROM 5/20 TO 5/26/90
TEAM NO. 20 PWS / KENAI / KODIAK / AK. PENINSULA

FRAME NUMBER	PHOTO- GRAPHIC	DATE	TIME	LOCATION	TIME
-----------------	-------------------	------	------	----------	------

1	H. Davis	5/20/90	K9-21 KU 64	North end of the segment facing south View along seg.	5:10
2				Stain and mouse	5:30
3				View across oil band facing south	5:40
4				---	
5				---	
6				Tar and stain	6:00
7				Stain, mouse and black, sticky tar	6:00
8				---	
9				Coat + stain	6:15
10				---	
11				---	
12				---	
13				Coat and shiny black tar?	6:20
14				---	
15				---	
16				---	
17				Mouse, coat and splatter over large area UTZ	6:30
18				" " " " " "	6:40
19				" " " " " " View across oil	6:45
20				Pit #15 oil and mouse to 8 cm. UTZ	7:00
21				Mouse and coat splash zone w/ grass	7:30
22		5/21/90	K0909 (007)	Dead Eagle	16:45
23				" "	16:45
24				Oil and mouse in UTZ	17:00
25				View across oiled area	17:10
26				Pit #5	17:30
27				---	
28		5/22/90	K1008 AS004	View along the segment	5:40
29				Mouse, stain coat in crevice UTZ	6:30
30				" " " " " "	6:30
31		5/24/90	K01-01 ST-14	Coat in UTZ with spruce needles, skin	8:00
32				" " " " " "	8:10
33				View across oiled area of segment	8:15
34				View across stained, coated and mouse area	8:25
35				Boom and Fishin Net. Segment to Big Fort.	12:30
36				" " " " " " across channel	12:30
37		5/26/90		Oiled rocks in Bay, Pom Pom and coated Rock UTZ	11:40
38				Mouse in crevice w/ skin UTZ	12:15

↑
KOD
1726

SI-14

SI-15

10m ± T

10m ± T

KOD
172B →

XXXX Wide
//// Medium
---- Narrow

KØ1Ø2-SI-14

ADEC Segment Length: 6966m



Map Key: KOD-172a

Name: Mike Forget

Date: 5/24/90

NT

SI-13

KOD 172A



XXXX Wide
//// Medium
---- Narrow

K~~102~~ SI-14

ADEC Segment Length: 6966m

Map Key: KOD-172c
Name: Mike Foget

5/24/90

SHORELINE EVALUATION

SEGMENT ST/ K01-02-SI-015 SUBDIVISION A (1 OF 1) DATE 5/9/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5R Seabird colony (5/1 to 9/1)
5T-4 All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
4GG State Marine Park Alaska State Parks
900 Archaeological site
9BB Privately developed lands
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

SHPO SIGNATURE: Lachlan Dean Oam DATE: 5/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 144 m: No Oil 2058 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u>X</u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u> </u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 5/24/90
ADEC Art Weiler
EXXON Andy Earl
NOAA Paul Wescott
USCG W. J. Hall

FOSC: [Signature] DATE:

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.
AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 1C Salmon fry nursery area (4/31 to 7/31)
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Kotol Bay Hatchery release
Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
1J Purse seine area
Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
East side Kodiak, East side Afognak (7/4 to 10/1)
1K Purse seine hook-off
1L Set net sites
Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to uncolled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- 3P Harbor seal and sea lion pupping (5/10 to 7/1)
3Q Harbor seal and sea lion molting (8/15 to 9/15)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31).
Contact ADF&G and USFWS prior to treatment for confirmation.
AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
ADF&G Tom Roth 267-2208
- 5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (6/1 to 9/15)
6V Anchorages (6/1 to 9/15)
6W Forest Service cabins (6/1 to 9/15)
6X Lodge (6/1 to 9/15)
6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (6/1 to 9/30)
7H Finfish harvesting
7I Bear harvesting (6/1 to 1/7)
7J Invertebrate harvesting
7K Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K01-02-SI 015 SUBDIVISION: A DATE 5/9/90

NOAA
USGS

NAME STEPHEN LEHMAN SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

The east-northeast section of the segment/subdivision has some of the most biologically active intertidal areas I've seen. Large populations of mussels. Although there is some limited recoverable oil in this area, I recommend it not be treated. However, lagoon in the center of the segment subdivision has some mud patterns that could be recovered.

ADEC

NAME Terry Ellsworth SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

The oil in this segment is located along the northeast portion of the segment and on adjacent to the pebble beach. Oiling is primarily cover, coat, and stain with very little recoverable mousse. No treatment is recommended.

LAND MANAGER

NAME Mike Goodwin SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

This subdivision of this segment on Big Foot Island contained very small patches of mousse, some coat and some stain that is considered not worth treating due to environmental sensitivities such as eagle nesting sites that are active and shorebird populations in the immediate area. This segment could be included into Shuyak State Park if proposals are legislated into law in the near future.

SHORELINE OILING SUMMARY

REVISION NO. 04/12/90

OG OG HEYMAN NOAA S. LEHMANN SEGMENT ST/ K010251015
 BIO 2 SHARMAN LAND REP M. GOODRICH SUBDIVISION A (1 OF 2)
 EXXON F BYARS ADEC T. ELLSWORTH TIME 10:50 to 13:00
 TEAM NO. 19 TIDE LEVEL +4 to +5 1/2 DATE 5 / 9 / 90
 EST. SUBDIVISION LENGTH: 2150 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: NE to SW
 SURFACE SEDIMENTS: R 25 % B 30 % C 30 % P 8 % G 2 % S 0 % M 0 % V 0 %
 SLOPE: Long 40 % Hang 60 % Vert 10 % WAVE EXPOSURE: ☐ Low ☒ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 66 m NO 2084 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	C	B	P	S	SP	BP	CP	GP	LP	SU	U	M	U
ASPHALT PAVEMENT													
POOLED				X		X					X		
COVER				X		X					X	X	
COAT				X		X					X	X	
STAIN				X		X					X	X	
MOUSSE				X				X			X		
PATTIES				X		X					X		
TARBALLS													
FILM													
NO OIL												X	X

PAVEMENT H F S 0 sq. m by 0 cmPATTIES / TARBALLS 3 BAGSNEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE ---#BAGS ---

Photographs:

Roll No. ST-19(II)Frames 3 & 4

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (Y/N)	↓	SURFACE - SUBSURFACE SEDIMENTS
		CP	CR	CL	CF	NO		VO	UC	SP	BP	CP	GP	LP	SU	U	M	U				
1	19					X	0-0		X						X				N	-	-	P-C/PGC
2	15					X	0-0		X						X				N	-	-	G/GR
3	20					X	0-0		X						X				N	-	-	G/GP
4	20					X	0-0		X						X				N	-	-	P/GC
5	25					X	0-0		X						X				N	-	-	P/PG
6	25					X	0-0		X						X				N	-	-	P/GP-C
7	25					X	0-0		X						X				N	-	-	P/PG

COMMENTS

This segment lies along the southern shore of Big Port Isl.
 The segment consists of 2 NW-SE trending peninsulas separated by a pebble beach. The E shore of the eastern peninsula consists of bedrock cliffs above narrow boulder / bedrock point formations. Oiling was observed only in protected pockets or as splatters / drips on rock faces. CV consistently contained embedded spruce needles. (Continued)

REVIEWED BAT DATE 17 MAY 90

OG Comments. K 0102 SI 015 A OG HEYMAN 5-9-90
(concluded)

Two narrow bands of oiling were observed in the subdivision, one on either side of the low angle pebble beach. To the east, a 1×10 m band of "mouse patties" with splatters of ST, CT & CV were observed. The patties were $< 1'$ in diameter & had DBL exteriors w/ soft shiny dark brown interiors. The ST, CT & CV splatters were < 2 cm in diameter. The CV was thicker due to the embedded spruce needles only. Total area of oiling in the band was 1-2%.

To the west, a 3×15 m band of "interstitial mouse" bound pebbles in the interstices of boulders. ST & CT/s were also observed as splatters. Total area of oiling was about 2% within the band.

OGG, HEAN

SEGMENT ST/KOL02 SI 015

SUBDIVISION A

DATE 5/9/90

CHECKLIST

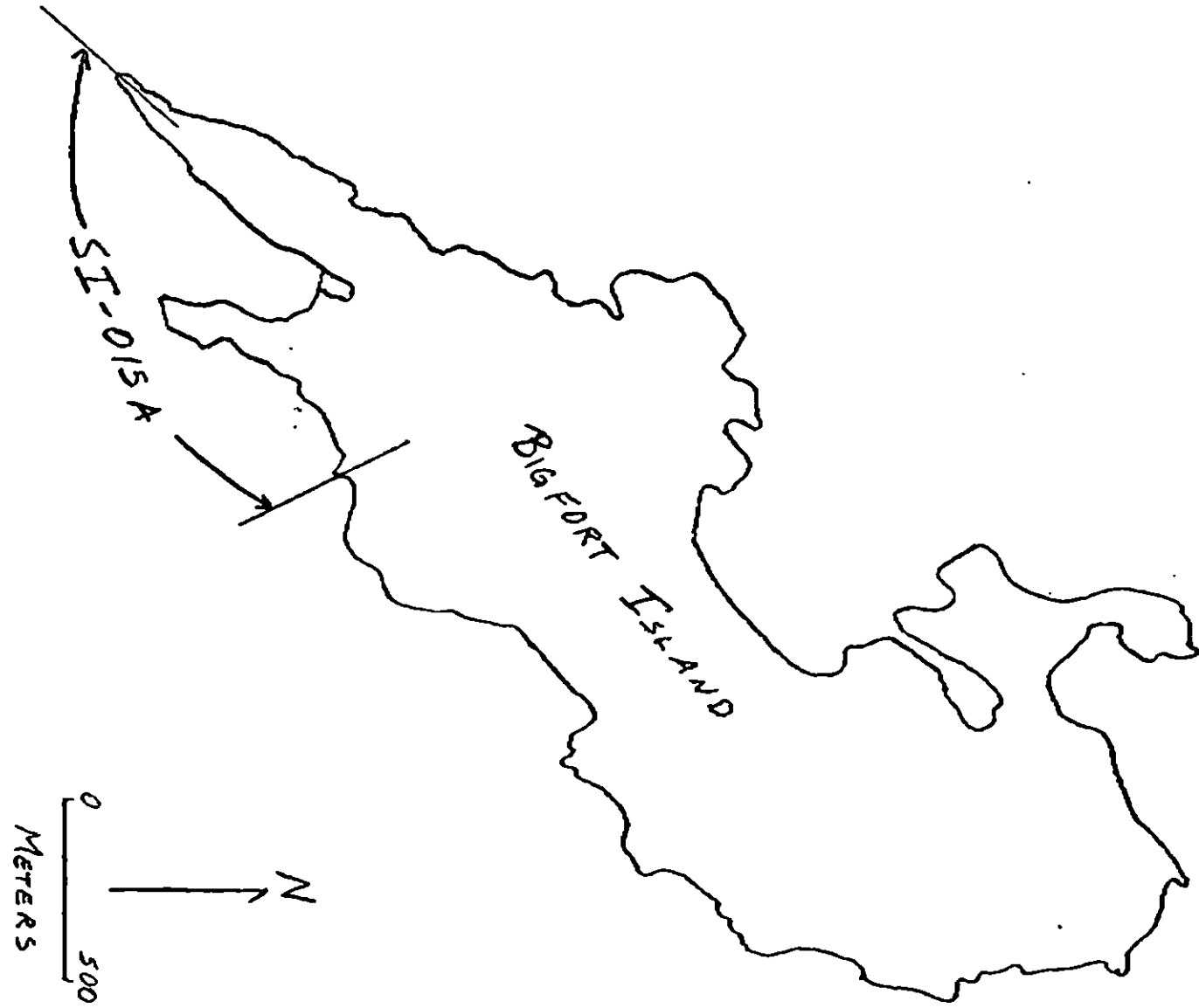
- ___ N Arrow
- ___ Approx. Scale
- ___ Seg/Sub Bndry
- ___ Oil Dist.
- ___ Width
- ___ Length
- ___ % Cover
- ___ Substrate Character
- ___ Est. HW/LWL
- ___ SSL
- ___ Profile Location(s)
- ___ Profile(s)
- ___ Pit Location(s)
- ___ Photo Location(s)

LEGEND

- 1 ▲
Pit - No Subsurface Oil
- 2 ▲
Pit - Subsurface Oil
- CT/C
Concentric Distribution
- CT/B
Broken Distribution
- CT/P
Patchy Distribution
- CT/S
Splashed Distribution
- Oiled Vegetation
- 1 ➔
Photo location, direction, and number

SKETCH MAP

LOCATION



Oil Character Length (m): AP _____ PO _____ CV _____ CT _____ ST _____ MS _____ PT _____ TB _____ FL _____ NO _____

REVISION 03/24/90

OG 0.6 MAN

SEARCH MAP

SEGMENT ST/ K 01 02 SI 015

SUBDIVISION A

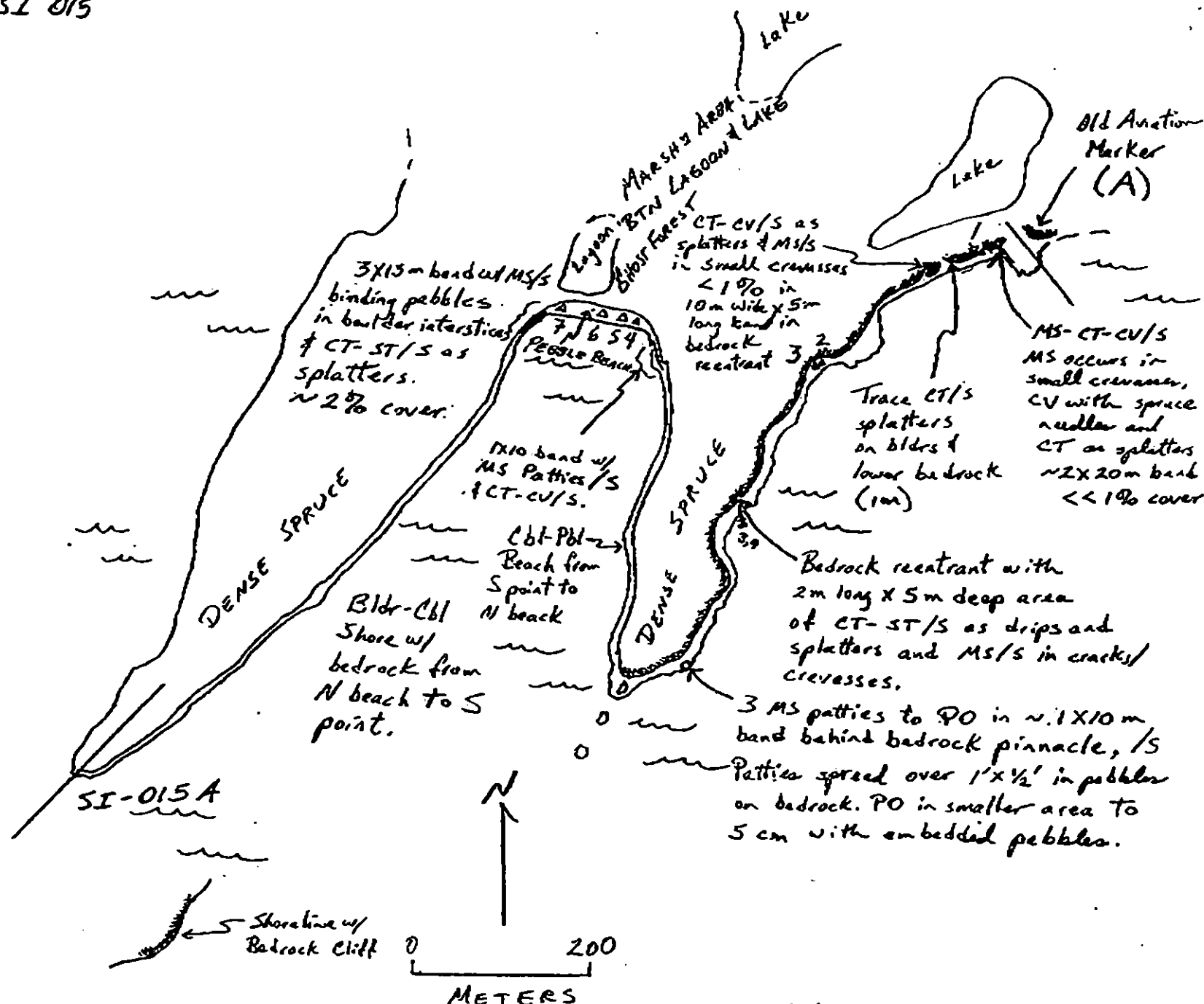
DATE 3 1 9/90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Bndry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HWA/VL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Photo Location(s)
- ☐ Photo Location(s)

LEGEND

- 1 Δ
- Pit - No Subsurface Oil
- 2 Δ
- Pit - Subsurface Oil
- CT/C
- Continuous Distribution
- CT/B
- Broken Distribution
- CT/P
- Patchy Distribution
- CT/S
- Splashed Distribution
- Oiled Vegetation
- 1 $\rightarrow$
- Photo location, direction, and number



Oil Character Length (m): AP — PO 1 CV 12 CT 16 ST 15 MS 10 PT 12 TB — FL — NO 2084

REVISION: 02/24/90

Segment ST / SI-15 Subdivision A Date (mo / day / yr) 5/9/90

Time (24 hr) 1050-1300 Biologist SHARMAN

(A) Substrate type and % of segments: SUBDIV.
 (1) Bedrock 25 (2) Boulder 30 (3) Cobble 30 (4) Pebble 8 (5) Sand 2 (6) Silt granules

(B) Overall % cover of biota (% of segment): Dense Moderate X Low
SUBDIV.

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs: Roll No. ST-19 (III) - 1

Frames 3, 4

BARNACLES

Dense			Moderate			Sparse			Rare			NOT PRESENT
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	2	2	2	2	2	
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

MYTILUS

Dense			Moderate			Sparse			Rare			NOT PRESENT
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	2	2	2	2	2	
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

GASTROPODS (ANCELA, LITTORINA, LIMAEAE)

Dense			Moderate			Sparse			Rare			NOT PRESENT
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	2	2	2	2	2	
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

FUCUS

Dense			Moderate			Sparse			Rare			NOT PRESENT
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	2	2	2	2	2	
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

Wildlife Observations/ General Comments: 4 juvenile eagles, 2 adult eagles tending an active nest (see Ecol. Considerations below), 2 crows, 2 magpies, ~ 30 glaucous-winged gulls (incl. 20 on offshore rocks - see Ecol. Considerations below), 1 pair black guillemots, 2 cormorants, 1 red-breasted merganser, 2 cormorants, 3 fox sparrows active in intertidal zone, song sparrows + hermit/variable thrushes singing in forest. (cont.)

Ecological Considerations:

Please see attached Eco. Map. 1 active eagle nest observed with one adult incubating and one nearby. There may be additional nests within the subdivision. There is an active glaucous-winged gull colony on the offshore rocks near the S. end of the subdivision - probably other seabirds are/will be nesting there soon (guillemots, cormorants, puffins). This is an exceedingly productive and diverse coast, both marine + terrestrial. Certainly the active eagle nest should not be disturbed. The very rich intertidal zone at the N. end of the subdivision is on low-angle bedrock platform that are very easily impacted by trampling.

Shannon
3/9/90General Comments (cont.):

Pebble/gravel beach (see map) is backed by drowned forest (probably '64 earthquake subsidence). Deer tracks + scat in supra-/UTZ. Brown bear & fox tracks in supra-/UTZ. Red squirrels in forest. 1 river otter swimming and 1 river otter on beach. This subdivision has a generally very thick & healthy intertidal zone. The mid and upper zones have quite satisfactory Fucus coverage with locally excellent sporadic recruitment near established adult concentrations; the same is true for mussels. There is excellent barnacle spat/cyprid set, very dense even on pebbles. Locally there are extremely dense concentrations of MTE littorines, in depressions filled with littorines to a depth of 10 cm. Littorines appear to be recruiting very successfully. Extremely diverse LTZ tidepools include: Odonthalia, Rhodonella, Lithothamnium, foliose corallines, Pilota, Alaria, Laminaria, very abundant Katharina, Tonicella, Tecalia, very abundant Epistia, Anthopleura (all 3 spp.), limpets, littorines, Margarita, Smilbalanus carinatus, Pagurus, tidepool sculpins, Tectaria (under rocks), etc. Other LTZ species, many found beneath boulders, include priaculobachia, Modiolus, Halosassa, Helicodonta, Helicidonta, often large & with egg masses. Idotea, Sargassum, nemertean, Enteromorpha, unidentified red foliose algae, Sargassum, Spirorbis (in pools), one Pyrosopodia, green filamentous algae (Acrosiphonia?), and finely dissected red algae (Polydora/Polydora?). The MTE includes abundant Odonthalia, Fucus, Gelidium, Scythosiphon. Nucella is occasional in the MTE. We observed 2 Ligia on UTZ fractured bedrock, and an unidentified dark encrusting alga (Rafinesquina/Petrochorda?) was quite common UTZ-MTE. Not surprisingly, the pebble/gravel beach is quite depauperate.

ECOLOGY MAP

SI-15

(1 of 1)

(Page 3 of 3)

ST - Eagle nests. Subdivision "A"

Seabird colony.

900 - Archaeological site.

9BB - Privately developed lands. } Not in this subdivision.

SI-14

USFWS documented eagle nests.

▲ = presently active
△ = not observed on this survey.

Gravel/gravel beach
bordered by drowned
forest.

SI-15

K1

USFWS documented
eagle nest on pt.
Not observed on this survey.

Subdivision "A"

USFWS documented
seabird colony. Not
observed on this survey.

Noting glaucous-winged
gulls at this time.

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

OOOO No Oil

SI-15

ADEC Segment Length: 13200m

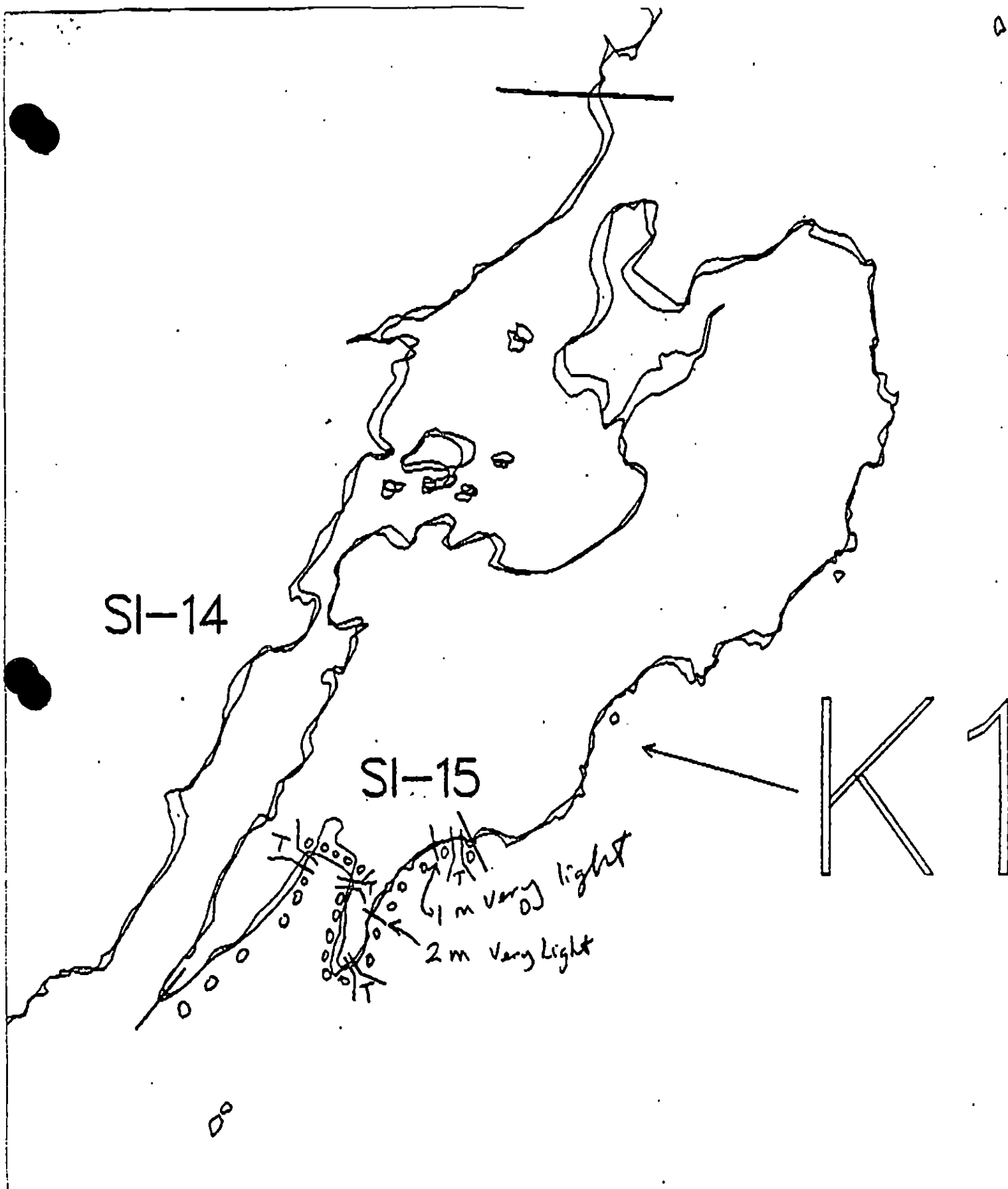


Map Key: KOD-173

Name: _____

Date: _____

Data Entered: _____



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

KØ1Ø2-SI-15A

ADEC Segment Length: 13200m



Map Key: K00-173

Name: DG Heyman

Date: 5-9-90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ K01-02-SI-015 SUBDIVISION B (2 OF 3) DATE 5/20/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5R Seabird colony (5/1 to 9/1) in Subdivision A
5T-2 All Bald Eagle nests (3/1 to 6/1) in Subdivision A
Active Bald Eagle nests (3/1 to 9/1)
900 Archaeological Site Registered in Segment
4GG State Marine Park Alaska State Parks
9BB Privately developed lands

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate.

SHPO SIGNATURE: Rachel D. Dorn DATE: 6/1/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V. Light 179 m: No Oil 3724 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u> </u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u>X</u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u>X</u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

+ TARPATTIES

COMMENTS: Recommend treatment is manual pick up of mousse, and boom as
indicated by sketch map. Work after 6/1 with approval of USFWS due to
Eagle Nest constraint in adjacent subdivision (A) and ADF&G regarding
Sea bird Colony in adjacent Subdivision A.

TAG COMMENTS: _____

ROVAL DATE: 5/31/90

RT WEINER Ant Weiner

Paul Taylor

John Talbot

A. BEITER

FOSC: Myk

DATE: 6-8-90

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 1C Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Kotol Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
 East side Kodiak, East side Afognak (7/4 to 10/1)
 1K Purse seine hook-off
 1L Set net sites
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- Harbor seal and sea lion pupping (5/10 to 7/1)
 Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31).
 Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (8/1 to 9/15)
 6V Anchorages (8/1 to 9/15)
 6W Forest Service cabins (8/1 to 9/15)
 6X Lodge (8/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (8/1 to 9/30)
 | Finfish harvesting
 | Deer harvesting (8/1 to 1/7)
 | Invertebrate harvesting
 7KX Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ K0102 SI-15 SUBDIVISION: B DATE May 20/90

USCG

NAME

D. Haven Jr, 6M3 USCGR

SIGNATURE

[Signature]

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

These areas of recoverable mousse are next to impossible to find, so I would also recommend that an experienced monitor accompany cleanup crew w/ SSAT map.

ADEC

NAME

Terry Ellsworth

SIGNATURE

[Signature]

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Occasional splatters of coat or patties are found in the south half of this segment. Recoverable mousse occurs ~ 1000 meters north of the south segment boundary in a 10x3 meter area. Manual removal by a 2 or 3 person team is recommended if a crew is in the Androm Bay - Big Fort Island area.

LAND MANAGER

NAME

Mike Bodine/ADNR

SIGNATURE

[Signature]

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

This subdivision contains uplands and tidelands MANAGED by DNR/DLWM. IT contains AN occupied state Mineral lease with numerous buildings at site. This subdivision has been ~~ed~~ and A reference made TO AN Archeological ~~activity~~ identified by D.W. Clark in 1956. Nothing was observed ~~for~~ this regard by SSAT during this Assessment. W Active eagle nest should be noted immediately adjacent to the west of the end of this subdivision on Highway Island & Approximate distance of 250M Across Big FT. Channel.

FIRLD SHORELINE COMMENT SHEET

Land Manager Comment, (Con't.)

This subdivision has high recreational value based on its accessibility and protected waterway. Future land trade negotiations of this area may result in establishing it as part of Shuyak Island State Park.

This subdivision contains scattered patches of mousse identified as a 10m x 3m band that requires treatment by a small 2 to 3 person crew using hand removal techniques.

SHORELINE OILING SUMMARY

REVISION NO 04 12 90

OGL San Juan Sound USCG Don Juan SEGMENT ST/ K102-S3-15
San Juan Sound LAND REP M.K. Thompson/ABP SUBDIVISION B (OF 1)
 XON --- ADEC San Juan Sound TIME 13:10:55
 TEAM NO. --- TIDE LEVEL 2' + 6' DATE May 12 1990
 EST. SUBDIVISION LENGTH: 3.960 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 10 % B 10 % C 20 % P 40 % G 10 % S 5 % M 5 % V 2 %
 SLOPE: Long 80 % Hang 2 % Vert 20 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 2 m M 2 m N 2 m VL 30 m NO 30 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	C	N	P	S	1	2	3	4	SU	U	M	U
ASPHALT PAVEMENT												
POOLED												
COVER												
COAT				X	X				X			
STAIN												
MOUSSE		X	X					X	X			
PATTIES			X		X				X			
TARBALLS												
FILM												
NO OIL									X		X	X

 PAVEMENT H F S (NO) sq. m by --- cm

 PATTIES / TARBALLS 90 BAGS

 NEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS <u>No</u>	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

 YES ☐ NO ☒

 TYPE ---

 #BAGS ---

Photographs:

 Roll No. ---

 Frames ---

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	SHEEN (Y/N)	▽	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	US	1	2	3	4	SU	U	M	U				
1	30					X	0-0		X						X						Pb
2	30					X	0-0		X							X					Pb
3	30					X	0-0		X								X				Pb
							.														
							.														
							.														

COMMENTS

 REVIEWED BAT DATE 24 May 90

K102-SI-15-B, Big Fort Island, May 20, 1990

Subdivision B of segment KI-102-SI-15 makes up the west shore of Big Fort Island located next to southeastern Shuyak Island. This 3.96 km long subdivision is exposed to a very low fetch in a direction perpendicular to the coast; it can nevertheless receive swell wave travelling parallel to it along the east coast of Shuyak Island. The subdivision was walked on May 20, 1990, between 1731h and 2055h and corresponding 2.0' to 6' tide level.

From south to north, the subdivision begins with a section of talus of angular boulders seaward of low bedrock cliffs. A few coats of splatters and one mousse patty were found in the upper intertidal zone of this area. To the north, the shoreline widens, becomes less steep, and gives way to a beach of subrounded pebbles and cobbles with a few coats of splatters in the upper intertidal zone. An area approximately 10 m long by 3 m wide of patchy mousse with 50% coverage and maximum thickness of 1 cm occurs on the southern part of this pebble/cobble beach along with 3 small patties; and 6 small mousse patties were found on the northern part of the beach.

Further north, the channel between Big Fort Island and the adjacent coast of Shuyak Island narrows considerably before forming a large cove to the east. Near the narrow part of the channel, the shoreline is made up of angular pebble/cobble/boulders and grades into a talus of angular boulders around the low cliffs leading to the large cove. No oil was found in this area but a boom is present across the narrow part of the channel.

A large bay with a beach of angular shaly pebble/gravel/cobble devoid of oil leads to a deep, narrow and shallow northeasterly trending embayment that cuts across almost all of the northwestern part of the island. This last embayment has a shore made up of angular pebbles and cobbles in the upper intertidal zone and sand/pebble and mud in the lower intertidal zone.

No oil was found in this area.

OG Head of Segment
 SEGMENT SI 102 - SI 15

SUBDIVISION B

DATE May 1, 21 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Segment Boundary
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HAWAII
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pit Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ
 Pit - No Subsurface Oil

2 Δ
 Pit - Subsurface Oil

CT/C
 Continuous Distribution

CT/B
 Broken Distribution

CT/P
 Patchy Distribution

CT/S
 Splashed Distribution

Oil Vegetation

1 $\Rightarrow$
 Photo location, direction, and number

SKETCH MAP

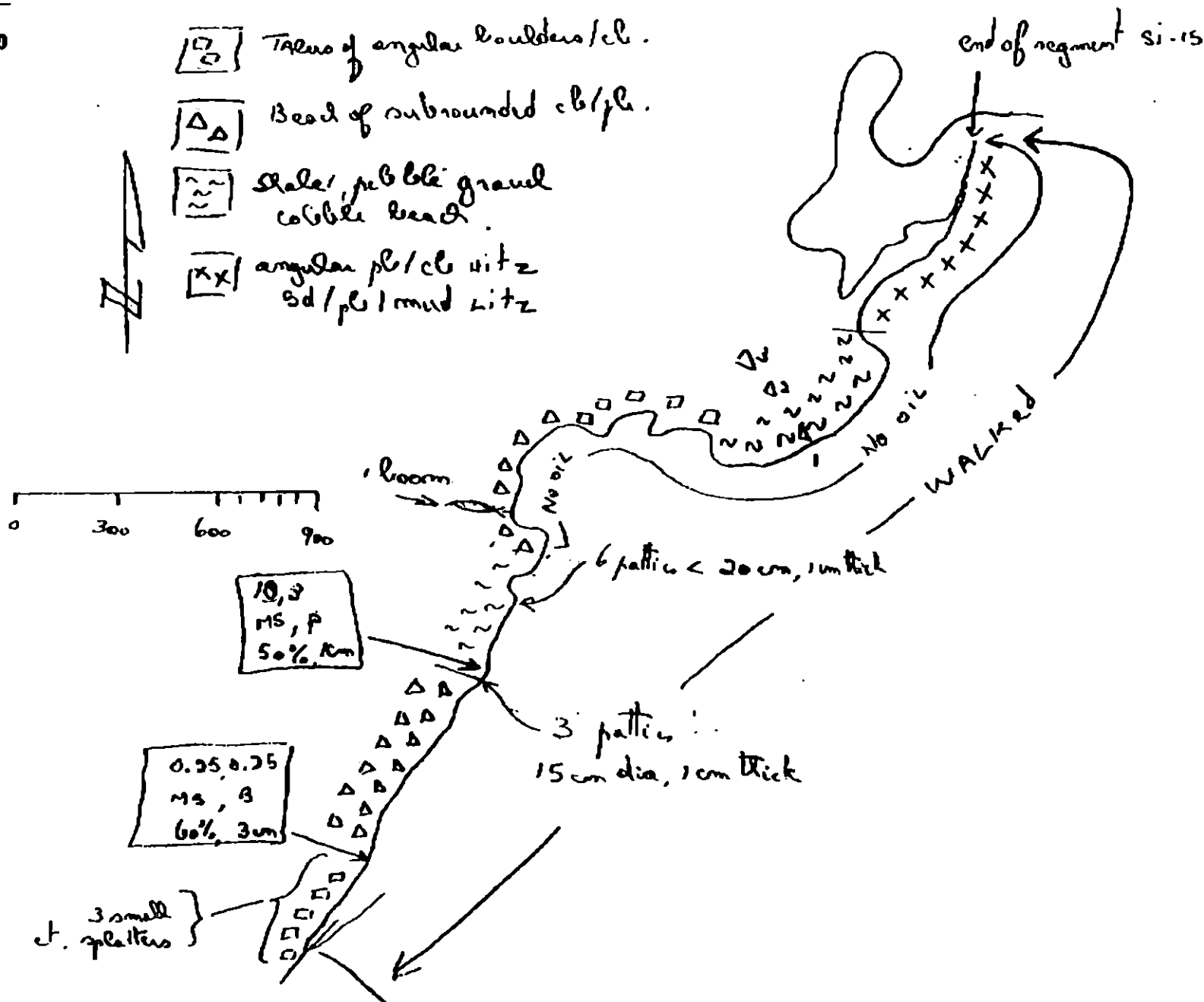
Legend

$\square$ Talus of angular boulders/cl.

Δ Beach of subrounded cl/pl.

$\sim$ Shale, pebbly gravel
 cobble beach

$\times$ angular pl/cl with
 sd/pl/mud with



Oil Character Length (m): AP 4 PO 4 CV 4 CT 4 ST 4 MS 10, 25 PT 30 TB 4 FL 4 NO 393

OG Hand Scrap

SEGMENT S-102-Si-15

SUBDIVISION B

DATE 7/21/90

CHECKLIST

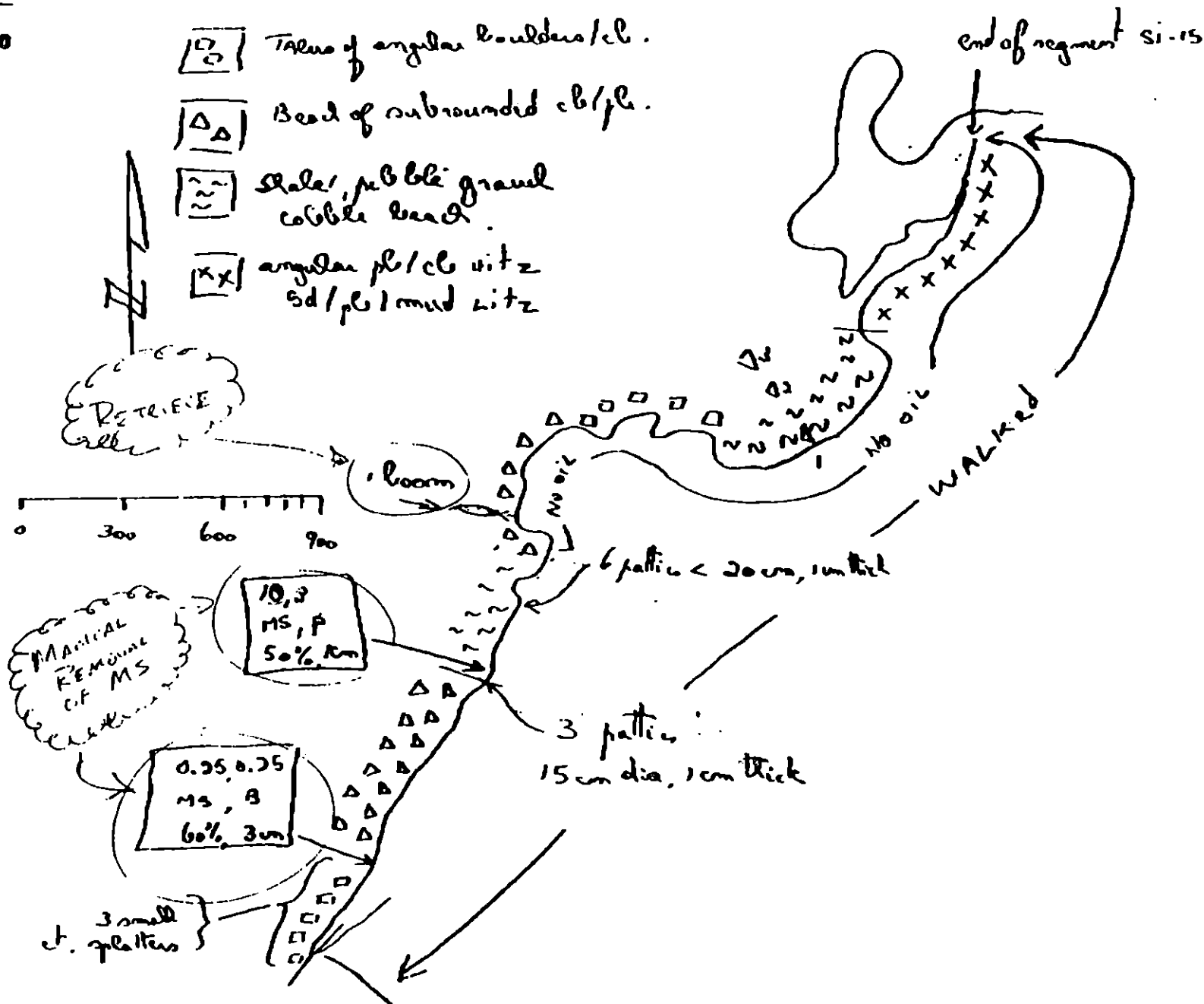
- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Unit
- ☐ Width
- ☐ Length
- ☐ % Cont.
- ☐ Substrate Character
- ☐ Est. HAP/L/VOL
- ☐ SSIL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PH Location(s)
- ☐ Photo Location(s)

LEGEND

- ☐ Δ
- PH - No Subsurface Oil
- ☐ Δ
- PH - Subsurface Oil
- ☐ CT/C
- Central Distribution
- ☐ CT/B
- Broken Distribution
- ☐ CT/P
- Patchy Distribution
- ☐ CT/S
- Splashed Distribution
- ☐ eee
- Oil Vegetation
- ☐ $\circ$
- Photo location, direction, and number

Legend

- ☐ $\square$ Talus of angular boulders/cb.
- ☐ Δ Beach of subrounded cb/pl.
- ☐ $\sim$ Shale, pebbly gravel cobble beach.
- ☐ $\times$ angular pl/cb w/iz sd/pl/mud w/iz



Oil Character Length (m): AP ϕ PO ϕ CV ϕ CT ϕ ST ϕ MS 10/15 PT 30 TB ϕ FL ϕ NO 3930

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST/K1-2/ST-15 Subdivision B Date (mo / day / yr) 5-20-90
 Time (24 hr) 17:30 Biologist David White

- (A) Substrate type and % of segments:
 (1) Bedrock 10 (2) Boulder 10 (3) Cobble 20 (4) Pebble 40 (5) Sand 15 (6) Silt 5
- (B) Overall % cover of biota (% of segment): Dense 15 Moderate 30 Low 55
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)
- Photographs: _____
 Roll No. _____
 Frames _____

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

GASTROPODS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments:

See page 2

Ecological Considerations:

2 mature bald eagles observed in area. However, no nests were sited in Subdivision

SR

78B

100

Shoreline Ecological Summary

Zotz

ST/K1-2/SI-15 Subdivision B

5-20-90

Biologist: David Weber

Wildlife Observations/General Comments

present in low intertidal: Alaria, Halosauia, Rhodomencia, Tridacna, Ulva, Cladophora, Leptasterias, Unknown bryozoa, Scytosiphon

mid intertidal: Ulva, Scytosiphon, Pagurus, coralline algae, sculpins, Endoceras, unknown filamentous red algae (Dasya?), Ralbia, Tridacna, Cladophora, Rhodomencia, Rhodomela, Halosauia, Desmarestia, Gelidium (?), Gloiopeltis, Orchestoidea (under cobble)

- 1. No bedrock was exposed in low intertidal during ~~the~~ survey.
- 2. apt for southwest tip of the island (beginning of subdivision) most of subdivision consisted of pebble/cobble beaches with occasional boulder/bedrock headlands. Southwest tip was primarily boulders. Most of the above species listed above were found on boulders and bedrock.
- 3. One land otter spotted in area
- 4. One stream located in subdivision (see ecology map for location). No information available on whether or not it is anadromous. No oil observed.
- 5. Littorine eggs found in low intertidal on Fuus and underneath high intertidal cobble
- 6. Algal cover on low intertidal boulders was high, reaching 100%. In mid-intertidal algal cover on boulders reached ~75%.
- 7. Skeletal remains of one deer found above high tide line. No oil observed
- 8. mussels, mussel, and Fuus recruitment were all patchy.

Recruitment and Mortality Summary

Segment ST/K1-2/SI-15

Subdivision B

5-20-90

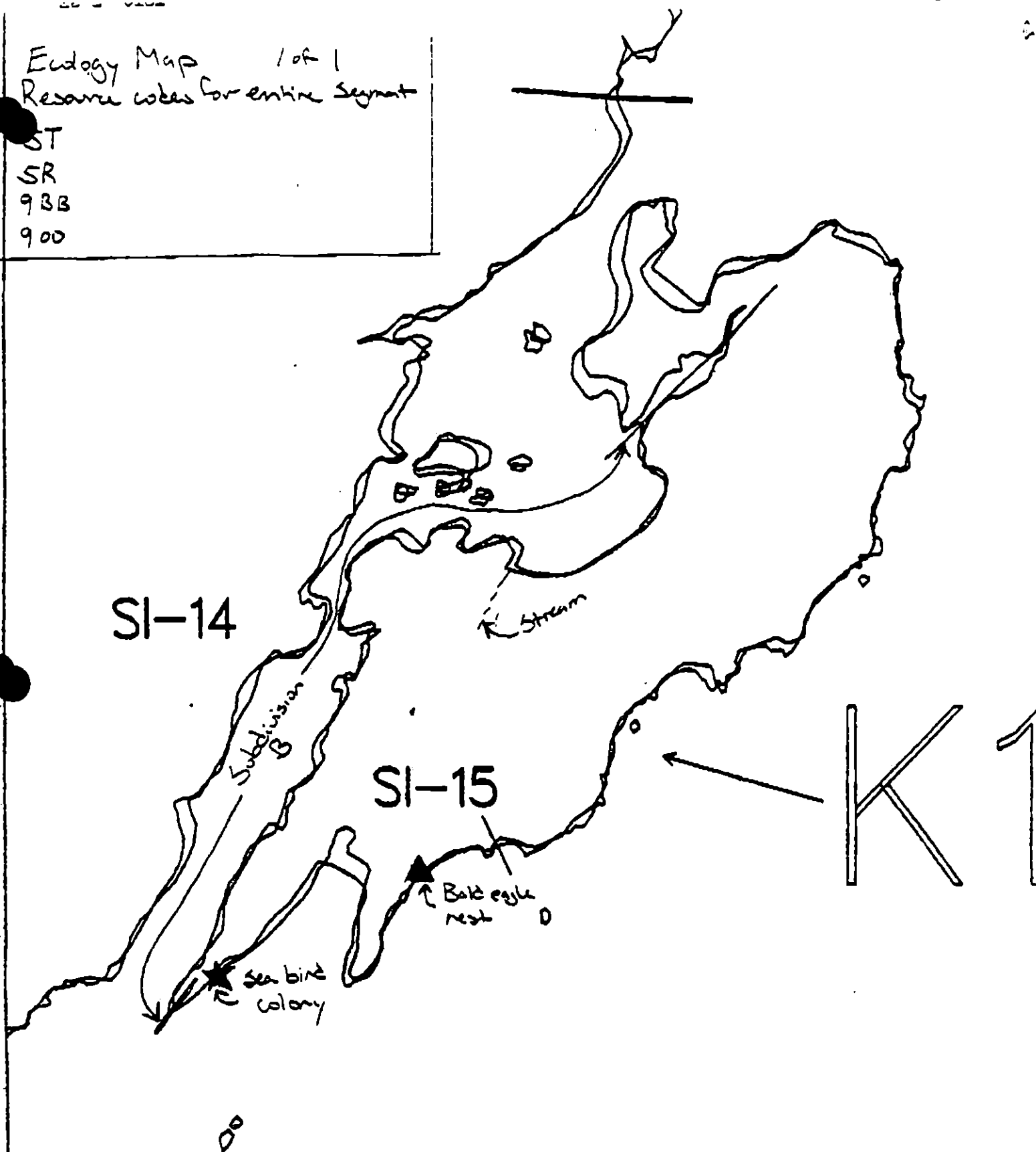
Biologist: David Lohse

Recruitment of barnacles, mussels, and Fuus was patchy

Barnacle mortality in mid intertidal was ~10% on bedrock (2 sites observed), and ~15% on boulders (1 site surveyed). In high intertidal barnacle mortality ranged from 10-75% (2 sites surveyed).

Ecology Map 1 of 1
Reserve codes for entire Segment

ST
SR
93B
900



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Data

K0102 - SI-15

ADEC Segment Length: 13200m

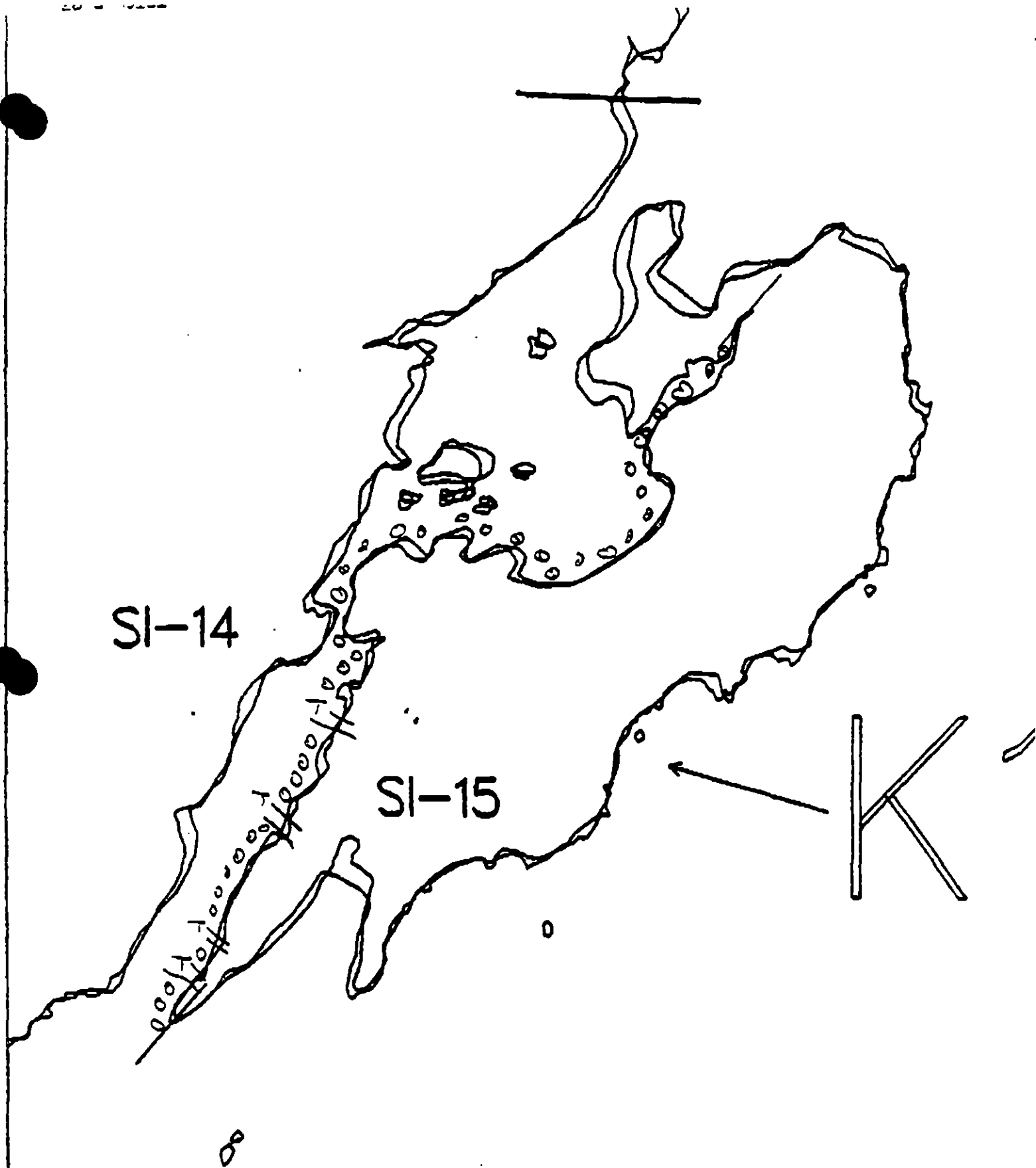
0 500 1000 1500

Map Key: K00-173

Name: Seaside

Date: _____

Data Entered: _____



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

K0142 - SI-15-a

ADEC Segment Length: 13200m

Map Key: KOD-173

Name: John M. S. S.

Date: May 22/95

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K01-02-SI-015 SUBDIVISION B (2 of 3)

WORK WINDOW

Manual Pickup
More Than 800m From Seabird Colony

**CLOSED DUE TO
ACCESS PROBLEM**

Manual Pickup
Less Than 800m From Seabird Colony

CLOSED

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5R Seabird Colony

Closed to manual pickup less than 800m from seabird colony. No constraint to manual pickup more than 800m from seabird colony, however, access to worksite denied by Mike Lockhart 6/3/90 due to eagle nest and seabird colony buffer zones.

5T Bald Eagle Nest

USFWS 4/9/90 map indicates an active nest in Subdivision B. Closed to manual pickup within 400m of active nest. No constraint to manual pickup more than 400m from active nest.

OTHER ECOLOGICAL CONSIDERATIONS

If eagle nest and/or seabird constraint is removed, other ecological considerations will apply.

FOSC

[Signature]

Date

6-16-90

Prepared by

[Signature]

Date

6/15/90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K01-02-SI-015 SUBDIVISION B (2 of 3)

WORK WINDOW		
Delete	Manual Pickup More Than 800m From Seabird Colony	CLOSED DUE TO ACCESS PROBLEM
	Manual Pickup Less Than 800m From Seabird Colony	CLOSED

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

- | | | |
|----|-----------------|--|
| 5R | Seabird Colony | Closed to manual pickup less than 800m from seabird colony. No constraint to manual pickup more than 800m from seabird colony, however, access to worksite denied by Mike Lockhart 6/3/90 due to eagle nest and seabird colony buffer zones. |
| 5T | Bald Eagle Nest | USFWS 4/9/90 map indicates an active nest in Subdivision B. Closed to manual pickup within 400m of active nest. No constraint to manual pickup more than 400m from active nest. |

OTHER ECOLOGICAL CONSIDERATIONS

Restrict air traffic and all disturbance to essential minimum. No personnel or boat traffic within 400m of active nests. Air approach and takeoff from and to seaward only; maintain 400m horizontal, 300m vertical distance from active nests. Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

CW (eagle and/or seabird colony)

FOSC _____ Date _____

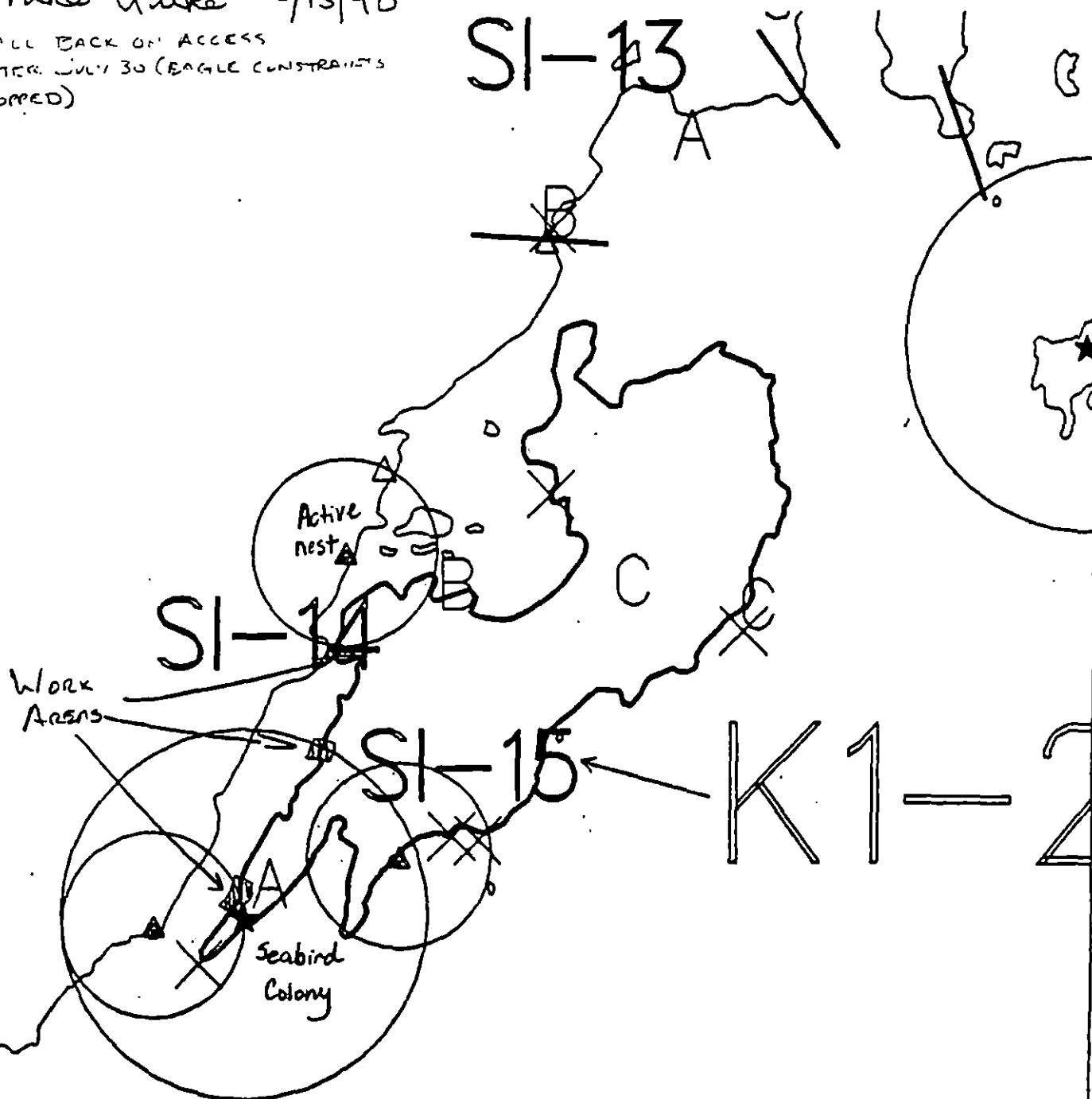
Prepared by _____ Date _____

Access denied

Mike Luke 6/13/90

CALL BACK ON ACCESS

AFTER JULY 30 (EAGLE CONSTRAINTS
DROPPED)



TREATMENT



Exxon Company, USA
Map Key: KOD-SI-15

ECOLOGY MAP
SEGMENT K1-2 SI-15
SUBDIVISION B (2.15)
METERS



- | | |
|---|---------------------|
| ★ | Seabird Colony |
| ▲ | Active Eagle Nest |
| △ | Inactive Eagle Nest |

1 inch = 2232 feet

"REVISED" ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K01-02-SI-015 SUBDIVISION B (2 of 3)

WORK WINDOW		
Manual Pickup		
More Than 800m From Seabird Colony		CLOSED
		(ACCESS DENIED)
More Than 400m From Eagle Nest		OPEN
Manual Pickup		
Less Than 800m From Seabird Colony		CLOSED
Less Than 400m From Eagle Nest		CLOSED

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5R	Seabird Colony	Closed to manual pickup less than 800m from seabird colony. No constraint to manual pickup more than 800m from seabird colony, however, access to worksite denied by Mike Lockhart 6/3/90 due to seabird colony buffer zones.
5T	Bald Eagle Nest	USFWS 4/9/90 map indicates an active nest in Subdivision B. Closed to manual pickup within 400m of active nest. No constraint to manual pickup more than 400m from active nest. Follow established USFWS transit route through Eagle Nest buffer zone as described on attached map.

OTHER ECOLOGICAL CONSIDERATIONS

If eagle nest and/or seabird constraint is removed, other ecological considerations will apply.

FOSC W L Date 6-20-90

Prepared by Phillips Date 6/20/90

SI-13

Access Route
with small skiff
only.

Site SI-15

SI-14

SI-15

K1-2

ok to work in this
area, but no access
within buffer zone

ok to work just
inside buffer

Only these
two sites can
be worked without a monitor

access denied
at this time
because of
seabird colony
constraints.

Mike Luke 6/14/90

Mike Luke (acc. Rb.) 6/13/90

LEATHEN



Exxon Company, USA



ECOLOGY MAP
SEGMENT K1-2 SI-15
SUBDIVISION --- (--- of ---)

- ★ Seabird Colony
- ▲ Active Eagle Nest
- △ Inactive Eagle Nest

"REVISED" ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K01-02-SI-015 SUBDIVISION B (2 of 3)

WORK WINDOW

Manual Pickup More Than 800m From Seabird And More Than 400m From Active Nest	OPEN
Manual Pickup Less Than 800m From Seabird Colony	CLOSED*
Manual Pickup Less Than 400m From Active Nest	CLOSED

*With exception of area approved for treatment by Mike Luke, USFWS on 6/14/90 (see Map)

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5R	Seabird Colony	Closed to manual pickup less than 800m from seabird colony unless otherwise specified by Mike Luke, USFWS on 6/14/90 (see map). No constraint to manual pickup more than 800m from seabird colony.
5T	Bald Eagle Nest	USFWS 4/9/90 map indicates an active nest in Subdivision B. Closed to manual pickup within 400m of active nest. No constraint to manual pickup more than 400m from active nest. Follow established USFWS transit route through Eagle Nest buffer zone as described on attached map by Mike Luke, 6/18/90.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict air traffic and all disturbance to essential minimum. No personnel or boat traffic within 400m of active nests. Air approach and takeoff from and to seaward only; maintain 400m horizontal, 300m vertical distance from active nests. Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

FOSC Del Borne Date 6/24/90
Prepared by J Phillips Date 6/22/90

SI-13

Access Route
with small skiff
only.

Site SI-15

SI-14

SI-15

K1-2

Only these
two sites can
be worked without a monitor

OK to work in this
area, but: no access
within buffer zone

OK to work just
inside buffer

Access denied
at this time
because of
seabird colony
constraints.

Mike Luke 6/14/90
Mike Luke (Access Rb.) 6/19/90

TREATMENT



Exxon Company, USA

ECOLOGY MAP
SEGMENT K1-2 SI-15
SUBDIVISION B (2.1-3.)

- ★ Seabird Colony
- ▲ Active Eagle Nest
- ^

SHORELINE EVALUATION

SEGMENT ST/ K01-02-SI-015 SUBDIVISION C (3 OF 3) DATE 5/21/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5R Seabird colony (5/1 to 9/1) in Subdivision A
5T-4 All Bald Eagle nests (3/1 to 6/1) in Subdivision A
Active Bald Eagle nests (3/1 to 9/1)
900 Archaeological Site Registered in Segment
4GG State Marine Park Alaska State Parks
9BB Privately developed lands

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate.

SHPO SIGNATURE: Richard J. Dahn DATE: 6/1/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V. Light 105 m: No Oil 5217 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u>X</u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u> </u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 5/31/90

ADEC Art Weiner

EXXON Andrew

NOAA Joseph Talbot

USCG GA. REITER

FOSC: WJL

DATE: 6-8-90

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.
AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 1C Salmon fry nursery area (4/31 to 7/31)
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Kotol Bay Hatchery release
Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
1J Purse seine area
Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
East side Kodiak, East side Afognak (7/4 to 10/1)
1K Purse seine hook-off
1L Set net sites
Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- 3P Harbor seal and sea lion pupping (5/10 to 7/1)
3Q Harbor seal and sea lion molting (8/15 to 9/15)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
ADF&G Tom Roth 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (8/1 to 9/15)
6V Anchorages (8/1 to 9/15)
6W Forest Service cabins (8/1 to 9/15)
6X Lodge (8/1 to 9/15)
6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (8/1 to 9/30)
7H Finfish harvesting
7I Deer harvesting (8/1 to 1/7)
7J Invertebrate harvesting
7K Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K-122-S1-15 SUBDIVISION: C DATE May 21/90

USCG

NAME L.D. Haven Jr. GM3/USCGR SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

NTR

ADEC

NAME Terry Ellsworth SIGNATURE Terry Ellsworth

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

this segment contains very little recoverable mousse in the form of patties between cobbles located in an area $\approx$ 50 meters long near the NW end of the Island (see sketch map).
No treatment recommended.

LAND MANAGER

NAME Mike Gordin/ADNR SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

This subdivision was observed to have very small amounts of oil in the form of an occasional mousse patty and a few splatters of coat. None of this minor amount of oil is recommended for treatment. However, an anchor chain, 15M long, located approximately at the NE tip of Big Ft. Island (see map) used to anchor boom is suggested for removal.

SHORELINE OILING SUMMARY

CG 1st Seng USCG Don SEGMENT ST 100 8/15
 BIO Don LAND REP Mike SUBDIVISION 6 OF 1
 EXXON — ADEC copy TIME 5:10:20
 TEAM NO. 19 TIDE LEVEL 6.0 5.0 DATE May 21 / 90
 EST. SUBDIVISION LENGTH: 5.45 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: — to —
 SURFACE SEDIMENTS: R 60 % B 20 % C 10 % P 10 % G 5 % S — % M 5 % V — %
 SLOPE: Long 40 % Hang — % Vert 60 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W — m M — m N — m VL 60 m NO 5880 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	R	B	C	P	1	2	3	4	5	6	7	8	SU	U	M	V
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL																

PAVEMENT H F S 200 sq. m by — cm

PATTIES / TARBALLS 20 BAGS

NEAR SHORE SHEENT NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒

TYPE —

#BAGS —

Photographs:

Roll No. —

Frames —

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR								PIT ZONE	A N A	SHEEN (Y/N)	SURFACE SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UG	UC	1	2	3	4	5	6	7	8				
1	20						0.0											X			Pb/c
2	25						0.0												X		Pb/c
3	30						0.0													X	Pb/c

COMMENTS

REVIEWED BAT DATE 24 MAY 90

K-102-SI-15-C, Big Fort Island. May 21, 1990

Subdivision C of segment K-102-SI-15 makes up the northern and eastern coast of Big Fort Island located nearshore southeastern Shuyak Island. Except for its northwestern extremity, this 5.94 km subdivision is exposed to a large fetch as it faces the Gulf of Alaska. The subdivision was walked on May 21, 1990, between 1545h and 2030h and corresponding 6.0' and 5.0' tidal levels. In a clockwise direction starting at its northwestern extremity, the subdivision begins with the north shore of a narrow, deep and shallow embayment. This section of shoreline is composed of angular pebbles and cobbles in the upper intertidal zone and sand/mud/pebbles in the lower intertidal zone and no oil was found in this area.

Going around the entrance of the bay, the shoreline changes to shaly pebble and gravel in the lower intertidal zone and angular pebble/cobble in the upper intertidal zone. One 5 cm patty was found around the entrance of the bay, and a 50 m long by 2 m wide area with 5% cover of patchy mousse was found near the northern part of this beach. (including a steel chain anchored in the rock face)
A short section of bedrock cliffs with a very small pocket beach of pebble forms the tip of the next headland before leading to a large cove with a beach of well rounded pebble/sand/cobble. One 5 cm mousse patty was found near the eastern extremity of the beach.

The remaining part of this subdivision consists of steep bedrock cliffs alternating with sections of bedrock ramps with some cobble/boulder/pebble. Walking had to be done over the sections of cliffs before being able to climb down to verify pocket beaches. Only a few splatters and one partly oiled piece of driftwood were found throughout this last area.

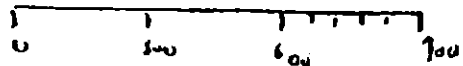
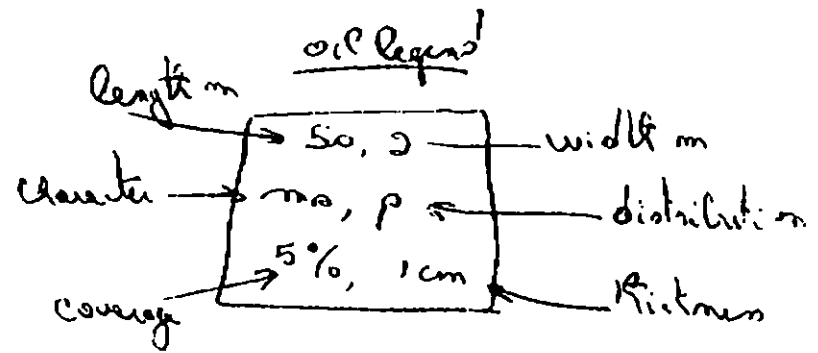
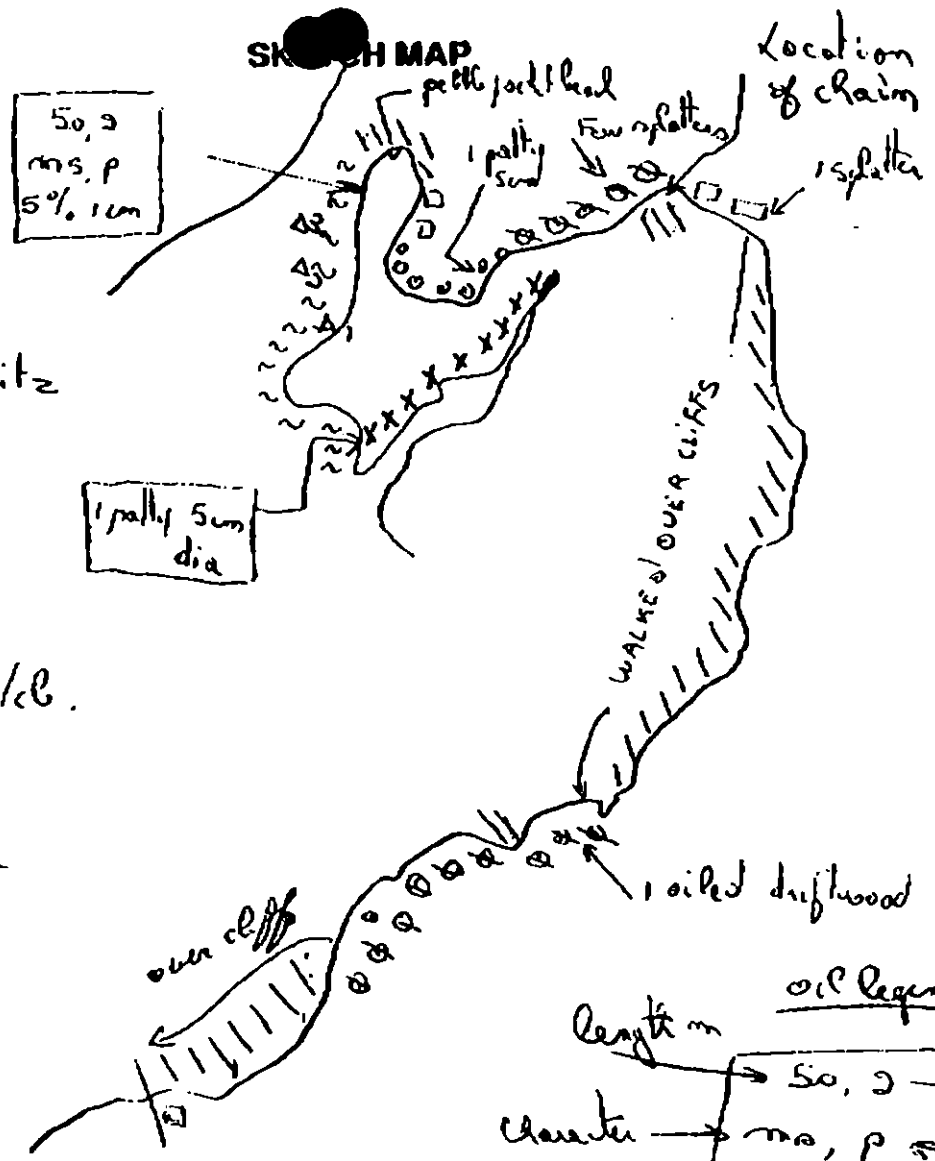
OG from Simple
SEGMENT ST/ K102-SI-15
SUBDIVISION C

DATE May 12 90

- CHECKLIST
- ☐ N Arrow
 - ☐ Approx. Scale
 - ☐ Seg/Sub Entry
 - ☐ Oil Dist.
 - ☐ Width
 - ☐ Length
 - ☐ % Cover
 - ☐ Substrate Character
 - ☐ Est. HML/LWL
 - ☐ SSL
 - ☐ Profile Location(s)
 - ☐ Profile(s)
 - ☐ Pit Location(s)
 - ☐ Photo Location(s)

- LEGEND
- 1 Δ
Pit - No Subsurface Oil
 - 2 Δ
Pit - Subsurface Oil
 - CT/C
Continuous Distribution
 - CT/B
Broken Distribution
 - CT/P
Patchy Distribution
 - CT/S
Splashed Distribution
 - Oil Vegetation
 - 1 $\bullet$
Photo location, direction, and number

- Legend
- [x x] angular pb/cb in uitz
sd/pb in uitz
 - [~] shale pb/cb/cb beach
 - [//] cliffs
 - [u] talus, angular cb/cb
 - [oo] pebble beach
 - [o o] cb/cb on bedrock ramp



Oil Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 50 PT 10 TB 0 FL 0 NO 5880

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/88

Segment ST / K1-2 / ST-15 Subdivision C Date (mo / day / yr) 5-21-90

Time (24 hr) 16:00 Biologist David Cohn

(A) Substrate type and % of segments:
(1) Bedrock (2) Boulder (3) Cobble (4) Pebble (5) Sand (6) Silt

(B) Overall % cover of biota (% of segment): Dense 30 Moderate 50 Low 20

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
Roll No. ST-19-100

Frames 1-6

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

GASTROPODS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments:

See page 2.

Ecological Considerations:

T- 2 immature and 1 mature bald eagle spotted in area. However, no nests were observed in this subdivision

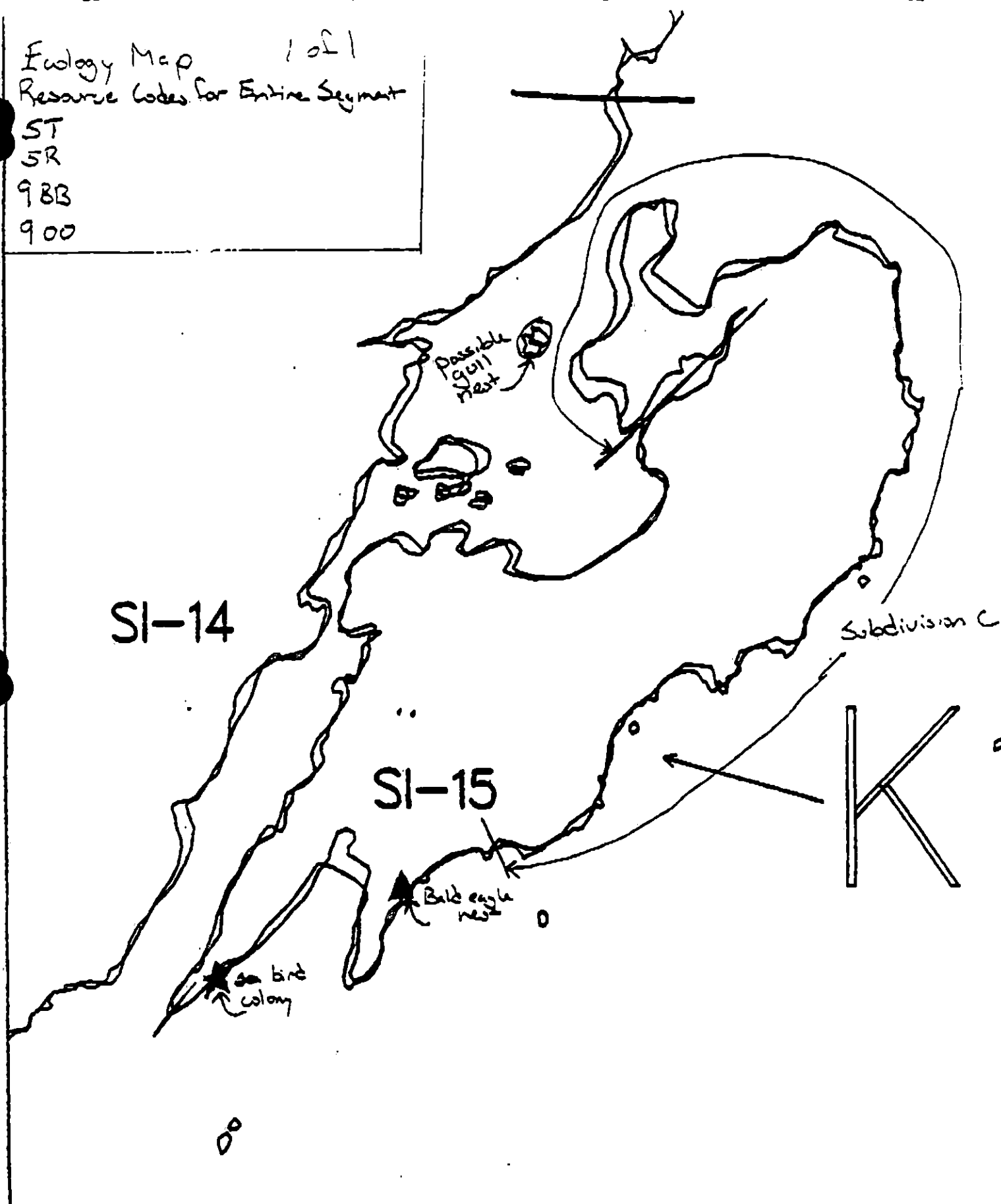
SR-

900

988

Ecology Map 1 of 1
Resource Codes for Entire Segment

ST
SR
98B
900



XXXX Wide
//// Medium
--- Narrow
TTTT Very Light

SI-15

ADEC Segment Length: 13200m

Map Key: K00-173

Name: _____

Date: _____



Shoreline Ecological Summary

2 of 2

Segment ST/K1-2/SI-15

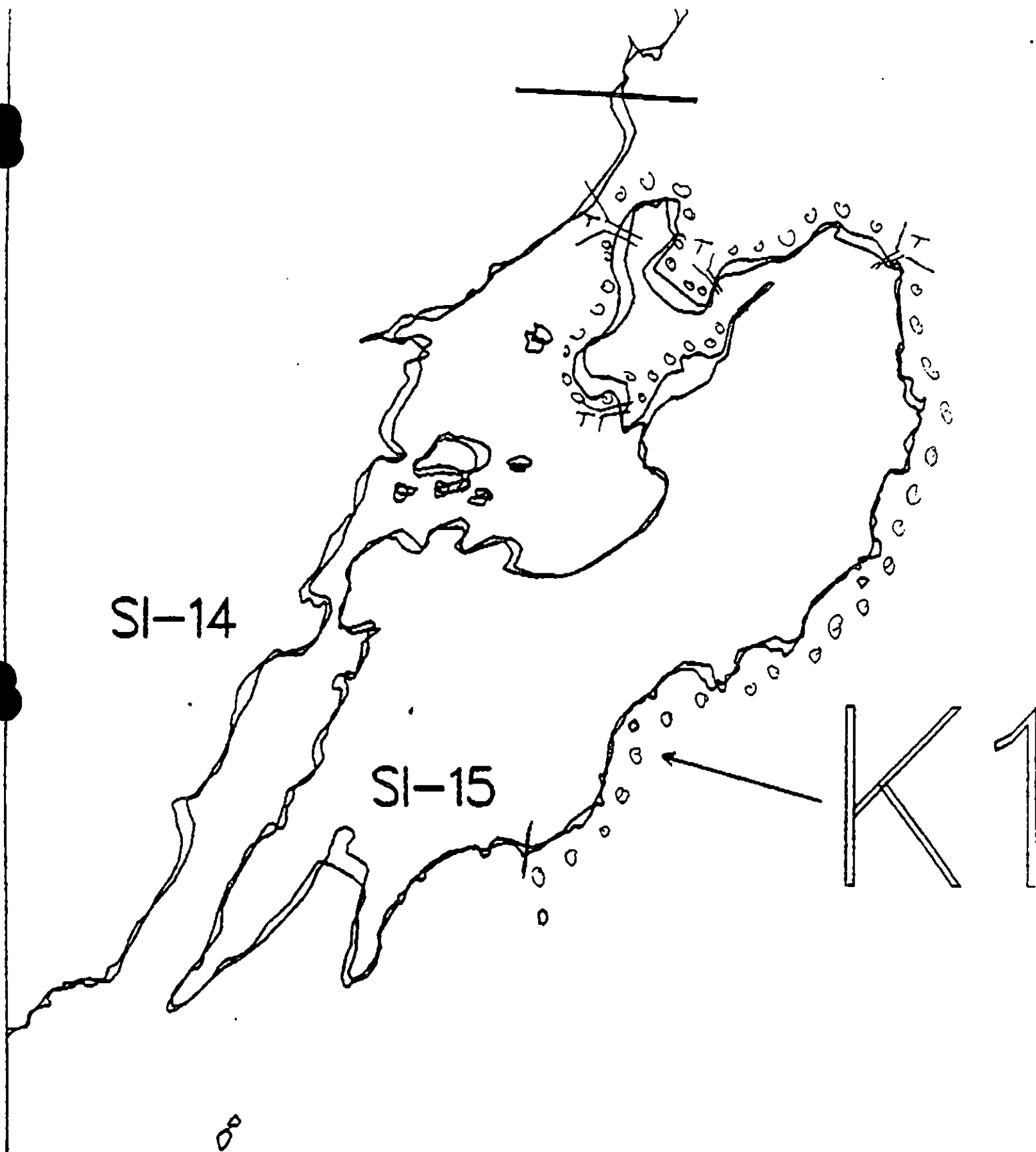
Subdivision C

5-21-90

Biologist: David Lohse

W. L. L. Observations / General Comments

1. present in low intertidal: coralline algae, Alaria, Katharina tunicata, Epiactus, Rhodometria, Halosaccus, Desmarestia, Rhodomenia, unknown yellow sponge
 mid-intertidal: Rhodometria, Endocladia, Gloiopeltis, Nuxella, Katharina tunicata, Desmarestia, Epiactus, Anthopleura, Rhodomenia, Halosaccus, coralline algae, Pagurus, sculpin, unknown yellow sponge, Rellia
 high intertidal: Ulva, Ectocarpus, Rellia
2. One lone otter, 1 sea otter, 3 porpoises, 2 plovers, 1 raven, 3 cormorants, and a flock of ~35 Vancouver geese spotted in area
3. Northern portion of island primarily consisted of pebble/cobble beaches with occasional boulder/bedrock headlands. Eastern side of island was primarily bedrock and boulders. ~~Most~~ Almost all of the additional species listed above were found on the boulders and bedrock.
4. Possible gull nest found on small, offshore island (see ecology map).
5. Littorine egg masses found underneath mid-intertidal cobble and on mid-intertidal bedrock
6. Algal cover on low intertidal boulders reached 75%.
7. Rhodometria was ~~more~~ abundant on mid-intertidal bedrock. In some areas it reached 30% cover.
8. Barnacle and Fucus recruitment were patchy.



XXXX Wide
 /// Medium
 --- Narrow
 TTTT Very Light
 OOOO No Oil

KØ1Ø2-SI-15 C

ADEC Segment Length: 13200m



Map Key: K00-173

Name: K102-SI-15-1

Date: May 22/90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ K01-03-SS-002 SUBDIVISION A (1 OF 3) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
Privately developed land.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid disturbance/damage to uncoiled biota and substrate.

SHPO SIGNATURE: [Signature] DATE: 4/17/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 186 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u>X</u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u> </u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> <u> </u> Removal	<u> </u> Other (see comments)

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/16/90
ADEC [Signature]
EXXON [Signature] FOSC: [Signature] DATE: 4-20-90
NOAA [Signature]
USCG G.A. BEITER G.A. Beiter

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K0103/5502 SUBDIVISION: A DATE 4-3-90

NOAA
USCG

NAME John Naughton SIGNATURE John J. Naughton

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

No oil observed. Apparently the oil missed impacting the shoreline of the mouth of the bay, instead funneling inside the bay and impacting primarily the western side.

ADEC

NAME Scott Shelton SIGNATURE Scott Shelton

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

No oil observed - High energy shore-bld rock beaches. Impact locations found more inside Shuyak Harbor N/West Shorelines.

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

No COMMENTS AVAILABLE

SHORELINE OILING SUMMARY

REVISED NO. 03/22/90

OG Penland No. 11 Naughton SEGMENT ST/ K0103/33002
 NO Seight LAND REP Burton ADNR SUBDIVISION A (1/3)
 XON Byms ADEC Shelton TIME 16:11:10 18:30
 TEAM NO.: 19 TIDE LEVEL: +2 ft. to +4 ft. DATE 4/3/90
 EST. SUBDIVISION LENGTH: 275 m ☐ Sun ☐ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☐ Foot ☐ Boat ☒ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 50 % B 40 % C 10 % P 0 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 0 % Hang 50 % Vert 50 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 275 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	C	N	P	%	1	2	3	4	5	SU	U	M	U
ASPHALT													
PAVEMENT													
POOLED													
COVER													
COAT													
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL													

PAVEMENT; H. F. S. 0 sq. m by 0 cmPATTIES / TARBALLS 0 BAGSNEAR SHORE SHEEN? ☒ BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE N/A#BAGS 0

Photographs:

Roll No. 19-4Frames -

SUBSURFACE OIL No Pits dug

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	VO	1	2	3	4	5	SU	U	M	U		
0							.													
							.													
							.													
							.													
							.													
							.													

COMMENTS

• No oil observed, helicopter flyby, area is exposed and is relatively a higher energy environment than the interior harbor.

• No pits dug due to bedrock

..... RAY 7 Dec 90

SEGMENT ST/ KOJ2J/ 55002

SUBDIVISION # 4

DATE 4/23/90

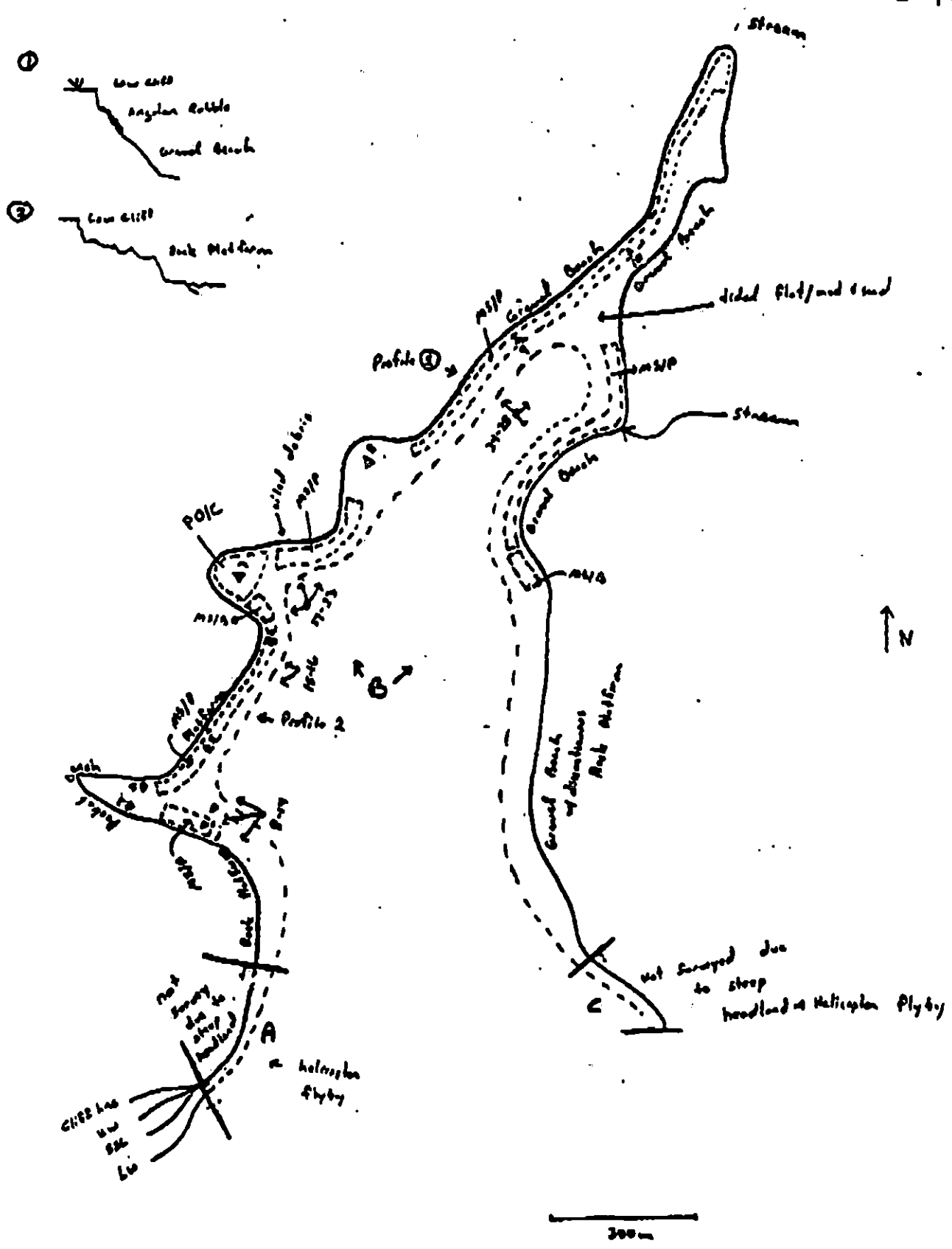
CHECKLIST

- ☒ All Areas
- ☒ Approx. Scale
- ☒ Boundary Dots
- ☒ ON Data
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. Habitat
- ☒ Dist.
- ☒ Possible Locations
- ☒ Priority
- ☒ Photo Location(s)

LEGEND

- 1 Δ
- 2 Δ
- PR - Substrate ON
- CT/C
- Continuous Distribution
- CT/B
- Broken Distribution
- CT/P
- Patchy Distribution
- CT/3
- Spotted Distribution
- Dead Vegetation
- 1 Δ
- Photo location, direction, and number

SKETCH MAP



ON Chart length (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 0 PT 0 TB 0 FL 0 NO 275

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22

Segment ST/SS-002 Subdivision A Date (mo / day / yr) 4/5/90

Time (24 hr) _____ Biologist SP16HT

(A) Substrate type and % of segments:
(1) Bedrock _____ (2) Boulder _____ (3) Cobble _____ (4) Pebble _____ (5) Sand _____ (6) Silt _____

(B) Overall % cover of biota (% of segment): Dense _____ Moderate _____ Low _____

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
Roll No. _____

Frames _____

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

GASTROPODS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments:

Ecological Considerations:

Subdivision Inaccessible - no observations

983

↑
KOD 214 B

S

Flyby
see note

Flyby
see note

XXXX Wide

//// Medium

--- Narrow

TTTT Very Thin

SS-2

ADEC Segment Length: 3818m

Map Key: KOD-214c

Name: Penland

11/1/88

SHORELINE EVALUATION

SEGMENT ST/ K01-03-SS-002 SUBDIVISION B (2 OF 3) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
Privately developed land.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid disturbance/damage to unoiled biota and substrate.

SHPO SIGNATURE: Charles E. Adams DATE: 4/17/90

OILING CATEGORIZATION:

Wide 170m: Medium 98 m: Narrow 0 m: V.Light 1554m: No Oil 1209 m
Subsurface Oil Observed: Yes X No Maximum Depth 10+cm

RECOMMENDATIONS:

<u> </u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u> X </u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u> X </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u> X </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> Removal	<u> </u> Other (see comments)

COMMENTS: Manual pick up of pooled oil and mousse, followed with bioremediation of pooled oil area.

TAG COMMENTS:

TAG APPROVAL DATE: 4/16/90.
ADEC Mr. Heuser
EXXON Andy Tera FOSC: W L DATE: 4-20-90
NOAA Bruce Werrett
USCG G.A. Reiter

SEGMENT ST / K0103 / S502 SUBDIVISION: B DATE 4-3-90

SEE

NAME John Naughton

SIGNATURE

John J. Naughton☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

Oil to varying degrees found throughout this segment. Mousse in PO/C area particularly significant and should be manually removed (actually pooled oil). When cleanup crew in to clean up this area of pooled oil they should walk entire west side of bay and manually remove all oil which can be practically removed. One site on east side (MS/O) should also be cleaned up.

ADEC

NAME

Scott Shelton

SIGNATURE

Scott Shelton☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

Sub. B 3313 Meters walked by SSAT Members. K0103/S502 Shuyak Harbor North to NW Shore. OIL impact observed throughout Subdivision B. Mousse sediment mix found in the upper tidal and middle tidal levels. Distribution is rather broken, sporadic band. Pooled distribution can also be observed. 10 pits no subsurface oil observed, except pit 7 having oil in the pore spaces and sediments. Very light oil mousse sediment and sheering can be observed in the NW entrance upon of Shuyak Harbor. Type A manual cleanup could improve Shuyak Harbor greatly. Low energy sheltered bay with a 5/6 exposure.

LAND MANAGER

NAME

Ray Burger

ADNR

SIGNATURE

Ray Burger☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

West side needs manual pickup where mousse has coated cobbles & gone into interstitial spaces to mix with sediments. This is sporadic throughout upper tidal zone. Pooled oil & saturated sediments are in back of cove where hot water wash was used (Pit #7). This area is small & could be treated by manual removal. Private lands in back half of Shuyak Harbor on west side. East side has less oil, as identified, but still retrievable. Small amount of oiled debris near hot water wash area can be easily retrieved. This is a good area for camping & landing.

SHORELINE OILING SUMMARY

REVISION NO. 02/22/98

OG Perland NOAA USCG Naughton SEGMENT ST/ K0103/SS002
 BIO Seight LAND REP Oregon ADNR SUBDIVISION B (2/3)
 (XON Byers ADEC Shelton TIME 16:11 to 18:30
 IAM NO.: 19 TIDE LEVEL: +2 ft to +4 ft DATE 4/3/90
 EST. SUBDIVISION LENGTH: 3313 m ☐ Sun ☐ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 10 % B 10 % C 50 % P 20 % G 10 % S 0 % M 0 % V 0 %
 SLOPE: Lang 50 % Hang 25 % Vert 25 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 230 m M 92 m N 0 m VL 2296 m NO 695 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	R	B	P	N	SP	BR	OR	GR	BL	SU	U	M	L
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT													
STAIN													
MOUSSE		X							X		X		
PATTIES													
TARBALLS													
FILM													
NO OIL										X			

PAVEMENT: H F S 0 sq. m by 0 cmPATTIES / TARBALLS 0 BAGSNEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE N/A#BAGS 0

Photographs:

Roll No. 57-19-4Frames 2-28

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UD	UG	SP	BR	OR	GR	BL	SU	U	M	L		
1	30					X	-								X					cobble, gravel
2	30					X	-								X					cobble, gravel
3	30					X	-								X					cobble, gravel
4	30					X	-								X					cobble, gravel
5	30					X	-								X					cobble, gravel
6	30					X	-								X					cobble, gravel

COMMENTS

- oil distributed throughout Shuyok Harbor
- in the po/c area, sediments appear saturated with oil, sheen (oil) can be observed.

SEGMENT ST/ Kate 3/25/83 SUBDIVISION 6

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CH)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OF	OR	OL	OP	NO		UO	UO	OR	OR	OR	OR	OR	OR	OR	OR	SU	U	M	U		
7	10	X					D - 10	X					X									X	Cobbles, gravel
8	30					X	-													X			Gravel
9	20					X	-													X			Gravel
10	20					X	-													X			Gravel
							-																
							-																
							-																
							-																
							-																
							-																
							-																
							-																
							-																
							-																
							-																

COMMENTS

- The oil in the PO/C area extended throughout the intertidal zone.
- Please note, we did not have a ADEC base map for oiling, instead we used an earlier version of an ADEC

REVIEWED BAT DATE 7 Apr 90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / SS002 Subdivision B Date (mo / day / yr) 4/3/90Time (24 hr) 16:13 Biologist SP16 HT

- (A) Substrate type and % of segments:
 (1) Bedrock 10 (2) Boulder 10 (3) Cobble 20 (4) Pebble 50 (5) Sand 10 (6) Silt _____
- (B) Overall % cover of biota (% of segment): Dense 40 Moderate 40 Low 20
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
Roll No. _____

Frames _____

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

GASTROPODS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments:

Ecological Considerations: Usual patchy habitat. Estuarine areas of small cobble. Some extensive beds of Fucus (the lushest seen to date). Mussel beds on muddy grounds at head of bay (but not as dense as at ST-5). 9BB



KOD 214A



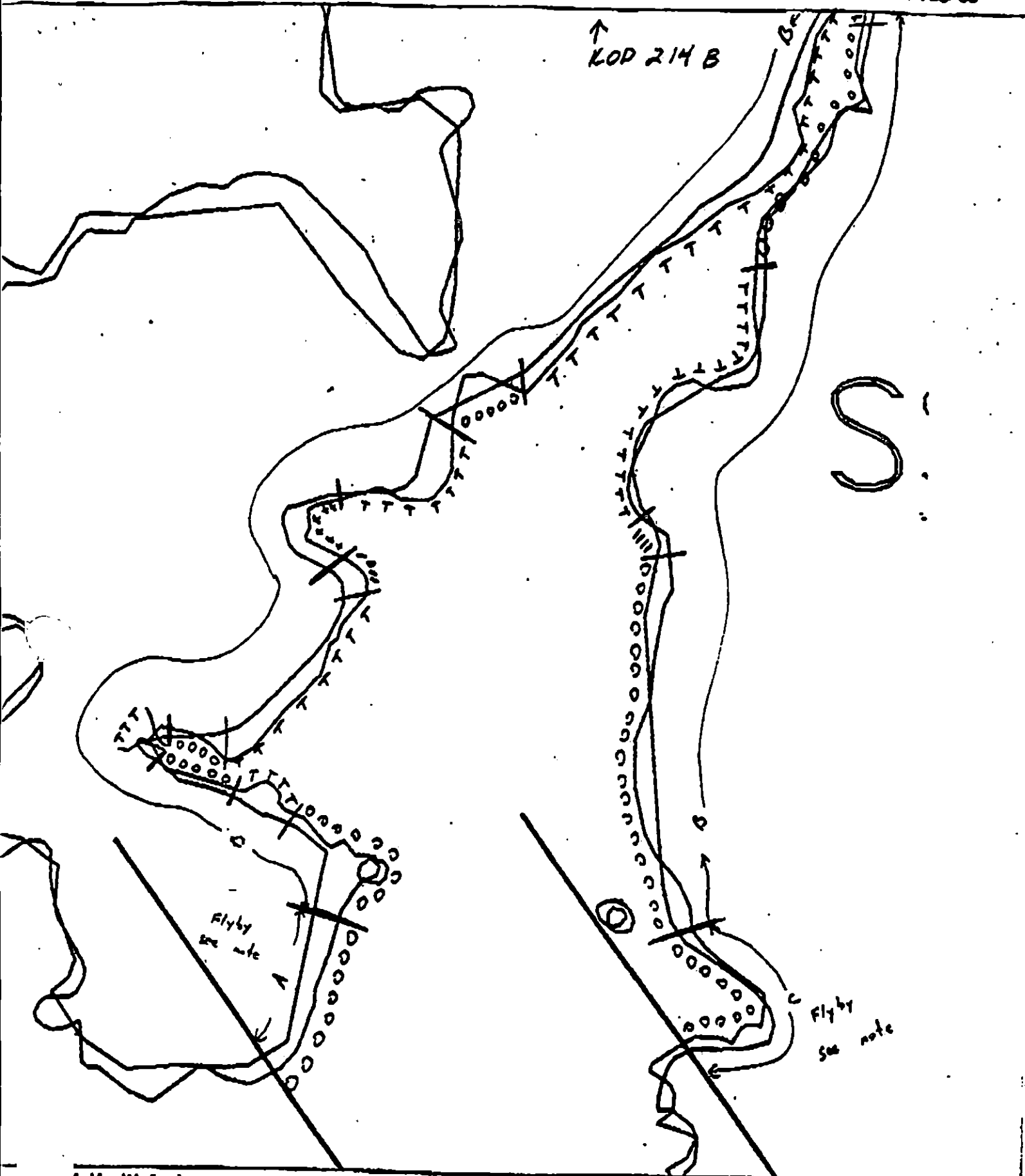
XX Wide
7/// Medium
---- Narrow
TTTT Very Light

SS-2

ADEC Segment Length: 3818m



Map Key: KOD-214b
Name: Pealand
Date: 4/3/90



XXXX Wide
TTTT Medium
---- Narrow
TTTT Very Thin

SS-2

ADEC Segment Length: 3818m

Map Key: KOD-2140

Name: Penland

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K01-03-SS-002 SUBDIVISION B (2 of 3)

WORK WINDOW	
Manual Pickup	CLOSED*
Bioremediation	CLOSED*

*NO ACCESS

ARCHAEOLOGICAL INSPECTION/CONSULTATION REQUIRED.

>>> PHONE 564-3274 (Anchorage) OR 229-1508 (24 hrs.) <<<

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T	Bald Eagle Nest	USFWS 6/1/90 map indicates an active nest in Subdivision B. Closed to manual pickup and bioremediation within 400m of active nest. No constraint to manual pickup and bioremediation more than 400m from nest.
5R	Seabird Colony	Closed to manual pickup and bioremediation within seabird colony buffer zone. Open to manual pickup, and bioremediation outside buffer zone. However, USFWS map indicates active seabird colony buffer zone prevents access to all Subdivision B work areas.

OTHER ECOLOGICAL CONSIDERATIONS

If seabird colony access constraint is removed, other ecological considerations will apply.

TAG APPROVAL DATE _____
ADEC _____
EXXON _____
NOAA _____
USCG _____

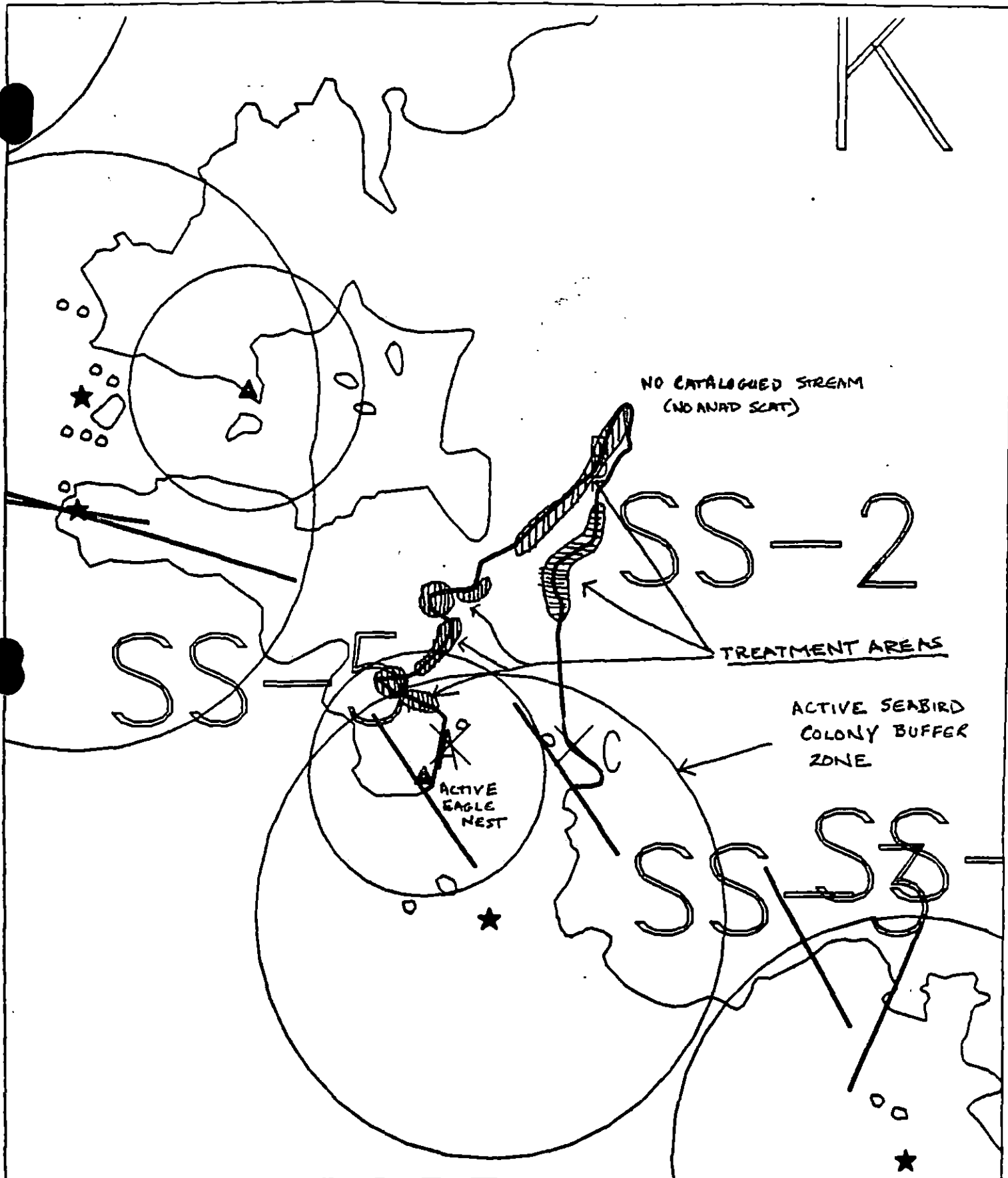
FOSC

DATE

6-10-90

Prepared By: Reu R Coulter

Date 06/10/90



Exxon Company, USA

Map Key: KOD-SS-2

May 17, 1990

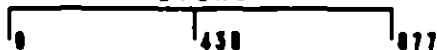


ECOLOGY MAP

K01-03- SEGMENT SS-2

SUBDIVISION B (2 of 3)

METERS



Seabird Colony



Eagle Nest

1 inch = 1438 feet

"REVISED" ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K01-03-SS-002 SUBDIVISION B (2 of 3)

WORK WINDOW

Manual Pickup Less Than 800m From Seabird Colony and Less Than 400m Active Eagle Nest **OPEN (USFWS MONITOR REQ.)**

Manual Pickup More Than 800m From Seabird Colony and More Than 400m From Active Eagle Nest **OPEN**

Bioremediation Less Than 800m From Seabird Colony and Less Than 400m From Active Eagle Nest **OPEN (USFWS MONITOR REQ.)**

Bioremediation More Than 800m From Seabird Colony and More Than 400m From Active Eagle Nest **OPEN**

ARCHAEOLOGICAL INSPECTION/CONSULTATION REQUIRED.

>>> PHONE 564-3274 (Anchorage) OR 229-1508 (24 hrs.) <<<

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T Bald Eagle Nest

USFWS 6/18/90 map indicates an active nest in Subdivision B. Open to manual pickup and bioremediation within 400m of active nest with USFWS monitor on scene. No constraint to manual pickup and bioremediation more than 400m from nest.

5R Seabird Colony

Open to manual pickup and bioremediation within seabird colony buffer zone with USFWS monitor on scene. Follow established USFWS transit route through Seabird Colony buffer zone as described on attached map.

OTHER ECOLOGICAL CONSIDERATIONS

If seabird colony access constraint is removed, other ecological considerations will apply.

FOSC

[Signature]

Date

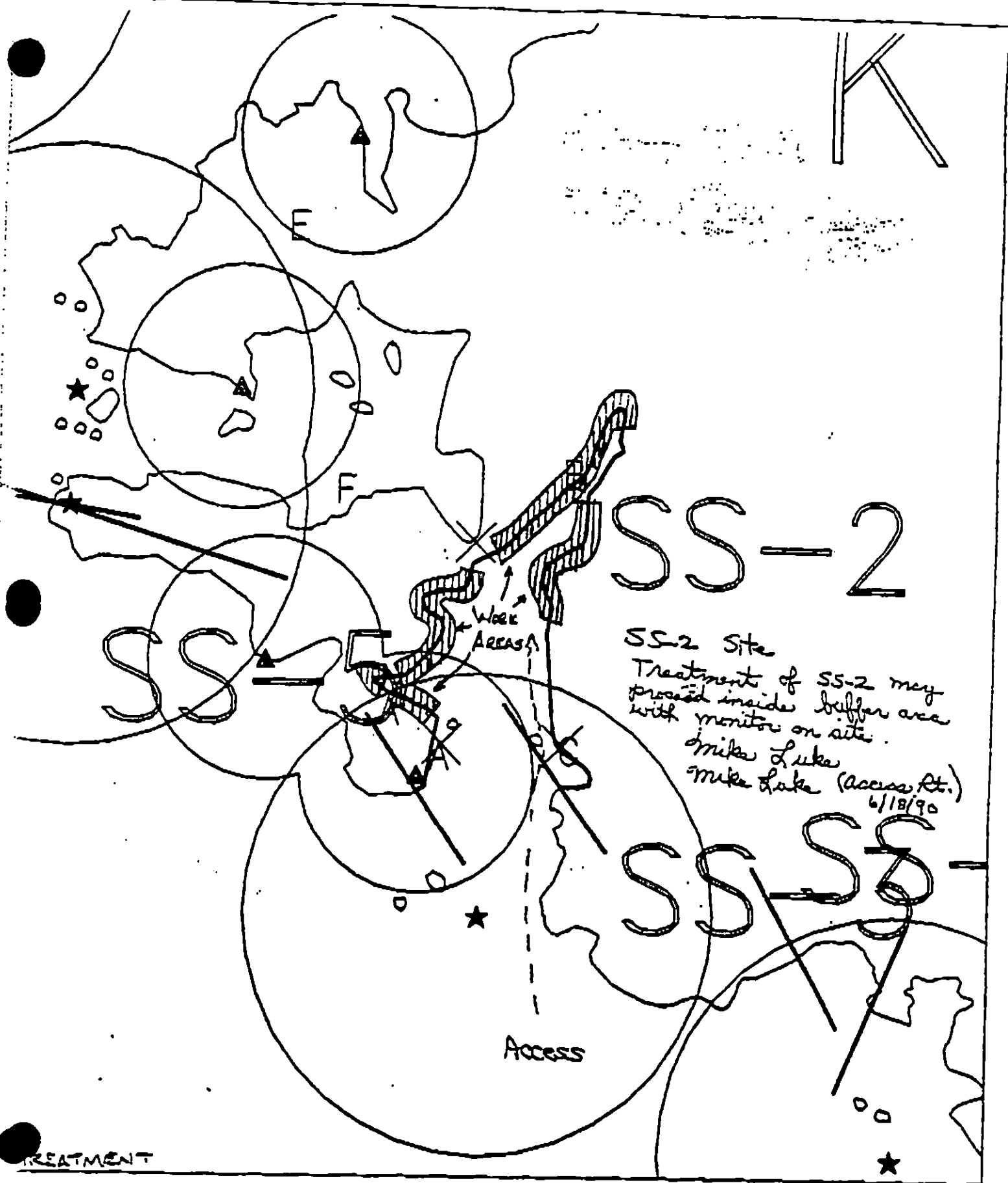
6/21/90

Prepared by

[Signature]

Date

6/20/90



Exxon Company, USA

ECOLOGY MAP
 SEGMENT KI-3 SS-2
 SUBDIVISION ___ (___ of ___)

- ★ Seabird Colony
- ▲ Active Eagle Nest
- △ Inactive Eagle Nest

REVISION 1 6/20/90

"REVISED" ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K01-03-SS-002 SUBDIVISION B (2 of 3)

WORK WINDOW

Manual Pickup Less Than 800m From Seabird Colony and Less Than 400m Active Eagle Nest **OPEN (USFWS MONITOR REQ.)**

Manual Pickup More Than 800m From Seabird Colony and More Than 400m From Active Eagle Nest **OPEN**

Bioremediation Less Than 800m From Seabird Colony and Less Than 400m From Active Eagle Nest **OPEN (USFWS MONITOR REQ.)**

Bioremediation More Than 800m From Seabird Colony and More Than 400m From Active Eagle Nest **OPEN**

ARCHAEOLOGICAL INSPECTION/CONSULTATION REQUIRED.

>>> PHONE 564-3274 (Anchorage) OR 229-1508 (24 hrs.) <<<

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T Bald Eagle Nest

USFWS 6/1/90 map indicates an active nest in Subdivision B. Open to manual pickup and bioremediation within 400m of active nest with USFWS monitor on scene. (Mike Luke/USFWS 6/18/90) No constraint to manual pickup and bioremediation more than 400m from nest.

5R Seabird Colony

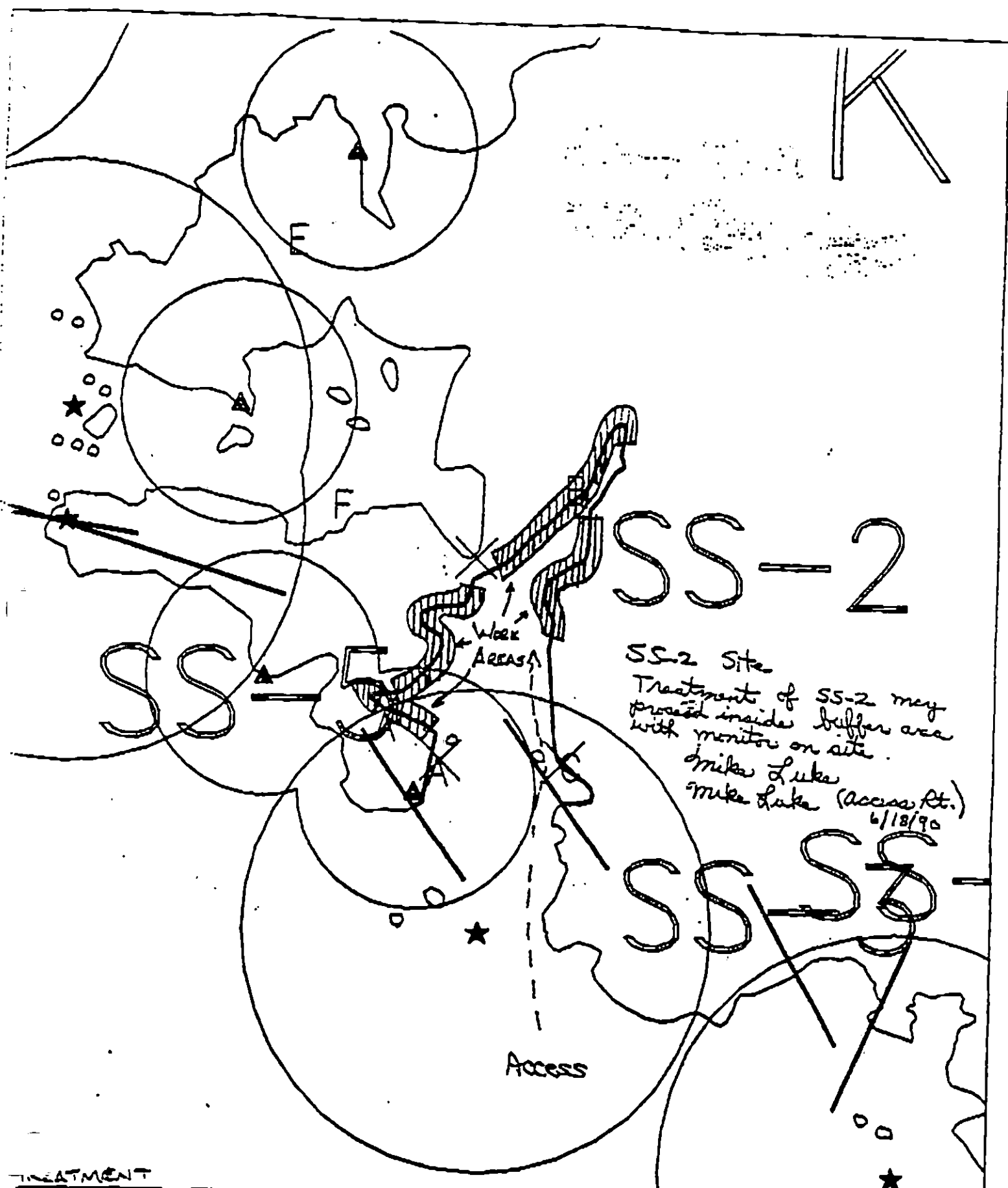
Open to manual pickup and bioremediation within seabird colony buffer zone with USFWS monitor on scene. Follow established USFWS transit route through Seabird Colony buffer zone as described on attached map. (Mike Luke/USFWS 6/18/90)

OTHER ECOLOGICAL CONSIDERATIONS

Restrict air traffic and all disturbance to essential minimum. No personnel or boat traffic within 400m of active nest without USFWS Monitor on-site. Air approach and takeoff from and to seaward only. Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

FOSC W L Date 6-22-90

Prepared by J. P. Hillis Date 6/22/90



TREATMENT



Exxon Company, USA

ECOLOGY MAP
 SEGMENT K1-3 SS-2
 SUBDIVISION B (2 of 3)

- ★ Seabird Colony
- ▲ Active Eagle Nest
- △ Location East of

SHORELINE EVALUATION

SEGMENT ST/ K01-03-SS-002 SUBDIVISION C (3 OF 3) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
Privately developed land.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid disturbance/damage to unoiled biota and substrate.

SHPO SIGNATURE: Shirley H. Hines DATE: 4/12/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 281 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u>X</u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u> </u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> Removal	<u> </u> Other (see comments)

COMMENTS:

TAG COMMENTS:

USCG + ADEC MONITORS TO ASSESS DURING TREATMENT
OF SHORELINES IN PROXIMITY

TAG APPROVAL DATE: 4/16/90
ADEC AL KEELEN
EXXON ANDY TEAL FOSC: Hy L DATE: 4-20-90
NOAA Burt Wescott
USCG C.A. FLETCHER

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K0103 / 5502

SUBDIVISION: C

DATE 4-3-90

NOAA
USCG

NAME

John Naughton

SIGNATURE

John J. Naughton

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

No oil observed. However surveyed only by helicopter fly by. Because of oil found in subdivision B, suggest this area (subdivision C) be assessed by crews cleaning up B.

ADEC

NAME

Scott Shelton

SIGNATURE

Scott Shelton

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

K0103 / 5502

Subdivision C

No oil observed - MED. to High energy beach wave and weather exposure westerly to S/W. Access to small pocket beach in this segment is difficult. Cliffs with vertical shores make foot assessment difficult. Helicopter sit down in this area is possible with L-206 not a 212. Subdivision C could be assessed by clean up crews during any clean up of Shuyak Harbor. Subdivision C post treatment reported light to V. Light impact on sand beach cover in the Fall of 89.

LAND MANAGER

NAME

Ray Burger

AONR

SIGNATURE

Ray Burger

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Not assessed due to impassable rocky headlands
Area had VL to L impact in Fall Walkathon assessment so should be looked at by cleanup crew when it is in Shuyak Harbor.
Beach looked good for landing small craft & camping.

SHORELINE OILING SUMMARY

REVISION NO. 08/22/98

OG Penland NAAA Naughton SEGMENT ST/ K0103/55002
 BIO Sergh LAND REP Burgen DNR SUBDIVISION C (3/5)
 XON Byant ADEC Shelton TIME 10:11 to 10:18 : 20
 TEAM NO.: 19 TIDE LEVEL: +2 ft to +4 ft DATE 4 / 3 / 90
 EST. SUBDIVISION LENGTH: 230 m ☐ Sun ☐ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☐ Foot ☐ Boat ☒ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 50 % B 40 % C 10 % P 0 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 0 % Hang 50 % Vert 50 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 230 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	N	NE	E	SE	SW	W	WN	N	NE	E	SE	SW	W	WN	N	NE
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL																

PAVEMENT: H F S 0 sq. m by 0 cm

PATTIES / TARBALLS 0 BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED

☐ YES ☒ NO

TYPE N/A

#BAGS 0

Photographs:

Roll No. 19-4

Frames —

SUBSURFACE OIL No Pits Dig

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm-cm)	BELOW		OIL / FILM COLOR								PIT ZONE	A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		DO	UO	SW	W	WN	N	NE	E	SE	SW	W	WN	

COMMENTS

- No Pits dug due to shallow occurrence of bedrock
- No oil observed on helicopter fly by, area is more exposed and possible has been cleaned naturally by wave action

SHORELINE ECOLOGICAL SUMMARY

REVISION: 08/23/90

Segment ST / SS-002 Subdivision C Date (mo / day / yr) 4/5/90
 ne (24 hr) _____ Biologist SPIGHT

- (A) Substrate type and % of segments:
 (1) Bedrock _____ (2) Boulder _____ (3) Cobble _____ (4) Pebble _____ (5) Sand _____ (6) Silt _____
- (B) Overall % cover of biota (% of segment): Dense _____ Moderate _____ Low _____
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)
- Photographs: _____
 Roll No. _____
 Frames _____

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

GASTROPODS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

FUCUS

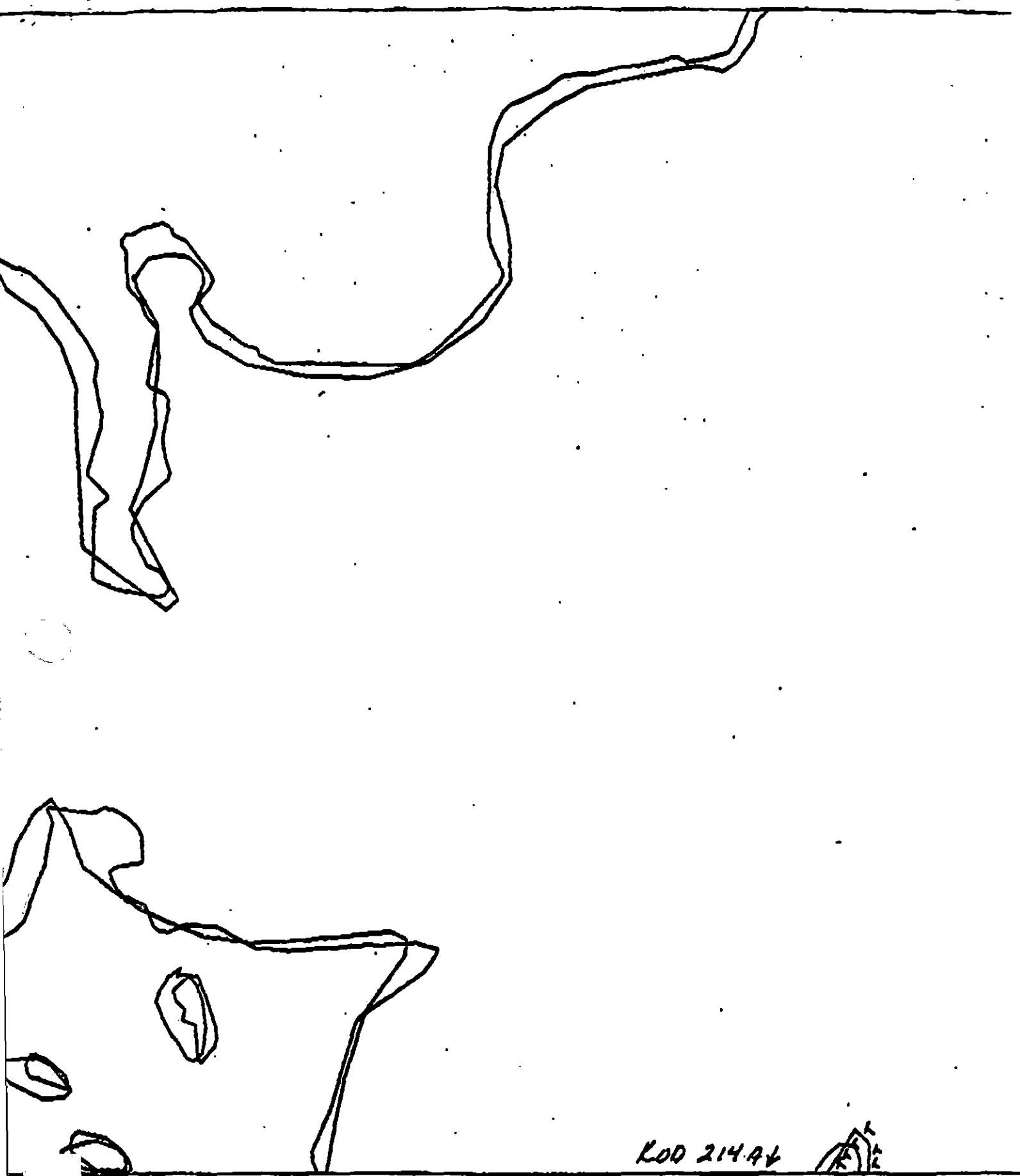
Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments:

Ecological Considerations:

Subdivision Inaccessible - no observations
 9BB



XX Wide

Medium

Narrow

Very Light

SS-2

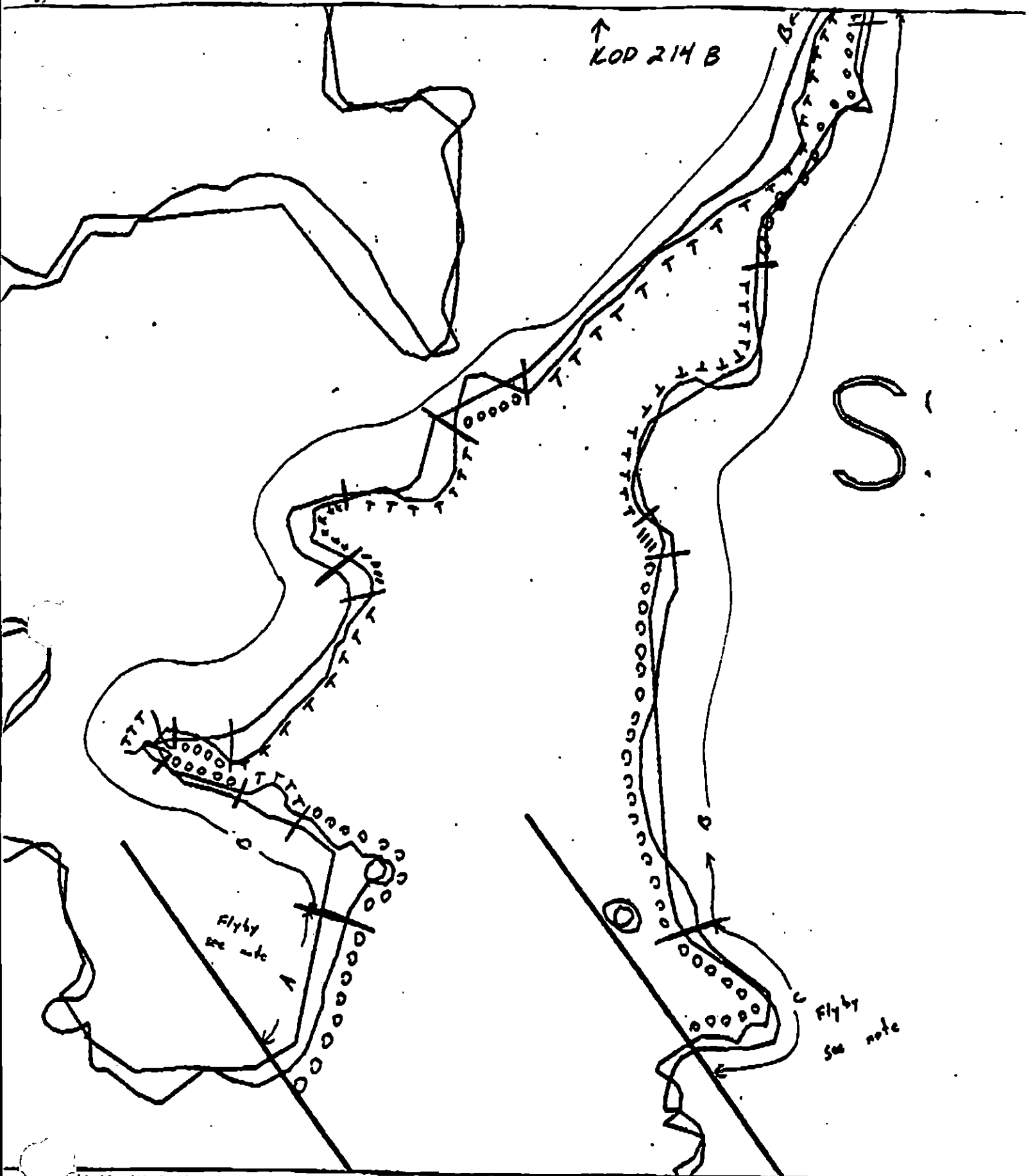
ADEC Segment Length: 3818m

KOD 214.4

Map Key: KOD-214b

Name: Pealand

Date: 4/3/90



XXXX Wide

//// Medium

--- Narrow

TTTT Very Thin

SS-2

ADEC Segment Length: 3818m

Map Key: KOD-2140

Name: Penland

Notes: 4/1/90

SHORELINE EVALUATION

SEGMENT ST/ K01-03-SS-005 SUBDIVISION A (1 OF 1) DATE 5/20/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5R Seabird colony (5/1 to 9/1)

(5R in adjacent segments SS-002 & NA-001)

5T-1 All Bald Eagle nests (3/1 to 6/1)

Active Bald Eagle nests (3/1 to 9/1)

4GG State Marine Park Alaska State Parks

9PP Sea Otter concentration

9BB Privately developed lands

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

SHPO SIGNATURE: Rachel Dan Owe

DATE: 6/1/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 89 m: No Oil 2077 m

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

X No Treatment Recommended

 Treatment Recommended

 Manual Pickup

 Bioremediation

 Tarmat Removal

 Snare/Absorbent Booms

 Oil Snares (pom poms)

 Absorbents (pads, rolls, etc)

 Spot Washing: Wands

 Beach Cleaner

 Other (see comments)

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 5/31/90

ADEC Art Weiner

EXXON Amel

NOAA Joseph Talbot

USCG E.A. BEITER

FOSC: My L

DATE: 6-8-90

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31).
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.
AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 1C Salmon fry nursery area (4/31 to 7/31)
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Kotol Bay Hatchery releases
Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
1J Purse seine area
Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
East side Kodiak, East side Afognak (7/4 to 10/1)
1K Purse seine hook-off
1L Set net sites
Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- 3P Harbor seal and sea lion pupping (5/10 to 7/1)
3Q Harbor seal and sea lion molting (8/15 to 9/15)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31).
Contact ADF&G and USFWS prior to treatment for confirmation.
AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
ADF&G Tom Roth 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (8/1 to 9/15)
6V Anchorages (8/1 to 9/15)
6W Forest Service cabins (8/1 to 9/15)
6X Lodge (8/1 to 9/15)
6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (8/1 to 9/30)
7H-H Finfish harvesting
7I Deer harvesting (8/1 to 1/7)
7J Invertebrate harvesting
7K Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K0103-SS-5 SUBDIVISION: A DATE 5/20/90

USCG

NAME D.D. Haven Jr., GM3, USCGR SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

NTR

ADEC

NAME Terry Ellsworth SIGNATURE Terry Ellsworth

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Only a few splatters of coat were found on this segment as well as a very small amount of oiled trash.
No treatment recommended.

LAND MANAGER

NAME Mike Bodwin/ADNR SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

This subdivision from Cape Nendland To the west entrance to Shuyak Harbor is a high energy segment in which only very small splatters of coat were observed. Because of this insignificant amount of oil no treatment is recommended. It should be noted that an active eagle nest was observed 200M outside the segment boundary at the S.E. end

SHORELINE OILING SUMMARY

REVISION NO. 1.1.10

OGC Don Haven USCG Don Haven SEGMENT ST/ K103-SS-5
 BIO Don Haven LAND REP Don Haven SUBDIVISION 1 OF 1
 EXXON Don Haven ADEC Don Haven TIME 16:00 to 16:59
 TEAM NO. 1 TIDE LEVEL 3.5' to 9.9' DATE May 1, 1990
 EST. SUBDIVISION LENGTH: 3400 m ☒ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☒ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 90 % B 2 % C 1 % P 4 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 10 % Hang 0 % Vert 90 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 120 m NO 220 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	C	B	P	S	1	2	3	4	5	SU	U	M	L
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT				X	X					X			
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL										X	X	X	

PAVEMENT H F S NO sq. m by cm

PATTIES / TARBALLS NO BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT			DID YOU COLLECT DEBRIS?
	SM	MD	LG	
Logs				YES ☐ NO ☒
Vegetation				
Trash	X			TYPE <u> </u>
Debris				#BAGS <u> </u>

Photographs:

Roll No.

Frames

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (Y/N)	! ?	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		SO	SC	1	2	3	4	5	SU	U	M	L				
1	20					X	0.0	X							X							Pb/C
2	20					X	0.0	X								X						Pb/C
3	20					X	0.0	X										X				Pb/C
							.															
							.															
							.															

COMMENTS

REVIEWED BAT DATE 24 MAY 90

K103-88-5, Shuyak Strait, May 20, 1990

Segment K103-88-5 forms the northwestern shore of Shuyak Strait and extends 2.4 km south east from Cape Newland. The segment is exposed to the width of Shuyak Strait and, to some extent the influence of Shelikof Strait to the west. The segment was surveyed on May 20, between 1608h and 1659h and corresponding 3.5' to 2.9' tidal level.

The shoreline consists of small pocket beaches of well sorted and rounded pebble/cobble beaches, with a well defined storm berm and occasional pockets of sand in the upper intertidal zone. These pocket beaches are small and they alternate with longer sections of steep inaccessible bedrock cliffs.

Proceeding east from Cape Newland, the first pocket beach was found to be free of oil. the second one includes 2 small coats of splatter less than 10 cm in diameter and very little oiled trash; and the third beach includes trash and driftwood but no oil. The last beach to the west consists of subrounded cobbles and boulders in the lower and middle intertidal zone and pebbles in the upper intertidal zone. A few coats of splatters were found in the upper intertidal zone of this last beach.

00 Jason J. Lempel
SEGMENT ST/103 SS-5

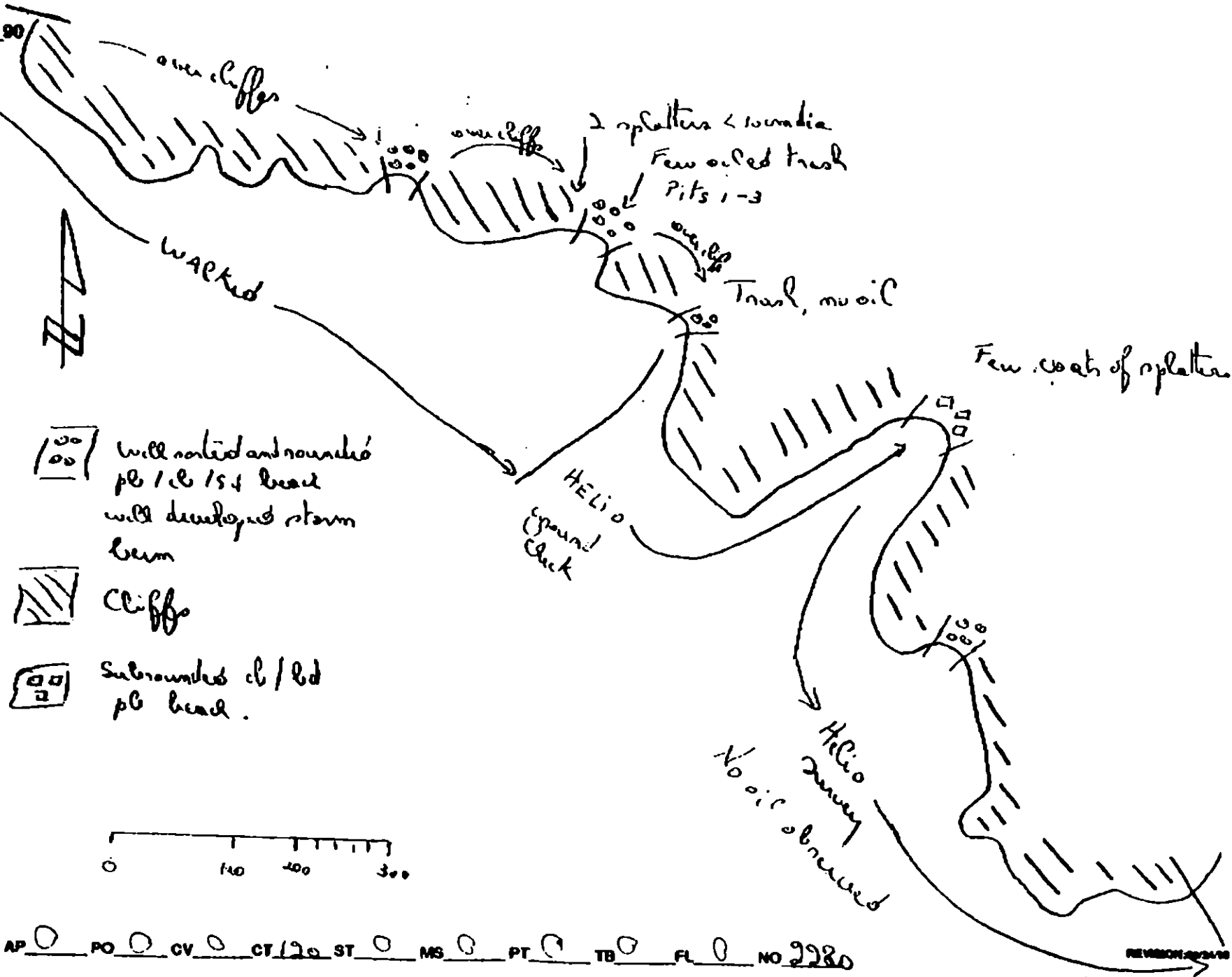
SKETCH MAP

SUBDIVISION A

DATE May 1 20 90

- CHECKLIST
- ☐ N Arrow
 - ☐ Approx. Scale
 - ☐ Seg/Sub Body
 - ☐ Oil Dist.
 - ☐ Width
 - ☐ Length
 - ☐ % Cover
 - ☐ Substrate Character
 - ☐ Est. HW/LWL
 - ☐ SSL
 - ☐ Profile Location(s)
 - ☐ Profile(s)
 - ☐ Pb Location(s)
 - ☐ Photo Location(s)

- LEGEND
- 1 Δ
PH - No Subsurface Oil
 - 2 Δ⁺
PH - Subsurface Oil
 - CT/C
Continuous Distribution
 - CT/B
Broken Distribution
 - CT/P
Patching Distribution
 - CT/S
Splashed Distribution
 - eee
Oiled Vegetation
 - 1 ●
Photo location, direction, and number



44-13-1590 13:22 FROM E-10, ALI-14

SHORELINE ECOLOGICAL SUMMARY

REVISION 08/22/89

Segment ST/K1-3/SS-5 Subdivision A Date (mo / day / yr) 5-20-90

Time (24 hr) 16:00 Biologist David Lohr

(A) Substrate type and % of segments:
(1) Bedrock 90 (2) Boulder 2 (3) Cobble 4 (4) Pebble 4 (5) Sand (6) Silt

(B) Overall % cover of biota (% of segment): Dense 20 Moderate 60 Low 20

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
Roll No.

Frames

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

GASTROPODS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments:

See page 2.

Ecological Considerations:

T-1: One mature bald eagle sited in area. No nest was observed.
SR: One on segment boundary with K1-4/AB-1, and one in adjacent segment K1-3/SS-2.

9PP

Shoreline Ecological Summary

2072

Segment ST/K1-3/SS-5

Subdivision A

5-20-90

Biologist: David Cohen

Wildlife Observations/General Comments

1. Present in low intertidal: *Alaria*, *Epicurus*, *Katharina tunicata*, *Rhodanella*, *Halosquilla*
mid intertidal: *Anthopleura*, *Sculpins*, *Ralfsia*, *Tealia*, *Rhodanella*, *Desmarestia*, *Gloiopeltis*, *Alaria*, *Epicurus*, *Katharina tunicata*, coralline algae, *Cladophora*, *Pagurus*
high intertidal: *Cladophora*
2. Several oystercatchers and gulls seen in area
3. Boulders in pocket beaches tended to be barren except for few barnacles, gastropods on protruding sides. Boulders around headlands tended to be rich in species.
4. Barnacle recruitment was patchy, as was recruitment of Fuus.

Recruitment and Mortality Summary

Segment ST/K1-3/SS-5

Subdivision A

5-20-90

Biologist: David Lohr

1. Recruitment of barnacles and Fuus was patchy
2. Barnacle mortality on bedrock was ~25% in mid-intertidal (one site surveyed) and ~40% in high intertidal (one site surveyed).

SEGMENT ST/103 SS-5

SKETCH MAP

SUBDIVISION A

DATE May 1 20 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Body
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. NWPL/VL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PH location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ
PH - No Subsurface Oil

2 Δ
PH - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

CT/P
Patchy Distribution

CT/S
Splashed Distribution

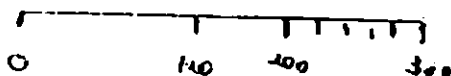
lll
Oiled Vegetation

1 ●
Photo location, direction, and number

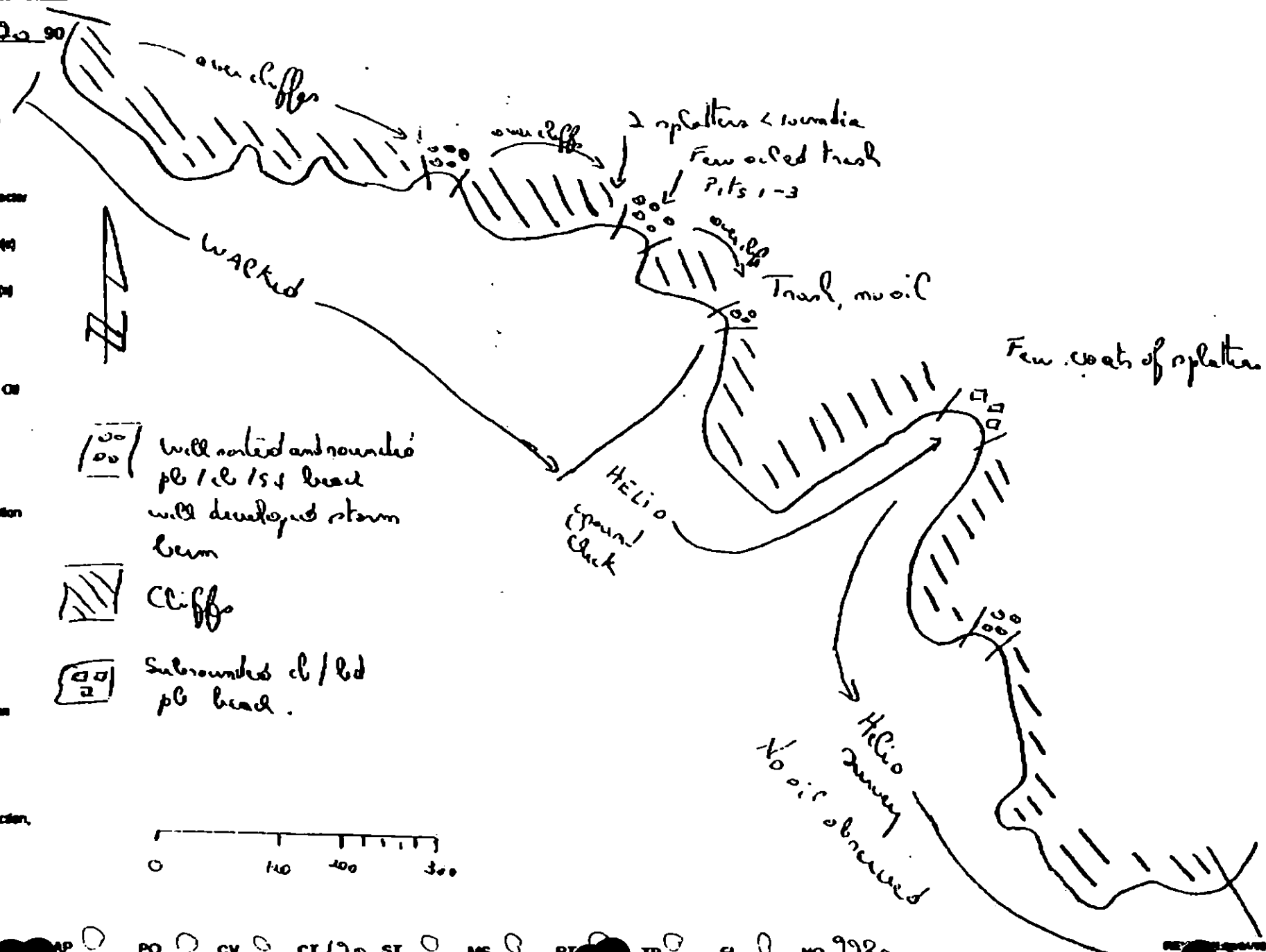
Well sorted and rounded
pb / cl / ss beach
with developed storm
berm

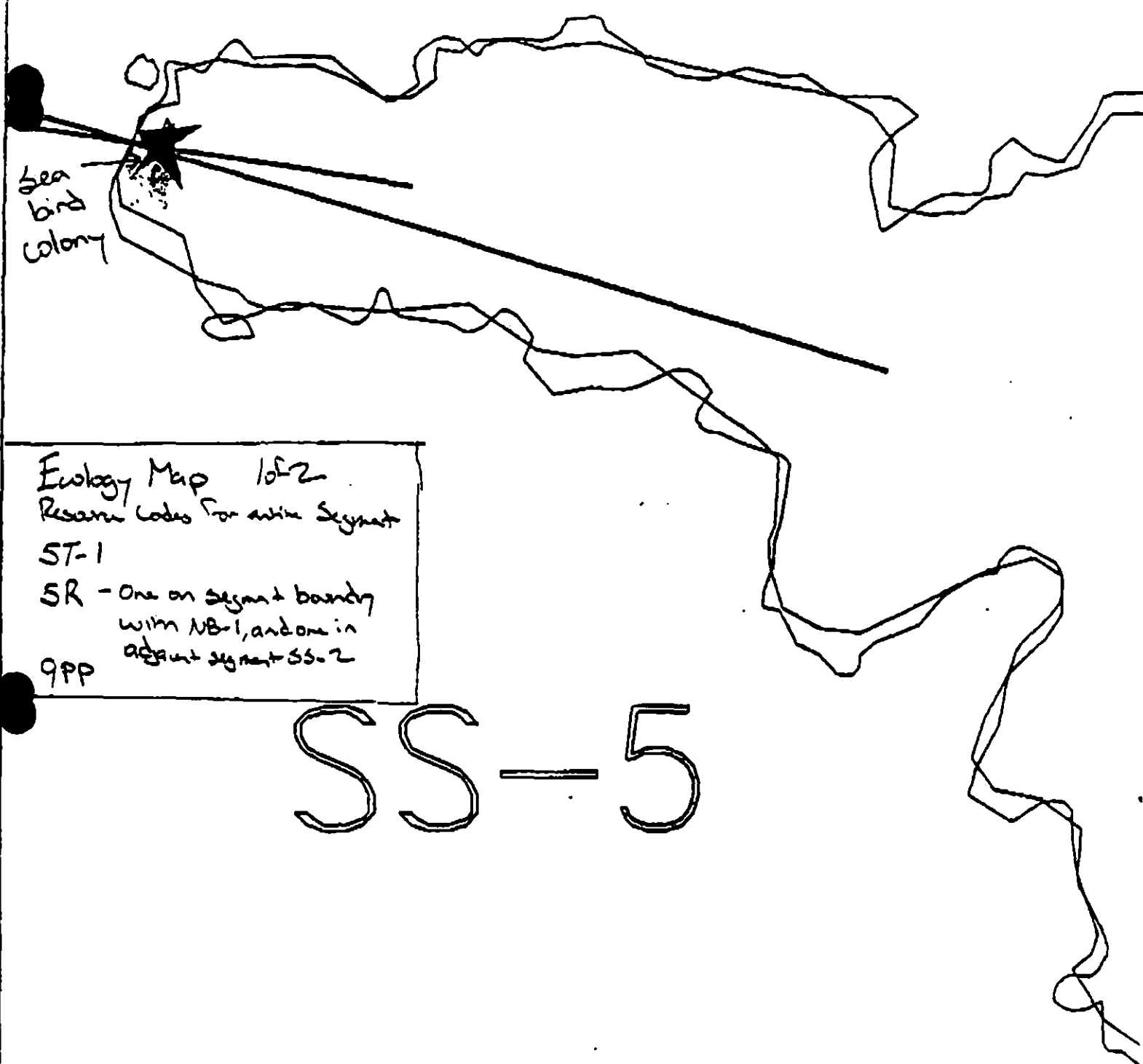
Cliffs

Subrounded cl / ld
pb beach.



Oil Character Len AP PO CV CT 120 ST MS PT TB FL NO 2280





Ecology Map 1052
 Reserve Codes for active Segment
 ST-1
 SR - One on segment boundary
 with NB-1, and one in
 adjacent segment SS-2
 9PP

SS-5

565 -

XXXX Wide
 //// Medium
 --- Narrow
 TTTT Very Light
 OOOO No Oil

SS-5

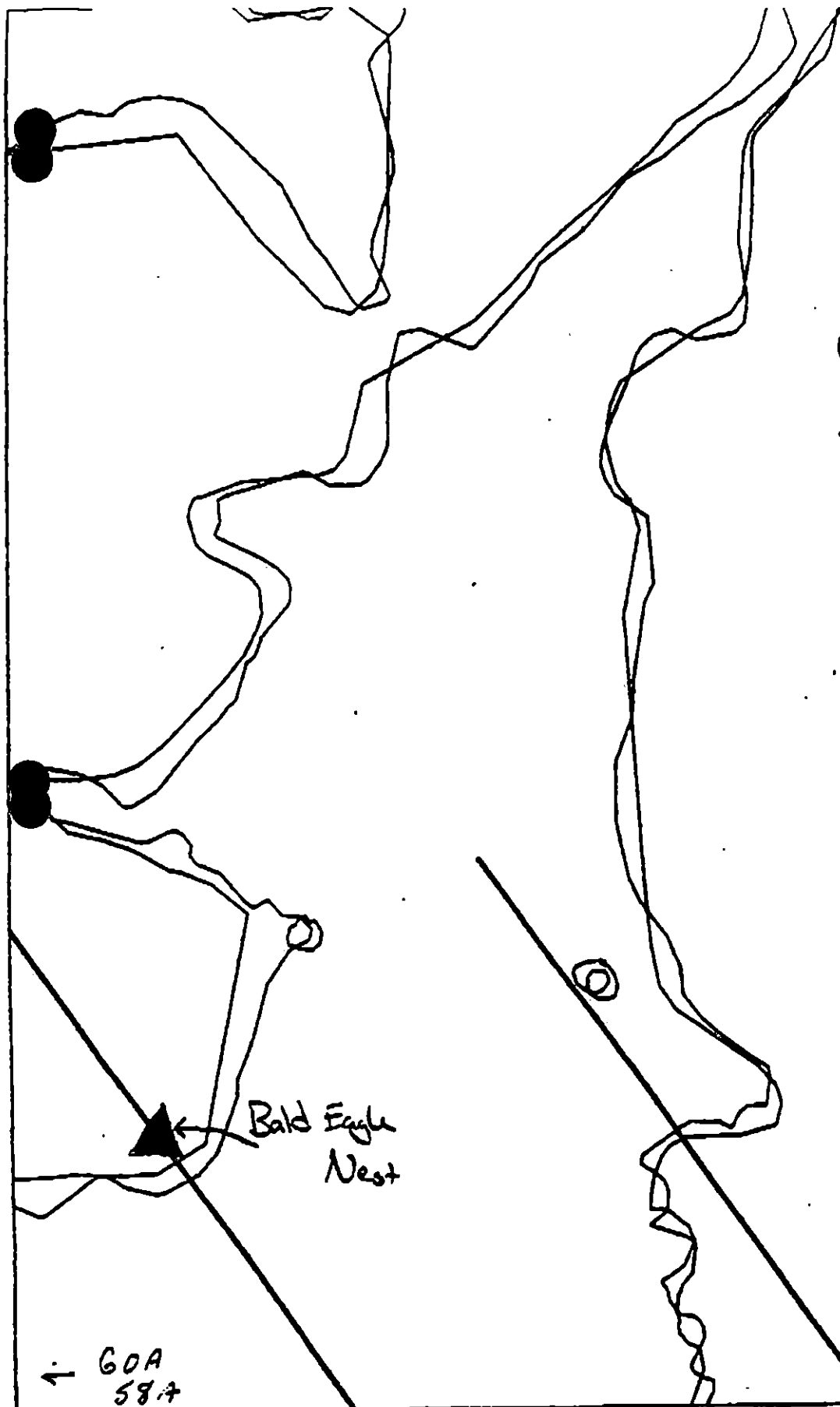
ADEC Segment Length: 2582m



Map Key: GOA-58a
 Name: _____
 Date: _____
 Data Entered: _____

SS-2

Ewing Map 2 of 2



SS-5

ADEC Segment Length: 2582m



Map Key: GOA-58b

Name: _____

Date: _____

Data Entered: _____

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

SS-5

56B -

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

1103 - SS-5

ADEC Segment Length: 2582m

0 100 200 300

Map Key GOA-58a

Name: Don Thomas

Date: May 30/90

Name Entered:

SS-2

← GOA
584

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

KØ1Ø3-SS-5

ADEC Segment Length: 2582m



Map Key: GOA-58b

Name: *from Tom Tempel*

Date: *May 20/93*

SHORELINE EVALUATION

SEGMENT ST/ K01-04-NB-001 SUBDIVISION A (1 OF 6) DATE 5/10/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
5R Seabird colony (5/1 to 9/1)
9PP Seat Otter Concentration Agency Request
4GG State Marine Park Alaska State Parks
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate.

SHPO SIGNATURE: Rachel Dan Dan DATE: 6/1/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 59 m: No Oil 1291 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u>X</u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u> </u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 5/31/90
ADEC ART WEINER Art Weiner
EXXON AMOTER Red FOSC: W L DATE: 6-8-90
NOAA Joseph Talbot J Talbot
USCG G.A. BEITER G.A. Beiter

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 1C Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Kotai Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
 East side Kodiak, East side Afognak (7/4 to 10/1)
- 1K Purse seine hook-off
 1L Set net sites
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- 3P Harbor seal and sea lion pupping (5/10 to 7/1)
 Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (8/1 to 9/15)
 6V Anchorages (8/1 to 9/15)
 6W Forest Service cabins (8/1 to 9/15)
 6X Lodge (8/1 to 9/15)
 6Y Special use destination
- 7Z Subistence area: Salmon harvesting (8/1 to 9/30)
 7H Finfish harvesting
 7I Deer harvesting (8/1 to 1/7)
 7J Invertebrate harvesting
 7K Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2350

SHORELINE EVALUATION

SEGMENT ST/ K01-04-NB-001 SUBDIVISION B (2 of 6) DATE 5/10/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All Bald Eagle nests (3/1 to 6/1)

Active Bald Eagle nests (3/1 to 9/1)

5R Seabird colony (5/1 to 9/1)

9PP Sea Otter concentration agency request

4GG State Marine Park Alaska State Parks

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

SHPO SIGNATURE: Charles J. Holmes DATE: June 12, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 37 m: Narrow 17 m: V.Light 315 m: No Oil 1195 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u> </u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u>X</u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u>X</u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u>X</u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommend treatment is removal of mousse as indicated on sketch map. Work after 6/1 with approval of USFWS due to Eagle Nest and Sea Bird Colony.

TAG COMMENTS:

TAG APPROVAL DATE: 5/31/90

ADEC Art WENNER Art Weiner

EXXON AMY TALL

NOAA JOHN TALBOT

USCG C.A. REITER

FOSC: W DATE: 6-17-90

Notify State Parks Service (Kodiak)
at least 24 hrs prior to cleanup.

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.
AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 1C Salmon fry nursery area (4/31 to 7/31)
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Kotol Bay Hatchery release
Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
1J Purse seine area
Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
East side Kodiak, East side Afognak (7/4 to 10/1)
1K Purse seine hook-off
1L Set net sites
Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- 3I Harbor seal and sea lion pupping (5/10 to 7/1)
3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
ADF&G Tom Roth 267-2208
- 5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (8/1 to 9/15)
6V Anchorages (8/1 to 9/15)
6W Forest Service cabins (8/1 to 9/15)
6X Lodge (8/1 to 9/15)
6Y Special use destination
- Subsistence area: Salmon harvesting (8/1 to 9/30)
Finfish harvesting
Deer harvesting (8/1 to 1/7)
Invertebrate harvesting
Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST K1-4 NA-1 SUBDIVISION: B DATE 5/10/90

NOAA

HSOG

NAME STEPHEN LEHMANN

SIGNATURE

[Signature]

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

This is a difficult area to make a recommendation for. Oil exists in the form of recoverable size mouse patties in very localized areas. The areas are generally small. However, the lagoon is quite productive and presumably quite sensitive. Treatment is recommended, but only if it can be done with a small crew. Otherwise I would recommend against it.

DEC

ME Terry Ellsworth

SIGNATURE

[Signature]

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Interstitial mouse with entrained sediment and mouse patties and tarballs occur along the west entrance and near the small island at the mouth of the lagoon. This represents most of the recoverable oil in the segment. Manual removal is recommended in these areas. Note Active eagle nest near. Strain, coat, cover, mouse in bedrock crevices, tarballs and patties occur through out the remainder of the segment in limited amounts with only a small amount of recoverable oil. Because of the sensitive nature of the lagoon no treatment is recommended in the remainder of the segment.

LAND MANAGER

NAME Mike Goodwin

SIGNATURE

[Signature]

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

This subdivision is contained within the Legislatively designated SHUYAK Island State Park. The oiling caption identified in this subdivision that is recommended for removal is described as a 13 x 60 M. band of mouse and cover mixed with the beach sediments that can be removed by manual methods. Treatment of very small amounts of oil within the lagoon are not recommended.

FIELD SHORELINE COMMENT SHEET**LAND MANAGER COMMENT CONTINUED**

It should be noted that an active eagle nest is located on the western shoreline of this segment at the entrance of the lagoon that lies to the north. Every effort should be given to avoid this wildlife sensitivity during the proposed treatment activity. This subdivision has high recreational values primarily for non-motorized boaters that frequent the area. The lagoon provides wildlife viewing opportunities and should not be entered with treatment crews operating motorized skiffs.

SHORELINE OILING SUMMARY

REVISION NO. 04/15/88

1 OG HERMAN NOAA USCG S LEHMAN SEGMENT ST/ K0104 N/R 001
 2 SHURMAN LAND REP H GOODMAN 2/R SUBDIVISION 8 (2 OF 6)
 EXXON NOT PRESENT ADEC T ELMWORTH TIME 12:00 10/13/90
 TEAM NO. 19 TIDE LEVEL +2 to +3.5 DATE 5/10/90
 EST. SUBDIVISION LENGTH: 2375 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N (clockwise)
 SURFACE SEDIMENTS: R 30 % B 3 % C 15 % P 10 % G 2 % S 30 % M 2 % V 2 %
 SLOPE: Long 95 % Hang 3 % Vert 2 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 55 m N 30 m VL 290 m NO 2020 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	N	S	E	W	1	2	3	4	SU	U	M	L
ASPHALT PAVEMENT												
POOLED												
COVER				X	X	X			X			
COAT				X	X				X			
STAIN												
MOUSSE		X	X				X		X			
ITIES		X	X				X		X			
TARBALLS		X	X		X				X			
FILM									X			
NO OIL									X	X	X	

PAVEMENT H F S 0 sq. m by 0 cm

PATTIES / TARBALLS 7 BAGS

NEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒

TYPE

#BAGS

Photographs:

Roll No.

Frames

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	W E E R	(V M)	↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OP	NO		US	US	1	2	3	4	SU	U	M	L					
1	20					X	0-0	X						X				N	-	-		P/PS
2	25					X	0-0	X						X				N	-	-		P/S/SM

COMMENTS

OG COMMENTS K01 04 NB 001 B (20P6) OG HEYMAN 5-10-90

This subdivision consists of the western entrance, the small island at the mouth, and the western half of the prominent lagoon northwest of Nakata Bay. The entrance to the lagoon is formed by cobble-pebble beaches with $< 15\%$ boulders. The lagoon is ringed by a very narrow shore consisting of rock outcrops separated by fine grained soils eroding from the dense spruce forest surrounding the lagoon. A few pebble & fine grained pocket beaches also lie along the shore.

→ The largest oiled area was observed on the beach just southwest of the lagoon mouth. A $13 \times 50-60$ m band of MS, CT & CV lies along the lower U12. CT & CV were observed in a similar band continuing 30-40 m to the SW. Random MS, CT & CV occur at a similar shore face level to the NE. One area of more concentrated MS was observed to be about 30×2 m.

The MS in the area is interstitial to the cobbles and entrance pebbles, gravel & sand. The interstitial MS occurs in patches up to $1 \times \frac{1}{2}$ m & is generally not more than 1 cm thick. The MS is DBR on the outside than a shiny medium to dark brown interior that is very sticky and appears like it could become mobile at higher temperatures. The undersides of a few cobbles had a little MS cover, but most were clean. A layer of fine sand & silt with pebbles was observed beneath the cobbles which appeared to confine the MS to the surface. The middle 5 m of the band had a cover of 5 to 20%. Cover over the rest of the area varied from < 1 to 10%.

Oiling along the west shore of the lagoon was generally limited to CT, CV with spruce needles bound by the oil, & MS in fractures & crevices and on the bedrock faces & splitters. A few MS patches & tar balls were also observed along the shore.

The small lagoon at the north end of the subdivision was not surveyed by group consensus. No oil was observed at the entrance, the area was very shallow, the tide window was closing, and the weather was slowly closing.

SKETCH MAP

SUBDIVISION LOCATION MAP

NB-1

NB-1A

NB-1B

NB-1C

NEKETA

BAY

0 300 600



USCG HEAVY
SEGMENT ST/KE 004 NB-001

SUBDIVISION B

DATE 5/11/90

CHECKLIST

- ☐ M Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Off Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. Ht/Lt/Vol
- ☐ SSI
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ P/L Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

2Δ - No Subsurface Oil

2 Δ

3Δ - Subsurface Oil

CT/C

Zone/Status Distribution

CT/B

Island Distribution

CT/P

Island Distribution

CT/S

Island Distribution

Shad Vegetation

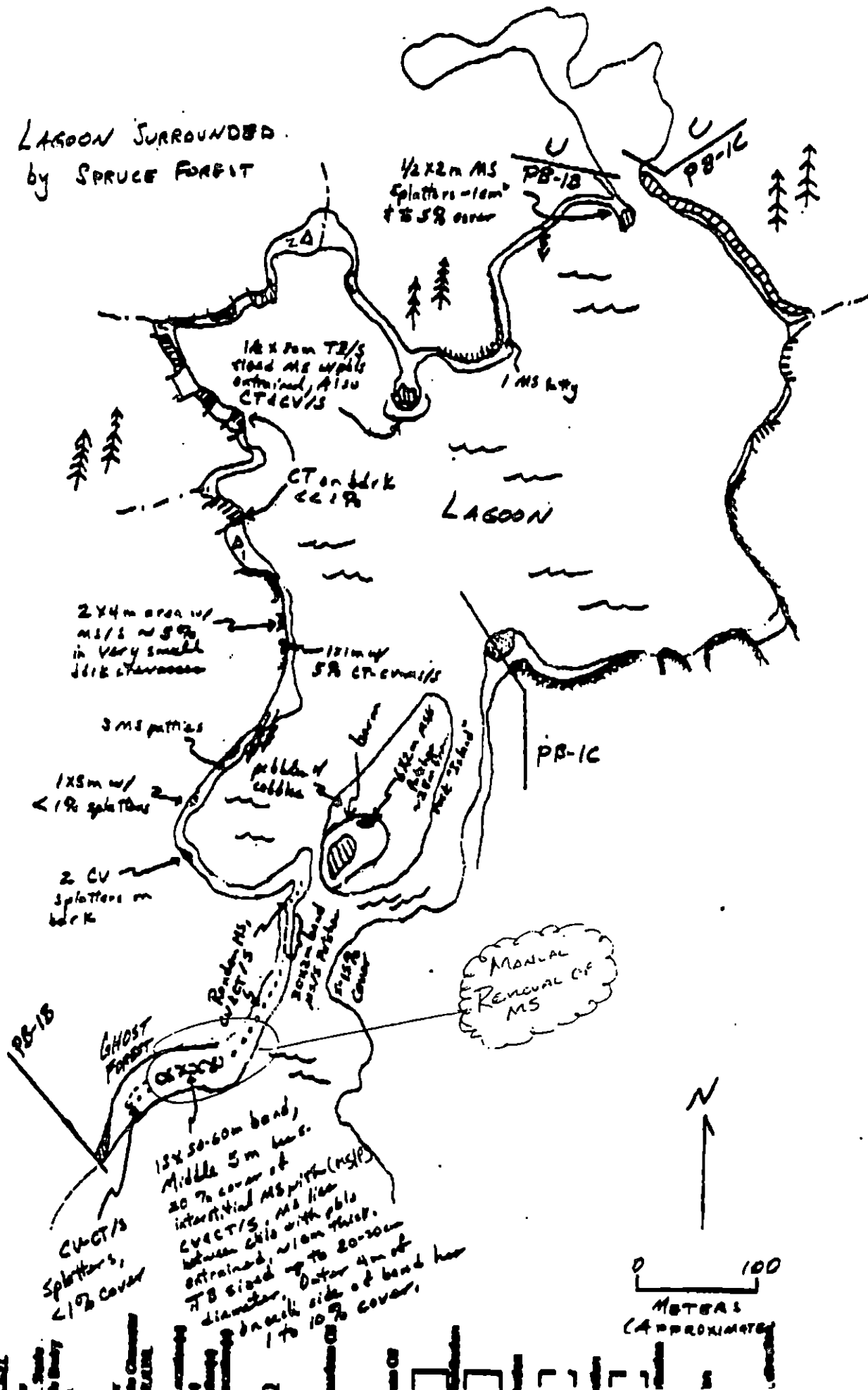
1 Δ

Note location, direction, and number

Changing Location (m) 100 200 300 400 500 600 700 800 900 1000

SKETCH

LAGOON SURROUNDED
by SPRUCE FOREST



MA-18-1990 15:37 FROM EXXON KODIAK TO 15643771 P.25 F.2.9

SHORELINE ECOLOGICAL SUMMARY (Page 1 of 4)

REVISION: 03-22-70

Segment ST / K1-4 Subdivision B Date (mo / day / yr) 5/10/90

Time (24 hr) 1200-1300 Biologist SHARMAN

(A) Substrate type and % of segments: SUBDIV.
(1) Bedrock 30 (2) Boulder 3 (3) Cobble 15 (4) Pebble 10 (5) Sand 32 (6) Silt 8 + granules mud

(B) Overall % cover of biota (% of segment): Dense SUBDIV. Moderate X Low

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
Roll No.

Frames

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

GASTROPODS (ANCELLA, LITTORINA, LYMÆTE)

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments: 4 pairs red-breasted mergansers, 3 pairs harlequin ducks, 1 pair widgans, 2 pairs green-winged teal, 1 unidentified loon, 1 pair oystercatchers, 2 pairs scaup. 2 sks otters. Occasional deer and other bones scattered in intertidal zone not uncommon, 1 river otter skull. Very abundant deer tracks (scats) trails in forest + supratidal fringe; (cont.)

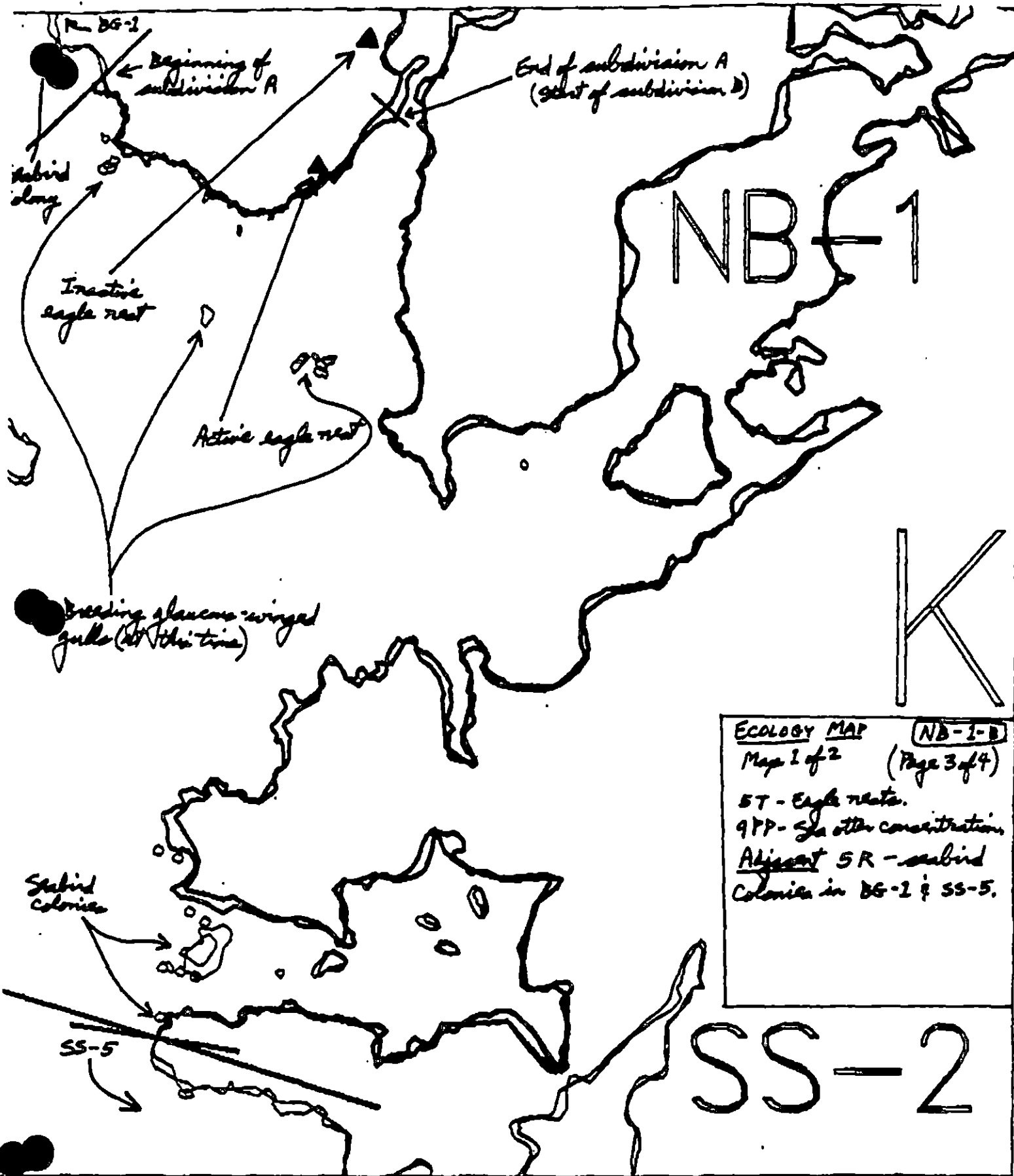
Ecological Considerations:

Please see Eco. Map. The primary concerns within this subdivision relate to the presently active eagle nest adjacent in subdivision "A" to the S. This nest should be considered operationally to occur within this subdivision "B" as well. Note also the other eagle nest which appeared inactive during this survey but is in very good repair. Additional consideration should be given to the general sensitivity of the lagoon proper, as a protected and productive area of important foraging habitat for many bird and terrestrial mammal species as well as potential for sea urchin grazing on eelgrass (see nearby).

NB-1-B

Shoreline Ecological Summary (cont.)
(Page 2 of 4)Sharon
5/10/90General Comments (cont.):

some deer tracks in intertidal, down to MTE. Hermit and varied thrushes singing from the forest; red squirrels abundant in forest. Clearly the area supports a dense population of deer. Intertidal habitat in this subdivision is quite protected, low-energy, with a predominance of fine-grained sediments and infaunal biota. Apparently quite unroad and healthy. Occasional low-elevation beaches backed by drowned forests evidence the apparent subsidence of the area during the 1964 earthquake. Rocky beaches are moderately diverse, with sparse barnacles (good spring spat out), rose mussels, and Fucus, Adonthalia, Scytosiphon, and Enteromorpha. The S. portion of the subdivision is particularly rich + diverse, benefiting from relative protection + nourishing tidal racks at the narrow entrance to the lagoon. Species include coralline algae, Toricella, Margarita, Dagueria, and anemones and limpets. The inner lagoon proper is predominantly finer sediments, with discontinuous sparse stands of LTE Zostera. There are scattered shells of Saxidomus, Protothaca, Mya spp., and Macoma spp. on the surface. Also Chionea. There are many snail drill holes in some of these shells. Jugworms (Arenicola) and especially spoonworms (Echiuri) reside in the MTE and LTE sediments, with other unidentified worms and bivalves (mostly Mya/Macoma spp.).



ECOLOGY MAP **NB-1-B**
 Map 1 of 2 (Page 3 of 4)
 ST - Eagle nests.
 QPP - See other concentration.
Adjacent SR - subsidiary
 Colonies in DG-2 & SS-5.

XXXX Wide
 /// Medium
 --- Narrow
 TTTT Very Light

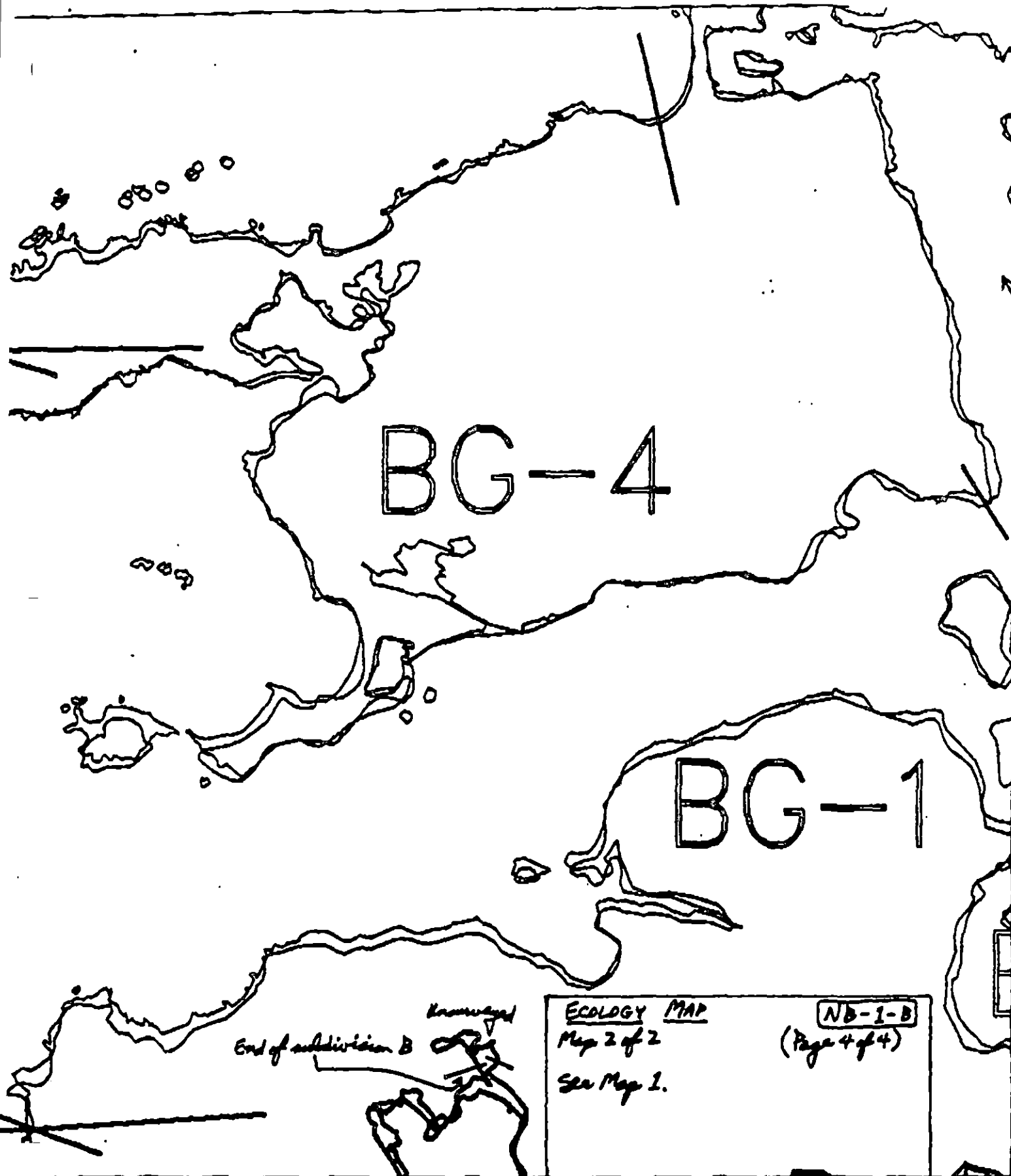
NB-1-B

Approx. Segment Length: 26978

Map Key: KOD-NB-1a

Name: _____

Date: _____



XXXX Wide
//// Medium
--- Narrow
TTTT Very Light

NB-1-B

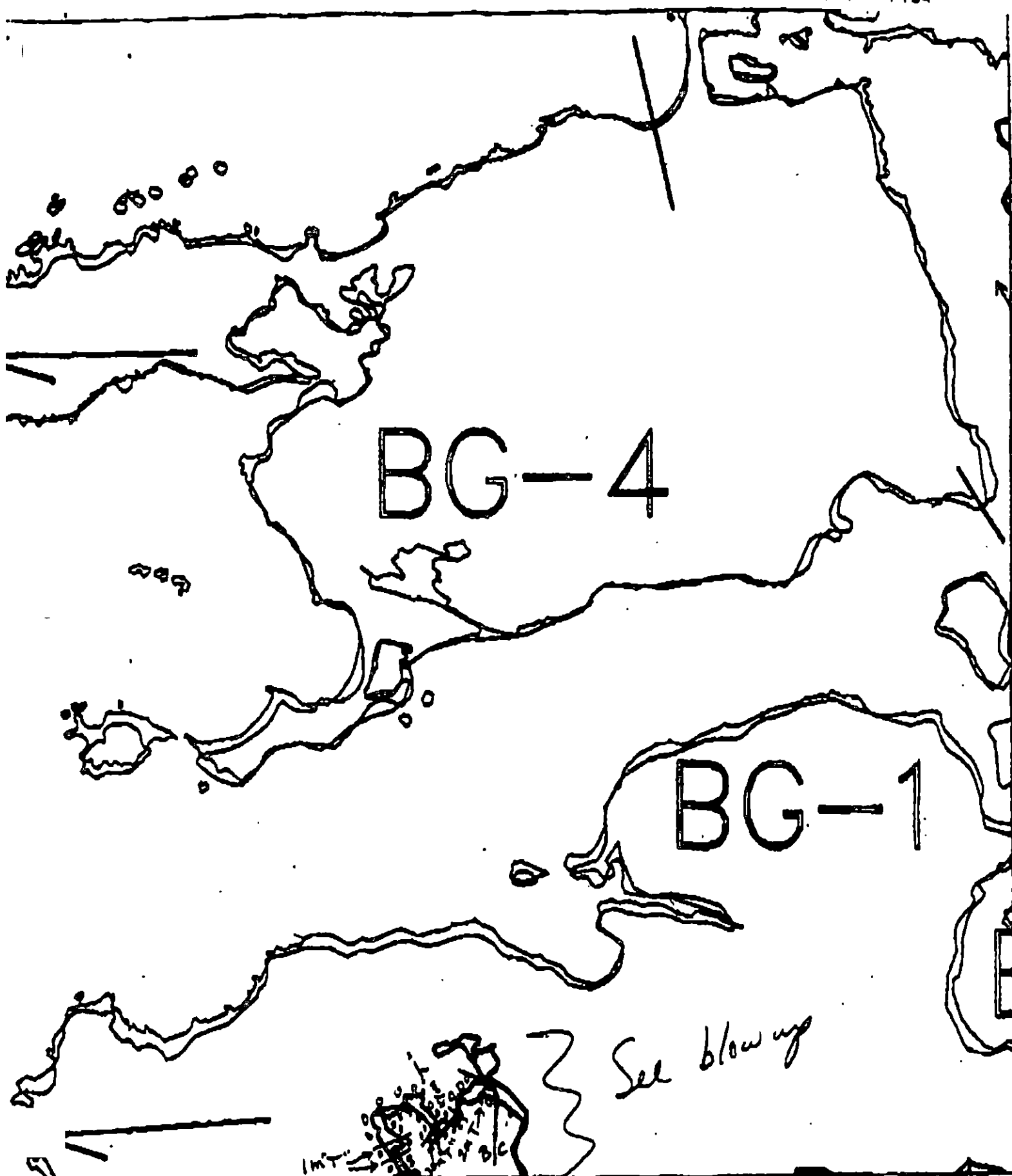
Approx. Segment Length: 20078m

1. ... 1. ... 1. ... 1. ...

Map Key: KOD-NB-1c

Name: _____

Date: _____



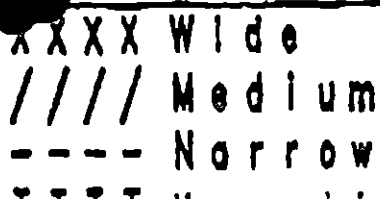
XXXX Wide
//// Medium
--- Narrow

1 mi
4 mi
KI-4-NB-1B

Approx. Segment Length: 2007m

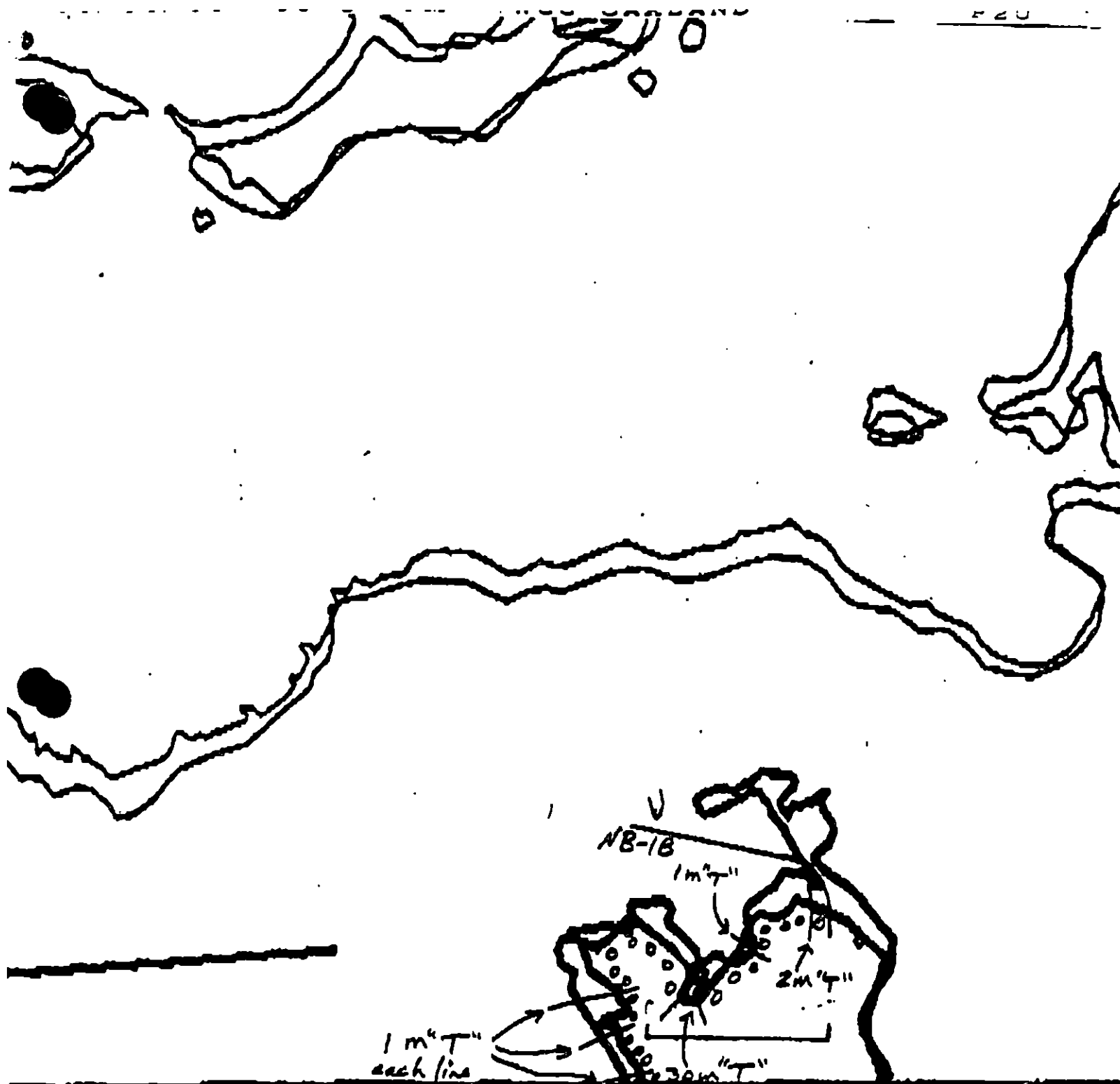
Map Key: KOD-NB-10

Name: KS Hayman



Approx. Segment Length: 24078

Name: OG Heyman
 Date: 5-17-07



Wide

Medium

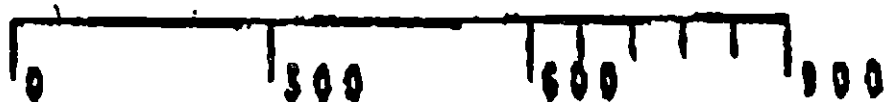
Narrow

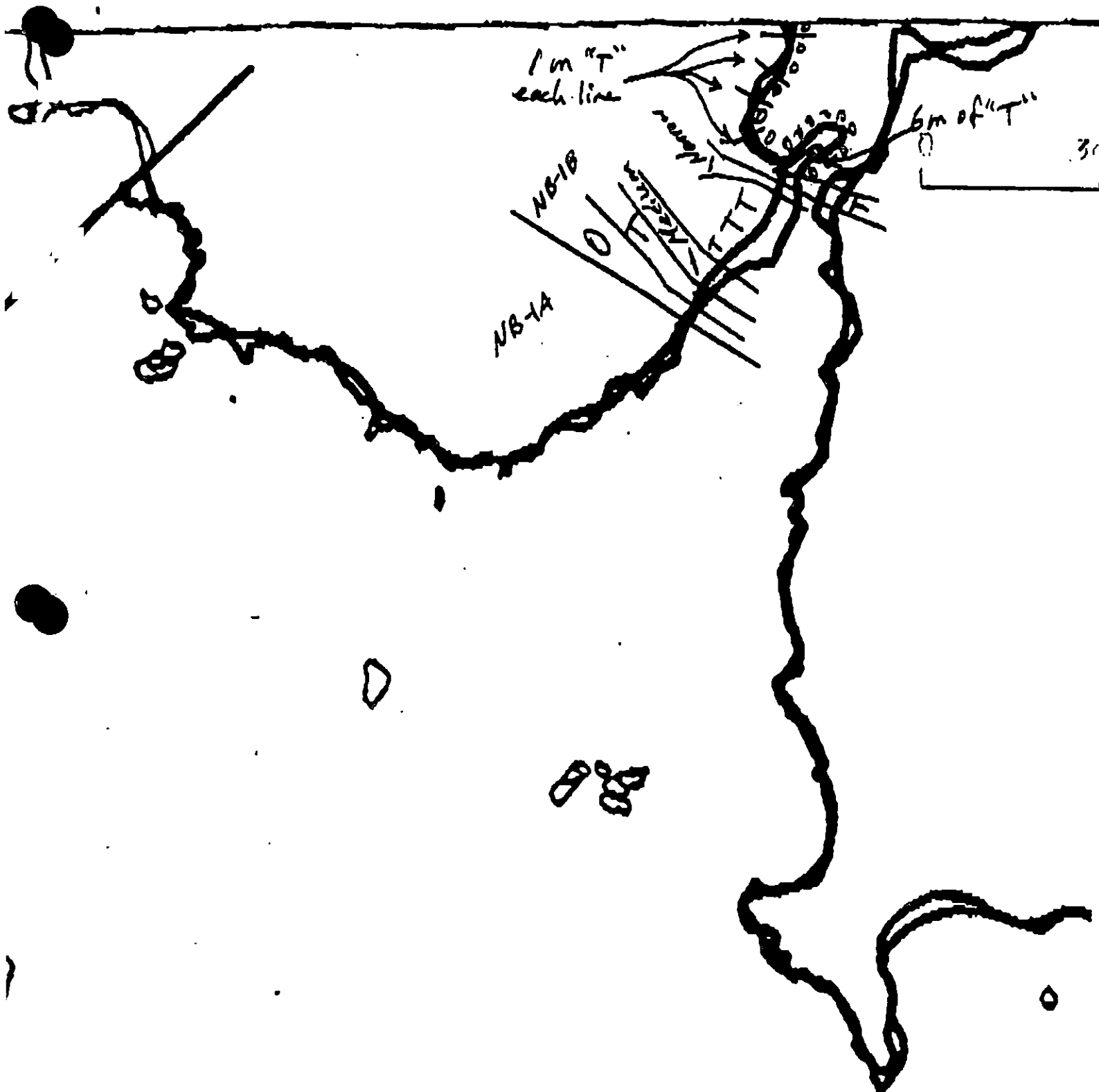
Very Light

NB-1B

Blow up

Approx. Segment Length: 26





Blow up
NB-1B

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K01-04-NB-001 SUBDIVISION B (2 of 6)

WORK WINDOW	
Manual Pickup	CLOSED

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T	Bald Eagle Nest	USFWS 4/9/90 map indicates an active nest in Subdivision B. Closed to manual pickup within 400m of active nest.
5R	Seabird Colony	NO CONSTRAINT. Work site is more than 800m from seabird colony.

OTHER ECOLOGICAL CONSIDERATIONS

If eagle nest constraint is removed, other ecological considerations will apply.

FOSC

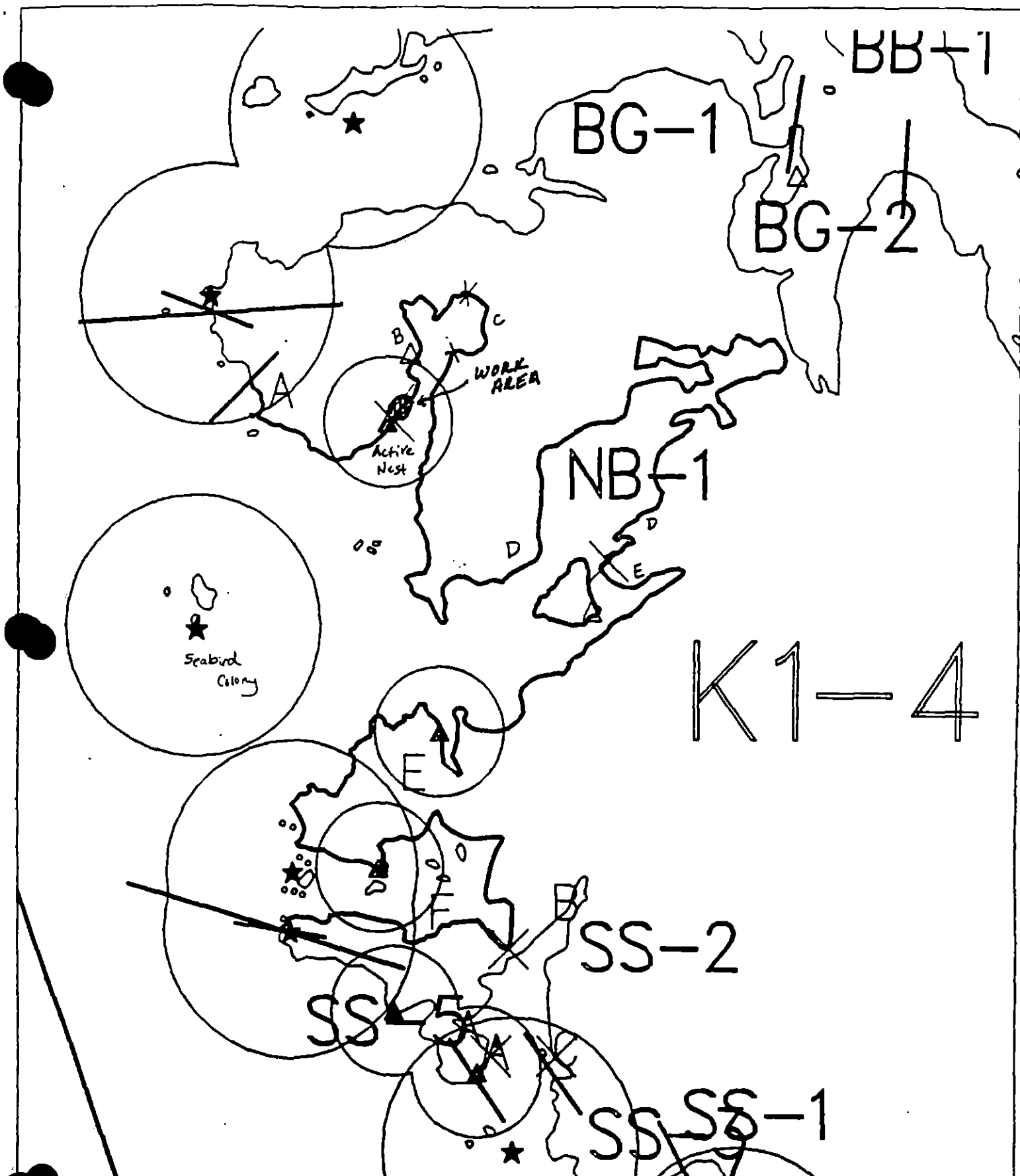
Date

6-22-90

Prepared by

Date

6/22/90



Exxon Company, USA

Map Key: KOD-NB-1

June 10, 1990



ECOLOGY MAP
SEGMENT K1-4 NB-1
SUBDIVISION B (2016)
METERS

- ★ Seabird Colony
- ▲ Active Eagle Nest
- △ Inactive Eagle Nest

SHORELINE EVALUATION

SEGMENT ST/ K01-04-NB-001 SUBDIVISION C (3 of 6) DATE 5/10/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All Bald Eagle nests (3/1 to 6/1)

Active Bald Eagle nests (3/1 to 9/1)

5R Seabird colony (5/1 to 9/1)

9PP Sea Otter concentration agency request

4GG State Marine Park Alaska State Parks

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate.

SHPO SIGNATURE: Charles J. Holmes DATE: June 12, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 17 m: V. Light 196 m: No Oil 373 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

☒ No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u> </u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
☒ Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS:

TAG COMMENTS: MANUAL PICKUP OF TARBALLS / MOUSE AS INDICATED ON
SOUTH END OF LAGOON. - SEE SKETCH.

TAG APPROVAL DATE: 5/31/90.

ADEC ART Weimer Art Weimer

EXXON ANDY GOR Andy Gor

NOAA Joseph Talbot Joseph Talbot

USCG G.A. BELTZER G.A. Beltz

FOSC: DATE: 6-17-90

Notify State Park Service (Kooluk)
at least 24 hours prior to cleanup.

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 1C Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Kotol Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
 East side Kodiak, East side Afognak (7/4 to 10/1)
- 1K Purse seine hook-off
 1L Set net sites
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- 30, 30 Harbor seal and sea lion pupping (5/10 to 7/1)
 Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (6/1 to 9/15)
 6V Anchorages (6/1 to 9/15)
 6W Forest Service cabins (6/1 to 9/15)
 6X Lodge (6/1 to 9/15)
 6Y Special use destination
- Subsistence area: Salmon harvesting (6/1 to 9/30)
 Finfish harvesting
 Deer harvesting (8/1 to 1/7)
 Invertebrate harvesting
 Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2350
- 7J
 7K

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ K1-4 NB-1 SUBDIVISION: C DATE 5/10/90

NAME STEPHEN LEHMANN SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED - see comments.

The small amount of mouse is manually removable + treatable, but the same comments apply here that were expressed for the adjacent subdivision (NB1.B) - a small crew. A full size crew would cause more disturbance than the amount of oil merits.

ADEC NAME Terry Ellsworth SIGNATURE Terry Ellsworth

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Coat, cover, mouse in bedrock crevices, and mouse patties occur discontinuously from the north segment boundary for approximately 150 m and then sporadically over the rest of the segment. Total amount of recoverable oil is small. Manual removal is recommended only for the mouse patties at the southern boundary of the segment when treatment occurs on NB-1D. Due to the sensitive nature of the lagoon no treatment is recommended for most of the segment.

LAND MANAGER NAME Mike Goodwin SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

This subdivision is located within the legislatively designated SHUYAK ISLAND STATE PARK. The oil identified for removal is located on the southern most 200M of the subdivision. IT was found as broken mouse patties that are recommended for manual removal. This area can be accessed by foot without operating skiffs into the environmentally sensitive lagoon. The active eagle nest to the west of the lagoon entrance should not be disturbed.

SHORELINE OILING SUMMARY

REVISION NO. 04/13/88

NO. 06 HEYMAN 1800 S LEHMANN SEGMENT ST/ K 0109 NR 001
 BIO L SHARMAN LAND REP M Goodman DNR SUBDIVISION C (3 OF 6)
 EXXON Not Present ADEC T. Ellsworth TIME 15:00 to 19:00
 TEAM NO. 19 TIDE LEVEL +3.5 to +3.5 DATE 5/10/90
 EST. SUBDIVISION LENGTH: 100 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S (clockwise)
 SURFACE SEDIMENTS: R 50 % B 1 % C 1 % P 5 % G 0 % S 33 % M 10 % V 0 %
 SLOPE: Long 30 % Hang 60 % Vert 10 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 3 m VL 202 m NO 595 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	N	E	S	W	1	2	3	4	SU	U	M	L
ASPHALT PAVEMENT												
POOLED												
COVER					X	X					X	
COAT					X	X					X	
STAIN					X	X					X	
MOUSSE					X			X			X	
PATTIES					X	X		X			X	
TARBALLS					X	X					X	
FILM												
NO OIL									X		X	X

PAVEMENT II 1-8 0 sq. m by 0 cm

PATTIES / TARBALLS 5 BAGS

NEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒

TYPE

#BAGS

Photographs: ST-M(III)-1

Roll No.

Frames 5

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	DEBRIS (Y/N)	↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	US	1	2	3	4	SU	U	M	L				
1	20					X	0-0		X						X			N	-	-	P/P M
2	15					X	0-0		X						X			N	-	-	P/P M

COMMENTS

OG COMMENTS K0104 PB 001 C OG HOGMAN 5-10-90

This subdivision consists of the east side of the prominent lagoon NW of Neketa Bay. The southern subdivision boundary is located where the team was when the helicopter pilot stopped work due to closing weather.

The subdivision shoreline is very narrow and is composed of bedrock at or above the water line at the time of the survey and very fine soil weathering from the bedrock and the sparse forest above. A few pocket beaches were encountered with pebbles and a few cobbles.

Oil along the subdivision was typically observed as splatters of CV&CT on bedrock faces or as MS in bedrock fractures & crevasses. A few turbidite & MS patties were also observed at random locations. More concentrated MS patties were observed in a 3m² area by the creek in the NE part of the subdivision and at the SW subdivision boundary. These patties were typically 2-3 ft in diameter.

OG Hex

MENT ST/ K0104 NB-001

BDIVISION C

ITE 5 1/10/90

HECKLIST

- N Arrow
- Approx. Scale
- Say/Side Study
- Off Dist.
- Width
- Length
- % Cover
- Substrate Character
- Fst. HML/LWL
- SSL
- Profile Location(s)
- Profile(s)
- Pt Location(s)
- Photo Location(s)

EGEND

1 Δ
No Subsurface Oil

2 Δ
Subsurface Oil

CT/C
Surface Distribution

CT/B
Bottom Distribution

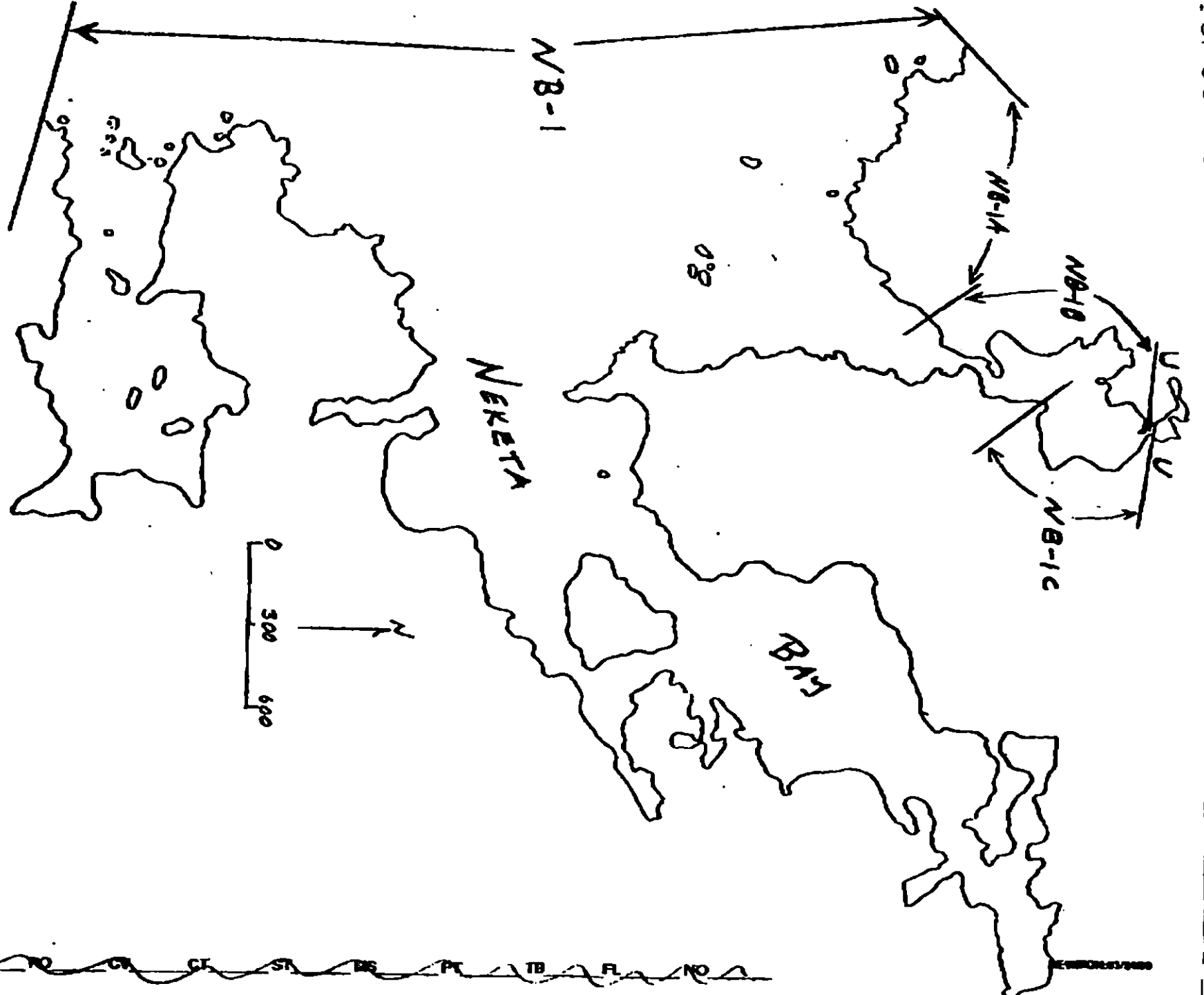
CT/P
Ply Distribution

CT/S
Shed Distribution

d Vegetation

to location, direction,
number

SKETCH MAP
SUBDIVISION LOCATION MAP



Length (m) AP NO CT CT ST BS PT TB FL NO

05.15.90 03:07 PM WCC-OAKLAND

SKETCH



0 100 0 90 0 48 0 50 0 13 0 4 0 595

Hezman
151K0104 NB 001
XON C (2.0.0?)
06/01/1

ISI

State
Library

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SHORELINE ECOLOGICAL SUMMARY (Page 1 of 3)

Segment ST / K1-4 Subdivision C Date (mo / day / yr) 5/10/90

Time (24 hr) 1300-1400 Biologist SHARMAN

(A) Substrate type and % of segments: SUBDIV.
(1) Bedrock 50 (2) Boulder 1 (3) Cobble 1 (4) Pebble 5 (5) Sand 33 (6) Mud 10

(B) Overall % cover of biota (% of segment): Dense SUBDIV. Moderate X Low

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs: Roll No. ST-M(III)-1

Frames 5

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

GASTROPODS (ANCELA, LITTORINA, LIMPET)

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

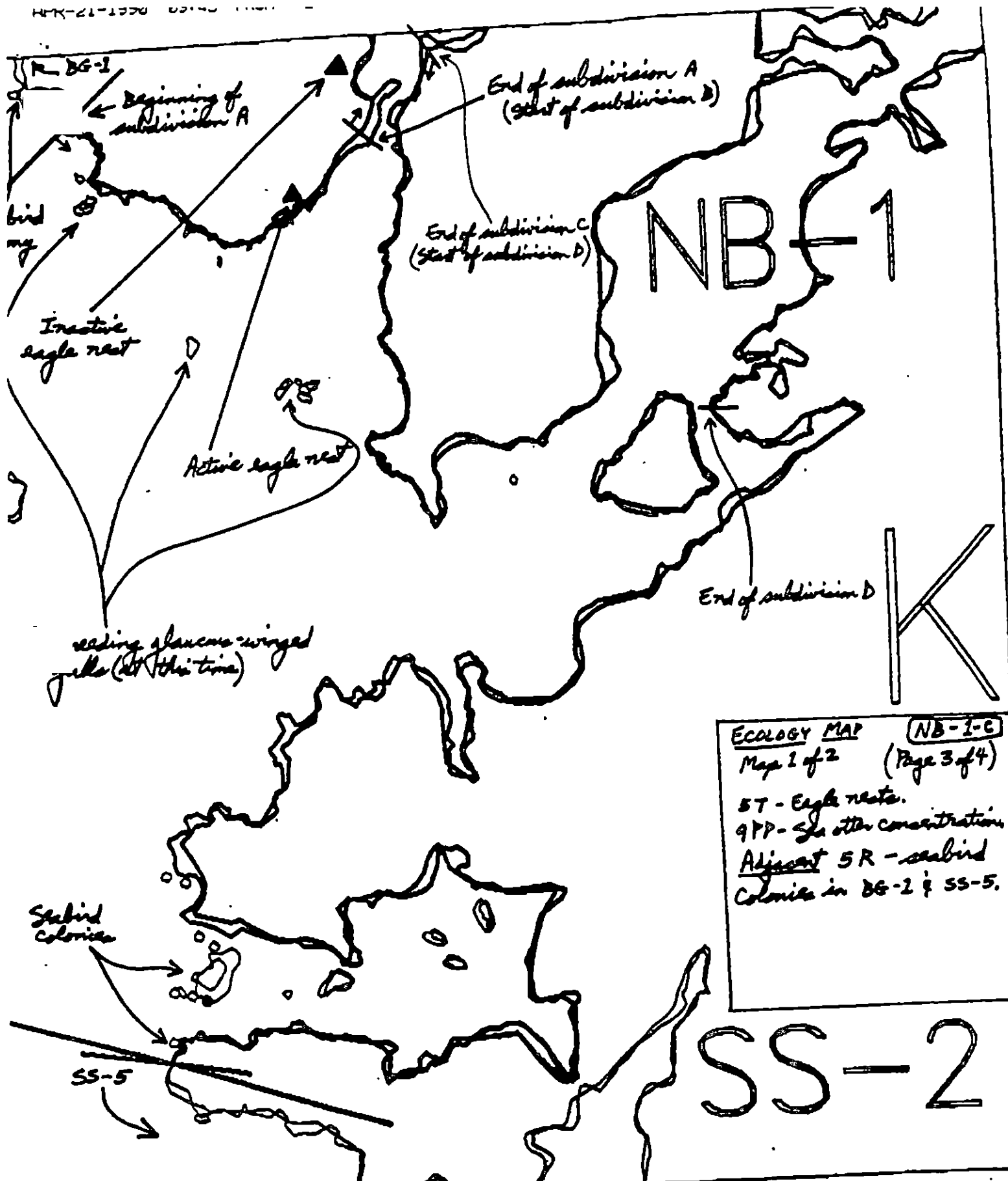
FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments: 3 pairs red-breasted mergansers, 1 juvenile eagle, 1 pair oystercatchers. This segment subdivision is a continuation of subdivision "B", and the general comments are exactly the same. Please refer to this section of the subdivision "B" report re. marine and terrestrial birds observations and comments. In general, this subdivision contains a higher proportion of bedrock than does "B".

Ecological Considerations: Please refer to attached Eco. Maps. No particular specific sensitivities identified for this subdivision, but all sensitivities identified for subdivision "B" apply as well to this subdivision. Please refer to this section of the subdivision "B" report. Primary concerns relate to the general productivity and sensitive nature of the lagoon in general (and its importance to birds, terrestrial mammals, + sea otters), and the nearby eagle nests on the opposite (W) side of the lagoon which should be considered seasonally to occur in this subdivision as well.



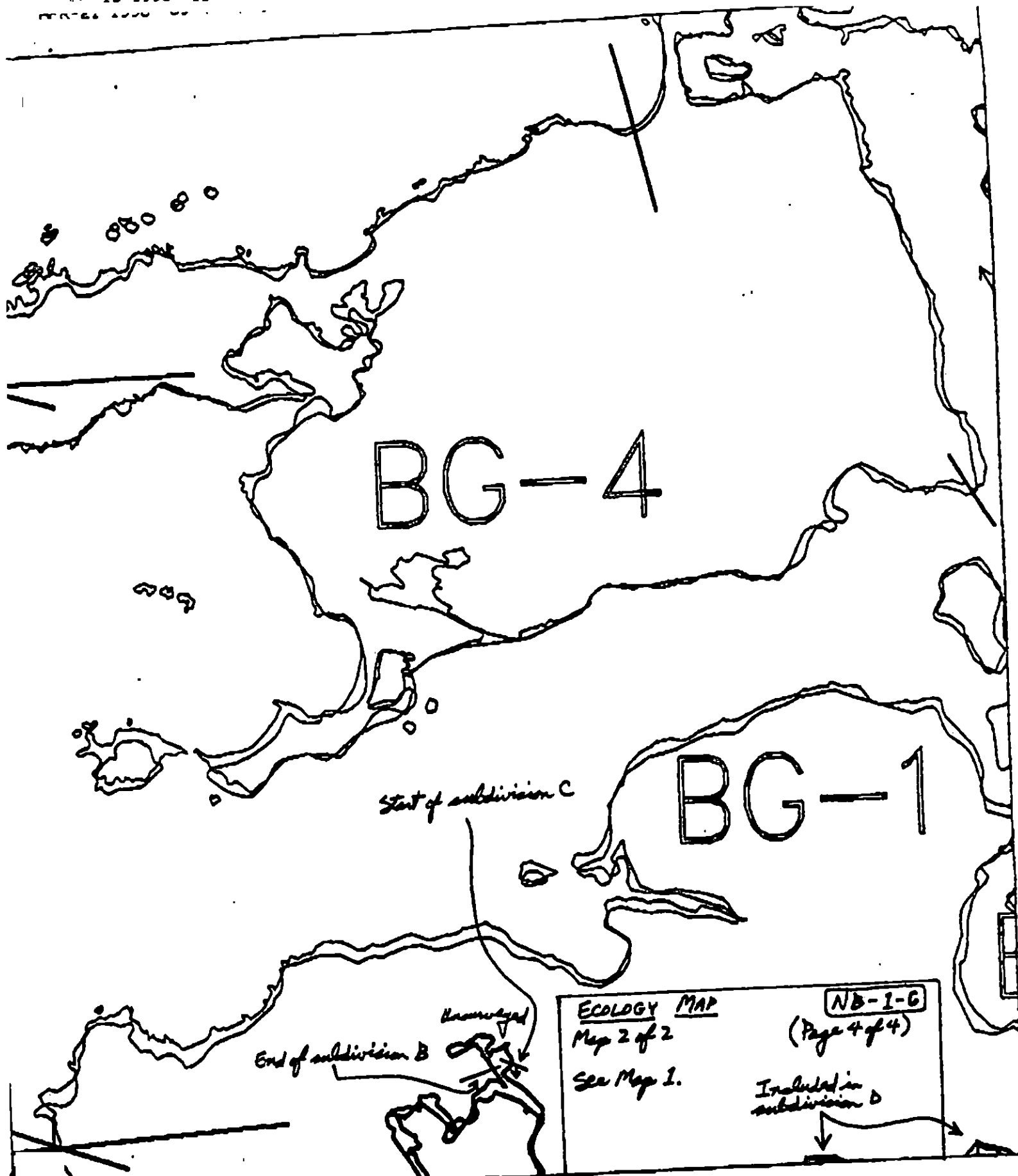
ECOLOGY MAP **NB-1-C**
Map 1 of 2 (Page 3 of 4)
ST - Eagle nests.
APP - Sea otter concentrations.
Adjacent SR - seabird colonies in DG-2 & SS-5.

XXXX Wide
//// Medium
--- Narrow
TTTT Very Light

NB-1-C

Approx. Segment Length: 26978

Map Key: KOD-NB-1a
Name: _____
Date: _____



XXXX Wide

//// Medium

--- Narrow

TTT Very Light

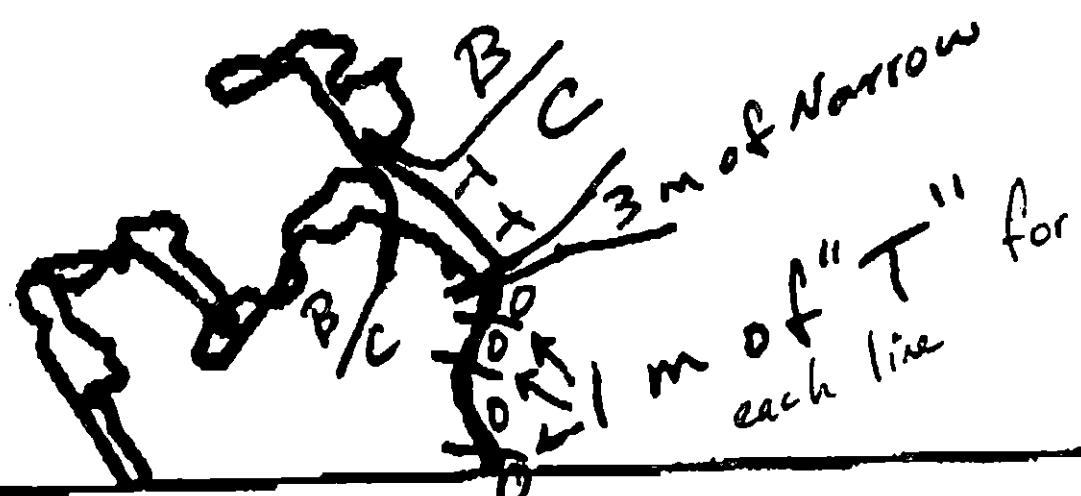
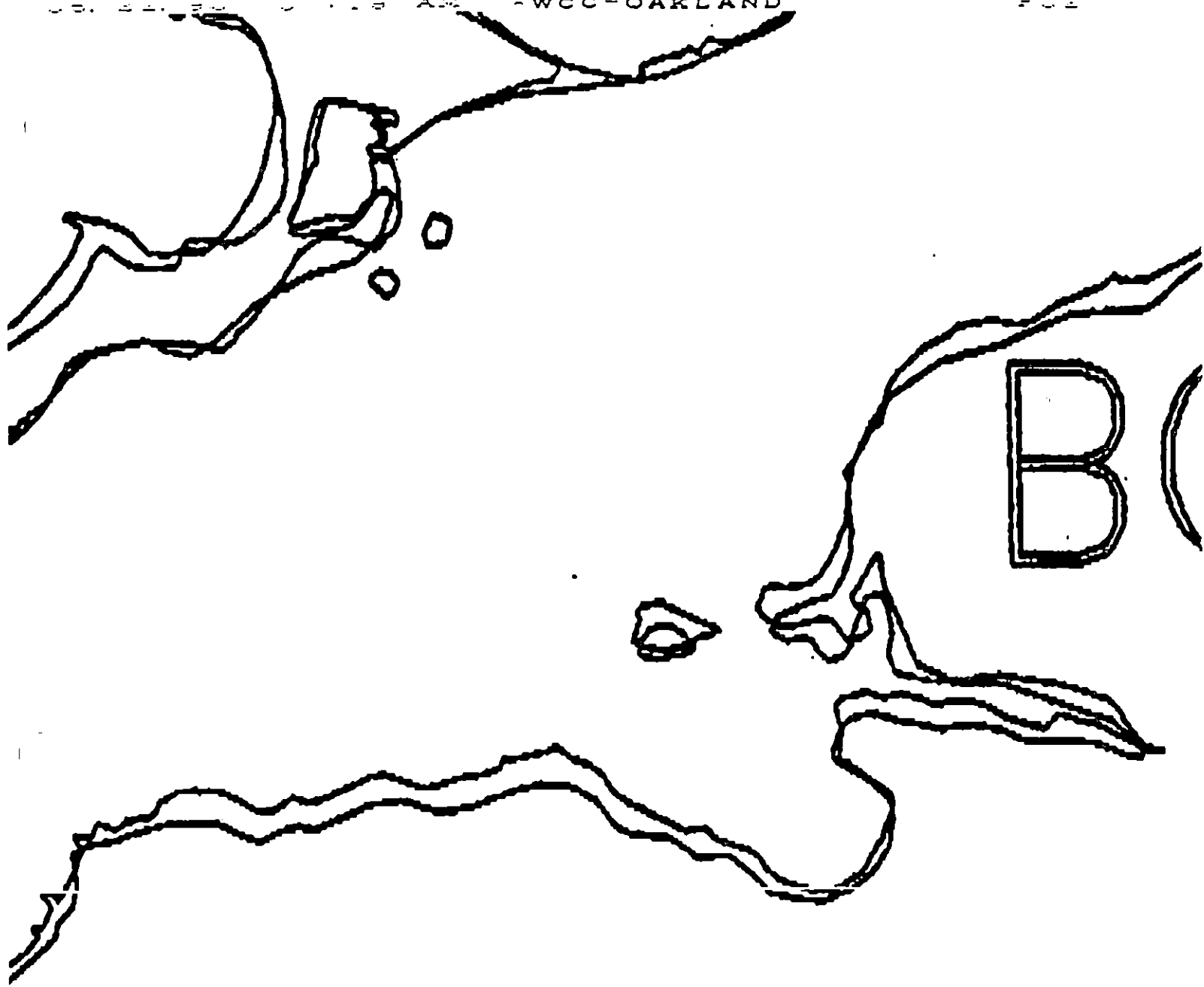
NB-1-C

Approx. Segment Length: 26978

Map Key: KOD-NB-1c

Name: _____

Date: _____



KØ1Ø4 - NB-1C

m

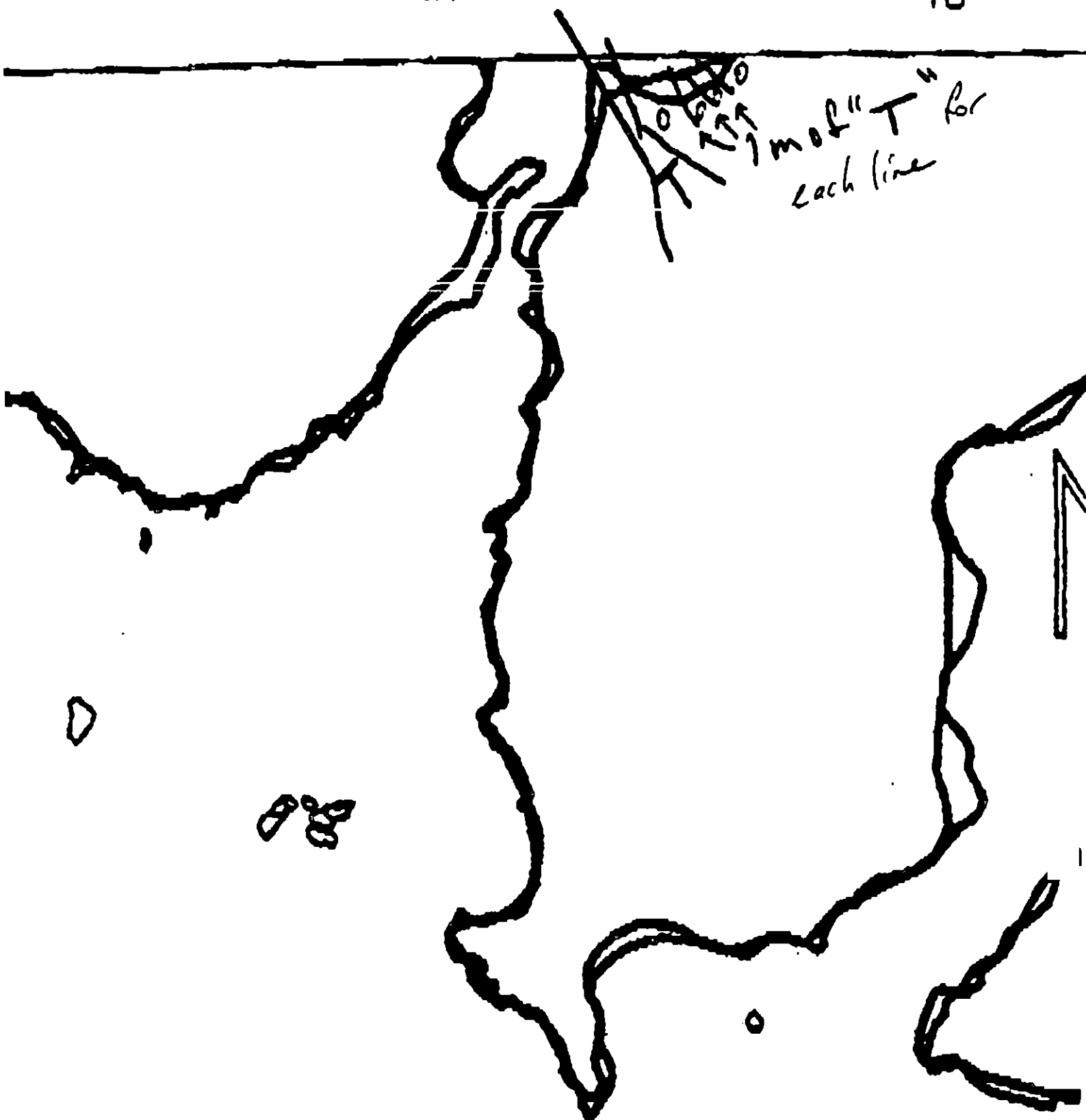
Approx. Segment Length: 26978m



No
No

09:43 FROM EXXON

TO



KØ1Ø4 - NBØØ1 - C

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K01-04-NB-001 SUBDIVISION C (3 of 6)

WORK WINDOW

Manual Pickup

CLOSED*

***No Access**

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T	Bald Eagle Nest	USFWS 4/9/90 map indicates no active nest within 400m of Subdivision C, however, bald eagle 400m buffer zone blocks access to work site.
5R	Seabird Colony	NO CONSTRAINT. Work site is more than 800m from seabird colony.

OTHER ECOLOGICAL CONSIDERATIONS

If eagle nest access constraint is removed, other ecological considerations will apply.

FOSC

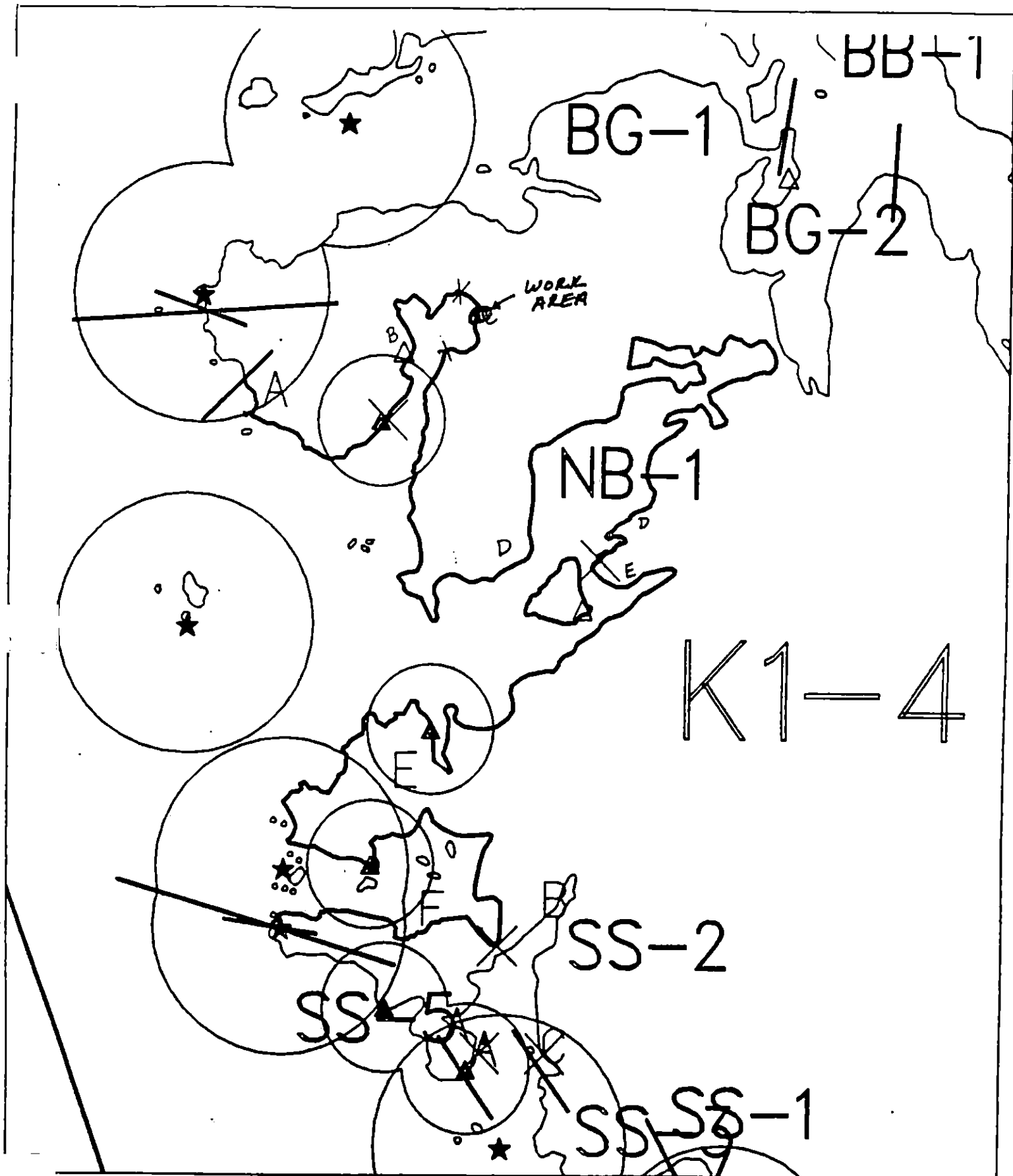
Date

6-22-90

Prepared by

Date

6/22/90



Exxon Company, USA
Map Key: K00-NB-1

ECOLOGY MAP
SEGMENT K1-4 NB-1
SUBDIVISION C (3 of 6)
METERS

- $\star$ Seabird Colony
- $\triangle$ Active Eagle Nest
- $\triangle$ Inactive Eagle Nest

SHORELINE EVALUATION

SEGMENT ST/ K01-04-NB-001 SUBDIVISION D (4 of 6) DATE 5/13/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
5R Seabird colony (5/1 to 9/1)
9PP Sea Otter concentration agency request
4GG State Marine Park Alaska State Parks
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

Rec'd 7/19/96

SHPO SIGNATURE: *Richard Dan Darr*

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m:
Subsurface Oil Observed: Yes

3475 m

RECOMMENDATIONS:

 No Treatment Recommended
X Treatment Recommended
X Manual Pickup
X Bioremediation
 Tarmat Removal

 Absorbents (pads, rolls, etc)
 Spot Washing: Wands
 Beach Cleaner
 Other (see comments)

COMMENTS: Recommend treatment includes 1) manual pick up tar patties, and
mousse 2) bioremediation of areas indicated on attached sketch map. Work
should be conducted with the approval of USFWS and ADF&G regarding Eagle
Nest and Sea Bird colony.

TAG COMMENTS:

TAG APPROVAL DATE: 5/31/90

ADEC *Art Weiner* *Art Weiner*

EXXON *Andy Tan* *Andy Tan*

NOAA *Jean Talbot* *Jean Talbot*

USCG *G.A. Feiter* *G.A. Feiter*

FOSC: *[Signature]* DATE: 7-18-90

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.
AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 1C Salmon fry nursery area (4/31 to 7/31)
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Kotol Bay Hatchery release
Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
1J Purse seine area
Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
East side Kodiak, East side Afognak (7/4 to 10/1)
1K Purse seine hook-off
1L Set net sites
Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- 3 Harbor seal and sea lion pupping (5/10 to 7/1)
30, 30 Harbor seal and sea lion molting (8/15 to 9/15)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
ADF&G Don Calkins 267-2403
- 5P Seabird colony (5/1 to 9/1)
Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
ADF&G Tom Roth 267-2208
- 5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (8/1 to 9/15)
6V Anchorages (8/1 to 9/15)
6W Forest Service cabins (8/1 to 9/15)
6X Lodge (8/1 to 9/15)
6Y Special use destination
- Subsistence area: Salmon harvesting (8/1 to 9/30)
Finfish harvesting
Deer harvesting (8/1 to 1/7)
7J Invertebrate harvesting
7KK Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ K1-4 SUBDIVISION: D DATE 5/13/90
~~V03A~~
~~1000~~
 NAME Stephen Lehmann SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

Recoverable patches a NW end of the segment, the back of Nakata Bay and the east side of Nakata Bay (see OG map). This should be removed, if the crew size can be kept to a minimum, particularly within Nakata Bay. Manual, possibly followed by bio ram, is treatment recommended.

ADEC
 NAME Terry Ellsworth SIGNATURE Terry Ellsworth

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

This segment has two areas where removable mousse, patches, and tarballs occur in concentrations worthy of treatment. One area extends from the NW segment boundary to approximately 500m south. Within this area several patches of recoverable oil occur. The second area is in Nakata Bay approximately 1200m N of the SE segment boundary. Manual removal is recommended in these areas. Because of the active eagle nest near the NW segment boundary and the use of the area by sea otter personnel should be kept to a minimum.

LAND MANAGER

NAME Mike Gordon/ADNR SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

This subdivision of this segment is within the legislatively designated SHUYAK Island State Park. This natural area was established to preserve its wilderness character. It contains very high scenic and educational values. An Alaska State Parks Public Use Cabin is located in this subdivision within the NW 1/4 of Sec. 17 T19S R20W AFONAK (C-2) (C-3) Quadrangle. Based on pre-oil spill information surveys conducted April 1989, Nakata Bay has a very high concentration of sea otters. This subdivision receives more (CONT.)

FIELD SHORELINE COMMENT SHEET

Continuation of Land Manager Comment.

recreational use than some areas within the park because of the presence of a public use cabin. This area is also accessible to the Pt. Williams Lodge which offers wildlife viewing and fishing charters in Neketa Bay. The three areas represented by the OG map attached shown as: 1.) a 4mx2m area ; 2.) a 10mx3m area and 3.) a 50mx3m area within the subdivision are recommended for manual removal of the mousse, patties and tar balls within those areas. Because of the wildlife sensitivities and recreational use within this subdivision it is recommended that small clean-up crews clean these areas to reduce the impact of human presence.

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K01-04-NB-001 SUBDIVISION D (4 of 6)

WORK WINDOW

Manual Pickup Less Than 400m From Active Nest	CLOSED
Manual Pickup More Than 400m From Active Nest	OPEN
Bioremediation Less Than 400m From Active Nest	CLOSED
Bioremediation More Than 400m From Active Nest	OPEN

ARCHAEOLOGICAL CONSTRAINT: Consultation and inspection with an **EXXON** archaeologist is required prior to treatment. Specific on-site monitoring requirements will be determined at that time.

>>> PHONE 564-3274 (Anchorage) OR 229-1508 (24 hrs.) <<<

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

- | | | |
|----|-----------------|---|
| 5T | Bald Eagle Nest | USFWS 4/9/90 map indicates an active nest in Subdivision D. Closed to manual pickup and bioremediation within 400m of active nest. No constraint to manual pickup and bioremediation more than 400m from active nest. |
| 5R | Seabird Colony | NO CONSTRAINT. Work site is more than 800m from seabird colony. |

OTHER ECOLOGICAL CONSIDERATIONS

Restrict air traffic and all disturbance to essential minimum. No personnel or boat traffic within 400m of active nests. Air approach and takeoff from and to seaward only; maintain 400m horizontal, 300m vertical distance from active nests. Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

for EOSC

G.A. Reiter

Date

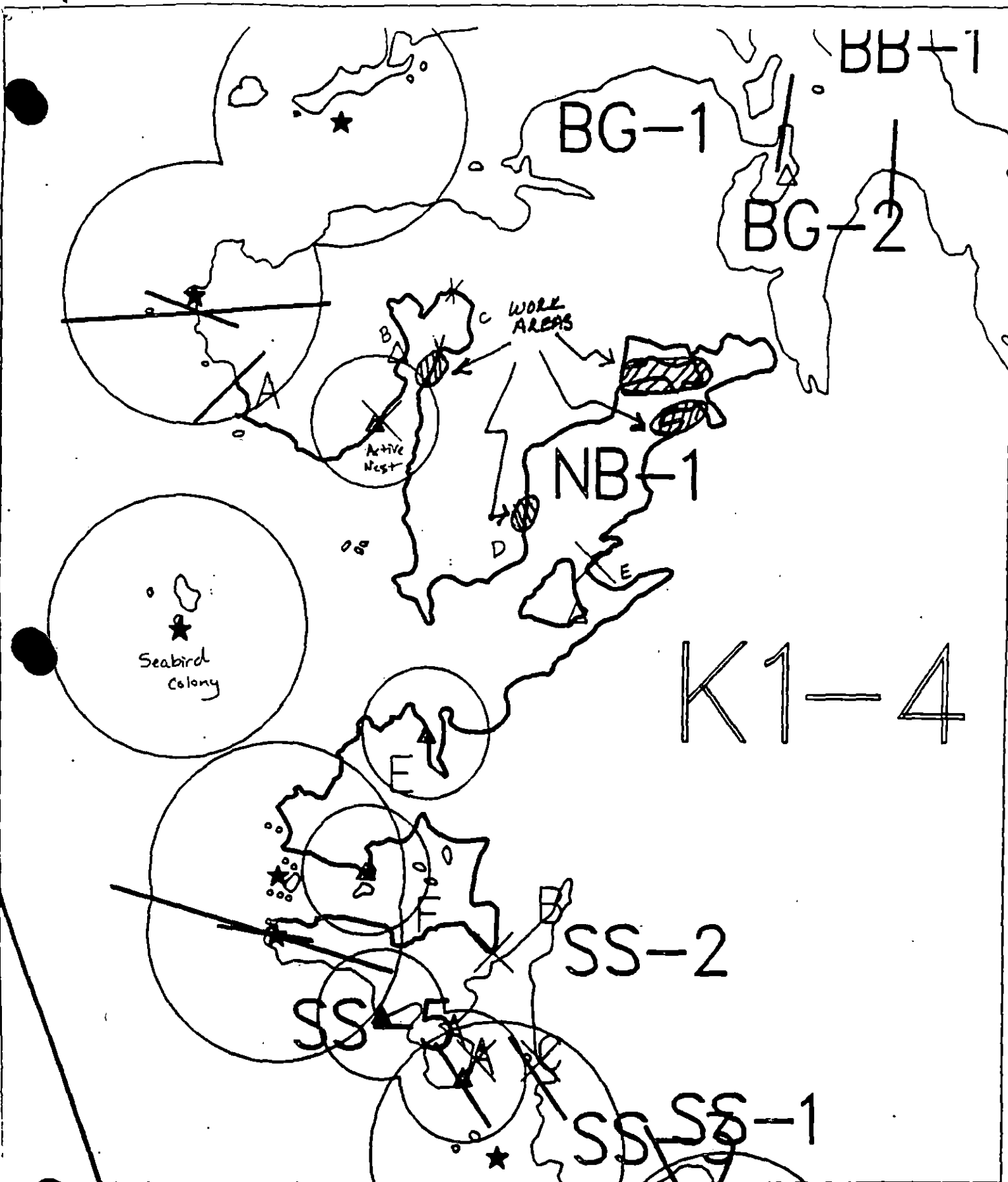
7/19/90

Prepared by

P.P. Phillips

Date

7/19/90



Exxon Company, USA
Map Key: KOD-NB-1



ECOLOGY MAP
SEGMENT K1-4 NB-1
SUBDIVISION D (4 of 6)
METERS

- ★ Seabird Colony
- ▲ Active Eagle Nest
- △ Inactive Eagle Nest

SHORELINE EVALUATION

SEGMENT ST/ K01-04-NB-001 SUBDIVISION E (5 OF 6) DATE 5/14/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-2 All Bald Eagle nests (3/1 to 6/1)

Active Bald Eagle nests (3/1 to 9/1)

5R Seabird colony (5/1 to 9/1)

5S Shorebird/waterfowl concentration (4/1 to 5/15)

9PP Seat Otter Concentration Agency Request

4GG State Marine Park Alaska State Parks

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate.

SHPO SIGNATURE: Rachel Jean Dorn DATE: 6/1/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 2589 m: No Oil 6882 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u>X</u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u> </u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 5/31/90.

ADEC ART WEINER Art Weiner

EXXON ANDY TOL Andy Tol

NOAA Joseph J. Gault Joseph J. Gault

USCG G.A. Ritten G.A. RITTEN

FOSC: DATE: 6-8-90

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 1C Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Kotol Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
 East side Kodiak, East side Afognak (7/4 to 10/1)
- 1K Purse seine hook-off
 1L Set net sites
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- 3P Harbor seal and sea lion pupping (5/10 to 7/1)
 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Pothly 267-2206
- 5T All Bald Eagle nests (3/1 to 8/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 8/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (8/1 to 9/15)
 6V Anchorages (8/1 to 9/15)
 6W Forest Service cabins (8/1 to 9/15)
 6X Lodge (8/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (8/1 to 9/30)
 7HH Finfish harvesting
 7I Deer harvesting (8/1 to 1/7)
 7JJ Invertebrate harvesting
 7KK Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

ST K1-4

SEGMENT ST / NB-1 SUBDIVISION: E DATE May 14/90

NAME STEPHEN LEHMANN

SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Generally agree with ADEC's comments. Very little removable oil. No treatment is recommended

ADEC

NAME Terry Ellsworth

SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Splatters of coat, stain and occasional tarballs and patties are found in this segment. Removable oil occurs in very small quantities and is scattered over a large area. No treatment is recommended.

LAND MANAGER

NAME OTTO FLORSCHUTZ

SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Removable resources widely scattered and agree with above ADEC recommendations — see attachment No. 2

Attachment 2**U.S. Fish and Wildlife Service Shoreline Cleanup Disclaimer**

This comment sheet is based on current observations and is solely for the purpose of planning and scheduling of 1990 response treatment actions. It in no way implies that the State or Federal government will not in the future determine that further restoration or other treatment, or compensation is warranted regarding this area, or that the area is considered by the Federal or State government to be adequately 'clean' or 'restored' for the purpose of any claim which the State or Federal government has brought or may bring against Exxon, Incorporated or any other potentially responsible party.

SHORELINE OILING SUMMARY

ST

REVISION NO. 2-1-90

OG Tom M. Sempels USCG Stephen Leemann SEGMENT ST/ K1-4 N3-1
 BIO Kevin Sherman LAND REP Offa Flosschultz SUBDIVISION E (5 OF 6)
 EXXON — ADEC Terry Ellsworth TIME 08:10:54
 TEAM NO. 19 TIDE LEVEL 7.5' to 7.0' DATE May 14 / 90
 EST. SUBDIVISION LENGTH: 9200 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 20 % B 20 % C 20 % P 20 % G 10 % S 10 % M 0 % V 0 %
 SLOPE: Long 50 % Hang 40 % Vert — % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 2480 m NO 6720 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES				
	C	N	P	S	1	2	3	4	5	SU	U	M	L	
ASPHALT PAVEMENT														
POOLED														
COVER														
COAT			X	X		X					X			
STAIN														
MOUSSE														
PATTIES			X			X					X			
TARBALLS			X			X					X			
FILM														
NO OIL											X		X	X

PAVEMENT H F S 110 sq. m by 0 cmPATTIES / TARBALLS 20 BAGSNEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE —#BAGS —

Photographs:

Roll No. NoneFrames —SUBSURFACE OIL No

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	W E E N S Y N	↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		US	UC	1	2	3	4	5	SU	U	M	L				

COMMENTS

REVIEWED BAT DATE 16 May 90

NB-1-E, Neketa Bay, May 14, 1990

Subdivision E of segment NB-1 includes the southern shore of the entrance to Neketa Bay and the north shore of a smaller bay north of Cape Newland on southwestern Shuyak Island. This subdivision is exposed to a fetch varying between very short at its northeastern and southern extremities to the width of Shelikof Strait in its central portion. The field work was carried out on May 14, 1990, between 0812 and 1554 h, and corresponding 7.5' to 7' tidal levels.

The island located in the entrance of Neketa Bay has a moderately sloping angular pebble/cobble intertidal zone on its eastern side, low bedrock cliffs at its western extremity, and talus of angular boulder/cobbles on its northern and southern sides. A few small coatings of splatters were found on the northeastern shore of the island.

Northeast of the island, the shore of the mainland consists of talus followed by poorly sorted angular pebble/cobbles with several large areas of peat deposits around a stream outlet. A few small splatters were found throughout this area.

Southwest of this embayment, the shoreline shows a high (~4 m) deposit of relatively well sorted pebble/cobbles followed by a long beach of angular pebble/cobbles, both without oil. A beach of well sorted pebble/cobbles with a well defined storm berm of pebbles leads to a deep and narrow embayment with a cliffed bedrock entrance.

West of this embayment, the shore consists of alternating pocket beaches of well sorted pebbles with well defined and sometimes multiple storm berms separated by bedrock cliffs. This type of shore forms the south side of the entrance of Neketa Bay and very few small tarballs were found in this area.

The north shore of a cove located immediately north of Cape Newland consists

mainly of cliffs and talus at its western extremity and a steep talus of angular boulders and cobbles elsewhere. A area 80 m long by 5 m wide of patchy tar coatings was found on and around the small southward projection on the western part of this section. The maximum observed patch diameter was 1 meter and the maximum thickness was 2 cm. A few small bands of patties were also found further to the west, on the western side of a subtidal boulder/cobble tombolo that connect the neashore island to the mainland at low tide.

SEGMENT ST/5t K1-4 NA-1

SUBDIVISION E

DATE May 14 90

CHECKLIST

- ☐ N Area
- ☐ Approx. Scale
- ☐ Seg/Sub Grid
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HAZ/AVL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PI Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ
PK - No Subsurface Oil

2 Δ
PK - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

CT/P
Patchy Distribution

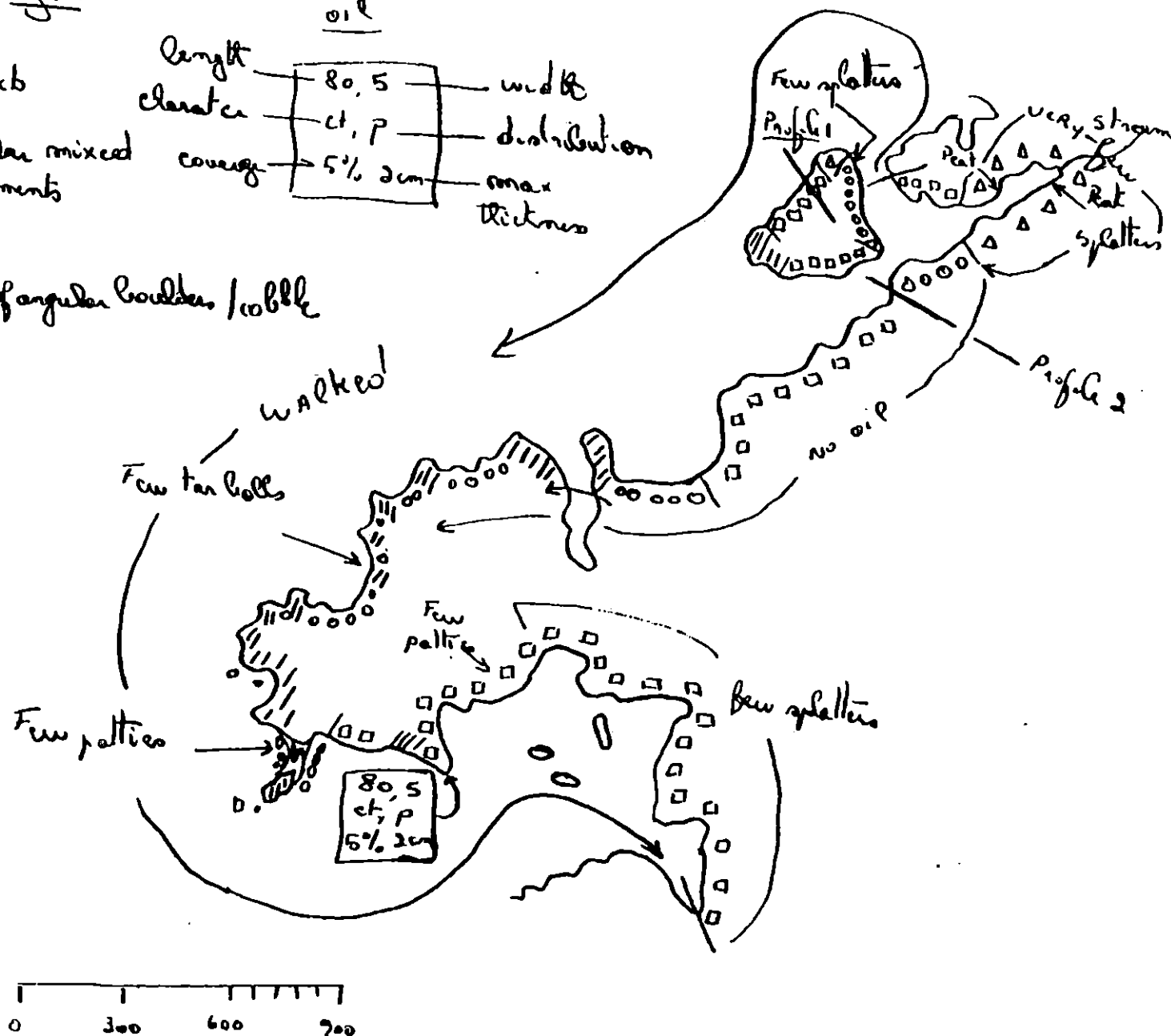
CT/S
Splashed Distribution

lll
Jlled Vegetation

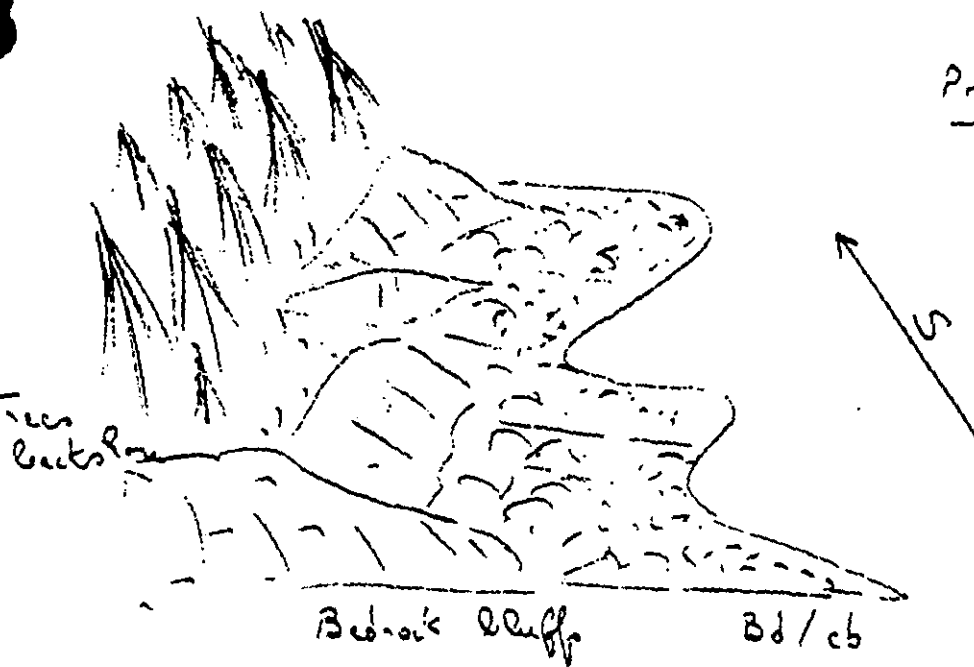
1 ●→
Photo location, direction,
and number

Legend

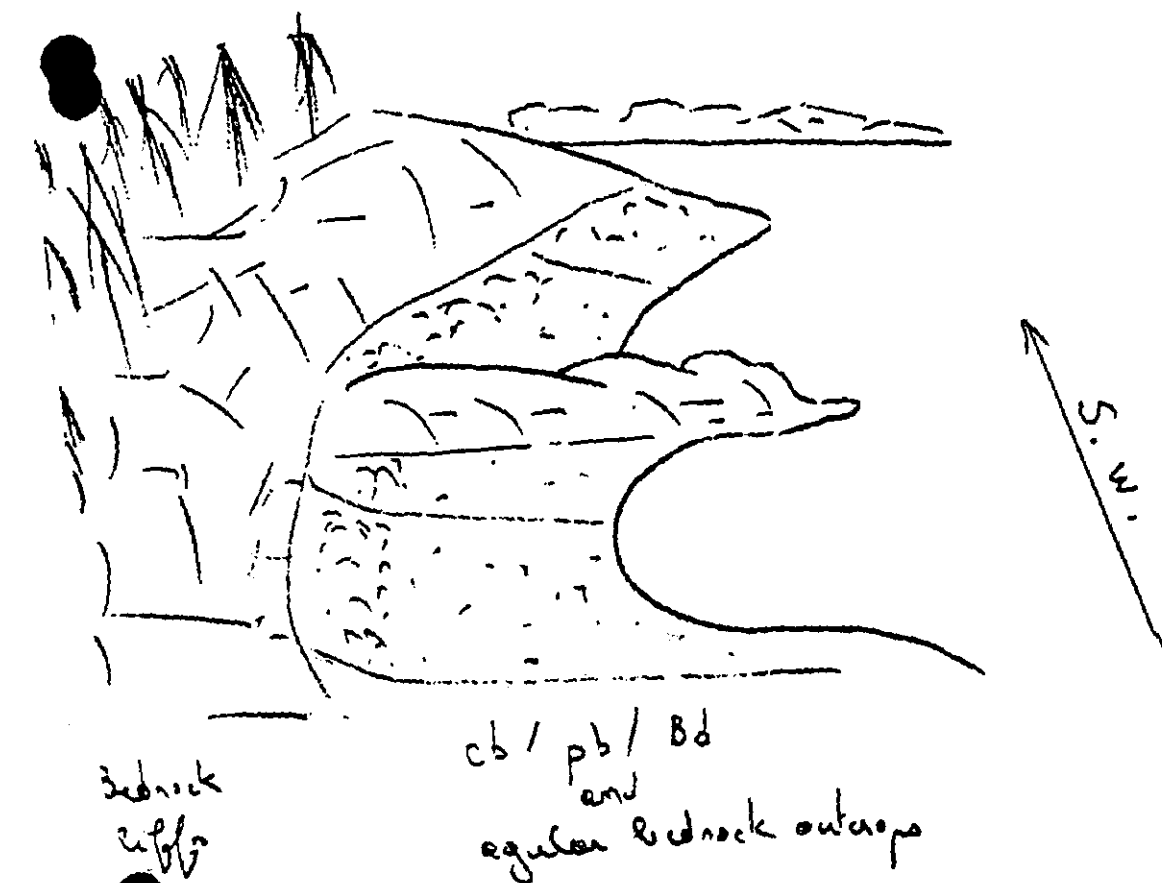
	ph/cb	length	80.5	width	
	angular mixed	character	ct, p	distribution	
	sediments	coverage	5% 2cm	max thickness	
	cliffs				
	talus of angular boulders / cobble				



near Main Sample



Profile 1



Profile 2

cb / pb / Bd
and
regular bedrock outcrops

SHORELINE ECOLOGICAL SUMMARY (Page 2 of 5)

REVISION 03/22/79

Segment ST / K1-4 Subdivision E Date (mo / day / yr) 5/14/90

Time (24 hr) 0830-1530 Biologist SHARMAN

(A) Substrate type and % of segments: SUBDIV.
(1) Bedrock 20 (2) Boulder 20 (3) Cobble 20 (4) Pebble 20 (5) Sand 20 (6) Silt 0

(B) Overall % cover of biota (% of segment): Dense 30 Moderate 60 Low 10
SUBDIV.

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (O)

Photographs: Roll No. —

Frames —

BARNACLES

Dense	Moderate	Sparse	Rare
1U 1M 1L	1U 1M 1L	1U 1M 1L	1U 1M 1L
2 2 2	2 2 2	2 2 2	2 2 2
3 3 3	3 3 3	3 3 3	3 3 3
4 4 4	4 4 4	4 4 4	4 4 4
5 5 5	5 5 5	5 5 5	5 5 5
6 6 6	6 6 6	6 6 6	6 6 6

NOT PRESENT

MYTILUS

Dense	Moderate	Sparse	Rare
1U 1M 1L	1U 1M 1L	1U 1M 1L	1U 1M 1L
2 2 2	2 2 2	2 2 2	2 2 2
3 3 3	3 3 3	3 3 3	3 3 3
4 4 4	4 4 4	4 4 4	4 4 4
5 5 5	5 5 5	5 5 5	5 5 5
6 6 6	6 6 6	6 6 6	6 6 6

NOT PRESENT

GASTROPODS (ANCELA, LITTORALIA, LYMNAE)

Dense	Moderate	Sparse	Rare
1U 1M 1L	1U 1M 1L	1U 1M 1L	1U 1M 1L
2 2 2	2 2 2	2 2 2	2 2 2
3 3 3	3 3 3	3 3 3	3 3 3
4 4 4	4 4 4	4 4 4	4 4 4
5 5 5	5 5 5	5 5 5	5 5 5
6 6 6	6 6 6	6 6 6	6 6 6

NOT PRESENT

FUCUS

Dense	Moderate	Sparse	Rare
1U 1M 1L	1U 1M 1L	1U 1M 1L	1U 1M 1L
2 2 2	2 2 2	2 2 2	2 2 2
3 3 3	3 3 3	3 3 3	3 3 3
4 4 4	4 4 4	4 4 4	4 4 4
5 5 5	5 5 5	5 5 5	5 5 5
6 6 6	6 6 6	6 6 6	6 6 6

NOT PRESENT

Wildlife Observations/ General Comments: 1 adult eagle, 15 red-breasted noddies (mostly in pairs), ~20 herring gulls, 3 pigeon guillemots, ~25 glaucous-winged gulls (often resting on nearshore rocks & islets), 1 pair red-throated loons, 12 pairs of oystercatchers (very serious nesting on exposed headlands - don't concentrate I've seen but, nesting in full swing), 1 pair wedgetails, 1 green-winged teal, 1 large unidentified shorebird, 1 pair kestrel (last).

Ecological Considerations:

Please see Eco. Map. We did not observe the eagle nest documented by USFWS. However, there is another reported nest at the extreme S. boundary of the segment, possibly seen from the helicopter as we flew out. See report for subdivision "F" to be surveyed next. There are active seabird colonies (at least glaucous-winged gulls + oystercatchers at this time) on the nearshore islets; these may be important for juvenile haulouts also as the pipping/pulling season approaches. It is quite likely that the protected embayment, the N. shore of which is formed by the S. portion of this subdivision, periodically serves as breeding habitat and/or shelter for concentrations of sea otters, especially during

NB-1
(Subdiv. E)

Shoreline Ecological Summary (cont.) (Page 2 of 5)

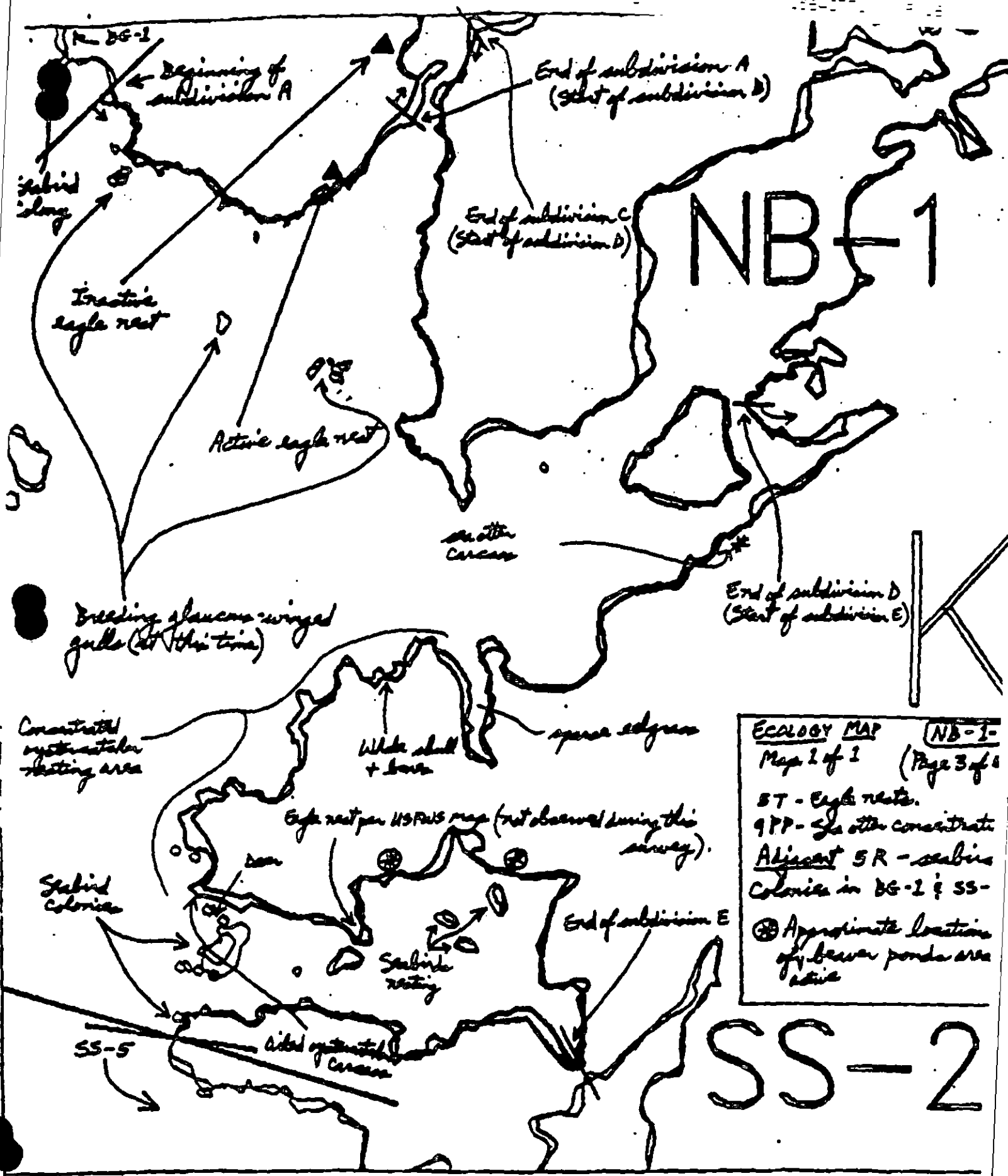
Slarman
5/14/90

General Comments (cont.):

sandpiper. Varied thrushes, hermit thrushes, and winter wrens singing in forest. Red squirrels not uncommon in forest. Deer scats + tracks very abundant in forest, on open bluff fringes, + in UTE + supratidal areas. River otter scats common on bluffs + at headland areas (contain primarily mussels + *Telmanusa* crabs). 2 sea otters. As in subdivision "D", the otters here (in the protected, finer-sediment clam beaches) are eating lots of cobbles - abundant *Chione* fragments on beaches. 1 sea otter carcass in UTE (no oil) - see attached USFWS form. 2 deer carcasses in UTE (no oil) - young animal (teeth worn), poor long bone marrow condition implicates normal starvation-related winterkill. 1 oiled *Oxyechus* carcass on side of supratidal bluff (see USFWS form attached) - old, dried, very possibly from last summer. 1 oiled carcass of any bird I have seen this year (only one I've seen on entire MPO SSAT from late March). See Eco. Map for locations of otter + *Oxyechus* carcasses. Glaucous-winged gulls + *Oxyechus* are presently nesting on vegetated islets within the embayment at the S. end of the subdivision. There is a series of elevated lower ponds perched above the beach + just inside the forest along the N. shore of that embayment. Observed one large doe deer (probably pregnant) at the N. side entrance to the embayment, traversing from the island to Shuyah proper (see Eco. Map). There is an old great abalone (large - humpback?) abalone (abalone + few bones) embedded in a cobbles/pebble storm beach above a high-energy beach backed by an enclosed lagoon (see Eco. Map) - appears to be at least a decade old. As throughout Tokata Bay, all subdivisions, the marine intertidal communities here are normal, productive, and healthy. The intertidal narrative for this subdivision is essentially identical to that for subdivision "D" - a very similar combination of habitats defined by exposure/grain size combinations. Reference to this section of the Shoreline Ecological Summary for subdivision "D" should clearly describe the intertidal biotic component. There are rare high-energy *Spermatophyte* pebble pocket beaches, productive predominantly bivalve communities in protected low-angle finer-sediment embayments, exposed bedrock cliffy areas with very diverse + productive macroalgal assemblages in the UTE, typical bedrock tidepools (UTE + LTE), and very diverse + productive LTE communities on exposed large boulder substrata on + over headlands.

Ecological Considerations (cont.):

important nesting/foraging habitat for concentrations of *Oxyechus* that are presently very actively displaying and nesting (we observed 2 eggs recently predated by gulls).



ECOLOGY MAP **NB-1-**
 Map 1 of 1 (Page 3 of 4)
 ST - Eagle nests.
 9PP - Seabird concentrated
 Aliant SR - seabird
 Colonies in BG-1 & SS-
 ⊗ Approximate location
 of beaver ponds area
 active

XXXX Wide
 /// Medium
 --- Narrow

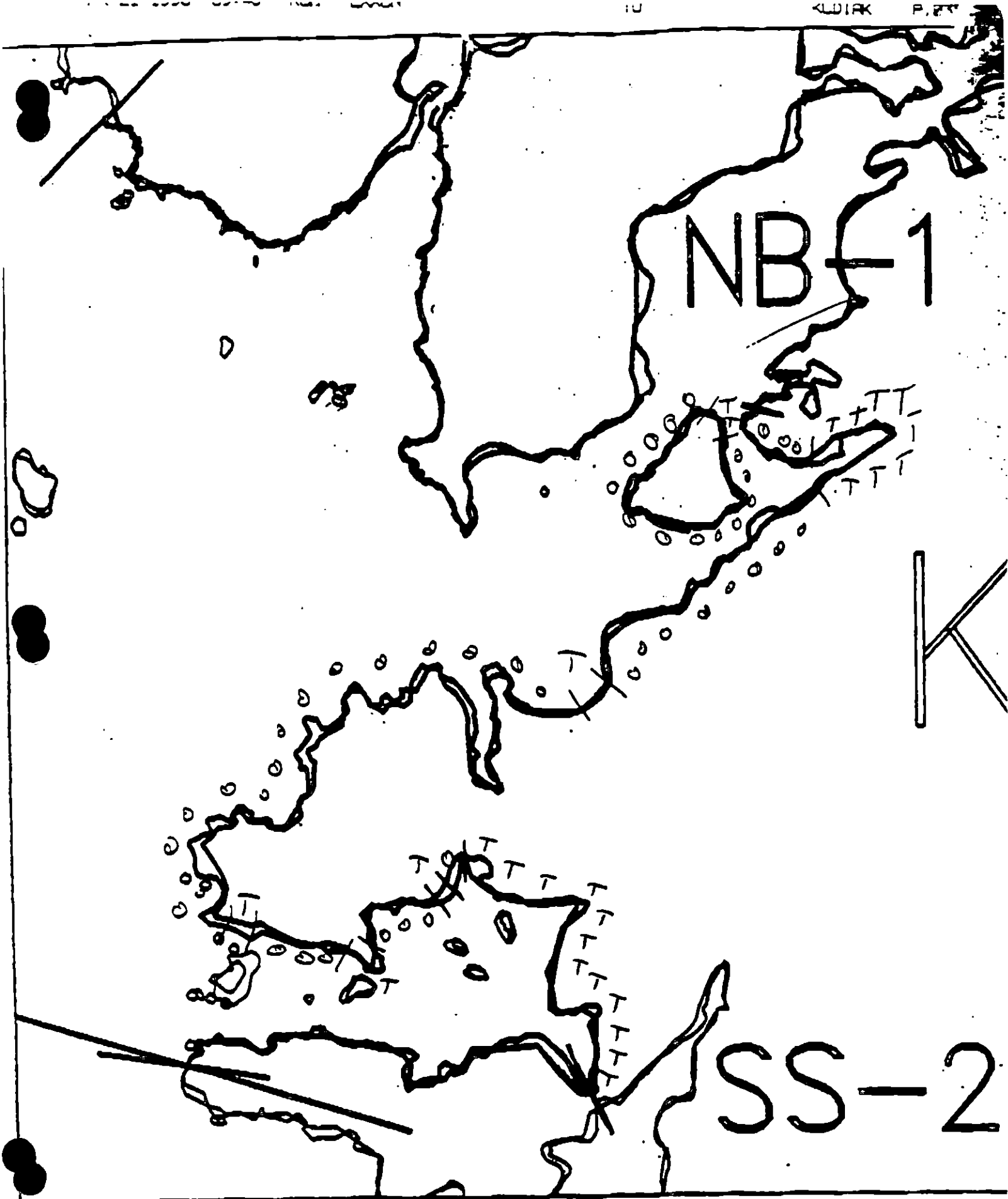
NB-1-E

Approx. Segment Length: 26978

Map Key: KOD-NB-1a

Name: _____

Date: _____



XXXX Wide
//// Medium
--- Narrow

NB-1-E

Approx. Segment Length: 26978

Map Key: K00-NB-1a
Name: *San Mateo Smp*

SHORELINE EVALUATION

SEGMENT ST/ K01-04-NB-001 SUBDIVISION F (6 OF 6) DATE 5/20/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All Bald Eagle nests (3/1 to 6/1)

Active Bald Eagle nests (3/1 to 9/1)

5R Seabird colony (5/1 to 9/1)

9PP Seat Otter Concentration Agency Request

4GG State Marine Park Alaska State Parks

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

SHPO SIGNATURE: Rebecca Dan DATE: 6/1/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 1082 m: No Oil 719 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u>X</u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u> </u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 5/31/90

ADEC Art Wainer Art Wainer

EXXON Andy Earl Andy Earl

NOAA Joann Talbot Joann Talbot

USCG G.A. Deiter G.A. Deiter

FOSC: DATE: 6-8-90

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2259
- 1C Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Kotol Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
 East side Kodiak, East side Afognak (7/4 to 10/1)
 1K Purse seine hook-off
 1L Set net sites
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- 3P Harbor seal and sea lion pupping (5/10 to 7/1)
 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 6/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (8/1 to 9/15)
 6V Anchorages (8/1 to 9/15)
 6W Forest Service cabins (8/1 to 9/15)
 6X Lodge (8/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (8/1 to 9/30)
 7HH Finfish harvesting
 7I Deer harvesting (8/1 to 1/7)
 7JJ Invertebrate harvesting
 7KX Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST K01-04-NB-1 SUBDIVISION: F DATE 5/20/90

USCG

NAME D.D. Haven, Jr., GM3 USCG SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

VL oil. Almost none is feasibly recoverable or treatable.

ADEC

NAME Terry Ellsworth SIGNATURE Terry Ellsworth

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Very occasional splashes of coat occur throughout much of the segment with very little recoverable mouse occurring in one area. No treatment recommended.

LAND MANAGER

NAME Michael Goodwin SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

This subdivision begins on patented private land on which a cabin and outbuildings are located. Very minor oiling splashes of coat were observed along the length of the subdivision to Cape Newland. The oil observed is not significant. Therefore NO treatment is recommended. It should be noted that the small bay to the N. of the subdivision harbored 16 sea turtles and were displaced by the SSAT presence upon arrival.

REVISION NO 24-2-20

REVIEWED BAT DATE 24 MAY 90

NB-1-F, Neketa Bay, May 20, 1990

Subdivision F of segment NB-1 forms the south shore of a small bay located immediately north of Cape Newland on southwestern Shuyak Island. The bay is oriented east-west and is exposed to the width of Shelikof Strait. It is, however, not very exposed as it is sheltered to the north and the south by the westward extensions of Shuyak and Afognak islands. This 1.86 km subdivision was surveyed on May 20, 1990, between 1425h and 1600h, and corresponding 6.5' to 3.5' tidal levels.

From east to west, the subdivision begins at the head of a small bay with a short beach of well sorted sand/gravel and a well defined storm berm. Three buildings are located just north of this beach; and no oil was found at this location.

Proceeding west, this sand beach gives way to a narrow and steep talus of angular boulders seaward of low cliffs. A few coats of splatters were found on the boulders and other rock surfaces in the upper intertidal zone along this talus. A short section of low bedrock cliffs forms a small headland to the west. Team 19 was unable to follow the shoreline at this point and we had to proceed west along the top of the bedrock cliffs until we could get back down on the beach again, near a small pond. At this location the shoreline consists of a narrow beach of angular pebble/cobble and boulders between low outcrops of bedrock. Patchy mousse covering an area of about 0.25 square meter occurs just west of the pond outlet.

To the west, a short section of angular boulder talus leads to a small bay with a beach of angular pebble/cobble/boulders and very few coats of splatters in the upper intertidal zone.

A short section of cliffs had to be by-passed before reaching a long segment of bedrock ramp with a talus of angular boulders in the upper intertidal

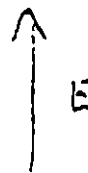
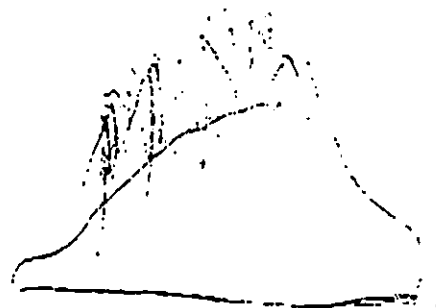
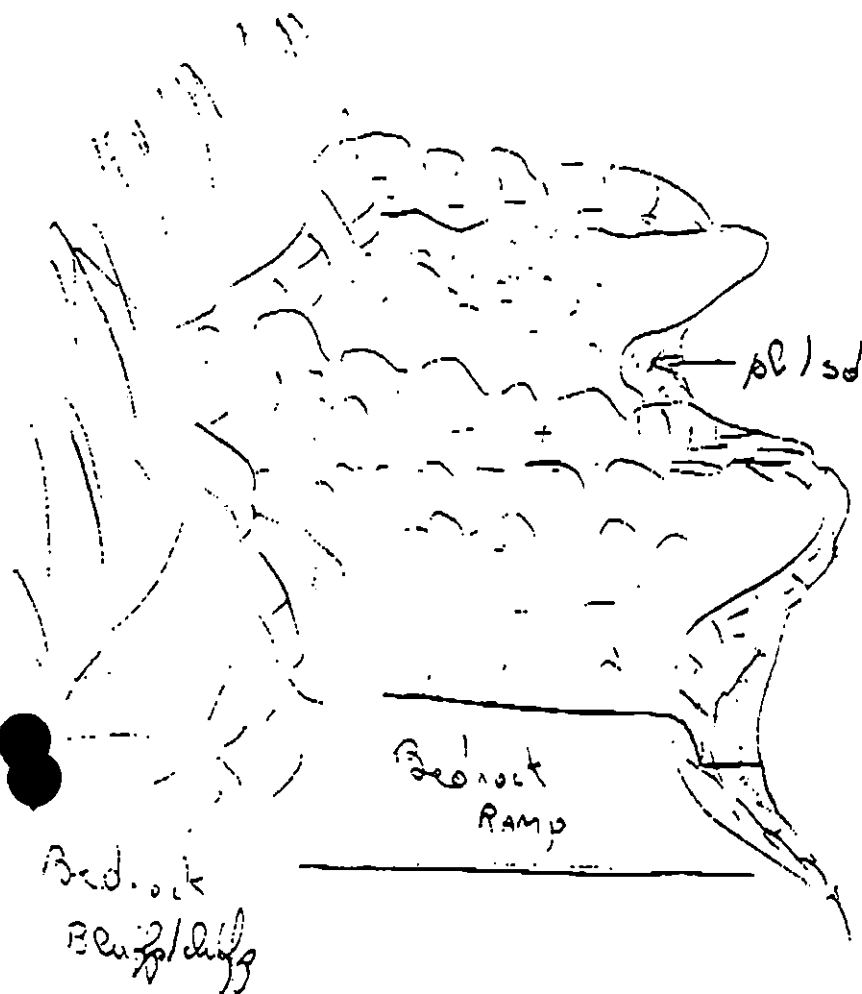
zone and pockets of pebble/cobbles in the lower intertidal zone. Very few small coats of splatters were found over this bedrock ramp.

The remaining part of this subdivision consists of bedrock cliffs that rise in elevation to the west. Two small pocket beaches of pebble/cobbles occur in fracture zones along the cliffs and were found to be free of oil.

— Few ct/s
in LIT 2
max dia: 20cm
a thickens: 1cm.

K-1 - 10-1-1

Gene Marie Samples May 20/1990



Profile

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/80

Segment ST/K1-4/NB-1 Subdivision F Date (mo / day / yr) 5-20-90

Time (24 hr) 14:30 Biologist David Lohr

- (A) Substrate type and % of segments:
 (1) Bedrock 30 (2) Boulder 40 (3) Cobble 10 (4) Pebble 10 (5) Sand 10 (6) Silt _____
- (B) Overall % cover of biota (% of segment): Dense 30 Moderate 40 Low 30
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X) . new settlement (3)

Photographs: _____
 Roll No. _____
 Frames _____

BARNACLES

Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	2	2	2	2	2	
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	NOT PRESENT

MYTILUS

Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	2	2	2	2	2	
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	NOT PRESENT

GASTROPODS

Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	2	2	2	2	2	
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	NOT PRESENT

FUCUS

Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	2	2	2	2	2	
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	NOT PRESENT

Wildlife Observations/ General Comments:

See page 2

Ecological Considerations:

- T-2: One mature bald eagle sited in area. No nests in this subdivision
- SR: One colony in adjacent segment BG-1, and one on segment boundary with SS-5, and one on nearby island. The colony on segment boundary was in portion of segment not surveyed.

Shoreline Ecological Summary

Lot 2

Segment ST/KI-M/NB-1

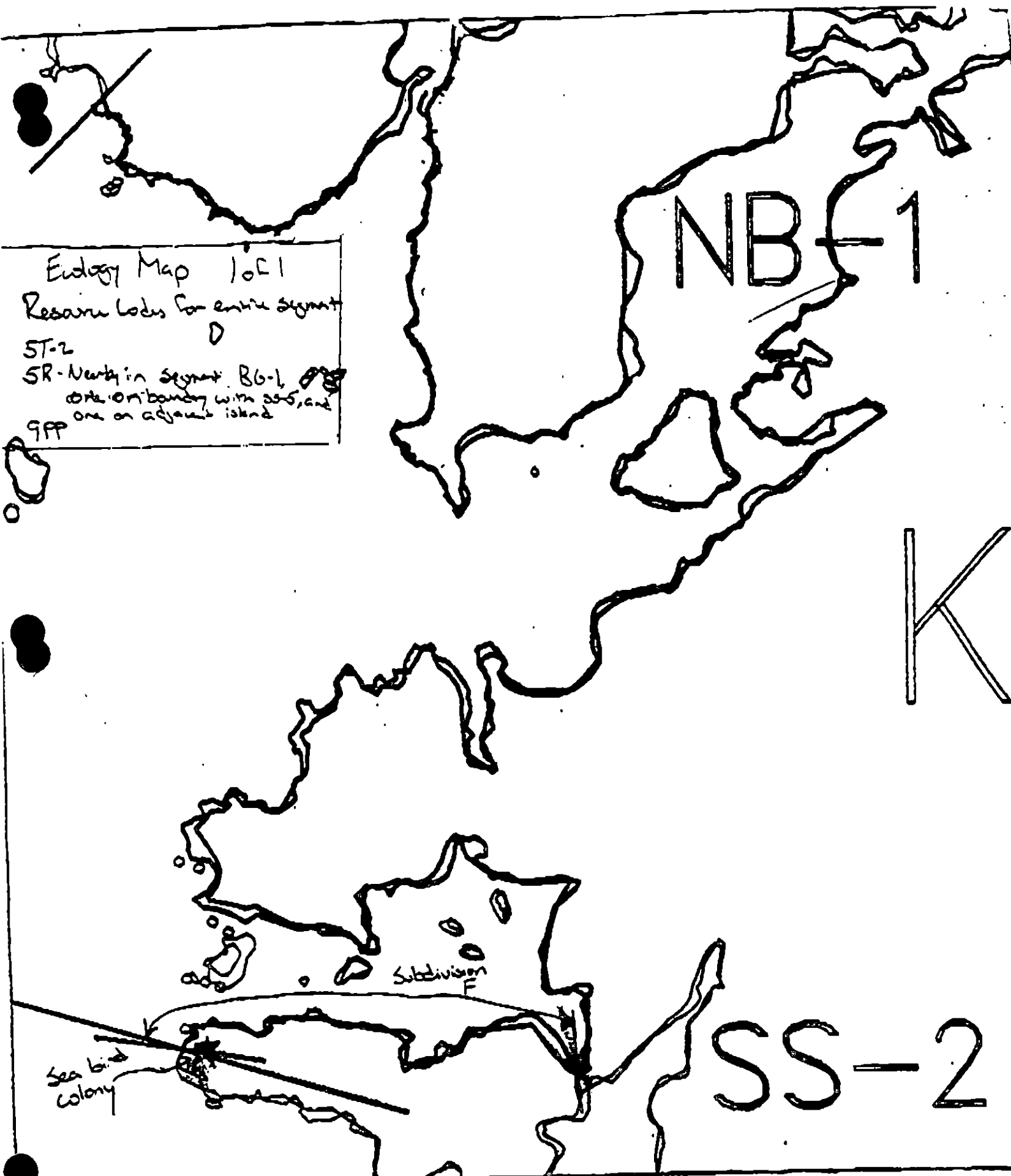
Subdivision F

5-20-90

Biologist: David Lohse

Wildlife Observations/General Comments

- present in mid-intertidal: *Ralfsia*, *Sargassum*, *Ulva*, *Cladophora*, *Halosaccus*, *Nucella*, *Nucella* egg cases (empty), *Endocladia*, *Desmarestia*, *Rhodanella*, *Gloiopeltis*, unknown filamentous red alga (*Dasya*?)
- Low intertidal not sampled
- 12 sea otters, several oystercatches, and many gulls were found in area
- Last part of segment was not surveyed due to impassable cliffs and high waves. However, from the top of the cliffs it looked very rich in algal species.
- One deer skeleton and the remains (a few bones and some fur) of an otter were found. No oil observed
- When viewed on the scale of the entire subdivision boulder recruitment was patchy. However there were some short stretches where recruitment was continuous, and others where it was patchy.



K

XXXX Wide

NB-1

//// Medium

--- Narrow

Approx. Segment Length: 26978m

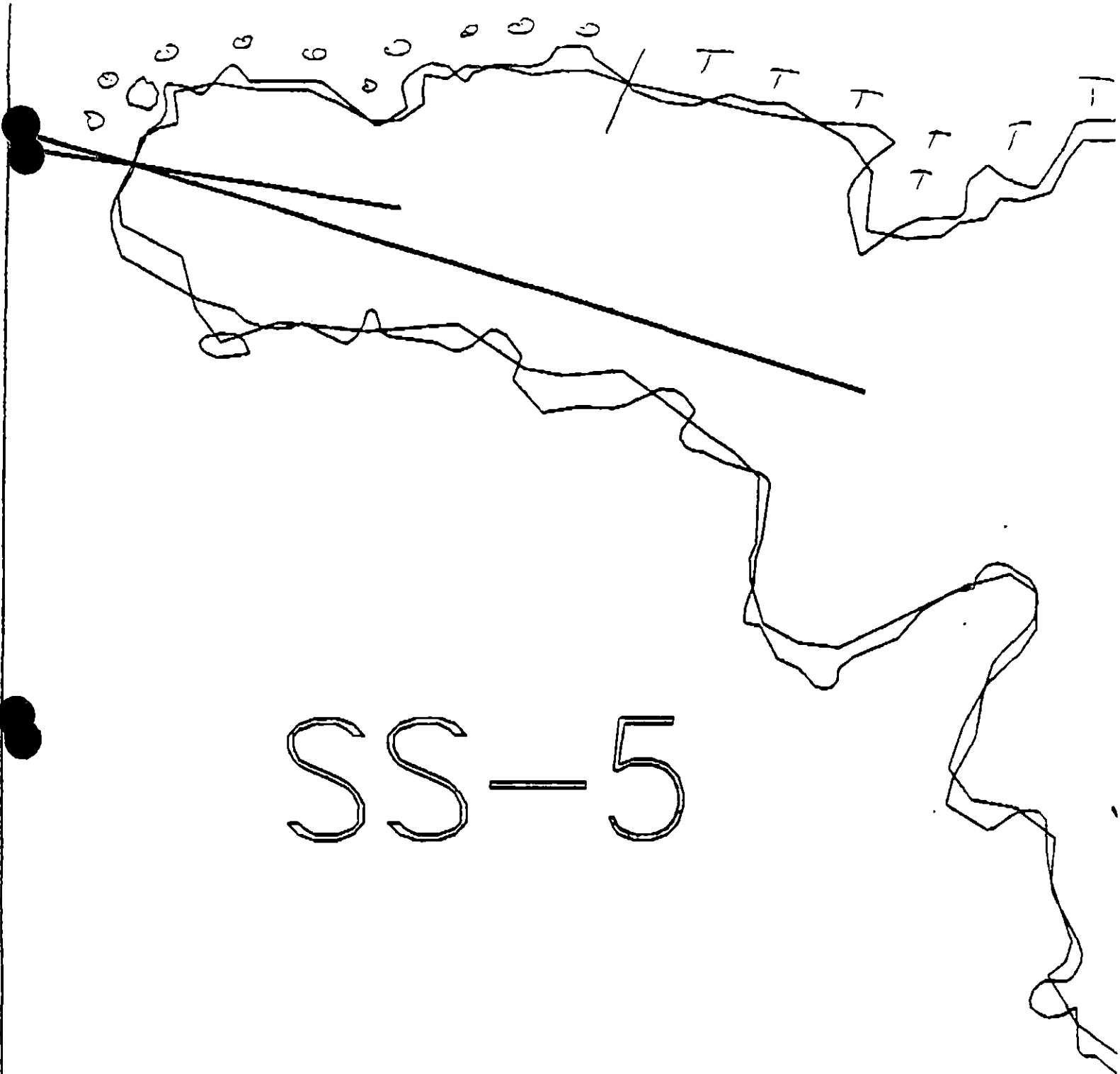
Map Key: X00-NB-1a

Name: _____

Date: _____

TTTTT V - - - 1:1:1





XXXX Wide

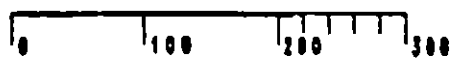
//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

ADEC Segment Length: 2582m

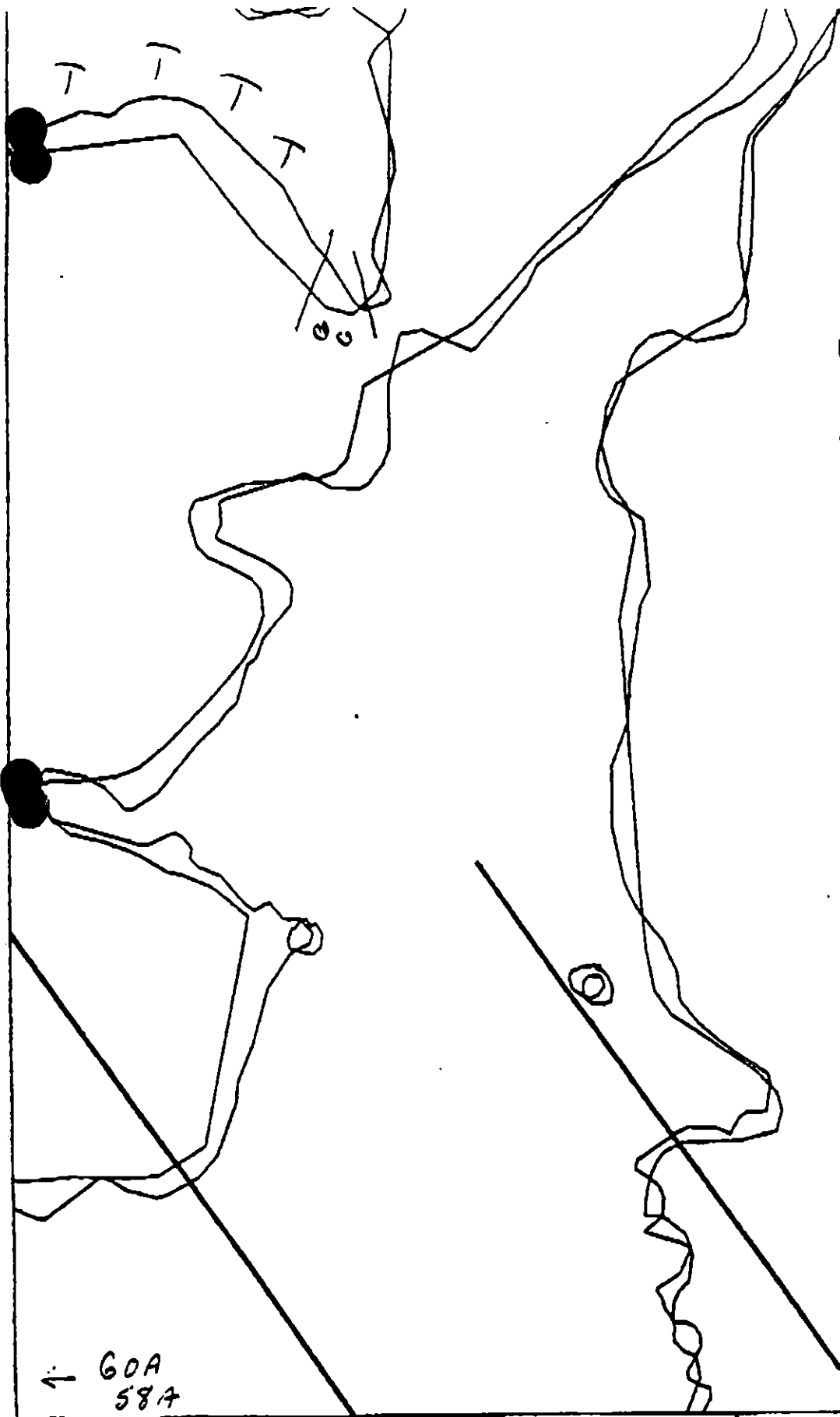


Map Key: GOA-58a

Name: San Jose Temple

Date: May 22/90

Data Entered:



SS-2

← GOA
58A

XXXX Wide
 /// Medium
 --- Narrow
 TTTT Very Light

K1-4 NA1-6
~~SS-2~~

ADEC Segment Length: 2582m



Map Key: GOA-58b
 Name: from Mexico Simple
 Date: May 20/90
 Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ K01-07-DI-001 SUBDIVISION A (1 OF 1) DATE 5/22/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5R Seabird colony (5/1 to 9/1)

Restrict air and boat traffic to essential minimum contact USFWS if treatment is required.

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate.

SHPO SIGNATURE: *Rachel Jean Dale*

DATE: 6/1/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 81 m: No Oil ~~4982~~ m

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

X No Treatment Recommended

 Treatment Recommended

 Manual Pickup

Bioremediation

Tarmat Removal

Snare/Absorbent Booms

Oil Snares (pom poms)

 Absorbents (pads, rolls, etc)

Spot Washing: Wands

Beach Cleaner

Other (see comments)

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE:

ADEC

EXXON

NOAA

USCG

FOSC:

DATE: 6-8-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST K 107-81-1 SUBDIVISION: A DATE May 22/90NAME Stephen Lehmann SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

Very little oil observed. Some areas of coat and cover, but relatively small and impractical to remove.

ADEC
NAME Terry Ellsworth SIGNATURE Terry Ellsworth☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

Sporadic stain, coat and cover are found primarily on the north and east side of Dark Island. Only one area, $\approx 20 \times 5$ meters, located on the east side of the island contains any recoverable mousse. Because of the small amount of recoverable oil and the wildlife sensitivities, no treatment is recommended.

LAND MANAGER
NAME Mike Sedwin SIGNATURE Mike Sedwin☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

This entire segment is located within the legislatively designated SHUYAK Island State Park. It does receive recreational sea kayaking traffic during summer months. This area was generally observed to have a number of wildlife sensitivities such as nesting off shore birds, Vancouver geese, ground squirrels, stream sea frogs, sea otters, and migratory waterfowl. The very minor amounts of oil

SHORELINE OILING SUMMARY

REVISION NO 34-13-20

OG Don't know USCG Stephen Delmonico SEGMENT ST/ 50-21
 BIO Mike LAND REP Mike SUBDIVISION A (1 OF 1)
 EXXON — ADEC — TIME 6:56 1020
 AM NO. — TIDE LEVEL 16.5' 2.0' DATE May 122 / 90
 T. SUBDIVISION LENGTH: 9.91 Km ☐ Sun ☒ Clouds ☒ Fog ☒ Rain ☐ Snow
 LANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: counterclockwise
 SURFACE SEDIMENTS 2 % B 10 % C 10 % P 10 % G 5 % S 5 % M 0 % V 0 %
 SLOPE: Long — % Hang 0 % Vert 60 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 74 m NO 9836 m

SURFACE OIL

CHARACTER	DIST. FROM				OIL / FILM COLOR					IMPACTED ZONES			
	C	E	D	A	1	2	3	4	5	SU	U	M	U
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT				X						X			
STAIN				X						X			
MOUSSE										X			
PATTIES				X						X			
TARBALLS				X						X			
NO OIL										X		X	X

PAVEMENT H F S 2/2 sq. m by — cmPATTIES / TARBALLS 10 BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT			DID YOU COLLECT DEBRIS?
	SM	MD	LG	
Logs	X			YES ☐ - NO ☒
Vegetation				
Trash				
Debris				
				TYPE <u>—</u>
				#BAGS <u>0</u>

Photographs:

Roll No. ST-19-100Frames F 8-11

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (Y/N)	SURFACE - SUBSURFACE SEDIMENTS
		OP	ON	2	3	4		UO	UO	1	2	3	4	5	SU	U	M	U			
1	20				X		0.0		X						X						PG/2
2	20				X		0.0		X							X					PG/2
3	20				X		0.0		X								X				PG/2

REMARKS

REVIEWED BAT DATE 24 May 90

OG from: [redacted] samples
SEGMENT ST/ K1.07. D1.1

SIGHT MAP

Legend

SUBDIVISION A

DATE July 122 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Out.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HML/LWL
- ☐ SSI
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Plt Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ
Plt - No Subsurface Oil

2 Δ
Plt - Subsurface Oil

CT/C
Continuous Distribution

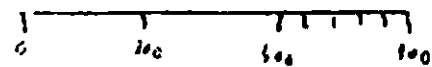
CT/B
Broken Distribution

[CT/P]
Patchy Distribution

[CT/S]
Splashed Distribution

eee
Oiled Vegetation

1 $\rightarrow$
Photo location, direction, and number



Oil Character Length (m): AP C1 PO C CV C CT 30 ST 40 MS 20 PT 2 TB 2 FL C NO 7836

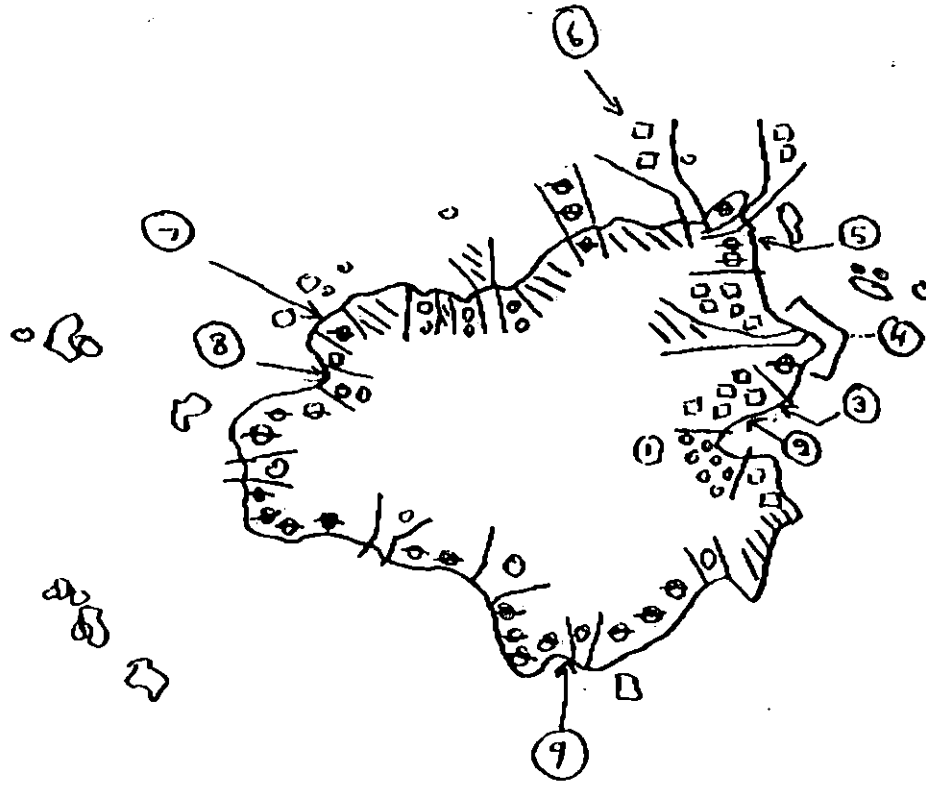
7836

[diagonal lines] cliffs

[square with circle] cliffs, bedrock ramp
some ls/cb/pl.

[square with dots] Talus, angular boulders

[square with dots] pl/gu/cb beach



1 4 Tarballs

2 20, 5
St, 5
5%
Pit 1 + 2
u/Tz NpTz

3 20, 5
MS, P
10%, 1 cm

4 Few ct, 5 max 20 cm.

5 Few st, 5. few slightly oiled logs

6 1 splatter

7 Few ct, 5 max 10 cm.

8 Few patches, < 20 cm, - Pit 3 u/Tz

1 Tarball

9 3 partially oiled pieces of driftwood.

REVISION 03/24/00

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/98

Segment ST/K1-7/DT-1 Subdivision A Date (mo / day / yr) 5-22-90

Time (24 hr) 17:00 Biologist David Cohen

- (A) Substrate type and % of segments:
 (1) Bedrock 60 (2) Boulder 10 (3) Cobble 10 (4) Pebble 10 (5) Sand 10 (6) Silt
- (B) Overall % cover of biota (% of segment): Dense 40 Moderate 40 Low 20
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
 Roll No. ST-19-100
 Frames 8-11

BARNACLES

Dense			Moderate			Sparse			Rare			NOT PRESENT
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	2	2	2	2	2	
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

MYTILUS

Dense			Moderate			Sparse			Rare			NOT PRESENT
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	2	2	2	2	2	
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

GASTROPODS

Dense			Moderate			Sparse			Rare			NOT PRESENT
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	2	2	2	2	2	
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

FUCUS

Dense			Moderate			Sparse			Rare			NOT PRESENT
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	2	2	2	2	2	
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

Wildlife Observations/ General Comments:

See page 2

Ecological Considerations:

ip - Many different species of birds were found in segment, some of which were quite abundant (see General Comment #2). However, no nests were observed.

Shoreline Ecological Summary

20-2

Segment ST/KI-7/DI-1

Subdivision A

5-22-90

Biologist: David Cohen

Wildlife Observations/General Comments

Present in low intertidal: *Nucella*, *Halosaccus*, *Rhodomenia*, coralline algae, *Alaria*, *Rhodomenia*, *Laminaria*, *Katharina tunicata*, unknown yellow sponge, *Tealia*, *Cladophora*, *Ralfsia*, *Porphyra*, *Siphonaria*

mid intertidal: unknown yellow sponge, *Enteromorpha*, coralline algae, *Pagurus*, *Ulua*, *Halosaccus*, *Sargosiphon*, *Rhodomenia*, *Rhodomenia*, *Ralfsia*, *Endolatria*, *Siphonaria*, *Porphyra*, *Epiaura*, *Alaria*, *Gloiopeltis*, unknown plate-like brown alga

high intertidal: *Enteromorpha*, *Porphyra*

Many birds spotted in area. These included 2 immatures and 1 mature bald eagle, one pair Scaups, 3 pairs Goldeneyes, ~25 Cormorants, 4 Eiders, 4 Canadian Geese, One Brant, and many gulls and oystercatchers (too numerous to count accurately).

One ground squirrel, one land otter, and ~10 sea lions in area

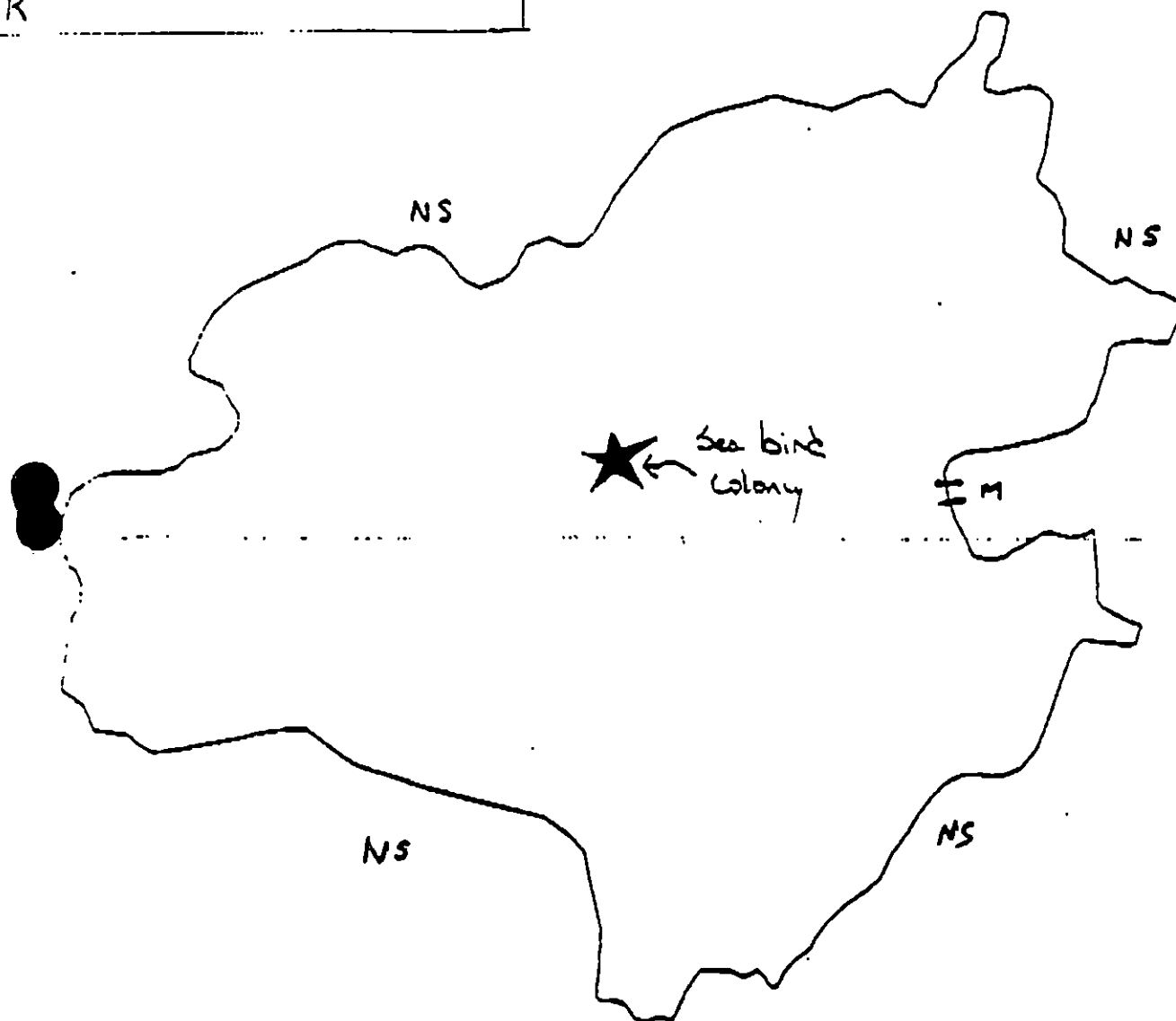
Segment consisted primarily of boulder/cobble beaches (with occasional 'bedrock outcrops') separated by bedrock headlands. In ~1/3 of these beaches the bedrock outcrops were rich in species while the boulders/cobbles were mostly barren except for a cover of *Enteromorpha* and some barnacles, fungi, gastropods in crevices and on protected sides. In other 2/3 both bedrock and boulders/cobble were rich in species. No apparent pattern to distribution of these two types of beaches

Algal cover in low intertidal was ~90% on bedrock, and ranged from 50-85% on boulders. In some areas much of this was due to high abundances of *Rhodomenia* (as high as 40%). In mid-intertidal algal cover ranged from 60-75% on bedrock, and 60-90% on boulders.

One dead, heavily oiled bird was found above high tide line. It was retrieved and reported to US Fish and Wildlife Service by Mike Goodwin (ADNR).

K0107-DI001

Ecology Map
Source Codes For Entire Segment
R



500.0

OILING	
H	Heavy
M	Moderate
L	Light
VL	Very Light
N	None
NS	Not Surveyed
Distance In Meters	

ADCE Sep/Oct 1980 Survey

Recruitment and Mortality Summary

Segment ST/KI-7/DI-1

Subdivision A

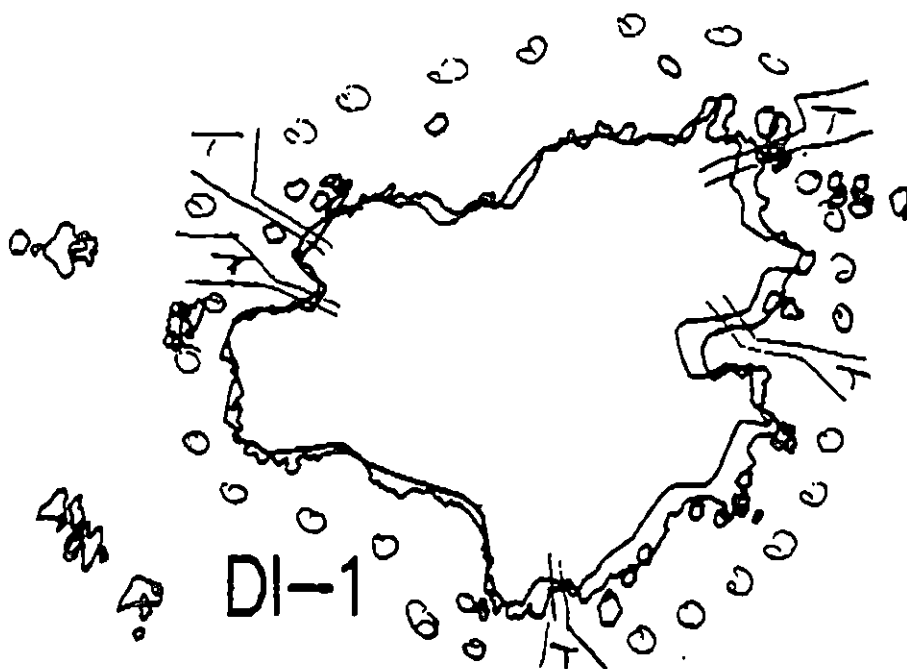
5-22-90

Investigator: David Cohen

Barnacle and Fucus recruitment were patchy

- Barnacle ~~recruitment~~ mortality in mid intertidal ranged from ~10-25% on bedrock (3 sites surveyed) and was ~5% on boulders (1 site estimated). In high intertidal mortality was ~25% on boulders (one site) and ~50% on bedrock (one site).

K1-7



XXXX Wide

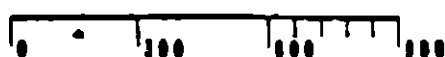
//// Medium

--- Narrow

TTTT Very Light

Kø1ø7-DI-1-A

ADEC Segment Length: 9910m



Map Key: KOD-27

Name: *John T. S. S. S.*

Date: *May 22/90*

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ K01-10-SB-001 SUBDIVISION A (1 OF 2) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

3N Harbor seal pupping (5/10 to 6/30)
30 Harbor seal molting (8/15 to 9/15)
7Z Subsistence area: Salmon harvesting (6/1 to 9/30)

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid disturbance/damage to uncoiled biota and substrate. See attached Ecological Constraint Sheet.

SHPO SIGNATURE: Charles E. Adams DATE: 4/17/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 553 m.
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u>X</u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u> </u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> Removal	<u> </u> Other (see comments)

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/16/90
ADEC AL KUGLER
EXXON ANDY TAYLOR
NOAA Burt Wescott
USCG G.A. REITER
FOSC: DATE: 4-20-90

KODIAK ECOLOGICAL CONSTRAINTS

KO110-SB-001 A & B

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
- 1C Salmon fry nursery area (4/31 to 7/31)
- 1D Kotol Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
- 1I Gill net area
- 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay - 6/9 to 10/1.
 East side Kodiak, East side Afognak - 7/4 to 10/1.
- 1K Purse seine hook-off
- 1L Set net sites
 USFWS setnet uplands permit 5/15 to 9/15.
- For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/15 to 6/30)
 Restrict boat traffic to essential minimum. Avoid damage to unholed intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
- 3N, 3P Harbor seal and sea lion pupping (5/10 to 6/30)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 5R Seabird colony (5/1 to 8/31)
 Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic.
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
- 6U Recreation: Tent sites (6/1 to 9/15)
- 6V Anchorages (6/1 to 9/15)
- 6W Forest Service cabins (6/1 to 9/15)
- 6X Lodge (6/1 to 9/15)
- 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (8/1 to 9/30)
- 7HH Finfish harvesting
- 7II Deer harvesting (8/1 to 1/7)
- 7JJ Invertebrate harvesting
- 7KK Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

MENT ST / K01101/SB001 SUBDIVISION: A DATE 4-7-90NAME John NaughtonSIGNATURE John J. Naughton☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

No oil observed in this subdivision. Bar on beach,
apparently eating kelp.

NAME Scott SheltonSIGNATURE Scott Shelton☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTEDMENTS K01101/SB001 Sub. A. (542 meters Segment Length)

No oil observed - 542 meters walked
by Team Members. 6 pits were dug to the depth
of 30 cm NO surface or subsurface oil observed.
Med to High energy beach, Bedrock cliffs, boulder
cobble conditions. Access very limited. Weather exposure
to NW - and northerly winds/waves.

LAND MANAGER

NAME Mike Goodwin
ADNRSIGNATURE Mike Goodwin☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

This segment has high recreational significance and
is adjacent to existing Legislatively designated State
Park Lands. Future expansion of the state park
being reviewed to include this segment. This
segment is at the entrance to Shanghai Bay within
Shuyak State Park. No oil observed in this
segment. WLG

SHORELINE OILING SUMMARY

REVISION NO. 03/22/98

OG Peatland MAA Naughton SEGMENT ST/ Kello/Sagoo
 BIO Spight LAND REP Goodwin ADNR SUBDIVISION A
 KON 8 years ADEC Shelton TIME 8:30 to 10:02
 AM NO.: 19 TIDE LEVEL: +1.84 to +1.54 DATE 4/7/90
 EST. SUBDIVISION LENGTH: 542 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 10 % B 20 % C 50 % P 0 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 7.5 % Hang 20 % Vert 5 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 542 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	AC	AB	AP	AS	1	2	3	4	5	6	7	8	SU	U	M	U
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
MOUSS																
PATTIES																
TARBALLS																
ILM																
NO OIL																

PAVEMENT: H F B 0 sq. m by 0 cmPATTIES / TARBALLS 0 BAGSNEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED

☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. ST-19-6Frames 1-4

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CH)	BELOW		OIL / FILM COLOR								PIT ZONE	A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UG	UC	1	2	3	4	5	6	7	8			
1	30					X	-											X		Cobble, Boulder
2	30					X	-											X		Cobble, Boulder
3	30					X	-												X	Cobble, Boulder
4	30					X	-											X		Cobble, Boulder
5	30					X	-											X		Cobble, Boulder
6	30					X	-											X		Cobble, Boulder

COMMENTS

- six pits were dug and random cobbles and boulders overturned in order to inspect for oil, none was observed. Some silt/clay can be seen in the small pools of water lying within the rocks.

to Penland

EGMENT ST/ K0110/50001

SKETCH MAP

SUBDIVISION A

DATE 4 / 7 90

CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Seg/Sub Binary
- ☒ O. Dist.
- ☒ Vicin
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ E SL MW L VL
- ☒ SSZ
- ☒ Profile Location(s)
- ☒ Profile(s)
- ☒ Pn Location(s)
- ☒ Photo Location(s)

LEGEND

1 Δ

Pn - No Subsurface Oil

2 Δ

Pn - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

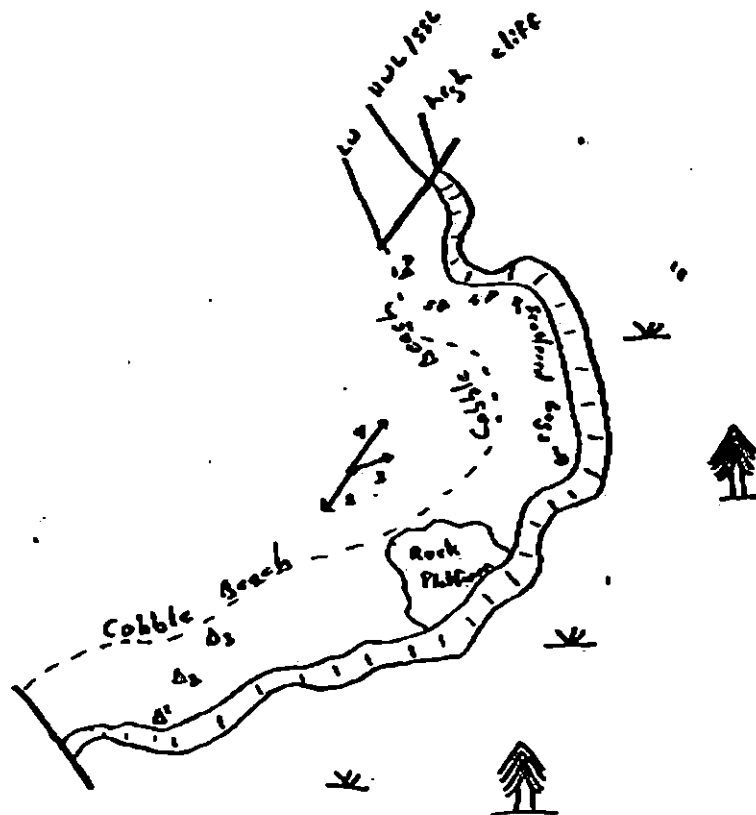
CT/S

Scattered Distribution

Oned Vegetation

1 →

Photo location, direction,
and number



0 100m

↑ N

Oil Character Long AP 0 PO 0 CV 0 CT 0 ST 0 MS 0 PT 0 TB 0 FL 0 NO 542

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/88

Segment ST / SB-1 Subdivision A Date (mo / day / yr) 4/7/90Time (24 hr) 8:46 Biologist SP16HT(A) Substrate type and % of segments:
(1) Bedrock 12 (2) Boulder 20 (3) Cobble 50 (4) Pebble _____ (5) Sand _____ (6) Silt _____(B) Overall % cover of biota (% of segment): Dense 20 Moderate 20 Low 60

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
Roll No. _____

Frames _____

BARNACLES

	Dense			Moderate			Sparse			Rare		
	1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	X	X	X	X	X	X	2	2	2	2	2	2
3	X	X	X	X	X	X	3	3	3	3	3	3
4	X	X	X	X	X	X	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

	Dense			Moderate			Sparse			Rare		
	1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

GASTROPODS

	Dense			Moderate			Sparse			Rare		
	1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	X	X	2	2	2	2	2	2	2	2	2	2
3	X	X	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

FUCUS

	Dense			Moderate			Sparse			Rare		
	1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments:

Ecological Considerations:

Littorines active on tops of rocks so distribution + abundance can be assessed. They were extremely abundant, including at upper levels, in one of the four indentations 7Z, 3N, 3O



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

~~K0620~~ SB-1

K01-10 RMC 4-11-90

ADEC Segment Length: 1277m



Map Key: GOA-238

Name: Shen Penland

Date: 4-7-90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ K01-10-SB-001 SUBDIVISION B (2 OF 2) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

3N Harbor seal pupping (5/10 to 6/30)

30 Harbor seal molting (8/15 to 9/15)

7Z Subsistence area: Salmon harvesting (6/1 to 9/30)

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid disturbance/damage to unoiled biota and substrate. See attached Ecological Constraint Sheet.

SHPO SIGNATURE: Charles R. H. Jones DATE: 4/17/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 11 m: No Oil 472 m.
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u>X</u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u> </u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> <u> </u> Removal	<u> </u> Other (see comments)

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/16/90

ADEC Dr. K. K. Jones

EXXON Amory Seal

NOAA Burt W. S. S. S. S. S.

USCG G. A. K. E. I. T. E. R. G. A. K. E. I. T. E. R.

FOSC:

DATE: 4-20-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / Ko1101/SB001 SUBDIVISION: B DATE 4-7-90

NAME John Naughton SIGNATURE John J. Naughton

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS
Some mounds observed down in cracks and fissures of jagged rock shoreline. However high energy shoreline, best to allow natural weathering of this relatively small amount of oil.

ADEC NAME Scott Shelton SIGNATURE Scott Shelton

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS Ko1101/SB001 Sub. B. 541 meters
High energy shoreline - Crab observed less than 1mm thick / splashes in the upper tidal zones. Effected area 10 meters diameter along a bed rock cliff impact in cracks and crevices. Forming a 1-2 meter vertical width band of staining as well. Access very limited, vertical cliffs and lack of beaches. NO pits were dug due to the bed rock surface conditions.

LAND MANAGER NAME Mike Gordin SIGNATURE Michael Gordin

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS
This segment has high recreational significance and is adjacent to existing legislatively designated state park lands. Future expansion of the state park is being reviewed to include this segment. This segment is at the entrance to Shagin Bay within Shuyak State Park. The degree and amount of oil observed would not justify treatment. W6

SHORELINE OILING SUMMARY

REVISION NO. 02/22/88

OG Penland NOAA 0808 Naughton SEGMENT ST/ K 0112 / 30201
 BIO Spight LAND REP Goodwin AONR SUBDIVISION A
 EXXON Agona ADEC Shelton TIME 8:32 to 12:02
 EAM NO.: 19 TIDE LEVEL: +1.44 to +3.54 DATE 4/7/90
 ST. SUBDIVISION LENGTH: 541 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 60 % B 20 % C 20 % P 0 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long % Hang 50 % Vert 50 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 10 m NO 531 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL																

PAVEMENT: H F 8 0 sq. m by 0 cmPATTIES / TARBALLS 0 BAGSNEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE DA#BAGS 0

Photographs:

Roll No. ST-19-6Frames 5-19SUBSURFACE OIL No Pits Dig

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR								PIT ZONE	A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	UC	50	60	70	80	90	100	110	120			
<u>0</u>																				

COMMENTS

- No pits dug due to shallow occurrence of bedrock.
- A 10 m diameter of oil lies within the bedrock at 12. Oil lies in the cracks and fissures of the rocks. The band is 1-2 m in width on the rocks.

OG Pentac

SKETCH MAP

SEGMENT ST Kelle/S6001

SUBDIVISION B

DATE 4 / 7 90

CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Seg/Sub Entry
- ☒ On D.S.
- ☒ Width
- ☒ Length
- ☒ A Cover
- ☒ Substrate Character
- ☒ Est. HWA/LVL
- ☒ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pt Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

Pt - No Subsurface Oil

2 Δ

Pt - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

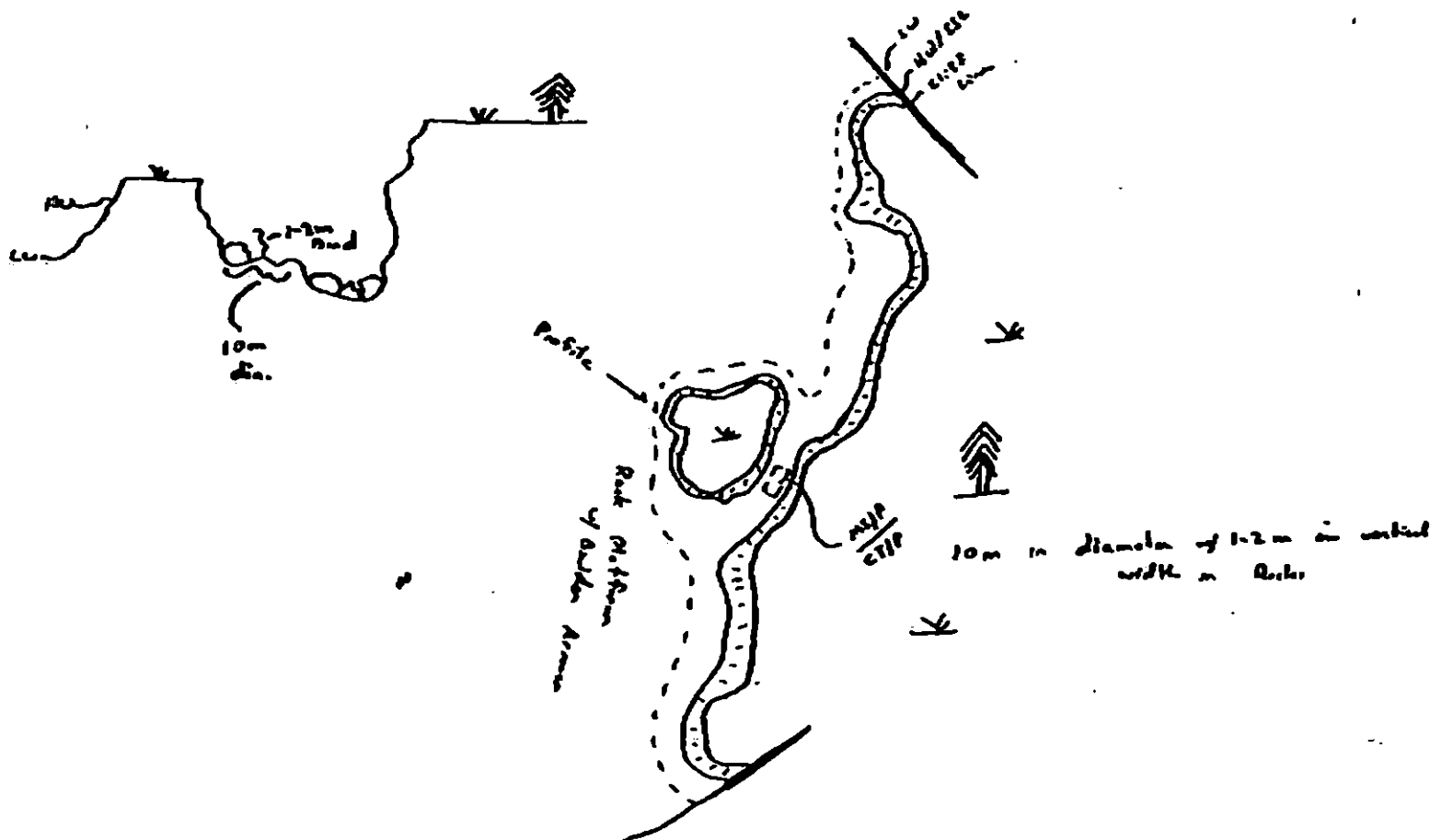
CT/S

Sparsely Distributed

Over Vegetation

1 $\Rightarrow$

Photo location, direction,
and number



Oil Character Length (m): AP 0 PO 0 CV 0 CT 10 ST 0 MS 10 PT 0 TB 0 FL 0 NO 531

REVISION: 02/24/00

SHORELINE ECOLOGICAL SUMMARY

REVISION: 07/27

Segment ST/ SB-1 Subdivision B Date (mo / day / yr) 4/7/90Time (24 hr) 9:12 Biologist SP16HT(A) Substrate type and % of segments:
(1) Bedrock 60 (2) Boulder 20 (3) Cobble 20 (4) Pebble (5) Sand (6) Silt (B) Overall % cover of biota (% of segment): Dense 30 Moderate 30 Low 40(C) Density, substrate preference (by number from A, above), &
vertical zonation of major taxa: (upper-U; mid-M; low tidal-L);
juveniles / adults (X), new settlement (3)Photographs:
Roll No. Frames

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	XU	XM	XL	2	2	2	2	2	2
3	3	3	XU	XM	XL	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	XU	XM	XL	2	2	2
3	3	3	3	3	3	XU	XM	XL	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

GASTROPODS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	XU	XM	XL	2	2	2	2	2	2
3	3	3	XU	XM	XL	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

FUCUS

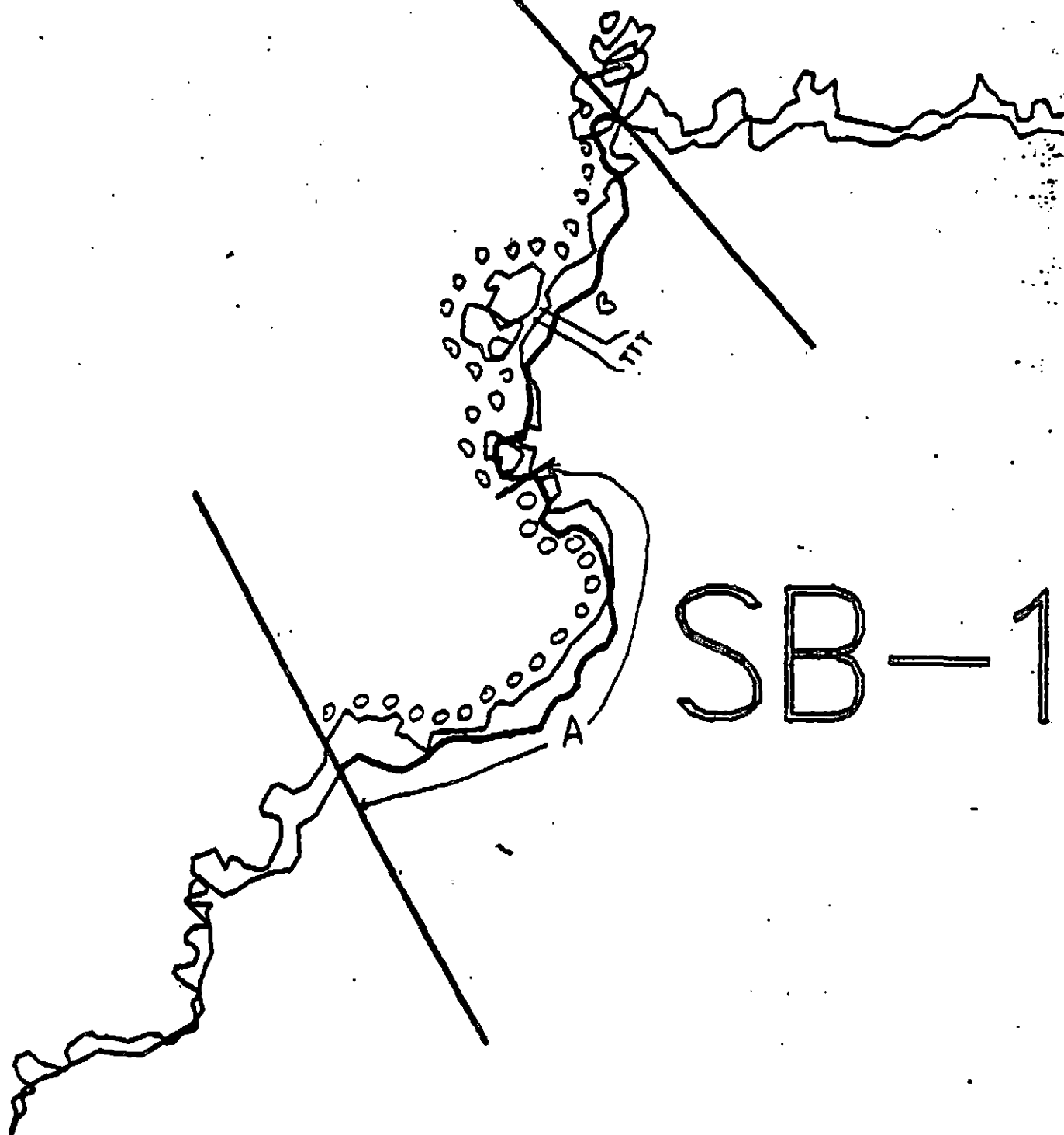
Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	XU	XM	XL	2	2	2
3	3	3	3	3	3	XU	XM	XL	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments:

Ecological Considerations:

7Z, 3N, 30



SB-1

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

~~X0620~~ SB-1

KOI-10 RENC. 4-11-90

ADEC Segment Length: 1277m



Map Key: 60A-238

Name: Shen Penland

Date: 4-7-90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ K01-10-SI-003 SUBDIVISION A (1 OF 1) DATE 3/30/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
No specific environmental sensitivities identified.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid disturbance/damage to uncoiled biota and substrate.

SHPO SIGNATURE: Charles H. Dineen DATE: April 14, 1990

OILING CATEGORIZATION:

Wide 158m: Medium 0 m: Narrow 151 m: V. Light 0 m: No Oil 17 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u> </u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u>X</u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u>X</u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u>X</u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> Removal	<u> </u> Other (see comments)

COMMENTS: Recommend manual pick up of pooled oil followed by bioremediation, in areas shown on attached sketch map.

TAG COMMENTS:

TAG APPROVAL DATE: 4/14/90.

ADEC JOHN BAUER

EXXON ANDY TATE

NOAA Bert W. W. W.

USCG G.A. REITER

FOSC: W L

DATE: 5-1-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ K0110/SI003 SUBDIVISION: A DATE 3-31-90AA
USCGNAME John Naughton SIGNATURE John J. Naughton☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

Additional cleanup suggested at this segment, particularly pooled oil in section B. Apparently some recovery of biota in former warm water wash area.

ADEC

NAME Scott Shelton SIGNATURE Scott Shelton☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

K01101/SI003 Observed weathered oil in the upper tidal zone Subdivision (A) location. ^(oil)Cover on Pore Spaces and is obtainable K01101/SI003 (B) Former warm water wash area. Algal grow has increased in this area. Pooled oil in sediment can still be found in this area, patchy and sporadic. Sheen is present in the lower tidal zones.

- A) Profile location
B) Profile location

LAND MANAGER

NAME Ray Burger ADNR SIGNATURE Ray Burger☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

- Sporadic pooled oil among cobbles & gravel
- Patches of coat on bedrock at MHW near profile B
- Subsurface unassessed due to lack of tools - this was hot water treated beach
- Much deer & bear scat in uplands

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Peeland USCG Naughten SEGMENT ST/ K0110/51003
 BIO Spight LAND REP Guyon SUBDIVISION A
 EXXON Gyres ADEC Shelton TIME 12:00 to 13:00
 TEAM NO.: 19 TIDE LEVEL: 0 to +2 ft DATE 3/30/90
 EST. SUBDIVISION LENGTH: 42.4 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 0 % B 30 % C 40 % P 40 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Lang 30 % Hang 40 % Vert 30 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 150 m M 0 m N 100 m VL 0 m NO 174 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	N	S	P	R	SP	BP	CP	PP	SU	US	MS	LU
ASPHALT PAVEMENT												
POOLED	✓				✓		✓		✓	✓	✓	✓
COVER			✗		✗		✗		✗	✗		
COAT												
STAIN												
MOUSSE												
PATTIES												
TARBALLS												
FILM												
NO OIL												

PAVEMENT: H F S 0 sq. m by 0 cmPATTIES / TARBALLS 0 BAGSNEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED

☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. 19-2Frames 26-31

SUBSURFACE OIL

No pits dug

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	UC	SP	BP	CP	PP	SU	US	MS	LU		

COMMENTS

- No pits dug due to boulder and bedrock conditions
- oil in profile A area is more weathered than in profile B where the oil is slumping and pool over the sedimented surface.

OG A ed

SEGMENT ST/ K0110/SI003

SUBDIVISION A

DATE 3 / 31 90

CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Sep/Sub Body
- ☒ Oil Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HRA/LVA
- ☒ SSL
- ☒ Profile Location(s)
- ☒ Profile(s)
- ☒ Pk Location(s)
- ☒ Photo Location(s)

LEGEND

1 Δ

Pk - No Subsurface Oil

2 Δ

Pk - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

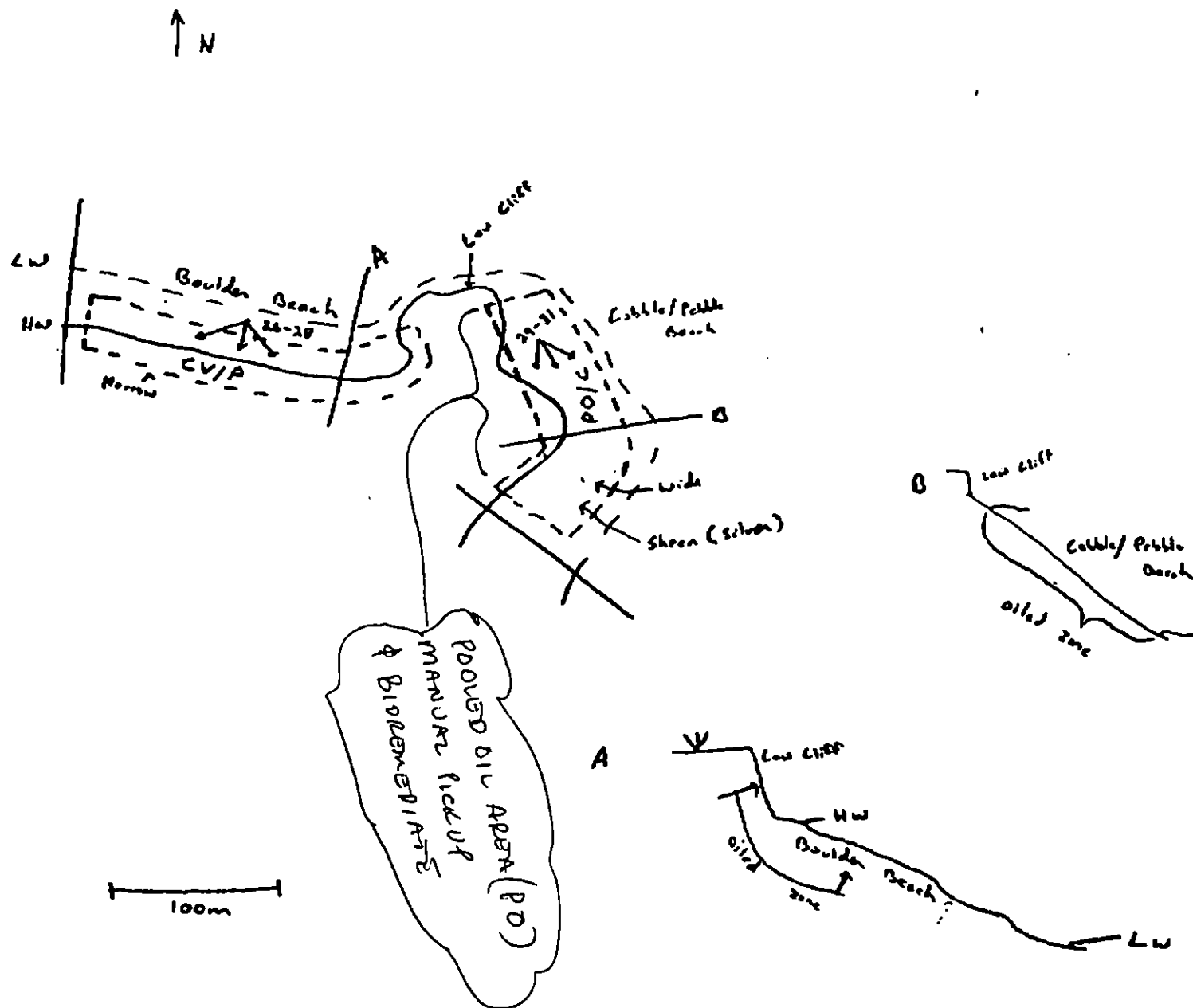
Splashed Distribution

Oiled Vegetation

1 ●→

Photo location, direction, and number

ETCH MAP



Oil Character Length (m): AP _____ PO 150 CV 200 CT _____ ST _____ MS _____ PT _____ TB _____ FL _____ NO 74

REVISION: 02/04/90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/23/88

Segment ST / S1-3 Subdivision _____ Date (mo / day / yr) 3/31/90Time (24 hr) 12³⁰ Biologist SP6HT(A) Substrate type and % of segments:
(1) Bedrock 0 (2) Boulder 20 (3) Cobble 40 (4) Pebble 40 (5) Sand 0 (6) SR 0

(B) Overall % cover of biota (% of segment): Dense _____ Moderate _____ Low _____

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
Roll No. _____

Frames _____

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

STROPODS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments:

Bio data applies only to portion south of beach profile B.

Ecological Considerations: Area with transect markers

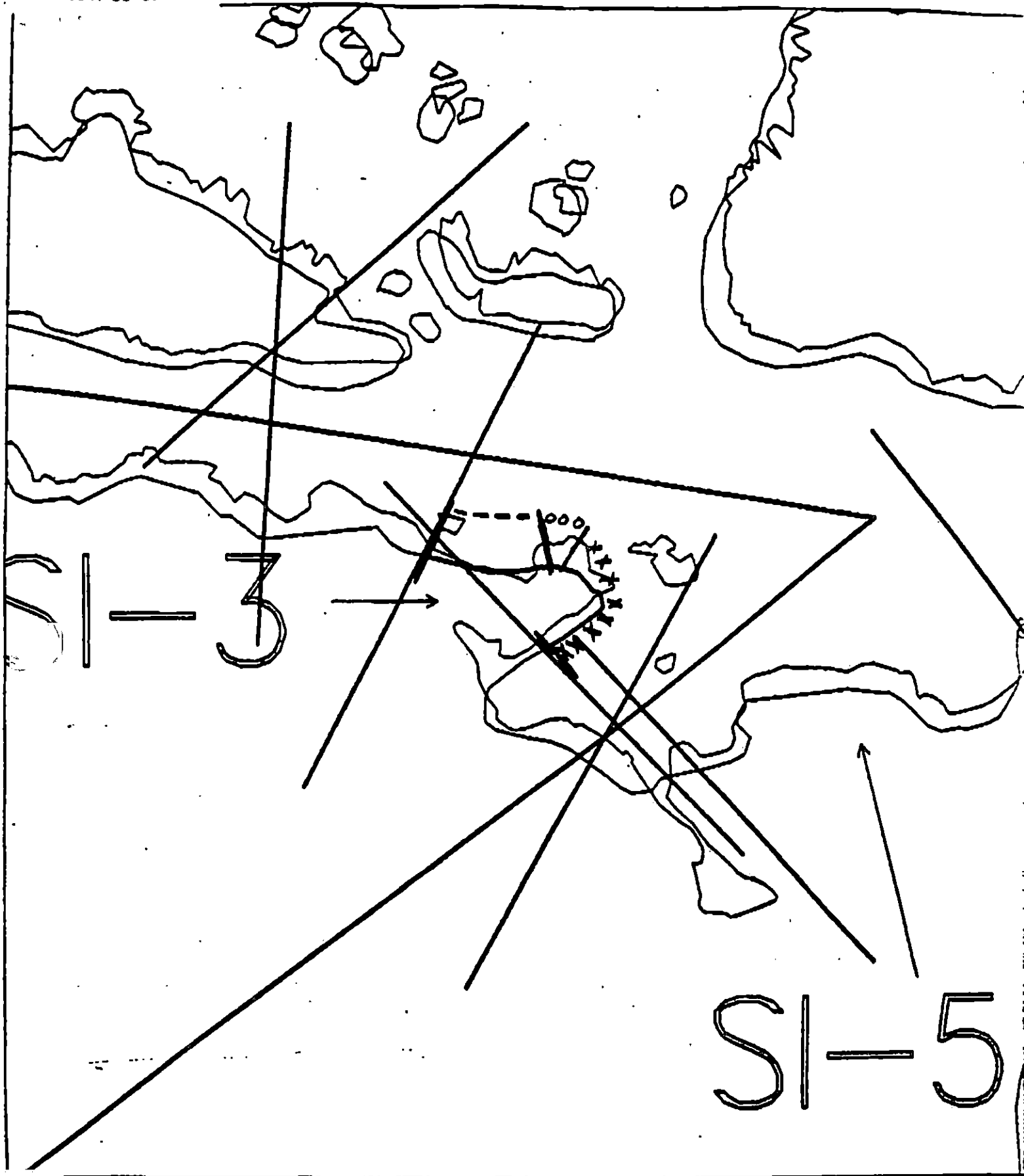
On upper, mid levels, only evident biota is filamentous algae.

Under stones Littorina, apparently more abundant lower

Also, an eel found under one lower mid-level stone.

At low levels, a dense algal cover, including some Fucus, snails.

This is the area that was not cleaned



XXX Wide

/// Medium

--- Narrow

TTTT Very light

SI-3

AOEC Segment Length: 424m

Map Key: GOA-15

Name: PenlandDate: 3-31-90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K01-10-SI-003 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	CLOSED
Bioremediation	CLOSED

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5R Seabird Colony

Closed to manual pickup and bioremediation; work site is within 800m of a seabird colony.

OTHER ECOLOGICAL CONSIDERATIONS

Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

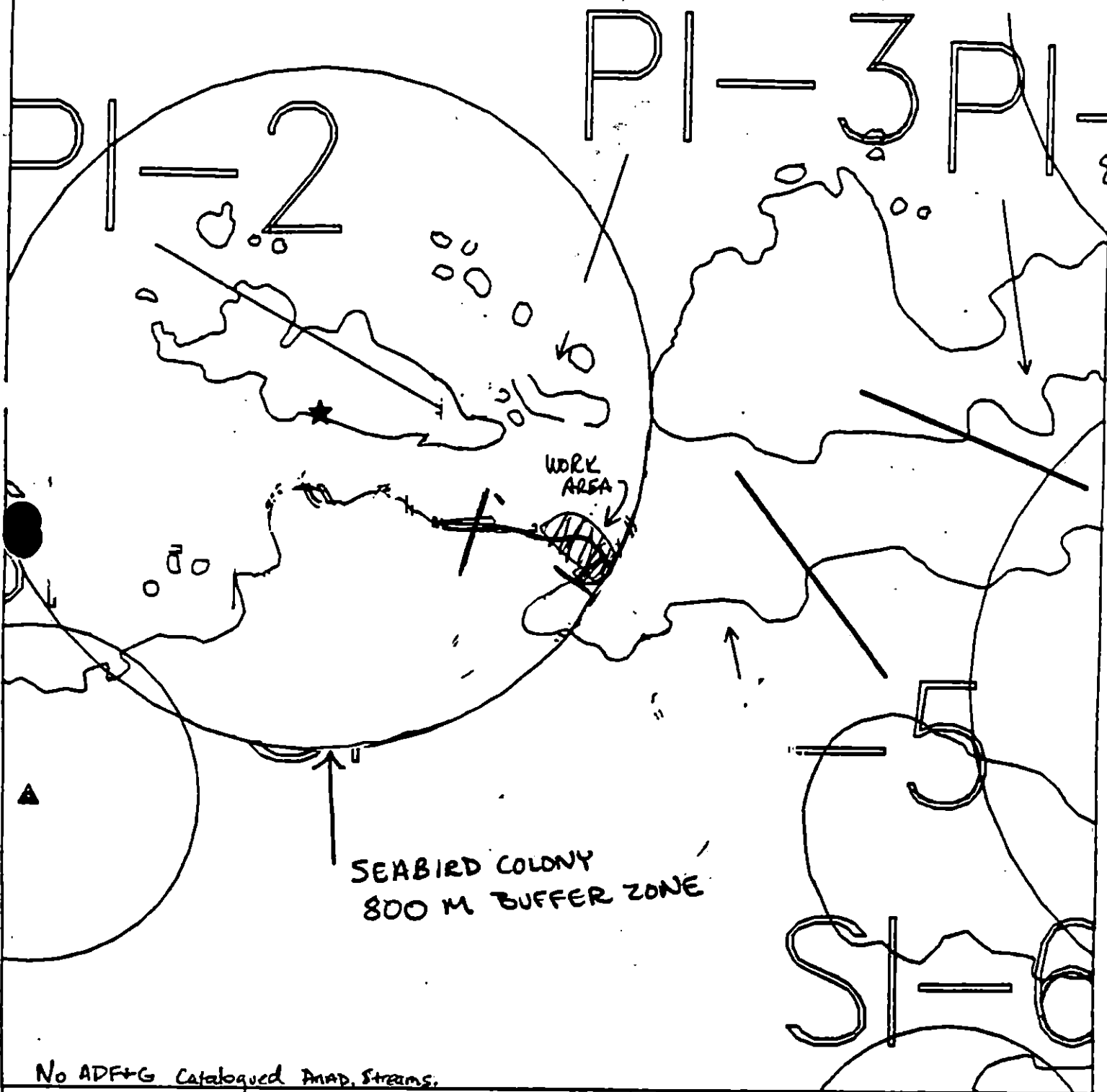
TAG APPROVAL DATE _____
ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC

DATE 6-10-90

Prepared By: Ray R. Conline

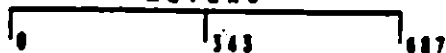
Date 06/10/90



Exxon Company, USA
Map Key: KOD-SI-3
May 17, 1990



ECOLOGY MAP
SEGMENT SI-3
SUBDIVISION A (1 of 1)
METERS



★	Seabird Colony
▲	Eagle Nest

1 inch = 1127 feet

SHORELINE EVALUATION

SEGMENT ST/ K01-10-SI-005 SUBDIVISION A (1 OF 1) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

3N Harbor seal pupping (5/10 to 6/30)

3O Harbor seal molting (8/15 to 9/15)

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid disturbance/damage to unoiled biota and substrate. See attached Ecological Constraint Sheet.

SHPO SIGNATURE: Charles J. Holmes DATE: 4/12/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 441 m: V.Light 0 m: No Oil 138 m
Subsurface Oil Observed: Yes X No Maximum Depth 12 cm

RECOMMENDATIONS:

<u> </u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u>X</u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u>X</u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u>X</u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> Removal	<u> </u> Other (see comments)

COMMENTS: Recommend manual removal of pooled oil, followed by bioremediation of pooled oil and cover areas. Limit work to period between 7/1 and 8/14, per above constraints.

RAKE AREA INDICATED ON SKETCH PRIOR TO BIOREMEDIATION.

TAG COMMENTS:

TAG APPROVAL DATE: 4/16/90

ADEC AL REEDER
EXXON ANDY TAYLOR
NOAA Burt Wescott
USCG G.A. BEITER

FOSC: ML DATE: 5-12-90

KODIAK ECOLOGICAL CONSTRAINTS

SL - COS - A

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
- 1C Salmon fry nursery area (4/31 to 7/31)
- 1D Kotol Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
- 1I Gill net area
- 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay - 6/9 to 10/1.
 East side Kodiak, East side Afognak - 7/4 to 10/1.
- 1K Purse seine hook-off
- 1L Set net sites
 USFWS setnet uplands permit 5/15 to 9/15.
- For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/15 to 6/30)
 Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
- 3N, 3P Harbor seal and sea-lion pupping (5/10 to 8/30)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 3O, 3Q Harbor seal and sea-lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 5R Seabird colony (5/1 to 8/31)
 Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic.
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
- 6U Recreation: Tent sites (5/1 to 9/15)
- 6V Anchorages (5/1 to 9/15)
- 6W Forest Service cabins (5/1 to 9/15)
- 6X Lodge (5/1 to 9/15)
- 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
- 7HH Finfish harvesting
- 7H Deer harvesting (5/1 to 1/7)
- 7JJ Invertebrate harvesting
- 7KK Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
- For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K0110/SI005 SUBDIVISION: A DATE 3-31-90

NOAA

~~USCG~~NAME John Naughton SIGNATURE John J. Naughton☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Treatment suggested, particularly for pooled oil on black sand beach at far ~~east~~ end of segment. Feel there is probably more subsurface oil in beach than we actually located. In addition area appears to be fairly low priority as far as resource sensitivity.

DEC

NAME

Scott Shelton

SIGNATURE

Scott Shelton☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

K0110/SI005 Patchy distribution of oil along this segment is CLEANABLE/MANUAL type. Impact can be found pooled in sediment between boulders & rubble. Layers of oil observed along the east end of the segment this is a partly buried band of oil. Surf. conditions exposed this band. Layer is 2cm thick with a length of 2m x 15m. Tide and wave conditions could expose more oil bands in this area/very CLEANABLE AREA.

LAND MANAGER

NAME

Ray Burger

SIGNATURE

Ray Burger☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

- Sporadic pooled oil in 170m of mid segment good for manual cleanup
- "Bulldozer" beach at east end had a band of 2cm thick asphalt exposed by surf
 - we were able to uncover 2m x 15m ^{broken} band of this but there may be more of this along entire pebble beach, mid tidal to upper
 - subsurface assessment incomplete due to lack of tools

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Penland NOAA USCGC Naughton SEGMENT ST/ K0110/SK003
 BIO Spight LAND REP Burgen ADAR A SUBDIVISION A
 XON Oyers ADEC Shelton TIME 13:00 to 14:15
 AM NO.: 19 TIDE LEVEL: +3.0 ft to +6.0 ft DATE 3/31/90
 EST. SUBDIVISION LENGTH: 625 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 0 % B 20 % C 60 % P 20 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Lang 70 % Hang 20 % Vert 10 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 475 m VL 0 m NO 150 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	AC	AS	AP	AR	BR	BL	OR	OL	OW	TL	SU	U	M	U
ASPHALT PAVEMENT														
POOLED	X									X		X		
COVER														
COAT														
STAIN														
MOUSSE														
PATTIES														
TARBALLS														
FILM														
NO OIL											X	X	X	X

PAVEMENT: H F S 0 sq. m by 0 cm

PATTIES / TARBALLS 0 BAGS

NEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	X		
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NO

TYPE 0

#BAGS 0

Photographs:

Roll No. 19-3

Frames 1-8

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	BR	BL	OR	OL	OW	TL	SU	U	M	U		
1	30					X	-													X	Debris shale
2	30					X	-													X	Debris shale
3	30			X			10-12		X						X		X				pebble
							-														
							-														
							-														

COMMENTS

00 Penlans

SKE1 MAP

SEGMENT ST/ K0110/ SI 005

SUBDIVISION A

DATE 3 / 31 / 90

CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Seg/Sub Bndry
- ☒ Oil Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HW/LA WL
- ☒ SSI
- ☒ Profile Location(s)
- ☒ Profile(s)
- ☒ P4 Location(s)
- ☒ Photo Location(s)

LEGEND

1 Δ

P4 - No Subsurface Oil

2 Δ

P4 - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Wedge Distribution

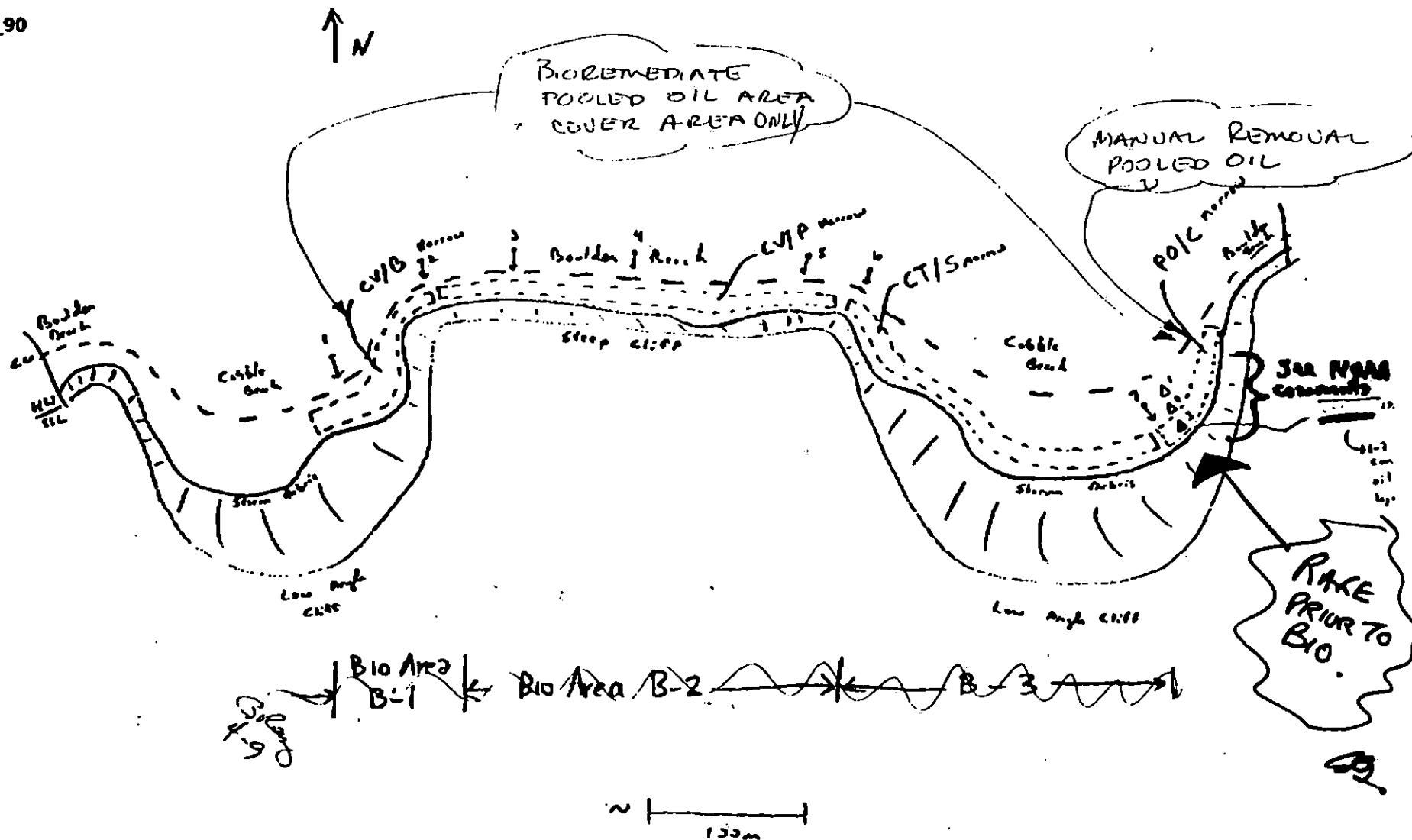
CT/S

Plashed Distribution

Red Vegetation

1 ●

Photo location, direction, and number



Character Length (m): AP 0 PO 50 CV 300 CT 200 ST 0 MS 0 PT 0 TB 0 FL 0 NO 150

REVISION 007400

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/22/89

Segment ST/ SI-5 Subdivision Bio Area B-1 Date (mo / day / yr) 3/31/90Time (24 hr) 1300 Biologist SP16/HT(A) Substrate type and % of segments:
(1) Bedrock _____ (2) Boulder _____ (3) Cobble 40 (4) Pebble 60 (5) Sand _____ (6) Silt _____(B) Overall % cover of biota (% of segment): Dense 60 Moderate 20 Low 20

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:

Roll No. _____

Frames _____

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

GASTROPODS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments:

Ecological Considerations: *Balanus* cobble community
 Little sedentary fauna on uppermost cobbles
Littorina less abundant than at other SI sites
Fucus higher, lower than *Dornadez*

K0110

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/22/88

Segment ST/ SI 005 Subdivision Bio Area B-2 Date (mo / day / yr) 3/31/90Time (24 hr) 13³⁰ Biologist SPIGHT

- (A) Substrate type and % of segments:
 (1) Bedrock 40 (2) Boulder 60 (3) Cobble _____ (4) Pebble _____ (5) Sand _____ (6) Silt _____
- (B) Overall % cover of biota (% of segment): Dense 40 Moderate 40 Low 20
- (C) Density, substrate preference (by number from A. above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (O)

Photographs:
Roll No. _____

Frames _____

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

GASTROPODS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

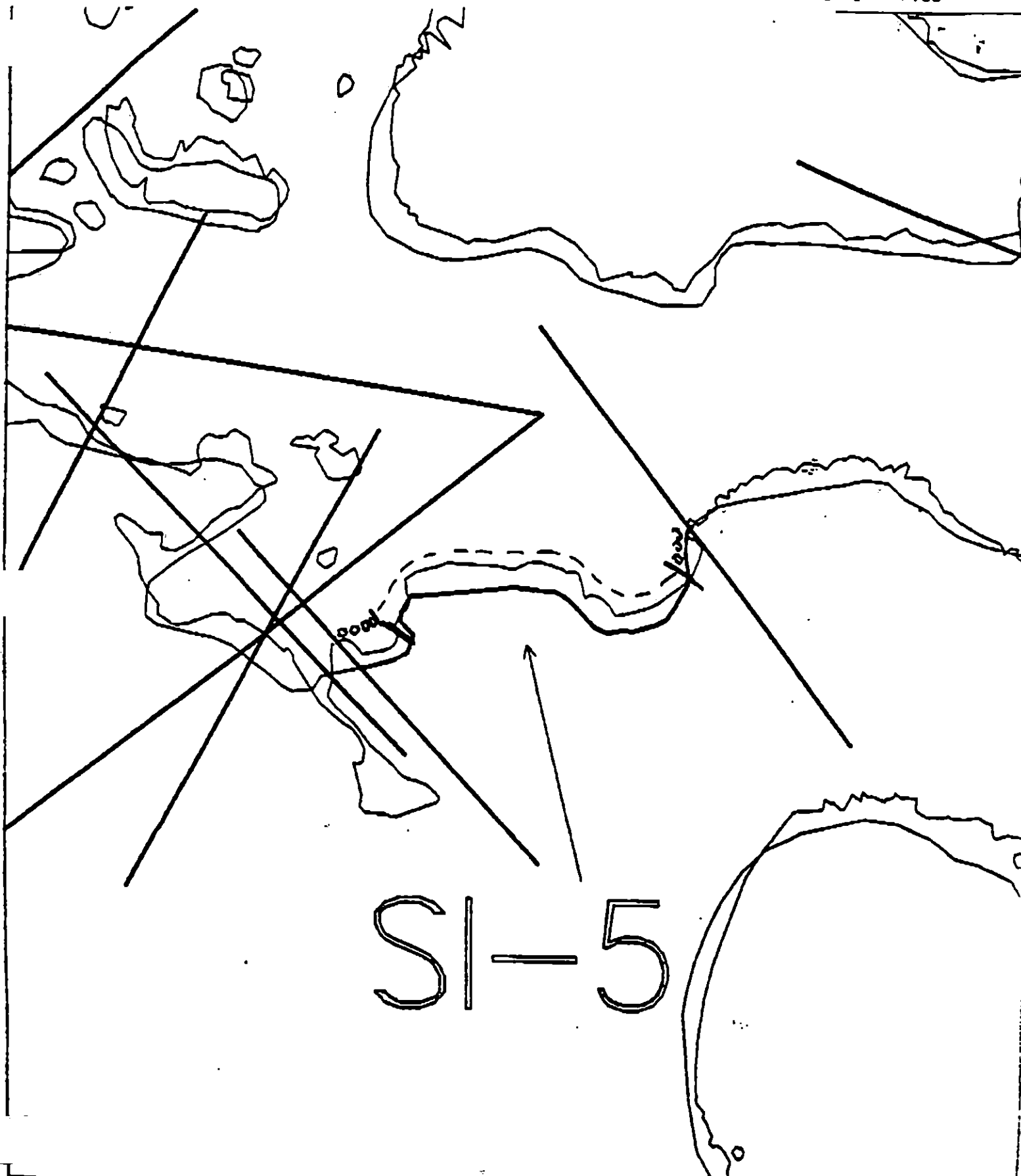
NOT PRESENT

Wildlife Observations/ General Comments:

Ecological Considerations:

Typical algae-covered lower shore

Bio Area B-3 is stones without surface fauna.



SI-5

XXXX Wide

//// Medium

---- Narrow

SI-5

ADEC Segment Length: 625m

Map Key: GOA-20

Name: Penland

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K01-10-SI-005 SUBDIVISION A (1 of 1)

WORK WINDOW

Manual Pickup

WORK 7/1 to 8/15

Bioremediation
Manual Raking

WORK 7/1 to 7/31

ARCHAEOLOGICAL MONITOR REQUIRED ON SITE.

>>> PHONE 564-3274 (Anchorage) OR 229-1508 (24 hrs.) <<<

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

3N,O,P,Q

Harbor Seal & Sea Lion
Pupping and Molting

Closed to bioremediation,
and manual raking prior to 7/1 and after
7/31. Closed to manual pickup before 7/1
and after 8/15.

5R

Seabird Colony

NO CONSTRAINT. Work site is more than
800m from seabird colony.

OTHER ECOLOGICAL CONSIDERATIONS

Do not apply bioremediation to specific areas where seals are observed to haulout. Do not chase or harass seals or sea lions, and do not approach pups under any circumstances. When working on or near haulouts, complete the job as quickly as possible with minimum personnel, equipment, noise and disturbance. Keep boats and personnel as far from actual haulouts as is practical to do the work specified. Minimize air traffic near haulouts, maintain elevation as is practical, and avoid repeated overflights of the same haulout areas.

FOSC

D. Zavadzki

Date

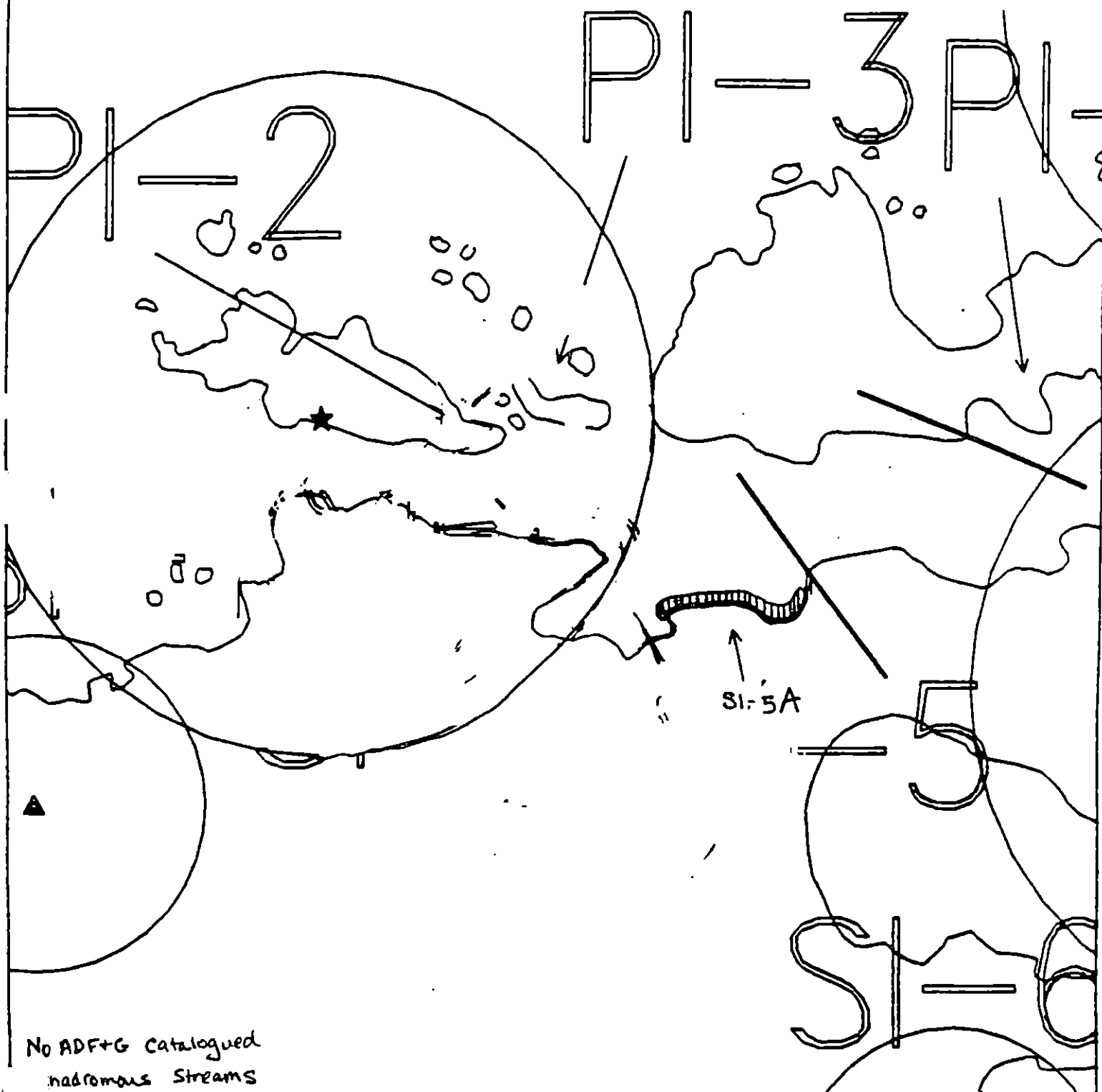
6/27/90

Prepared by

D. R. Couture

Date

06/13/90



Exxon Company, USA
Map Key: KOD-SI-3



ECOLOGY MAP
SEGMENT SI-
SUBDIVISION A (J. of J.)
METERS



Seabird Colony

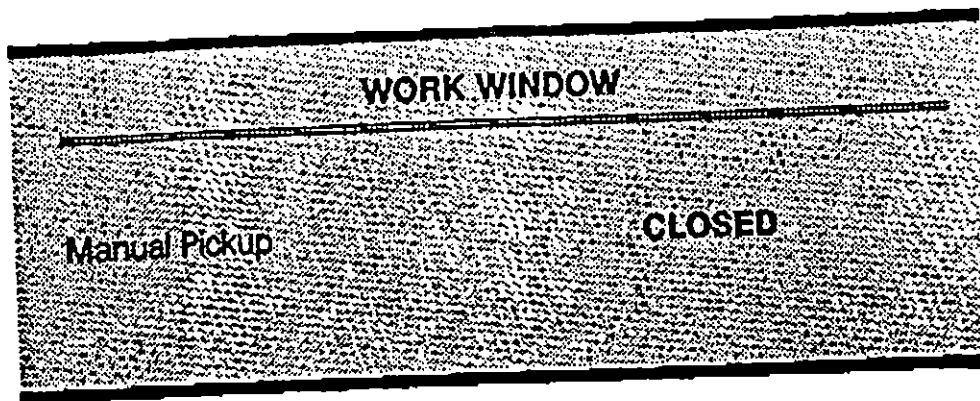


Eagle Nest

20 a 1011

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K01-10-SI-100 SUBDIVISION A (1 of 1)



ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B	Salmon Stream	Unmapped anadromous stream. No constraint to manual pickup.
5R	Seabird Colony	Closed to manual pickup less than 800m from colony. No constraint to manual pickup more than 800m from colony.
5T	Bald Eagle Nest	USFWS 4/9/90 map indicates an active nest in Subdivision A. Closed to manual pickup within 400m of active nest. No constraint to manual pickup more than 400m from active nest.

OTHER ECOLOGICAL CONSIDERATIONS

If eagle nest and seabird colony constraints are removed, other ecological considerations will apply.

FOSC

A. Zamoffi

Date

2/2/90

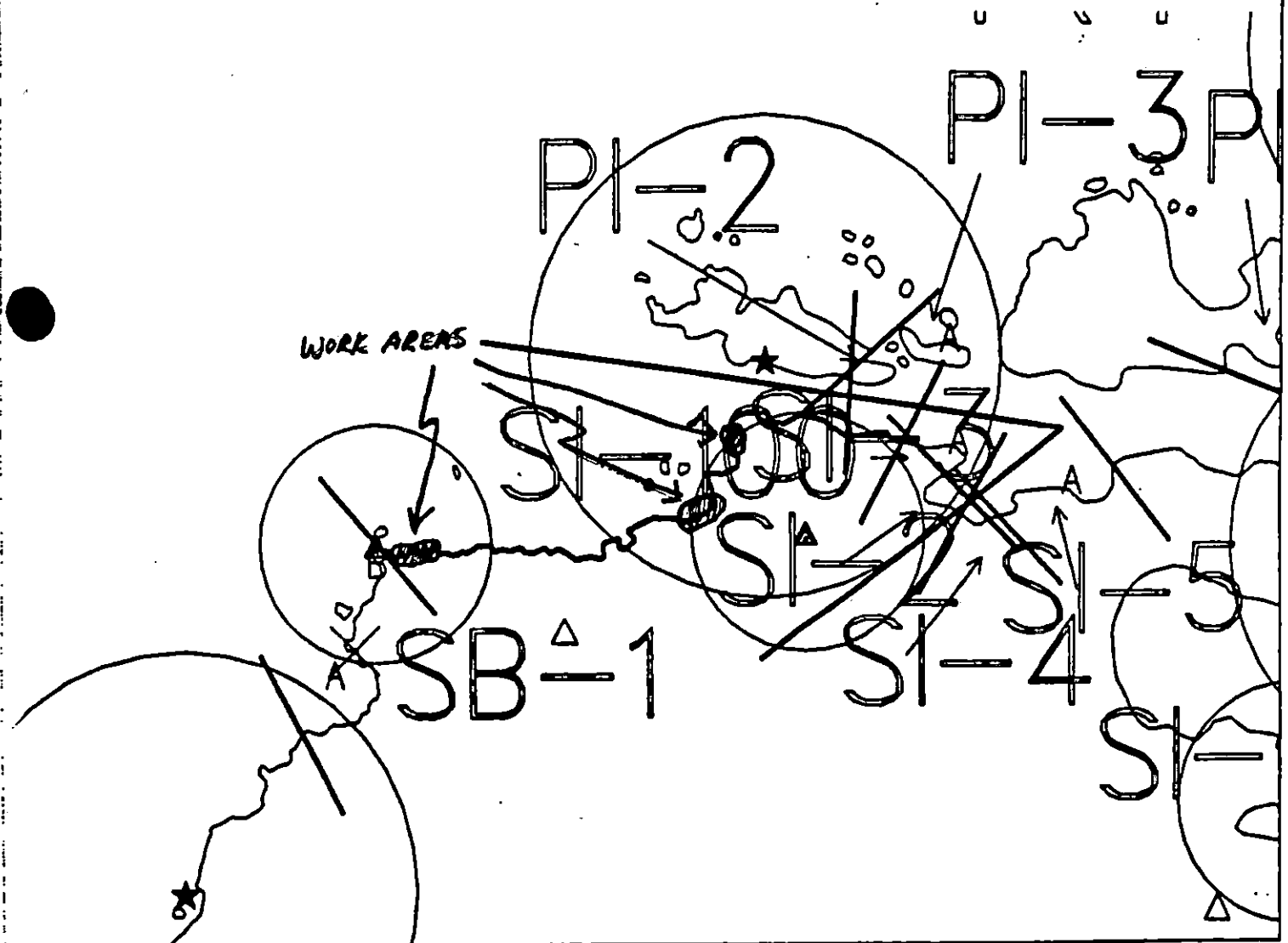
Prepared by

W. McCoy

Date

7/5/90

No anadromous stream
Shown on PDF+G maps



Exxon Company, USA
Map Key: KOD-SI-100
June 10, 1990



ECOLOGY MAP
SEGMENT K1-10 SI-100
SUBDIVISION A (1 of 1)

METERS

0 500 1133

- ★ Seabird Colony
- ▲ Active Eagle Nest
- △ Inactive Eagle Nest

1 inch = 1858 feet

SHORELINE EVALUATION

SEGMENT ST/ K01-M-PI-001 SUBDIVISION A (1 OF 1) DATE 4/8/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

3N Harbor seal pupping (5/10) to 6/30)

30 Harbor seal molting (8/15 to 9/15)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Avoid disturbance/damage to unoiled substrate and biota.

SHPO SIGNATURE: Charles E. Horner DATE: 4/20/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 657 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

☒ No Treatment Recommended	☐ Snare/Absorbent Booms
☒ Treatment Recommended	☐ Oil Snares (pom poms)
☒ Manual Pickup	☐ Absorbents (pads, rolls, etc)
☐ Bioremediation	☐ Spot Washing: <u> </u> Wands
☐ Tarmat: <u> </u> Breakup	☐ Beach Cleaner
☐ <u> </u> Removal	☐ Other (see comments)

COMMENTS: Recommend manual pick up of oiled plastic in upland grass.
Work should be conducted between 7/2 to 8/14 based on above con-
straints.

TAG COMMENTS: NO TREATMENT RECOMMENDED.

TAG APPROVAL DATE: 4/20/90.

ADEC JOHN BAUER

EXXON AMY TEE

NOAA Joseph Talbot

USCG KENNETH KEANE

FOSC:

DATE: 4-26-90

KODIAK ECOLOGICAL CONSTRAINTS

P1 - ~~001~~ 001A

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
- 1C Salmon fry nursery area (4/31 to 7/31)
- 1D Kotai Bay Hatchery release
Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
- 1I Gill net area
- 1J Purse seine area
Mainland, West side Kodiak, Shuyak & Moser/Olga Bay - 6/9 to 10/1.
East side Kodiak, East side Afognak - 7/4 to 10/1.
- 1K Purse seine hook-off
- 1L Set net sites
USFWS setnet uplands permit 5/15 to 9/15.

For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/15 to 6/30)
Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
- 3N, 3P Harbor seal and sea lion pupping (5/10 to 6/30)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 5R Seabird colony (5/1 to 8/31)
Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic.
- 5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
- 6U Recreation: Tent sites (8/1 to 9/15)
- 6V Anchorages (8/1 to 9/15)
- 6W Forest Service cabins (8/1 to 9/15)
- 6X Lodge (8/1 to 9/15)
- 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (8/1 to 9/30)
- 7HH Finfish harvesting
- 7I Deer harvesting (8/1 to 1/7)
- 7JJ Invertebrate harvesting
- 7KK Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / KOH1 / PI001 SUBDIVISION: A DATE 3-31-90

10AA
566
NAME

John Naughton SIGNATURE

John J. Naughton

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

No oil observed. In addition to the segment beach we also surveyed two small beaches immediately adjacent to PI-1. This was done because the maps were not consistent. No oil observed on these beaches either.

ADEC
NAME

Scott Shelton SIGNATURE

Scott Shelton

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

No oil observed ~ WALKED 767 METERS. High merge black N/WEST exposure. KOH1 PEREVALNIE I. PI-1 HAS TWO OTHER BEACHES THAT HAVE A PEREVALNIE PASSAGE EXPOSURE. NO OIL WAS OBSERVED ON THE SMALL PEREVALNIE PASSAGE SIDE BEACH. WINTER STORMS HAVE CHANGED THE BEACH HEAVY CONCENTRATION OF NEW BEACH DRIFT HAS BEEN DEPOSITED IN ALL BEACH LOCATIONS IN PI-01.

LAND MANAGER

NAME

Ray Burger AONR SIGNATURE

Ray Burger

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Light oiled plastic debris windblown into upland grasses (few pcs. found).
No oil on 767 m of beach observed.
No oil observed on Perevalnie Passage beaches.

SHORELINE OILING SUMMARY

REVISION NO. 822210

OG Panland USCG Naughton SEGMENT ST/ KOH/PT001
 BIO Seight LAND REP Burger ADNR SUBDIVISION A
 EXXON Ayers ADEC Shelton TIME 11:25:10
 TEAM NO.: 19 TIDE LEVEL: -1 ft 10 -1 ft DATE 3/31/90
 EST. SUBDIVISION LENGTH: 767 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: W 10 E
 SURFACE SEDIMENTS: R 0 % B 10 % C 50 % P 40 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Lang 20 % Hang 10 % Vert 10 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 767 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	AC	AS	AP	AR	SP	SB	ST	SL	SR	TL	TR	LR	SU	U	M	U
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL																

PAVEMENT: H F S N/A sq.m by N/A cmPATTIES / TARBALLS N/A BAGSNEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE N/A#BAGS 0

Photographs:

Roll No. N/AFrames N/A

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	VO	SP	SB	ST	SL	SR	TL	TR	LR	SU	U	M	U		
1	30					X	-											X					cobble
2	30					X	-												X				cobble
3	30					X	-													X			cobble
4	30					X	-											X					cobble
5	30					X	-												X				cobble
6	30					X	-													X			cobble

COMMENTS

- no oil observed
- debris line was inspected
- cobbles were randomly overturned throughout the area, no oil observed
- several shallow pits were dug by hand, inspected and no oil was found.

13 Pearlani

SKI MAP

EGMENT ST/ KWH/ P1001

UBDIVISION A

ATE 3 / 31 90

CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Sep Sub Bnry
- ☒ O: D:z
- ☒ W:en
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HNTL/ML
- ☒ SSL
- ☒ K: Profile Location(s)
- ☒ R: Profile(s)
- ☒ P: Location(s)
- ☒ Photo Location(s)

LEGEND

1 Δ
No Subsurface Oil

2 Δ
Subsurface Oil

CT/C
Con: r: r: r: Distribution

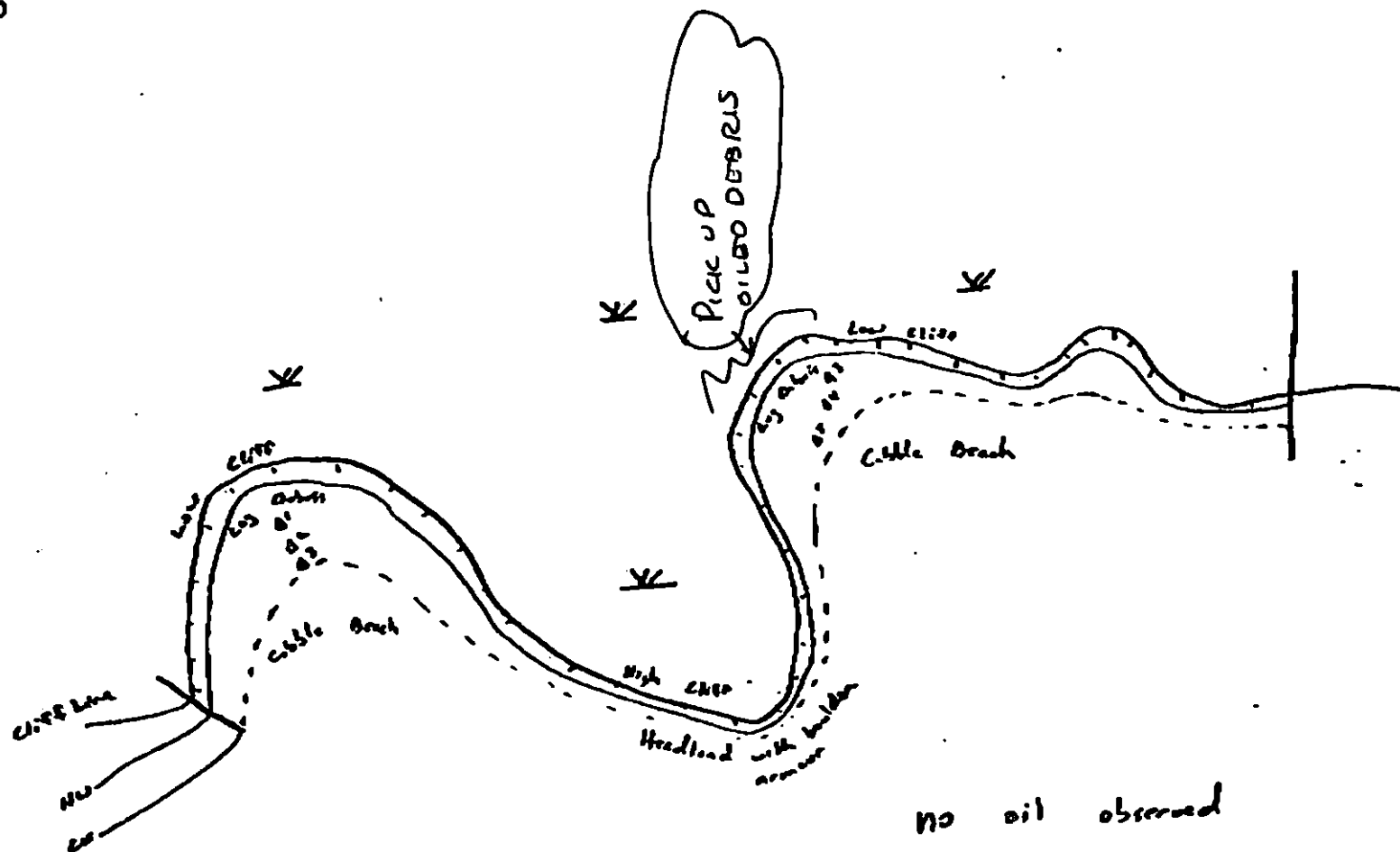
CT/B
Broken Distribution

CT/P
Patchy Distribution

CT/S
Splashed Distribution

Med Vegetation

no to location, direction,
no number



Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 0 PT 0 TB 0 FL 0 NO 767

REVISIONS

Segment ST / PI 1 Subdivision _____ Date (mo / day / yr) 3/31/90

Time (24 hr) 1130 Biologist SPIGHT

(A) Substrate type and % of segments:

(1) Bedrock 0 (2) Boulder 10 (3) Cobble 50 (4) Pebble 40 (5) Sand 0 (6) Silt 0

(B) Overall % cover of biota (% of segment): Dense _____ Moderate _____ Low 100

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low (L)-L); juveniles / adults (X), new settlement (3)

Photographs:
Roll No. _____

Frames _____

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

STROPODS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

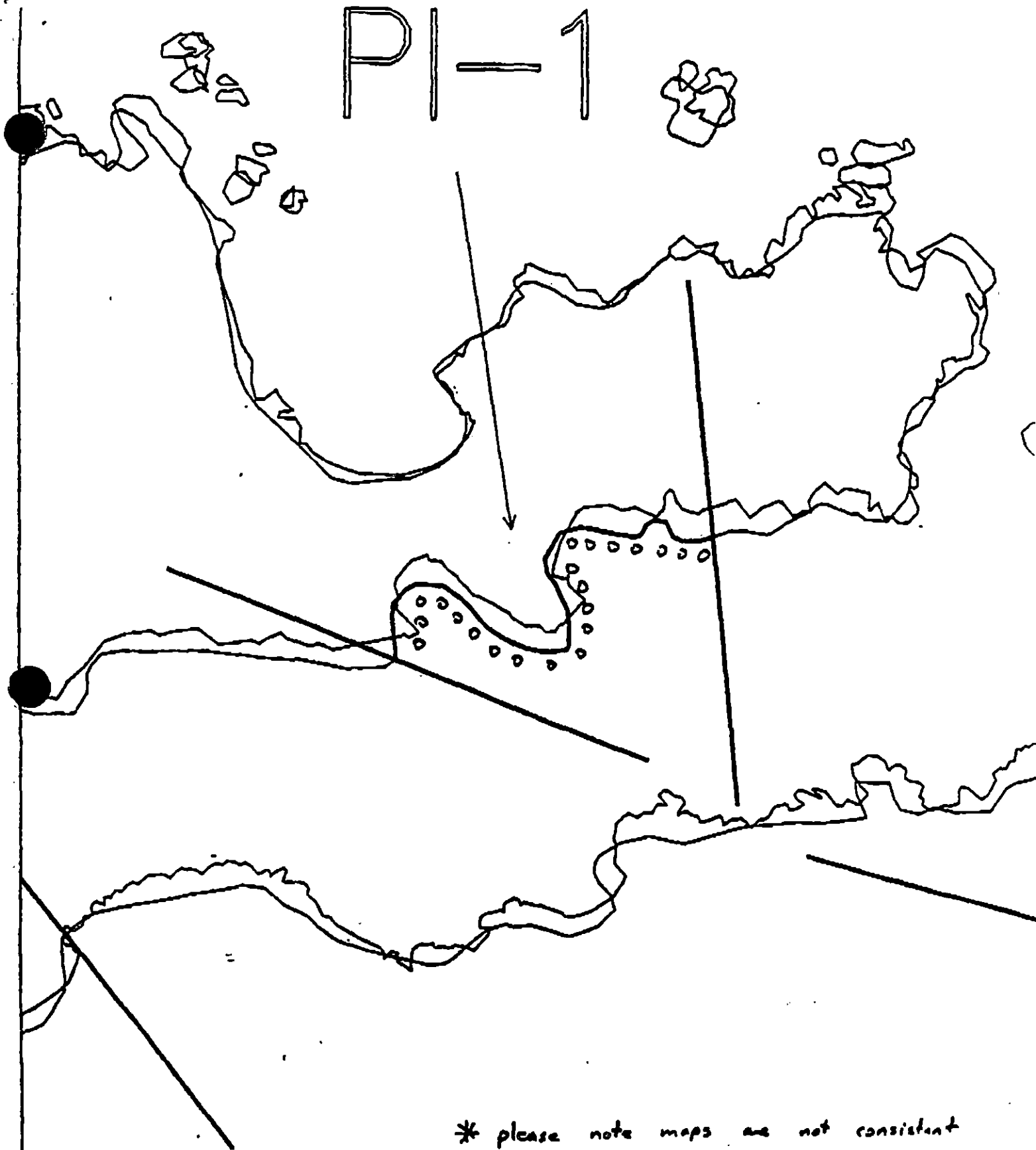
Wildlife Observations/ General Comments:

Ecological Considerations:

Headlands with dense algae, some barnacles, Fucus

3N, 30

PI-1



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

PI-1

ADEC Segment Length: 766m



Map Key: GOA-16

Name: PenlandDate: 3-31-90

Data Entered:

SEGMENT ST/ K01-11-PI-003 SUBDIVISION A (1 OF 1) DATE 3/31/90SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
5S Shorebird/Waterfowl concentration (4/1 to 5/15)

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid disturbance/damage to uncoiled biota and substrate. See attached Ecological Constraint Sheet.

SHPO SIGNATURE: Charles Z. HumeDATE: April 14, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 45 m: Narrow 12 m: V. Light 0 m: No Oil 550 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u> </u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u>X</u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u>X</u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u>X</u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> Removal	<u> </u> Other (see comments)

COMMENTS: Recommend manual pick up of pooled oil using trowels, followed by bioremediation of pooled oil and cover areas as indicated on attached sketch map. Treatment activities should be conducted after 5/15 based on above constraints.

TAG COMMENTS:

TAG APPROVAL DATE: 4/14/90.ADEC JOHN BAUEREXXON ANDY TAYLORNOAA Burt W. W. W.USCG 2. A. R. E. T. D. C. A. R.FOSC: My LDATE: 5-1-90

KODIAK ECOLOGICAL CONSTRAINTS

P1-003-A

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
- 1C Salmon fry nursery area (4/31 to 7/31)
- 1D Kotot Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
- 1I Gill net area
- 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay - 6/9 to 10/1.
 East side Kodiak, East side Afognak - 7/4 to 10/1.
- 1K Purse seine hook-off
- 1L Set net sites
 USFWS setnet uplands permit 5/15 to 9/15.
 For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/15 to 6/30)
 Restrict boat traffic to essential minimum. Avoid damage to unholed intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
- 3N, 3P Harbor seal and sea lion pupping (5/10 to 6/30)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 5R Seabird colony (5/1 to 8/31)
 Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic.
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
- 6U Recreation: Tent sites (6/1 to 9/15)
- 6V Anchorages (6/1 to 9/15)
- 6W Forest Service cabins (6/1 to 9/15)
- 6X Lodge (6/1 to 9/15)
- 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (6/1 to 9/30)
- 7HH Finfish harvesting
- 7I Deer harvesting (6/1 to 1/7)
- 7JJ Invertebrate harvesting
- 7KK Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K0111 / P1003 SUBDIVISION: A DATE 3-30-90

NOAA

USCG

NAME John Naughton SIGNATURE John J. Naughton☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

Suggest pickup of oil at two pooled oil sites in this segment. Cobble should be moved in these areas to determine extent of pooled oil and this oil then removed.

ADEC

NAME Scott Shelton SIGNATURE Scott Shelton☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

K0111/P1003 Still has a CLEANABLE band on the S/E side of the island. Sheening can be observed in this area. CLEANABLE pools of weathered oil / broken distribution observed in the upper tidal zone north of the wash over fan. S/W side of K0111/P1003 has a medium band of CLEANABLE oil rather patchy pooled and sporadic. Impact in Median location is in the upper to mid tidal zones.

LAND MANAGER

NAME Ray Burger AONK SIGNATURE Ray Burger☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

- Two pooled oil areas on south side of island to be cleaned.
- Main breach in upland bedrock, mid-island has patchy pooled oil
- Also a cleft in bedrock on north side (west of above breach) has patchy pooled oil
- Subsurface unassessed due to lack of tools

SHORELINE OILING SUMMARY

REVISION NO. 02-21-90

OG Penland NOAA USCG Naughton SEGMENT ST/ K0111 / P1003
 RIO Spight LAND REP Bergen SUBDIVISION A
 XXON Gysel ADEC Shelfton ADNR TIME 10:10 10:11 10:12
 TEAM NO.: 19 TIDE LEVEL: -0.75M 10 -1.5 DATE 3 / 31 / 90
 EST. SUBDIVISION LENGTH: 50 m 693 ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 80 % B 10 % C 80 % P 10 % G 10 % S 10 % M 10 % V 10 %
 SLOPE: Long 80 % Hang 10 % Vert 10 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 58 m N 10 m VL 0 m NO 635 m
625

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	R	B	P	C	W	Y	OR	GR	BL	SU	U	M	V
ASPHALT PAVEMENT													
POOLED		X							X		X		
COVER		✓							✓		✓		
COAT													
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL										X	X	X	X

PAVEMENT: H F S NA sq. m by NA cmPATTIES / TARBALLS NA BAGSNEAR SHORE SHEEN? ☒ BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE NA#BAGS NA

Photographs:

Roll No. 19-2Frames 20-25

SUBSURFACE OIL No Pits Dug

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CH)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OF	OR	OL	OF	NO		UO	UC	W	Y	OR	GR	BL	SU	U	M	V		
0																				

COMMENTS

- The band of medium oil category is 2-7m wide and 50m in length.
- Shore sheen can be seen in the area oiled.
- No subsurface penetration, oil occurs in the pool character type under cobbles as a broken distribution within the surface layer. A random distribution of pits were dug and a number of boulders and cobbles were overturned in order to inspect for oil. None was observed.

REVIEWED BAT DATE 9 Dec 90

OG Pen

SEGMENT ST/ K0111/P1003

SUBDIVISION _____

DATE 3 / 31 / 90

CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Seg/Sub Bndry
- ☒ Oil Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HWA/LWL
- ☒ SSL
- ☒ Profile Location(s)
- ☒ Profile(s)
- ☒ P4 Location(s)
- ☒ Photo Location(s)

LEGEND

1 ▲

P4 - No Subsurface Oil

2 ▲

P4 - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

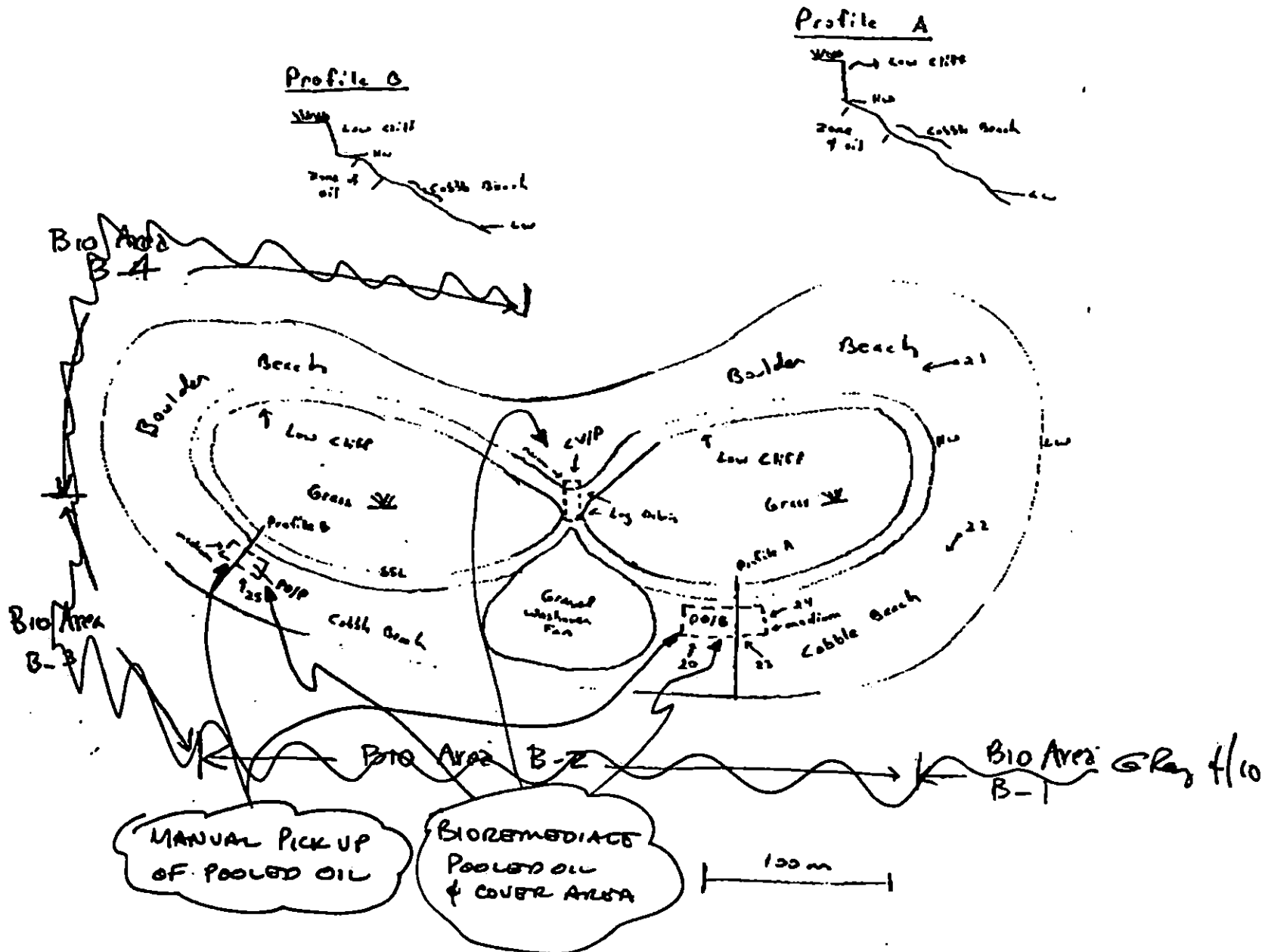
Oiled Vegetation

1 ➡

Photo location, direction, and number

↑ N

SKETCH MAP



Oil Character Length (m): AP 0 PO 58 CV 10 CT 0 ST 0 MS 0 PT 0 TB 0 FL 0 NO 635

REVISION 03/0000

SHORELINE ECOLOGICAL SUMMARY

Segment ST/ PI-3 Subdivision Bio Area B-1 Date (mo/day/yr) 3/31/90(24 hr) 10²⁰ Biologist SP16HT

(A) Substrate type and % of segments:

(1) Bedrock 55 (2) Boulder 15 (3) Cobble 30 (4) Pebble _____ (5) Sand _____ (6) Silt _____(B) Overall % cover of biota (% of segment): Dense 10 Moderate 20 Low 20

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L): juveniles / adults (X), new settlement (3)

Photographs:

Roll No. _____

Frames _____

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
X 2	X 2	2	2	2	X 2	2	2	2	2	2	2
3	3	3	3	X 3	X 3	3	3	3	3	3	3
4	4	4	4	4	X 4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	X 2	X 2	2
3	3	3	3	3	3	3	3	3	3	X 3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

GASTROPODS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	X 2	2	X 2	2	X 2	2	2	2	2	2	2
3	3	3	3	3	X 3	3	3	3	3	3	3
4	4	4	4	4	X 4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	X 2	2	2	2	2	2	2	X 2	X 2	2	2
3	3	3	3	3	3	3	3	X 3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments:

Ecological Considerations:

low level algal cover, some barnacles; some of algae is Fucus

SHORELINE ECOLOGICAL SUMMARY

Segment ST / PI-3 Subdivision Bio Area B-2 Date (mo / day / yr) 3/31/90
 Time (24 hr) 10:40 Biologist SPIGIT

- (A) Substrate type and % of segments:
 (1) Bedrock 10 (2) Boulder (3) Cobble 70 (4) Pebble 20 (5) Sand (6) Silt
- (B) Overall % cover of biota (% of segment): Dense Moderate 60 Low 40
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:

Roll No. Frames

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

GASTROPODS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments:

Ecological Considerations:

Small cobble with dense *Balanus glandula* thruout. Tidal zone
 Cobbles have some *Fucus*, limpets, often dense littorines
B. canosus comes in on larger cobbles. This is a backwater/lagoon
 type of fauna.

SHORELINE ECOLOGICAL SUMMARY

Segment ST/ PI-3 Subdivision Bio Area B-3 Date (mo / day / yr) 3/31/90Time (24 hr) _____ Biologist SPIGHT

(A) Substrate type and % of segments:

(1) Bedrock _____ (2) Boulder _____ (3) Cobble 40 (4) Pebble 60 (5) Sand _____ (6) Silt _____(B) Overall % cover of biota (% of segment): Dense 40 Moderate 20 Low 40

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X) , new settlement (3)

Photographs:

Roll No. _____

Frames _____

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	3	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

GASTROPODS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments:

Ecological Considerations:

Larger cobble with *B. cariosus* in this area

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/22/90

Segment ST/ PI-3 Subdivision Bio Area B 4 Date (mo / day / yr) 3/31/90Time (24 hr) 11:00 Biologist SPIGHT

(A) Substrate type and % of segments:

(1) Bedrock 30 (2) Boulder 30 (3) Cobble 30 (4) Pebble (5) Sand (6) Silt (B) Overall % cover of biota (% of segment): Dense 30 Moderate 30 Low 30

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:

Roll No. Frames

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

GASTROPODS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

FUCUS

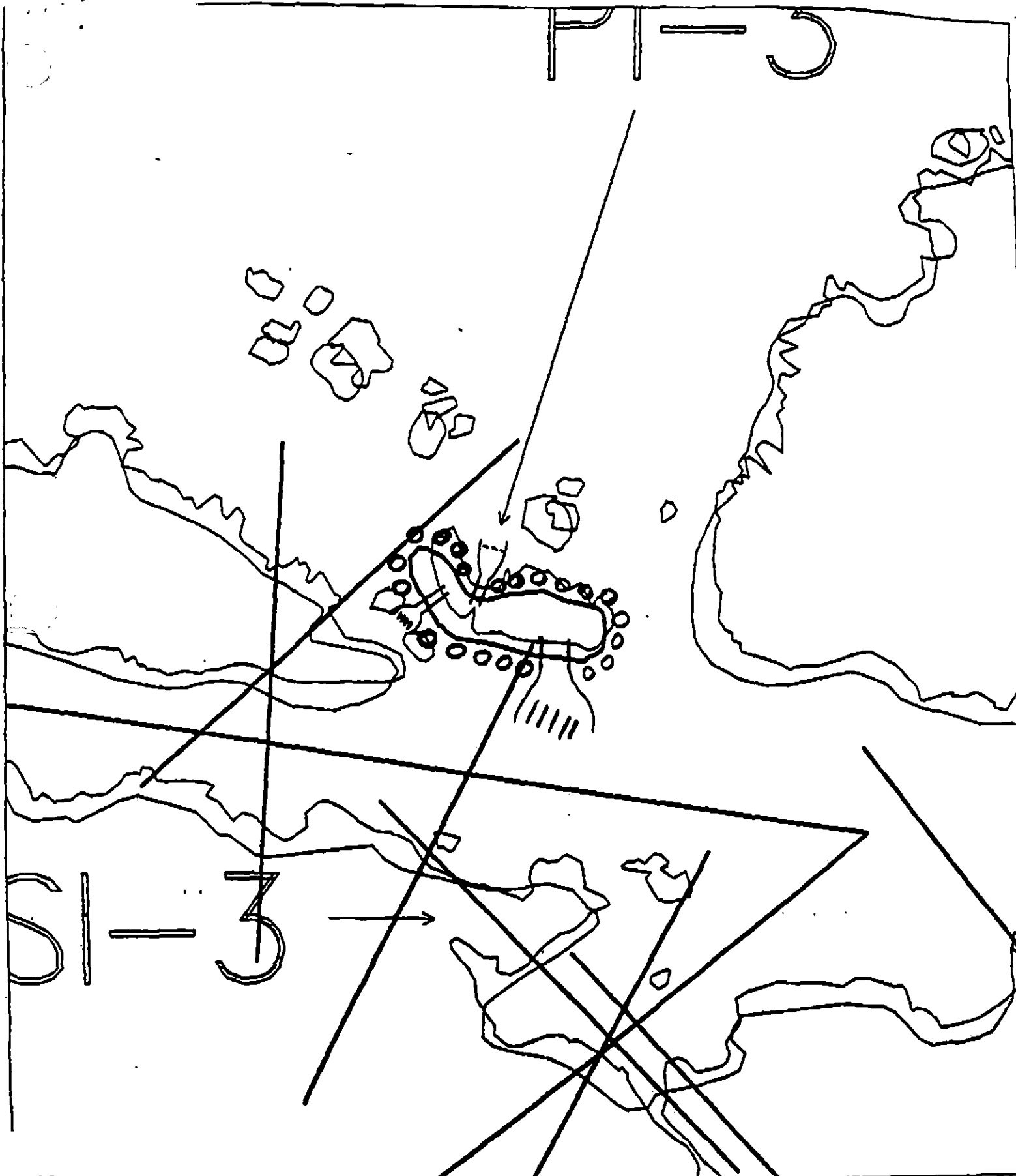
Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments:

Ecological Considerations:

Dense low level algal population



XXXX Wide

//// Medium

---- Narrow

PI-3

ADEC Segment Length: 693m

Map Key: GOA-18

Name: PENLAND

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K01-11-PI-003 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	OPEN
Bioremediation	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5S	Shorebird/Waterfowl Concentration	No constraint to manual pickup and bioremediation.
5R	Seabird Colony	No constraint to manual pickup and bioremediation, but follow established USFWS transit route through seabird colony buffer zone as described on attached map.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict all activity to essential minimum, especially air traffic. Avoid any unnecessary disturbance or damage to uncollected biota and substrate.

FOSC

[Signature]

Date

6/16/90

Prepared by

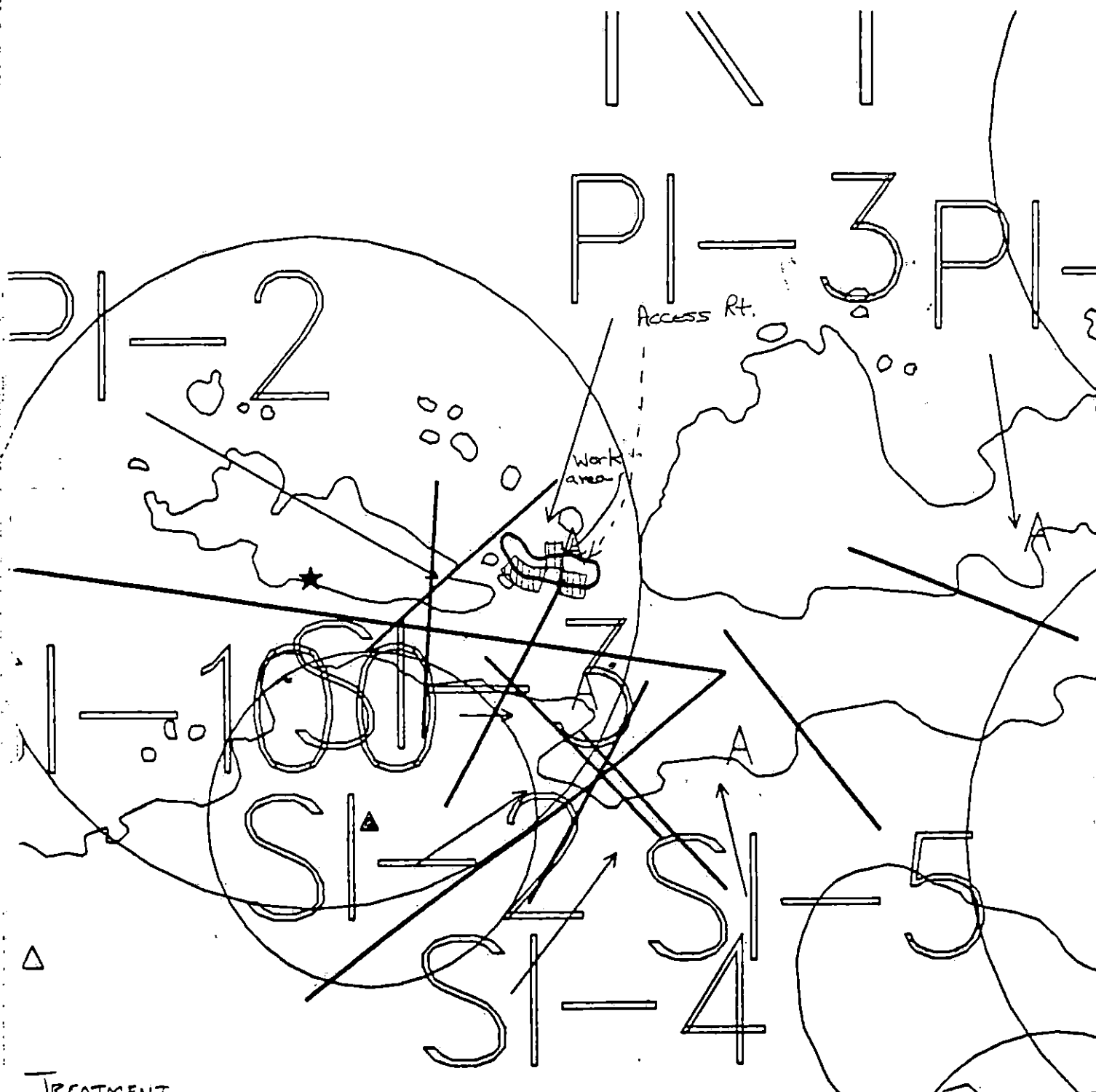
Reg P. Coulter

Date

06-14-90

1. Access route provided for a work crew of 20 members.
2. A Fish + Wildlife Monitor should be present during work period.
(1 day notice for the monitor)

Mike Luke 6/13/90



TREATMENT



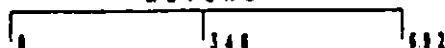
Exxon Company, USA

Map Key: KCD-PI-3

June 10, 1990

ECOLOGY MAP SEGMENT KI-11 PI-3 SUBDIVISION A (1 of 1)

METERS



- ★ Seabird Colony
- ▲ Active Eagle Nest
- △ Inactive Eagle Nest

1 inch = 134 feet

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/K01-12-SS-009 STREAM NO: 251-50-10045 DATE 5/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-3 All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
5R Seabird colony (5/1 to 9/1)
8AA Sensitive estuary

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Subject stream exists in subdivision A (1 of 1). Note seabird colony and eagle nests.

SHPO SIGNATURE: Rachel Don Owen DATE: 5/22/90

Subsurface Oil Observed: Yes____ No X Maximum Depth____

RECOMMENDATIONS:

☐ No Treatment Recommended	☐ Snare/Absorbent Booms
☒ Treatment Recommended	☐ Oil Snares (pom poms)
☒ Manual Pickup	☐ Absorbents (pads, rolls, etc)
☐ Bioremediation	☐ Spot Washing: _____ Wands
☐ Tarmat Removal	☐ Beach Cleaner
	☐ Other (see comments)

COMMENTS: Recommend manual removal of tarballs and patties in UITZ as indicated on attached sketch map. Contact ADF&G (regarding stream) and USFWS (regarding eagle nests) for work dates.

TAG COMMENTS: _____

TAG APPROVAL DATE: 5/18/90
 ADEC ART WEINER Art Weiner
 EXXON ANDY KAL Andy Kal
 NOAA Gary Polgar Gary Polgar
 USCG G.A. HEITER G.A. Heiter

FOSO: [Signature] DATE: MAY 27 1990
MAV 27 1990

KODIAK ECOLOGICAL CONSTRAINTS

✓ Salmon stream mouth - fry outmigration (4/15 to 7/31)

Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)

No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.

1C Salmon fry nursery area (4/31 to 7/31)

1D Kotol Bay Hatchery release

Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.

1H Remote release site

1I Gill net area

1J Purse seine area

Mainland, West side Kodiak, Shuyak & Moser/Olga Bay - 6/9 to 10/1.
East side Kodiak, East side Afognak - 7/4 to 10/1.

1K Purse seine hook-off

1L Set net sites

USFWS setnet uplands permit 5/15 to 9/15.

For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.

2M Herring spawning (4/15 to 6/30)

Restrict boat traffic to essential minimum. Avoid damage to unloiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.

3N, 3P Harbor seal and sea lion pupping (5/10 to 6/30)

Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.

3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)

Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.

5R Seabird colony (5/1 to 8/31)

Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.

5S Shorebird/waterfowl concentration (4/1 to 5/15)

Restrict all activity to essential minimum, especially air traffic.

✓ 5T All Bald Eagle nests (3/1 to 6/1)

Active Bald Eagle nests (3/1 to 9/1)

Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.

6U Recreation: Tent sites (6/1 to 9/15)

6V Anchorages (6/1 to 9/15)

6W Forest Service cabins (6/1 to 9/15)

6X Lodge (6/1 to 9/15)

6Y Special use destination

7Z Subsistence area: Salmon harvesting (6/1 to 9/30)

7HH Finfish harvesting

7II Deer harvesting (8/1 to 1/7)

7JJ Invertebrate harvesting

7KK Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)

For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.



3/18

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1 5009 SUBDIVISION: _____ DATE 5/1/70

USCG

NAME CWO McMath SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

1. MANUAL CLEAN-UP; REMOVE TAR PUTTIES
(PER MAP)

ADFH

DEC

NAME JEFFREY BARNHART SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Type A manual cleanup of putties / Tar balls

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY (ANAD) 13/18

OG WILLIAM LEID USCG McMAHON SEGMENT ST/ SS009
 BIO MICHAEL FAWCETT LAND REP STREAM 25-16-0001
 EXXON GUS GARCIA ADFG ADFG TIME 10:30 DATE 1 MAY 1990
 TEAM NO. 15 TIDE LEVEL +1.8m +3.7 ft DATE 1 MAY 1990
 EST. SUBDIVISION LENGTH: 750 m ☐ Sun ☐ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 10 % B 30 % C 60 % S 0 % M 0 % V
 SLOPE: Long 75 % Hang 25 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ Hig
 OIL CATEGORY LENGTH: W 0 m M 0 m N 700 m VL 0 m NO 50

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	W	M	N	VL	1	2	3	4	5	W	M	N	U
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT													
STAIN													
MOUSSE													
PATTIES			X							X			
TARBALLS			X							X			
FILM													
NO OIL										X	X	X	

PAVEMENT H F S 0 sq. m by 0PATTIES / TARBALLS 0 BNEAR SHORE SHEEN? NO BR RW SL

OILED DEBRIS	AMOUNT			
	SM	MD	LG	
Logs				Did you Col DEBRIS
Vegetation				☐ YES ☒ NO
Trash				TYPE <u>0</u>
Debris				#BAGS <u>0</u>

Photographs:

Roll No. AS-15-7Frames 20-28

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (VA)	↓	SURF / SUBSURF SEDIM
		OP	OR	OL	OF	NO		UD	UC	1	2	3	4	5	W	M	N	U				
1	40					X									X					N		S/P
2	30					X									X					N		S/P

COMMENTS

REVIEWED 7WDATE 5/3/90

DO WILLIAM KEID
SEGMENT 5/25/90

STREAM 51-10-10045

DATE 1/11/90

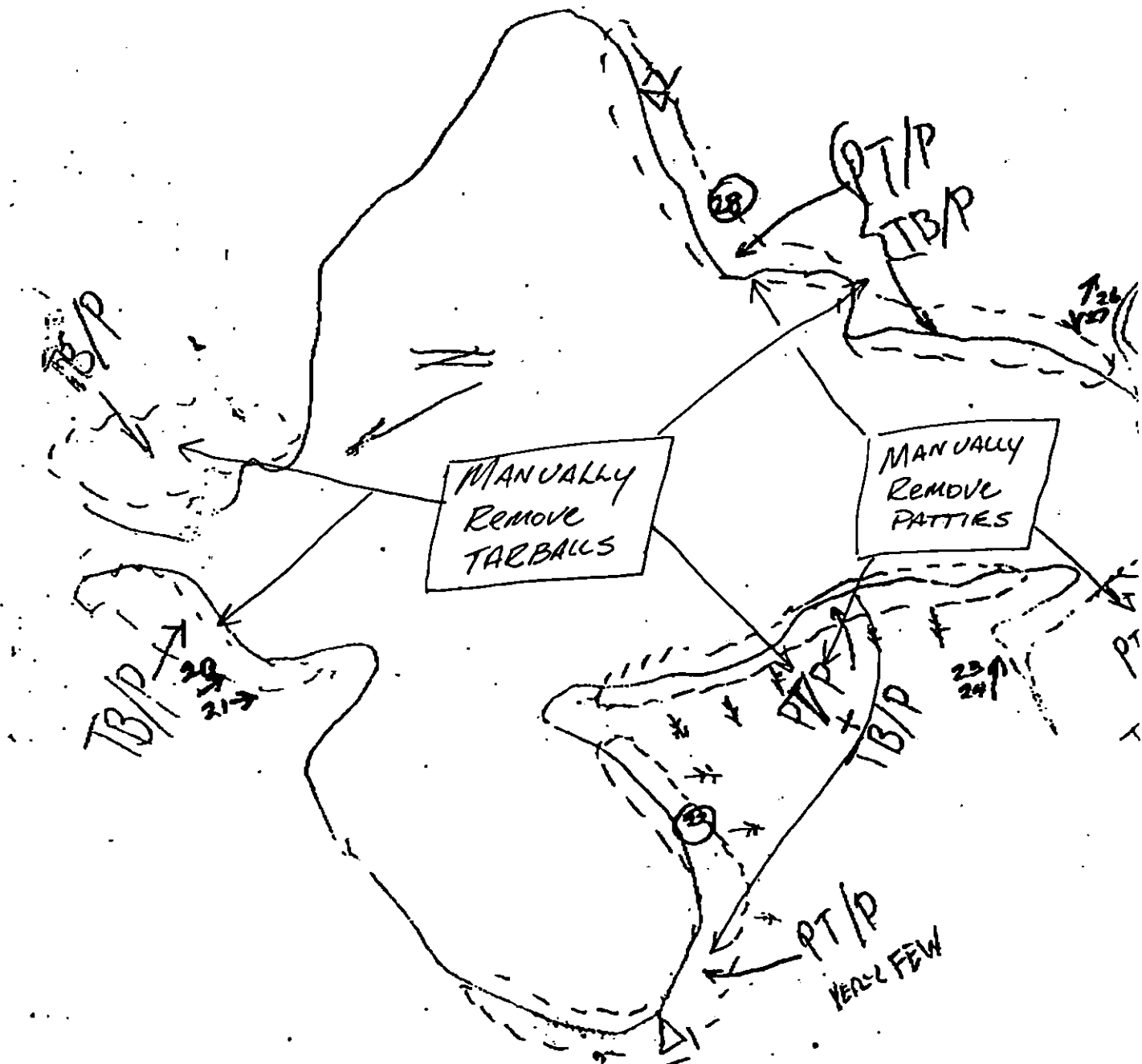
CHECKLIST

- ☐ M Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HML/LVL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Ph Location(s)
- ☐ Photo Location(s)

LEGEND

- 1 Δ
PT - No Subsurface Oil
- 2 Δ₁
PR - Subsurface Oil
- CT/C
Continuous Distribution
- CT/B
Broken Distribution
- CT/P
Patching Distribution
- CT/S
Splashed Distribution
- eee
Oiled Vegetation
- 1 →
Photo location, direction, and number

SKETCH MAP



Oil CI Length (m): AP PO CV CT ST ME PT TB FL NO

12/10

ADPEC MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS DS TS AVS SCHM NIMS PTA

2 REGION: PFS

KP, CI

12METHOD: Aerial Ground Boat3 DATE: 5/1/9015 HIGH TIDE TIME: 074021 TEAM RECORDED: JEFFREY BARNHART4 START TIME: 105016 HIGH TIDE HTS: 11.122 OBSERVERS: Gus Garcia, William Reid,5 STOP TIME: 121517 LOW TIDE TIME: 143423 AGENCY: ADMC, Exxon, CMC, WWC, USCG6 SEGMENT #: SS00918 LOW TIDE HTS: 0.724 PHOTOS TAKEN: Y (N)

7 STATION #:

19 TIDE HT AT SURVEY:

Roll #: _____ Frames: _____

8 K-UNIT: K-1(E) Slack Flood Slack25 VIDEO TAKEN: Y (N) TAPES: _____9 STAT AREA: 251-50

20 USCG QUAD: _____

Start: _____ End: _____

10 LAT: 58° 14' 48" N11 LONG: 152° 19' 30" W26 SAMPLES TAKEN Y (N) Number12 SOURCE: Map Loren13 LOCATION: S.W. Corner, Red Fox Bay, Afognak Island

14 DESCRIPTION: _____

011 _____

Sediment _____

Biological _____

Water _____

EXTENT OF OIL

	SHORELINE				STREAM			
	L	V	N	S	L	V	N	S
27 SURFACE COVERAGE	660	2	1320	15	0			

36 CATALOGED AMAD. FISH SKELET? (Y) N37 CATALOG # 251-50-1004538 STREAM NAME: Sw. Red Fox Creek

	SHORELINE				STREAM			
	L	V	N	S	L	V	N	S
28 SURFACE THICKNESS	1.0m				0			
29 PENETRATION	0	0	0	0				

39 OIL IN STREAM BED? Y (N)40 OIL ON STREAM BANKS? (Y) N30 OVERALL OIL IMPACT: N (Y) L N H41 OIL ON BEACH ADJACENT TO MOUTH? (Y) N
(within 50 meters)

42 OIL WITHIN 1 MILE OF STREAM? Y N

31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Slain32 OILED DEBRIS? Y (N)

Where: _____

33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cove43 ANADROMOUS FISH PRESENT? Y (N)34 WAVE EXPOSURE: High Moderate Low

44 ANADROMOUS FISH OBSERVATION

35 SUBSTRATE TYPE: Bedrock _____ Boulder _____ Cobble 30
Gravel 60 Sand 10 Mud/silt _____

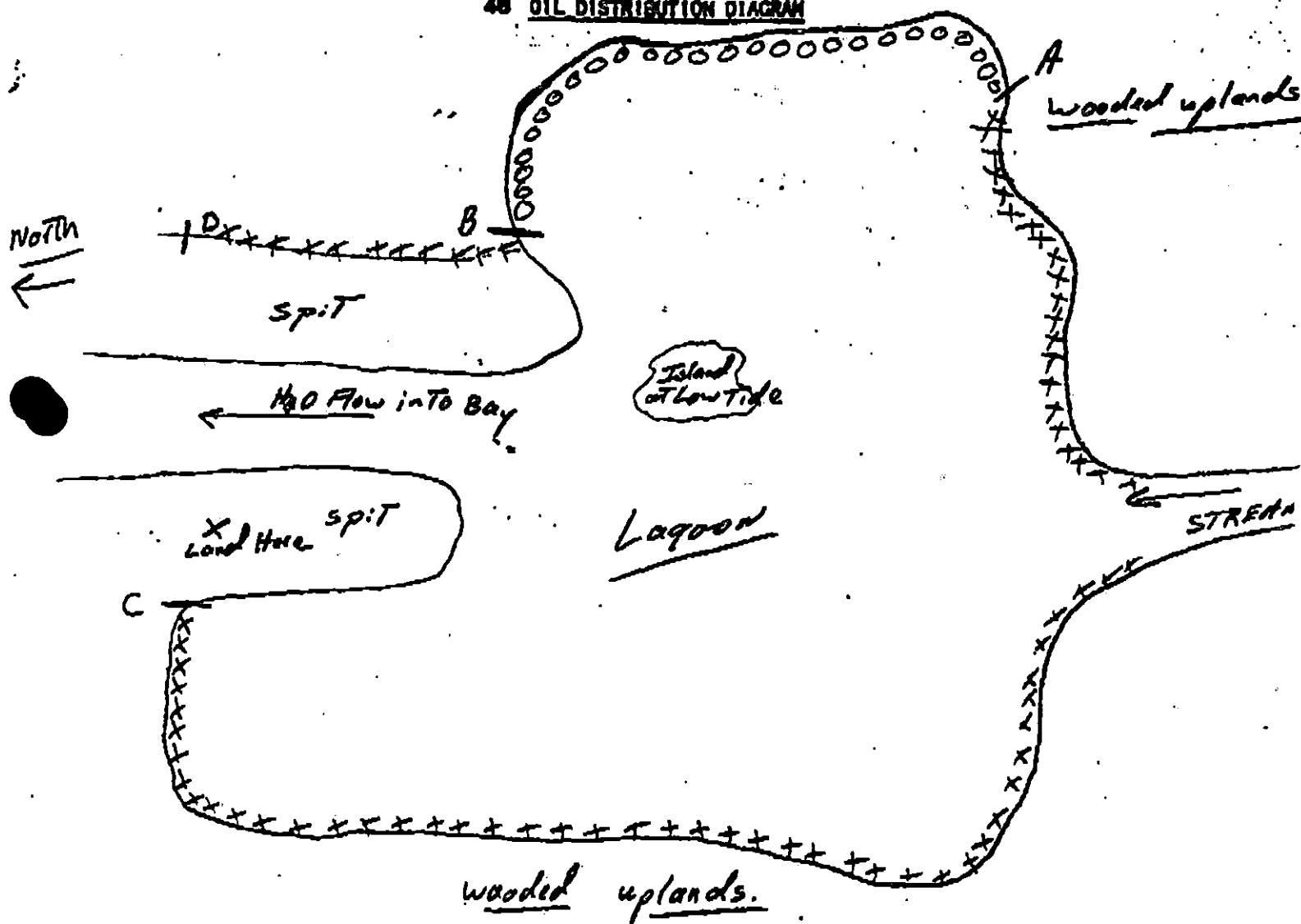
Species	Aerial	Ground

REMARKS: Tar patties and Tar Balls (surface) in 1 to 3 meter band
located 1-3 meters from high tide mark. Easy Type A cleanup
cleanup recommended. low energy, productive lagoon, clearing area for
salmon fry. waterford area. Jeff Barnhart

48: PHOTOLOG

[illegible]

48 OIL DISTRIBUTION DIAGRAM



- (000) A to B - no oil observed,
(xxx) C to A - Patchy mussels/tar patties / Tar balls mostly located in intertidal zone ranging from 1-3 meters from high tide mark in Lagoon.
(xxx) B to D - Patchy Tar balls / Tar patties at high tide mark only.

= Sample taken

1979

P. 1 of 2

segment 55009
stream 251-10-10045
Ecological Summary

1 May 90
Michael Fawcett

At this site three small streams enter the southwest end of a lagoon which drains to the north. The intertidal banks of the lagoon are composed of pebbles, gravel, sand, and mud. The lagoon bottom is mostly soft mud with infaunal clams, echinoids, worms, etc. Around most of the lagoon banks are scattered Fucus, barnacles, and Littorines in the MTZ, with higher densities near the stream mouths and where coarser sediments (pebbles & cobbles) prevail. Dense barnacle spat occupy nearly all available hard substrates in the MTZ, and in some areas in the VTZ. On the northeast side of the lagoon mouth is a very dense, mature mussel bed, with dense barnacles and Fucus on all spaces not occupied by mussels, and nearly 100% cover of new barnacle spat on mussel shells, larger barnacles, rocks, etc. This mussel bed is exposed to strong currents as the tide rises and falls, providing an abundant supply of food.

P. 2 of 2

Segment 5509

251-10-10045

1 May 90

Michael Fawcett

Ecological Summary

all around the lagoon. Manual removal is recommended. Little or no oil occurs in the areas of high mussel density, so no ecological constraints apply re: intertidal biota.

Michael H. Fawcett

FLORIAN R. J.

152°40'
58°30'
6484000m N

520000m E

NATIONAL FOREST BOUNDARY (INDEFINITE)

(AFOGNAK C-2 AND C-3)

\$ H U Y A.

STRAIT

Cape

Cape

10045

CO₂ P₃

10055

5/10050

Blueford
River

0010

300
DK

576

670 ΔΣαϋ

ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 251-50-10045

SEGMENT K01-12-SS-009 SUBDIVISION A

WORK WINDOW

Manual Pickup

CLOSED*

*Seabird Colony Buffer Zone Blocks Access to Work Area.

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

- | | | |
|-------|-----------------|---|
| 1A,1B | Salmon Stream | ADF&G catalogued anadromous stream (251-50-10045) is in Subdivision A. No constraint to manual pickup. |
| 5R | Seabird Colony | CONSTRAINT. Work site is more than 800m from seabird colony, but access is blocked. |
| 5T | Bald Eagle Nest | USFWS 4/9/90 map indicates an active nest in Subdivision A. Closed manual pickup to within 400m of active nest. No constraint to manual pickup more than 400m from active nest. |

OTHER ECOLOGICAL CONSIDERATIONS

Avoid any unnecessary disturbance or damage to uncollected biota and substrate. If eagle constraint is removed, other constraints will apply.

SEE SUBDIVISION CONSTRAINT ADDENDUM K01-12-SS-009
FOR ADDITIONAL CONSTRAINT INFORMATION.

FOSC

[Signature]

Date

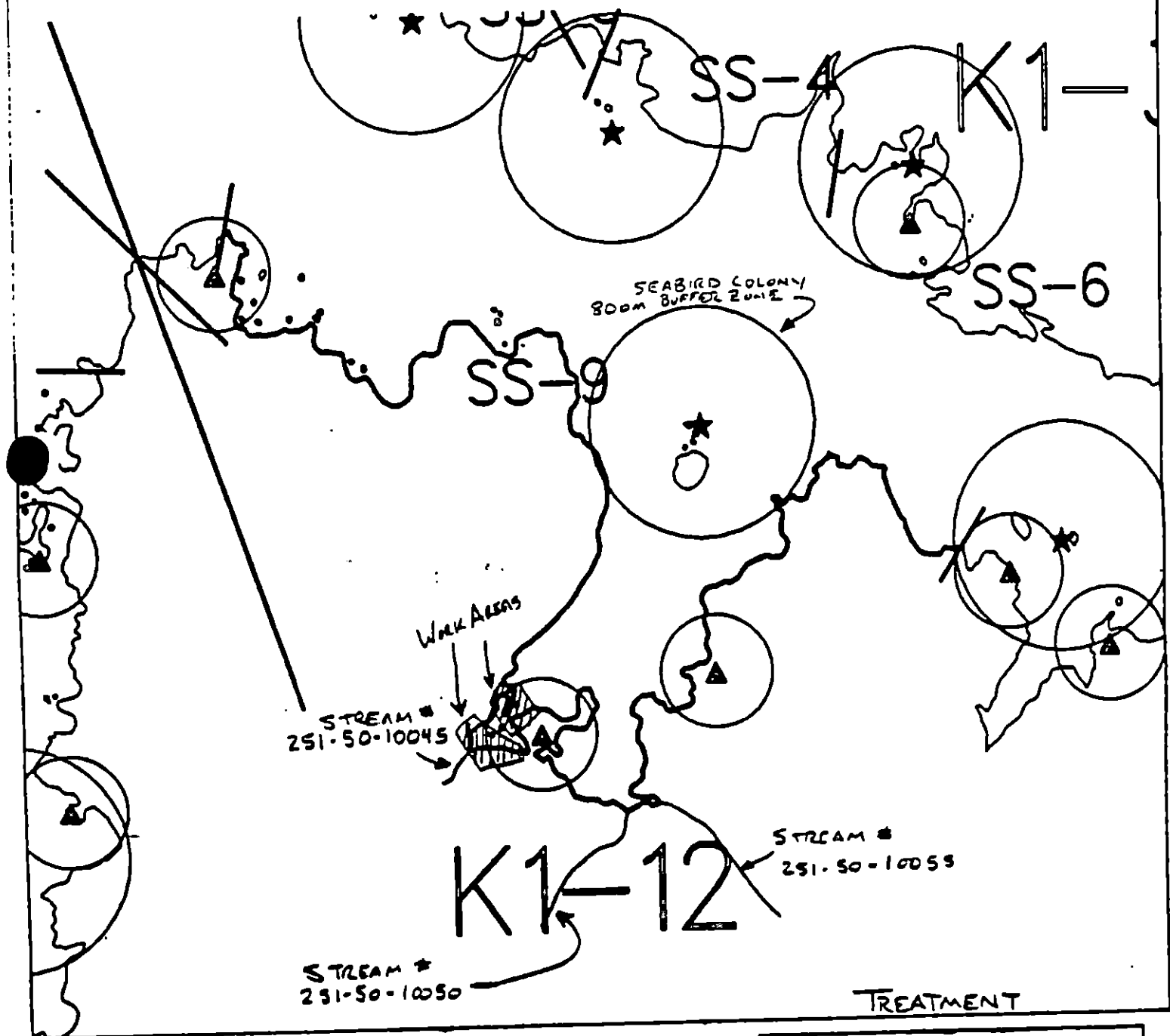
6/14/90

Prepared by

[Signature]

Date

06/13/90

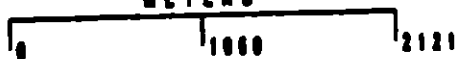


TREATMENT



Exxon Company, USA
Map Key: KOD-SS-9
June 08, 1990

ECOLOGY MAP SEGMENT K1-12 SS-9 SUBDIVISION A (1 of 1) METERS



- ★ Seabird Colony
- ▲ Active Eagle Nest
- △ Inactive Eagle Nest

1 inch = 3478 feet

REVISION 1 6/20/90

"REVISED" ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 251-50-10045

SEGMENT K01-12-SS-009 SUBDIVISION A

WORK WINDOW

Manual Pickup More Than 400m From Active Nest	OPEN
Manual Pickup Less Than 400m From Active Nest	OPEN (USFWS MONITOR REQ.)

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B	Salmon Stream	ADF&G catalogued anadromous stream (251-50-10045) is in Subdivision A. No constraint to manual pickup.
5R	Seabird Colony	NO CONSTRAINT. Work site is more than 800m from seabird colony. Transit through Seabird Colony approved by USFWS.
5T	Bald Eagle Nest	USFWS 4/9/90 map indicates an active nest in Subdivision A. No constraint to manual pickup more than 400m from active nest Constraint to manual pickup less than 400m from active nest if USFWS Monitor is present.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict air traffic and all disturbance to essential minimum. No personnel or boat traffic within 400m of active nests. Air approach and takeoff from and to seaward only; maintain 400m horizontal, 300m vertical distance from active nests. Avoid any unnecessary disturbance or damage to unopened biota and substrate.

SEE SUBDIVISION CONSTRAINT ADDENDUM K01-12-SS-009A
FOR ADDITIONAL CONSTRAINT INFORMATION.

FOSC

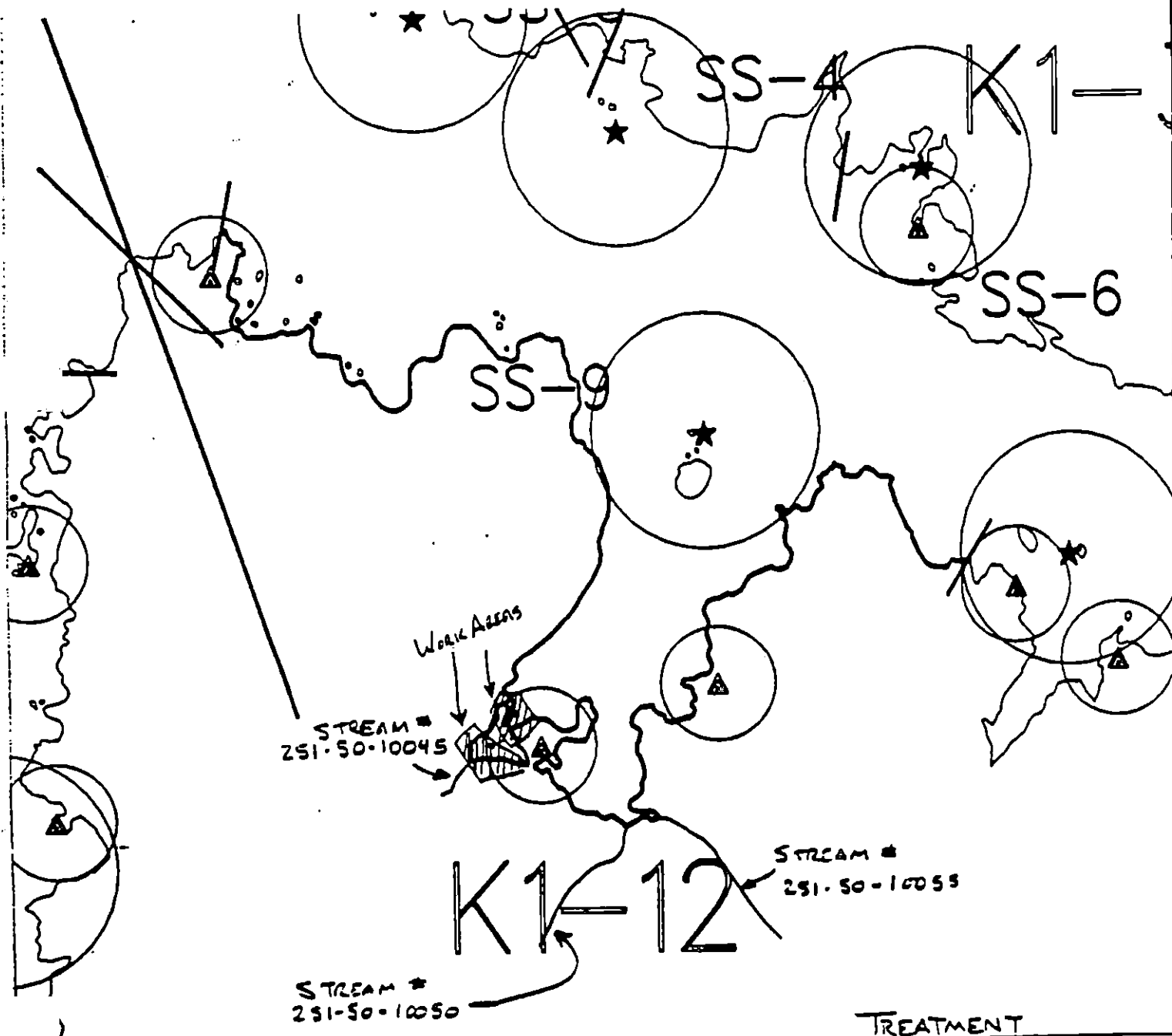
Date

Prepared by

Date

Cleanup may proceed on site SS-9 around eagle nest and on anadromous stream with US Fish and Wildlife Service monitor on site Access through seabird buffer area OK.

Mike Luke 6/14/90



Exxon Company, USA

ECOLOGY MAP
SEGMENT K1-12 SS-9
SUBDIVISION --- (--- of ---)
METERS

- ★ Seabird Colony
- ▲ Active Eagle Nest
- △ Inactive Eagle Nest

SHORELINE EVALUATION

SEGMENT ST/ M1-19-SE-002 SUBDIVISION A (1 OF 1) DATE 4/4/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon purse seine area (1J) - 7/20 to 9/30; Herring spawning (2M) - 4/1 to 6/15; Sea lion pupping (3P) - 5/15 to 7/1; Sea lion molting (3Q) - 8/15 to 9/15.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Avoid disturbance/damage to un-oiled biota and substrate.

SHPO SIGNATURE: Charles E. Johnson DATE: April 11, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 368 m: No Oil 1512 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u> </u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u>X</u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u>X</u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> Removal	<u> </u> Other (see comments)

COMMENTS: Manual removal of mousse patties recommended with small team (2-4 people) between July 1 and July 20, for the least intensive method.

TAG COMMENTS:

TAG APPROVAL DATE: 4/11/90

ADEC

EXXON

NOAA

USCG

John Bauer

Amey Tex

Burl Wescott

G.A. REITER

John

Real

Buddha

G.A. REITER

FOSC:

DATE: 4-19-90

FIELD SHORELINE COMMENT SHEET

K01-19-SE-2

K0119

SEGMENT ST/ SE-002 SUBDIVISION: SE-2A DATE 3-31-20**SCG**NAME D. Haver Jr. GM3 USCGRSIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Observed less than 20 stains. Did not have time to see ~~more~~ oiled area observed by ADEC rep. To be on the safe side, I recommend a low priority clean up based on ADEC findings.

ADECNAME Francina T. BenaisSIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Mousse patches are present in a 2 meter x 20 meter band. This patchy distribution of mousse saturated fine sediments is present along the northern portion of SE-002, in the upper IIR. There is some mousse trapped in crevices of R/C.

A two-person team could manually remove collectable oil in a day or less.

Deer, osprey, eagles, fox inhabit this area.

SSAT Fieldmap should accompany field crew.

LAND MANAGERNAME JOHN P. HARDISTERSIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Limited time for observation at this beach did not permit direct observation of oil observed by ADEC representative - However, concern with ADEC observations - no fish and wildlife sentation were noted, such as avian or mammal streams - bald eagle nests.

SHORELINE OILING SUMMARY

REVISION NO 03-20

OG Acton USCG Haven SEGMENT ST/ K01-19-SE-2
 BIO Duss LAND REP USFWS Hardister SUBDIVISION SE-2A
 EXXON Avery ADEC Dennis TIME 1:30 10:30
 TEAM NO.: 20 TIDE LEVEL: +4 10 +7 DATE 3/31/90
 EST. SUBDIVISION LENGTH: 1850 1841 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N 10 S
 SURFACE SEDIMENTS: R 20 % B 40 % C 20 % P 10 % G 10 % S 0 % M 0 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 450 m NO 1400 m
1396

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES				
	10	15	10	15	SW BR	ORL RW	GY	SL ORL	TL	LR	SU	U	M	L
ASPHALT PAVEMENT														
POOLED														
COVER														
COAT				✓		✓						✓		
STAIN				✓		✓						✓		
MOUSSE			✓						✓			✓		
PATTIES														
TARBALLS														
FILM														
NO OIL											✓		✓	✓

PAVEMENT: H F S N/A sq. m by N/A cmPATTIES / TARBALLS N/A BAGSNEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE N/A#BAGS N/A

Photographs:

Roll No. 20-2Frames 24-29

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SO L	BR	OS L	RW	GY	BL	GR N	TL	LR	SU	U	M		
1	10					✓	.											✓					C
2	20					✓	.											✓					C
3	20					✓	.											✓					C
							.																
							.																
							.																

COMMENTS 3m band of CT/S and M3/P. No oil penetration to subsurface sediment.
Mousse approx 1-2 cm in thickness.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 0322

Segment ST / KOI-19 Subdivision SE-02A Date (mo / day / yr) 3-31-90Time (24 hr) 13:30 Biologist H. Davis

(A) Substrate type and % of segments:

(1) Bedrock 20 (2) Boulder 40 (3) Cobble 20 (4) Pebble 20 (5) Sand (6) Silt (B) Overall % cover of biota (% of segment): Dense 15% Moderate 35% Low 50% (25%)

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:

Roll No. ST-20-2Frames 24-29

BARNACLES

Dense	Moderate	Sparse	Rare
1M 1L	1M 1L	1M 1L	1M 1L
2 2	2 2	2 2	2 2
3 3	3 3	3 3	3 3
4 4	4 4	4 4	4 4
5 5	5 5	5 5	5 5
6 6	6 6	6 6	6 6

NOT PRESENT

5, 6

MYTILUS

Dense	Moderate	Sparse	Rare
1U 1M 1L	1U 1M 1L	1U 1M 1L	1U 1M 1L
2 2 2	2 2 2	2 2 2	2 2 2
3 3 3	3 3 3	3 3 3	3 3 3
4 4 4	4 4 4	4 4 4	4 4 4
5 5 5	5 5 5	5 5 5	5 5 5
6 6 6	6 6 6	6 6 6	6 6 6

NOT PRESENT

4, 5, 6

GASTROPODS

Dense	Moderate	Sparse	Rare
1M 1L	1M 1L	1M 1L	1M 1L
2 2	2 2	2 2	2 2
3 3	3 3	3 3	3 3
4 4	4 4	4 4	4 4
5 5	5 5	5 5	5 5
6 6	6 6	6 6	6 6

NOT PRESENT

5, 6

FUCUS

Dense	Moderate	Sparse	Rare
1U 1M 1L	1U 1M 1L	1U 1M 1L	1U 1M 1L
2 2 2	2 2 2	2 2 2	2 2 2
3 3 3	3 3 3	3 3 3	3 3 3
4 4 4	4 4 4	4 4 4	4 4 4
5 5 5	5 5 5	5 5 5	5 5 5
6 6 6	6 6 6	6 6 6	6 6 6

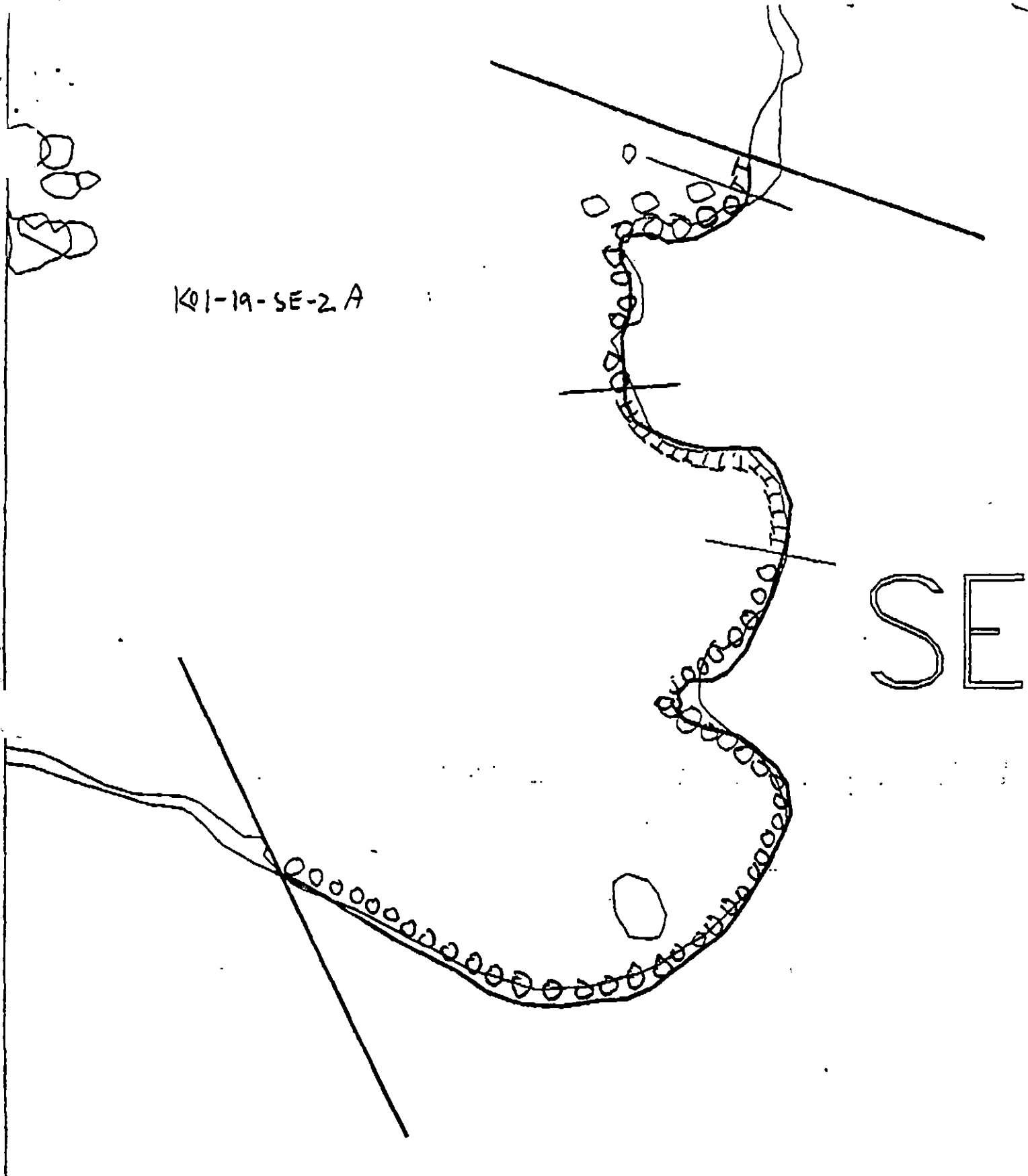
NOT PRESENT

4, 5, 6

Wildlife Observations/ General Comments: Fox (red) seen on bluffs above the shore. Elk and Deer tracks in upper intertidal. Elk, Deer and Fox scat on bluffs above shore. None of the 4 key species were seen in the pebble-cobble beach area.

(3) Surf Scorpions (1) Dipper (3) Cowbirds.

Ecological Considerations: (1J)(2M)(3P)(3Q) No sealions were observed in the area but pupping and molting occurs on this beach. Herring spawn in the area. Purple 22mm occurs in the area.



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

SE-2

ADEC Segment Length: 1846m



Map Key: GOA-38

Name: Acton

Date: 3-31-90

Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K1-19-SE-02 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	WORK 7/1 - 8/15

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1J	Purse Seine Area	No constraint to manual pickup.
2M	Herring Spawning	No constraint to manual pickup.
3N,O,P,Q	Harbor Seal & Sea Lion Pupping and Mottling	No constraint to manual pickup 7/1 to 8/15
5R	Seabird Colony	No constraint to manual pickup, but follow established USFWS route through seabird colony buffer zone as described on attached map.

OTHER ECOLOGICAL CONSIDERATIONS

Do not chase or harass seals or sea lions, and do not approach pups under any circumstances. When working on or near haulouts, complete the job as quickly as possible with minimum personnel, equipment, noise and disturbance. Keep boats and personnel as far from actual haulouts as is practical to do the work specified. Minimize air traffic near haulouts, maintain elevation as is practical, and avoid repeated overflights of the same haulout areas. Restrict boat traffic to essential minimum. Avoid any unnecessary disturbance or damage to unloiled substrate and biota especially intertidal and subtidal algae and seagrass.

FOSC

R. Zangoli

Date

6/16/90

Prepared by

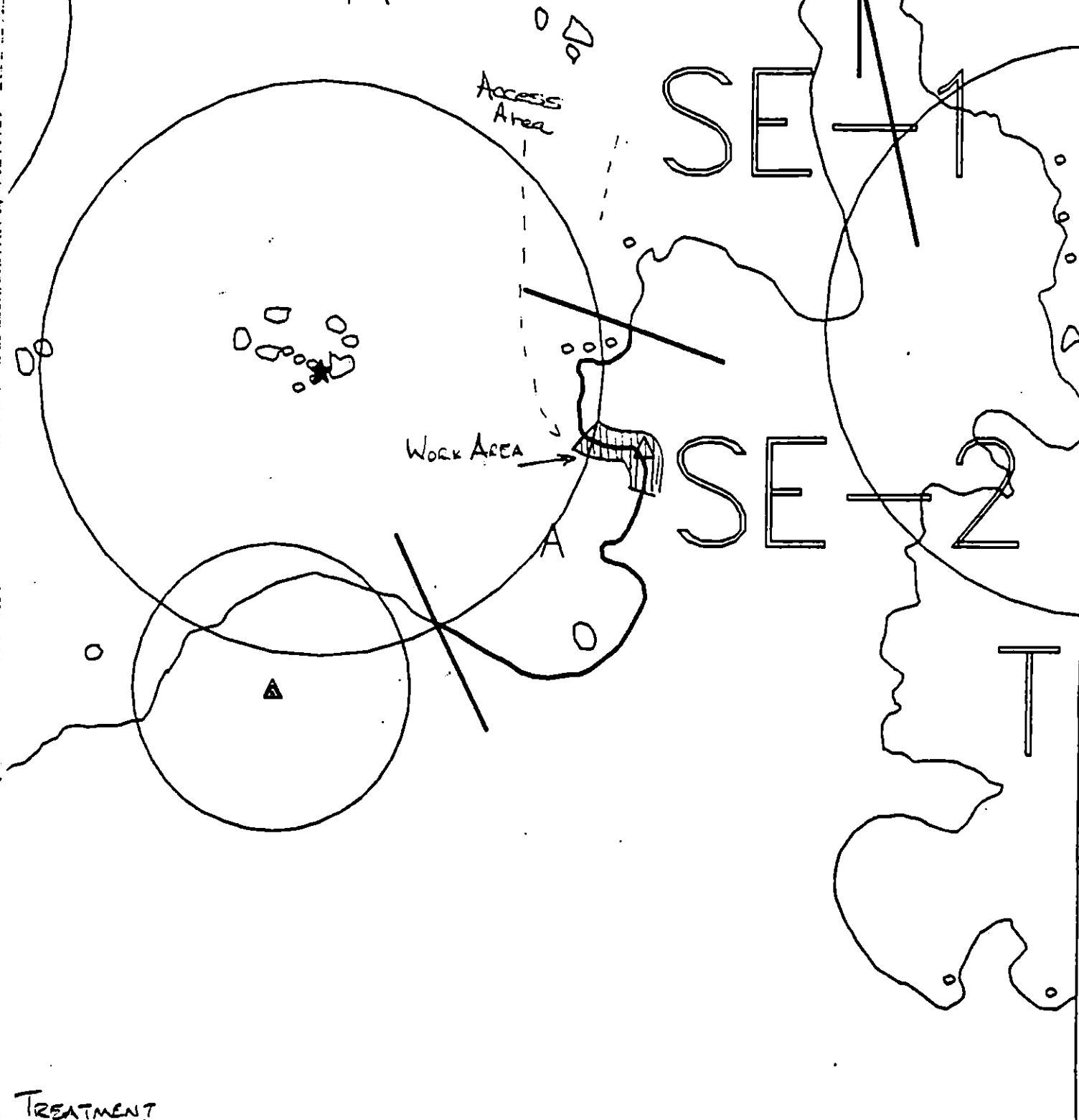
R. R. Costello

Date

06-14-90

1. Work plan described as manual pickup,
2. Crew size up to 20 members.

Mike Luke 6/13/90



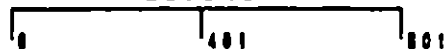
TREATMENT



Exxon Company, USA
Map Key: KOD-SE-2
June 10, 1990

ECOLOGY MAP
SEGMENT K1-19 SE-2
SUBDIVISION A (1 of 1)

METERS



- ★ Seabird Colony
- ▲ Active Eagle Nest
- △ Inactive Eagle Nest

1 inch = 1314 feet

ANADROMOUS FISH STREAM EVALUATION

Andrean Bay Creek

SEGMENT ST/K02-01-SI-013 STREAM NO: 251-81-812 DATE 5/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15/ to 9/10; PEAK 8/15)
5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

SHPO SIGNATURE: Rachel Jan Darr DATE: 5/25/90

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

<u>X</u> No Treatment Recommended	_____ Snare/Absorbent Booms
_____ Treatment Recommended	_____ Oil Snares (pom poms)
_____ Manual Pickup	_____ Absorbents (pads, rolls, etc)
_____ Bioremediation	_____ Spot Washing: _____ Wands
_____ Tarmat Removal	_____ Beach Cleaner
	_____ Other (see comments)

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: 5/24/90

ADEC Art Weinson

EXXON Andy Tarr

NOAA Bill Wescott

USCG W. J. Hall

FOSC [Signature] DATE: 5/31/90

KODIAK ECOLOGICAL CONSTRAINTS

- 1A** **Salmon stream mouth - fry outmigration (4/15 to 7/31)**
1B **Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)**
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
- 1C** **Salmon fry nursery area (4/31 to 7/31)**
- 1D** **Kotol Bay Hatchery release**
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H** **Remote release site**
- 1I** **Gill net area**
- 1J** **Purse seine area**
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay - 6/9 to 10/1.
 East side Kodiak, East side Afognak - 7/4 to 10/1.
- 1K** **Purse seine hook-off**
- 1L** **Set net sites**
 USFWS setnet uplands permit 5/15 to 9/15.
- For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M** **Herring spawning (4/15 to 6/30)**
 Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
- 3N, 3P** **Harbor seal and sea lion pupping (5/10 to 6/30)**
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 3O, 3Q** **Harbor seal and sea lion molting (8/15 to 9/15)**
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 5R** **Seabird colony (5/1 to 8/31)**
 Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
- 5S** **Shorebird/waterfowl concentration (4/1 to 5/15)**
 Restrict all activity to essential minimum, especially air traffic.
- 5T** **All Bald Eagle nests (3/1 to 6/1)**
Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
- 6U** **Recreation: Tent sites (8/1 to 9/15)**
- 6V** **Anchorage (8/1 to 9/15)**
- 6W** **Forest Service cabins (6/1 to 9/15)**
- 6X** **Lodge (8/1 to 9/15)**
- 6Y** **Special use destination**
- 7Z** **Subsistence area: Salmon harvesting (8/1 to 9/30)**
- 7HH** **Finfish harvesting**
- 7II** **Deer harvesting (8/1 to 1/7)**
- 7JJ** **Invertebrate harvesting**
- 7KK** **Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)**
 For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

10/25

ASC# (ANDREAN BAY CREEK)

SEGMENT ST / SI-013 SUBDIVISION: 251-81-812 DATE 01 MAY 90

USCG

NAME Kerwin L. Dreher SIGNATURE CWO K. L. Dreher☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

ADFG

ADEC

NAME EDWARD W. WEISS SIGNATURE Edward W. Weiss☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

NO TREATMENT RECOMMENDED DUE TO SPORADIC NATURE
OF IMPACT AND WEATHERED CONDITION OF OIL AND LOCATION
HIGH ON BANKS, DON'T BELIEVE THIS IMPACT TO BE HAZARD
TO FISHERIES.

LAND MANAGER ~~ADNR~~ ADNRNAME Mike Goodwin SIGNATURE Mike Goodwin☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

NO TREATMENT RECOMMENDED DUE TO MINIMAL
OIL PRESENT AND IMPACT TO LAND AND RECREATIONAL
VALUES.

SHORELINE OILING SUMMARY (ANAO)

REVISION NO. 84/13/90

OG CAL LARSON USCG DREHER, CWE SEGMENT ST/ SI 013 14/25
 BIO KEN CRITCHLOW LAND REP MIKE GOODWIN STREAM SSI- E1- E12 (OF)
 EXXON DARLUE YVES ADFG ER WEISS TIME 12:32:00 : 25
 TEAM NO. 14 TIDE LEVEL -0- FT. DATE 5/1/90
 EST. SUBDIVISION LENGTH: 50 m ☐ Sun ☐ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R % B 20 % C 20 % P 20 % G 20 % S 20 % M % V
 SLOPE: Long % Hang % Vert % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W m M m N m VL 175 m NO m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	R	B	P	S	SP	BR	FW	GY	BL	DR	TL	LR	SU	U	M	U
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL																

PAVEMENT H F S sq. m by crPATTIES / TARBALLS 3 BAGSNEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

Did you collect
DEBRIS
☐ YES ☒ NO

TYPE #BAGS

Photographs:

Roll No. Frames

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-FT)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SHEEN (Y/N)	↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SP	BR	FW	GY	BL	DR	TL	LR	SU	U	M	U				

COMMENTS NO PIT'S DUE TO LACK OF OIL PENETRATION.REVIEWED 7 W DATE 5/3/90

DATE 5 / 7 90

SKETCH MAP

CHECKLIST

_____ N Arrows
 _____ Approx. Scale
 _____ Seg/Sub Entry
 _____ Off Dist.
 _____ Width
 _____ Length
 _____ % Cover
 _____ Substrate Character
 _____ Est. H₂O/L₂V₂L
 _____ SSL
 _____ Profile Location(s)
 _____ Profile(s)
 _____ Pin Location(s)
 _____ Photo Location(s)

LEGEND

1 ▲
Pit - No Subsurface Oil

2 ▲
Pit - Subsurface Oil

Continuous Distribution

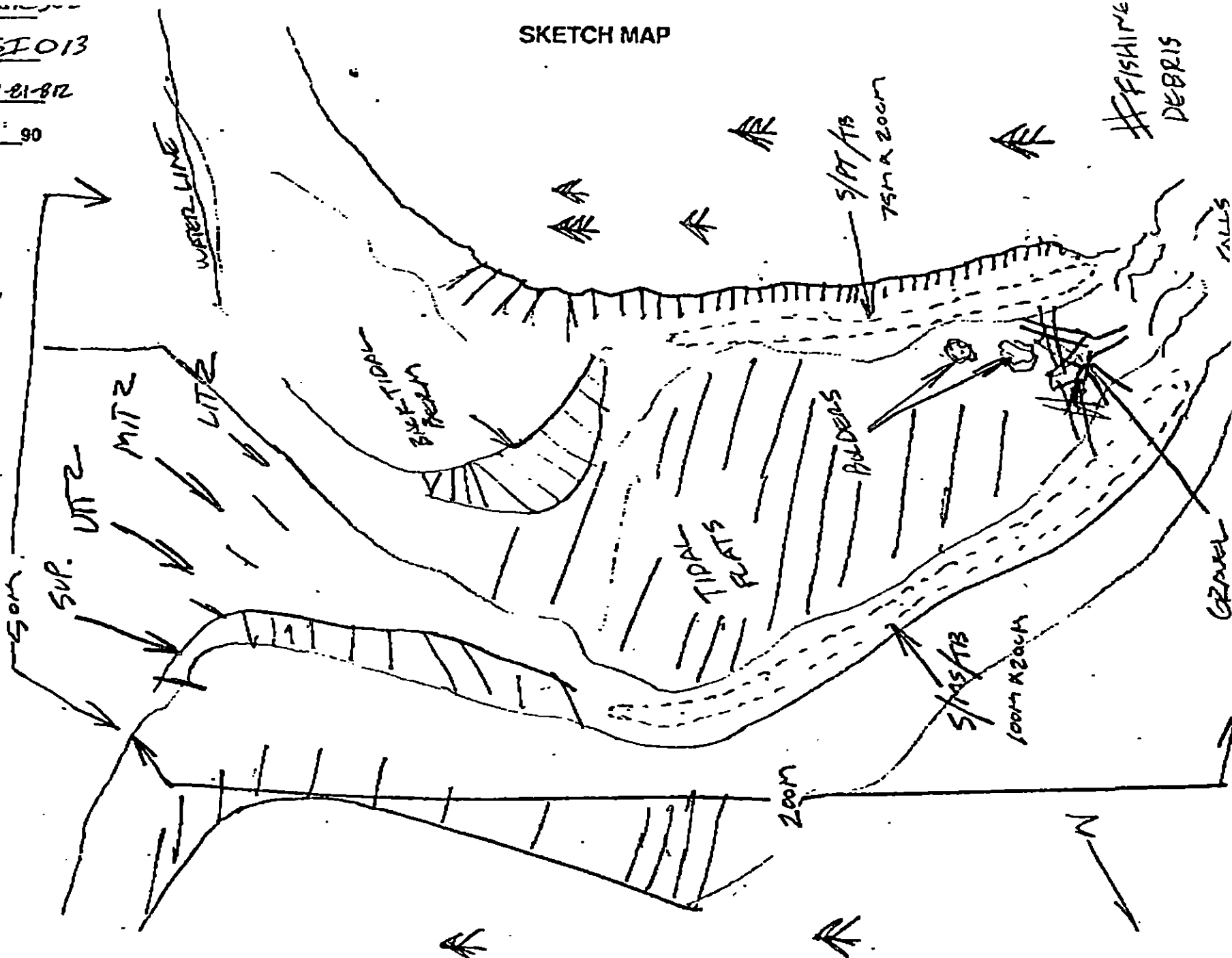
Broken Distribution

Patchy Distribution

Splashed Distribution

Oiled Vegetation

1 ➡
Photo location, direction,
and number



Oil Characteristic (m): AP _____ PO _____ CV _____ CT _____ ST _____ MS _____ 87.5 TB 87.5 FL NO

REVISION: 004/00

16/05

Seg ID: SI-013 Subdiv: 251-81-812
Survey Date: 5/1/90 interim stream no.
Comments by: Ken Critchlow

A very light, scattered band of tarballs was observed in the upper ULTZ along both sides of the stream.

The intertidal biota was very healthy and productive. There were no ecological constraints, and no clear need for oil cleanup for ecological/fisheries reasons.

KR Critchlow

17/25
ANADSSAT

ADFG MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS ☒ SS ☐ DS ☐ TS ☐ AVS ☐ SCH ☐ MMS ☐ PTA

2 REGION: PWS

IP, CI

☒ RAPMETHOD: Aerial ☒ Ground ☐ Boat ☐

3 DATE: 5/1/90

16 HIGH TIDE TIMES: 1

21 TEAM RECORDER: E. WEISS

4 START TIME: 1240

18 HIGH TIDE HTS: 1

22 OBSERVERS: M. GOODWIN, K. LALSO

5 STOP TIME: 1325

17 LOW TIDE TIMES: 1504

23 AGENCY: ADFG/ADNR/EXXON/LLC

6 SEGMENT #: SI013

19 LOW TIDE HTS: .5

24 PHOTOS TAKEN: Y ☒

7 STATION #:

18 TIDE HT AT SURVEY:

Roll #: Frame:

8 K-UNIT: K0101

☒ebb Slack Flood Slack25 VIDEO TAKEN: Y ☒ TAPE:

9 STAT AREA:

20 USCG QUAD: AFOGNAK

Starts: Ends:

10 LAT:

11 LONG:

26 SAMPLES TAKEN: Y ☒ Number

12 SOURCE: Map Loran

13 LOCATION: ANDREAN BAY, SHUYAK ISLAND

14 DESCRIPTION:

Oil

Sediment

Biological

Water

EXTENT OF OIL

27 SURFACE COVERAGE

SHORELINE				STREAM			
L	V	H	S	L	V	H	S

36 CATALOGED ANAD. FISH SKELET 2X

28 SURFACE THICKNESS

37 CATALOG #: 251-81-812

29 PENETRATION

38 STREAM NAME: ANDREAN BAY CREEK

30 OVERALL OIL IMPACT: N ☒ VL ☐ L ☐ M ☐ H39 OIL IN STREAM BED? Y ☒31 OIL TYPE: Pooled Mousse ☒ Tar Asphalt Sticky Stain40 OIL ON STREAM BANKS? ☒ N

32 OILED DEBRIS: Y N

41 OIL ON BEACH ADJACENT TO MOUTH? Y ☒
(within 50 meters)33 SHORELINE TYPE: Headland Low-lying Rocks Beach ☒ Cove
Lagoon Marsh

42 OIL WITHIN 1 MILE OF STREAM? Y N

34 WAVE EXPOSURE: High Moderate ☒ Low

Where:

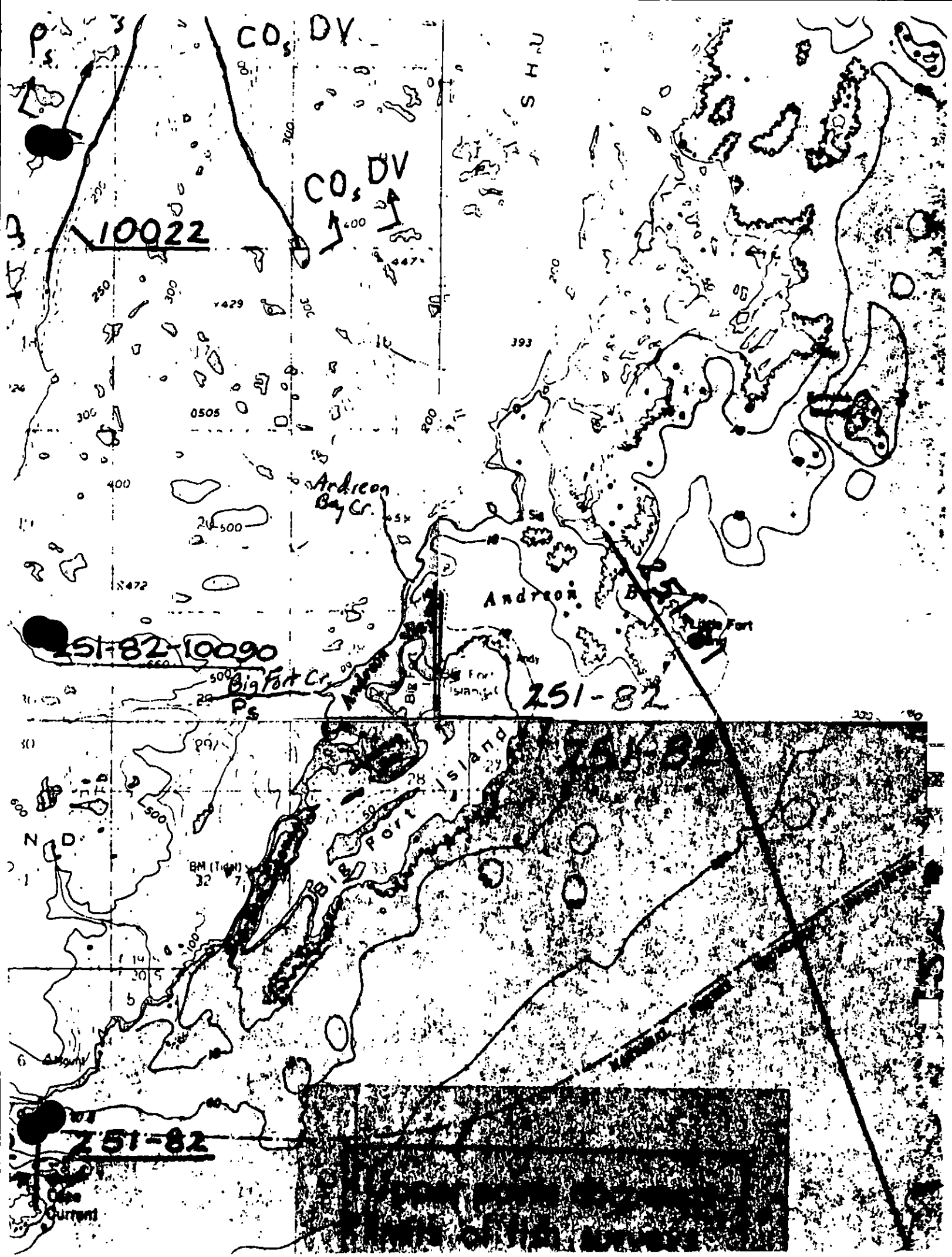
35 SUBSTRATE TYPE: Bedrock Boulder 30 Cobble 50

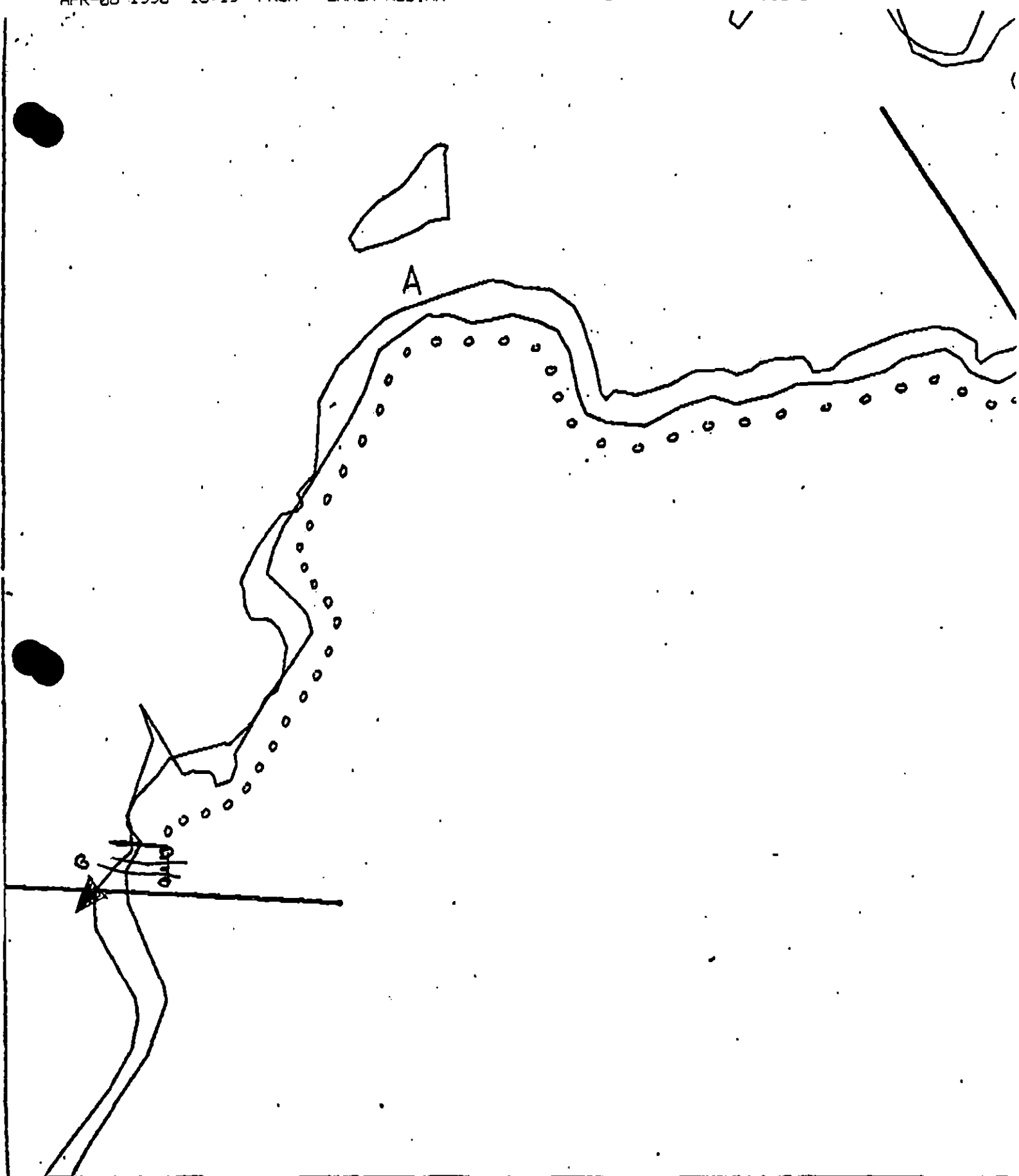
43 ANADROMOUS FISH PRESENT? Y N

Gravel 20 Sand Mud/silt

44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground

COMMENTS: SPORADIC TAR PATTIES AROUND COVE MORE CN
SOUTH SHORE.





XXX Wide

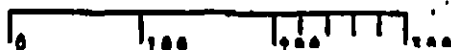
//// Medium

--- Narrow

TTTT Very Light

SI-13

ADEC Segment Length: 1971m



Map Key: KOD-1710

Name: Shoa Penland

Date: 4-4-90

SHORELINE EVALUATION

SEGMENT ST/ K0204-FB-003 SUBDIVISION A (1 OF 1) DATE 4/3/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Purse seine area (1J) - 7/20 to 9/30.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Avoid disturbance/damage to un-oiled biota and substrate.

SHPO SIGNATURE: Mark E. Johnson DATE: April 11, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 81 m: No Oil 852 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u>X</u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u> </u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> Removal	<u> </u> Other (see comments)

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/11/90
ADEC JOHN BAUER
EXXON ANDY TALL FOSC: DATE: 4-26-90
NOAA Burt W. ...
USCG G.A. REITER

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K0120 / E0002 SUBDIVISION: N/A DATE 7-2-92

NOAA
USEG

NAME

JOHN

SIGNATURE

John J. Montgomery

☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

Very little oil, only seen near stream mouth. Area should not be further disturbed to remove this oil.

ADEC

NAME

Scott Shelton

SIGNATURE

Scott Shelton

☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

STAINING NEAR SMALL STREAM MOUTH less than 10%.
NO OILED DEBRIS FOUND ON STORM BERM. CLEANABLE OIL
COULD NOT BE FOUND IN THE SEDIMENT NEAR STAINING LOCATIONS.

LAND MANAGER

NAME

LINDA M. HAGEN

SIGNATURE

Linda M. Hagen

☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

Concur with visual ground observations by team
which walked the beach area. Oil area was
very small (stain type)

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

CG Penland USCG Naughton SEGMENT ST/ K0204 / E0003
 IO Spright LAND REP Hagen USFWS SUBDIVISION A
 EXXON Byers ADEC Shelton TIME 11:41 to 12:15
 TEAM NO.: 19 TIDE LEVEL: 0.5 ft to 2.0 ft DATE 3 / 30 / 90
 EST. SUBDIVISION LENGTH: 948 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 0 % B 10 % C 50 % F 30 % G 10 % S 0 % M 0 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 50 m NO 898 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	LC	LS	LP	LB	SP	OR	OL	OP	OT	TL	SU	U	M	L
ASPHALT PAVEMENT														
POOLED														
COVER														
COAT				X	X	X	X	X	X	X	X	X	X	X
STAIN														
MOUSSE														
PATTIES														
TARBALLS														
FILM														
NO OIL														

PAVEMENT: H F S N/A sq. m by N/A cr
 PATTIES / TARBALLS N/A 710 BAGS
 NEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NO

TYPE N/A

#BAGS N/A

Photographs: _____

Roll No. 19-2

Frames 30-36

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SUBSURFACE SEDIMENTS		
		OP	OR	OL	OF	NO		UD	UC	SP BY	OR TR	OL EL	OP TL	OT LR	SU	U	M	L					
1	30					X	-									X							cobble, pebble
2	30					X	-										X						cobble, pebble
3	30					X	-												X				cobble, pebble
							-																
							-																
							-																

COMMENTS

- oiling is extremely very light - < 0.001 % of beach cover
- the few stains observed were both dk. brown and dull black
- classifying this a VL is very misleading
- staining is concentrated around the stream mouth, 1-2 stains (3-6 cm in dia) in 10 m

EAT 3 Apr 90

SEGMENT ST/ K0 2-0 4 / FB 003

SKETCH MAP

SUBDIVISION 04

DATE 3 / 30 / 90

CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Seg/Sub Bndry
- ☒ Oil Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est HML/LWL
- ☒ SSL
- ☒ Profile Location(s)
- ☒ Profile(s)
- ☒ Pit Location(s)
- ☒ Photo Location(s)

LEGEND

1 Δ

Pit - No Subsurface Oil

2 Δ

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

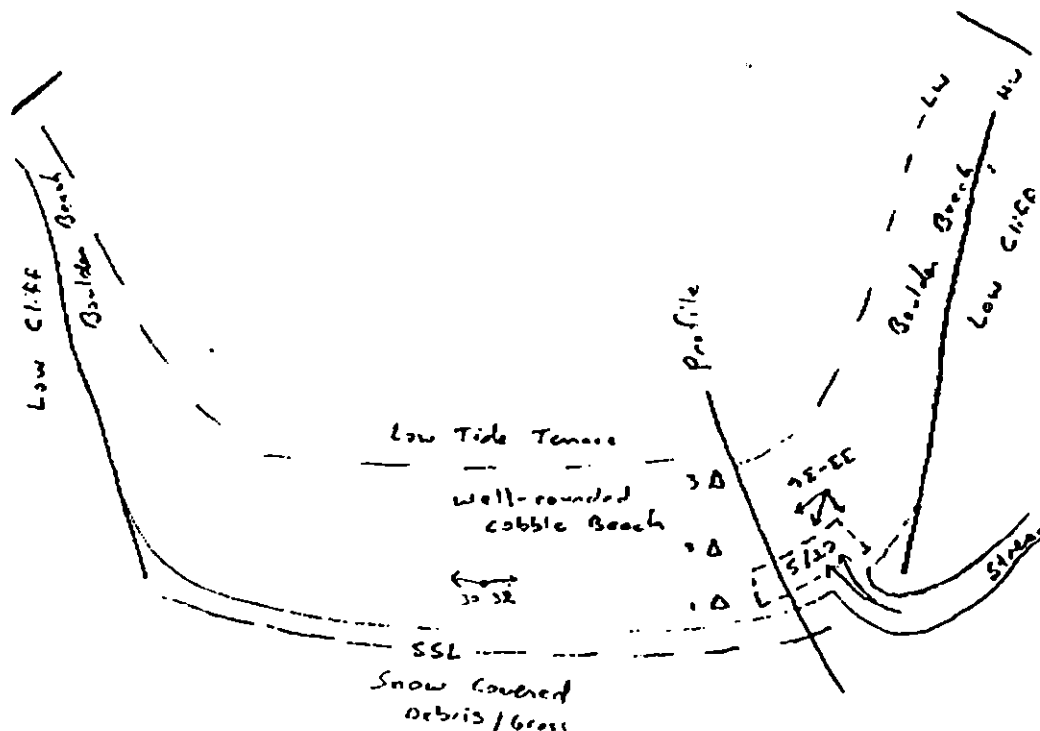
CT/S

Splashed Distribution

Oiled Vegetation

1 →

Photo location, direction, and number



Profile

debris/veg

Zone of staining

Cobble/pobble beach face

Sandy low-tide terrace

Oil Character h (m): AP 0 PO 0 CV 0 CT 50 ST 0 MS 0 T 0 TB 0 FL 0 NO 8/10

REVISION 0324/0

SHORELINE ECOLOGICAL SUMMARY

REVISION: 0

Segment ST / FB-3 Subdivision _____ Date (mo / day / yr) 3/30/90

Time (24 hr) 1134 Biologist SP164T

(A) Substrate type and % of segments:
(1) Bedrock 5 (2) Boulder 5 (3) Cobble 71 (4) Pebbles (5) Sand 20 (6) Gravel

(R) Overall % cover of biota (% of segment): Dense 11 Moderate 1.7 Sparse 27

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (O)

Photographs:
Roll No. _____

Frames _____

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	X	2	2	2	X	2	2	2	2	2	2
3	X	3	X	3	X	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRES:

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	X	X	2	2	2
3	3	3	3	3	3	3	X	X	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRES:

GASTROPODS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	X	2	2	2	X	2	2	2
3	3	3	X	X	3	3	3	X	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRES:

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	X	X	2	2	2
3	3	3	3	3	3	X	X	X	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

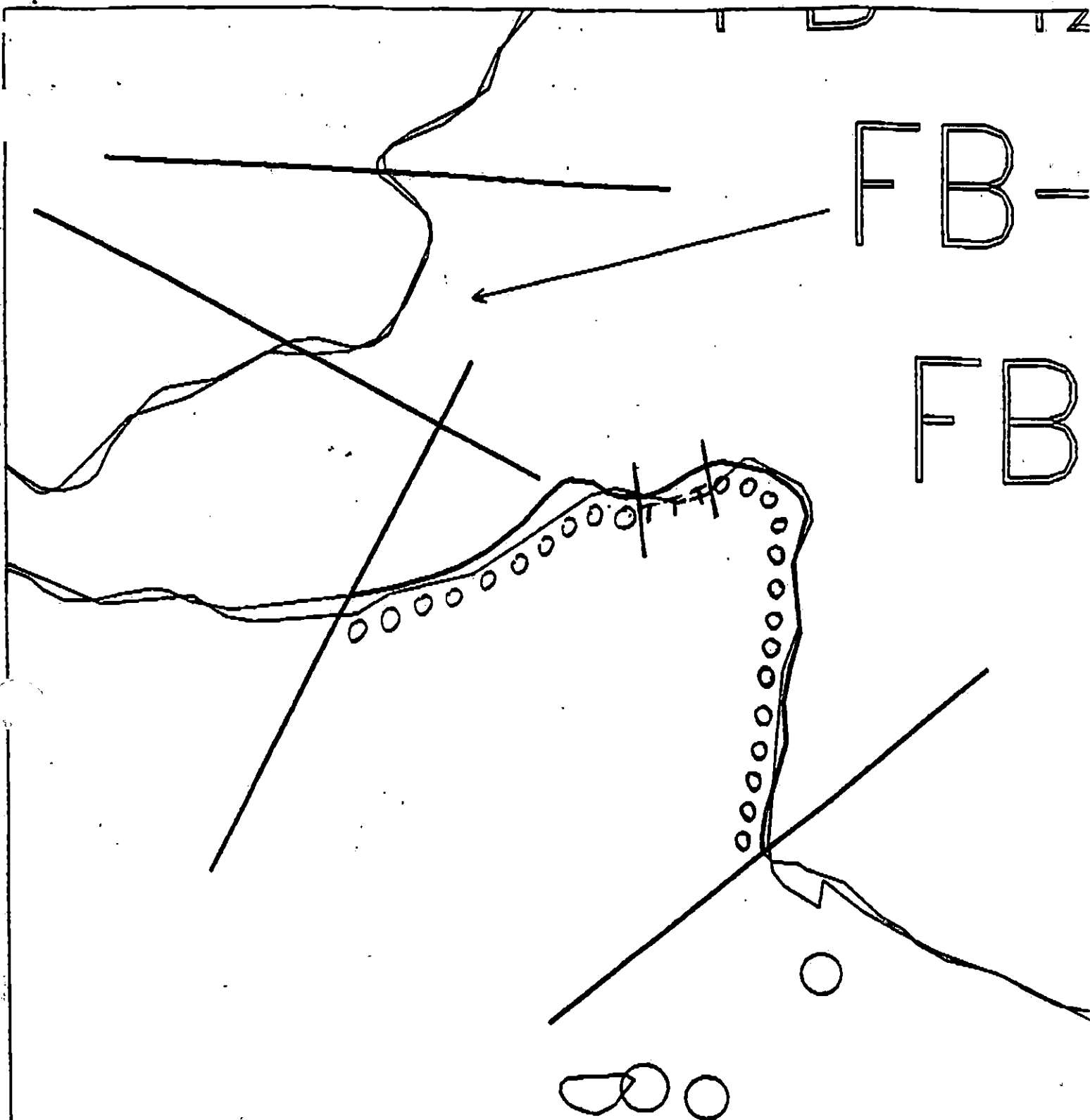
NOT PRES:

Wildlife Observations/ General Comments:

Ecological Considerations:

Fucus, barnacles, etc. abundant in fresh water runoff (oiled area)
at upper level

Access
1J - Purse Seine Area - Restrictions from 20 July to 30 Sept



FB-

FB

XXXX Wide

//// Medium

--- Narrow

TTTT Very light

FB-3

ADEC Segment Length: 948m

Map Key: COA-98

Name: PenlandDate: 3-30-90

SHORELINE EVALUATION

SEGMENT ST/ K02-04-FB-010 SUBDIVISION A (1 OF 1) DATE 5/16/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

4QQ State Marine Park National Wildlife Refuge
5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1) (Possible)
3N, 3P Harbor seal and sea lion pupping (5/15 to 7/1)
3O, 3Q Harbor seal and seal lion molting (8/15 to 9/15) (Possible)
See attached Ecological Constraint sheet for specific constraints and
contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unhoiled biota and substrate.

SHPO SIGNATURE: Kechel Dawn Dore DATE: 5/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 1389 m: No Oil 0 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

☒ No Treatment Recommended	☐ Snare/Absorbent Booms
☐ Treatment Recommended	☐ Oil Snares (pom poms)
☐ Manual Pickup	☐ Absorbents (pads, rolls, etc)
☐ Bioremediation	☐ Spot Washing: _____ Wands
☐ Tarmat Removal	☐ Beach Cleaner
	☐ Other (see comments)

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: 5/24/90
 ADEC Art Wagon Det Wagon
 EXXON Amy J. Art
 NOAA Bill Wagon Det Wagon
 USCG M. J. Hall Det Wagon

FOSC: *[Signature]* DATE: 6/4/90

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inpol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 1C Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inpol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Kotol Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inpol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
 East side Kodiak, East side Afognak (7/4 to 10/1)
 1K Purse seine hook-off
 1L Set net sites
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inpol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inpol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- 3 Harbor seal and sea lion pupping (5/10 to 7/1)
 Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inpol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31).
 Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Rothy 267-2208
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (6/1 to 9/15)
 6V Anchorages (6/1 to 9/15)
 6W Forest Service cabins (6/1 to 9/15)
 6X Lodge (6/1 to 9/15)
 6Y Special use destination
- 7 Subistence area: Salmon harvesting (6/1 to 9/30)
 Finfish harvesting
 Deer harvesting (8/1 to 1/7)
 Invertebrate harvesting
 Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inpol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / FG-10 SUBDIVISION: A DATE May 13, 1990

NDAA

~~1990~~NAME STEPHEN LEHMANN SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

oil is extremely light, but present if one looks carefully. No treatment is recommended.

ADEC

NAME Terry Ellsworth SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

This segment contains very occasional splashes of coat and stain along its entire length. No recoverable mousse was observed. No Treatment is recommended.

LAND MANAGER

NAME OTTO FLORSCHUTZ SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

On in agreement with above findings and recommendations.
See Attachment No. 2

Attachment 2**U.S. Fish and Wildlife Service Shoreline Cleanup Disclaimer**

This comment sheet is based on current observations and is solely for the purpose of planning and scheduling of 1990 response treatment actions. It in no way implies that the State or Federal government will not in the future determine that further restoration or other treatment, or compensation is warranted regarding this area, or that the area is considered by the Federal or State government to be adequately 'clean' or 'restored' for the purpose of any claim which the State or Federal government has brought or may bring against Exxon, Incorporated or any other potentially responsible party.

SHORELINE OILING SUMMARY

REVISION NO. 36-13-90

OG Tom Mary Samples USCG Stephen Lehmann SEGMENT ST/ F3-10
David Harmon LAND REP Off Florida Gulf SUBDIVISION A (1 OF 1)
 EXXON — ADEC Terry P. D. Smith TIME 12:00 10/5:00
 TEAM NO. 19 TIDE LEVEL 0.0' +6.0' DATE 10/5/90
 EST. SUBDIVISION LENGTH: 249.8 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S.W. to N.E.
 SURFACE SEDIMENTS: R 20 % B 55 % C 20 % P 5 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 0 % Hang 100 % Vert 40 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 249.8 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	C	B	P	R	1	2	3	4	SU	U	M	L
ASPHALT PAVEMENT												
POOLED												
COVER												
COAT				X	X					X		
STAIN				X	X					X		
MOUSSE												
PATTIES												
TARBALLS												
FILM												
NO OIL									X		X	X

PAVEMENT H F S 110 sq. m by 0 cmPATTIES / TARBALLS 110 BAGSNEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE —#BAGS 0

Photographs:

Roll No. ST-19 (II) - 1Frames 10 - 11

SUBSURFACE OIL

No - Boulder beach or bedrock, only surface stains and coats
of sediment (very fine)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR				PIT ZONE				N A	SHEEN (Y/N)	↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	1	2	3	4	SU	U	M	L				

COMMENTS

See attached comments.

REVIEWED PAT DATE 16 MAY 90

FB-10, Foul Bay, May 12, 1990

FB-10 is a 2.5 km segment located in Foul Bay on the western coast of Afognak Island. The segment forms a prominent headland south of Black Cape. Its convex shape makes it exposed to waves travelling from both the north and the south in Shelikof Strait. It was observed on May 12, 1990, between 1300h and 1502h and corresponding 0.0' and 6.0' tidal levels.

This segment consists of a relatively uniform section of talus of large angular boulders seaward of low bedrock cliffs. On its south side, the boulder talus forms a narrow and steep intertidal zone. On its north side, the bedrock outcrops extend further seaward and separate narrow pockets where angular boulders and cobbles have accumulated. Small patches of pebbles occur occasionally in very small areas of the upper intertidal zone. Oil occurs throughout this segment as very few coats and stains of splatters within a narrow (< 5 m) band of the upper intertidal zone on bedrock or boulder surfaces.

John. Marie Sample

3MENT ST/ FB-15

DIVISION A

TE May 12-90

CHECKLIST

N Arrow
 Approx. Scale
 Seg/Sub Entry
 Oil Dist.
 Width
 Length
 % Cover
 Substrate Character
 Est. HRR/LWR
 SBL
 Profile Location(s)
 Profile(s)
 P/L Location(s)
 Photo Location(s)

LEGEND

1 Δ
No Subsurface Oil

2 Δ
Subsurface Oil

CT/C
Oil Distribution

CT/D
Oil Distribution

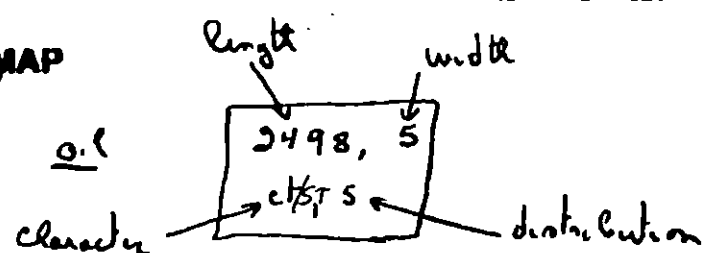
CT/P
Oil Distribution

CT/S
Oil Distribution

see
of Vegetation

→
to location, direction,
number

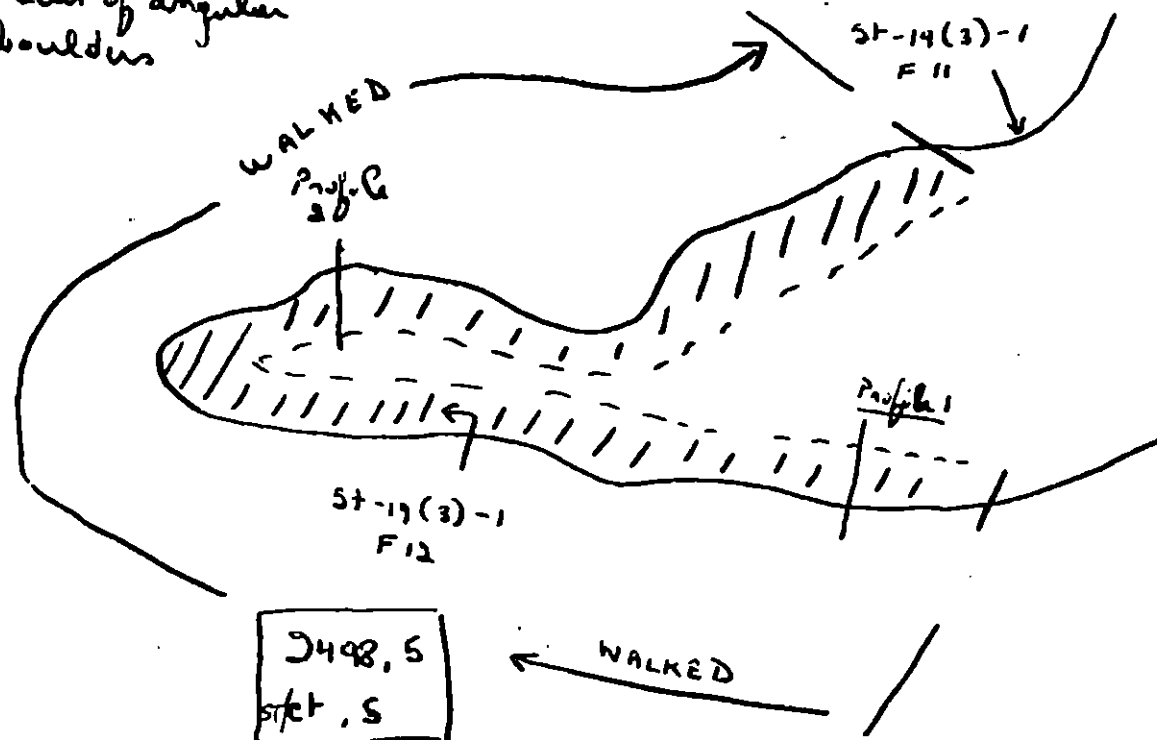
SKETCH MAP



Legend



Bed rock cliffs /
Talus of angular
boulders

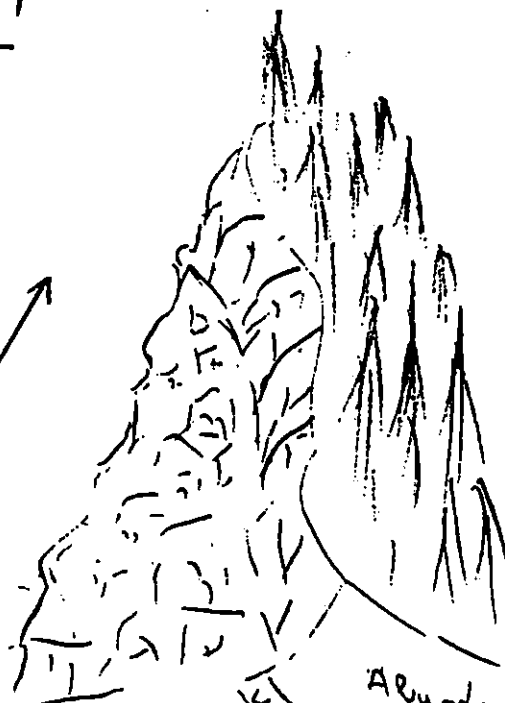
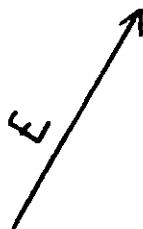
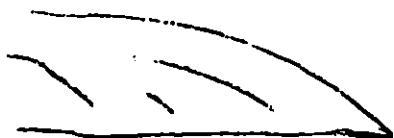


Note: Very few coats of
splatter throughout segment

Segment FB-10, May 10, 1940

n. Maurice Sengels

Profile 1



Talus

Angular boulders

Abundant tree cover

Very few platters in LITZ

Profile 2

grassy backshore
Abundant tree cover

Few platters in LITZ

Bedrock bluffs

talus LITZ



SHORELINE ECOLOGICAL SUMMARY (Page 2 of 4)

REVISION: 02/22/90

Segment ST / K2-4 Subdivision A Date (mo / day / yr) 5/12/90

Time (24 hr) 1340-1450 Biologist SHARMAN

(A) Substrate type and % of segments: SUBDIV
 (1) Bedrock 20 (2) Boulder 55 (3) Cobble 20 (4) Pebble 5 (5) Sand (6) Sil

(B) Overall % cover of biota (% of segment): Dense 20 Moderate 70 Low 10
SUBDIV

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
 Roll No. ST-19(III)-1

Frames 10, 11

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

GASTROPODS (ANCELA, LITTORINA, LIMAEUS)

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments: Did not observe LTR. The offshore grassy islets are potentially important seabird colony habitats; they and nearshore tidal reefs are potentially important principal haulouts. Observed 3 sea otters (1 with pup). In the yellow forest is a great abundance of deer sign (tracks, scat, trails, browsing on *Vaccinium*), + 1 red squirrel, 2 prokaryotic magpie caracaras, scats of feline and deer. River otter scats on supratidal (cont)

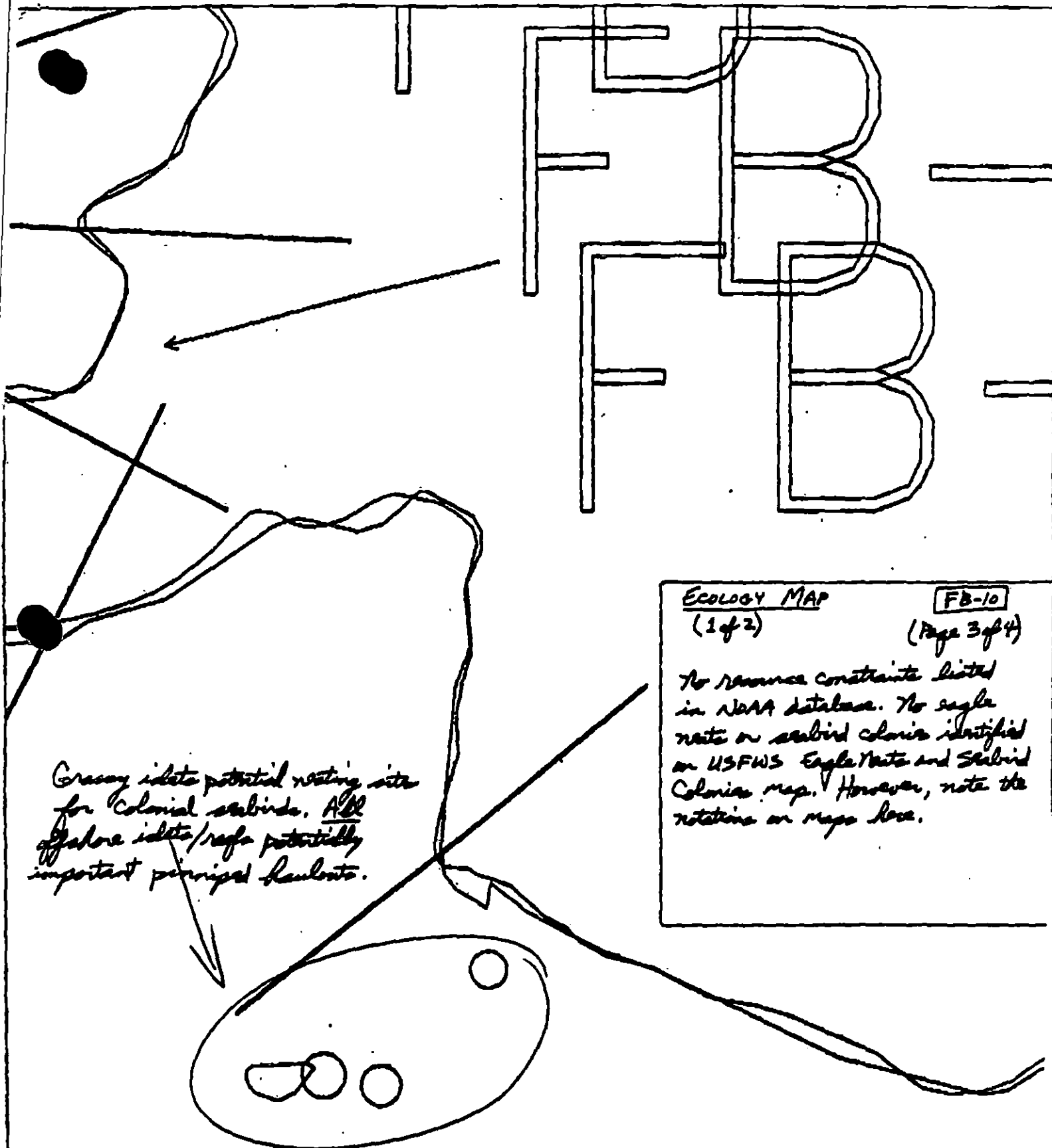
Ecological Considerations:

Please see Eco. map. As stated above, the offshore islets and rocks to the S. + W. appear to be potentially important habitats for seabird nesting and principal haulouts. In addition, there is a possible active eagle nest on the S. side of the point - unobserved, but local activity by a pair of adult eagles.

FB-10

Shoreline Ecological Summary (cont.)
(Page 2 of 4)Shorman
5/12/90General Comments (cont.)

fringe and bluffsides. One sea otter skull (old - no oil). 2 adult eagles, 6 pigeon guillemots, 1 pair oystercatchers, 3 pairs harlequin ducks, 1 fox sparrow foraging in intertidal, 3 pelagic cormorants, ~10 glaucous-winged gulls. This segment supports a very healthy and productive intertidal community on a steep shore dominated by basalt cliffs / large boulders. Barnacle spot is extremely abundant in the MTS and LTS. Clearly, this has been an exceedingly successful spring spot set generally throughout at least the N. portion of the Kodiak archipelago. The MTS is dominated by a good stand of barnacles along with continuous but sparse Odonthalia and patches of Gelipollia (mostly upper MTS) and Seymouria (mostly lower MTS). Fucus is surprisingly rare across the segment as a whole. Mussels are discontinuous + patchy, but both Fucus and mussels are reproducing where they are established. There is a healthy littorine population, and Teuthis is not uncommon (a few concentrations of Teuthis egg capsules). Basalt boulders are Pricklebush, amphipods, Leptasterias, and some littorine eggs. Both littorine and limpets appear to be recruiting normally. In the lower MTS is sparse Halosaccus, ulvae, green filamentous algae (Acrocydonia?), some laminarians, and fine red forms (Polydora/Marosiphonia?), as well as a few large Notocaula cautem. Basalt tidepools contain the usual Polydora, Epicratia, 3 spp. of Anthopleura, Katharina, Tadina, Pagurus, Limpete, and sculpin. A generally normal + healthy intertidal, unaffected by the generally very light + discontinuous oiling present in the MTS.



XXXX Wide

//// Medium

--- Narrow

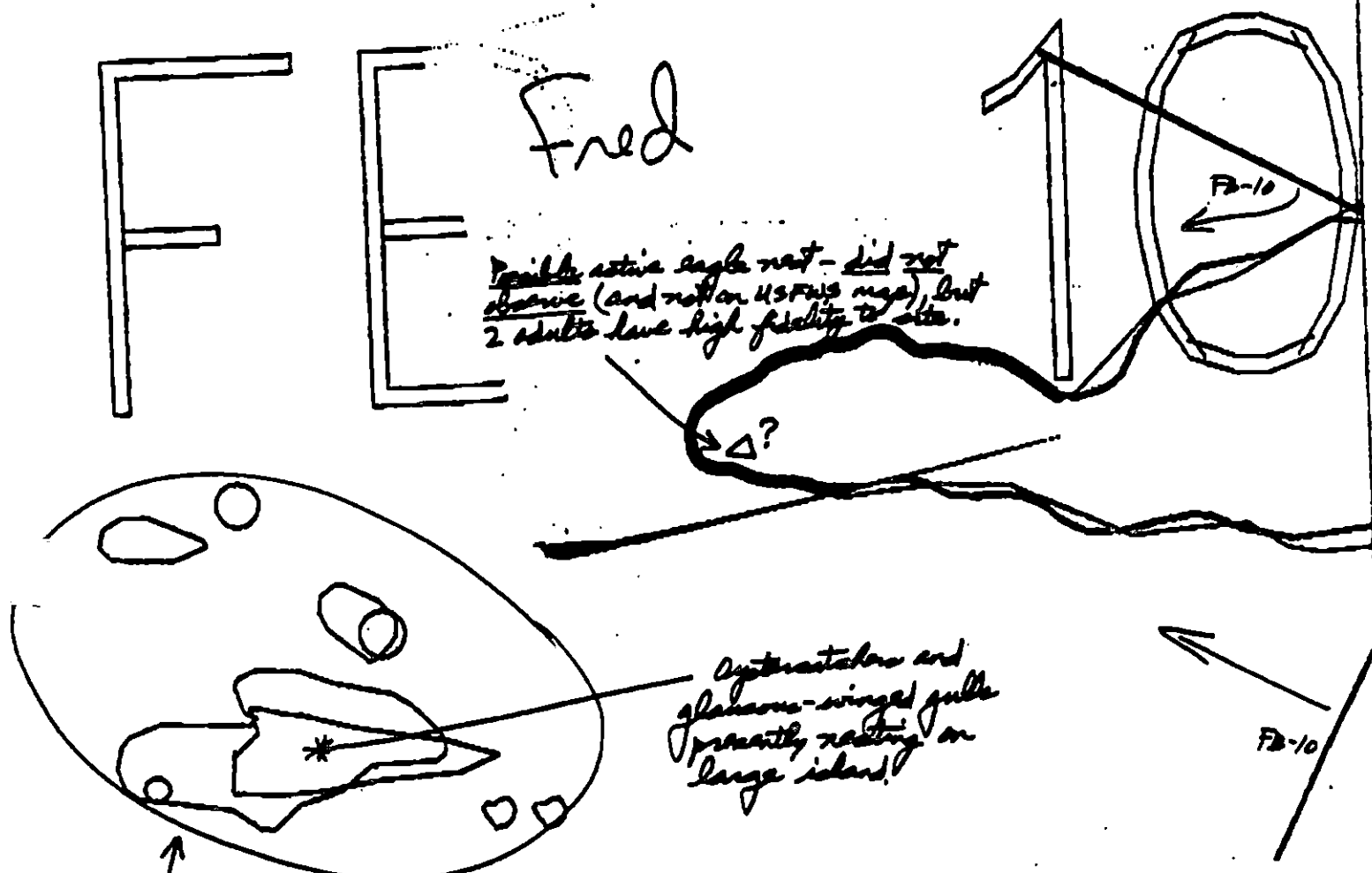
FB-10

ADEC Segment Length: 1389m

Map Key: KOD-FB-10b

Name: _____

Date: _____



Grassy islets potential nesting sites for colonial seabirds. All offshore islets/reefs potentially important principal haulouts.

Aspermatophores and glaucous-winged gulls presently nesting on large island.

Possible active eagle nest - did not observe (and not on USFWS maps), but 2 adults have high fidelity to site.

ECOLOGY MAP
(2 of 2)
Please see Map 1.

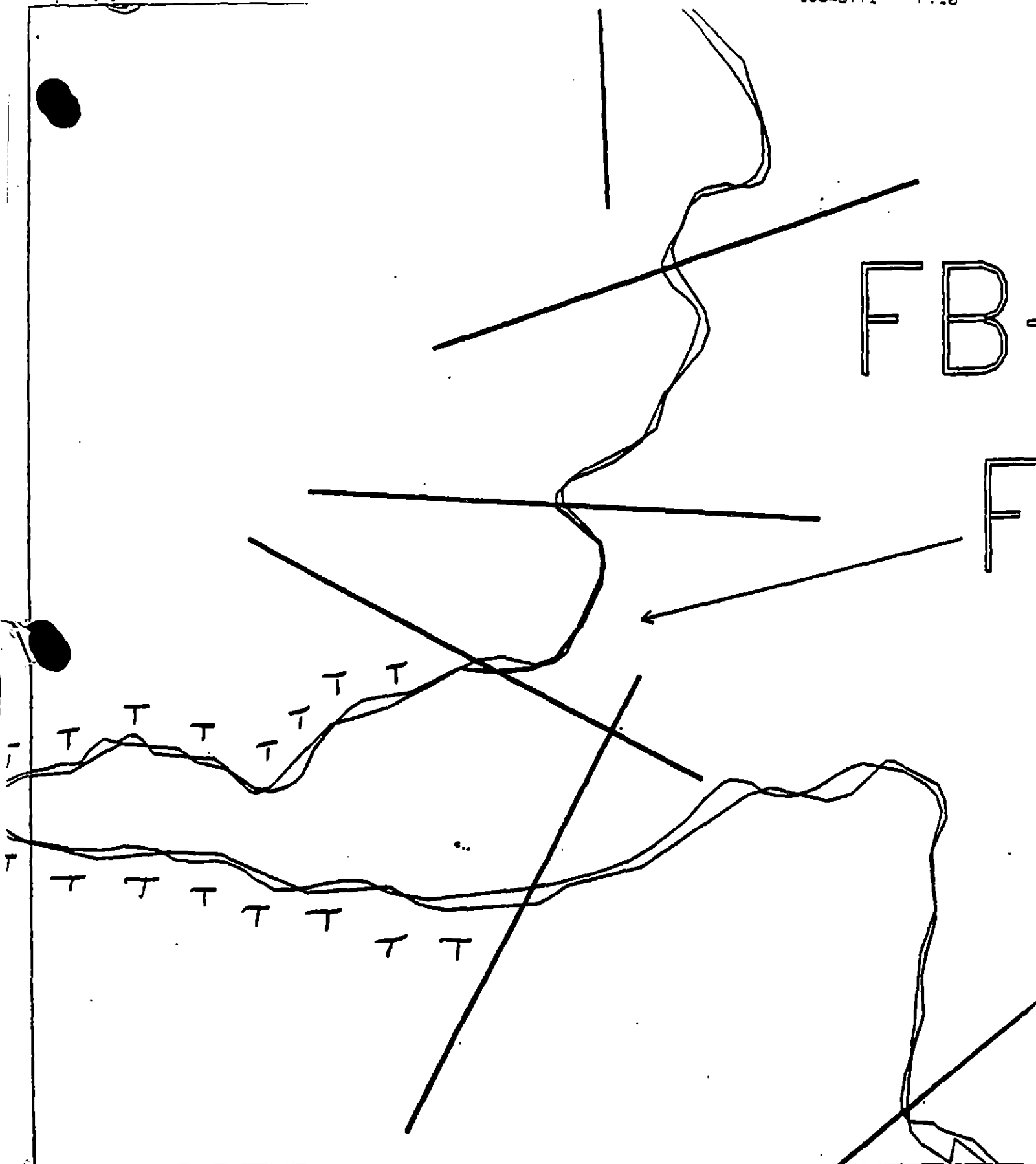
FB-10
(Page 3 of 4)

XXXX Wide
//// Medium
--- Narrow

FB-10

ADEC Segment Length: 1389m

Map Key: K00-FB-10a
Name: _____
Date: _____



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

K0204 - FB-10

ADEC Segment Length: ~~310m~~

0 100 200 300

Map Key: 60A-93

Name: San Jose Simples

Date: May 12/90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ K0204-FB-011 SUBDIVISION A (1 OF 1) DATE 3/30/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Purse seine area (1J) - 7/20 to 9/30; Possible anadromous stream present (1A & B). Contact ADF&G for verification.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Avoid disturbance/damage to un-oiled biota and substrate.

SHPO SIGNATURE: Charles Z. Adams DATE: April 12, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 11 m: No Oil 307 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

☐ No Treatment Recommended	☐ Snare/Absorbent Booms
☐ Treatment Recommended	☐ Oil Snares (pom poms)
☒ Manual Pickup	☐ Absorbents (pads, rolls, etc)
☐ Bioremediation	☐ Spot Washing: <u> </u> Wands
☐ Tarmat: <u> </u> Breakup	☐ Beach Cleaner
☐ <u> </u> Removal	☐ Other (see comments)

COMMENTS: Per the oiling character and distribution, no treatment recommended (consistent with decision tree). Subject to ADF&G stream verification.

TAG COMMENTS: DECISION TREE DOES NOT INDICATE TREATMENT HOWEVER SPECIFIC ON-SITE SENSITIVITIES SUGGEST SMALL WORK CREW TO MANUALLY PICK UP ACCESSIBLE OIL

TAG APPROVAL DATE: 4/11/90

ADEC JOHN BAUER

EXXON ANDY TATE

NOAA Barl Weisert

USCG G.A. REITER

FOSC: W. L. DATE: 4-20-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K2-40-FB-11 SUBDIVISION: FB-11-B DATE 3-29-90

ISCG

NAME D.D. Lewis Jr., GM, USCG SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS Very low priority. Minimal work needed.

ADEC

NAME Francine Benoit SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS Mousse mixed w/sediments between and under cobbles, and in rock crevices. Small-scale effort of manual clean-up (≤ 5 people, trowels, scrapers) could readily remove this oil, thus prevent any possibility of oil sheen as the summer progresses. (A small amount of silver sheen in standing water of the M10 STR had been observed today).

LAND MANAGER

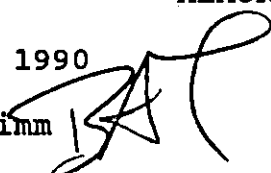
NAME Jay R. Bellinger SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS specific oil mixed with sediments and between cobbles.
[Signature]
3/29/90

goa0403c.mem bat

MEMORANDUM

DATE: April 3, 1990
FROM: Bryan Trimm 
SUBJECT: Subdivision boundaries for K0204-FB011-A

Originally, the SSAT field team subdivided the segment into subdivisions "A" and "B". It was determined by the reviewer (me) and the field OG that it would be appropriate to combine the subdivisions "A" and "B" into one, now called "A". The OG resubmitted the revised form to the office on April 2, 1990.

The original forms are located in the "working copy" file in Rex Coulter's office in Suite 508, Calais II.

SHORELINE OILING SUMMARY

REVISION NO 027298

OG Acton USCG Haven SEGMENT ST/ K2-4-FB-11
 BIO Davis LAND REP USERS Hardister SUBDIVISION FB-11-A
 EXXON Avery ADEC Bennis TIME 11:40:10 / 1:15
 TEAM NO.: 20 TIDE LEVEL: -3.0 to +7.0 DATE 3/29/90
 EST. SUBDIVISION LENGTH: 3.5 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 20 % B 30 % C 30 % P 10 % G 10 % S 0 % M 0 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 20 m NO 300 m
295

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	C	B	P	R	SP	OR	OL	OF	NO	SU	U	M	L
ASPHALT PAVEMENT													
POOLED													
COVER				✓		✓		✓			✓	✓	
COAT				✓		✓		✓		✓	✓	✓	
STAIN				✓		✓				✓	✓	✓	
MOUSSE				✓				✓	✓		✓	✓	
PATTIES													
TARBALLS													
FILM													
NO OIL													✓

PAVEMENT: H F S C sq. m by C cmPATTIES / TARBALLS C BAGSNEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE N/A#BAGS N/A

Photographs:

Roll No. 20-1Frames 7-12

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-IN)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SUBSURFACE SEDIMENTS	
		OP	OR	OL	OF	NO		VO	UC	SP SA	OR TH	OL SL	OF TL	NO LR	SU	U	M	L				
1	15					✓	-									✓						S, P
2	15					✓	-									✓						S, P
3	15					✓	-									✓						S, C
							-															
							-															
							-															

COMMENTS

Area of approx 20m x 20m - sporadic stain, coat, cover within this area is a sub area of approx 7m x 7m which is similar except that sporadic noise varying from 1-4 cm fills the spaces between some of the cobbles

Oil did not penetrate into subsurface sand/sediment/pavement in hand/foot pits dug 20m x 20m patch was located in upper middle, upper, and into supra

Oil was observed between cobbles, cobbles were moved at the 2 pit locations, and no oil was observed in the subsurface sediments

Page 1 of

Very light silver sheen observed near mousse under a cobble

REVIEWED BAT DATE 3/29/90

ORIGINAL FIELD
REPORT

SUPERCEDED

DRAFT

REVISION NO. 03/22/90

SHORELINE OILING SUMMARY

IG Acton USCG Haven SEGMENT ST/ K2-4-23-11
IO Davis LAND REP USFWS Hardister SUBDIVISION F3-11-A
EXXON Avery ADEC Bennis TIME 12:15:10
TEAM NO.: 20 TIDE LEVEL -3.0 to +7.0 DATE 3/29/90
EST. SUBDIVISION LENGTH: 20 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
SURFACE SEDIMENTS: R 0 % B 20 % C 70 % P 10 % G 0 % S 0 % M 0 % V 0 %
SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR							IMPACTED ZONES			
	C	B	P	S	SP BR	DBL RW	CL	SL DBL	TL	LRH		SU	UI	M	U
ASPHALT PAVEMENT															
POOLED															
COVER				✓		✓		✓				✓	✓		
COAT				✓		✓		✓				✓	✓	✓	
STAIN				✓		✓						✓	✓	✓	
MOUSSE				✓				✓	✓			✓	✓		
PATTIES															
TARBALLS															
FILM															
NO OIL															✓

PAVEMENT: H F S 0 sq. m by 0 cmPATTIES / TARBALLS 0 SAGSNEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. 20-1Frames 4, 10, 11

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm-cm)	BELOW		OIL / FILM COLOR							PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OB	OR	OL	OF	NO		UO	UC	SP BR	DBL RW	CL	SL DBL	TL	LRH		SU	UI	M	U		
1	15					✓	.															
2	15					✓	.															
							.															
							.															
							.															
							.															
							.															

COMMENTS

Area of approx 20m x 20m - sporadic stain, coat, cover within this area is a sub area of approx 7m x 7m which is similar except that sporadic noise varying from 1-4 cm fills the spaces between some of the cobbles

Oil did not penetrate into subsurface sand/sediment/pebbles in hand/foot pits dug

20m x 20m patch was located in upper middle, upper, and into supra

Oil was observed between cobbles, cobbles were moved at the 2 pit locations, and no oil was observed in the subsurface sediments

SHORELINE OILING SUMMARY

REVISION NO 032290

OG Acton USCG Haven SEGMENT ST/ K2-4-FB-11
IO Davis LAND REP USEWS Harbortec SUBDIVISION FB-11-B
EXXON Avery ADEC Dennis TIME 11:40 10.12.15
TEAM NO.: 20 TIDE LEVEL: -3.0 10 +7.0 DATE 3 / 29 / 90
EST SUBDIVISION LENGTH: 300 295 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
SURFACE SEDIMENTS: R 0 % B 50 % C 30 % P 20 % G 0 % S 0 % M 0 % V 0 %
SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 2 m NO 400 m
295

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	S	P	S	BR	RW	GY	SL	TL	LB	SU	U	M	U		
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL											✓	✓	✓	✓		

PAVEMENT: H F S 0 sq. m by 0 cmPATTIES / TARBALLS 0 BAGSNEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. 20-1Frames 7, 8, 9, 12

SUBSURFACE OIL

PIT NO	PIT DEPTH (CM)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SUBSURFACE SEDIMENTS		
		OP	OR	OL	OF	NO		UO	UC	SO BR	OR RW	GY SL	OR TL	LB	SU	U	M	U					
31	15					✓	.										×						C/S
							.																
							.																
							.																
							.																
							.																
							.																

COMMENTS

Section FB11 is subdivided into 2 subdivisions.

FB11A is the central portion of the segment and has oiled areas.

FB11B extends from both sides of FB11A to the segment ends and has no observable oiled areas - approx 200 m on either side of FB11A

See sketch which depicts the 2 portions of FB-11-B

DATE 3 / 24 90

CHECKLIST

___ N Arrow
 ___ Approx. Scale
 ___ Seg/Side Brdy
 ___ Off D:st.
 ___ Width
 ___ Length
 ___ % Cover
 ___ Substrate Character
 ___ Est. Ht/LA/VA
 ___ SSL
 ___ Profile Location(s)
 ___ Probe(s)
 ___ PP. Location(s)
 ___ Photo Location(s)

LEGEND

1 Δ

PI - No Subsurface Oil

2 ▲
Pg - Subsurface OU

CT/C
Continuous Distribution

CT/B

Broken Distribution

CT/P
Party Distribution

CT/S
Splashed Distribution

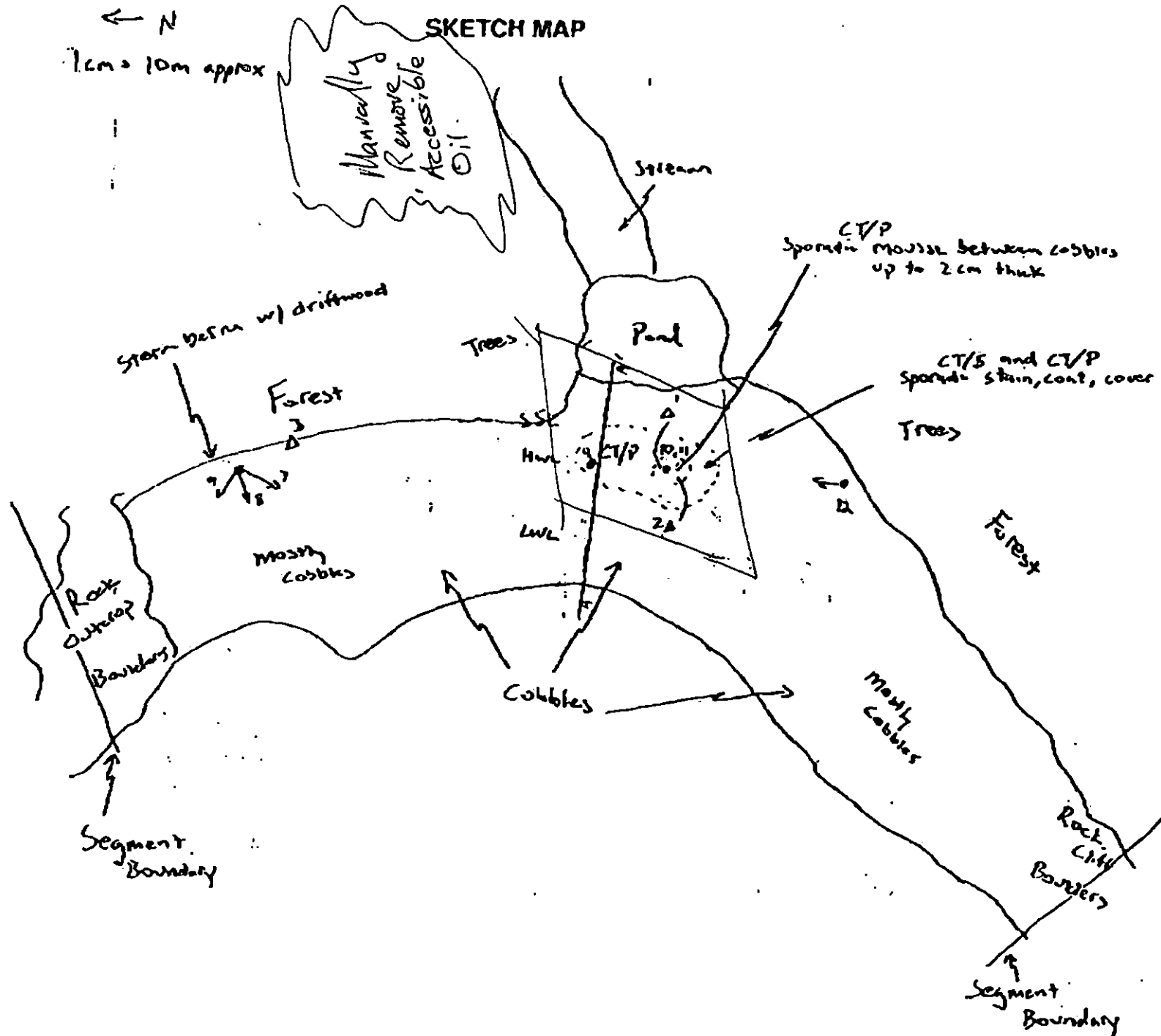
O'ed Vegetation

1

Photo location, direction,
and number

Oil Character Length (m): AP 0 PO 0 CV 20 CT 20 ST 20 MS 7 PT 0 TB 0 FL 0 NO 300 215

01-937650



UN. FIG. 10.2

SEGMENT ST/ K2-4-F6-m

SUBDIVISION F2-H-A

DATE 3 / 29 / 90

CHECKLIST

- ___ N Arrow
- ___ Approx. Scale
- ___ Seg/Sub Bndry
- ___ Oil Dist.
- ___ Width
- ___ Length
- ___ % Cover
- ___ Substrate Character
- ___ Est. MW/L/VL
- ___ SSL
- ___ Profile Location(s)
- ___ Profile(s)
- ___ PP Location(s)
- ___ Photo Location(s)

LEGEND

1 Δ

Pt - No Subsurface Oil

2 Δ

Pt - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

Oiled Vegetation

1 →

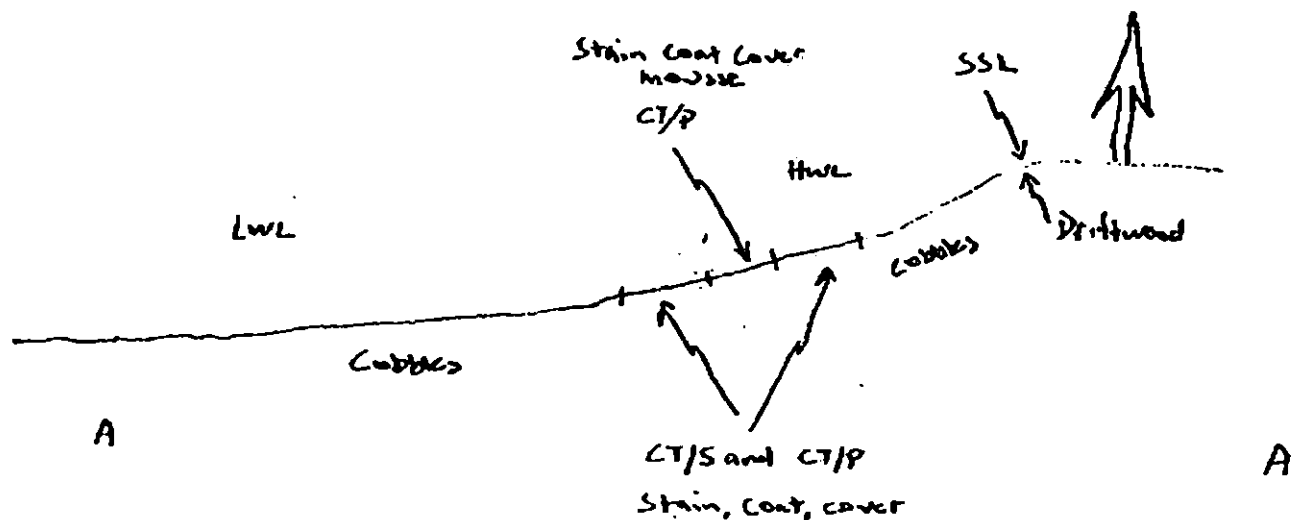
Photo location, direction,
and number

SKETCH MAP

Scale 1cm = 4m

Profile A-A', looking from south to north

A-A' = 60m



Oil Character Length (m): AP _____ PO _____ CV _____ CT _____ ST _____ MS _____ PT _____ TB _____ FL _____ NO _____

02/0004/20/24/90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 037

Segment ST/K02-04 Subdivision FB-11 A Date (mo / day / yr) 3-29-90Time (24 hr) 11:25 Biologist H. Davis(A) Substrate type and % of segments:
(1) Bedrock 20 (2) Boulder 30 (3) Cobble 30 (4) Pebble 10 (5) Sand 10 (6) Silt(B) Overall % cover of biota (% of segment): Dense 25% Moderate 30% Low 45% (50%)

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
Roll No. ST 20-1Frames 4-12

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
X	X	X	X	X	X	X	X	X	X	X	X
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
4, 5, 6

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
X	X	X	X	X	X	X	X	X	X	X	X
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
4, 5, 6

GASTROPODS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
X	X	X	X	X	X	X	X	X	X	X	X
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
4, 5, 6

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
X	X	X	X	X	X	X	X	X	X	X	X
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
5, 6

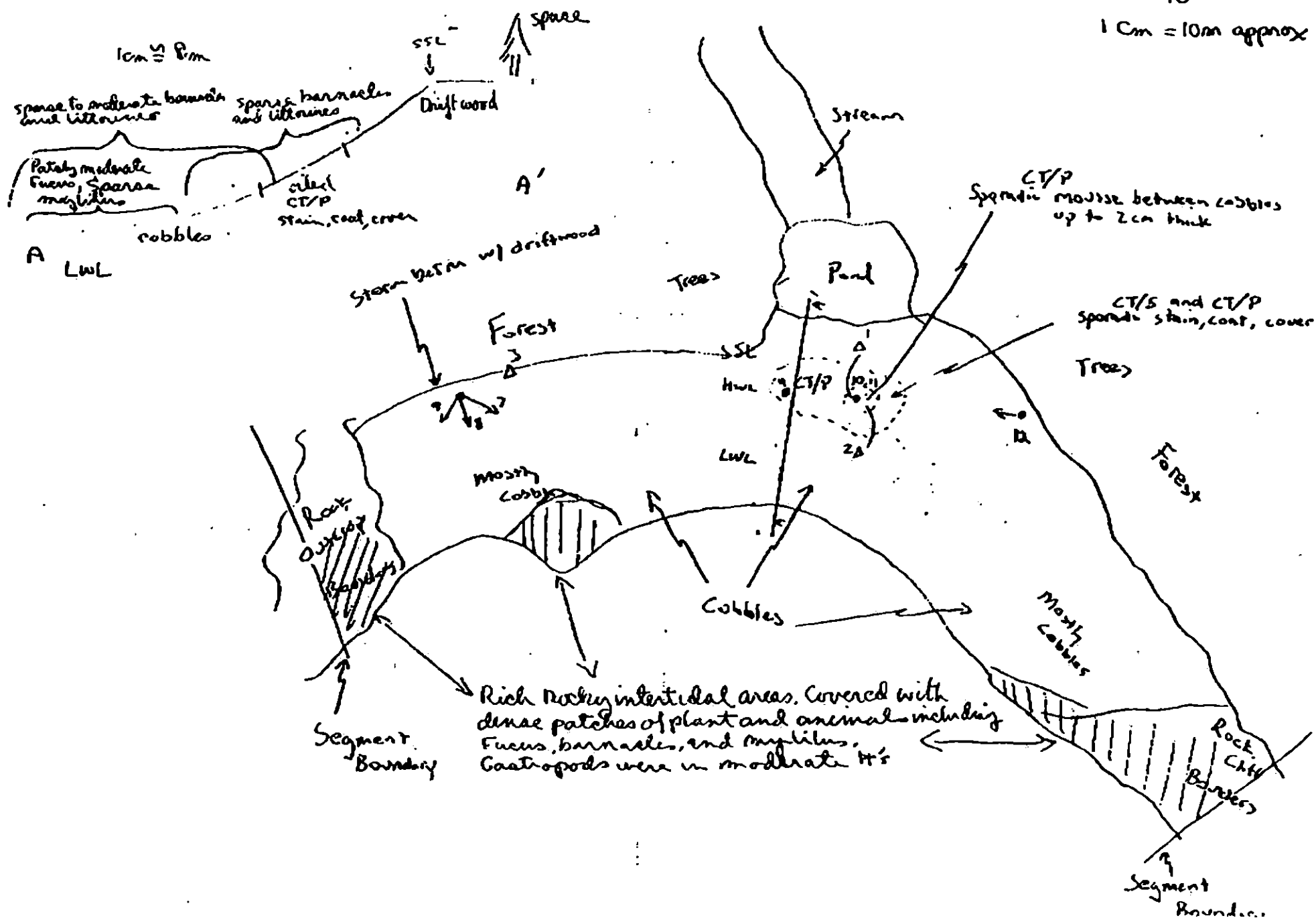
Wildlife Observations/ General Comments: Deer scat seen on the berm near the forest edge.
Eggs of *Neella* sp. (Thais) observed on under sides of rocks and in crevices.
Birds seen: (2) Merganser, Surf Scoter, White wing scoter, Black Scoter, (8) Harlequin
(5) Oldsquaw.

Ecological Considerations: (1) Stream is anadromous. Rocky outcroppings have a rich, dense community on them.

Bio 1-2015
 Segment 12-04 FB-11
 Subsegment FB-11A
 Date 3-20-90

Bio SKETCH MAP

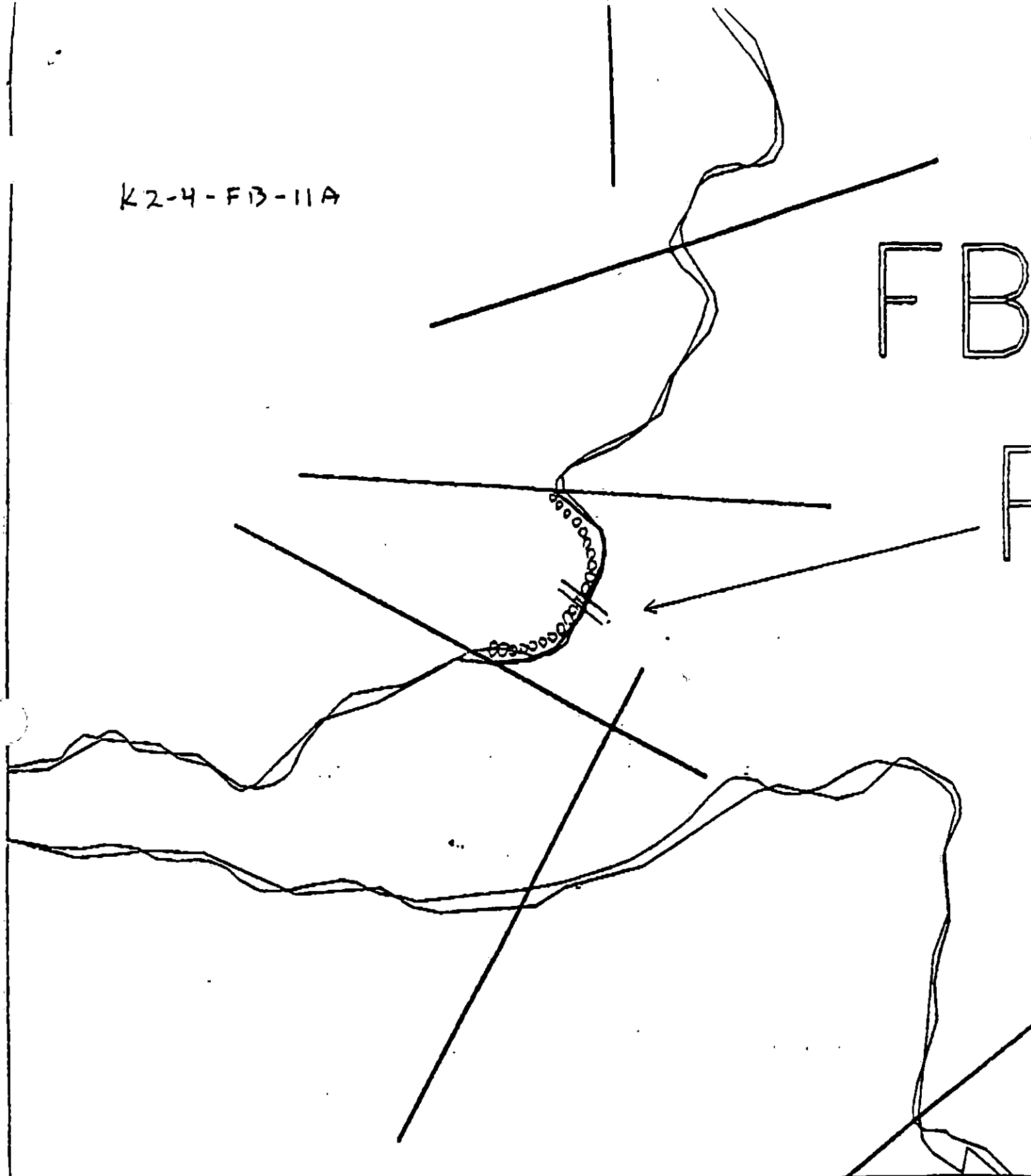
← N
 1 cm = 10m approx



K2-4-FB-11A

FB

F



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

FB-11

ADEC Segment Length: 318m



Map Key: GOA-93

Name: Acton

Date: 3-29-90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ K0204-FB-012 SUBDIVISION A (1 OF 5) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Purse seine area (1J) - 7/20 to 9/30.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Avoid disturbance/damage to un-oiled biota and substrate.

SHPO SIGNATURE: Charles E. Holmes DATE: April 12, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 83 m: No Oil 0 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u>X</u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u> </u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> Removal	<u> </u> Other (see comments)

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/12/90
ADEC JOHN BAUER
EXXON ANDY TEAZ
NOAA Burt Wescott
USCG M. J. HALL
FOSC: myl DATE: 4-19-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K2124 / F3212 SUBDIVISION: A, D, C, D, E DATE 3/30/90

NOAA
USCG

NAME John Naughton SIGNATURE John J. Naughton

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Observations concur with description below. Some oil could be removed particularly in subdivision c. However believe disturbance from treatment crew would be more detrimental to area than removal of the small amount of oil.

ADEC

NAME Scott Sheltor SIGNATURE Scott Sheltor

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Segments B, D, & E NO OIL OBSERVED.

Segment A has some staining on boulders south west of Segment B. Staining found is sporadic and V light. NO pooling observed in sediment. Segment C IMPACT on boulder and between cobble has a greater thickness than Segment A. CLEANABLE OIL LESS THAN ONE BAG. But could be dug out of Boulder with great difficulty and time. Possible clean during FB-11 & 13 time.

LAND MANAGER

NAME LINDA HIGGINS SIGNATURE Linda M. Hagen

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Oil stains observed on small areas as described. clean-up would be labor intensive due to handling of individual rocks, although area is not large.

SHORELINE OILING SUMMARY

REVISION 10

OG Penland USCG Naughton SEGMENT ST/ K0204 / F0012
 BIO Slight LAND REP Hagon - USFWS SUBDIVISION A
 EXXON Agua ADEC Shelton TIME 10:07 to 11:15
 TEAM NO.: 19 TIDE LEVEL: -2 ft to -1 ft DATE 3 / 30 / 90
 EST. SUBDIVISION LENGTH: 60 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 40 % B 50 % C 10 % P 0 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 0 % Hang 50 % Vert 50 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ H
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 60 m NO 0

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	10	15	20	25	30	35	40	45	50	SW	U	M	L
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT				X	X	X	X	X	X				
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL										X	X	X	X

PAVEMENT: H F S N/A sq. m by N/APATTIES / TARBALLS N/ANEAR SHORE SHEEN? ☒ NO BR RW SL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLE

☐ YES ☒ NOTYPE N/A#BAGS N/A

Photographs:

Roll No. 19-2Frames 21-27

SUBSURFACE OIL

NO PITS DUG

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW	OIL / FILM COLOR					PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO			30	35	40	45	50	SW	U	M	L		
C.							.												
							.												
							.												
							.												
							.												
							.												

COMMENTS

- oil stain scattered (very, very lightly) in boulder beach facing the small head
- boulders apparently sheltered this area from waves resulting in the accumulation of oil this year
- no pits dug due to shallow bedrock/boulder occurrence

AT 3/30/90

SKETCH MAP

SEGMENT ST/ K0204/F0012

SUBDIVISION A, B, C, D

DATE 3 / 30 90

CHECKLIST

- ☒ M Arrow
- ☒ Approx. Scale
- ☒ Seg/Sub Entry
- ☒ Oil Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HML/LWL
- ☒ SSL
- ☒ Profile Location(s)
- ☒ Profile(s)
- ☒ Pit Location(s)
- ☒ Photo Location(s)

LEGEND

1 Δ
1 - No Subsurface Oil

2 Δ
1 - Subsurface Oil

CT/C
Continual Distribution

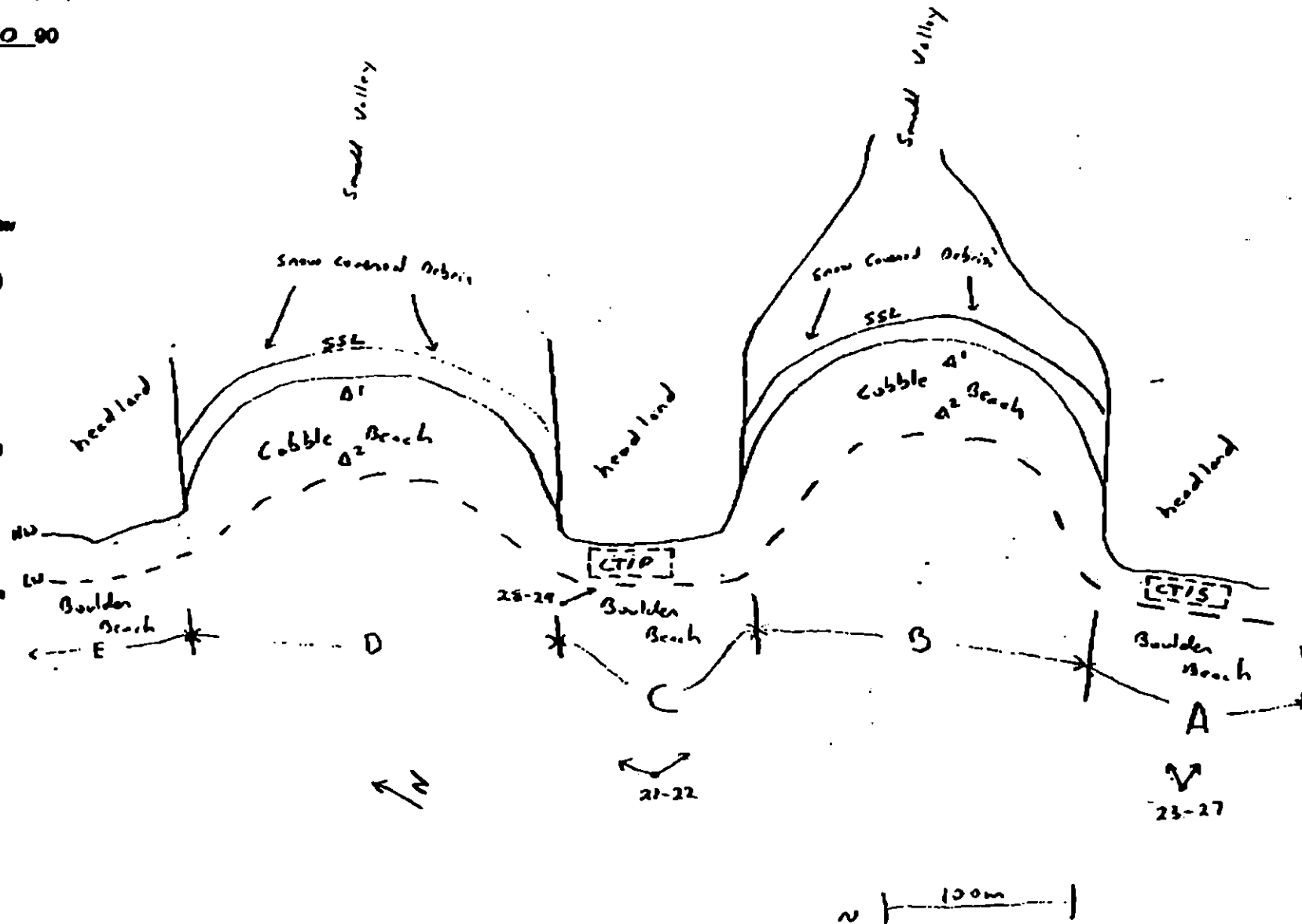
CT/B
Broken Distribution

CT/P
Patchy Distribution

CT/S
Scattered Distribution

Isolated Vegetation

1 →
Photo location, direction,
and number



SHORELINE ECOLOGICAL SUMMARY

REVISED 1977

Segment ST / FBO12 Subdivision A, B, D, E Date (mo / day / yr) 3 / 30 / 90

Time (24 hr) 10:01 Biologist SPIGHT

(A) Substrate type and % of segments:
(1) Bedrock 5 (2) Boulder 15 (3) Cobble 80 (4) Pebble (5) Sand (6) Silt

(B) Overall % cover of biota (% of segment): Dense 30 Moderate 30 Low 40

(C) Density, substrate preference (by number from A. above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
Roll No.

Frames

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	X	2	2	2	2	2	2	2	2	2
3	3	X	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

GASTROPODS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	X	2	2	2	2	2	2
3	3	3	3	3	X	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5

NOT PRESENT

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments:

Ecological Considerations:

Round, well-worked cobble at upper level most mid level; no surface fauna

Typical dense *B. cariosus* community on low-level cobble

Probable *B. cariosus* spat at low level

1J - PURSE SEINE AREA - RESTRICTIONS FROM 20 JULY - 30 SEPT

FB-

FB-

FI

F

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

FB-12

AOEC Segment Length: 372m

0 100 200 300

Map Key: GOA-94

Name: Pacific

Date: 3-27-72



SHORELINE EVALUATION

SEGMENT ST/ K0204-FB-012 SUBDIVISION B (2 OF 5) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon purse seine area (1J) - 7/20 to 9/30.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Avoid disturbance/damage to un-oiled biota and substrate.

SHPO SIGNATURE: Charles E. Hume DATE: April 12, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 94 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u>X</u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u> </u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> Removal	<u> </u> Other (see comments)

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/12/90
ADEC JOHN BAUER
EXXON ANDY TEAL
NOAA Burt Westcott
USCG M. J. HALL

FOSC: DATE: 4-19-90

SHORELINE OILING SUMMARY

REVISION NO. 0

OG Penland USCG Naughton SEGMENT ST/ K0204 / F0012
 BIO Seight LAND REP Hagen SUBDIVISION B
 EXXON Quers ADEC Shelton TIME 10:07 to 11:15
 TEAM NO.: 19 TIDE LEVEL: -2 ft to -1 ft DATE 3 / 30 / 90
 EST. SUBDIVISION LENGTH: 100 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 0 % B 10 % C 50 % P 20 % G 20 % S 0 % M 0 % V 0
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 100

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	10	15	20	25	30	35	40	45	SU	U	ME	U
ASPHALT PAVEMENT												
POOLED												
COVER												
COAT												
STAIN												
MOUSSE												
PATTIES												
TARBALLS												
FILM												
NO OIL									X	X	X	X

PAVEMENT: H F S N/A sq. m by N/APATTIES / TARBALLS N/A B.NEAR SHORE SHEEN? ☒ NO BR RW SL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECT ☐ YES ☒ NOTYPE N/A#BAGS N/A

Photographs:

Roll No. 19-1Frames 21-22

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm-cm)	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UD	UC	30	35	40	45	SU	U	ME	U		
1	30					X	.								X				cobbles, pebbles
2	30					X	.									X			cobbles, pebbles
							.												
							.												
							.												
							.												

COMMENTS

- Area exposed to more energy than headlands; cobbles apparently removed oil in beach
- no oil found in subsurface

SCH MAP

SUBDIVISION ~~A~~, ~~B~~, ~~C~~, ~~D~~

CHECKLIST

- ✓ Y/N Arrow
- ✓ Approx. Scale
- ✓ Seg/Sub Bndry
- ✓ Off Dist.
- Width
- Length
- % Cover
- ✓ Substrate Character
- ✓ Est. 1 INFLUENCE
- ✓ SSL
- Profile Location(s)
- Profile(s)
- PR Location(s)
- ✓ Photo Location(s)

LEGEND

1. **△**

PR - No Subsurface ON

2 ▲

Pit - Subsurface On

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

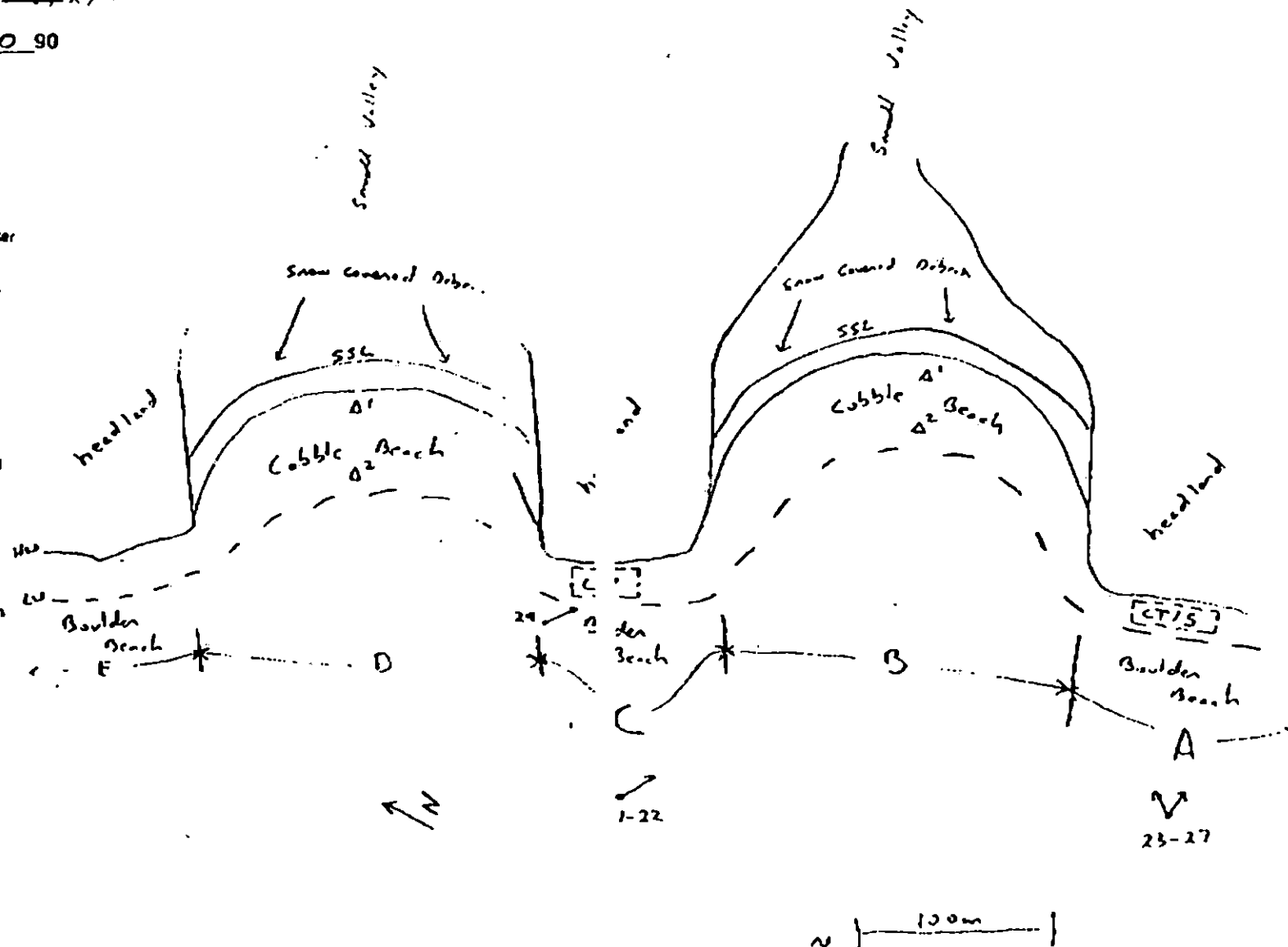
CT/S

Splashed Distribution

Oiled Vegetation

1. ~~_____~~

Photo location, direction,
and number



Oil Character Length (m) AP PO CV CT ST ;

(TA ' FI ' MO ')

REVISION 02/2010

SHORELINE ECOLOGICAL SUMMARY

REVISION 03

Segment ST / FB012 Subdivision A, B, D, E Date (mo / day / yr) 3 / 30 / 90

Time (24 hr) 10:01 Biologist SPIGHT

(A) Substrate type and % of segments:
(1) Bedrock 5 (2) Boulder 15 (3) Cobble 80 (4) Pebble (5) Sand (6) Silt

(B) Overall % cover of biota (% of segment): Dense 30 Moderate 30 Low 40

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
Roll No.

Frames

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	X	2	2	2	2	2	2	2	2	2
3	3	X	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

GASTROPODS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	X	2	2	2	2	2	2
3	3	3	3	3	X	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5

NOT PRESENT

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments:

Ecological Considerations:

Rounded, well-worked cobble at upper level; no surface fauna
Typical dense *B. cariosus* community on low-level cobble
Probable *B. cariosus* spat at low level

1J - SALMON RIVER SEINE AREA. RESTRICTIVE TIME - 20 JULY TO 30 SEPT

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K2154 / F3212 SUBDIVISION: A, D, C, O, E DATE 3/30/90

NOAA
USCG

NAME John Naughton SIGNATURE John J. Naughton

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

Observations concern with description below. Some oil could be removed particularly in subdivision c. However believe disturbance from treatment crew would be more detrimental to area than removal of the small amount of oil.

ADEC

NAME Scott Sheltan SIGNATURE Scott Sheltan

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

Segments B, D, & E NO OIL OBSERVED.

Segment A has some staining on boulders south west of Segment B. Staining found is sporadic and U Lign. NO pooling observed in sediment. Segment C impact on boulder and between cobble has a greater thickness than Segment A. CLEANABLE OIL LESS THAN ONE BAG. But could be dug out of Bould with great difficulty and time. Possible clean during FB-11 & 13 time.

LAND MANAGER

NAME LINDA HAGEN SIGNATURE Linda M. Hagen

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

Oil stains observed on small areas as described. clean-up would be labor intensive due to handling of individual rocks, although area is not large.

FB-

FB-

FE

F

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

FB-12

ADEC Segment Length: 372m

Map Key: GOA-94

Name: PacificDate: 3-22-90

SHORELINE EVALUATION

SEGMENT ST/ K0204-FB-012 SUBDIVISION C (3 OF 5) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon purse seine area (1J) - 7/20 to 9/30.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Avoid disturbance/damage to un-oiled biota and substrate.

SHPO SIGNATURE: Charles E. Holmes DATE: April 12, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 46 m: No Oil 0 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u>X</u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u> </u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> Removal	<u> </u> Other (see comments)

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/12/90.

ADEC JOHN BAUER

EXXON ANDY TEAL

NOAA Burl Wescott

USCG M. J. HALL

FOSC: DATE: 4-19-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K2254 / FB 212 SUBDIVISION: A, D, C, D, E DATE 3/30/90

NOAA
USCG

NAME John Naughton SIGNATURE John J. Naughton

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Observations concur with description below. Some oil could be removed particularly in subdivision c. However believe disturbance from treatment crew would be more detrimental to area than removal of the small amount of oil.

ADEC

NAME Scott Shelton SIGNATURE Scott Shelton

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Segments B, D, & E NO OIL OBSERVED.

Segment A has some staining on boulders south west of Segment B. Staining found is sporadic and V Lign. NO pooling observed in sediment. Segment C impact on boulder and between cobble has a greater thickness than Segment A. CLEANABLE OIL LESS THAN ONE BAG. But could be dug out of Boulder with great difficulty and time. Possible clean during FB-11 & 13 time.

LAND MANAGER

NAME LINDA HIGGINS SIGNATURE Linda M. Higgins

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Oil stains observed on small areas as described. clean-up would be labor intensive due to handling of individual rocks, although area is not large.

SHORELINE OILING SUMMARY

REVISION NO.

OG Penland USCG Naughton SEGMENT ST/ K0204 / F0012
 BIO Seight LAND REP Hagen SUBDIVISION C
 EXXON Avaya ADEC Shelton TIME 10:07 to 11:15
 TEAM NO.: 19 TIDE LEVEL: -2.4 to -1.4 DATE 3 / 30 / 90
 EST. SUBDIVISION LENGTH: 60 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 40 % B 50 % C 10 % P 0 % G 0 % S 0 % M 0 % V 0
 SLOPE: Long 0 % Hang 50 % Vert 50 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ Hk
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 60 m NO 0

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	R	B	P	N	1	2	3	4	5	SU	U	M	U
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT			X		X	X				X			
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL										X	X	X	

PAVEMENT: H F S N/A sq. m by 477PATTIES / TARBALLS 477 0 RefNEAR SHORE SHEEN? ☒ NO BR RW SL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLE
☐ YES ☒ NOTYPE N/A#BAGS N/A

Photographs:

Roll No. 19-1Frames 28-29SUBSURFACE OIL No Pits dug

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW	OIL / FILM COLOR					PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OP	NO			1	2	3	4	5	SU	U	M	U		
C																			

COMMENTS

the oily patchy areas are slightly thicker and occur in larger patches than in subdivision A.

oil still contained pine needles etc....

No pits dug.

BAT S.A.K. 90

OG Penlar

SITCH MAP

SEGMENT ST/ 34/F0012

SUBDIVISION A, B, C, D

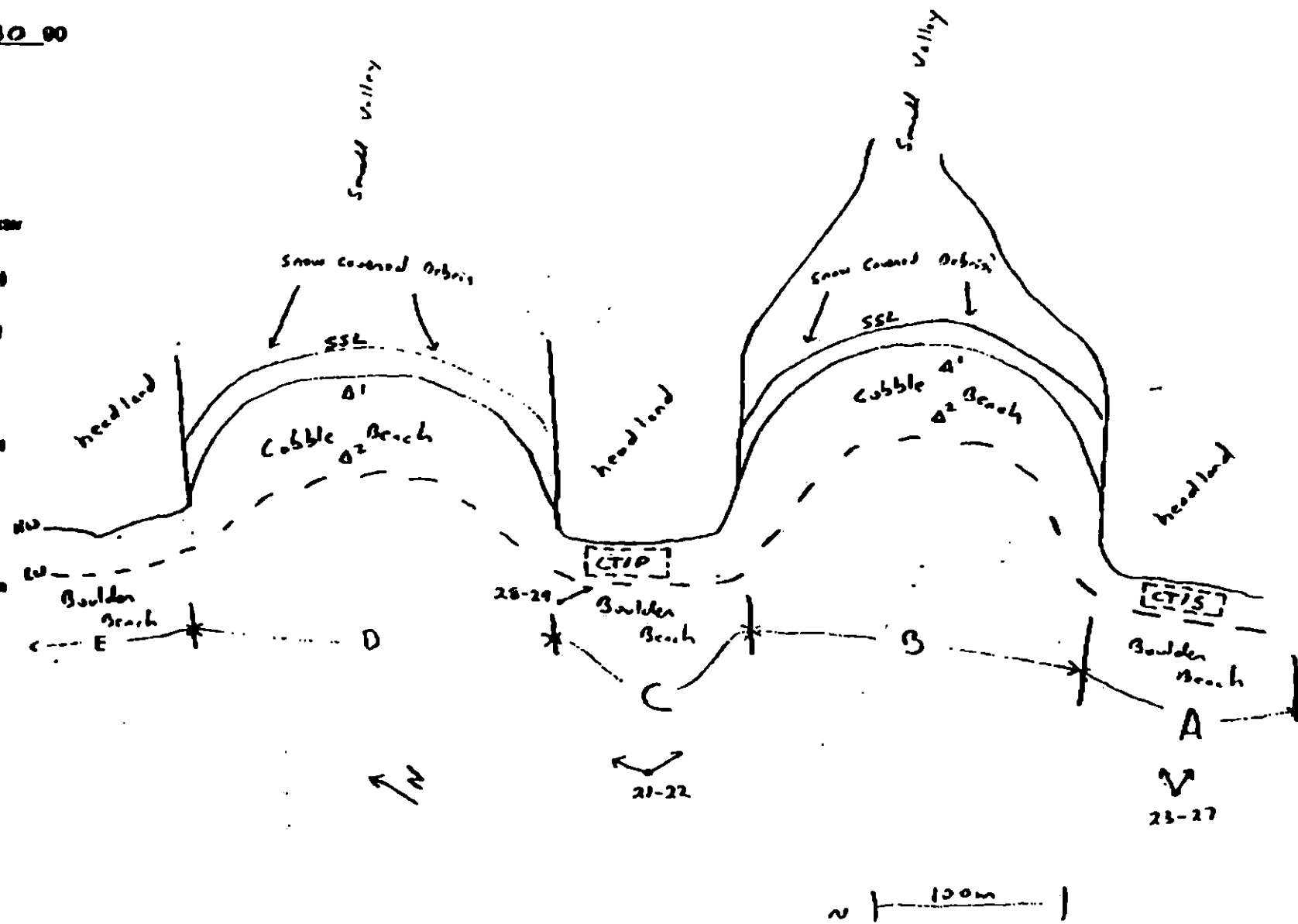
DATE 3 / 30 90

CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Seg/Sub Entry
- ☒ Oil Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HML/LWL
- ☒ SSL
- ☒ Profile Location(s)
- ☒ Photo(s)
- ☒ Photo Location(s)

LEGEND

- 1 Δ
- FI - No Subsurface Oil
- 2 Δ
- FI - Subsurface Oil
- [CT/C]
- Continuous Distribution
- [CT/B]
- Broken Distribution
- [CT/P]
- Patchy Distribution
- [CT/S]
- Splashed Distribution
- Oil Vegetation
- 1 →
- Photo location, direction, and number



Character Length (m): AP 0 PO 0 CV 0 CT 120 ST 0 MS 0 PT 0 TR 0 FI 0 M 0

SHORELINE ECOLOGICAL SUMMARY

Segment 51 Subdivision L Date (mo / day / yr) 3 / 20 / 10Time (24 hr) 10:44 Biologist EPIGHT(A) Substrate type and % of segments:
(1) Bedrock 40 (2) Boulder 40 (3) Cobble 20 (4) Pebble (5) Sand (6) Silt (B) Overall % cover of biota (% of segment): Dense 60 Moderate 20 Low 20

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (O)

Photographs:
Roll No. Frames

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	X	X	X	2	2	2	2	2	2	2	2
3	X	3	3	3	3	X	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	X	2	2	2	2	2	2	2
3	3	3	3	X	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

GASTROPODS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	X	X	X	2	X	2	2	2	2
3	3	3	3	X	3	X	X	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	X	2	X	2	2	2	2	2	X
3	3	3	3	3	3	X	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments:

Ecological Considerations:

Oiled area is backwater behind bedrock "mountain". There is little
 algal film in this area but there are lots of Littorines. (2 spp.)
 Detritus attached fauna MARLIN OIL seem normal

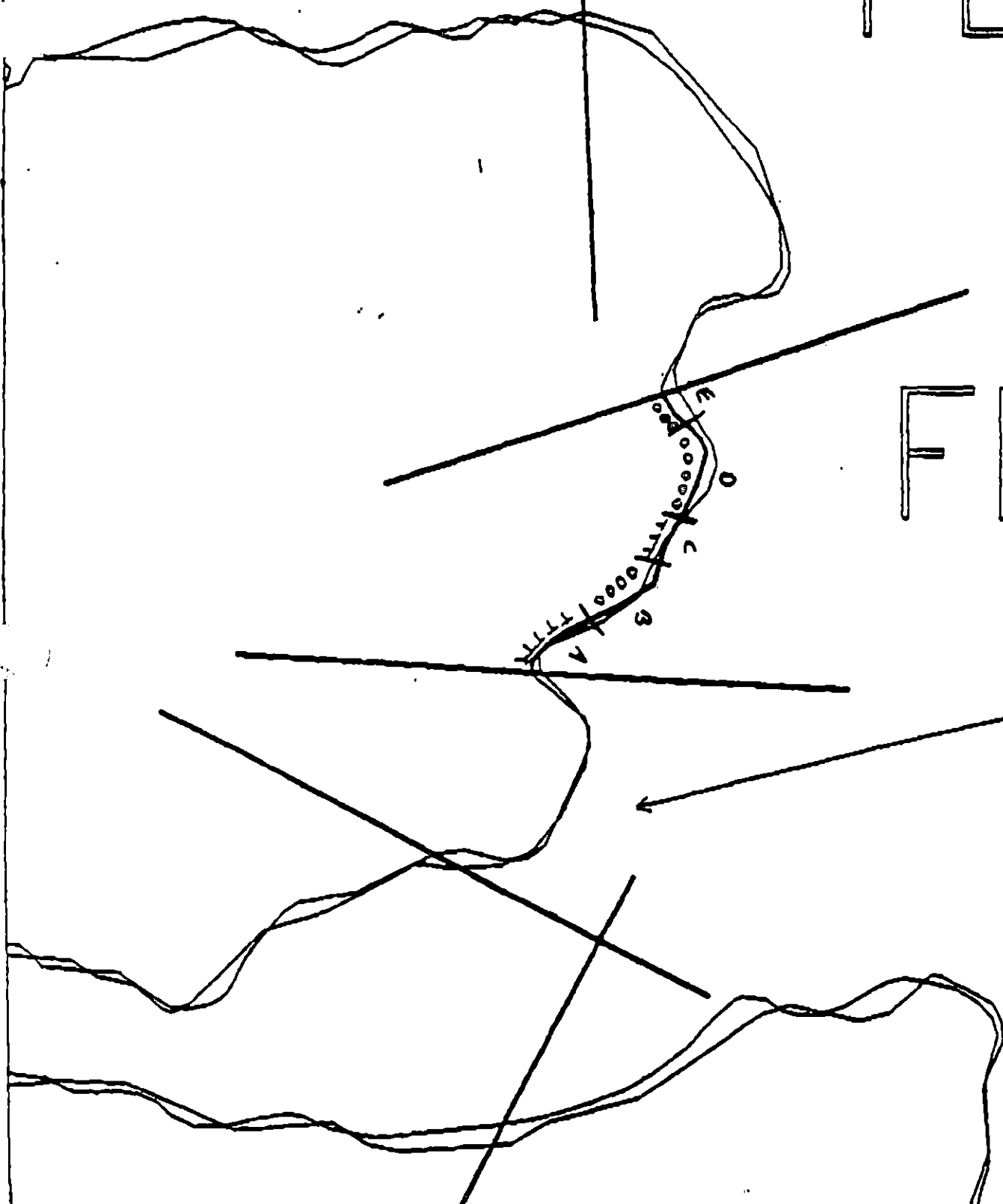
1 J - SALMON PURSE SEINE AREA - RESTRICTIONS FROM 20 JULY → 30 SEPT

FB-

FB-

FE

F



XXXX Wide

//// Medium

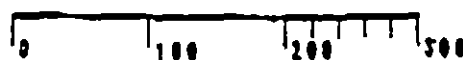
--- Narrow

TTTT Very Light

OOOO No Oil

FB-12

ADEC Segment Length: 372m



Map Key: GOA-94

Name: Panama

Date: 3-27-92

Page 1 of 1

SHORELINE EVALUATION

SEGMENT ST/ K0204-FB-012 SUBDIVISION D (4 OF 5) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon purse seine area (1J) - 7/20 to 9/30.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Avoid disturbance/damage to un-oiled biota and substrate.

SHPO SIGNATURE: *Charles E. Brown*

DATE: April 12, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 109 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u>X</u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u> </u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> Removal	<u> </u> Other (see comments)

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/12/90

ADEC *John Bauer*
EXXON *Andy Tetz*
NOAA *Burt Wescott*
USCG *M. J. Hall*

FOSC: *h L*

DATE: 4-19-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K2224 / FB 212 SUBDIVISION: A, B, C, D, E DATE 3/30/90

NOAA
USEG

NAME John Naughton SIGNATURE John J. Naughton

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

Observations concure with description below. Some oil could be removed particularly in subdivision c. However believe disturbance from treatment crew would be more detrimental to area than removal of the small amount of oil.

ADEC

NAME Scott Shelton SIGNATURE Scott Shelton

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

Segments B, D, & E NO OIL OBSERVED.

Segment A has some staining on boulders south west of Segment B. Staining found is sporadic and U light. NO pooling observed in sediment. Segment C impact on boulder and between cobble has a greater thickness than Segment A. CLEANABLE OIL LESS THAN one bag. But could be dug out of Boulders with great difficulty and time. Possible clean during FB-11 & 13 time.

LAND MANAGER

NAME LINDA HAGEN SIGNATURE Linda M. Hagen

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

Oil stains observed on small areas as described. clean-up would be labor intensive due to handling of individual rocks, although area is not large.

SHORELINE OILING SUMMARY

REVISION NO. 0

OG Penland USCG Naughton SEGMENT ST/ K0224 / P0012
 BIO Saignt LAND REP Hagen - (SFL-5) SUBDIVISION 0
 EXXON Oyeda ADEC Shelton TIME 10:07 to 11:15
 TEAM NO.: 19 TIDE LEVEL: to DATE 3 / 30 / 90
 EST. SUBDIVISION LENGTH: 100 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 10 % B 10 % C 50 % P 20 % G 20 % S 0 % M 0 % V 0
 SLOPE: Lang 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 100

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	N	P	S	1	2	3	4	5	6	7	8	SU	U	M	U
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL																

PAVEMENT: H F S 40 sq. m by 1 cPATTIES / TARBALLS 0 B

NEAR SHORE SHEEN? NO BR RW SL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLEC
☐ YES ☒ NOTYPE 1#BAGS 1

Photographs:

Roll No. 19-1Frames 21-22

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm-0.2)	BELOW		OIL / FILM COLOR								PIT ZONE	A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UD	UC	1	2	3	4	5	6	7	8	SU	U	
1	30					X	.													cobble, pebble
2	30					X	.													cobble, pebble
							.													
							.													
							.													
							.													

COMMENTS

FAT 3A109C

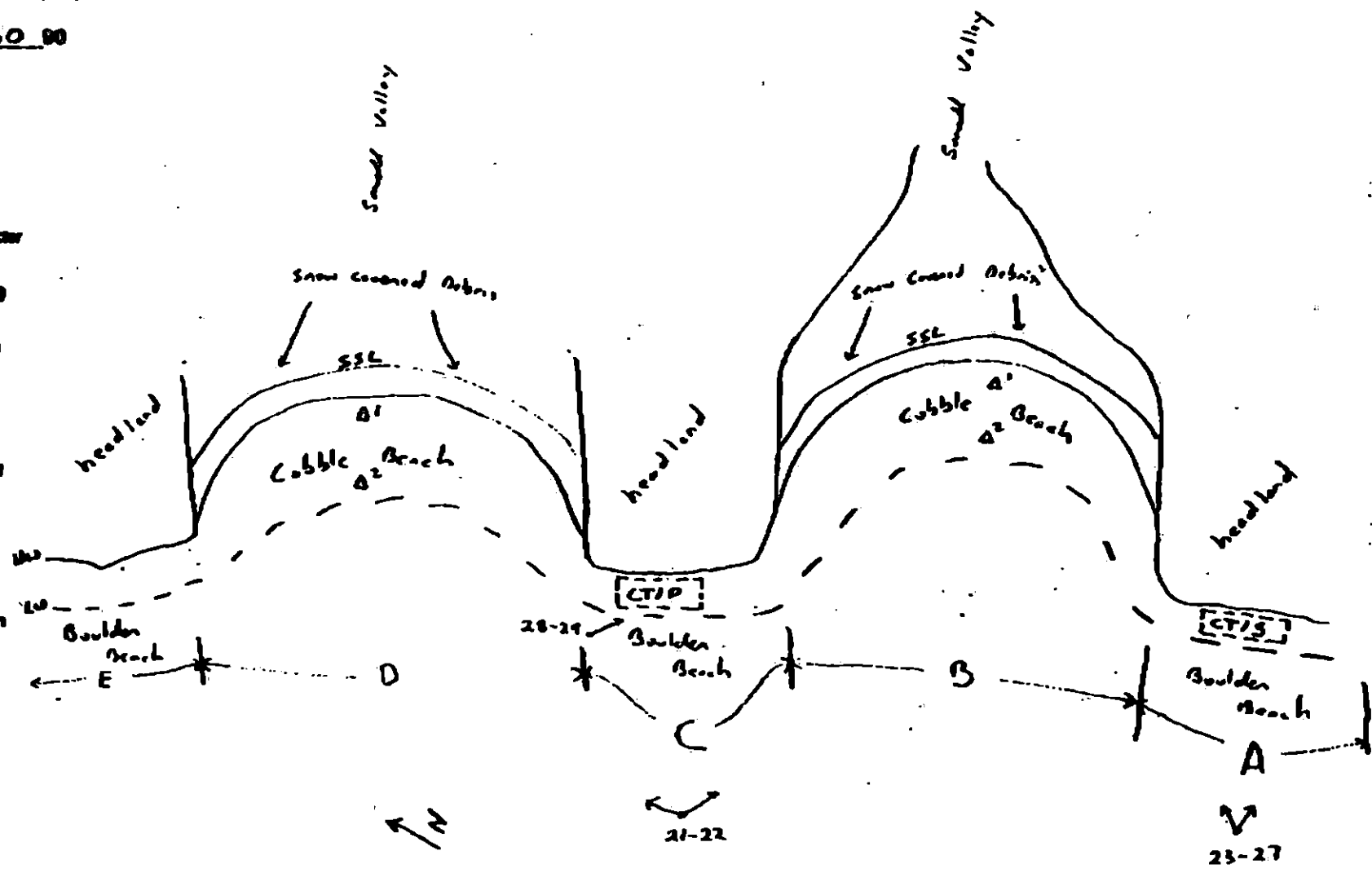
PROJECT ST/ K3204/F0012
 DIVISION A, B, C, D
 DATE 3 / 30 00

SKETCH MAP

ECOLI
 H Area
 Approx. Scale
 Seg/Sub Body
 Oil Dist.
 Width
 Length
 % Cover
 Substrate Character
 Est. IRRADIANCE
 SSL
 Profile Location(s)
 Profile(s)
 PR Location(s)
 Photo Location(s)

GENO
 1 Δ
 No Subsurface Oil
 2 Δ
 Subsurface Oil
 CT/C
 Fuel Distribution
 CT/B
 n Distribution
 CT/P
 y Distribution
 CT/S
 bed Distribution

Vegetation
 location, direction,
 number



Water Length (m): PO O CV O CT 120 ST O MS O PT O FL O NO 100

SHORELINE ECOLOGICAL SUMMARY

REVISION 02

Segment ST / FB012 Subdivision A, B, D, E Date (mo / day / yr) 3/30/90
Time (24 hr) 10:01 Biologist SPIGHT

- (A) Substrate type and % of segments:
(1) Bedrock 5 (2) Boulder 15 (3) Cobble 80 (4) Pebble (5) Sand (6) Silt
(B) Overall % cover of biota (% of segment): Dense 30 Moderate 30 Low 40
(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (O)
Photographs:
Roll No.
Frames

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	X	2	2	2	2	2	2	2	2	2
3	3	X	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESE

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESE

GASTROPODS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	X	2	2	2	2	2	2
3	3	3	3	3	X	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5

NOT PRESE

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESE

Wildlife Observations/ General Comments:

Ecological Considerations:

Round, well-worked cobble at upper level; no surface fauna
Typical dense *B. cariosus* community on low-level cobble
Probable *B. cariosus* spat at low level

13 - SALMON PURSE SEINE AREA - RESTRICTIVE TIMES 20 JULY - 30 SEPT

FB-

FB-

FE

F

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

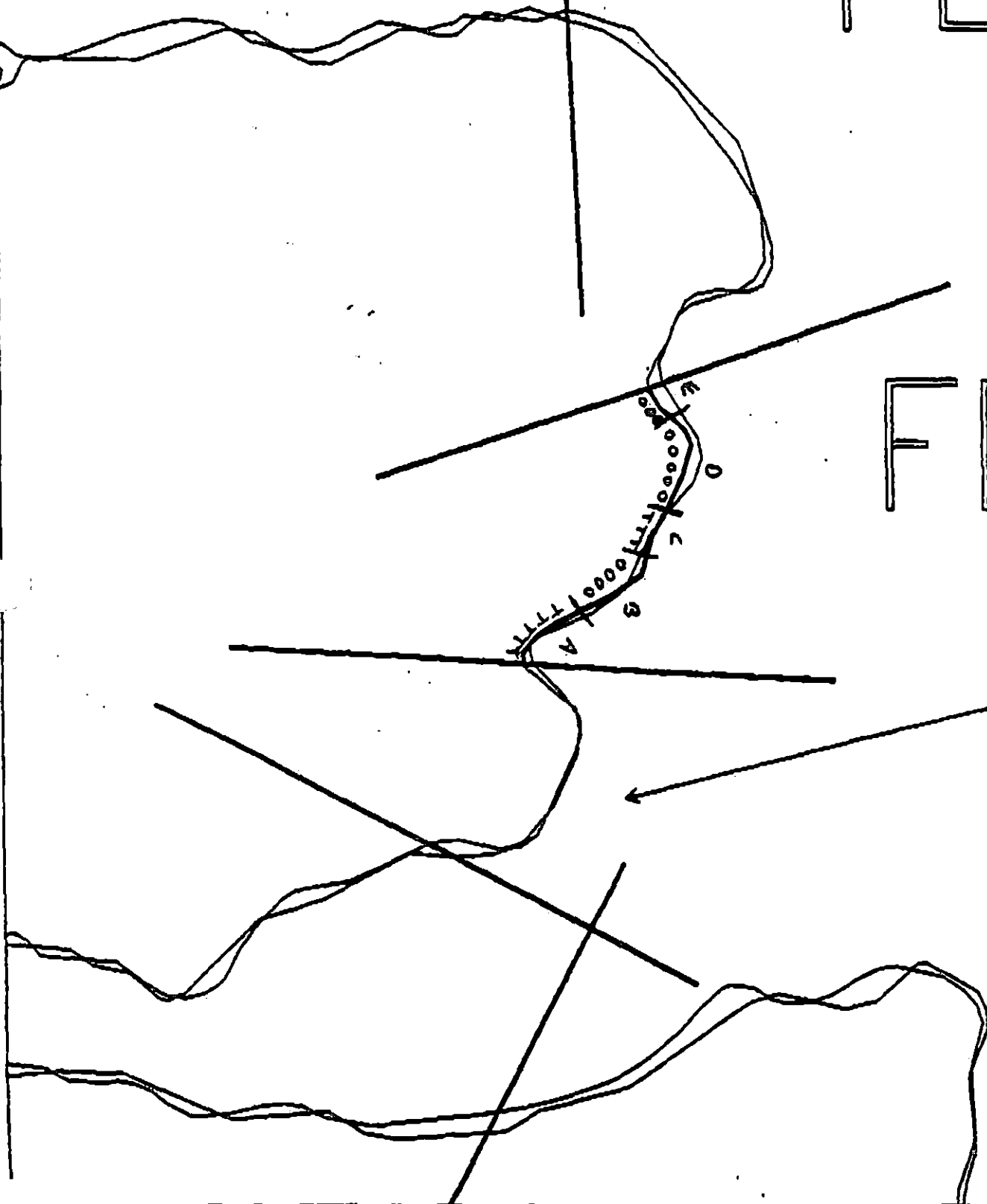
FB-12

ADEC Segment Length: 372m

Map Key: 60A-94

Name: Pacific

Date: 3-22-90



SHORELINE EVALUATION

SEGMENT ST/ K0204-FB-012 SUBDIVISION E (5 OF 5) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon purse seine area (1J) - 7/20 to 9/30.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Avoid disturbance/damage to un-
ioled biota and substrate.

SHPO SIGNATURE: Charles F. Holden

DATE: April 12, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 37 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u>X</u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u> </u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> Removal	<u> </u> Other (see comments)

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/12/90.

ADEC JOHN BAUER
EXXON ANDY GIL
NOAA BILL WESCOTT
USCG M. J. HALL

FOSC:

DATE: 4-19-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K2157 / F3212 SUBDIVISION: A, B, C, D, E DATE 3/30/90

NOAA
USCG

NAME John Naughton SIGNATURE John J. Naughton

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

Observations concur with description below. Some oil could be removed particularly in subdivision c. However believe disturbance from treatment crew would be more detrimental to area than removal of the small amount of oil.

ADEC

NAME Scott Shelton SIGNATURE Scott Shelton

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

Segments B, D, & E NO OIL OBSERVED.
Segment A has some staining on boulders south west of Segment B. Staining found is sporadic and V light. NO pooling observed in sediment. Segment C impact on boulders and between cobble has a greater thickness than Segment A. CLEANABLE OIL LESS THAN one bag. But could be dug out of Boulders with great difficulty and time. Possible clean during FB-11 & 13 time frame.

LAND MANAGER

NAME LINDA HIGGINS SIGNATURE Linda M. Haggins

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

Oil stains observed on small areas as described. clean-up would be labor intensive due to handling of individual rocks, although area is not large.

SHORELINE OILING SUMMARY

REVISED 10/80

OG Penland USCG Naughton SEGMENT ST/ K0204 / #0012
 BIO Saignt LAND REP Hagen SUBDIVISION E
 EXXON Ovaca ADEC Shelton TIME 10:07 to 11:15
 TEAM NO.: 19 TIDE LEVEL: to DATE 3/30/90
 EST. SUBDIVISION LENGTH: 52 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 40 % B 50 % C 10 % P 0 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 0 % Hang 50 % Vert 50 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ H
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 52

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	R	B	P	NO	1	2	3	4	5	SU	U	M	L
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT													
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL													

PAVEMENT: H F S N/A sq. m by N/A

PATTIES / TARBALLS 0 N/A Day

NEAR SHORE SHEEN? ☒ NO BR RW SL

OILED DEBRIS	AMOUNT			DEBRIS COLLE
	SM	MD	LG	
Logs				☐ YES ☒ NO
Vegetation				
Trash				
Debris				TYPE <u>N/A</u>
				#BAGS <u>N/A</u>

Photographs:

Roll No. 19-1

Frames 21-22

SUBSURFACE OIL No Pits Dug

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	UC	1	2	3	4	5	SU	U	M	L		

COMMENTS

No Oil

No Pits Dug due to shallow occurrence of bedrock.

PA7 3/30/90

Greenland

SKETCH MAP

EGMENT ST/ K2204/F0012

UBDIVISION A, B, C, D

DATE 3 / 30 80

CHECKLIST

- ☒ M Area
- ☒ Approx. Scale
- ☒ Seg/Sub Entry
- ☒ Oil Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HML/AVR
- ☒ SSL
- ☒ Profile Location(s)
- ☒ X Profile(s)
- ☒ P/L Location(s)
- ☒ Photo Location(s)

LEGEND

1 Δ
No Subsurface Oil

2 Δ
Subsurface Oil

CT/C
Oil Distribution

CT/B
Oil Distribution

CT/P
sechy Distribution

CT/S
pushed Distribution

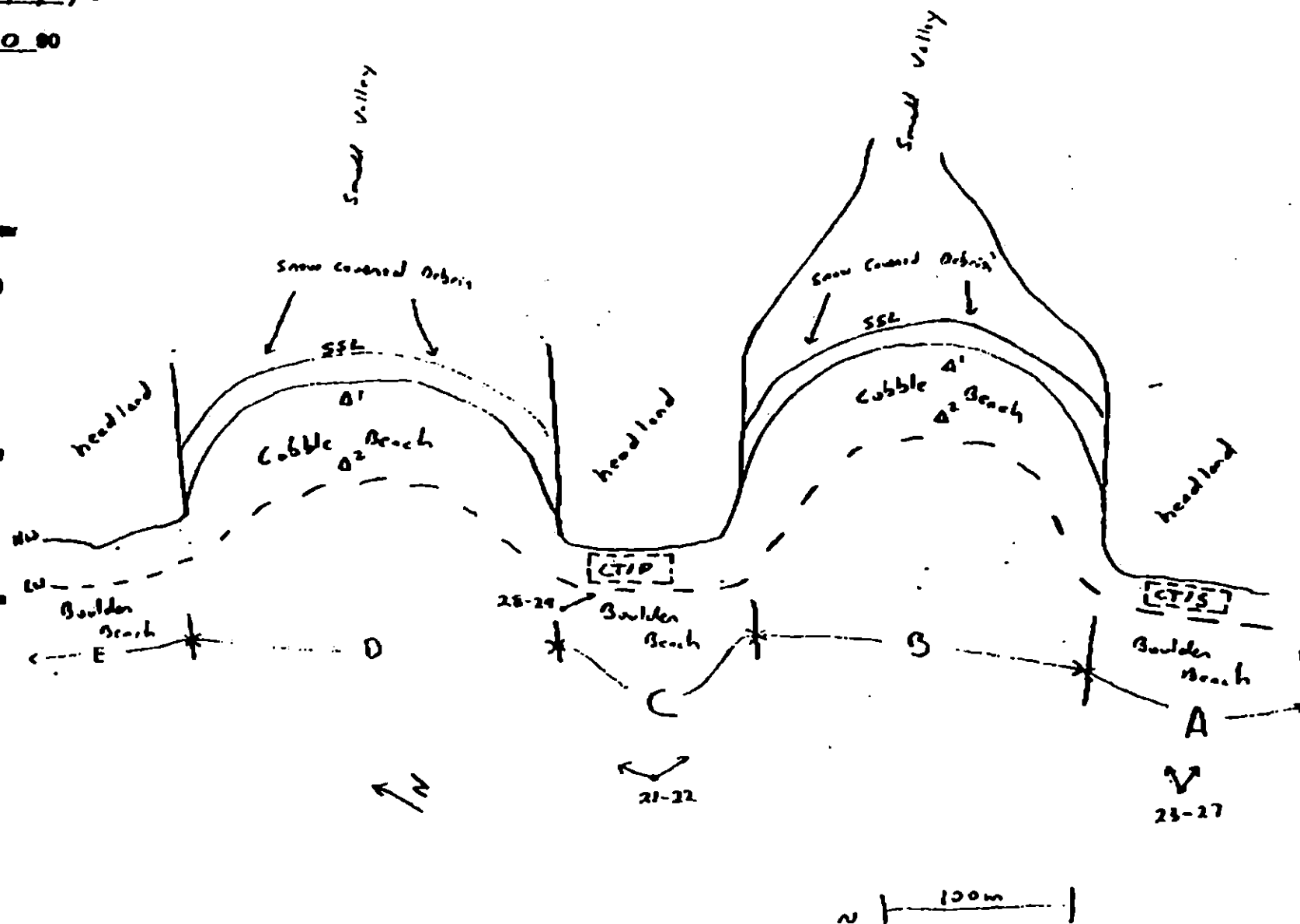
led Vegetation

1 00

note location, direction,
and number

Character Length (m) 0 PO 0 CY 0 CT 120 ST 0 MS 0 PT 0 B 0 FL 0 NO 0 50

00000000



SHORELINE ECOLOGICAL SUMMARY

REVISION: 03

Segment ST / FB012 Subdivision A, B, D, E Date (mo / day / yr) 3/30/90
Time (24 hr) 10:01 Biologist SPIGHT

(A) Substrate type and % of segments:
(1) Bedrock 5 (2) Boulder 15 (3) Cobble 80 (4) Pebble (5) Sand (6) Silt

(B) Overall % cover of biota (% of segment): Dense 30 Moderate 30 Low 40

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
Roll No.

Frames

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	X	2	2	2	2	2	2	2	2	2
3	3	X	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESE

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESE

GASTROPODS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	X	2	2	2	2	2	2
3	3	3	3	3	X	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5

NOT PRESE

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESE

Wildlife Observations/ General Comments:

Ecological Considerations:

Rounded, well-worked cobble at upper level: moss- rock level; no surface fauna
Typical dense *B. cariosus* community on low-level cobble
Probable *B. cariosus* spat at low level

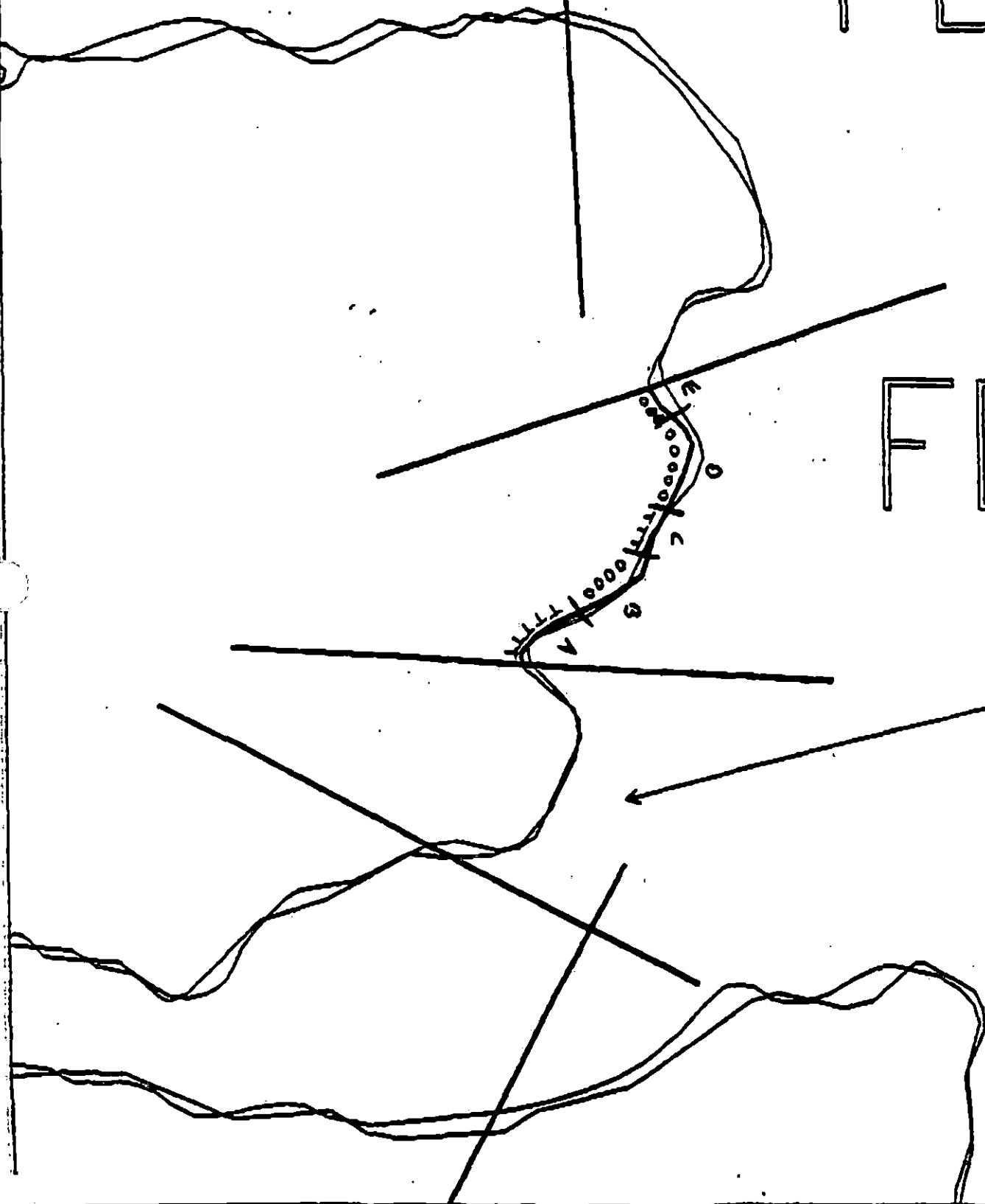
13 - SALMON RIVER SEINE AREA - 20 JULY - 30 SEPT

FB-

FB-

FI

F



XXXX Wide

//// Medium

--- Narrow

TTTT Very light

FB-12.

ADEC Segment Length: 372m

Map Key: 60A-94

Name: Pacific

Date: 3-27-02

SHORELINE EVALUATION

SEGMENT ST/ K0204-FB-013 SUBDIVISION A (1 OF 3) DATE 3/30/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Purse seine area (1J) - 7/20 to 9/30.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Avoid disturbance/damage to un-oiled biota and substrate.

SHPO SIGNATURE: Charles E. Hanna DATE: April 11, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 129 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u>X</u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u> </u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> Removal	<u> </u> Other (see comments)

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/11/90

ADEC JOHN BAUER
EXXON ANDY GIL
NOAA Bry/Wescott
USCG G.A. REITER

FOSC: DATE: 4-20-90

SHORELINE OILING SUMMARY

REVISION NO. 002

OG Penland USCG Naughton SEGMENT ST/ K0204-EG-013
 BIO Slight LAND REP Hagen - USFWS SUBDIVISION A (1 OF 3)
 EXXON Byers ADEC Sheldon TIME 10:10:11:05
 TEAM NO.: 19 TIDE LEVEL: -1.8 ft to -1.0 ft DATE 3/29/90
 EST. SUBDIVISION LENGTH: 215 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock backed by small pond/stream
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 0 % B 40 % C 40 % P 20 % G 0 % S 0 % M 0 % V 0
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 215

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	IC	IS	IP	IS	NO	OR	OL	OP	NO	OR	OL	OP	SU	U	M	U
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL																

PAVEMENT: H F S N/A sq. m by N/APATTIES / TARBALLS N/A BAGNEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTE

☐ YES ☒ NOTYPE N/A#BAGS N/APhotographs: overviewRoll No. 19-1Frames 566

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OP	NO		UO	UC	NO	OR	OL	OP	NO	OR	OL	OP	SU	U	M	U		
1	20					X	.											X					cobble
2	20					X	.											X					cobble
3	20					X	.												X				cobble
							.																
							.																
							.																

COMMENTS

• No oil in PB-13-A

• Area was thoroughly examined

SEGMENT ST/ FB-13

SUBDIVISION A

DATE 3 / 29 / 90

CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Seg/Sub Entry
- ☒ Oil Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HML/LML
- ☒ SSL
- ☒ 1/2 Profile Location(s)
- ☒ 1/4 Profile(s)
- ☒ PH Location(s) → irregular bottom of boulder
- ☒ 1/2 Photo Location(s)

LEGEND

1 Δ

PH - No Subsurface Oil

2 Δ

PH - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

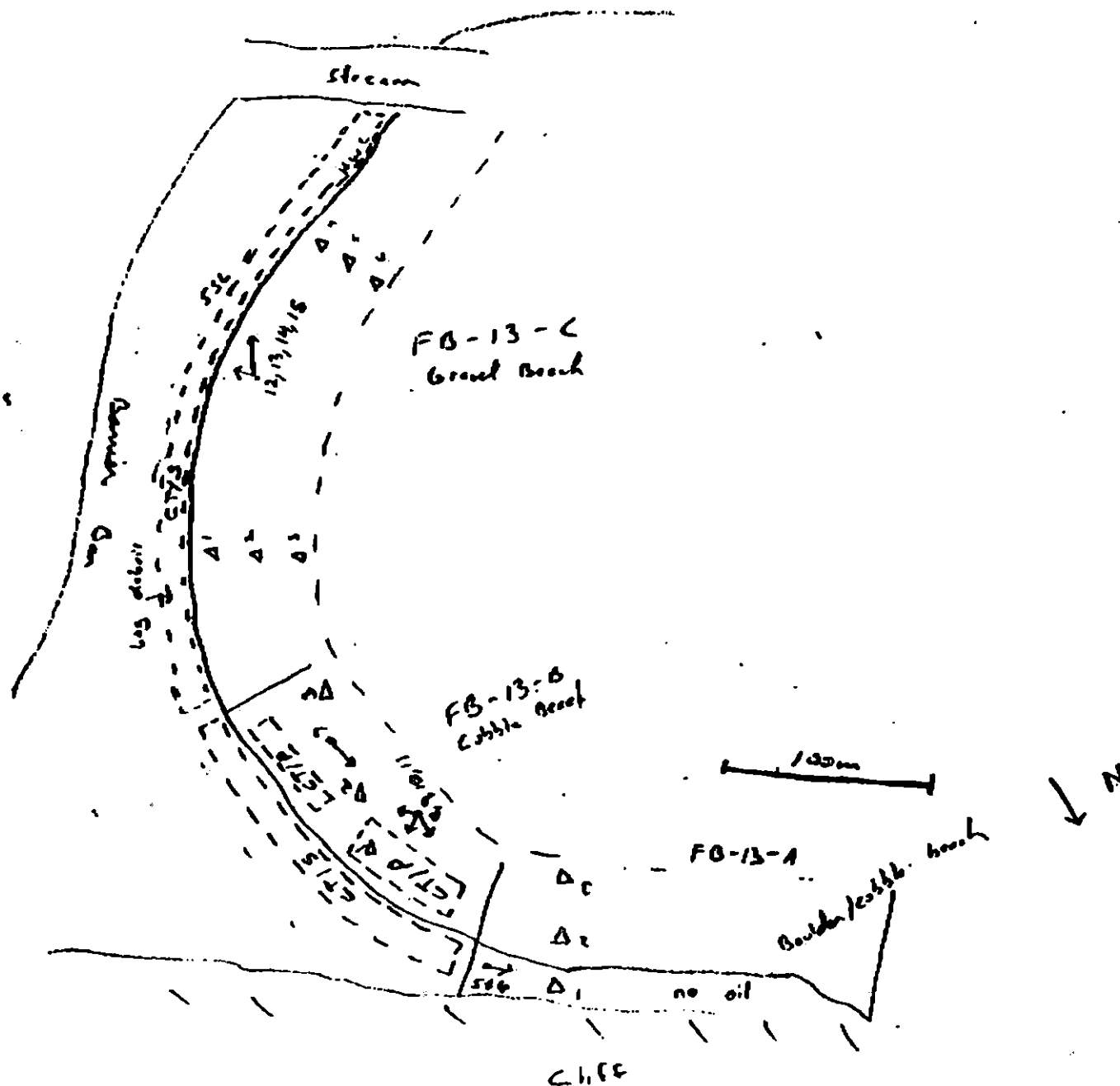
Oiled Vegetation

1 →

Photo location, direction, and number

R-11 19-1

SKETCH MAP



Oil Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 0 PT 0 TB 0 FL 0 NO 215

VISION 432488

K0204 SHORELINE ECOLOGICAL SUMMARY

REVISION: 08/22/90

Segment ST/ FB-13 Subdivision A Date (mo / day / yr) 3/29/90Time (24 hr) 10:15 Biologist T. Spilgrath(A) Substrate type and % of segments:
(1) Bedrock 10 (2) Boulder 25 (3) Cobble 65 (4) Pebble (5) Sand (6) Silt (B) Overall % cover of biota (% of segment): Dense 25 Moderate 37 Low 37

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X) , new settlement (3)

Photographs:
Roll No. Frames

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	X	X	X	2	2	2	2	2	2	2
3	3	X	X	X	3	3	3	3	3	3	3
4	4	X	X	X	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	X	X	2	X	X	2	2	2	X
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

GASTROPODS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	X	X	X	2	2	2	2	2
3	3	3	3	X	X	X	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	X	X	X	2	2
3	3	3	3	3	3	3	X	X	X	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments:

Ecological Considerations:

Some upper areas have *B. glandula* "refuge zone"
 Cover very dense for cobble beach "Ancient" *B. cariosus* community.
Mytilus locally dense. Similar fauna in cobbles, boulders,
 Bedrock.

15 - SALMON - PURSE SEINE AREA RESTRICTIONS FROM 20 JULY - 30 SEPT

FIELD SHORELINE COMMENT SHEET

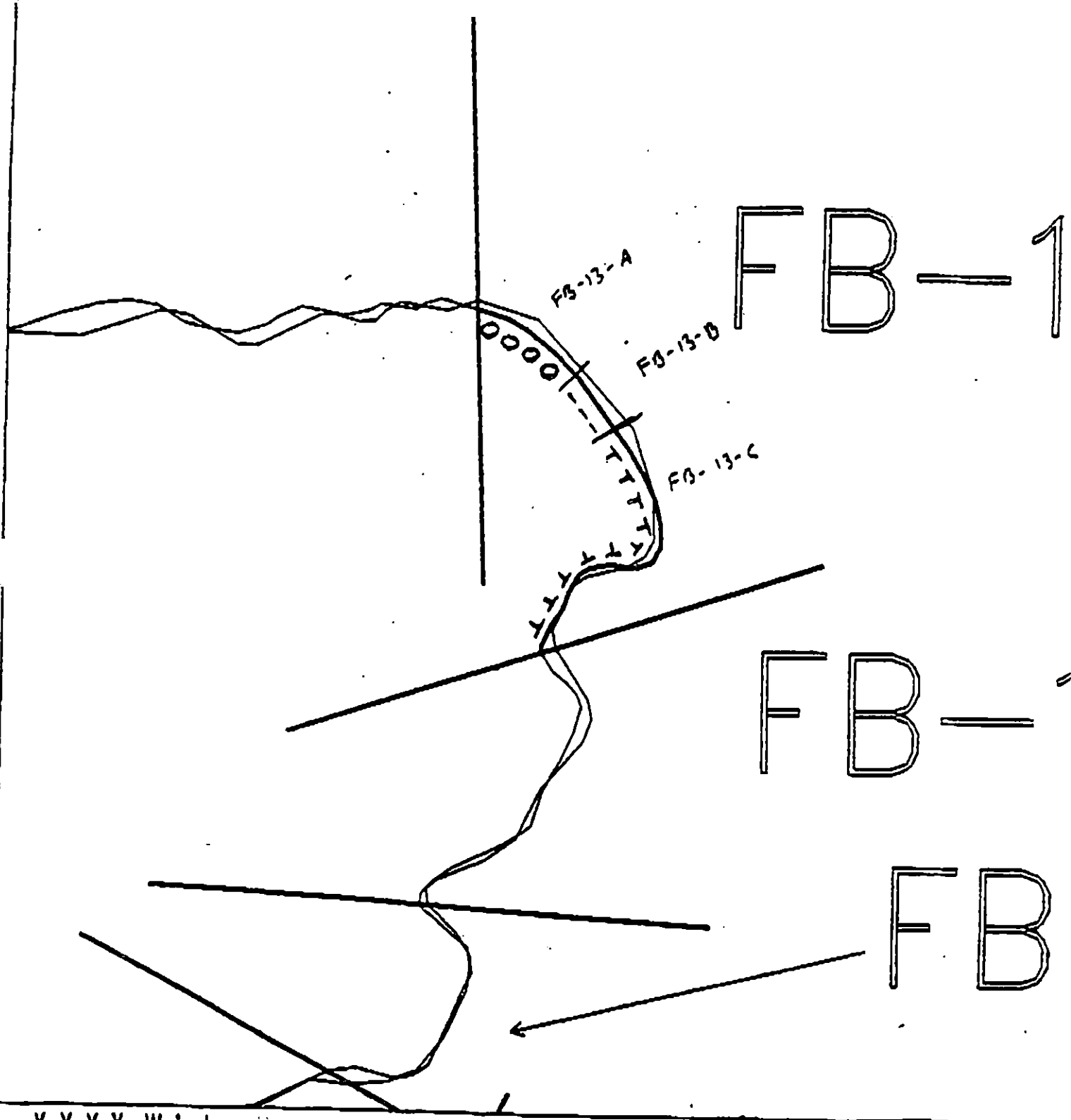
SEGMENT ST / K0204 Pa. 13 SUBDIVISION: A DATE 3-29-90NOAA
USCGNAME John Naughton SIGNATURE John J. Naughton☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDWalked entire segment, No oil observed

ADEC

NAME Scott Shelton SIGNATURE Scott Shelton☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDNo oil observed - walked 215 meters

LAND MANAGER

NAME Jay K. Bellinger SIGNATURE Jay K. Bellinger☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED



XXXX Wide
 /// Medium
 --- Narrow
 TTTT Very Light
 0000 No Oil

FB-13

ADEC Segment Length: 525m



Map Key: GOA-95
 Name: Shen Penland
 Date: 3-29-90
 Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ K0204-FB-013 SUBDIVISION B (2 OF 3) DATE 3/30/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Purse seine area (1J) - 7/20 to 9/30.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Avoid disturbance/damage to un-oiled biota and substrate.

SHPO SIGNATURE: Charles E Holmes DATE: April 11, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 72 m: V.Light 0 m: No Oil 0 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

X No Treatment Recommended Snare/Absorbent Booms
X Treatment Recommended Oil Snares (pom poms)
X Manual Pickup Absorbents (pads, rolls, etc)
 Bioremediation Spot Washing: Wands
 Tarmat: Breakup Beach Cleaner
 Removal Other (see comments)

COMMENTS:

TAG COMMENTS: AS PER FOSC COMMENTS MANUAL PICKUP OF MARSH PLANTS
AS INDICATED ON SKETCH

5/11/90

Paul J. [Signature]
DOR [Signature]
AWJ.

TAG APPROVAL DATE: 4/11/90

ADEC JOAN BAUER
EXXON ANDY TETZ
NOAA Burt Wescott
USCG G.A. MEYER

FOSC: [Signature] DATE: 4-20-90

Do not agree with TAG recommendation.
clean as requested by Sand Manager.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K0204 FB-13 SUBDIVISION: B DATE 3-29-90

USCG

NAME John Naughton SIGNATURE John J. Naughton☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Minimal treatment, only if it can be done with little effort and resources. Not sure removal of so little oil worth disturbance to area.

ADEC

NAME Scott Shelton SIGNATURE Scott Shelton☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Possible CLEAN up of Sediment Mousse patches. EST. 2-3 bags. If FB-11 HAS removal of oiled sediment, this segment K0204 FB13 Sub. B. could be treated during the same time period.

LAND MANAGER

NAME Jay R Bellinger SIGNATURE Jay R Bellinger☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY

REVISION NO. 03

OG Pea Island USCG Naughton SEGMENT ST/ FB-13
 BIO Seagrass LAND REP Hager SFLWS SUBDIVISION 0
 EXXON Exxon ADEC Shelton TIME 11:28 to 12:05
 TEAM NO.: 19 TIDE LEVEL: 0 ft 10 + 3 ft DATE 3 / 27 / 90
 EST. SUBDIVISION LENGTH: 100 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 0 % B 20 % C 50 % P 30 % G 0 % S 0 % M 0 % V 0
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 100 m VL 0 m NO 0

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	R	B	P	N	1	2	3	4	SU	U	M	U
ASPHALT PAVEMENT												
POOLED												
COVER			X				X			X		
COAT												
STAIN				✓		✓				✓		
MOUSSE												
PATTIES												
TARBALLS												
FILM												
NO OIL											X	X

PAVEMENT: H F S N/A sq. m by N/A

PATTIES / TARBALLS N/A BAC

NEAR SHORE SHEEN? (NO) BR RW SL TI

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECT: ☐ YES ☒ NO

TYPE N/A

#BAGS N/A

Photographs:

Roll No. 19-5

Frames 7-11

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-DM)	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO													
1	20					X	-								X				cobbles
2	20					X	-									X			cobbles
3	20					X	-										X		cobbles

COMMENTS - no subsurface oil

- oil located on upper intertidal zone had a dark brown mousse appearance, looked mobile
 - oil could be found on the bottom of some boulders and cobbles
 - stain splashes could be found on the base of the rock cliffs and on some of the larger boulders

BAT

SEGMENT ST/ FQ-13

SUBDIVISION B

DATE 3 / 29 90

CHECKLIST

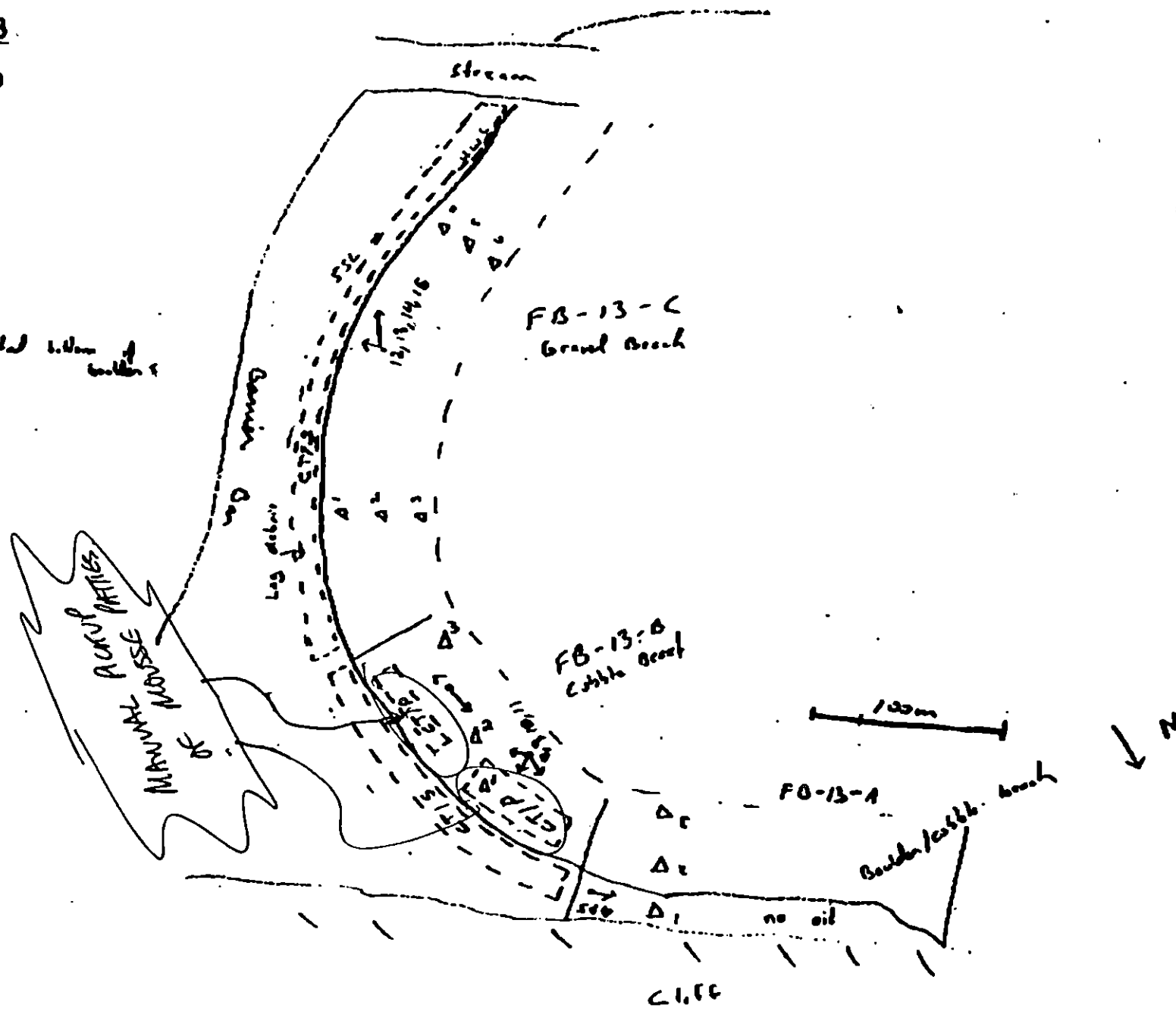
- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Seg/Sub Entry
- ☒ Oil Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HW/LA/WL
- ☒ SSL
- ☒ Profile Location(s)
- ☒ Profile(s)
- ☒ PR Location(s) → *inverted L. line*
- ☒ Photo Location(s)

LEGEND

- 1 Δ
PR - No Subsurface Oil
- 2 Δ⁺
PR - Subsurface Oil
- CT/C
Continuous Distribution
- CT/D
Broken Distribution
- CT/P
Patchy Distribution
- CT/S
Splashed Distribution
- Oiled Vegetation
- Photo location, direction, and number

R-11 19-1

SKETCH MAP



W Character Length (m): AP 0 PO 0 CV 0 CT 100 ST 0 MS 0 T 0 TB 0 FL 0 NO 0

REVISION 000000

K0204.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/22/98

Segment ST / FB-13 Subdivision B Date (mo / day / yr) 3/29/90

Time (24 hr) 10:15 Biologist T SPIBATT

- (A) Substrate type and % of segments:
 (1) Bedrock 0 (2) Boulder 5 (3) Cobble 95 (4) Pebble (5) Sand (6) Silt
- (B) Overall % cover of biota (% of segment): Dense 30 Moderate 35 Low 35
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs: 19-1
 Roll No.

Frames 1-4

BARNACLES Possible settlement

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

GASTROPODS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

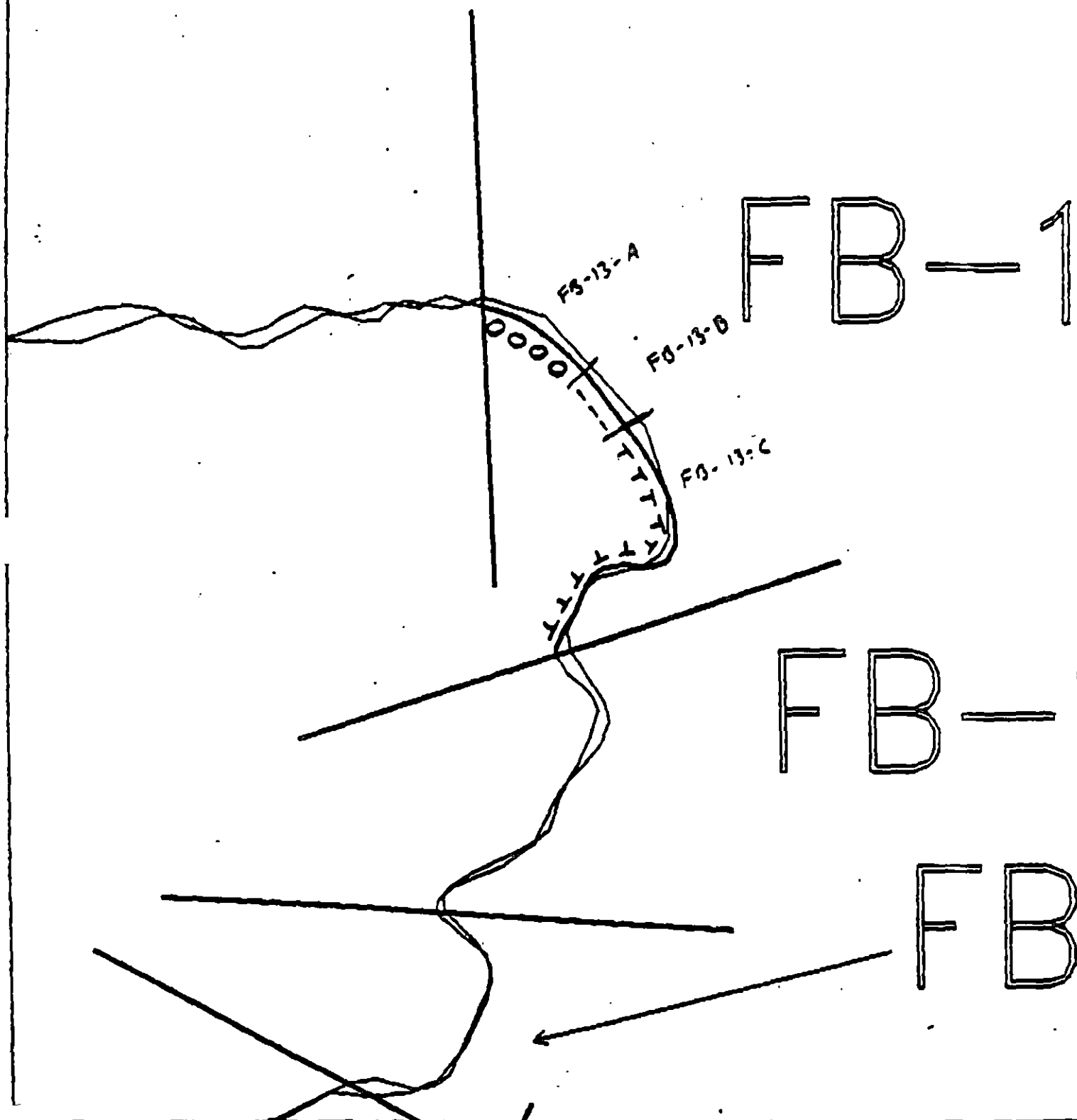
NOT PRESENT

Wildlife Observations/ General Comments:

Abundant wildlife signs above tide level
 Bird's active on water

Ecological Considerations:

Stable cobble beach. Cobbles covered by ancient *Balanus cariosus*.
 Rich fauna associated. (gastropods, anemones, etc.)



XXXX Wide
 /// Medium
 --- Narrow
 TTTT Very Light

FB-13

ADEC Segment Length: 525m

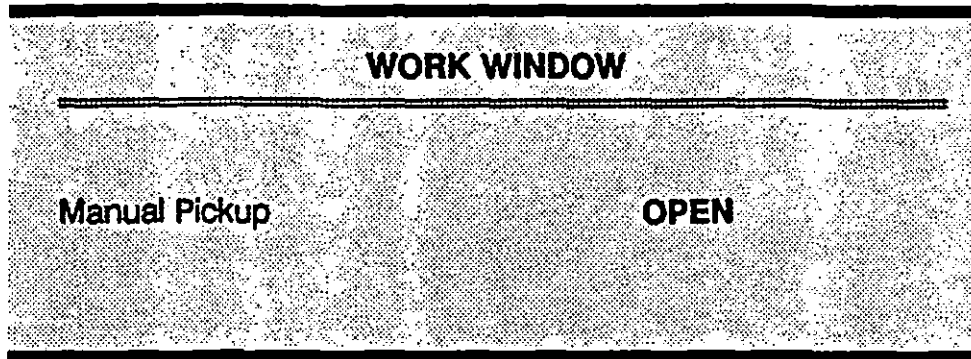
Map Key: 60A-95

Name: Shen Pond

Date: 3-29-90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K0204-FB-013 SUBDIVISION B (2 of 3)



ARCHAEOLOGICAL INSPECTION/CONSULTATION REQUIRED.

>>> PHONE 564-3274 (Anchorage) OR 229-1508 (24 hrs.) <<<

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1J	Purse Seine Area	No constraint to manual pickup.
5T	Bald Eagle Nest	NO CONSTRAINT. Authorized per memo dated 6/10/90 from Mary Portner/USFWS to Rex Coulter/Exxon. Follow USFWS transit route through eagle nest buffer zone as described on attached map.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict boat and air traffic to essential minimum. Avoid any unnecessary disturbance or damage to unrolled biota and substrate. Follow constraints and recommendations listed on attached map.

FOSC

[Signature]

Date

6-18-90

Prepared by

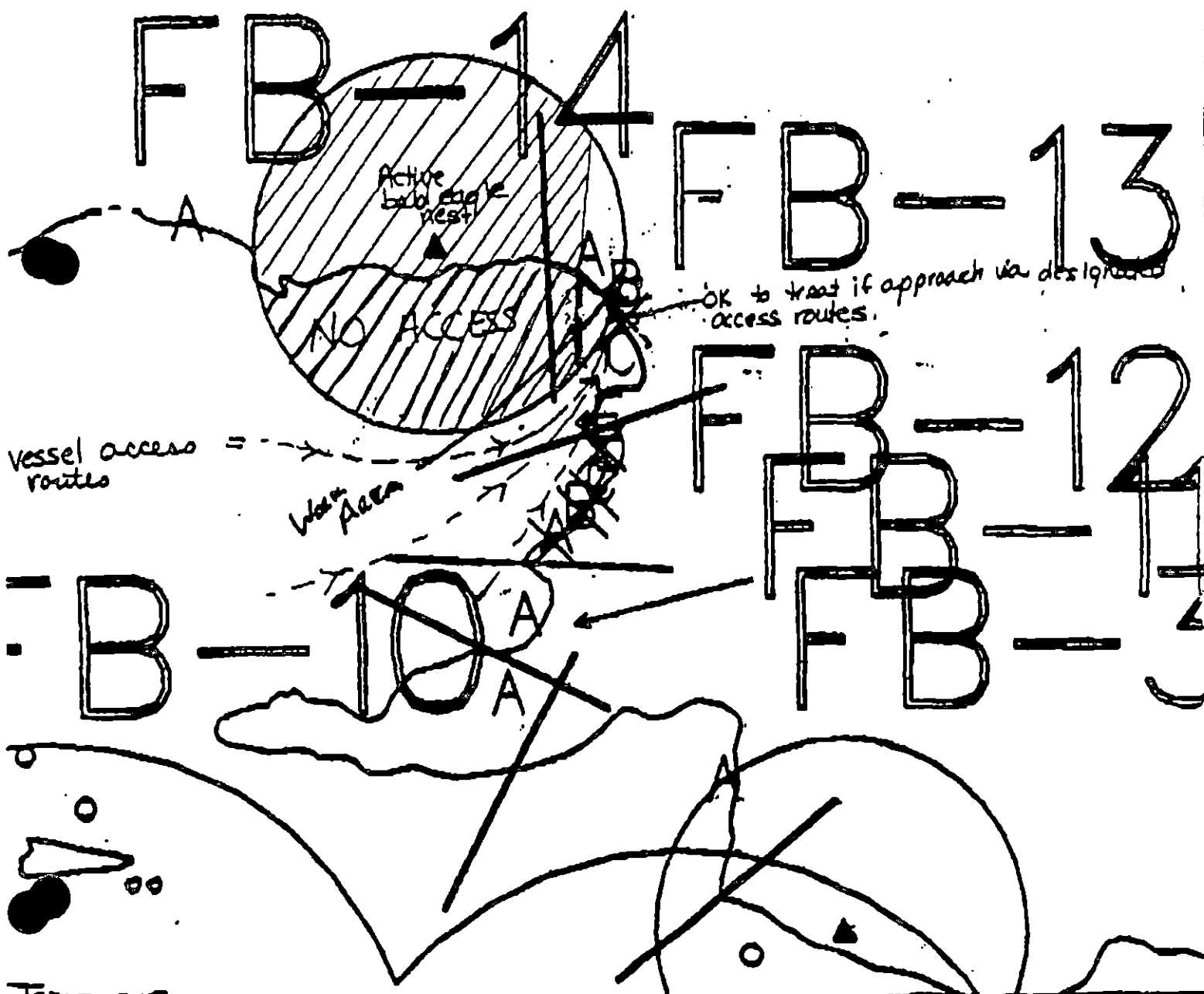
[Signature]

Date

6/15/90

K204-FB-013B

- 1) Approach FB-13B using designated vessel access routes
- 2) Treat FB-13B with a minimum of noise and time spent on site.
- 3) If adult bald eagles are observed circling and vocalizing leave the area.
- 4) A USFWS monitor must be on site for treatment



TREATMENT
May 30, 1990

ECOLOGY MAP



Seabird Colony

SHORELINE EVALUATION

SEGMENT ST/ K0204-FB-013 SUBDIVISION C (3 OF 3) DATE 3/30/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Purse seine area (1J) - 7/20 to 9/30; Possible anadromous stream
(1A, 1B). Request ADF&G and USFWS to verify.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Avoid disturbance/damage to un-
oiled biota and substrate.

SHPO SIGNATURE: Charles Z. Holmes DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 336 m: No Oil 0 m
Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

☒ No Treatment Recommended	_____ Snare/Absorbent Booms
_____ Treatment Recommended	_____ Oil Snares (pom poms)
_____ Manual Pickup	_____ Absorbents (pads, rolls, etc)
_____ Bioremediation	_____ Spot Washing: _____ Wands
_____ Tarmat: _____ Breakup	_____ Beach Cleaner
_____ Removal	_____ Other (see comments)

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: 4/11/90.
ADEC JOHN BAUER
EXXON ANDY GIL
NOAA Burt Wescott
USCG G.A. REITER

FOSC: [Signature] DATE: 4-20-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST K0204 FB-13 SUBDIVISION: C DATE 3-29-92

USCG

NAME

John Naughton

SIGNATURE

John Naughton☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Dug series of pits in cobbles beach. No subsurface oil observed. Slight amount of oil on wood debris.

ADEC

NAME

Scott Shelton

SIGNATURE

Scott Shelton☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

K0204 FB13 Sub. C. NO oil observed - staining on storm berm drift & some berm cobbles. All pits were dug to 30 cm NO noticeable oil observed. Wave exposure is high and winter storms have changed FB13 cobbles sand beach for the better.

LAND MANAGER

NAME

Jay R. Bellinger

SIGNATURE

Jay R. Bellinger☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 02-2

OG Perland USCG Neeshan SEGMENT ST/ FB-13
 BIO Spigot LAND REP Hogan USFWS SUBDIVISION C
 EXXON Avon ADEC Shelton TIME 12:10:10 12:50
 TEAM NO.: 19 TIDE LEVEL: -1.8 ft to -1.0 ft DATE 3/29/90
 EST. SUBDIVISION LENGTH: 210 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 0 % B 0 % C 40 % P 40 % G 20 % S 0 % M 0 % V 0
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 210 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	R	B	P	S	SP	OR	OL	OP	NO	TL	LT	TR	SU	U	M	U
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN				X					X				X			
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL													X	X	X	

PAVEMENT: H F S N/A sq. m by N/APATTIES / TARBALLS N/A BAGSNEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	X		
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED:

☐ YES ☒ NOTYPE N/A#BAGS N/A

Photographs:

Roll No. SP-19-1Frames 12-15

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS	
		OP	OR	OL	OF	NO		UO	UC	SP	OR	OL	OP	NO	TL	LT	SU	U	M	U				
1	30					X	.										X							Gravel
2	30					X	.											X						Gravel
3	30					X	.													X				Gravel
4	30					X	.										X							Gravel
5	30					X	.											X						Gravel
6	30					X	.													X				Gravel

COMMENTS

- Several pits dug, no oil found.
- dull black splashes are very scattered (1 splash per 30 m)
- Six major pits dug → no oil
- > 10 minor pits dug → no oil

SEGMENT ST/ FQ-13

SUBDIVISION C

DATE 3 / 29 / 90

CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Seg/Sub Bndry
- ☒ Oil Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HML/LWL
- ☒ SSL
- ☒ Profile Location(s)
- ☒ Photo Location(s) → irregular bottom of boulders

LEGEND

1 Δ

PR - No Subsurface Oil

2 Δ

Pt - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

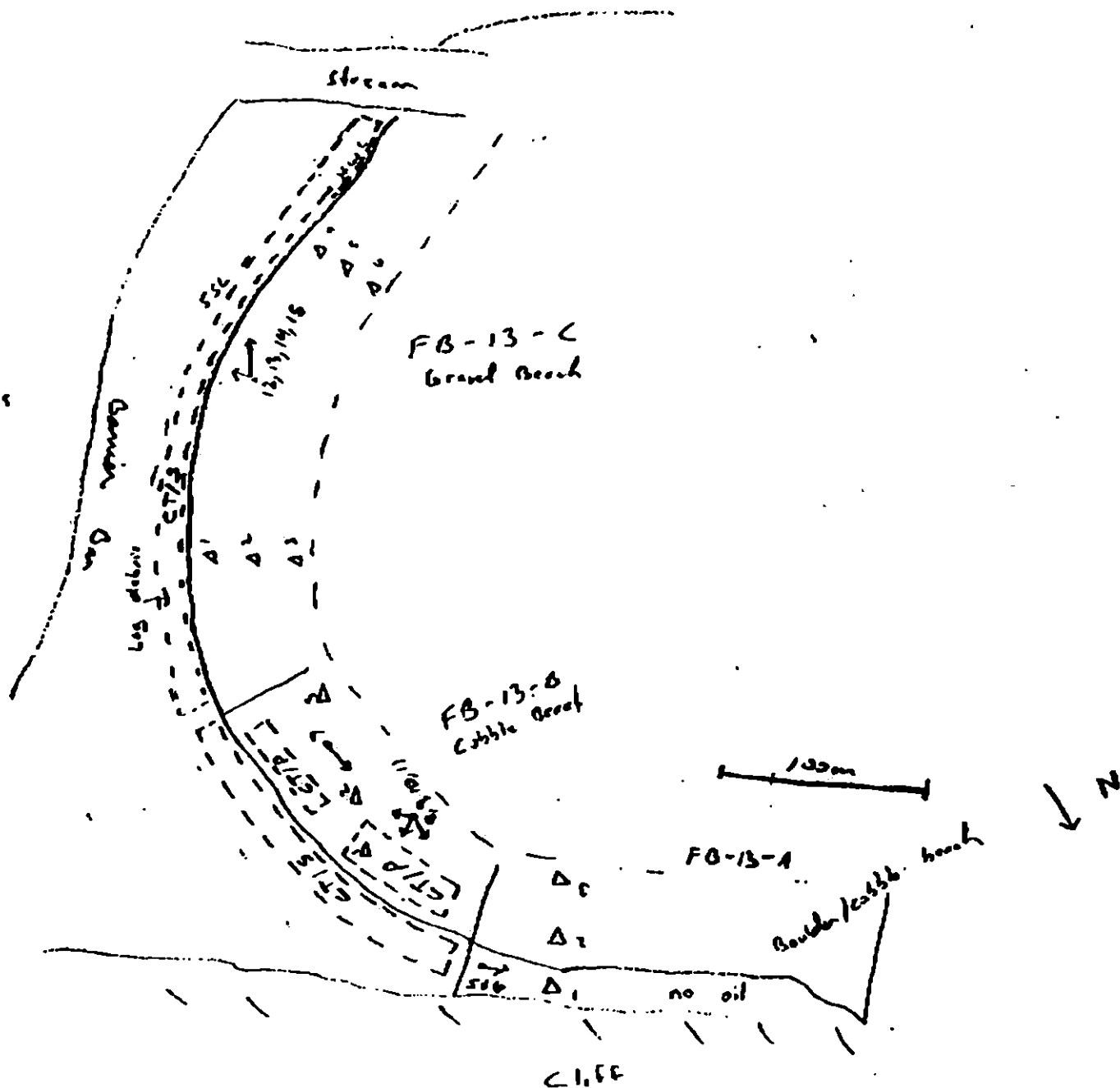
Splashed Distribution

Oil Vegetation

1 →

Photo location, direction, and number

R.11 19.-3



Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 210 MS 0 PT 0 TB 0 FL 0 NO 0

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/88

Segment ST / K0204 FB13 Subdivision C Date (mo / day / yr) 3/29/90
 Time (24 hr) 10:15 Biologist T SPIGHT

- (A) Substrate type and % of segments:
 (1) Bedrock (2) Boulder (3) Cobble (4) Pebble 50 (5) Sand 50 (6) Silt
- (B) Overall % cover of biota (% of segment): Dense Moderate Low
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
 Roll No. _____

Frames _____

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

GASTROPODS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

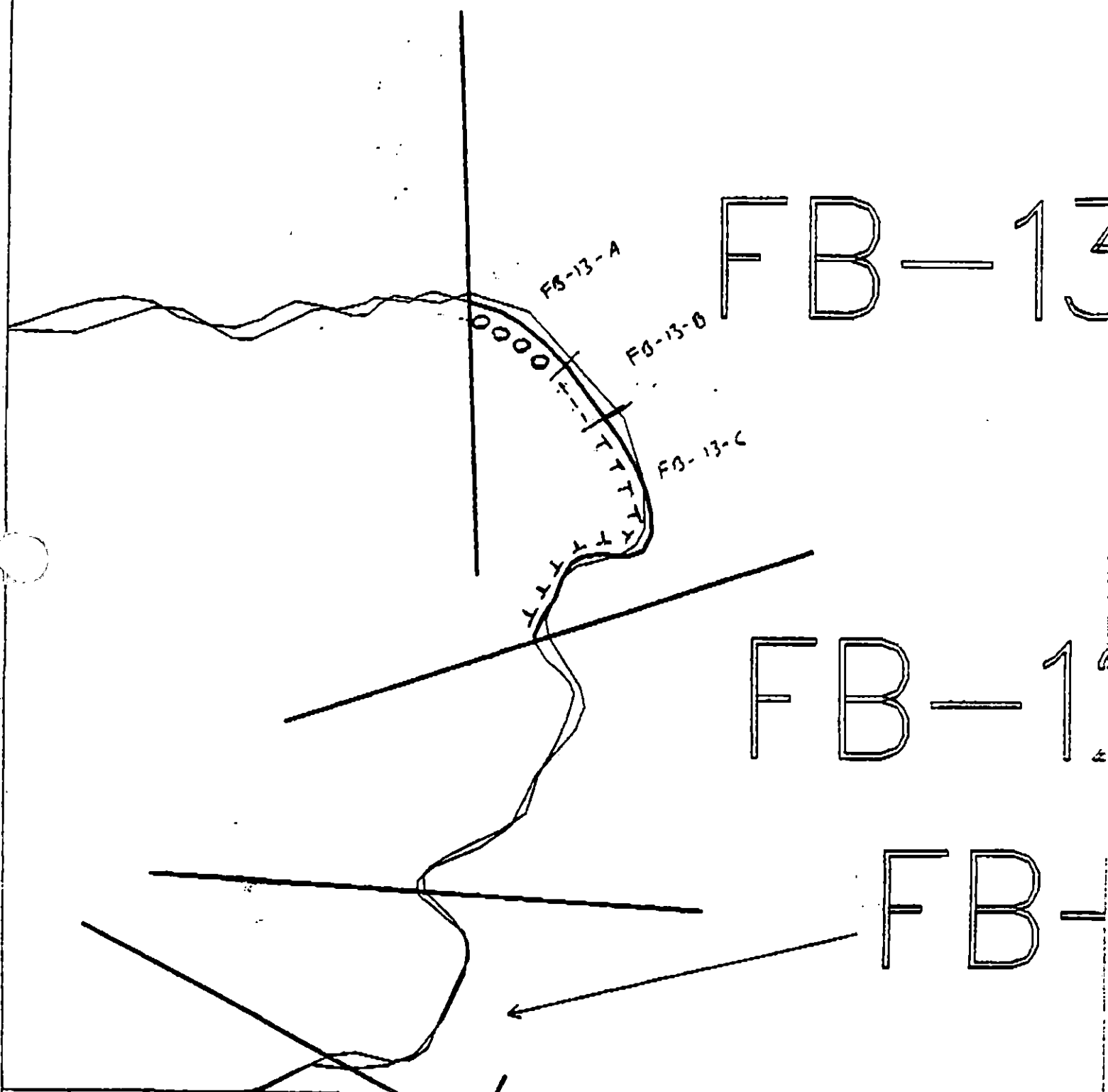
Wildlife Observations/ General Comments:

(See Segment B)

Ecological Considerations:

Dense algae (some Fucus) barnacle cover on boulders from tide level up about 6 ft at 1236 on headland portion
 Bear tracks in this area

15 - SALMON PURSE SEINE AREA RESTRICTIONS FROM 20 JULY → 30 SEPT



XXXX Wide

/// Medium

---- Narrow

TTTT Very Light

0000 No Oil

FB-13

ADEC Segment Length: 525m



Map Key: GOA-95

Name: Shea Portland

Date: 3-29-90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ K0204-FB-014 SUBDIVISION A (1 OF 1) DATE 3/30/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

None specified.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Avoid disturbance/damage to un-oiled biota and substrate.

SHPO SIGNATURE: Charles E. Holman DATE: April 11, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 2094 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u>X</u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u> </u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> Removal	<u> </u> Other (see comments)

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/11/90

ADEC JOHN BAUER John Bauer

EXXON AMY TOL Amy Tol

NOAA Burl Wescott Burl Wescott

USCG G.A. REITER G.A. Reiter

FOSC:

DATE: 4-20-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/K0204/F0014 SUBDIVISION: NA DATE 3-30-90

NOAA

USEG

NAME John Naughton SIGNATURE John J. Naughton

☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

No oil observed

ADEC

NAME Scott Shelton SIGNATURE Scott Shelton

☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

no oil observed.

LAND MANAGER

NAME LINDA HAGEN SIGNATURE Linda M. Hagen

☐ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Concurrence with team observations.

Appears clean.

SHORELINE OILING SUMMARY

REVISION NO. 03/02

OG Penland USCG Naughton SEGMENT ST/ K0204/EG014
 BIO Spight LAND REP Wagen, USFWS SUBDIVISION A
 EXXON Syres ADEC Shelton TIME 9:00 to 10:07
 TEAM NO.: 19 TIDE LEVEL: -1.8 ft to -2.0 ft DATE 3/30/90
 EST. SUBDIVISION LENGTH: 1933 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☐ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 20 % B 50 % C 20 % P 10 % G 0 % S 0 % M 0 % V 0
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 1933

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	TC	TS	TP	TR	SP	BP	CP	GP	HP	TP	LP	MP	SU	U	M	L
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL													X	X	X	X

PAVEMENT: H F S N/A sq. m by N/APATTIES / TARBALLS N/A BAGNEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECT ☐ YES ☒ NOTYPE N/A#BAGS N/A

Photographs:

Roll No. 19-1Frames 16-20

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CH)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	UC	SP	BP	CP	GP	HP	TP	LP	MP	SU	U	M	L		
1	30					X	-													X			Cobble / gravel
2	30					X	-													X			Cobble / gravel
3	30					X	-													X			Cobble / gravel
4	30					X	-													X			Cobble / gravel
							-																
							-																

COMMENTS

- area surveyed, rocks overturned, and inspection pits made
- no oil observed

OG Denlar

SKETCH MAP

SEGMENT STI K0224 / F0014

SUBDIVISION PA

DATE 3 / 30 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Bndry
- ☐ Oil Dist
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HPM/LA/VL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pit Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

Pit - No Subsurface Oil

2 Δ

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

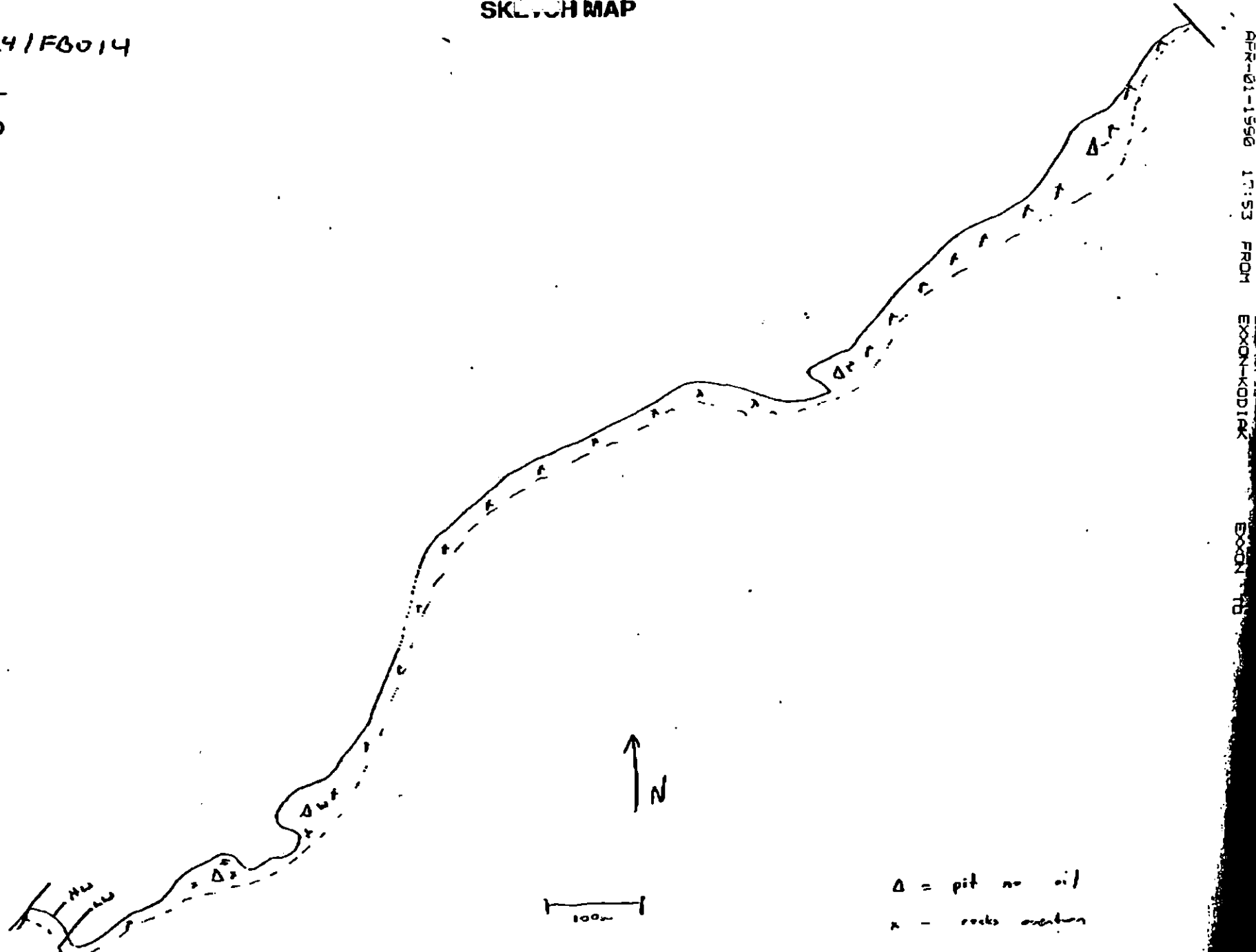
CT/S

Splashed Distribution

Oil on Vegetation

1 ➡

Photo location, direction,
and number



Δ = pit no oil
x = rocks on surface

SHORELINE ECOLOGICAL SUMMARY

REVISION 0377

Segment ST/ FB 14 Subdivision _____ Date (mo / day / yr) 3/30/90

Time (24 hr) 8:45 Biologist T. SPIGHT

(A) Substrate type and % of segments:
(1) Bedrock 25 (2) Boulder 25 (3) Cobble 50 (4) Pebble _____ (5) Sand _____ (6) Silt _____

(B) Overall % cover of biota (% of segment): Dense 35 Moderate 30 Low 35

(C) Density substrate preference (by number from A above):
Vertical colonization (1) Moderate (2) High (3) Low (4) Very Low (5) New settlement (X) juveniles / adults (X) new settlement (X)

Photographs: _____

Frames: _____

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

GASTROPODS Not checked

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments:

Ecological Considerations:
Quick crude estimates. Dense community on most suitable surfaces.
Fucus, mussels dense on some flattish areas (but not together)

FB-

GOA 96

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

FB-14

ADEC Segment Length: 1933m

Map Key: GOA-96a

Name: PentlandDate: 3-30-92

FB-

FB-

← GOA 96A

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

FB-14

AOEC Segment Length: 1933m

Map Key: GOA-96b

Name: PENLANDDate: 30 MAR 90

SHORELINE EVALUATION

SEGMENT ST/ K0209-PA-04 SUBDIVISION A (1 OF 1) DATE 3/30/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Sea lion pupping (3P) - 5/15 to 7/1 and molting (3Q) - 8/15 to 9/15;
Salmon purse seine area (1J) - 7/20 to 9/30.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Avoid disturbance/damage to un-
oiled biota and substrate.

SHPO SIGNATURE: Charles Z. Hodner

DATE: April 11, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 892 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

☒ No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u> </u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> Removal	<u> </u> Other (see comments)

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/11/90

ADEC JOHN BAUER

EXXON ANDY TATE

NOAA PAUL WILSON

USCG G.A. DEITER

FOSC:

DATE: 4-22-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K0259/PA004 SUBDIVISION: NA DATE 3-30-90

NOAA
USCG

NAME John Naughton SIGNATURE John Naughton

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

No oil observed. Because of high energy nature of this coastline any oil in this segment was probably scoured clean.

ADEC

NAME Scott Shelton SIGNATURE Scott Shelton

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

No oil observed - TEAM MEMBERS WALKED entire 899 meter Segment. PA004 is a high energy Segment wave exposure to the South/South west.

LAND MANAGER

NAME Linda M. Hager SIGNATURE Linda M. Hager

☒ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Concur with ADEC Representative Shelton. High energy beach contained primarily boulders which showed no oil evidence, nor did finer beach segment

SHORELINE OILING SUMMARY

REVISION NO. 03/89

DOG DENLAND USCG Naughton SEGMENT ST/ ke229 / PA004
 BIO Seight LAND REP Hagen LSFWS SUBDIVISION 4
 EXXON Agers ADEC Shelton TIME 12:29 to 13:20
 TEAM NO.: 19 TIDE LEVEL: +2 ft. to +5 ft. DATE 3 / 30 / 90
 EST. SUBDIVISION LENGTH: 899 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 20 % B 50 % C 10 % P 20 % G 0 % S 0 % M 0 % V 0
 SLOPE: Lang 40 % Hang 40 % Vert 20 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 899 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	10	15	17	18	20	25	30	35	SU	U	15	U
ASPHALT PAVEMENT												
POOLED												
COVER												
COAT												
STAIN												
MOUSSE												
PATTIES												
TARBALLS												
FILM												
NO OIL									X	X	X	X

PAVEMENT: H F S N/A sq. m by N/APATTIES / TARBALLS N/A BAGNEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE N/A#BAGS N/A

Photographs:

Roll No. 19 - 2Frames 1 - 3SUBSURFACE OIL No Pits 0

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CH)	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UG	20	25	30	35	SU	U	15	U		
							.												
							.												
							.												
							.												
							.												
							.												

COMMENTS

• No oil

• No pits dug due to shallow occurrence of boulder and bedrock

SURVEY REPORT SUMMARY

Segment ST: DA 4 Date (mm/dd/yyyy): 2/25/90

Time (24 hr): 12:29 Biologist: SPIGHT

- (A) Substrate type and % of segments:
 (1) Bedrock _____ (2) Boulder 30 (3) Cobble 70 (4) Pebble _____ (5) Sand _____ (6) Silt _____
- (B) Overall % cover of biota (% of segment): Dense 20 Moderate 20 Low 60
- Vertical Location of major taxa: (upper-O, mid-M, low-L); juveniles / adults (X), new settlement (3)

PHOTOGRAPHS: _____

Frames: _____

BARNACLES

Dense	Moderate	Sparse	Rare
1U 1M 1L	1U 1M 1L	1U 1M 1L	1U 1M 1L
2 X X	2 X 2	2 2 2	2 2 2
3 X X	3 X 3	3 3 3	3 3 3
4 4 4	4 4 4	4 4 4	4 4 4
5 5 5	5 5 5	5 5 5	5 5 5
6 6 6	6 6 6	6 6 6	6 6 6

NOT PRESENT

Dense	Moderate	Sparse	Rare
1U 1M 1L	1U 1M 1L	1U 1M 1L	1U 1M 1L
2 2 2	2 2 2	2 X 2	2 X 2
3 3 3	3 3 3	3 X 3	3 X 3
4 4 4	4 4 4	4 4 4	4 4 4
5 5 5	5 5 5	5 5 5	5 5 5
6 6 6	6 6 6	6 6 6	6 6 6

NOT PRESENT

GASTROPODS

Dense	Moderate	Sparse	Rare
1U 1M 1L	1U 1M 1L	1U 1M 1L	1U 1M 1L
2 2 2	2 2 2	2 X 2	2 2 2
3 3 3	3 3 3	3 X 3	3 3 3
4 4 4	4 4 4	4 4 4	4 4 4
5 5 5	5 5 5	5 5 5	5 5 5
6 6 6	6 6 6	6 6 6	6 6 6

NOT PRESENT

FUCUS

Dense	Moderate	Sparse	Rare
1U 1M 1L	1U 1M 1L	1U 1M 1L	1U 1M 1L
2 2 2	2 X 2	2 X 2	2 2 2
3 3 3	3 X 3	3 X 3	3 3 3
4 4 4	4 4 4	4 4 4	4 4 4
5 5 5	5 5 5	5 5 5	5 5 5
6 6 6	6 6 6	6 6 6	6 6 6

NOT PRESENT

Wildlife Observations/ General Comments:

Ecological Considerations:

Mostly sparse in upper, mid levels, but locally dense; frequency of dense patches increases toward point. Some largish flats with dense mussel populations. Good algal (Fucus, Halosaccion, others) populations on low cobble.

Penland

SKE MAP

MENT ST/ 80209 / PA 004

DIVISION PA

TE 3 / 30 90

CHECKLIST

IN Arrow
Approx. Scale
Seg/Sub Bndry
Oil Dist.
Width
Length
% Cover
Substrate Character
Est. INWL/LWL
SSL
Profile Location(s)
Profile(s)
Pit Location(s)
Photo Location(s)

COND

1 Δ

No Subsurface Oil

2 Δ

Subsurface Oil

CT/C

Core Distribution

CT/B

on Distribution

CT/P

by Distribution

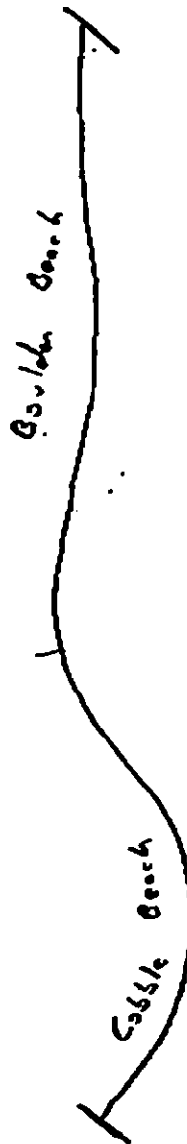
CT/S

shed Distribution

1 Vegetation

2 $\rightarrow$

3 location, direction,
number



0 (m) 100

Fracture Length (m): AP ☐ PO ☐ CV ☐ CT ☐ ST ☐ MS ☐ PT ☐ TB ☐ FL ☐ NO ☐ 899

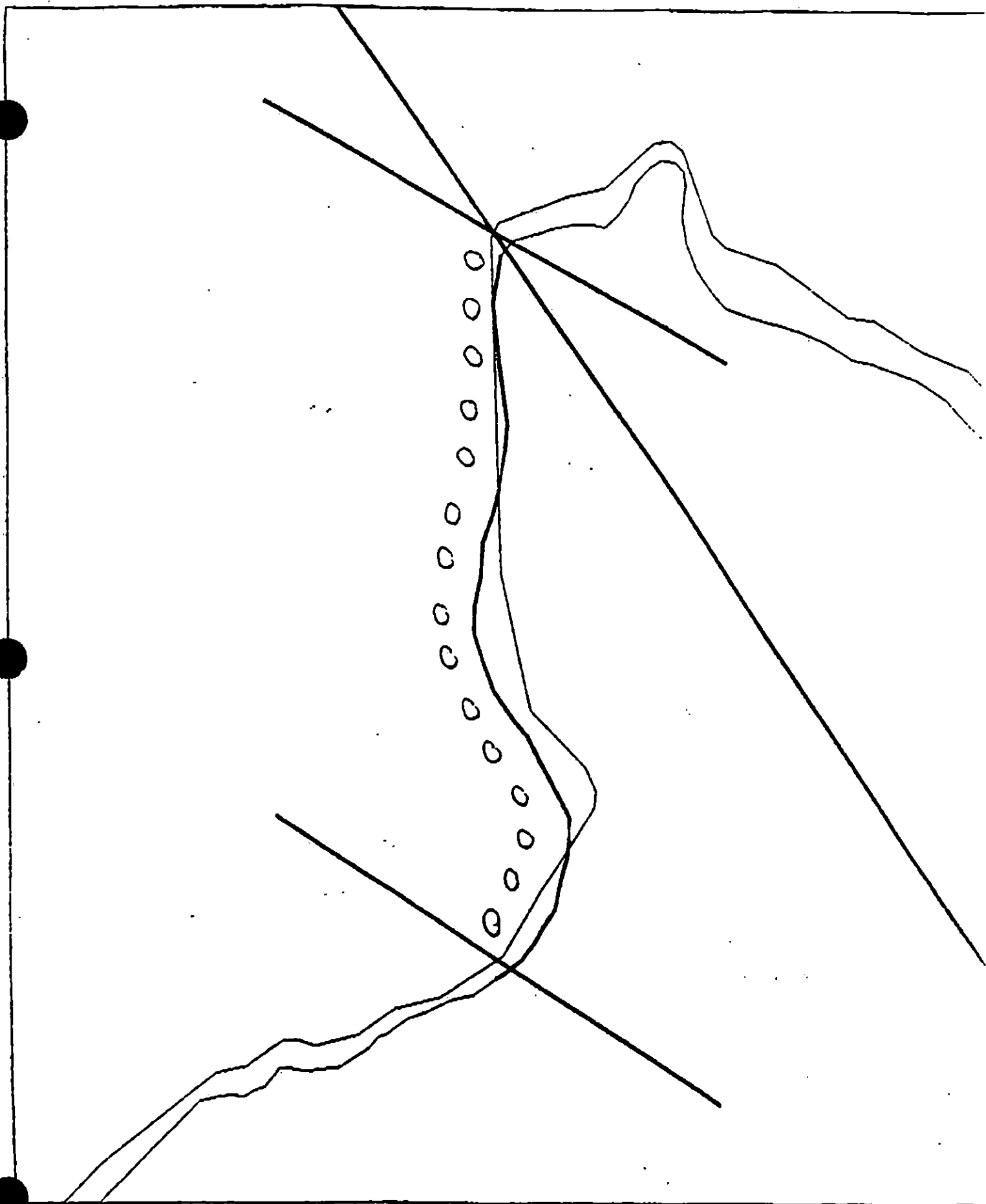
REVISION 03/24/00

APR-02-1990 18:13 FROM EXXON KODIAK

TO

15643771

P.09



XXXX Wide

//// Medium

---- Narrow

TTTT

PA-4

ADEC Segment Length: 892m

Map Key: GOA-201

Name: Penland

2-12-80

SHORELINE EVALUATION

SEGMENT ST/ K02-16-XX-500 SUBDIVISION A (1 OF 1) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon Outmigration (3/1 to 5/15)

1B Stream mouth spawning (7/10 to 8/31)

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid disturbance/damage to uncoiled substrate and biota. See attached Ecological Constraint Sheet.

SHPO SIGNATURE: Mark E. Hines DATE: April 14, 1990

OILING CATEGORIZATION:

Wide_0_m: Medium_0_m: Narrow_0_m: V.Light_0_m: No Oil_4500*_m
Subsurface Oil Observed: Yes_____ No_X_____ Maximum Depth_____

RECOMMENDATIONS:

☒ No Treatment Recommended	☐ Snare/Absorbent Booms
☐ Treatment Recommended	☐ Oil Snares (pom poms)
☐ Manual Pickup	☐ Absorbents (pads, rolls, etc)
☐ Bioremediation	☐ Spot Washing: ☐ Wands
☐ Tarmat: ☐ Breakup	☐ Beach Cleaner
☐ Removal	☐ other (see comments)

COMMENTS: * No computer map data - OG estimate used.

TAG COMMENTS:

TAG APPROVAL DATE: 7/1/01
ADEC JOHN BAUER
EXXON ANDY TEAL
NOAA BRUCE WRIGHT
USCG G.A. REITER

FOSC: DATE: 4-22-90

KODIAK ECOLOGICAL CONSTRAINTS

102-16-XX-500

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
- 1C Salmon fry nursery area (4/31 to 7/31)
 1D Kotol Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
 1H Remote release site
 1I Gill net area
 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay - 6/9 to 10/1.
 East side Kodiak, East side Afognak - 7/4 to 10/1.
 1K Purse seine hook-off
 1L Set net sites
 USFWS setnet uplands permit 5/15 to 9/15.
 For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/15 to 6/30)
 Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
- 3N, 3P Harbor seal and sea lion pupping (5/10 to 6/30)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 5R Seabird colony (5/1 to 8/31)
 Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic.
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
- 6U Recreation: Tent sites (8/1 to 9/15)
 6V Anchorages (8/1 to 9/15)
 6W Forest Service cabins (8/1 to 9/15)
 6X Lodge (8/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (8/1 to 9/30)
 7HH Finfish harvesting
 7II Deer harvesting (8/1 to 1/7)
 7JJ Invertebrate harvesting
 7KK Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 56 902 12.16 - 2.17.90 SUBDIVISION: _____ DATE 4-7-90

USCG

NAME D. H. H. J. (GM) USCG SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

No oil sighted.

ADEC

NAME FRANKIE T. BENNIS SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

WALKED SHORE AROUND SOLIEF BAY. NO OIL, SURFACE OR SUBSURFACE
OBSERVED.

LAND MANAGER

NAME John Merrick SIGNATURE John Merrick for Afognak Nat'l Cor.☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 06/23/88

OG Acton USCG Haven SEGMENT ST/ K2-16-XX-500
 BIO Davis LAND REPA Aggrey, Nantux - Merrick SUBDIVISION K2-No-24-500A
 EXXON Avery ADEC Bennis TIME 8:20 10 15:30
 TEAM NO.: 20 TIDE LEVEL: +2 to +6 DATE 4 / 7 / 90
 EST. SUBDIVISION LENGTH: 4500 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 10 % B 10 % C 10 % P 20 % G 15 % S 15 % M 20 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 4500 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	10	15	17	18	20	25	30	35	40	SU	U	M	L
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT													
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL										✓	✓	✓	✓

PAVEMENT: H F S 0 sq. m by 0 cmPATTIES / TARBALLS 0 BAGSNEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. ST-20-3Frames 22-26

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CD)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	20	25	30	35	40	SU	U	M	L		
1	30					✓	-								✓					MSCP
2	30					✓	-								✓					SGP
3	30					✓	-								✓					MSCP
4	30					✓	-								✓					SGP
5	30					✓	-								✓					SGP
6	30					✓	-								✓					MSCP

COMMENTS No oil observed in this segment. Entire subdivision was surveyed on foot.

SHORELINE OILING SUMMARY (PAGE 2 of 2)

REVISION 032290

SEGMENT ST/ K2-16-XX-500 SUBDIVISION K2-16-XX-500 A

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	UC	BL	BR	DR	GR	IR	OR	PR	UR	SU	UI	ME	U		
7	30					✓	.											✓					M>GP
8	30					✓	.											✓					M>GP
9	30					✓	.											✓					M>GP
10	30					✓	.											✓					SGP
11	30					✓	.											✓					SGP
12	30					✓	.											✓					M>GP
13	30					✓	.											✓					SGP
14	30					✓	.											✓					M>GP
							.																
							.																
							.																
							.																
							.																
							.																

COMMENTS

REVIEWED 7/10 DATE 4/8/90

OG Acton

SKETCH MAP

SEGMENT ST/ KZ-20-22-500

SUBDIVISION KZ-20-22-500A

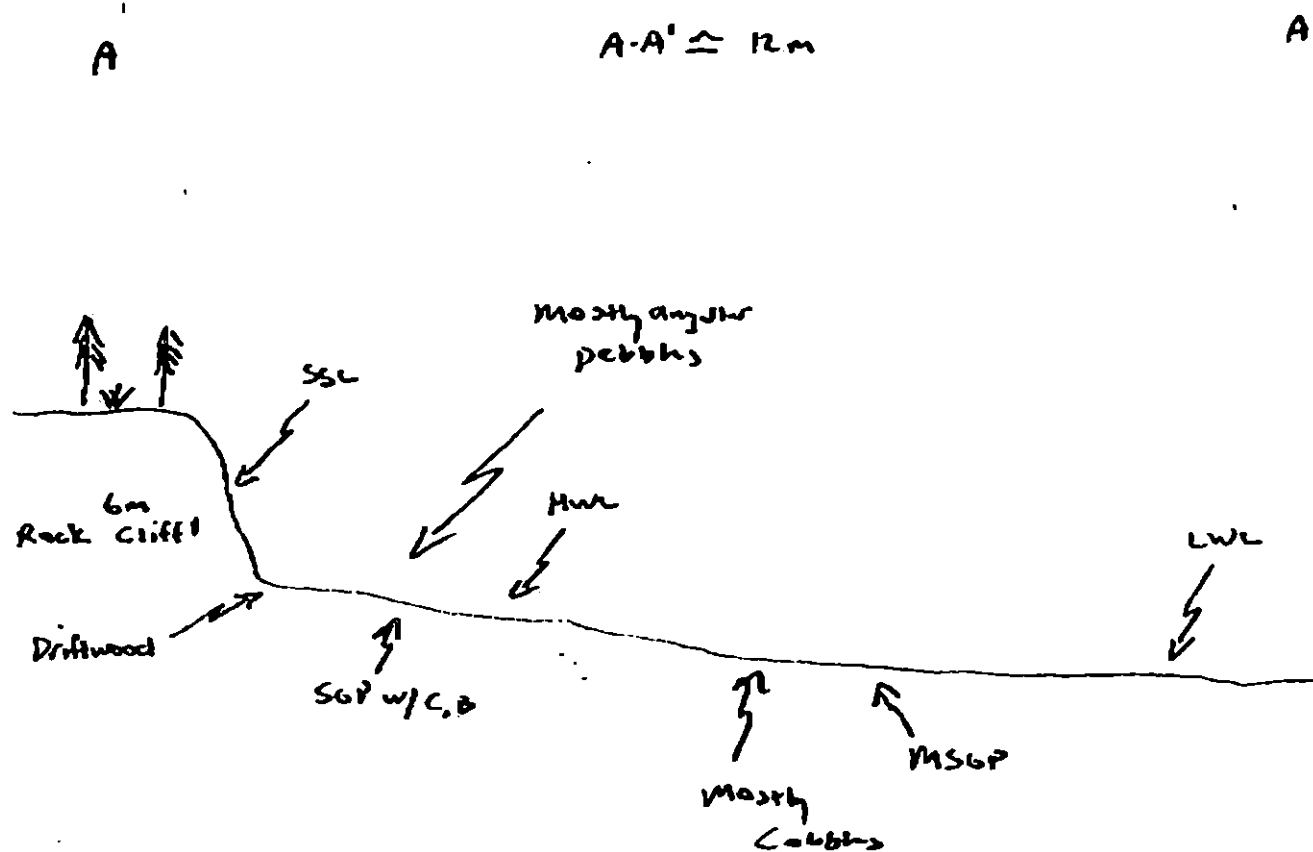
DATE 4 / 7 90

CHECKLIST

- ☐ N Angle
- ☐ Approx. Scale
- ☐ Seg/Sub Bndry
- ☐ Oil Dist
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HML/LWL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Photo(s)
- ☐ Pt. Location(s)
- ☐ Photo Location(s)

LEGEND

- ☐ Δ
P1 - No Subsurface Oil
- ☐ 2Δ
P1 - Subsurface Oil
- ☐ CT/C
Continuous Distribution
- ☐ CT/B
Broken Distribution
- ☐ CT/P
Patchy Distribution
- ☐ CT/S
Splashed Distribution
- ☐ Oiled Vegetation
- ☐ 1 $\rightarrow$
Photo location, direction, and number



Oil Character Length (m): AP _____ PO _____ CV _____ CT _____ ST _____ MS _____ PT _____ TB _____ FL _____ NO 4500

REVISION: 02/24/98

SHORELINE ECOLOGICAL SUMMARY

REVISION: 08/12/90

Segment ST / K02-16 Subdivision xx 800A Date (mo / day / yr) 4-7-90Time (24 hr) 08:35 Biologist H. Davis

- (A) Substrate type and % of segments:
 (1) Bedrock 10% (2) Boulder 10% (3) Cobble 15 (4) Pebble 30 (5) Sand 15 (6) Silt 20
- (B) Overall % cover of biota (% of segment): Dense 30% Moderate 35% Low 35% (40%)
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

 Photographs:
 Roll No. ST-20-3
 Frames 22-26

BARNACLES

Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	X	2	2	X	2	2	X	2	2	X	2	NOT PRESENT 5, 6
3	X	3	3	X	3	3	X	3	3	X	3	
4	X	4	4	X	4	4	X	4	4	X	4	
5	X	5	5	X	5	5	X	5	5	X	5	
6	X	6	6	X	6	6	X	6	6	X	6	
6	X	6	6	X	6	6	X	6	6	X	6	

MYTILUS

Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	X	2	2	X	2	2	X	2	NOT PRESENT 5, 6
3	3	3	3	X	3	3	X	3	3	X	3	
4	4	4	4	X	4	4	X	4	4	X	4	
5	5	5	5	X	5	5	X	5	5	X	5	
6	6	6	6	X	6	6	X	6	6	X	6	
6	6	6	6	X	6	6	X	6	6	X	6	

GASTROPODS

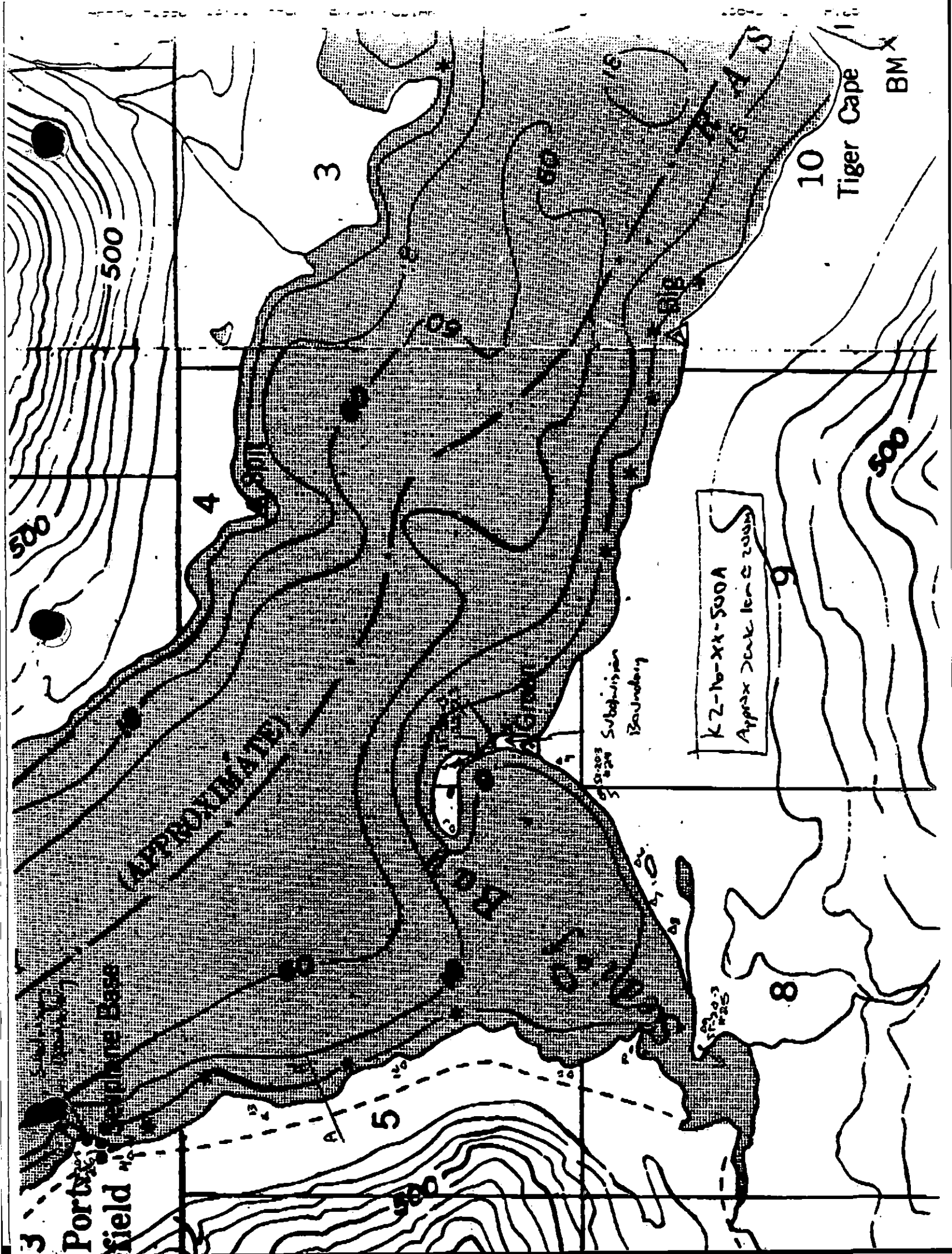
Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	X	2	2	X	2	2	X	2	2	X	2	NOT PRESENT 5, 6
3	X	3	3	X	3	3	X	3	3	X	3	
4	X	4	4	X	4	4	X	4	4	X	4	
5	X	5	5	X	5	5	X	5	5	X	5	
6	X	6	6	X	6	6	X	6	6	X	6	
6	X	6	6	X	6	6	X	6	6	X	6	

FUCUS

Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	X	2	2	X	2	2	X	2	2	X	2	NOT PRESENT 5, 6
3	X	3	3	X	3	3	X	3	3	X	3	
4	X	4	4	X	4	4	X	4	4	X	4	
5	X	5	5	X	5	5	X	5	5	X	5	
6	X	6	6	X	6	6	X	6	6	X	6	
6	X	6	6	X	6	6	X	6	6	X	6	

Wildlife Observations/ General Comments: Bear, Deer and Elk scat found in the storm wrack. Clams in the area: *Sanidomus giganteus*, *Clinoecardium nuttallii*, *Thresus capax*, *Prototheca stelleri*, and *Masonia masuta*?. Bird seen 1 adult eagle, crows (12), Pelagic cormorants (35), Pintail 40%, Surf Scoter (4), Goldeneye sp? (4), and Glaucous-winged Gull (10%). Distribution of *Fucus* and *Mytilus* is very patchy with areas of *Fucus* up to 60% dead. Barnacles show patches of high mortality. *Uvula* and sea stars visible. Sea Otters seen feeding in Bay north.

Ecological Considerations: (1A, 1B) *Cinadromus* stream flows into Seabird Bay. In the back bay there are extensive *Mytilus* + *Fucus* beds. In the front area extensive clam flats, *Mytilus* beds, and some areas of *Zostera* meadows.



500

500

500

APPROXIMATE

Subdivision
Boundary

K2-16-X1-500A
Approx 2000m x 2000m

10

Tiger Cape

BM

3

Portfield
field

5

8

9

