

OIL SPILL PUBLIC INFO. CENTER



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EVOS
GC
1552
.P75
S42
1990
v.1

[Shoreline evaluations, 1990].

AB-51 – AP-40

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SHORELINE EVALUATION

SEGMENT ST/ AB-51 SUBDIVISION A (1 OF 1) DATE 4/2/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

3N,3P Harbor seal and sea lion pupping (5/15 to 7/1)

3O,3Q Harbor seal and sea lion molting (8/15 to 9/15)

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 E. H. H. H. DATE: 4/20/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 1376 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: 4/20/90
ADEC ART WEINER Art Weiner
EXXON ANDY TATE Andy Tate
NOAA Bruce Wescott Bruce Wescott
USCG KENNETH KEANE Kenneth Keane
FOSC: DATE: 4-26-90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

Salmon fry release - fry distribution (4/1 to 8/31)
Salmon fry release - spawning (7/15 to 8/31)

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 Esther Hatchery release (4/15 to 6/1)
- 1E Main Bay Hatchery release (4/20 to 5/10)
- 1F Sawmill Bay Hatchery release (4/15 to 6/1)
- 1G Cannery Creek Hatchery release (4/21 to 6/1)
- 1H Remote release site
- 1I Gill net area (6/7 to 8/31)
- 1J Purse seine area (7/20 to 9/30)
- 1K Purse seine hook-off (7/20 to 9/30)
- 1L Set net sites (6/11 to 7/25)
For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.

- 2M Herring spawning (4/1 to 6/15)
Restrict boat traffic to essential minimum. Avoid damage to uncolled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.

- 3N, 3P Harbor seal and sea lion pupping (5/15 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.

- 5R Seabird colony (5/1 to 9/1)
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 (5/1 to 9/30)
- 7HH Finfish harvesting
- 7H Deer harvesting (8/15 to 2/28)
- 7JJ Invertebrate harvesting
For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ AB 51 SUBDIVISION: A DATE 4-3-90

USCG

NAME AWD J. MC WATKIN SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED1. NO OIL present.

ADEC

NAME GREG WINTER SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDNo oil observed.

LAND MANAGER

NAME Mike Bennett SIGNATURE Mike Bennett
ADNR☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDNo oiling present on segment.

SHORELINE OILING SUMMARY

REVISION NO. 002000

3 D. Fitzgerald USCG J. McMahon SEGMENT STI AB-51
 0 D. Raider LAND REP M. Bennett SUBDIVISION A
 EXXON S. Newman ADEC G. Winfar TIME 14:40 to 15:00
 TEAM NO.: 15 TIDE LEVEL: 40 to 50 cm above low DATE Apr 1 2 1990
 EST. SUBDIVISION LENGTH: 1616 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☒ Helo WORKING DIRECTION: clockwise around island
 SURFACE SEDIMENTS: R 35 % B 50 % C 15 % 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 1616 m

SURFACE OIL No oil OBSERVED

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	10	25	50	75	1	2	3	4	5	SU	W	M	L
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT													
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL										X	X	X	X

PAVEMENT: H F S NONE OBSERVED 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 0

#BAGS 0

Photographs:

Roll No. 0

Frames 0

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		NO	UC	1	2	3	4	5	SU	W	M	L		

COMMENTS

Priority 2

- Helicopter survey of island with one landing on the major cobbles - boulder beach
- No oil was found on the beach or anywhere along the island
- the high wave energy of the island has likely promoted cleaning of oil did impact this region

REVIEWED Phil

DATE 4/8/90

ADEC 64

SHORELINE ECOLOGICAL SUMMARY

(Agnes-Bass)
 Segment ST / AB051 Subdivision A Date (mo / day / yr) 4/2/90
 Time (24 hr) 14:50 Biologist DANIEL RAIDER

- (A) Substrate type and % of segments:
 (1) Bedrock 35 (2) Boulder 50 (3) Cobble 5 (4) Pebble 5 (5) Sand 5 (6) Silt 5
- (B) Overall % cover of biota (% of segment): Dense 15 Moderate 5 Low 5
- (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. 3
 Frames 1 + 2

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:

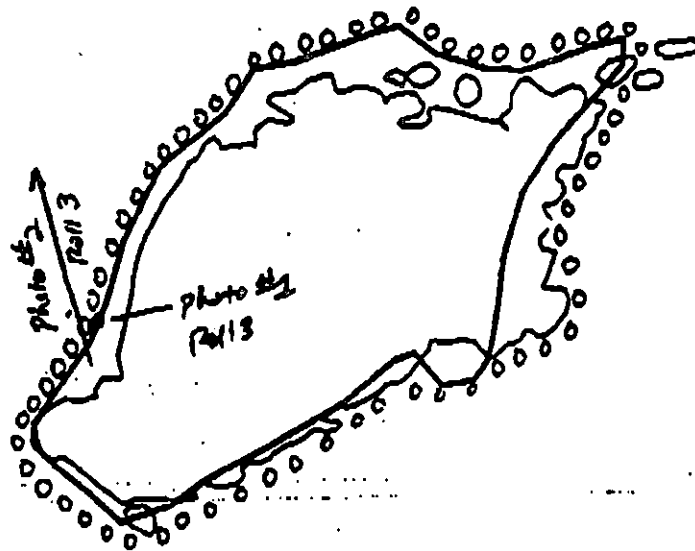
This refers only to a small section (~50 meters) of the island that we surveyed

Ecological Considerations: Priority 1

- 3N Harbor Seal pupping 5/15 - 7/1
 3P Sea Lion pupping 5/15 - 7/1
 3O Harbor seal molting 8/15 - 9/15
 3Q Seal Lion molting 8/15 - 9/15

} no positive I.D.

AB-51



ADEC GN

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

AB-51

Total Segment Length: 1376

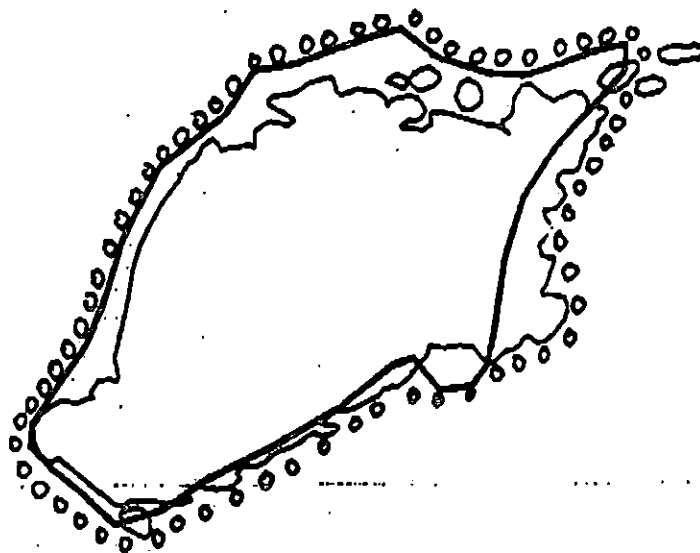


Map Key: PWS-1

Name: FitzgeraldDate: 2 Apr 90

Date Entered:

AB-51



ADEC 62

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

AB-51

Total Segment Length: 1376



Map Key: PWS-1

Name: Fitzgerald

Date: 2 Apr 90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ AE-01 SUBDIVISION A (1 OF 1) DATE 4/22/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

No specific ecological constraints identified. Field ecologist noted recreational uses.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Charles Z. Hopper DATE: 5/3/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 17 m: V. Light 123 m: No Oil 249 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 Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommend bioremediation in areas shown on sketch map. No
specific ecological time constraints identified.

TAG COMMENTS: Manual pickup of tar patties indicated on sketch
monitors to assess

TAG APPROVAL DATE: 5/3/90

ADEC Art Weiner Dist. Director
EXXON Ray Teal
NOAA Gary Petrus Ray Blugie
USCG Kenneth K. Kane

FOSC: KL DATE: 5-8-90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
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, prior to at least July 1 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 Habitat Division prior to treatment for consultation and/or permit application.
AGENCY CONTACT PERSON: ADF&G John Morison 267-2324
- 1C Salmon fry nursery area (3/31 to 7/31)
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to July 31 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 Esther Hatchery release (4/15 to 6/15)
1E Main Bay Hatchery release (4/20 to 6/15)
1F Sawmill Bay Hatchery release (4/15 to 6/1)
1G Cannery Creek Hatchery release (4/21 to 6/1)
1H Remote release site
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. 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 or PWS Aquaculture Association for confirmation and authorization.
AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I Gill net area (6/7 to 8/31)
1J Purse seine area (7/20 to 9/30)
1K Purse seine hook-off (7/20 to 9/30)
1L Set net sites (6/11 to 7/25)
Contact ADF&G for specific dates, locations and constraints. 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 James Brady 424-3212
- 2M Herring spawning (4/1 to 6/15)
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 Evelyn Biggs 424-3235
- 3N, 3P Harbor seal and sea lion pupping (5/15 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 Rothy 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
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
7HH Finfish harvesting
7I Deer harvesting (8/15 to 2/28)
7J Invertebrate harvesting
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

8/33

SEGMENT ST / AE / SUBDIVISION A DATE 4/22/90

USCG NAME Donald W. Hubbard SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS 1. Small amt found along water line Rocky J. H.

ADEC NAME Patrick J. Endres SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS One area on segment approx. 100 m from the start, listed by CG as CV/P (10%), is a candidate for removal of spruce needles/cover. Other areas I do not recommend treatment.

LAND MANAGER NAME MARSHA MARTIN / DNR SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS FOR AREA WITH 1/2 meter band. Popular Royal area.

SHORELINE OILING SUMMARY

REVISION NO. 04/13/90

OG Reimer USCG Nutbush SEGMENT ST/ A 51
 BIO Zamora LAND REP M. Mentin SUBDIVISION A (1 OF 1)
 EXXON Artemis ADEC ENTRES TIME 8:03 to 18:52
 TEAM NO. 16 TIDE LEVEL +0.5 to +1 DATE 4/23/90
 EST. SUBDIVISION LENGTH: 459 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☐ Foot ☐ Boat ☐ Helo WORKING DIRECTION: South to North
 SURFACE SEDIMENTS: R 40 % B 10 % C 20 % P 25 % G 5 % S 0 % M 0 % V 0 %
 SLOPE: Long 80 % Hang 30 % Vert 10 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 20 m VL 160 m NO 279 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	R	B	C	P	SW	W	W	W	SW	U	M	U
ASPHALT PAVEMENT												
POOLED												
COVER				X				X				X
COAT				X				X				X
STAIN												
MOUSSE												
PATTIES				X				X				X
TARBALLS												
FILM												
NO OIL									X			X

PAVEMENT H F S 0 sq. m by 0 crPATTIES / TARBALLS 0.1 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 0#BAGS 0

Photographs:

Roll No. _____

Frames NONE

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	SHEET (Y/N)	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	VO	SW	W	W	W	SW	U	M	U			
1	20					X	-							X						P-P
2	40					X	-							X						P-P
3	30					X	-							X						P-P
4	20					X	-							X						P-P
							-													
							-													

COMMENTS Irregular coastline with alternating steep to vertical rock cliff and low angle pocket pebble, rubble, scattered boulder beaches. The oiling consists of sporadic splatters of oil along the rocky sections of the segment near the high tide line. one discontinuous band (bathtub ring) of oil 1/2 meter wide and 20 meters long was found on a rocky point in the southern end of the segment.

REVIEWED 7DATE 4/25/90

OG Beimer

SEGMENT ST/ R51

SUBDIVISION A

DATE 4 / 22 80

CHECKLIST

- ☒ A Area
- ☒ Approx. Scale
- ☒ Capital Body
- ☒ Alt. Box
- ☒ With
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. MPA/LR
- ☒ MPA
- ☒ Profile Location(s)
- ☒ Profile(s)
- ☒ PS Location(s)
- ☒ Photo Location(s)

LEGEND

1 A
PA - No Substrate Cl

2 A
PA - Substrate Cl

CT/C
Continual Distribution

CT/S
Discrete Distribution

CT/P
Patchy Distribution

CT/S
Sporadic Distribution

CT/S
Sporadic Distribution

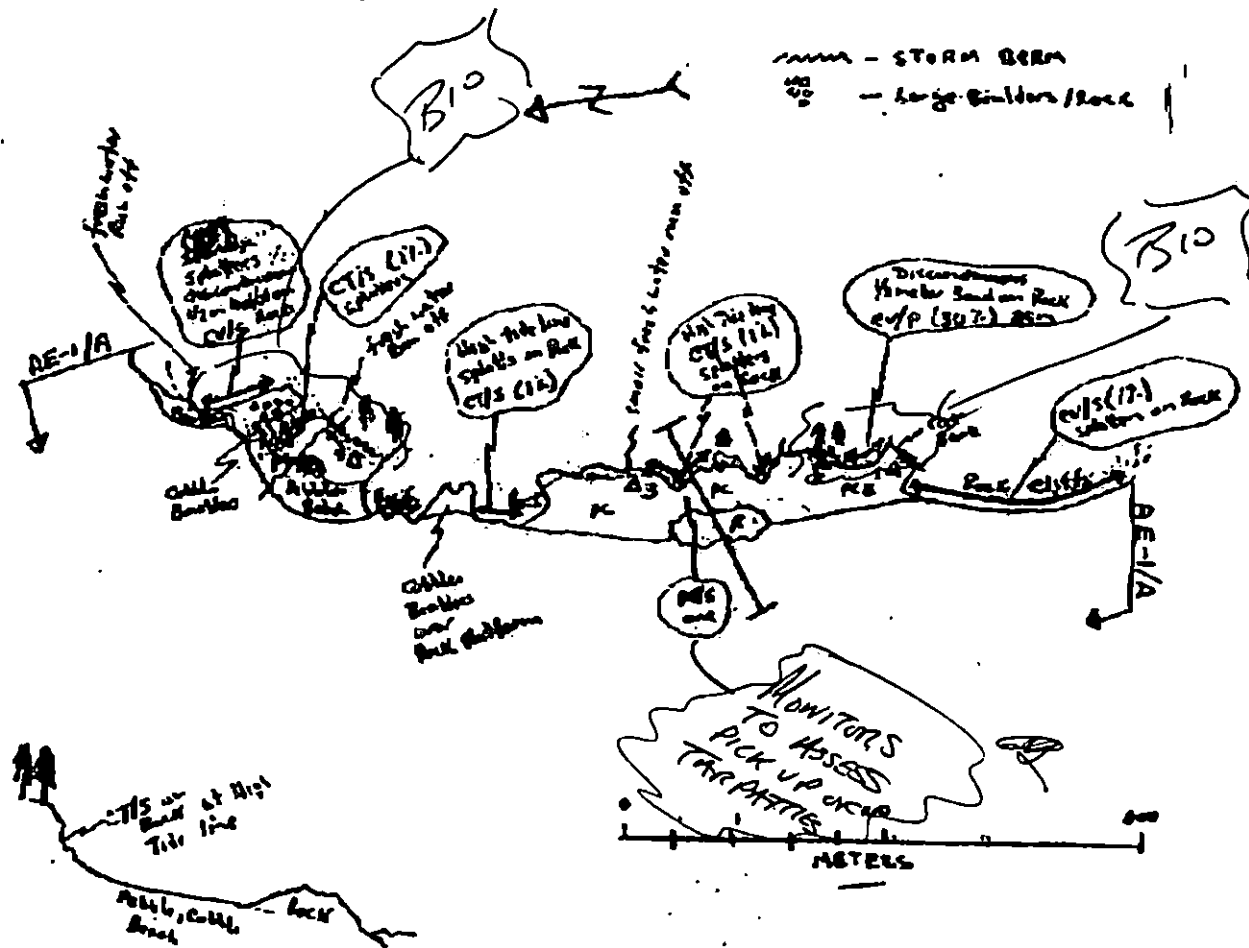
CT/S
Sporadic Distribution

CT/S
Sporadic Distribution

CT/S
Sporadic Distribution

CT/S
Sporadic Distribution

SKETCH MAP



Of Character Length (m): NP 0 PO 0 CV 130 CT 50 ST 0 MS 0 PT 1 TB 0 FL 0 NO 279

SHORELINE ECOLOGICAL SUMMARY

5/33

Segment ST / AF-1 Subdivision — Date (mo / day / yr) 4 / 21 / 90
 Time (24 hr) 1:52 OFF Biologist TONY ZANUZZA

- (A) Substrate type and % of segments:
 (1) Bedrock 40 (2) Boulder 10 (3) Cobble 20 (4) Pebble 20 (5) Sand — (6) SR —
- (B) Overall % cover of biota (% of segment): Dense 80 Moderate 20 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:

DEAD ROCKY SHORE COMMUNITY, VERY LOW MORTALITY OBSERVED.
 VERY DENSE NEW BARNACLE GROWTH IN MIDS AS WELL
 AS NEW GROWTH OF FUCUS, LITTORINIDS, BUCANINUM.

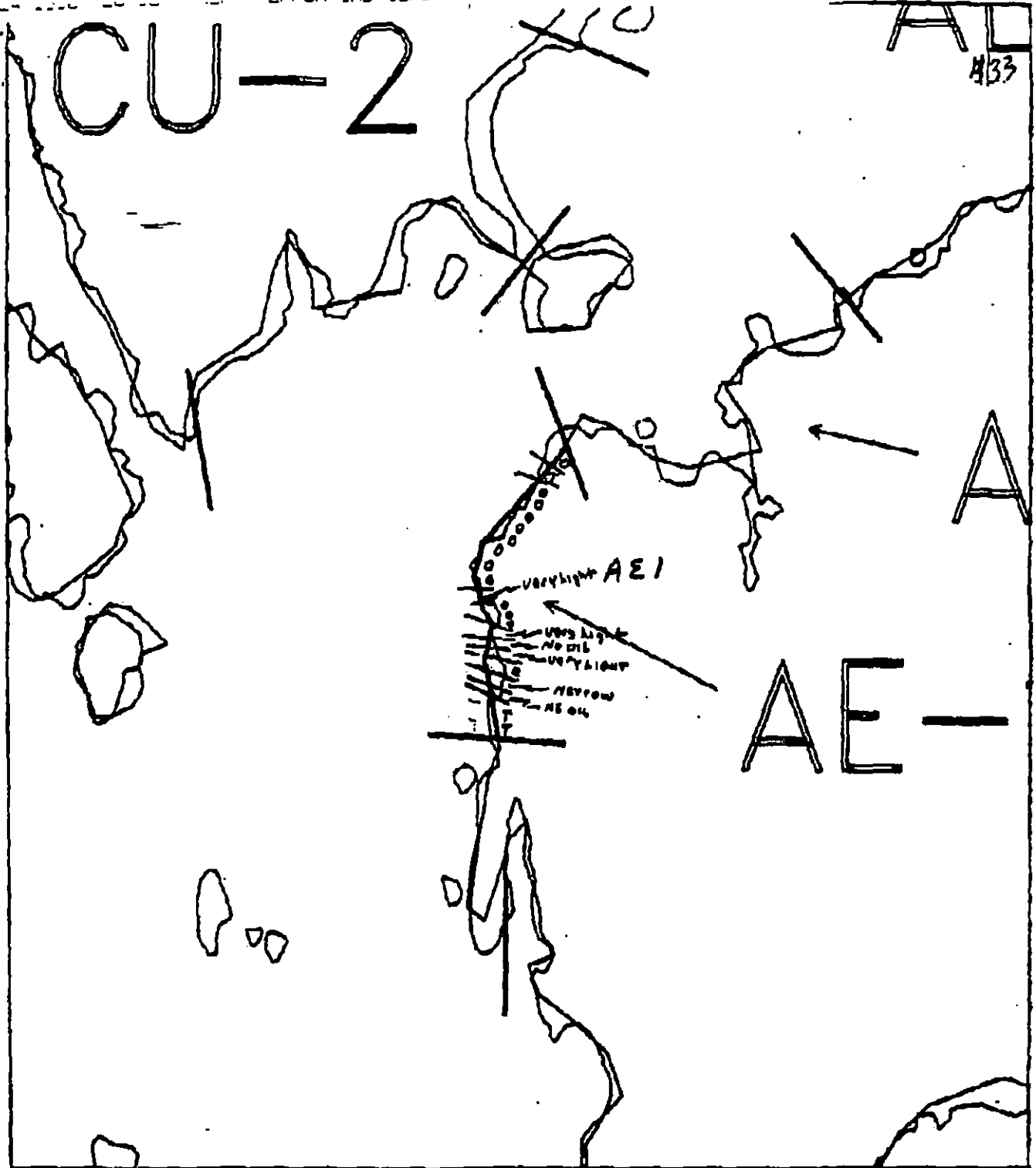
Ecological Considerations:

QU.

(NOTE: NO BIO SKETCH FOR THIS SEGMENT, PHOTO LOCATIONS
 ON OG MAP)

CU-2

AL
433



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

AE-1

ADEC Segment Length: 389m



Map Key: PWS-2

Name: Reimer

Date: 4/22/90

Date Entered: AE

SEGMENT ST/ AE-02 SUBDIVISION A (1 OF 1) DATE 4/22/90

5T All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
nest located within 400m.

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

SHPO SIGNATURE

DATE:

Wide 0 m: Medium 11 m: Narrow 24 m: V.Light 45 m: No Oil 206 m
Subsurface Oil Observed: Yes X No Maximum Depth 15 cm

<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 Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommended treatment includes 1) manual pickup of mousse
2) manual raking of storm berm followed by bioremediation in area shown
on attached sketch map. Work should be conducted after 6/1 with
approval of USFWS regarding eagle nest.

TAG COMMENTS:

TAG APPROVAL DATE:

ADEC

EXXON

NOAA

USCG

FOSC:

DATE:

5-9-90

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 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, prior to at least July 1 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 Habitat Division prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G John Morison 267-2324
- 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, prior to July 31 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 Esther Hatchery release (4/15 to 6/15)
 1E Main Bay Hatchery release (4/20 to 6/15)
 1F Sawmill Bay Hatchery release (4/15 to 6/1)
 1G Cannery Creek Hatchery release (4/21 to 6/1)
 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. 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 or PWS Aquaculture Association for confirmation and authorization.
 AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
 1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I Gill net area (6/7 to 8/31)
 1J Purse seine area (7/20 to 9/30)
 1K Purse seine hook-off (7/20 to 9/30)
 1L Set net sites (6/11 to 7/25)
 Contact ADF&G for specific dates, locations and constraints. 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 James Brady 424-3212
- 2M Herring spawning (4/1 to 6/15)
 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 Evelyn Biggs 424-3235
- 3 Harbor seal and sea lion pupping (5/15 to 7/1)
 3 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 (5/1 to 9/15)
 6V Anchorages (6/1 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
 7E Deer harvesting (8/15 to 2/28)
 7J Invertebrate harvesting
 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

147

SEGMENT ST/ AE 2 SUBDIVISION: A DATE 4/22/90

SCG
NAME [Signature] SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

1. Oil found in many chopped areas on the beach.

ADEC
NAME Patrick J. Endres SIGNATURE Patrick J. Endres

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

- 1.) manual removal of mousse saturated sediments (1-5cm) around pit # 3 (see OG comments)
- 2.) Perhaps flattening out the tide berm (at about +12ft.) with a rake would expose the oiling and then bioremediation of that area is a possibility. (see OG comments for dimensions: pit #4)
- 3.) Oil band (cover) on rock face (near pit #4) has up to 1cm thick of oiled spruce needles. Spot washing would remove them along with the cover but retrieval may be difficult. Scraping or brushing the needles off is an option.

LAND MANAGER
NAME MARSHA MARTIN SIGNATURE Marsha Martin

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

AGREE WITH DEC comments

RE

SHORELINE OILING SUMMARY

DO Reamer USCG Hobbs SEGMENT ST/ P 2 2
 BIO 2 BMSA LAND REP/ M. MARTIN SUBDIVISION 2 (OP)
 EXXON BRXKLE ADEC ENDS TIME 17:20 10/2/90
 TEAM NO. 16 TIDE LEVEL +1 to +0.5 DATE 4 / 27 / 90
 EST. SUBDIVISION LENGTH: 3.2 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: South to North
 SURFACE SEDIMENTS: A 40 % B 5 % C 20 % P 35 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 60 % Hang 40 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 10 m N 25 m VL 40 m NO 245 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	A	B	C	P	W	G	S	M	V	L	N	O
ASPHALT PAVEMENT												
POOLED												
COVER		X		✓	X		X					
COAT												
STAIN												
MOUSSE			X					X			X	
PATTIES												
TARBALLS												
FILM												
NO OIL										X	X	X

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			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE 0BAGS 0

Photographs:

Roll No. ST-16-10Frames 2-6

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED CENTRAL	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	SHEET	NO	T	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		NO	OR	W	G	S	M	V	L	N	O					
1	8					X	.							X								C-LC
2	20					X	.								X							C-SMC
3	15					X	.							X								P-PG
4	20	X					5-15	X	X					X								P-Peat
							.															P-PS
							.															

COMMENTS A short section of coastline bounded on either end by steep rock cliffs. The central portion of the segment is fringed by a pebble, cobble and scattered boulder beach, with rock cliffs in the back shore. Two near shore rock islets are connected to the mainland forming Tomboles. The oiling is found at the north end of the segment, starting with sporadic splatters on the upper part of the beach. At the apex of the Tombole, sheltered behind the island is a.

REVIEWED 7/6 DATE 4/25/90

Continued next page

[illegible]

COMMENTS patch of mousse (5m x 10 m x 2-3 cm) with 25% coverage. Continuing to the north around a small tree covered rocky point a broken band of oil was found buried in a high water berm. The oil character was that of chocolate mousse mixed in with decaying organics and pebbles. The band extends for 20 meters ending at a rock cliff. A band of oil cover with a thick mat of evergreen needles extends for another 5 meters along the cliff as a bath tub ring 1m wide, at the same tidal height as the buried oil in the beach.

REVIEWED YW DATE 4/25/90

DATE 4 / 22 80

CHECKLIST

[illegible]

LEGEND

100 - The Suburban

2A
PM - 12:00 PM 03

CRC
Criminal Record

CT/D

54

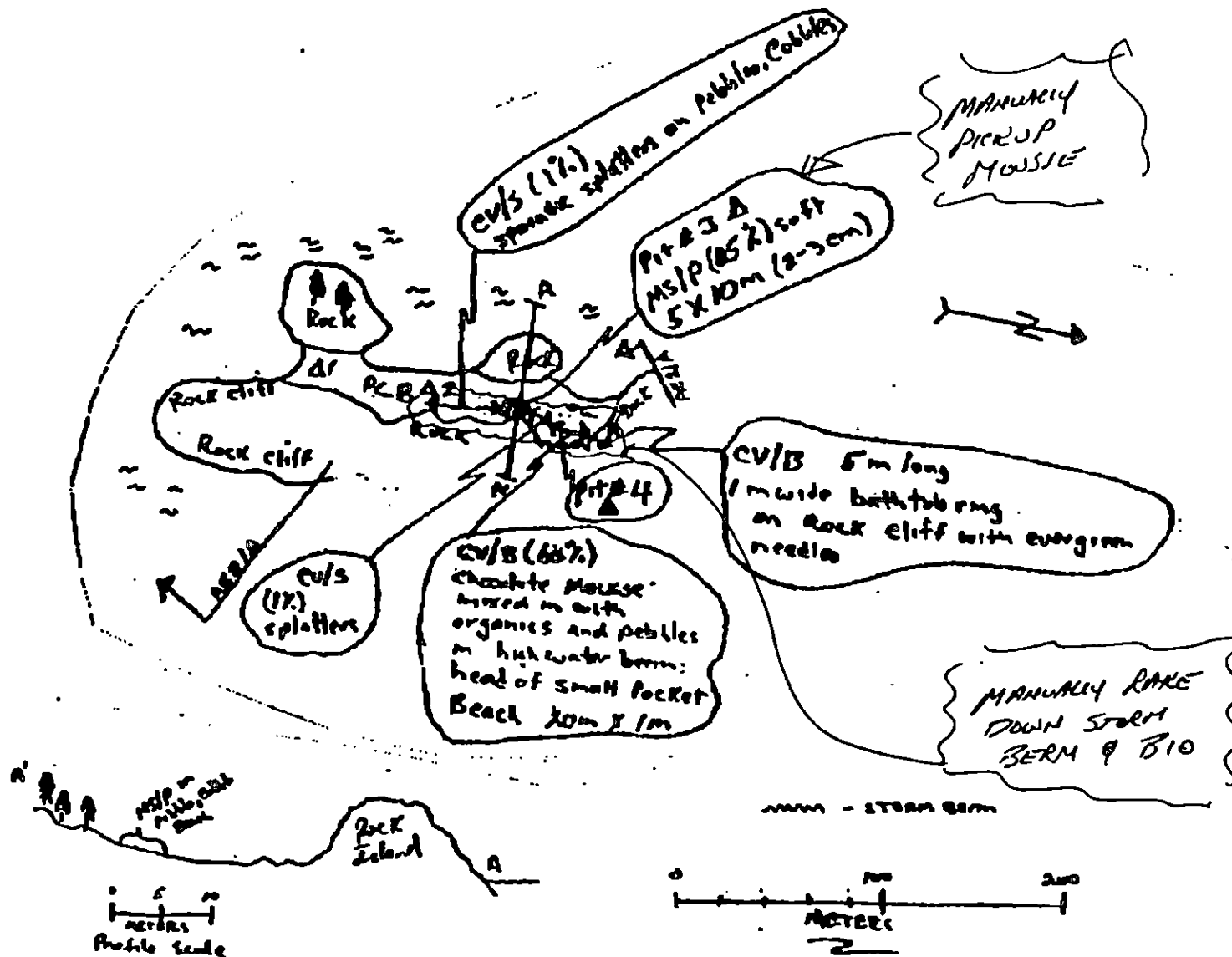
Very Difficult
[]

CT2

lll
and Vegetables

1. **Location, direction, and number**

SKETCH MAP



Gender Length (in): AP 0 PO 0 CV 65 CT 0 ST 0 HB 0 FT 0 TB 0 FL 0 NO 265

APR-24-1990 21:00 FROM EXON CMD CORDOVA

To

SCAT TEAM

P. 12

412

13/33

SHORELINE ECOLOGICAL SUMMARY

15/33
REVISION 12/80Segment ST / A22 Subdivision — Date (mo / day / yr) 4/21/90Time (24 hr) 1700 ~~1800~~ Biologist TONY ZAMORA(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 FO Moderate 20 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 (S)

Photographs:

Roll No. ST-16-10Frames 2-6

BARNACLES

Dense

1U	2	3
2	3	4
3	4	5
4	5	6
5	6	7
6	7	8

Moderate

1U	2	3
2	3	4
3	4	5
4	5	6
5	6	7
6	7	8

Sparse

1U	2	3
2	3	4
3	4	5
4	5	6
5	6	7
6	7	8

Rare

1U	2	3
2	3	4
3	4	5
4	5	6
5	6	7
6	7	8

NOT PRESENT

MYTILUS

Dense

1U	2	3
2	3	4
3	4	5
4	5	6
5	6	7
6	7	8

Moderate

1U	2	3
2	3	4
3	4	5
4	5	6
5	6	7
6	7	8

Sparse

1U	2	3
2	3	4
3	4	5
4	5	6
5	6	7
6	7	8

Rare

1U	2	3
2	3	4
3	4	5
4	5	6
5	6	7
6	7	8

NOT PRESENT

GASTROPODS

Dense

1U	2	3
2	3	4
3	4	5
4	5	6
5	6	7
6	7	8

Moderate

1U	2	3
2	3	4
3	4	5
4	5	6
5	6	7
6	7	8

Sparse

1U	2	3
2	3	4
3	4	5
4	5	6
5	6	7
6	7	8

Rare

1U	2	3
2	3	4
3	4	5
4	5	6
5	6	7
6	7	8

NOT PRESENT

FUCUS

Dense

1U	2	3
2	3	4
3	4	5
4	5	6
5	6	7
6	7	8

Moderate

1U	2	3
2	3	4
3	4	5
4	5	6
5	6	7
6	7	8

Sparse

1U	2	3
2	3	4
3	4	5
4	5	6
5	6	7
6	7	8

Rare

1U	2	3
2	3	4
3	4	5
4	5	6
5	6	7
6	7	8

NOT PRESENT

Wildlife Observations/ General Comments:

- BATTLE SPOTTED

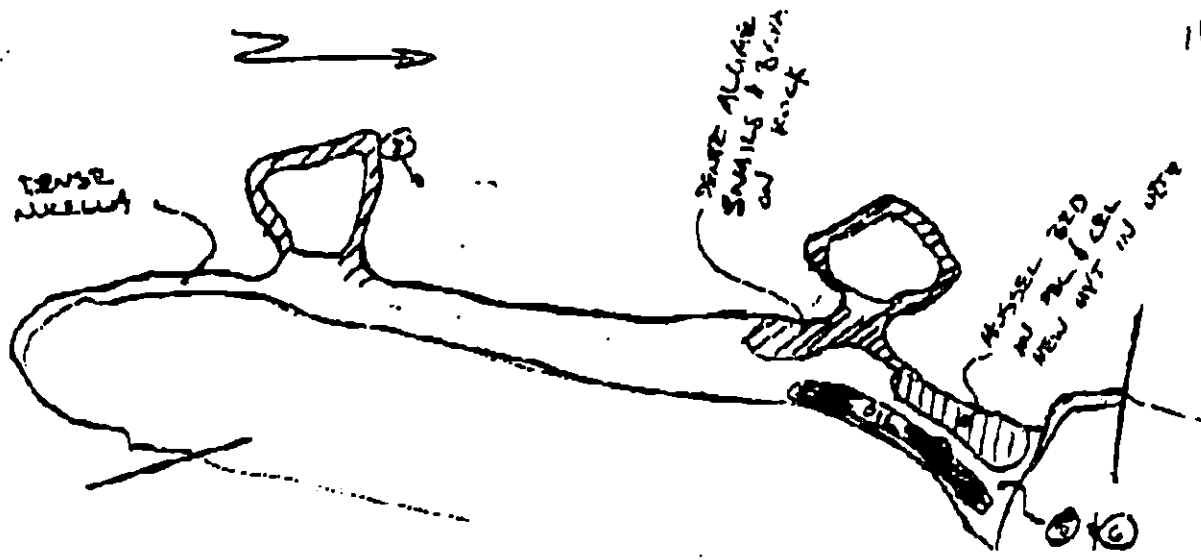
- FAIRLY DENSE ROCKY SHORE COMMUNITY, VERY LOW MORTALITY EXCEPT FOR ABRASSION OF MUSSELS & BARNACLES FROM A FEW BOULDERS.

- VERY DENSE NEW BARNACLE GROWTH ON ROCK, BLDR, CBL, PBL & ON MUSSELS IN MITE. NEW GROWTH OF FUCUS SEEN ON ROCK, NEW LITTORINAE AS WELL AS EGGS IN MITE, JUVENILE MUSSELS (MIM) IN MITE AMONG PEBBLE & COBBLE.

- ECOLOGICAL CONSIDERATIONS: GU, 7JS

RJS

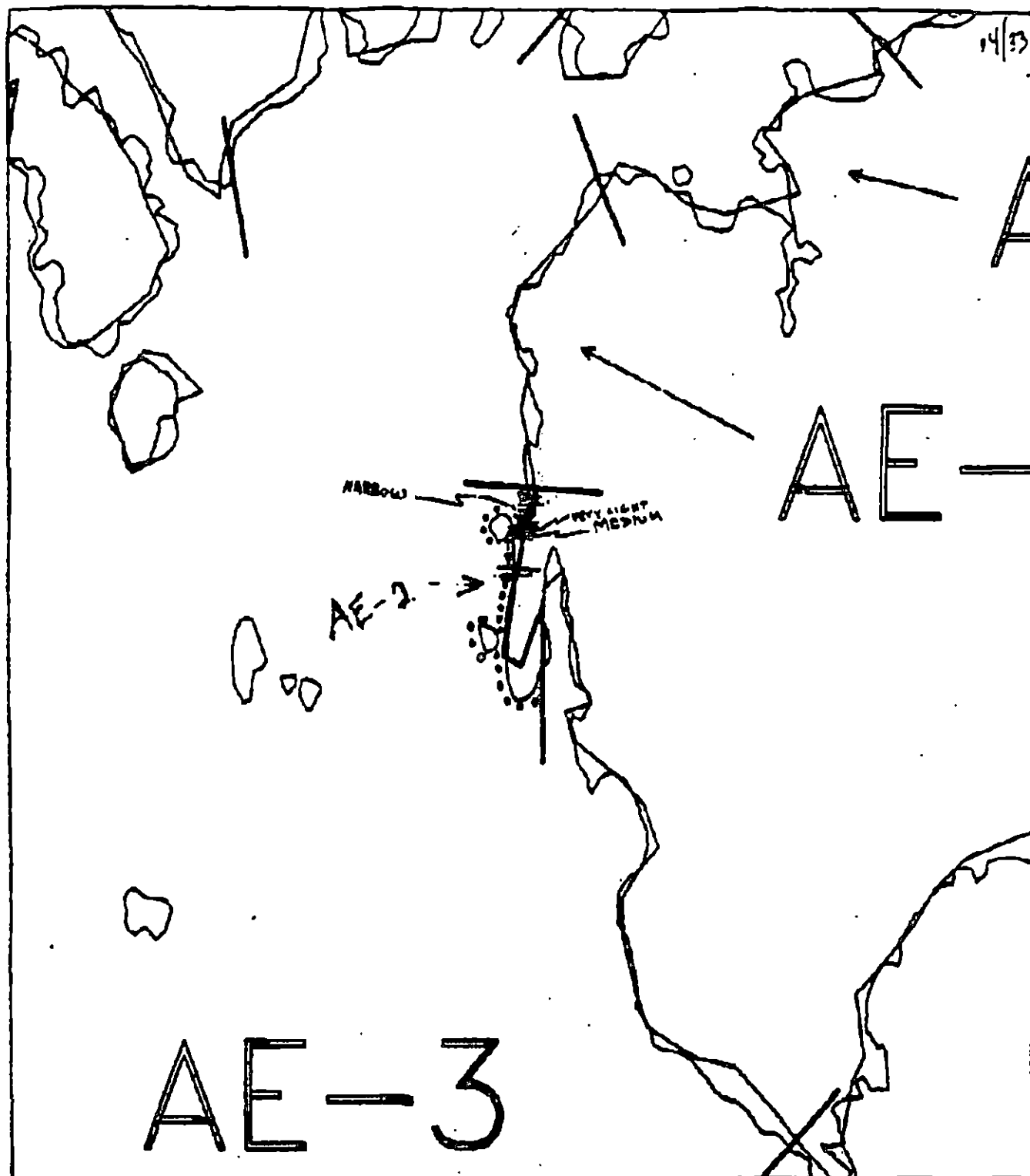
16/33



AER

BIO SKETCH & PHOTO LOCATIONS

ME



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

AE-2

ABEC Segment Length: 200m



Map Key: PWS-3

Name: Reimer

Date: 4/25/90

Date Entered: 90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT AE-2 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	OPEN
Bioremediation Manual Raking	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T Bald Eagle Nest

NO CONSTRAINT. USFWS 6/1/90 map indicates no active nest within 400m of Subdivision A work site.

OTHER ECOLOGICAL CONSIDERATIONS

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

TAG APPROVAL DATE 6/04/90
ADEC Roy Morgan
EXXON Amy Ted
NOAA Joseph C. J. J.
USCG S.A. J. J. J.

FOSC

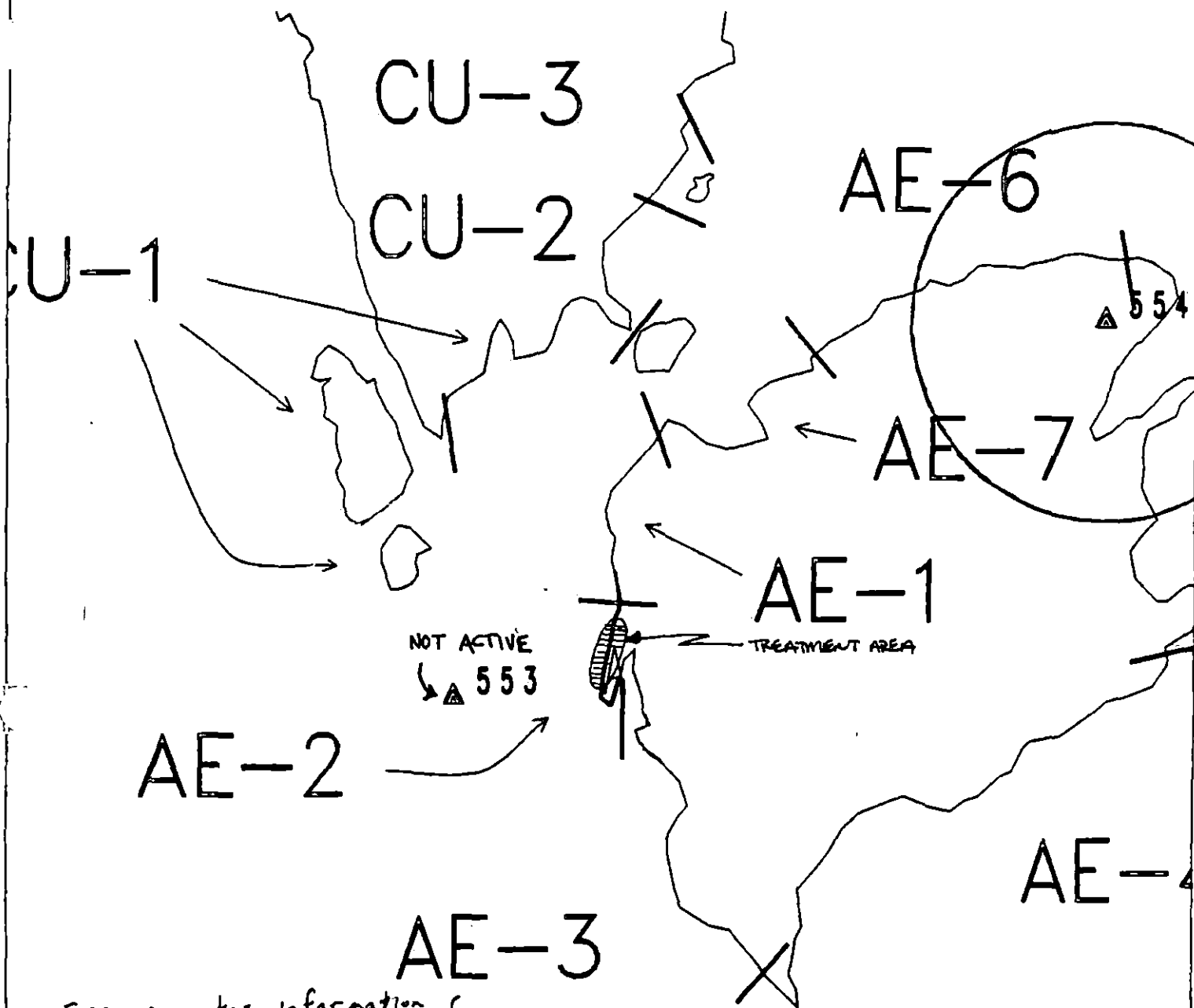
DATE

6/4/90

Prepared By:

Date

6/2/90



Incorporates information from
USFWS 6/1/90 active Bald Eagle
nest maps.



Exxon Company, USA
Map Key: PMS-AE-2
May 10, 1990



ECOLOGY MAP
SEGMENT AE-2
SUBDIVISION A (1 of 1)
METERS
0 324 648

★	Seabird Colony
▲	Eagle Nest

1 inch = 1063 feet

SHORELINE EVALUATION

SEGMENT ST/ AE-03 SUBDIVISION A (1 OF 1) DATE 4/22/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

No specific constraints identified.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: [Signature] DATE: 3/2/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 35 m: No Oil 883 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: 5/2/90.
ADEC Art Wagon
EXXON Amoy TST
NOAA Gary Polson
USCG Kenneth Kenna

FOSC: ML DATE: 5-9-90

- 1A** Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
 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, prior to at least July 1 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 Habitat Division prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G John Morison 267-2324
- 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, prior to July 31 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** Esther Hatchery release (4/15 to 6/15)
1E Main Bay Hatchery release (4/20 to 6/15)
1F Sawmill Bay Hatchery release (4/15 to 6/1)
1G Cannery Creek Hatchery release (4/21 to 6/1)
1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. 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 or PWS Aquaculture Association for confirmation and authorization.
 AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
 1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I** Gill net area (6/7 to 8/31)
1J Purse seine area (7/20 to 9/30)
1K Purse seine hook-off (7/20 to 9/30)
1L Set net sites (6/11 to 7/25)
 Contact ADF&G for specific dates, locations and constraints. 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 James Brady 424-3212
- 2M** Herring spawning (4/1 to 6/15)
 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 Evelyn Biggs 424-3235
- JP** Harbor seal and sea lion pupping (5/15 to 7/1)
JQ 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
- SR** 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
- SS** 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 Rothly 267-2208
- ST** 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 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)
7H Finfish harvesting
7I Deer harvesting (8/15 to 2/28)
7J Invertebrate harvesting
 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 / AE 3 SUBDIVISION: A DATE 4/22/90

USCG

NAME

Randolph W. Hubbard

SIGNATURE

[Signature]☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

ADEC

NAME

Patrick J. Endres

SIGNATURE

[Signature]☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDDue to very minimal oiling. no treatment recommended

LAND MANAGER

NAME

MARSHA MARTIN / DNR

SIGNATURE

[Signature]☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDNO COMMENT

SHORELINE OILING SUMMARY

REVISION NO. 04/13/90

OG Reimer USCG Hubbard SEGMENT ST/ AE 3
 BIO ZAMORA LAND REP M. MARTIN (DNR) SUBDIVISION A (1 OF 1)
 EXXON ARROWLINE ADEC E. ENDRES TIME 5:40:17:07
 TEAM NO. 16 TIDE LEVEL +4 to +4.5 DATE 4/23/90
 EST. SUBDIVISION LENGTH: 1039 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: South to North
 SURFACE SEDIMENTS: R 35 % B 20 % C 30 % P 15 % G 0 % 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 0 m VL 75 m NO 1004 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	N	E	S	W	1	2	3	4	NU	UM	MM	UU
ASPHALT PAVEMENT												
POOLED												
COVER												
COAT				X		X				X		
STAIN												
MOUSSE												
PATTIES												
TARBALLS												
FILM												
NO OIL									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			DID YOU COLLECT DEBRIS?
	SM	MD	LG	
Logs				YES ☐ NO ☒
Vegetation				
Trash				TYPE _____
Debris				
				#BAGS _____

Photographs:

Roll No. ST-16-10

Frames 32-38

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		NO	UC	1	2	3	4	NO	U	M	U				
1	25					X	-							X							P - CC
2	20					X	-							X							P - P
3	20					X	-							X							P - PR
4	25					X	-							X							P - PGC
5	30					X	-								X					25	P - PGC
6	25					X	-							X							C - PGC

COMMENTS Predominantly a bedrock controlled coastline with alternating sections of high angle to vertical bedrock cliff and moderate sloped bedrock platform mantled with cobbles and boulders, and pocket beaches of pebbles, cobbles and scattered boulders in the lower intertidal zone. The majority of this segment is exposed. In at least moderate wave exposure as evidenced by well developed storm bars at the back of beaches. The exception to this is a sheltered cove at the north end of the segment which has extensive peat deposits and exposed

REVIEWED JW

DATE 4/25/90

23/3

[illegible]

COMMENTS

TOP
REF

REVIEWED 7w DATE 4/25/90

ETCH MAP

MENT ST/ AE-3

ABDIVISION A

ITE 4 / 22 90

HECKLIST

- ~~SI Arrows~~
~~Apparatus Scale~~
~~Spectroph Study~~
~~Oil Diet~~
~~Width~~
~~Length~~
~~% Cover~~
~~Substrate Character~~
~~Est. HULL/LVL~~
~~SB~~
~~Photo Location(s)~~
~~Profile(s)~~
~~PH Location(s)~~
~~Photo Location(s)~~

LEGEND

1. **No Subsurface CB**

CT/C

CT/B

chen Chinchen

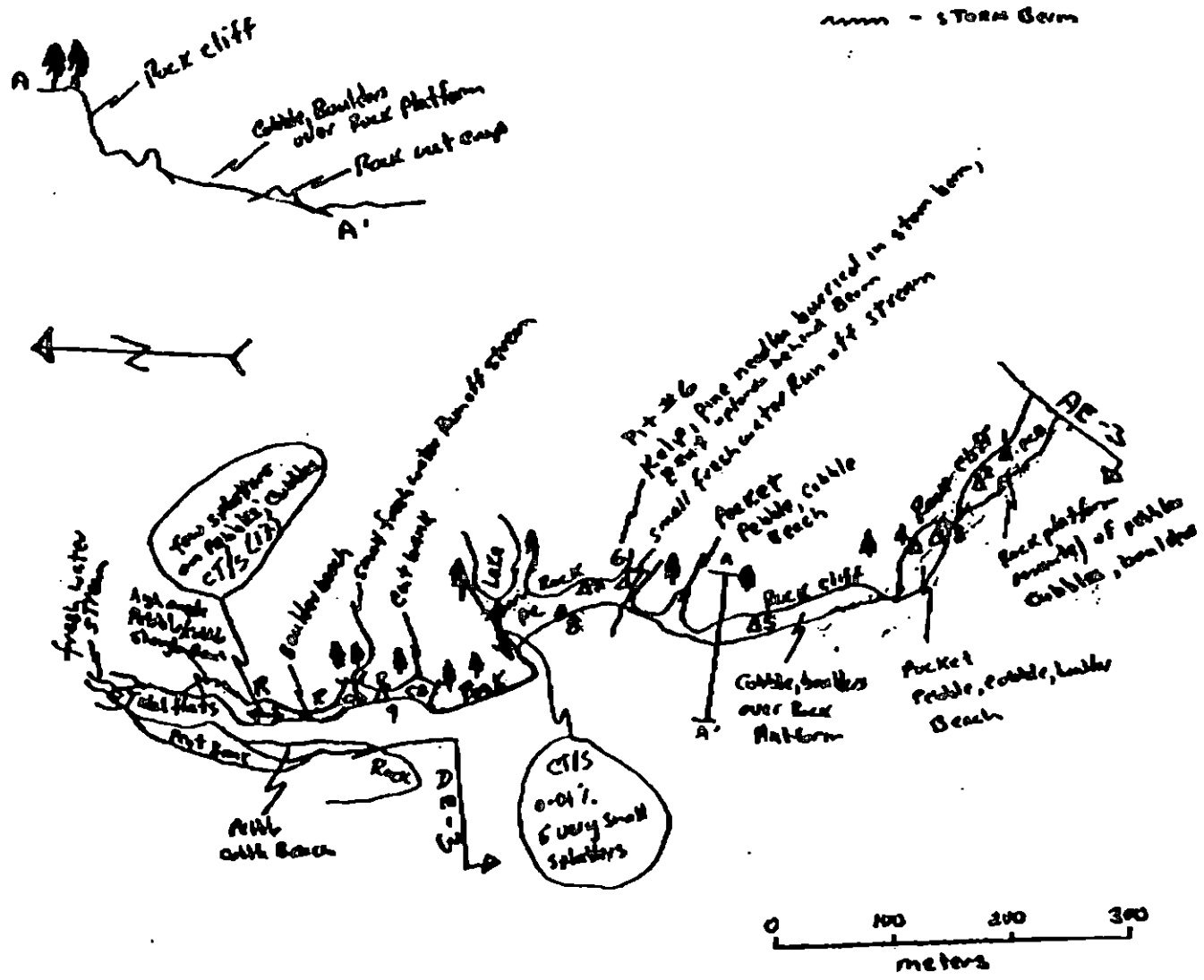
[CT/P]

Today's Distribution

CT/S
Standard Distribution

eee
had Vegetation

1. ~~on~~
new location, direction,
ed number



Character Length (in): AP 0 PO 0 CV 0 CT 75 ST 0 MS 0 PT 0 TB 0 FL 0 NO 1004

2

SHORELINE ECOLOGICAL SUMMARY

Segment ST / A93 Subdivision A Date (mo / day / yr) 4 / 21 / 90
 Time (24 hr) 1545 ON 1707 OFF Biologist TONY FAMORA

- (A) Substrate type and % of segments:
 (1) Bedrock 35 (2) Boulder 20 (3) Cobble 30 (4) Pebble 15 (5) Sand — (6) Silt —
- (B) Overall % cover of biota (% of segment): Dense 80 Moderate 20 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 (O)

Photographs:
 Roll No. ST-1(a-10)
 Frames 32-38

BARNACLES

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

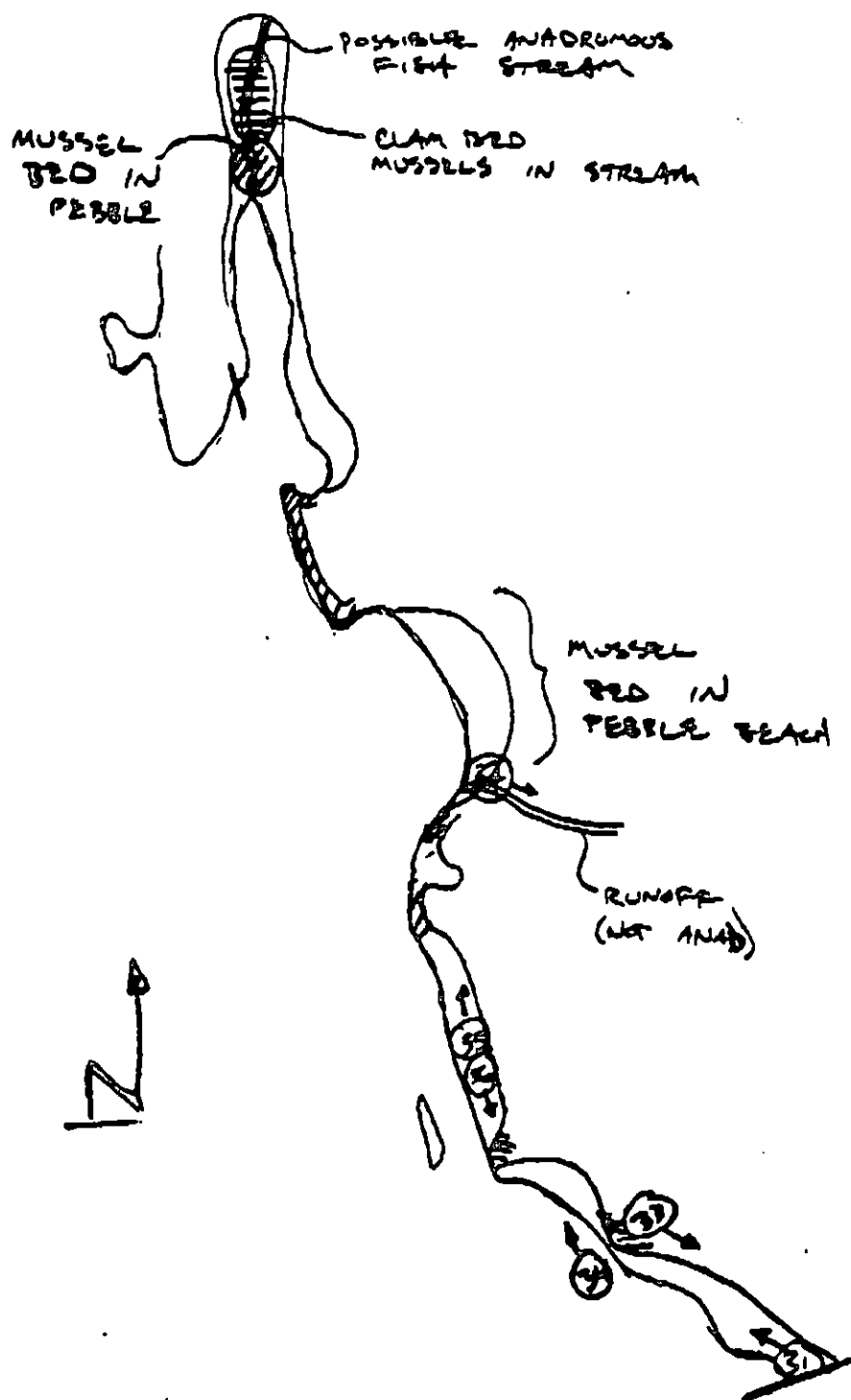
- 2 CORMORANTS SPOTTED
 - FAIRLY DENSE ROCKY SHORE COMMUNITY, VERY LOW MORTALITY. OVER
 VERY DENSE NEW BARNACLE GROWTH ON ROCK, BLDR, CBL, PBL &
 ON MUSSELS IN MITE. NEW GROWTH OF FUCUS, LITTORINES, & MYTILUS W

Ecological Considerations:

6U, 5T

- LOW INTERTIDAL ZONE WAS UNEXPOSED DURING SURVEY
 - SMALL SHELTERED COVE AT NORTH. END CONTAINS RICH
 CLAM BED / KAYAKING A...

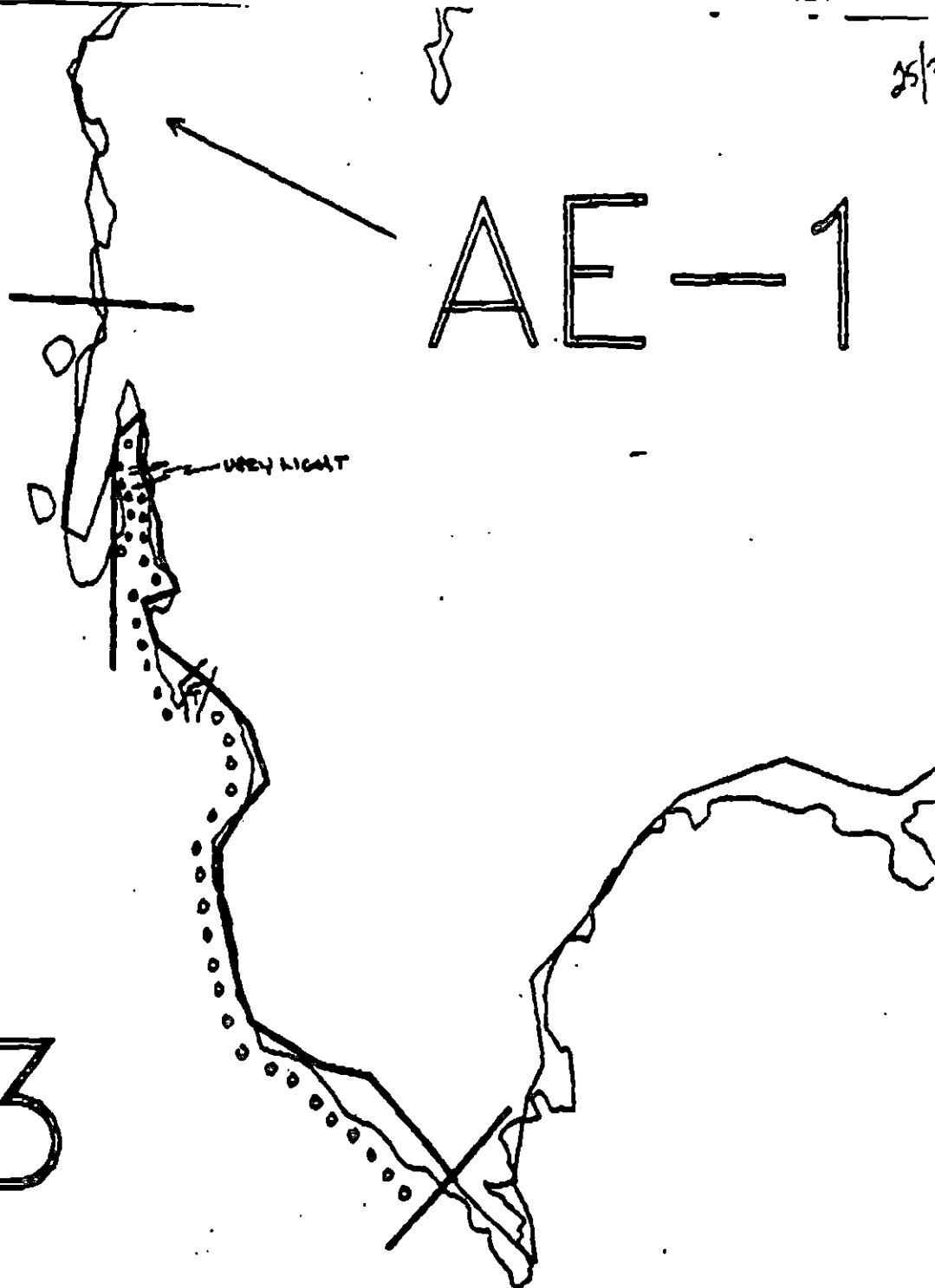
27/33



AE3

APR 24 1990

25/33



AE-3

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

AE-3

ADEC Segment Length: 919m

Map Key: PWS-4

Name: Reimer

Date: 4/22/90

AE
AE

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT AE-4 SUBDIVISION A (1 of 2)

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN
Bioremediation Spot Washing	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

No ecological time constraints.

OTHER ECOLOGICAL CONSIDERATIONS

Avoid any unnecessary disturbance or damage to uncolled biota and substrate. Avoid dense mussel beds.

TAG APPROVAL DATE 5/29/90
ADEC ART WELER
EXXON AMY TBA
NOAA ROBERT
USCG G.A. REITER

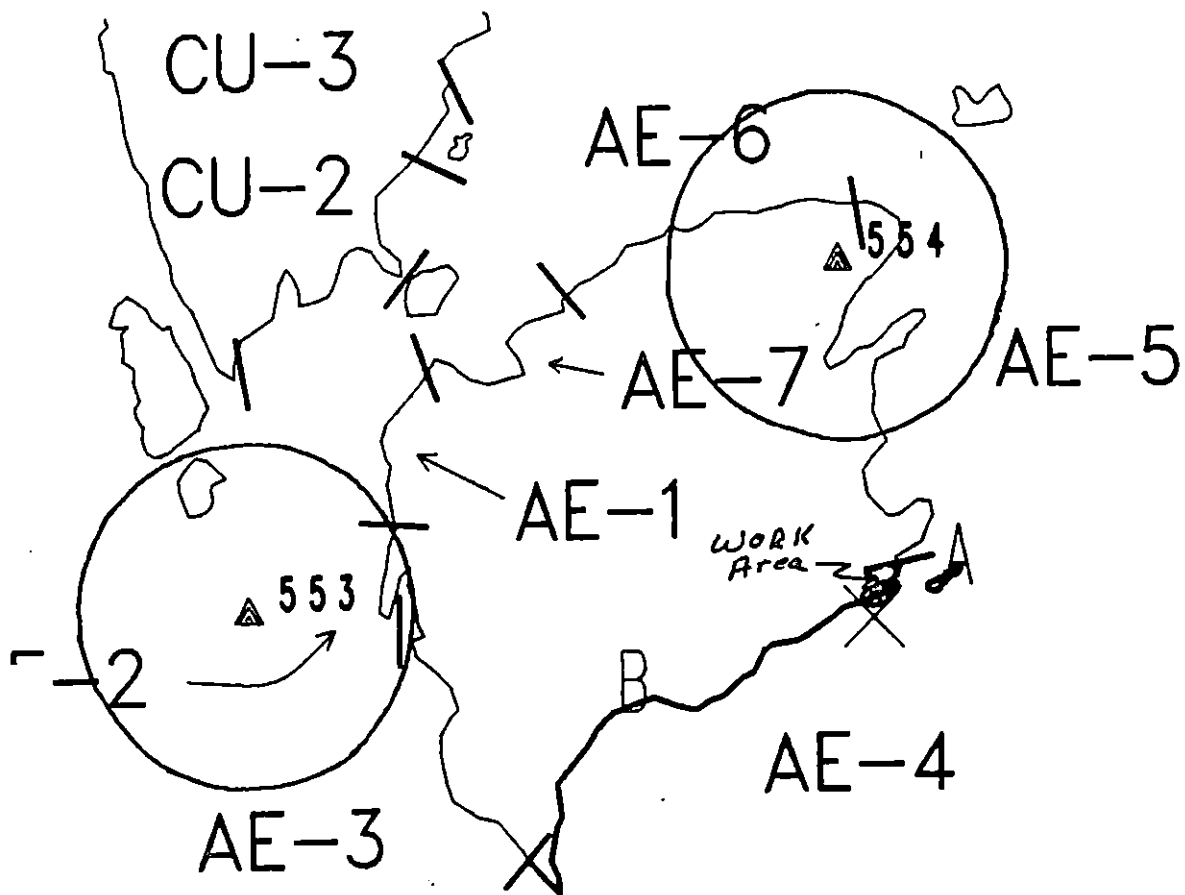
FOSC

DATE

MAY 29 1990

Prepared By: Anda Meyer WTK

Date 5/28/90

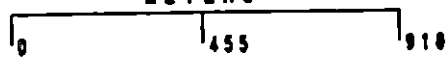


Exxon Company, USA
Map Key: PMS-AE-4
May 10, 1990



ECOLOGY MAP SEGMENT AE-4 SUBDIVISION A (1 of 2)

METERS



- ★ Seabird Colony
- ▲ Eagle Nest

1 inch = 1492 feet

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT AE-4 SUBDIVISION B (2 of 2)

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN
Bioremediation Manual Raking	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

No ecological time constraints.

OTHER ECOLOGICAL CONSIDERATIONS

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

TAG APPROVAL DATE 5/29/90.

ADEC Art Weiner Art Weiner

EXXON Andy Teal Andy Teal

NOAA B. W. Scott B. W. Scott

USCG G. A. Reiter G. A. Reiter

FOSC

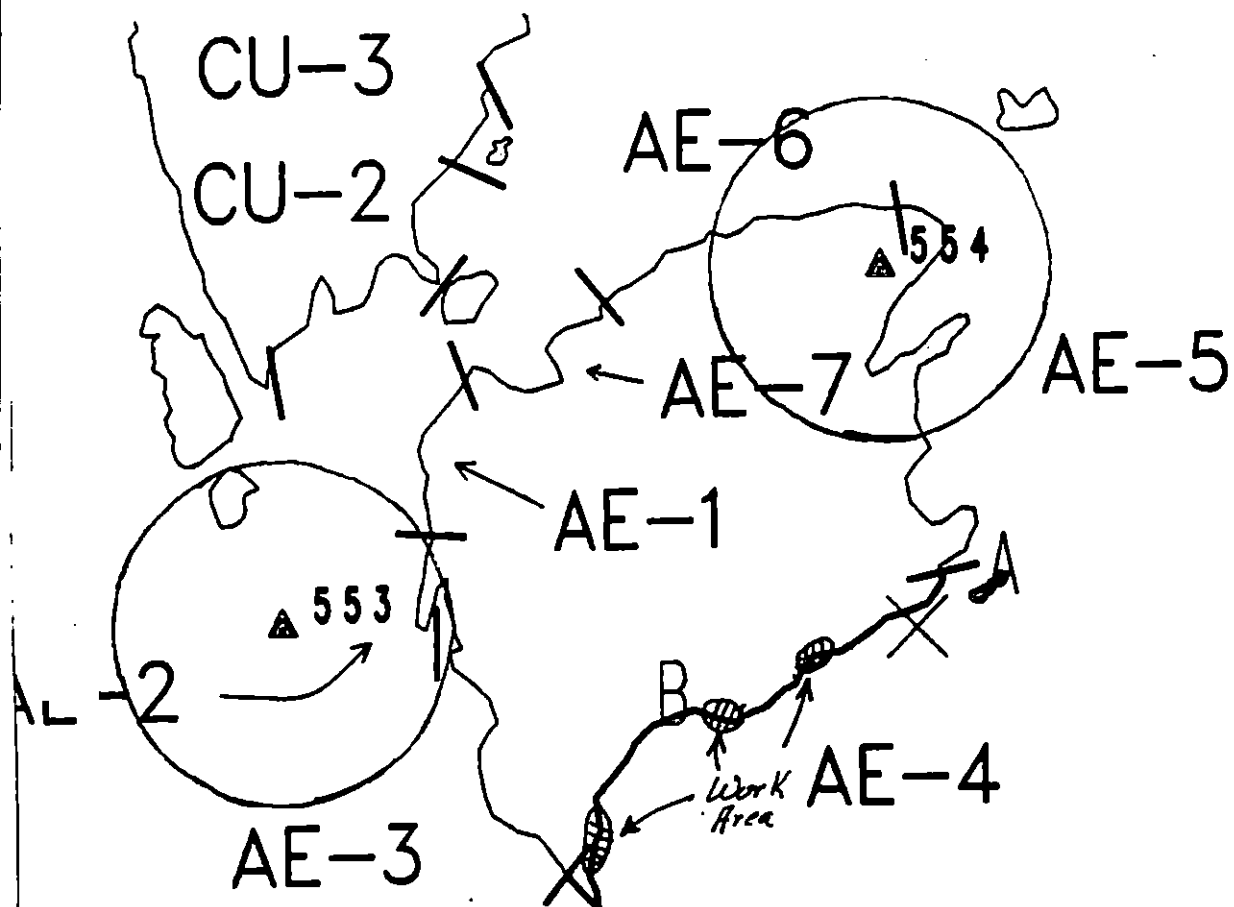
DATE

MAY 29 1990

Prepared By: Andie Maye ux

Date

5/28/90



Exxon Company, USA
Map No. PMS-AE-4



ECOLOGY MAP SEGMENT AE-4 SUBDIVISION B (2 of 2) METERS



Seabird Colony



Eagle Nest

SHORELINE EVALUATION

SEGMENT ST/ AE-05 SUBDIVISION A (1 OF 2) DATE 4/5/9

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Bald eagle nest possibly within 400m of subdivision A.

SHPO SIGNATURE: Charles E. Admer DATE: 4/25/90

OILING CATEGORIZATION:

Wide 223 m: Medium 81 m: Narrow 0 m: V.Light 0 m: No Oil 0 m
Subsurface Oil Observed: Yes X No Maximum Depth 30+ cm

RECOMMENDATIONS:

<u> </u> No Treatment Recommended	<u>X</u> Snare/Absorbent Booms
<u>X</u> Treatment Recommended	<u>X</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>X</u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> <u>X</u> Removal	<u> </u> Other (see comments)

COMMENTS: Recommend tarmat removal and manual pick up of pooled oil, oiled debris (trash, vegetation), and oiled logs (if more than 10% coverage and splash impact). Bioremediate areas indicated on sketch map. Work should be conducted after 6/1 and after contacting USEWS regarding status of eagle nest site in the area.

TAG COMMENTS: MANUAL/MECHANICAL TILLING/RAKING PRIOR TO BIOREMEDIATION IN AREA INDICATED ON SKETCH
FOLLOWING TILLING PLACE SHEEN RETENTION BOOMS IN THE MOUTH OF THE COVE. SNARE STRINGERS MAY BE REQUIRED ON THE SHORELINE

TAG APPROVAL DATE: 4/28/90

ADEC ART WENGER
EXXON AMY GEL
NOAA Joseph Talbot
USCG W. J. HALL

FOSC: W L DATE: 5-3-90

Comply with NPS request to return shoreline to natural contours after tilling treatment is completed.

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
- 1B Salmon stream mouth - spawning (7/10 to 8/31)
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 Esther Hatchery release (4/15 to 6/1)
- 1E Main Bay Hatchery release (4/20 to 5/10)
- 1F Sawmill Bay Hatchery release (4/15 to 6/1)
- 1G Cannery Creek Hatchery release (4/21 to 6/1)
- 1H Remote release site
- 1I Gill net area (6/7 to 8/31)
- 1J Purse seine area (7/20 to 9/30)
- 1K Purse seine hook-off (7/20 to 9/30)
- 1L Set net sites (6/11 to 7/25)
For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/1 to 6/15)
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 (5/15 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.
- 5R Seabird colony (5/1 to 9/1)
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 (5/1 to 9/30)
- 7HH Finfish harvesting
- 7II Deer harvesting (8/15 to 2/28)
- 7JJ Invertebrate harvesting
For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

MENT ST / AE-06 SUBDIVISION: A-1 of 1 DATE 04/05/90

USCG

NAME David S. Thomas SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

ADEC

NAME Clara S. Crosby SIGNATURE Clara S. Crosby

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

FALLS BA

[OBSERVED WINTER LOCAL RESPONSE CREW (8 workers from Whittier - ABOARD F/V LANA Cove) removing asphalt (Type A clean-up). Spoke w/ Tom Starr - referred me to Lynda Hyce - 472-2345] Suggest Mechanical clean-up AT S. Southern N. ends of Beach - Pooled mounds - Bedrock case. Manual pickup of Asphalt. She noted throughout Beach - (Silver to Brown), OR in supratidal - Cobble/Pebble - to vegetation - Beach is very heavily oiled - requires - intensive clean-up - entire suit Access to beach by Low Available at High Tides - low energy strong odor

LAND MANAGER

NAME MARSHA MARTIN / DNR SIGNATURE Marsha Martin

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

!!!

SHORELINE OILING SUMMARY

REVISION NO. 03/28/90

OG Rick Gillie USCG BM 1 Thomas SEGMENT ST/ AE-05
 IO DAVE Lohr LAND REP Marsha Martin SUBDIVISION A-1 of 2
 XXON FRANK Dwy ADEC Clara Crosby (ADNR) TIME 13:30 to 14:30
 TEAM NO.: 13 TIDE LEVEL: +6 to +4 DATE 04/05/90
 EST. SUBDIVISION LENGTH: 320 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☐ Rock Snow
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 20 % B 10 % C 30 % P 30 % G 10 % S 0 % M 0 % V 0 %
 SLOPE: Long 80 % Hang 10 % Vert 10 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 200 m M 120 m N 0 m VL 0 m NO 0 m

SURFACE OIL

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

PAVEMENT: H F S 100 sq. m by 5 cmPATTIES / TARBALLS 1 BAGSNEAR SHORE SHEEN? NO BR RW SL TL

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

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

Photographs:

Roll No. ST-13-2Frames 25-29

SUBSURFACE OIL

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	6	7	8			
1	15				X		5-15		X	X								X		G, P, R
2	30		X				5-30	X		X								X		P, G, V
3	20	X					5-10		X			X						X		P, G, S
4	30		X				5-30	X		X								X		G, S, P
5	30				X		5-30	X		X									X	P, G

COMMENTS

WIDING: "WIDE" OILING OVER MOST OF BEACH IN PROTECTED COVE. EXTENSIVE SUB-SURFACE OIL

00 Rick TILLIE

SEGMENT ST/ AE-5

SUBDIVISION A, 1 of 2

DATE 04, 05 90

CHECKLIST

- ✓ N Arrow
- ✓ Approx. Scale
- ✓ Seg/Sub Entry
- ✓ Oil Dist.
- Width
- Length
- % Cover
- ✓ Substrate Character
- ✓ Est. HMA/LVL
- SSL
- ✓ Profile Location(s)
- ✓ Profile(s)
- ✓ PH Location(s)
- ✓ Photo Location(s)

LEGEND

1 Δ
Pit - No Subsurface Oil

2 Δ
Pit - Subsurface Oil

CT/C
Continuous Distribution

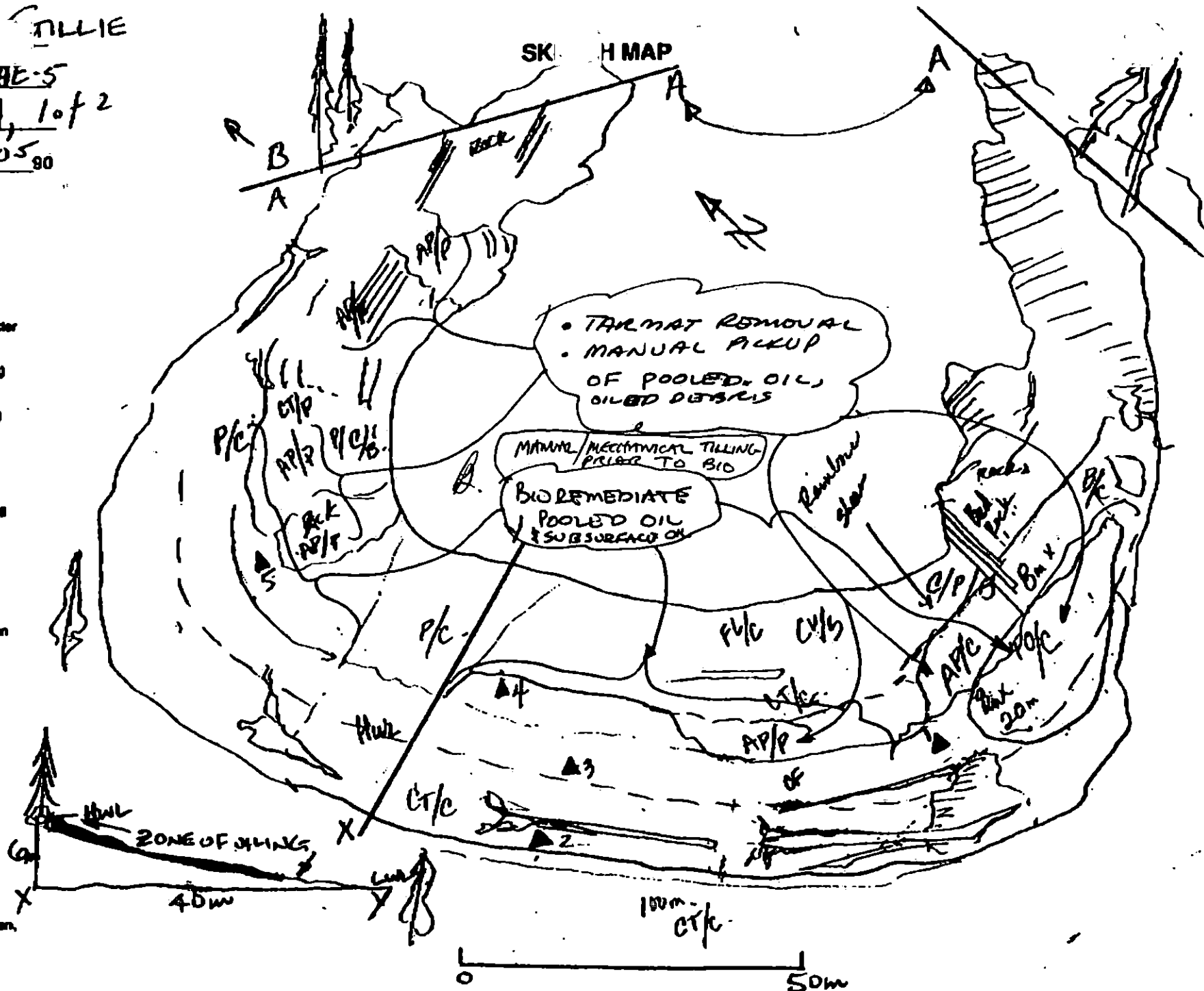
CT/B
Broken Distribution

CT/P
Patchy Distribution

CT/S
Splashed Distribution

Oiled Vegetation

1 ●
Photo location, direction,
and number



Oil Character Length (m): AP 100 PO 40 CV 50 CT 200 ST 40 MS 40 PT TB FL 200 NO 0

REVISIONS

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / AE 005 Subdivision A Date (mo / day / yr) 4-5-90

Time (24 hr) 14:00 Biologist David Cohen

(A) Substrate type and % of segments:
(1) Bedrock 20 (2) Boulder 10 (3) Cobble 30 (4) Pebble 30 (5) Sand 10 (6) Silt

(B) Overall % cover of biota (% of segment): Dense 5 Moderate 25 Low 70

(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-13-2

Frames 25-29

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 and 1 immature bald eagle sited in area.
No nests were observed

Shoreline Ecological Summary

2 of 2

Segment ST-AE005 Subdivision A 4-5-90

1 ogist - David Lohse

Wildlife Observations/General Comments

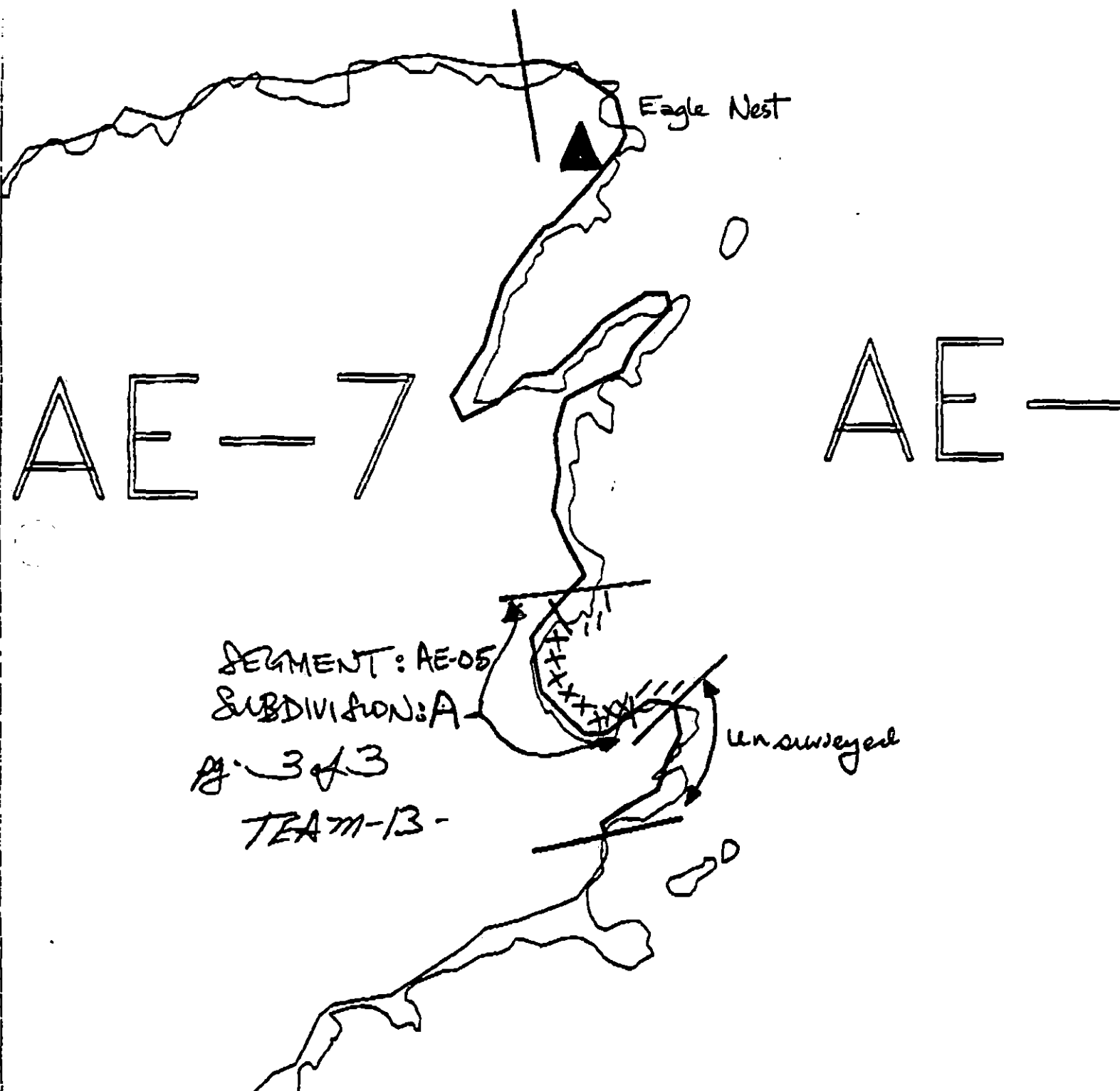
1. low intertidal not sampled
2. present in mid-intertidal: Ulva, Enteromorpha, unidentified "branching" red alga
high intertidal: Enteromorpha
3. many dead mussel shells found in high intertidal
4. several dead squid found washed up in mid-intertidal
5. Oil found covering barnacles on high intertidal boulders, mid bedrock
6. There was 50-75% barnacle mortality on high intertidal boulders, and ~75% mortality of barnacles on high intertidal bedrock. There was 25% mortality ^{on} mid intertidal bedrock

E-6



3

ECOLOGY MAP



XXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

AE-5

ADEC Segment Length: 1639m



Map Key: PWS-6

Name: FRANK BaxDate: 4-5-90

Data Entered:

AE-6



AE-7

AE-

SEGMENT: AE-05
SUBDIVISION: A

unsurveyed

XXXX Wide

//// Medium

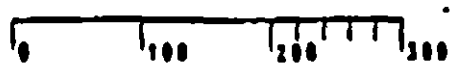
---- Narrow

TTTT Very Light

OOOO No Oil

AE-5

ADEC Segment Length: 1039m



Map Key: PWS-6

Name: _____

Date: _____

Date Entered: _____



SHORELINE EVALUATION

SEGMENT ST/ AE-05 SUBDIVISION B (2 OF 2) DATE 4/5/9

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ST All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Restrict air traffic to essential minimum. Air approach and takeoff from and to seaward only. Contact USFWS prior to treatment.

SHPO SIGNATURE: Chuck Zeff

DATE: 4/25/90

OILING CATEGORIZATION:

Wide 38 m: Medium 293 m: Narrow 130 m: V.Light 699 m: No Oil 0 m
Subsurface Oil Observed: Yes X No Maximum Depth 14+ 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>X</u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> <u>X</u> Removal	<u> </u> Other (see comments)

COMMENTS: Recommended treatment includes 1) manual tarmat removal, 2) manual pick up of oiled debris, 3) bioremediation of areas shown on attached sketch map. Work should be conducted after 6/1 based on eagle nest constraints, after approval by USFWS regarding eagle nest.

MANUAL RAKING IN AREA OF PIT 3+5 FOLLOWING TARMAT REMOVAL AND PRIOR TO B/D.
AVOID WHERE POSSIBLE THE DENSE FURUS BEDS IN THE MID ITZ IN AREAS OF PITS 5+6.
TAG COMMENTS:

TAG APPROVAL DATE: 4/24/90

ADEC ART WEINER
EXXON ANDY FOR
NOAA Joseph Talbot
USCG M. J. HALL

FOSC: h y L

DATE: 5-3-90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

1A	Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B	Salmon stream mouth - spawning (7/10 to 8/31) 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	Esther Hatchery release (4/15 to 6/1)
1E	Main Bay Hatchery release (4/20 to 5/10)
1F	Sawmill Bay Hatchery release (4/15 to 6/1)
1G	Cannery Creek Hatchery release (4/21 to 6/1)
1H	Remote release site
1I	Gill net area (8/7 to 8/31)
1J	Purse seine area (7/20 to 9/30)
1K	Purse seine hook-off (7/20 to 9/30)
1L	Set net sites (8/11 to 7/25) For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
2M	Herring spawning (4/1 to 6/15) 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 3O, 3Q	Harbor seal and sea lion pupping (5/15 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.
5R	Seabird colony (5/1 to 9/1) 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 (8/1 to 9/15)
6X	Lodge (8/1 to 9/15)
6Y	Special use destination
7Z	Subsistence area: Salmon harvesting (5/1 to 9/30)
7HH	Finfish harvesting
7I	Deer harvesting (8/15 to 2/28)
7JJ	Invertebrate harvesting For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / AE-05 SUBDIVISION: B-1 of 2 DATE 04/05/90

USCG

NAME David S. ThomasSIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

ADEC

NAME Clara S. CrosbySIGNATURE Clara S. Crosby☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Heavily oiled area - Bedrock Base - Mechanical clean-up, -
Steam of CT, Manual removal of AP - 4x20m area of
AP/B & CT/C is in v low energy area.
→ in protected pocket - strong odor.

LAND MANAGER

NAME MARSHA MARTIN/DNRSIGNATURE Marsha Martin☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Rick Gillie USCG BM 1 Thomas SEGMENT ST/ AE-05
 BIO DAVE LOHME LAND REP Marsha Martin SUBDIVISION B-1 of 2
 EXXON FRANK DOX ADEC Clara Crosby (CAPNR) TIME 15:00 to 16:30
 TEAM NO.: 13 TIDE LEVEL: +4 to +2 DATE 07/03/90
 EST. SUBDIVISION LENGTH: 1500 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☐ Rock Snow
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 10 % B 20 % C 20 % P 10 % G 5 % S 0 % M 0 % V 0 %
 SLOPE: Long 20 % Hang 50 % Vert 30 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 30 m M 300 m N 180 m VL 190 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	C	N	P	S	SW	SP	SL	SB	SW	SU	U	M	U
ASPHALT PAVEMENT	X	✓	X	X				X			X	✓	
POOLED	X							X	SL		X		
COVER													
COAT	X			✓				X	SL		X	✓	
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL										X			X

PAVEMENT: H F (S) 200 sq. m by 5 cm

PATTIES / TARBALLS 1 BAGS

NEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash	X		
Debris			

DEBRIS COLLECTED

☐ YES ☒ NO

TYPE N/A

#BAGS N/A

Photographs:

Roll No. N/A

Frames 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		VO	UC	SP	ST	SL	SB	SW	SU	U	M	U		
1	30					X	.								X					P
2	30					X	.									X				P/G/S
3	10	X					5-10		X			X			X					P
4	15				X		5-15		X			X			X					P
5	10-5	X					5-10		X			X			X					G
6	20					X	.								X					G

COMMENTS GENERAL ? DIL. Need QA on #4 and 5

① OILING: POCKETS OF "NARROW" to "WIDE" OILING AT LOCATIONS OF ROCKY INLETS AND POCKET BEACHES.

② GEOMORPHOLOGY: ROCKY, IRREGULAR COASTLINE

OG Rick ILLIS
 SEGMENT ST/ NE-05
 SUBDIVISION B, 1 of 2
 DATE 04, 05/90

SKETCH MAP

CHECKLIST

☒ Map Area
☒ Approx. Scale
☒ Seg/Sub Bndry
☒ Oil Dist.
 Width
 Length
 % Cover
 Substrate Character
 Est. HWA/LWA
 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

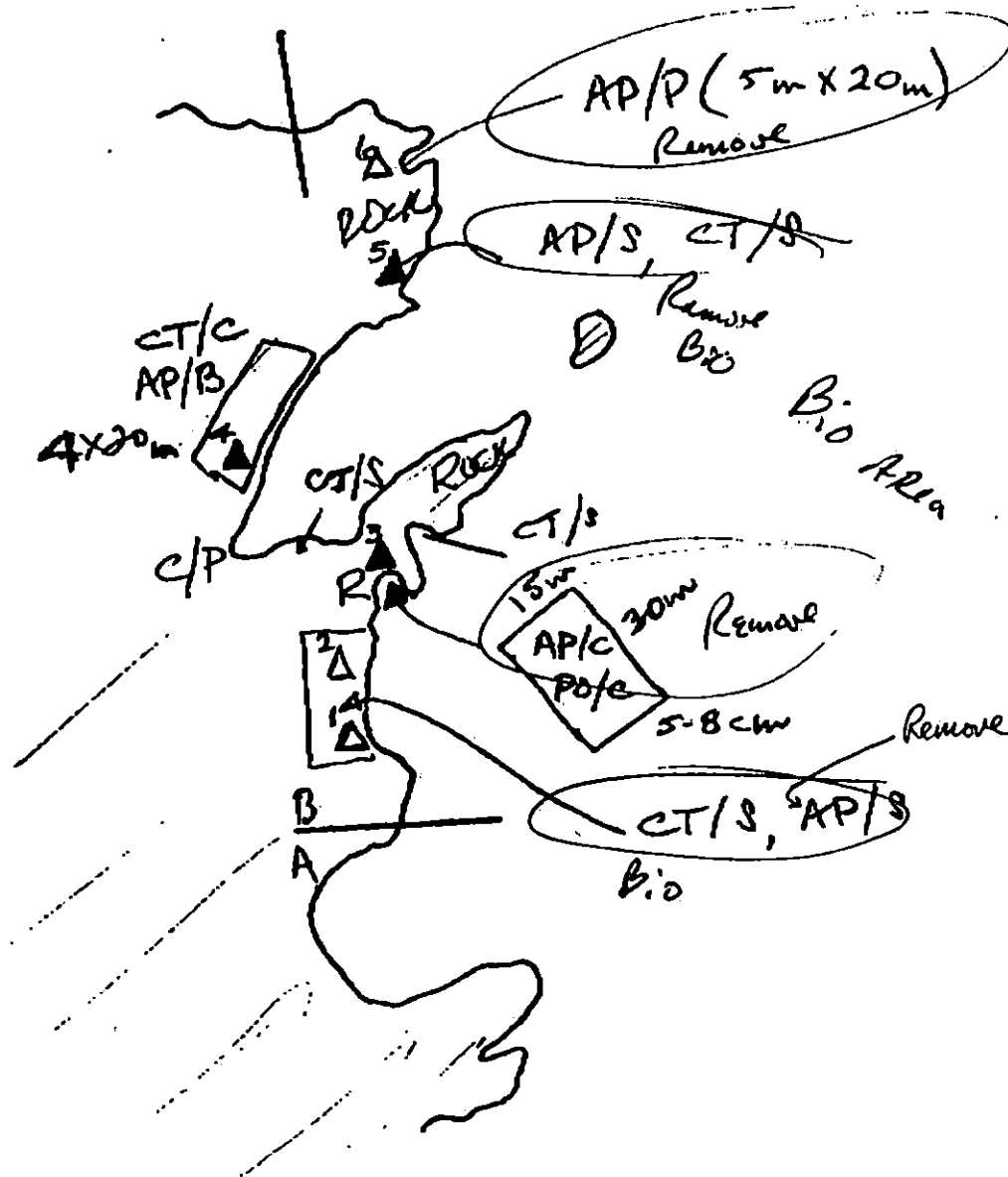
CT/B
 Broken Distribution

CT/P
 Patchy Distribution

CT/S
 Splashed Distribution

Oiled Vegetation

Photo location, direction,
 and number



Oil Character Length (m): AP 50 PO 15 CV 100 CT 100 ST 100 MS 100 PT 100 TB 100 FL 100 NO 1,335

REVISIONS

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / AE005 Subdivision B Date (mo / day / yr) 4-5-90

Time (24 hr) 15:00 Biologist David Lohr

(A) Substrate type and % of segments:
(1) Bedrock 45 (2) Boulder 20 (3) Cobble 20 (4) Pebble 10 (5) Sand 5 (6) Silt

(B) Overall % cover of biota (% of segment): Dense 15 Moderate 45 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			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:

none observed in this subdivision. However, see report on subdivision 1. Dense Fucus beds in mid intertidal at sites 5 and 6 (see OG map) would be susceptible to foot traffic/disturbances.

Shoreline Ecological Summary

2 of 2

Lgment ST-AE005

Subdivision B

4-5-90

Biologist: David Cohen

Wildlife Observations/General Comments

1. present in low intertidal: Ralfsia, coralline algae, Cladophora, Anthopleura, Enteromorpha
mid intertidal: Anthopleura, Cladophora, coralline alg, Enteromorpha, Endocladia, Scytosiphon, Ectocarpus
2. Cormorant spotted in area
3. Some oil covered mussels on mid-intertidal bedrock and boulders on high intertidal bedrock were observed
4. Patches of byssal threads found on mid-intertidal bedrock
5. 50% mortality of boulders on high intertidal bedrock.
6. Enteromorpha dense in some areas (low intertidal boulders and cobble).

AE-6



SEGMENT: AE-05
SUBDIVISION: B

AE-7

AE-

R. D. Gillie
April, 1995
REVISED

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

AE-5

ADEC Segment Length: 1639m



Map Key: PWS-6

Name: R. GILLIE

Date: 4/5/90

Date Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT AE-5 SUBDIVISION B (2 of 2)

WORK WINDOW	
Manual Pickup & Tarmat Removal Inside Active Eagle Nest Buffer Zone	CLOSED
Manual Pickup & Tarmat Removal Outside Active Eagle Nest Buffer Zone	OPEN
Bioremediation & Manual Raking Inside Active Eagle Nest Buffer Zone	CLOSED
Bioremediation & Manual Raking Outside Active Eagle Nest Buffer Zone	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T Bald Eagle Nest

USFWS bald eagle Impact assessment conducted on 5/10/90 by Mike Lockhart Indicates an active nest in the Subdivision. Subdivision is closed to manual pickup, tarmat removal, bioremediation and manual raking within the buffer zone established by USFWS. No constraint outside the buffer zone.

OTHER ECOLOGICAL CONSIDERATIONS

Use designated access routes. No personnel or boats within buffer zone established by USFWS. Restrict air traffic and all disturbance to essential minimum. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from active nests. Avoid any unnecessary disturbance or damage to unrolled biota and substrate. Where possible, avoid the dense *Fucus* beds in the middle intertidal zone.

TAG APPROVAL DATE 6/01/90

ADEC Ray Morris Ray Morris

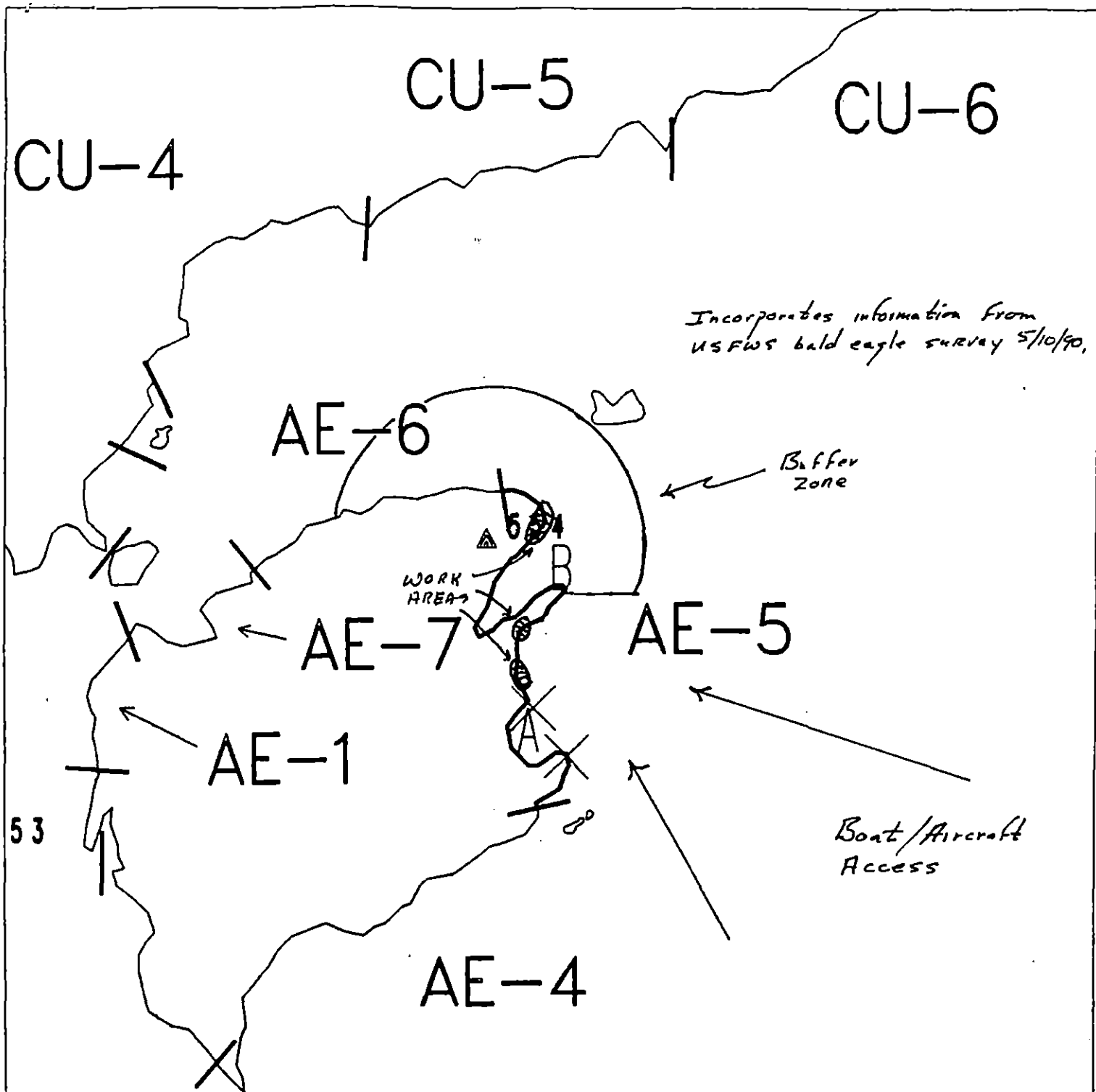
EXXON Ann T. T. T. Ann T. T. T.

NOAA G. J. T. T. G. J. T. T.

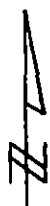
USCG C. A. T. T. C. A. T. T.

FOSC DD Pome, CDR, USCG Date 6/2/90

Prepared by Adam Meyer WRK Date 5/31/90



Exxon Company, USA
Map Key: PMS-AE-5
May 10, 1990



ECOLOGY MAP
SEGMENT AE-5
SUBDIVISION B (2 of 2)
METERS
0 356 712

- ★ Seabird Colony
- ▲ Eagle Nest

1 inch = 1168 feet

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT AE-5 SUBDIVISION C (3 of 3)

WORK WINDOW	
Manual Pickup	OPEN
Bioremediation Other Approved Treatment Spot Washing	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T Bald Eagle Nest

NO CONSTRAINT. USFWS bald eagle impact assessment conducted on 5/10/90 by Mike Lockhart indicates no active nests within 400m of the work area.

OTHER ECOLOGICAL CONSIDERATIONS

Approach from south or southeast. 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 800m horizontal, 300m vertical distance from active nests. Avoid any unnecessary disturbance or damage to unrolled blots and substrate.

TAG APPROVAL DATE 6/04/90

ADEC Ray Morris
EXXON Amey
NOAA Joseph Talbot
USCG G.H. REITER

FOSC

[Signature]

DATE

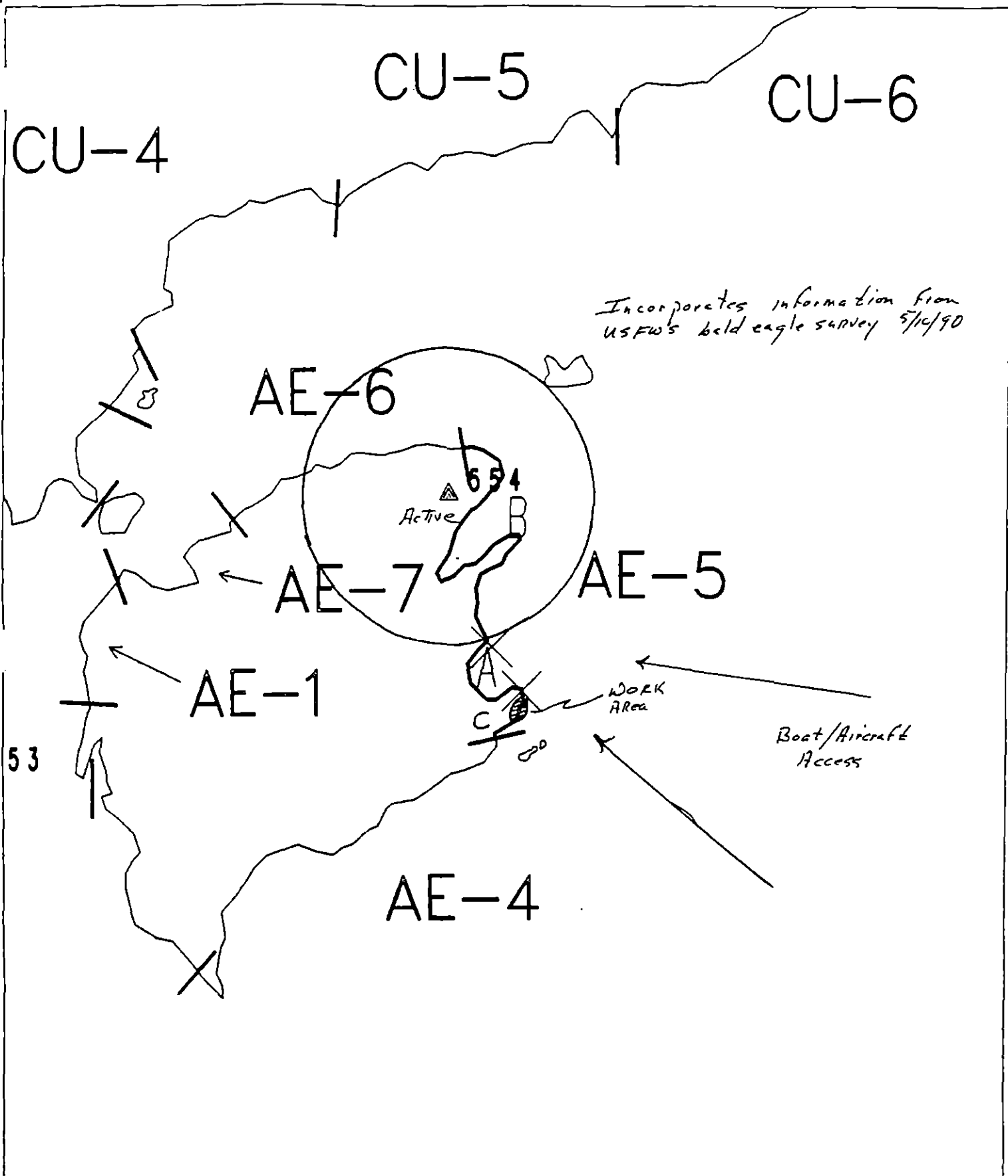
6/4/90

Prepared By:

[Signature]

Date

6/2/90



*Incorporates information from
USFWS bald eagle survey 5/10/90*

53



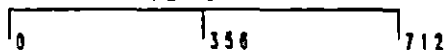
Exxon Company, USA
Map Key: PWS-AE-5
May 10, 1990



ECOLOGY MAP % SEGMENT AE-5

SUBDIVISION C (3 of 3)

METERS



Seabird Colony



Eagle Nest

1 inch = 1168 feet

SHORELINE EVALUATION

SEGMENT ST/ AE-06 SUBDIVISION A (1 OF 1) DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
Eagle nest in adjacent segment.
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. H. [Signature] DATE: 5/5/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 24 m: V.Light 11 m: No Oil 705 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: May 4 1990
ADEC Art WEINER [Signature]
EXXON Mark N. Silber [Signature] FOSC: [Signature] DATE: 5-9-90
NOAA Gary Petrone [Signature]
USCG G.A. REITER [Signature]

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 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, prior to at least July 1 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 Habitat Division prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G John Morison 267-2324
- 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, prior to July 31 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 Esther Hatchery release (4/15 to 6/15)
 1E Main Bay Hatchery release (4/20 to 6/15)
 1F Sawmill Bay Hatchery release (4/15 to 6/1)
 1G Cannery Creek Hatchery release (4/21 to 6/1)
 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. 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 or PWS Aquaculture Association for confirmation and authorization.
 AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
 1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I Gill net area (8/7 to 8/31)
 1J Purse seine area (7/20 to 9/30)
 1K Purse seine hook-off (7/20 to 9/30)
 1L Set net sites (8/11 to 7/25)
 Contact ADF&G for specific dates, locations and constraints. 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 James Brady 424-3212
- 2M Herring spawning (4/1 to 6/15)
 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 Evelyn Biggs 424-3235
- 30, 3Q Harbor seal and sea lion pupping (5/15 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
- 6U 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 (5/1 to 9/30)
 7H Finfish harvesting
 Deer harvesting (8/15 to 2/28)
 Invertebrate harvesting
 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

43/4

SEGMENT ST / AE-6 SUBDIVISION: A DATE 4-24-90

USCG

NAME Joseph V. Hubbs SIGNATURE Joseph V. Hubbs

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADEC

NAME Patrick Endres SIGNATURE Patrick J. Endres

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED ☒

The one spot where treatment was recommended by Exxon is border line from my perspective. It will be a job to find this one area amidst all of the pocket beaches. I question whether the human traffic involved is a valid tradeoff for the removal of the spruce needles and tar coal.

LAND MANAGER

NAME MARSHA MARTIN/DNR SIGNATURE Marsha Martin

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED ☒

50/50. What's there is obvious but there is no oiling other than on cliff walls.

SHORELINE OILING SUMMARY

OG Reimer USCG Hubbard SEGMENT ST/ AE6 34/44
 BIO Zumarr LAND REP M. Martin (DMR) SUBDIVISION A (1 OF 1)
 EXXON Arbuckle ADEC Endres TIME 7:10 10/18:30
 TEAM NO. 16 TIDE LEVEL +4 to +2 DATE 4/24/90
 EST. SUBDIVISION LENGTH: 942 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: West to East
 SURFACE SEDIMENTS: R 70 % B 3 % C 5 % P 12 % G 5 % S 1 % M 0 % V 0 %
 SLOPE: Long 25 % Hang 60 % Vert 15 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 30 m VL 15 m NO 897 m

SURFACE OIL

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

DID YOU COLLECT DEBRIS?

YES ☐ . NO ☒TYPE 0#BAGS 0

Photographs:

Roll No. _____

Frames _____

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR				PIT ZONE				ANNA	SHEEN (Y/N)	▽	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UO	1	2	3	4	BU	U	M	L				
1	25					X	.							X							P-P
2	35					X	.							X				N	30		P-PG
3	20					X	.							X							S-SAC
4	25					X	.							X							P-P
5	20					X	.								X						P-PG
							.														

COMMENTS Rucky coastline with intermittent pocket pebble, cobble, sand beaches.
 The only oiling found was a narrow 61m band of coat to cover along a few cliff sections near the high tide line.

REVIEWED 7WDATE 4/26/90

DATE 4 / 24 80

KETCH MAP

- in - storm berm
- sw - Bluffs
- log - Log

CHECKLIST

~~Accession~~
~~Approx. Date~~
~~Original Entry~~
~~in Cat.~~
~~Width~~
~~Length~~
~~% Cover~~
~~Substrate Character~~
~~E.g. HMM/LWL~~
~~etc.~~
~~Photo Location(s)~~
~~Photo(s)~~
~~Pt Location(s)~~
~~Photo Location(s)~~

LEGEND

1 Δ
Fig. 10. Substitution of

2A
Fig. - Subsurface Oil

CT/C

CT/8
Broken Distribution

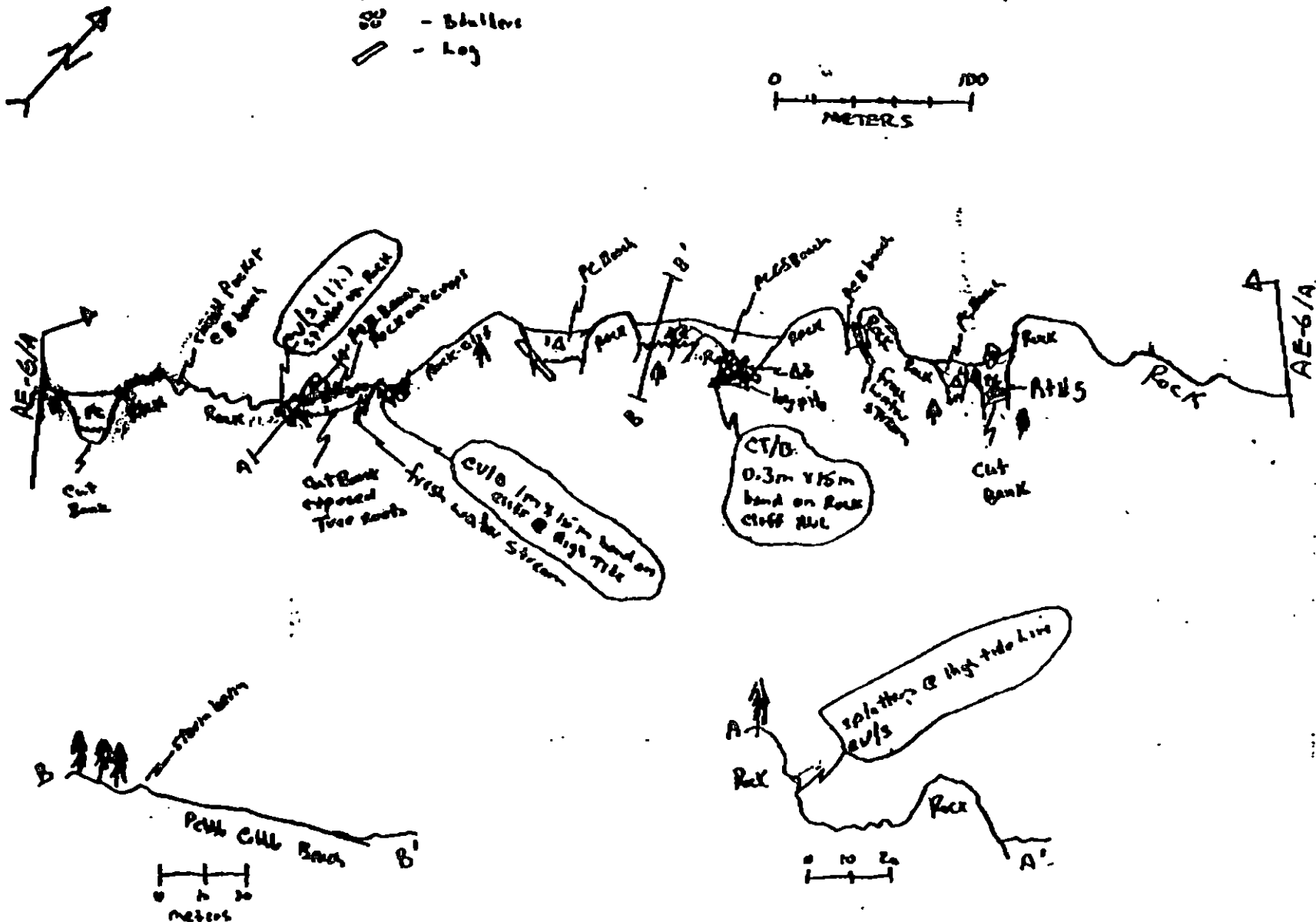
CT/P

Pushy Distribution


SECRET
Restricted Distribution

Old Vegetation

These locations, directions,
and number



Character Length (in): AP 0 PO 0 CV 30 CT 15 ST 0 MS 0 PT 0 TB 0 FL 0 NO 897

Keywords: child sexual abuse; disclosure; legal system

SHORELINE ECOLOGICAL SUMMARY

REVISION: 08/22/91

Segment ST / AE 6 Subdivision A Date (mo / day / yr) 4 / 24 / 90

Time (24 hr) 1710 - 1830 off-Biologist TONY ZAMORA

(A) Substrate type and % of segments:
(1) Bedrock 70 (2) Boulder 3 (3) Cobble 9 (4) Pebble 17 (5) Sand 1 (6) Silt -

(B) Overall % cover of biota (% of segment): Dense 80 Moderate 20 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-16-11

Frames 16-22

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

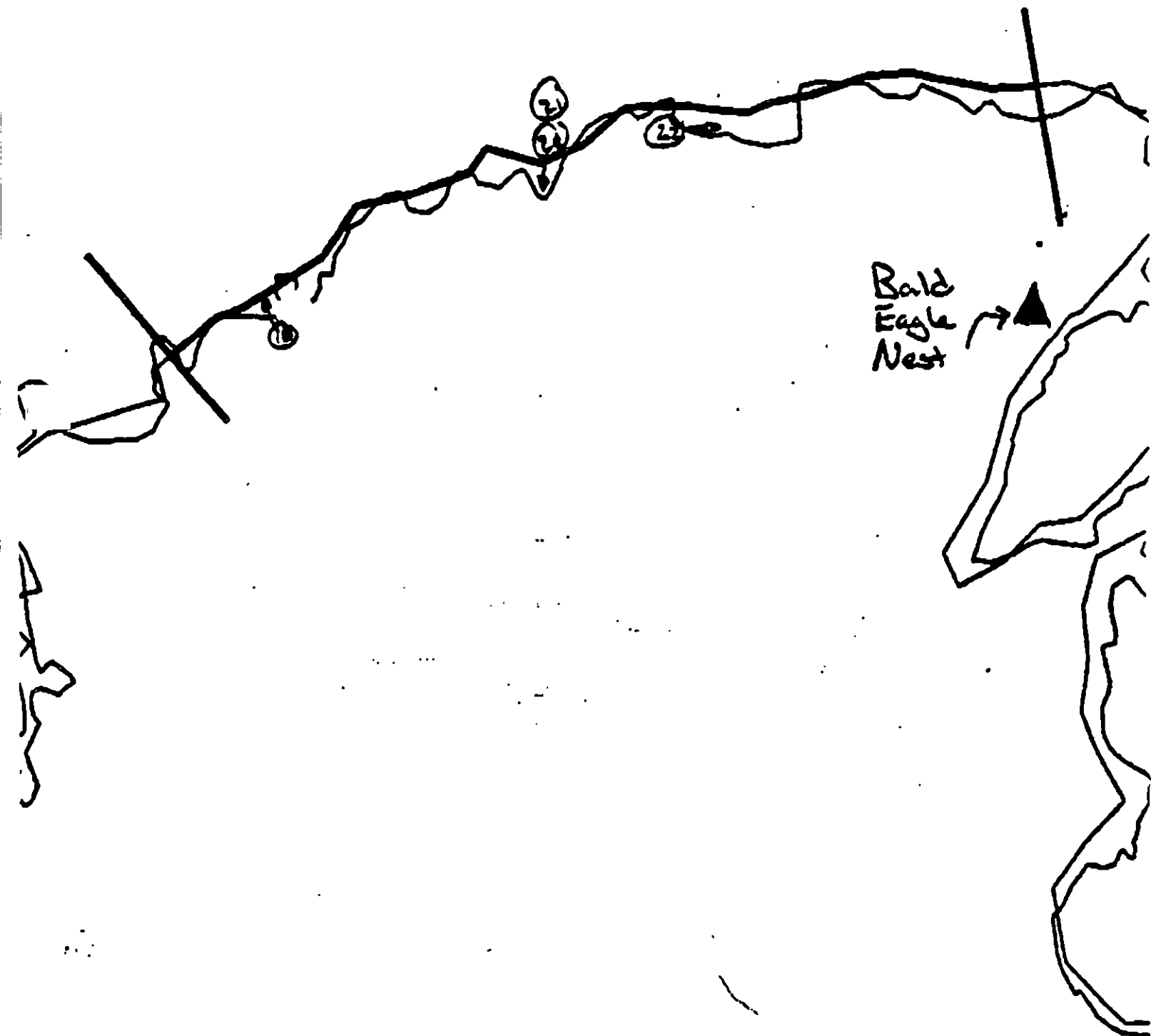
NOT PRESENT

Wildlife Observations/ General Comments:

- 1 EAGLE SPOTTED.
- NO OILED BIOTA OBSERVED.
- THIS SEGMENT IS SIMILAR TO OTHERS ON APPLEGATE I, BIOTA APPEARS HEALTHY AS EVIDENT BY DENSE COVERAGE AND NEW GROWTH (SEE ATTACHED SHEET)

ECOLOGICAL CONSIDERATIONS:
COU

AE-6



AE-6

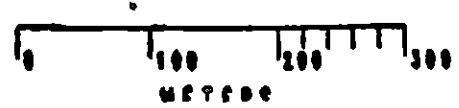
AE-7

AE-1

XXXX Wide
//// Medium
--- Narrow
TTTT Very Light
0000 No Oil

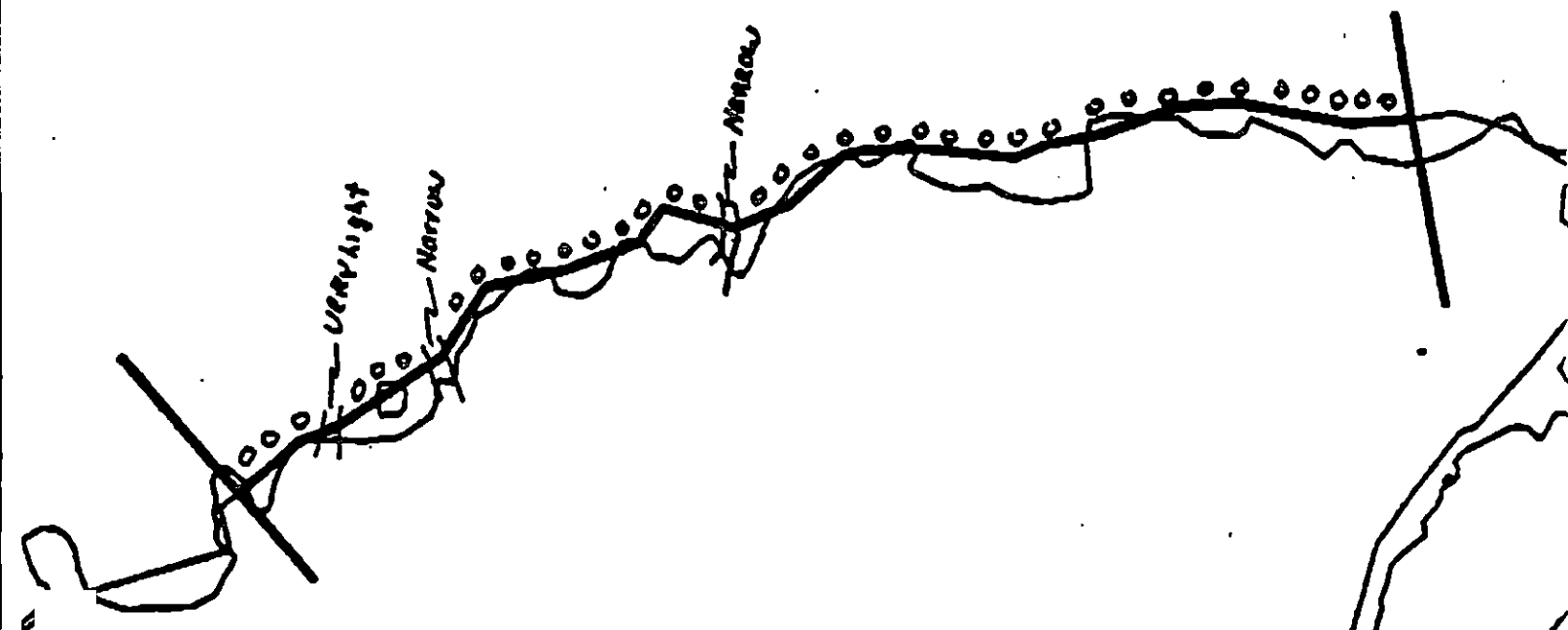
AE-6

ADEC Segment Length: 739m



Map Key: PWS-7
Name: Reimer
Date: 4/24/90
Data Entered:

AE-6



← AE-7

AE-1

SHORELINE EVALUATION

SEGMENT ST/ AE-07 SUBDIVISION A (1 OF 1) DATE 42490

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
No specific constraints identified.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

SHPO SIGNATURE: [Signature] DATE: 5/8/90

OILING CATEGORIZATION:

Wide 0 m: Medium 7 m: Narrow 20 m: V.Light 75 m: No Oil 445 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> </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)

+ Mousse

COMMENTS: Recommended treatment includes manual removal of tarmats in three areas indicatd on sketch map. No specific working time constraints.

TAG COMMENTS:

TAG APPROVAL DATE: 5/8/90.

ADEC [Signature]

EXXON [Signature]

NOAA [Signature]

USCG [Signature]

FOSC: [Signature] DATE: 5-12-90

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
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, prior to at least July 1 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 Habitat Division prior to treatment for consultation and/or permit application.
AGENCY CONTACT PERSON: ADF&G John Morison 257-2324
- 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, prior to July 31 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 Esther Hatchery release (4/15 to 6/15)
1E Main Bay Hatchery release (4/20 to 6/15)
1F Sawmill Bay Hatchery release (4/15 to 6/1)
1G Cannery Creek Hatchery release (4/21 to 6/1)
1H Remote release site
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. 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 or PWS Aquaculture Association for confirmation and authorization.
AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I Gill net area (5/7 to 8/31)
1J Purse seine area (7/20 to 9/30)
1K Purse seine hook-off (7/20 to 9/30)
1L Set net sites (5/11 to 7/25)
Contact ADF&G for specific dates, locations and constraints. 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 James Brady 424-3212
- 2M Herring spawning (4/1 to 6/15)
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 Evelyn Biggs 424-3235
- 3 Harbor seal and sea lion pupping (5/15 to 7/1)
3 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 585-7235
ADF&G Don Calkins 257-2403
- 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 257-2206
- 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 (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 Subistence area: Salmon harvesting (5/1 to 9/30)
7H Finish harvesting
7I Deer harvesting (5/15 to 2/25)
Invertebrate harvesting
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 257-2359

FIELD SHORELINE COMMENT SHEET

304

SEGMENT ST / AE-7 SUBDIVISION: A DATE 4/24/90

USCG NAME Randolph W. Holland SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

1. Minimal oil cover wall of rock cliff, sometimes located in patchy ~~band~~ along difficult area spot on cliffs.

ADEC NAME Patrick Endres SIGNATURE Patrick J. Endres

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

I concur with Exxon OPS Notes regarding cleanup. Due to high recreational use and such a beautiful area, the faster the cleanup operations the better. The biota was abundant and healthy so extra care should be exercised regarding foot travel. —

I agree with land manager on considering the trade offs for scraping spruce needles off rock face.

LAND MANAGER NAME MARSHA MARTIN / DNR SIGNATURE Marsha Martin

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

4 (Pocket #2), Pocket #1. Suggest treatment for sure in area of pit. Consider trade offs for scraping band off vertical walls; such as harm vs. good.

SHORELINE OILING SUMMARY

REVISION NO. 05/13/91

OG Reimer USCG Hubbard SEGMENT ST/ AE-7 20
 BIO Camera LAND REP M. Martin (DNR) SUBDIVISION A (1 OF 1)
 EXXON Arbuckle ADEC Endres TIME 16:20 10/7/90
 TEAM NO. 16 TIDE LEVEL +6 to +4 DATE 4 / 24 / 90
 EST. SUBDIVISION LENGTH: 1193 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock Gravel
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: West to East
 SURFACE SEDIMENTS: R 85 % B 5 % C 25 % P 30 % G 5 % S 5 % M 10 % V 0 %
 SLOPE: Long 80 % Hang 80 % Vert 20 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 5 m N 30 m VL 75 m NO 1063 m

SURFACE OIL

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

PAVEMENT (H) F (S) 8 sq. m by 3 cmPATTIES / TARBALLS 0 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 0#BAGS 0

Photographs:

Roll No. _____

Frames _____

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR				PIT ZONE				AN A	DEPT (m)	V	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UO	1	2	3	4	SU	U	M	L				
1	20					X	.							X							P-P
2	35					X	.							X							P-PG
3	25					X	.								X						P-PGC
4	20					X	.								X						PC-PGC
5	30					X	.							X							P-P
6	35					X	.								X						PC-PGS

COMMENTS Predominantly a rock cliff dominated coastline with pocket pebble, rubble beaches. Near the center of the segment is a narrow entrance to a backshore tidal lagoonal area with upland grass and peat, there is a freshwater stream and/or snow melt run off washing over the tidal flats.

The oiling along this segment is mostly sporadic to patchy narrow bands along the upper intertidal zone on rock cliffs. Most of this oiling has abundant evergreen needles stuck to the surface. There are also small mousse patches.

REVIEWED 7W DATE 4/26/90

Next page

SHORELINE OILING SUMMARY (PAGE 2)

REVISION 06/13/90

SEGMENT ST/ AE-7 SUBDIVISION A (1 OF 1)

2

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SHEEN (Y/N)	↓	SURFACE SUBSURFACE SEDIMENT
		OP	OR	OL	OF	NO		UD	UC	1	2	3	4	5	6	SU	U	M	V				
7	30					X	.										X						P-P
8	25					X	.												X				P-PG
9	20					X	.										X						PC-PGC
							.																
							.																
							.																
							.																
							.																
							.																
							.																
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							.																

COMMENTS (1) in a small sheltered cove just north of the lagoon and (2) along the east side of a Tumbuk beach in behind a nearshore Island. Two patches of pavement were found, (1) on the western bank at the entrance to the lagoon, and (2) in a sheltered cove at the east end of the segment. The second pavement area is $\frac{1}{2} \times \frac{1}{2}$ m. and is very hard (this may not be Exxon Valdez oil), however it is in the same spot where some sporadic softer curbs were found.

REVIEWED

JW

DATE

4/24/90

DATE 4 / 24 90

~~N. Area~~
~~Approx. Date~~
~~Approx. Study~~
~~Off Dist.~~
~~Width~~
~~Length~~
~~% Cover~~
~~Substrate Character~~
~~E.g. PWA/LWL~~
~~etc.~~
~~Profile Location(s)~~
~~Profile(s)~~
~~Photo Location(s)~~
~~Photo Location(s)~~

LEGEND

1 Δ
PR - No Submarine Oil

PA
PA - Refractive Oil

CTAC
COURTNEY TAYLOR AND COMPANY

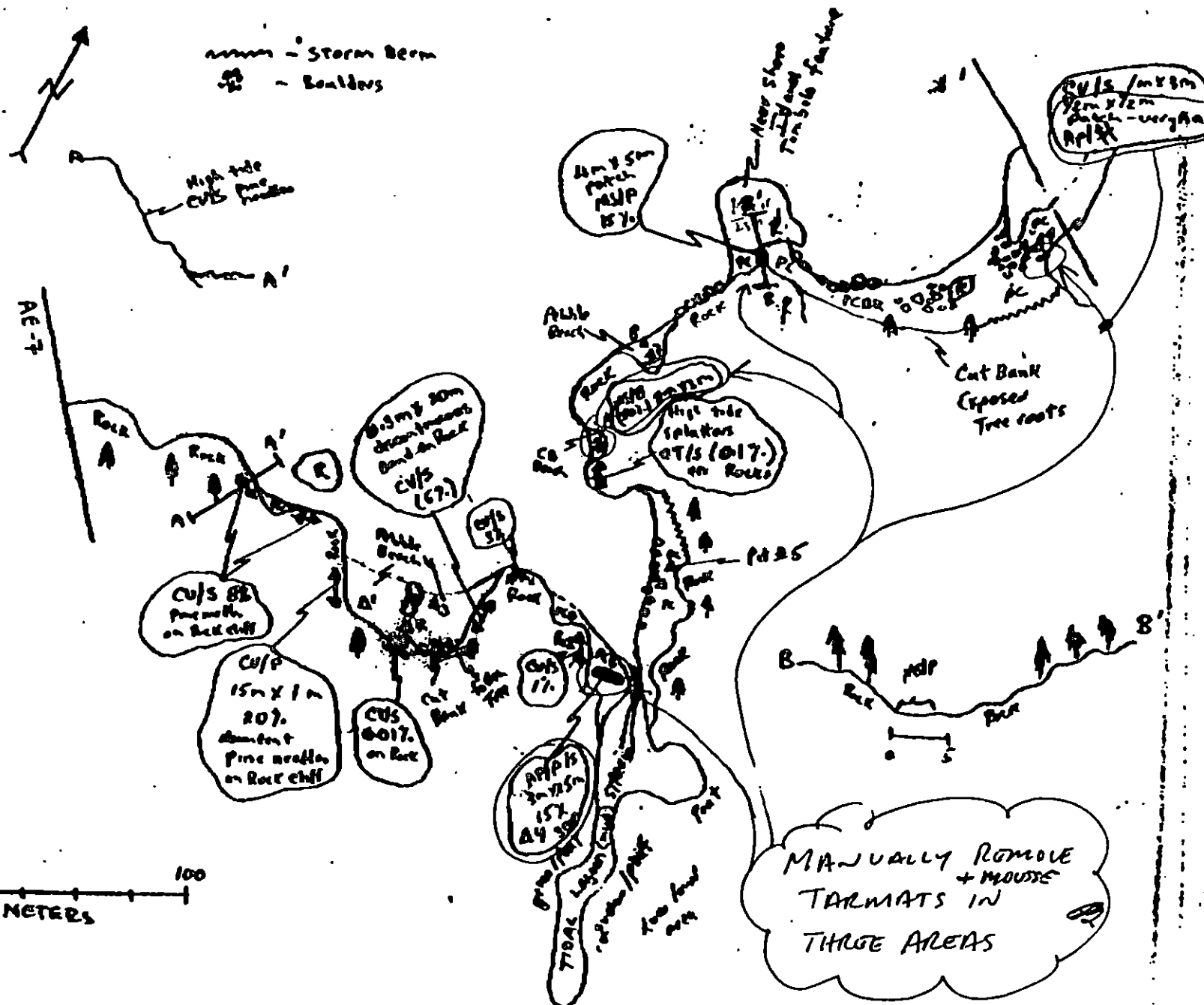
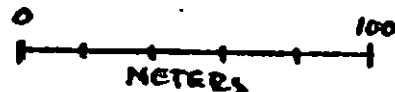
CT/D
Custom Distortion

CT/P
Packaging Distribution

CT/S
Attached Disasters

lll
Dead Vegetation

**Photo location, direction,
and number**



Oil Character Length (in): AP 16 PO 0 CV 115 OT 10th ST 0 MS 8 FT 0 TB 0 FL 0 NO 1063

SHORELINE ECOLOGICAL SUMMARY

REVISION: 08/23/90

Segment ST / AE 7 Subdivision A Date (mo / day / yr) 4-24-90Time (24 hr) _____ Biologist TONY ZAMORA

(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 80 Moderate 20 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-16-11Frames 7-14

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:

- 1 GRAUSE SPOTTED

- DENSE BARNACLE SPAT, NEW GROWTH OF FUCUS ON ROCK, NUCELLA COPULATING, LITTORINA EGGS.

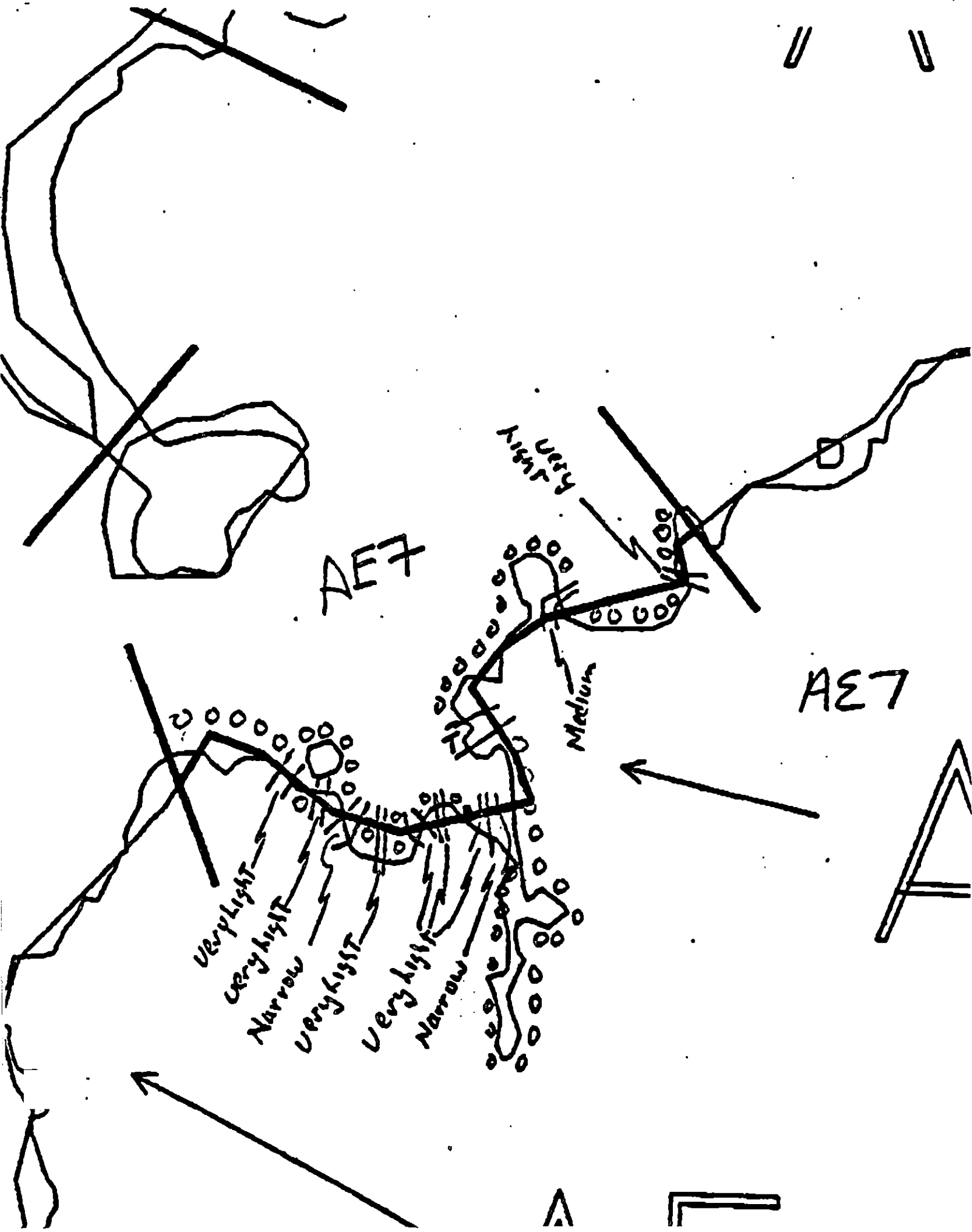
- NO OIL COATED BIOTA SEEN. LOW MORTALITY OVERALL.

- THIS SEGMENT HAS SIMILAR ROCKY SHORE BIOTA AS ON THE REST OF APPLEDATE ISLAND.

ECOLOGICAL CONSIDERATIONS:

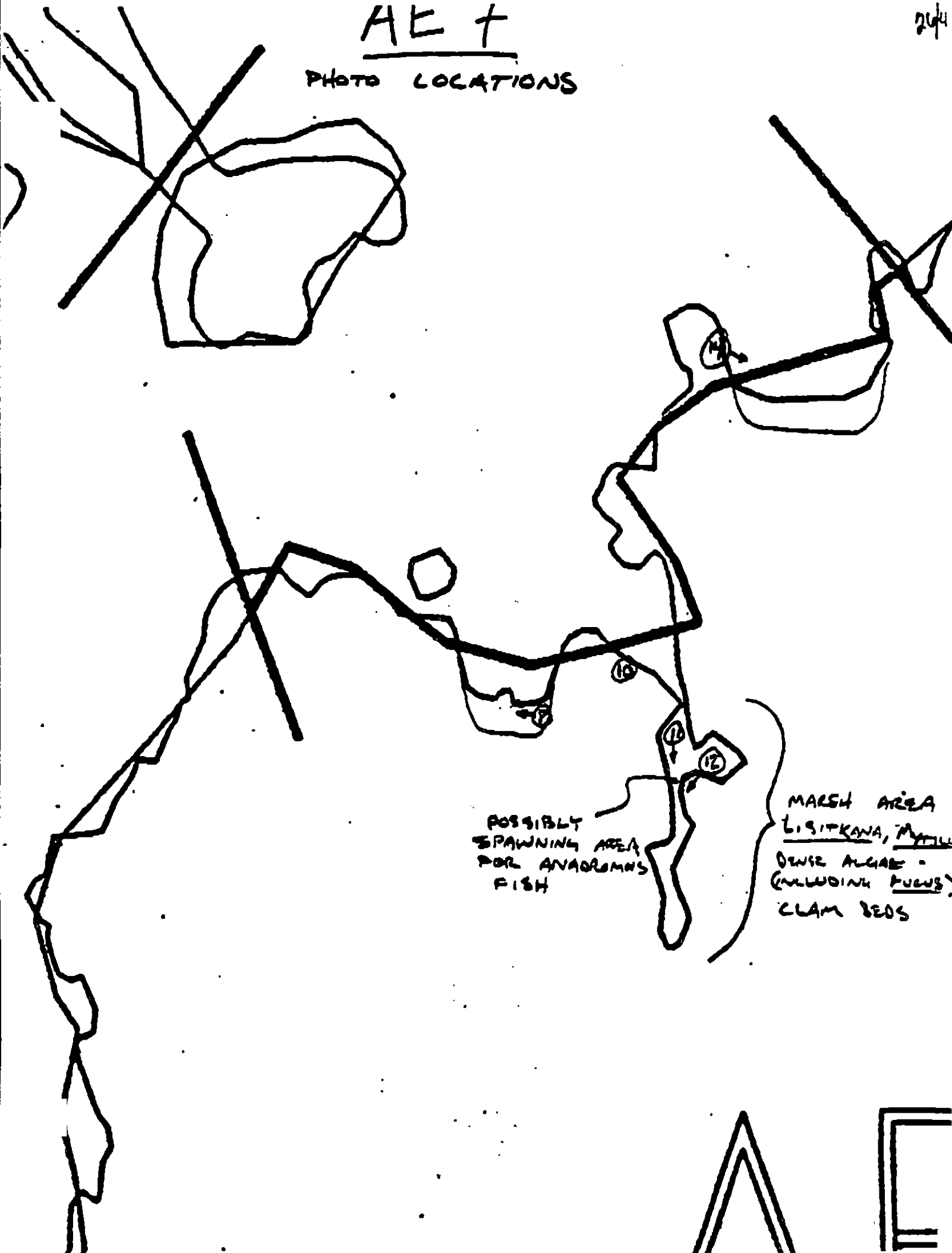
GU, 755, POSSIBLY 1/A/B

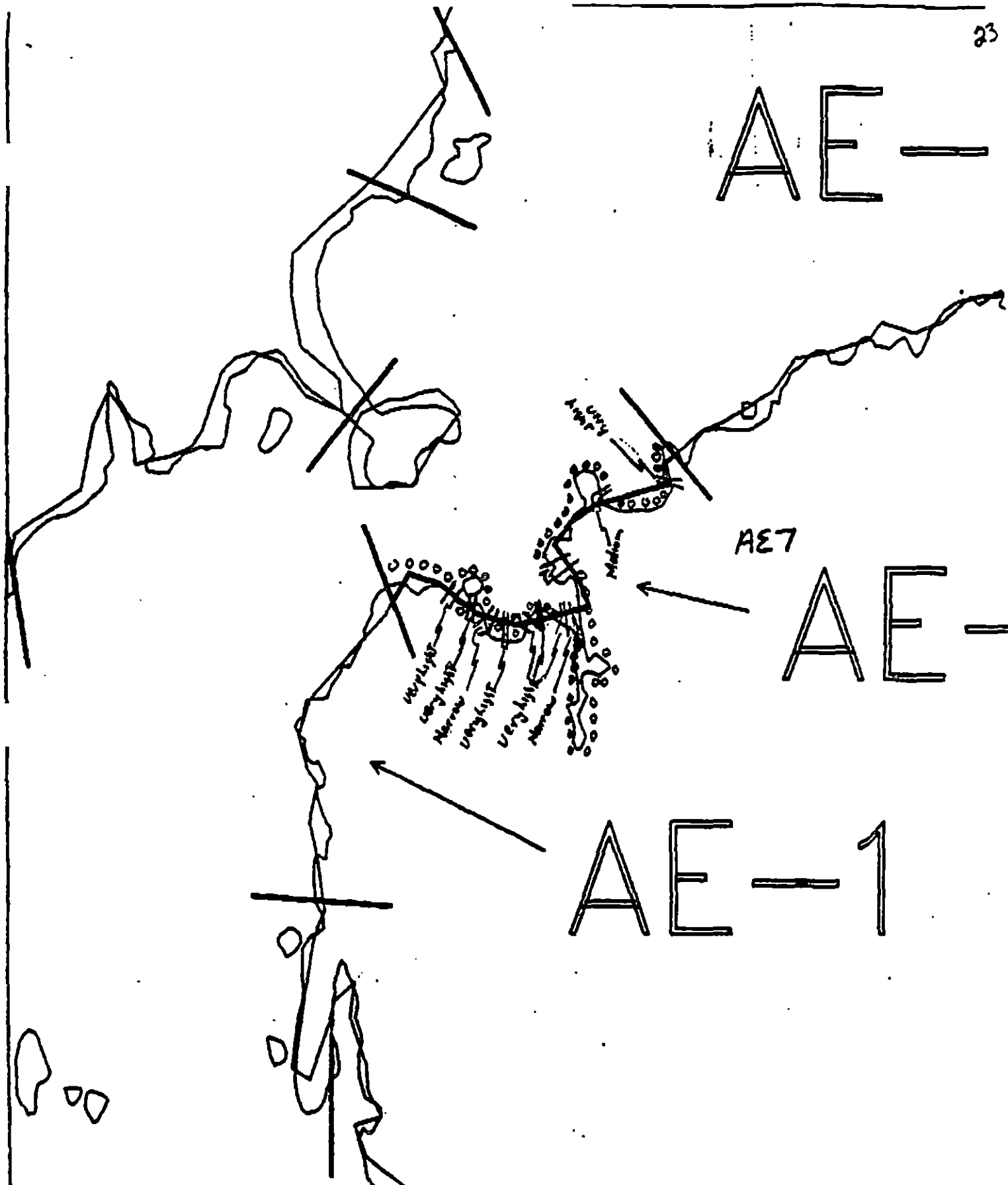
24/4



AE +

PHOTO LOCATIONS





XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

AE-7

ADEC Segment Length: 348m

Map Key: PWS-8

Name: ReimerDate: 4/24/90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ AG-01 SUBDIVISION A (1 OF 2) DATE 4/6/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
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: [Signature] DATE: 4/23/90

OILING CATEGORIZATION:

Wide 71 m: Medium 0 m: Narrow 0 m: V.Light 86 m: No Oil 0 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> </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 bioremediation of pocket beach as shown on sketch
map. Work should be conducted after 6/1 and after contacting USFWS
regarding eagle nesting status in subdivision.

TAG COMMENTS:

TAG APPROVAL DATE:

ADEC Art Lerner
EXXON Amorita
NOAA Joseph Talbot
USCG Kenneth Keane

FOSC: [Signature]

DATE: 4-27-90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

1A	Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B	Salmon stream mouth - spawning (7/10 to 8/31) 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	Esther Hatchery release (4/15 to 6/1)
1E	Main Bay Hatchery release (4/20 to 5/10)
1F	Sawmill Bay Hatchery release (4/15 to 6/1)
1G	Cannery Creek Hatchery release (4/21 to 6/1)
1H	Remote release site
1I	Gill net area (6/7 to 8/31)
1J	Purse seine area (7/20 to 9/30)
1K	Purse seine hook-off (7/20 to 9/30)
1L	Set net sites (6/11 to 7/25) For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
2M	Herring spawning (4/1 to 6/15) 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 3O, 3Q	Harbor seal and sea lion pupping (5/15 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.
5R	Seabird colony (5/1 to 9/1) 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	Anchorage (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 (5/1 to 9/30)
7HH	Finfish harvesting
7II	Deer harvesting (8/15 to 2/28)
7JJ	Invertebrate harvesting For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET (7 of 22)

SEGMENT ST / AG-1 SUBDIVISION: A DATE 4/6/90

NAME

NAME

Jeffrey Akliu

SIGNATURE Jeffrey Akliu☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

~~Small cobbles~~ ^{pebbles} ~~had~~ ^{had} a wide band of oil. The oil was subsurface on the entire inter-tidal zone. The bottom and bedrock were coated with oil in a fairly wide and heavy band. Sheen ~~was~~ came off from the sediments quite readily. The oil was 2-5cm deep into the sediments.

ADEC

NAME

Lori Stratton

SIGNATURE

Lori Stratton☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

Wide coat of oil on sides of boulders, oil film extending over surface of cobbles should be treated due to rainbow sheen released in pits at M.I. Surface oil under cobbles ~~can~~ penetrate to 5cm. See locations #2 and #4.

Hot water wash or bioremediation are suggestions for this area. Moderate mussel populations are present.

LAND MANAGER

NAME

SIGNATURE

☐ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

No land manager

SHORELINE OILING SUMMARY (2 of 22)

REVISION NO. 03/22/90

OG K. DE BUSSCHER REVENUE Jeffrey A. Lila SEGMENT ST/ AG-1
 BIO D REED LAND REP NONE SUBDIVISION F
 EXXON Tony Diaz ADEC Lori Stratton TIME 17:20 to 17:50
 TEAM NO.: 9 TIDE LEVEL: 1 to 3/4 FT DATE 4/16/90
 EST. SUBDIVISION LENGTH: 155 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 70 % B 5 % C 10 % P 10 % G 0 % S 0 % M 5 % V 0 %
 SLOPE: Long 30 % Hang 40 % Vert 30 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 25 m M 0 m N 0 m VL 100 m NO 0 m

SURFACE OIL

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

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED

☐ YES ☐ NOTYPE #BAGS

Photographs:

Roll No. ST-9-2Frames 22

SUBSURFACE OIL

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		UO	UC	1	2	3	4	5	6	7	8	SU	U	M	V		
1	20		X				0.5*	X			X							X					P/G & P (H ₂ O)
2	20		X				0.5*	X			X								X				P/G & P (H ₂ O)
3	15		X				0.2	X			X								X				P & C / S & G (H ₂ O)
4	20		X				0.5	X			X							X					P & C / P (H ₂ O)
5	5				X		0.5*	X			X							X					MUD

COMMENTS * oiled interval of <5cm in fine sediments of pits # 1, 2 + 5 does not constitute subsurface oil. POSITION #145

SUBDIVISION CONSISTS OF 2 POCKET BEACHES (LOC ① & LOC ②), AND BEDROCK

OILING IS WIDE IN POCKET BEACHES; STAIN/C EXTENDS FROM LI TO UI ON PEBBLES & COBBLES WITH OR UP TO 5 CM DEEP. (OIL SHEEN DEVELOPED ON H₂O IN PITS)

ON S-END OF OF SUBDIVISION (A SKETCH MAP), AN OIL SHEEN COVERS THE MUD FLAT IN HIGH-SPRING TIDE. REVIEWED DIL DATE 4/10/90

OG K. DEBUSSCHERE

SEGMENT TA6-1

SUBDIVISION A

DATE 4/6/90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Bndry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. H/W/L/W/L
- ☐ 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 $\bullet$

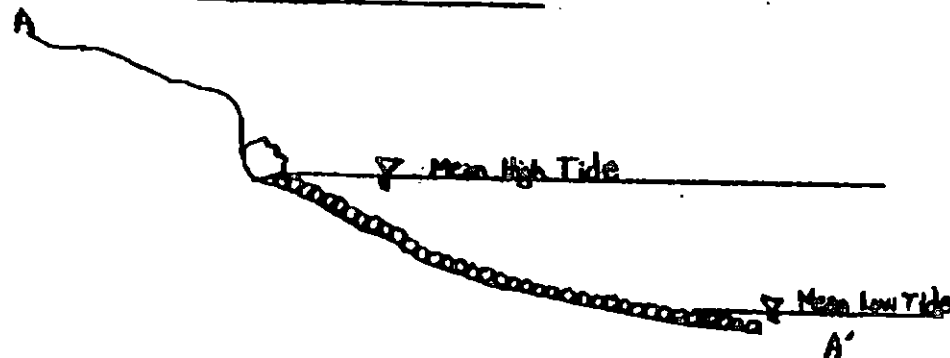
Photo location, direction, and number

ETCH MAP (3 of 22)

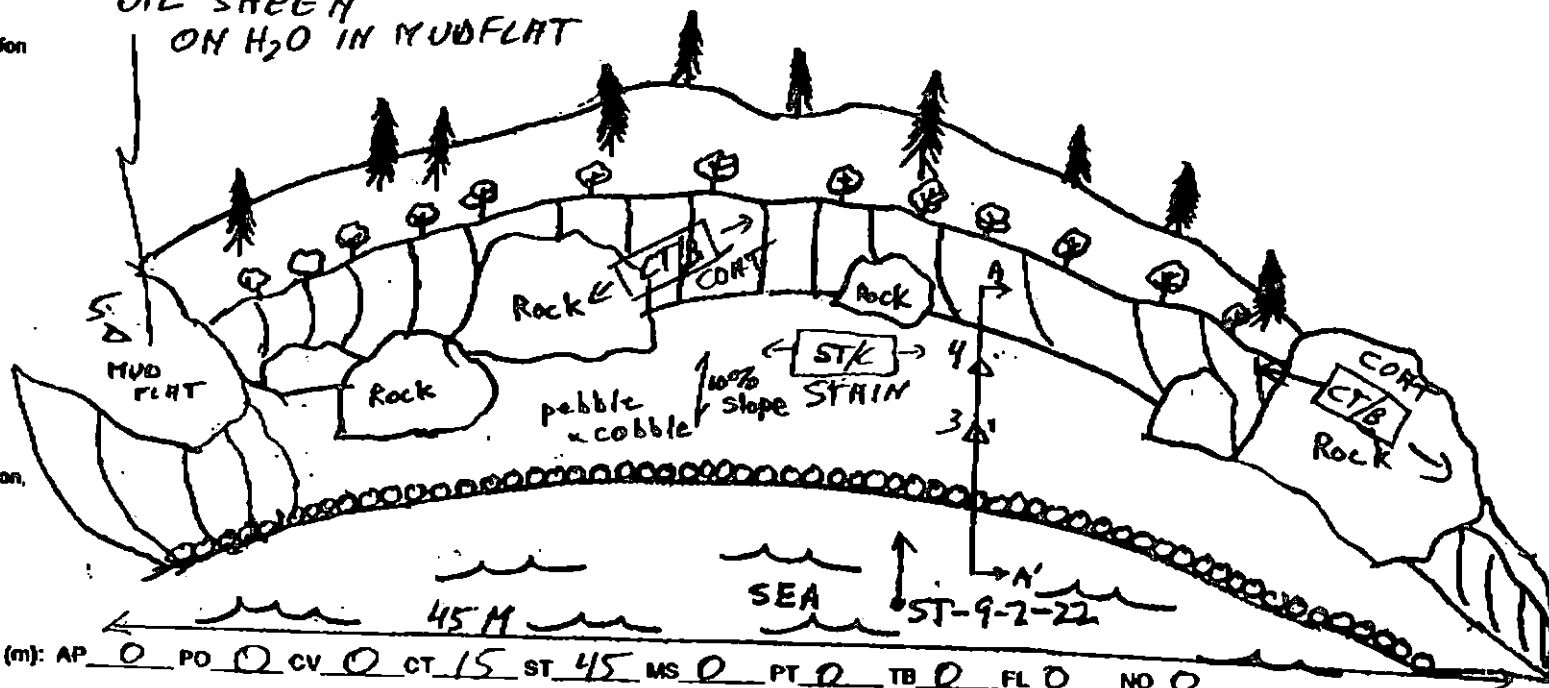
ST-AG-1-A

Location #2

Profile A-A'



OIL SHEEN
ON H₂O IN MUDFLAT



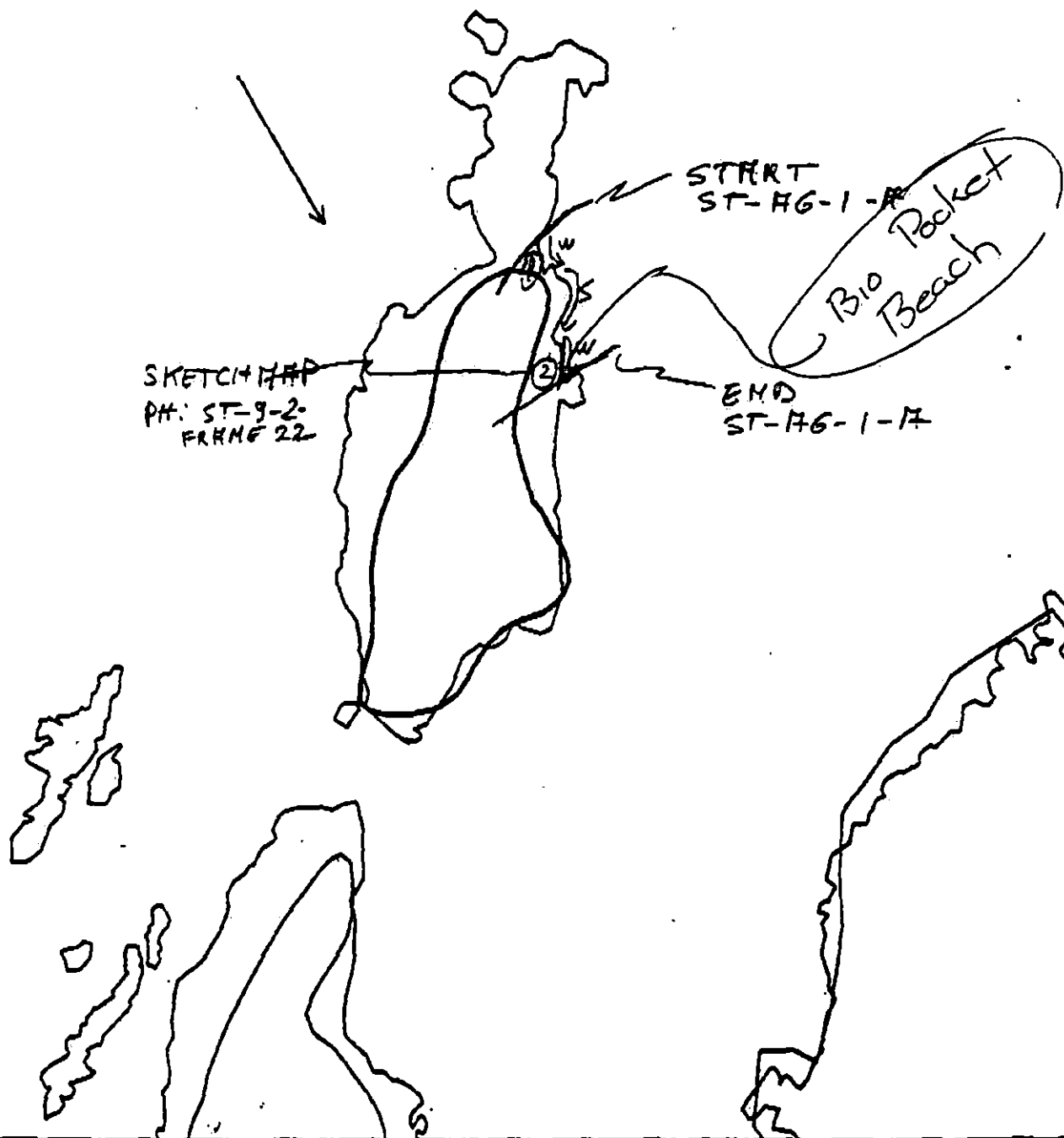
Oil Character Length (m): AP 0 PO 0 CV 0 CT 15 ST 45 MS 0 PT 0 TB 0 FL 0 NO 0

REVISION: 000000

APR-07-1990 13:39 FROM ALBERT TIDE TO EXXON SOFT INC P.03

(4 of 22)

AG-01



XXXX Wide

// Medium

---- Narrow

TTTT Very Light

0000 No Oil

ST-AG-1-A

1928

Total Segment Length: ~~1000~~

Map Key: PWS-9

Name: K. DEBUSSCHEREDate: 4/6/90

Data Entered:

SHORELINE ECOLOGICAL SUMMARY (6 of 22)

REVISION: 03/22/90

Segment ST / AG-1 Subdivision A Date (mo / day / yr) 04/06/90

Time (24 hr) 1720-1750 Biologist D. Reed

(A) Substrate type and % of segments:
(1) Bedrock 70 (2) Boulder 5 (3) Cobble 10 (4) Pebble 10 (5) Sand (6) Silt 5

(B) Overall % cover of biota (% of segment): Dense 20 Moderate 40 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. ST-9-2

Frames 22

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:

NONE short subdivision with wide oiled beach.

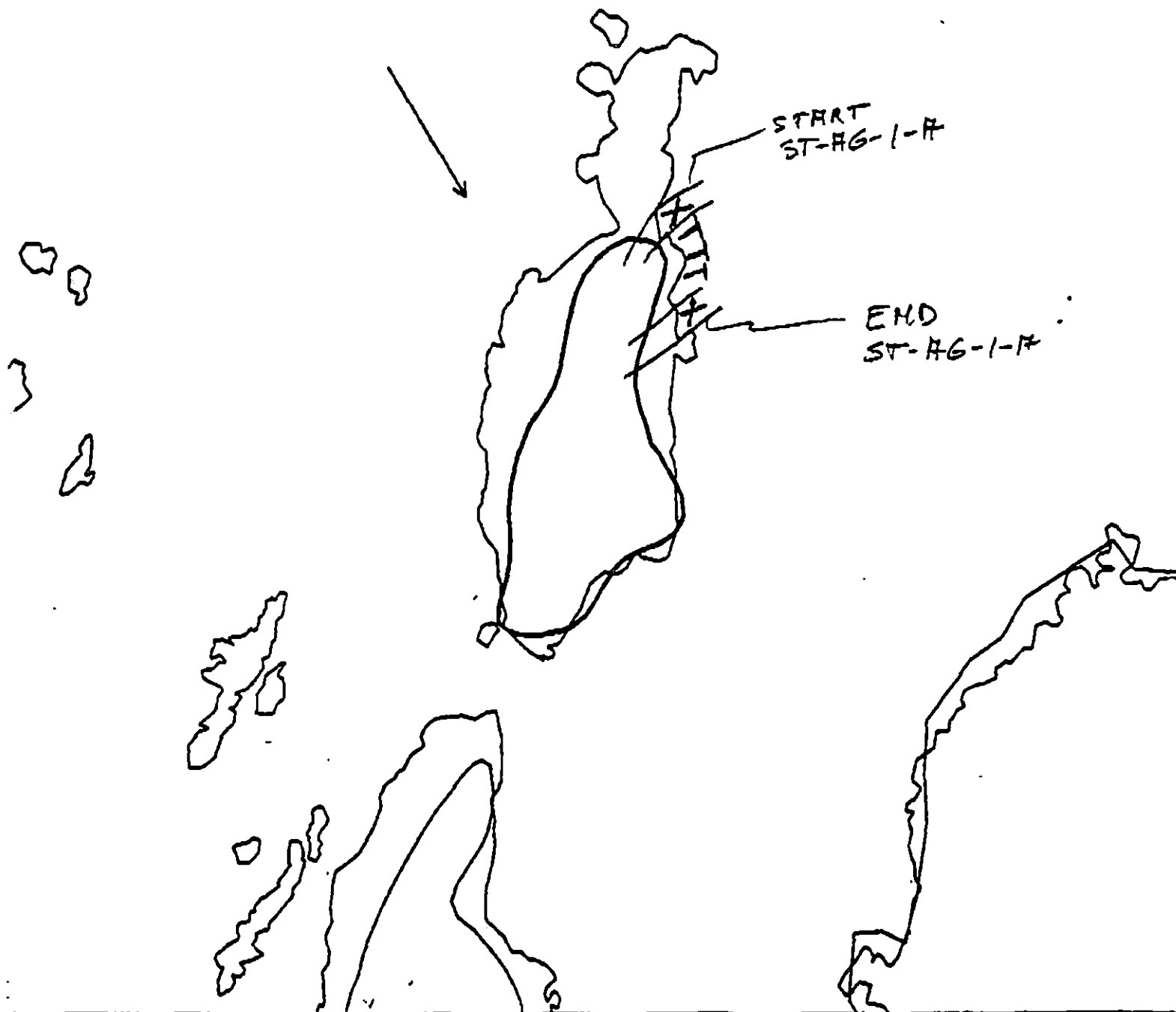
Ecological Considerations:

NONE

(5 of 22)

OIL MAP

AG-01



XXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

ST-AG-1-A

Total Segment Length: 1928



Map Key: PWS-9

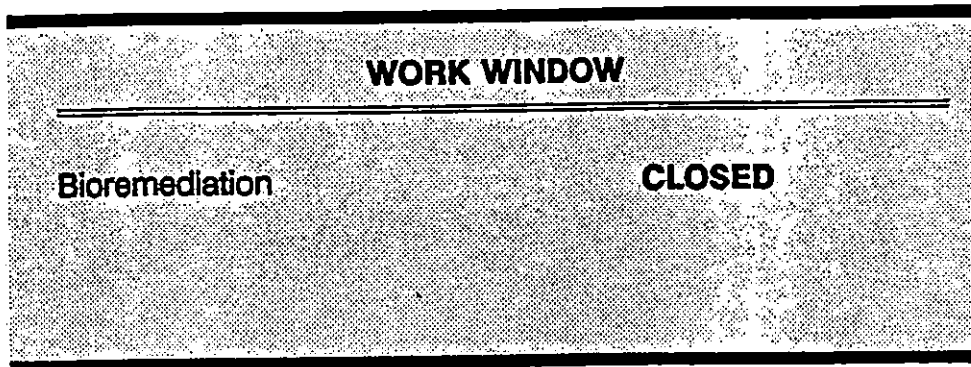
Name: K. DEBUSSCHER

Date: 4/6/90

Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT AG-1 SUBDIVISION A (1 of 2)



ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

3N,O,P,Q

Harbor Seal & Sea Lion
Pupping and Molting

NO TIME CONSTRAINT. Authorized per memorandum dated 5/14/90 from Kathryn Frost/ADF&G to Mark Kuwada/ADF&G.

5T

Bald Eagle Nest

USFWS 6/1/90 map indicates an active nest in Subdivision A. Closed to bioremediation within 400m of active nest.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

[Signature]

Date

6/6/90

Prepared by

[Signature]

Date

6/14/90

AG-01

AG-09

WORK
AREA

A



Exxon Company, USA

Map Key: PMS-AG-1

June 08, 1990



ECOLOGY MAP
SEGMENT AG-1
SUBDIVISION A (1 of 2)

METERS

0 332 703



Seabird Colony



Active Eagle Nest



Inactive Eagle Nest

1 inch = 1153 feet

SHORELINE EVALUATION

SEGMENT ST/ AG-01 SUBDIVISION B (2 OF 2) DATE 4/6/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Contact USFWS prior to treatment for permit if necessary as a result of eagle constraints.

SHPO SIGNATURE: [Signature] DATE: 4/23/90

OILING CATEGORIZATION:

Wide 0 m: Medium 21 m: Narrow 17 m: V.Light 817 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: 4/23/90

ADEC [Signature] [Signature]

EXXON [Signature] [Signature]

NOAA [Signature] [Signature]

USCG [Signature] [Signature]

FOSC: [Signature] DATE: 4-27-90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

1A	Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B	Salmon stream mouth - spawning (7/10 to 8/31) 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	Esther Hatchery release (4/15 to 6/1)
1E	Main Bay Hatchery release (4/20 to 5/10)
1F	Sawmill Bay Hatchery release (4/15 to 6/1)
1G	Cannery Creek Hatchery release (4/21 to 6/1)
1H	Remote release site
1I	Gill net area (6/7 to 8/31)
1J	Purse seine area (7/20 to 9/30)
1K	Purse seine hook-off (7/20 to 9/30)
1L	Set net sites (6/11 to 7/25) For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
2M	Herring spawning (4/1 to 6/15) 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 3O, 3Q	Harbor seal and sea lion pupping (5/15 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.
5R	Seabird colony (5/1 to 9/1) 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	Anchorage (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 (5/1 to 9/30)
7HH	Finfish harvesting
7II	Deer harvesting (8/15 to 2/28)
7JJ	Invertebrate harvesting For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET (12 of 22)

SEGMENT ST / AG-1 SUBDIVISION: B DATE 4/6/90

~~NAME~~
~~1000~~

NAME Jeffrey Rablin SIGNATURE Jeffrey Rablin

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS The oil was very light and occurred as intermittent bands on the boulder and bedrock.

ADEC

NAME Lori Stratton SIGNATURE Lori J. Stratton

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS Oil was not mobile or heavy enough to warrant treatment.

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

No land manager.

SHORELINE OILING SUMMARY (8 of 22)

REVISION NO. 05/23/90

OG K. DEBUSSCHERE ^{NAME} Jeffrey Allen SEGMENT ST/ H6-1
 BIO D. REGID LAND REP NONE SUBDIVISION B 2 1 2
 EXXON TDHY D/HZ ADEC Low Stratton TIME 17:50 to 18:20
 TEAM NO.: 9 TIDE LEVEL: 3/4 to DATE 4/16/90
 EST. SUBDIVISION LENGTH: 1773 m ☒ 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 5 % C 10 % P 5 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 10 % Hang 20 % Vert 60 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 20 m N 20 m VL 1733 m NO 0 m

SURFACE OIL

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

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE #BAGS

Photographs:

Roll No. Frames NONE

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm-OR)	BELOW		OIL / FILM COLOR							PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	2A	2B	2C	2D	2E	2F	2G	SU	U	M	U		
1	15					X	-												X			C/P

COMMENTS

SUBDIVISION IS MOSTLY BEDROCK - VERY LIGHT OILING

SHORELINE ECOLOGICAL SUMMARY (11 of 22)

REVISION: 08/28/90

Segment ST / AG-1 Subdivision B Date (mo / day / yr) 01/06/90

Time (24 hr) 1750-1820 Biologist D. REED

(A) Substrate type and % of segments:
(1) Bedrock 80 (2) Boulder 5 (3) Cobble 10 (4) Pebble 5 (5) Sand (6) Silt

(B) Overall % cover of biota (% of segment): Dense 10 Moderate 70 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 1/10 NR

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:

2 EMBLES

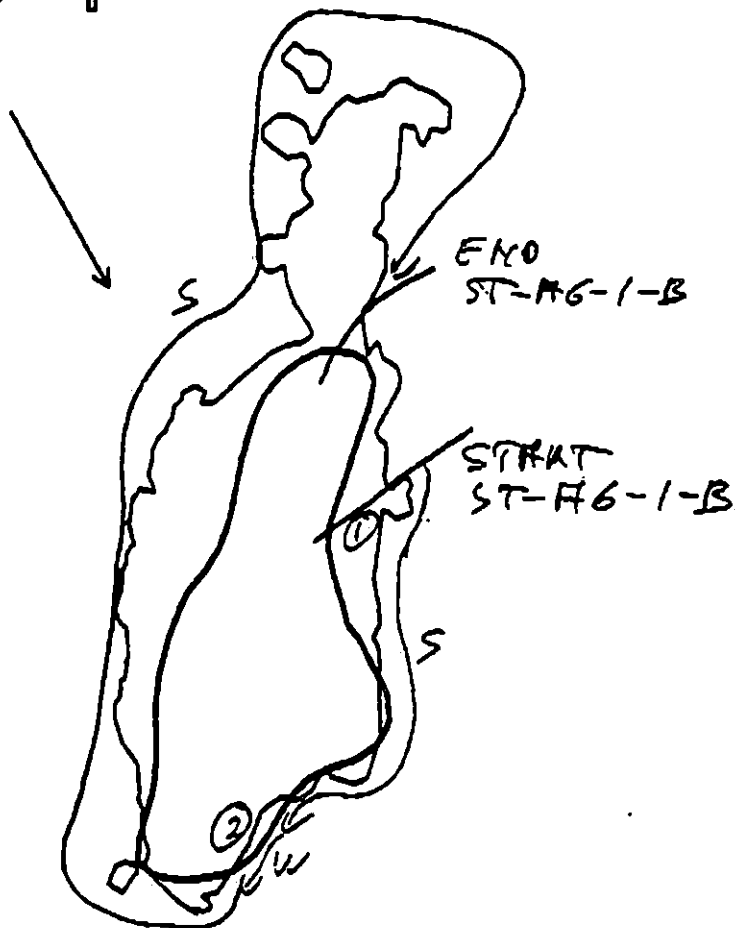
Ecological Considerations:

NONE - LIGHT OIL

S = SKIFF
W = WALK

(10 of 22)

AG-01



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

ST-AG-1-B

Total Segment Length: 1928



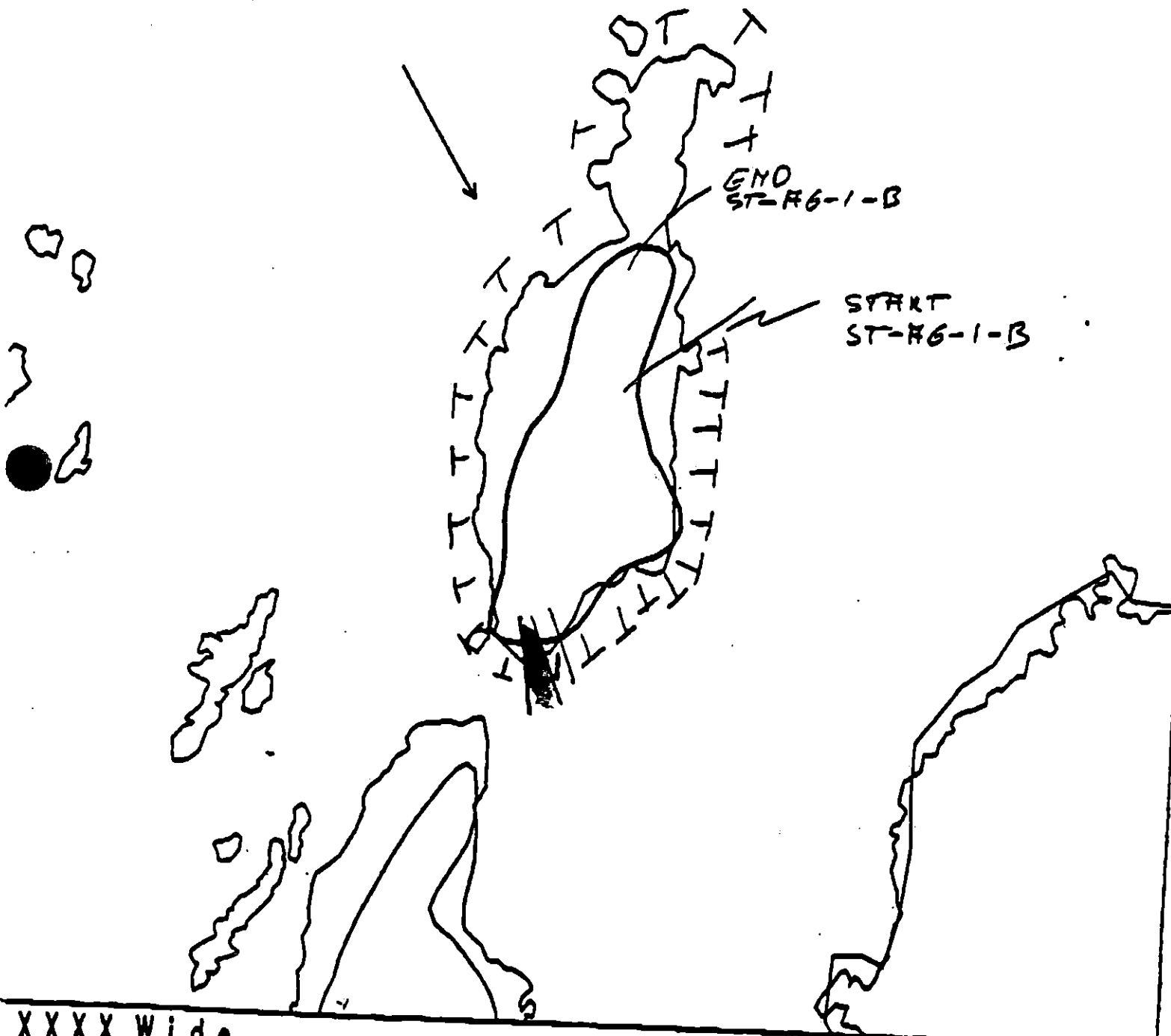
Map Key: PWS-9

Name: K. DEBUSSCHE

Date: 4/6/90

Date Entered:

AG-01



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

ST-AG-1-B

Total Segment Length: 1928



Map Key: PWS-9

Name: K. DEBUSSCHERE

Date: 4/6/90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ AG-09 SUBDIVISION A (1 OF 2) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

3N,3P Harbor seal and sea lion pupping (5/15 to 7/1)

3O,3Q Harbor seal and sea lion molting (8/15 to 9/15)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: Charles J. Holmes DATE: 5/3/90

OILING CATEGORIZATION:

Wide 21 m: Medium 38 m: Narrow 487 m: V.Light 284 m: No Oil 110 m
Subsurface Oil Observed: Yes X No Maximum Depth 22 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>X</u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommended treatment includes 1) tarmat removal, 2) manual pickup of mousse tarballs and oiled vegetation where shown on sketch map, and 3) bioremediation of surface and subsurface oil as shown on sketch map. Work should be conducted prior to 5/15 or 7/1 to 8/15 due to pinniped constraints with the exception of Inipol application which should only be used from 7/2 to 7/31.

TAG COMMENTS: MANUAL TILLING PRIOR TO BLO IN AREA OF TP6

TAG APPROVAL DATE: 5/3/90.
ADEC ART WEINER
EXXON ANDY TSAI
NOAA GARY PETRAE
USCG KENNETH KENNEDY

FOSC: ML

DATE: 5-8-90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A** Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
 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, prior to at least July 1 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 Habitat Division prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G John Morison 267-2324
- 1C** Salmon fry nursery area (5/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inpol application, prior to July 31 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** Esther Hatchery release (4/15 to 6/15)
1E Main Bay Hatchery release (4/20 to 6/15)
1F Sawmill Bay Hatchery release (4/15 to 6/1)
1G Cannery Creek Hatchery release (4/21 to 6/1)
1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inpol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. 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 or PWS Aquaculture Association for confirmation and authorization.
 AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
 1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I** Gill net area (8/7 to 8/31)
1J Purse seine area (7/20 to 9/30)
1K Purse seine hook-off (7/20 to 9/30)
1L Set net sites (8/11 to 7/25)
 Contact ADF&G for specific dates, locations and constraints. 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 James Brady 424-3212
- 2M** Herring spawning (4/1 to 6/15)
 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 Evelyn Biggs 424-3235
- 3N, or 3Q, 3Q** Harbor seal and sea lion pupping (5/15 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 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 (5/1 to 9/30)
7H Finfish harvesting
 Deer harvesting (8/15 to 2/26)
 Invertebrate harvesting
 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 1 AG-9 SUBDIVISION: A DATE APRIL 25 90

NAME STEPHEN STURM SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS OIL (SILVER/GY) IS PRESENT IN THE PERMEABLE SURFACE COVERAGE (GRAVEL/PASSLE/COBBLE) IN THE MITY-VITZ ABOVE THE FOCUS ZONE AT LOC. #2. THIS AREA SHOULD BE RAKED/TILLED BY A SMALL WORK TEAM TO INCREASE SURFACE EXPOSURE OF OILED SEDIMENT FOLLOWED BY BIOREMEDIATION. CARE SHOULD BE TAKEN NOT TO DISTURB THE FOCUS ZONE, WHICH IS DENSE AND APPARENTLY 'HEALTHY'; NOR SHOULD THE USE OF INIPOL BE OVERZEALOUS AS IT IS MODERATELY TOXIC TO THE INTERTIDAL COMMUNITY. TAR MATS/BALLS SHOULD BE REMOVED FROM LOCATIONS 2,3,4; WITH MANUAL RAKING OF OILED SUBSTRATES TO INCREASE MICROBIAL DEGRADATION. THE USE OF INIPOL (BIOREMEDIATION) MAY BE NECESSARY IN THE VITZ ON A 25 M² AREA AT LOCATION #4.

ADEC NAME Wesley Ghormley SIGNATURE Wesley Ghormley

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

MENTS
Location #1, Coat/Cover Needs to be removed using Hot H₂O High pressure.
Location #2, small patch of oiled vegetation should be removed using hand tools. IN addition bulldoze cobbles @ VITZ should be wiped down using sorbent pads to recover as much mobile oil as possible, Hot H₂O should follow to remove remaining oil. Subsurface oil on Location should be removed by agitating gravel / by the use of Hot H₂O. IN Addition a small header system might be a plus to enhance the flow of oil to the water line, so as to be recovered. Work only when "green zone" is not exposed so it won't be contaminated. Pick up oil with Pom-poms.
Location #3 - Manually removal of asphalt/pavement. Wipe bedrock to remove Coat/Cover with sorbent pads. Scrapers could be used to remove cover & Hot H₂O applied @ High tide.
Tar balls & cover are visible in Picket beach around corner from Southern tip
W.G. manually remove tar balls & wipe down any visible oil on rocks then roll them to the side to expose oil, treat with Hot H₂O.

LAND MANAGER NAME Ray Burger BOWR SIGNATURE [Signature] (see additional sheet)

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS
- Concur with ADEC treatment as above.
- While many beaches are suitable landing areas, the only tent site is at the south point where access is afforded from both east & west sides. However, this also near a possible gull nesting site.

Additional
FIELD SHORELINE COMMENT SHEET

SEGMENT ST / AG-9 SUBDIVISION: A DATE April 25, 90

USCG

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADEC

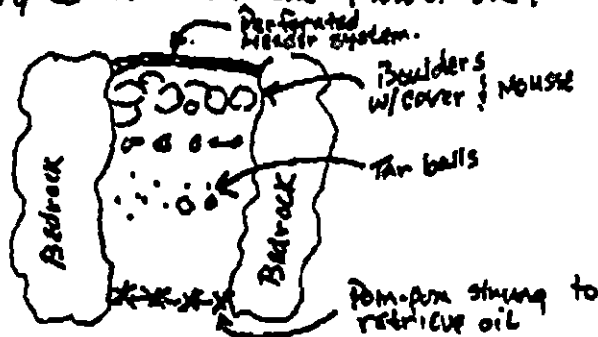
NAME Wesley Ghormley SIGNATURE Wesley Ghormley

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Location #4 - Recommend wiping down of all recoverable oil with sorbent pads. Mousse, tar balls, cover on Location should be removed by the use of Hot H₂O in addition a small Hot header system may be necessary to enhance the flow of oil. The location is a small pocket beach with bedrock on both sides & is perfect for a small header system & the use of pom-poms strung above uncontaminated green zone. Retrieve oil with pom-poms.

Location #5 - Remove coat/cover w/ hot H₂O wiping, & possibly scraping Heavier Portions of oil first.



LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY

REVISION NO. 04.13.90

OG K. DEBUSSCHERE NOAA STEPHEN SUMM SEGMENT ST/ H6-3
 BIO. D. KEED LAND REP. Roy Barger ADNR SUBDIVISION A (1 OF 3)
 EXXON T. DIERZ ADEC Wesley G. Harnley TIME 7:00 TO 9:25 AND 10:45 TO 11
 TAM NO. 9 TIDE LEVEL -2 TO -1 AND 3 TO 3.75 DATE 4/25/90
 LST. SUBDIVISION LENGTH: 1395 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 15 % C 10 % P 10 % G 3 % S 2 % M 0 % V 0 %
 SLOPE: Lang 40 % Hang 45 % Vert 15 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 15 m M 180 m N 700 m VL 400 m NO 160 m

SURFACE OIL

CHARACTER	DISTRIBUTION					OIL / FILM COLOR					IMPACTED ZONES				
	C	B	P	G	S	BU	U	M	V	NO	BU	U	M	V	NO
ASPHALT PAVEMENT			X			X					X				
POOLED															
COVER		0	V	X	V	X					X				
COAT	V	Z	X	0		X					X				
STAIN															
MOUSSE				X				X			X				
PATTIES															
TARBALLS				V	X				V		X				
M															
NO OIL											X				X

PAVEMENT H (F) S 9 sq. m by 1 cmPATTIES (TARBALLS) 1 BAGSNEAR SHORE SHEEN? (NO) BR RW SL TL

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

DID YOU COLLECT DEBRIS?

YES ☒ NO ☐TYPE POM POM#BAGS 1

Photographs:

Roll No. ST-9-3Frames 25 & 26

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR					PIT ZONE				AN A	REMARKS (MAY)	DEPTH	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	VC	BU	U	M	V	NO	BU	U	M	V				
1	18		X				5-15	X			X				X					Y	15	P-PaCaGs
2	15		X				10-12		X			X			X					N	-	B-PaGs
3	7		X				0-4		X		X					X				Y	5	P-PaS
4	10					X	.										X			N	2	M-MaPaG
5	15					X	.										X			H	10	CaM-MaPaG
6	40		X				15-22		X			X				X				N	-	P-PaG/C

COMMENTS

SUBDIVISION CONSISTS OF ROCKY HEADLANDS, PEBBLE DOMINATED LOW ANGLE, AND COBBLE & BOULDER LOW TO HIGH ANGLE BEACHES

MOST SIGNIFICANT OILING IS IN LOCATION ②: SUBSURFACE EXTENDS TO 22 CM (SEE PITS 1-36) SUBSURFACE IS IN ± 10X15 M WIDE BAND IN COBBLE/PEBBLE BEACH AND ± 7 M WIDE IN PEBBLE

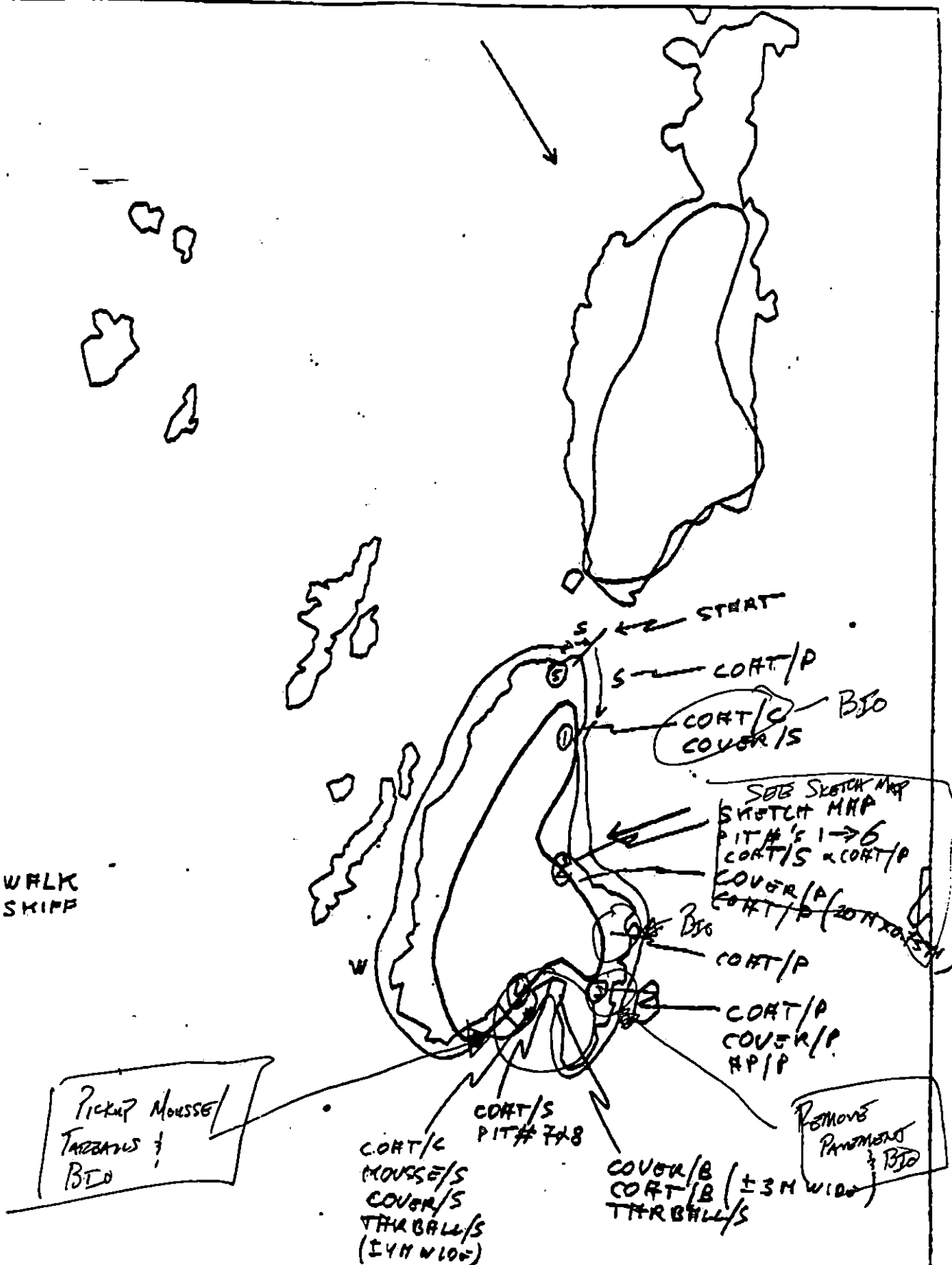
→ OVER

REVIEWED MH DATE 4-27-90

DEVIATION NO. 2-50

2/29

W = WALK
S = SKIP



XX Wide
/// Medium
--- Narrow
TTTT Very Light
0000 No Oil

ST-AG-9-A

Total Segment Length: 3723



Map Key: PWS-10

Name: K. DEBUSS CHORE

Date: 4/25/90

Date Entered:

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / AG-9 Subdivision A Date (mo / day / yr) 04/25/90
 ne (24 hr) 0720-0930 Biologist D. REED
1045-120

- (A) Substrate type and % of segments:
 (1) Bedrock 60 (2) Boulder 15 (3) Cobble 10 (4) Pebble 10 (5) Sand 5 (6) Silt
- (B) Overall % cover of biota (% of segment): Dense 40 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. ST-9-3

Frames 25, 26

BARNACLES

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

GASTROPODS

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

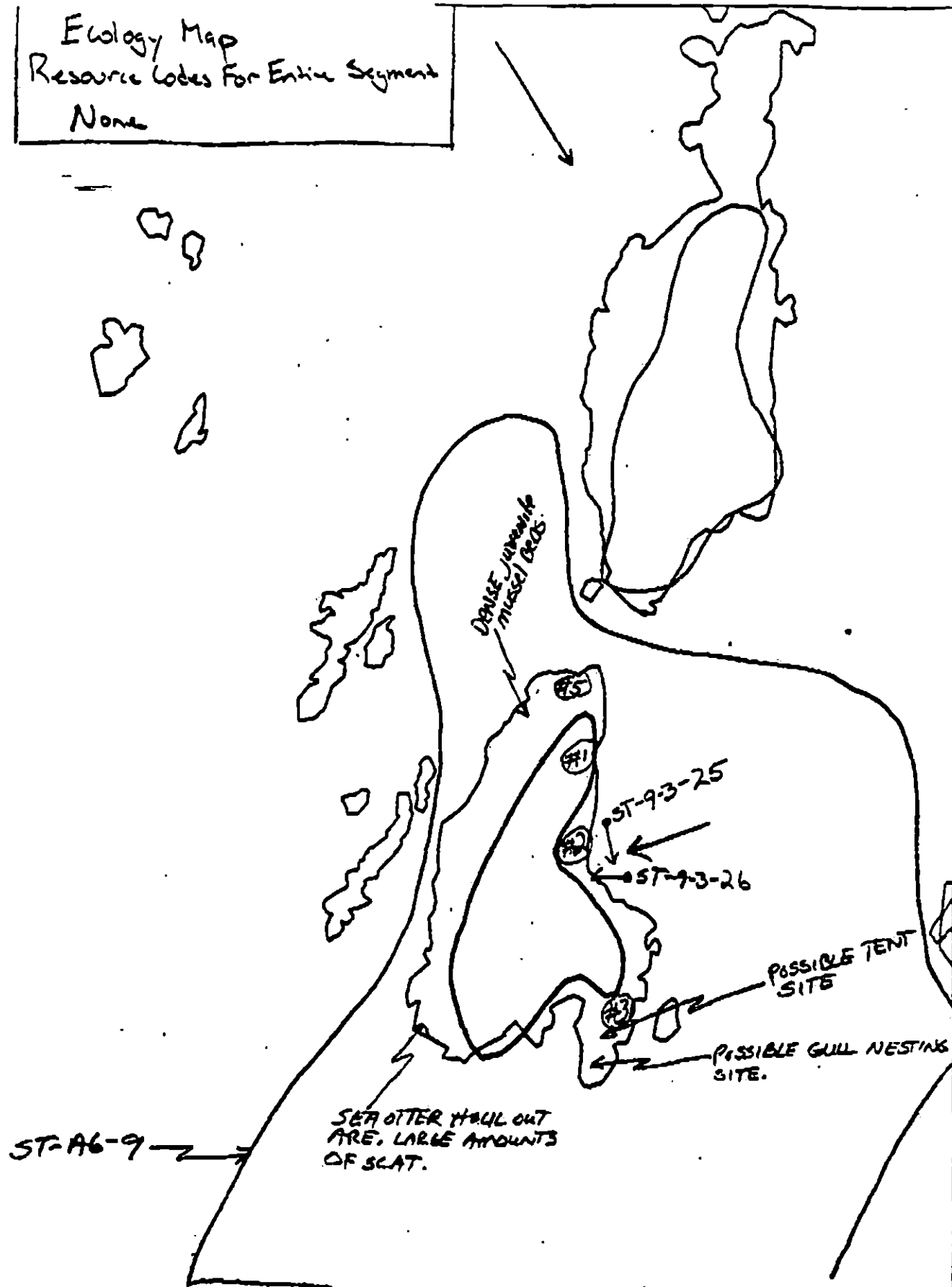
FUCUS

Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	(30)	X	2	2	2	2	NOT PRESENT
3	3	3	3	X	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	
6	6	6	6	6	6	6	6	6	6	6	6	

Wildlife Observations/ General Comments:

Segment largely bedrock with dense algal cover in mid and low zones. Dense juvenile mussel beds growing on Rhodomela at location #5. Possible gull nesting/roosting site (indicated by cracked Nucella shells, feathers and guano) located high on flat bedrock ~100m from a potential ecological considerations: TENT SITE. SEA OTTER FORAGING PITS AND HAVEN ARE COMMON ON SOUTH SIDE. NUMEROUS SEA STARS (PYCNOPOD DERMASTERIATS, EVASTORIATS) AND DENSE SEA GRASS, RED ALG (Rhodomela) AND KELP (PLEUROPHYCUS, HELOPHYLLUM AND COSTARIA IN LOW ZONE.

Ecology Map
Resource Codes For Entire Segment
None



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

ST-AG-9-A

Total Segment Length: 940



Map Key: PWS-10

Name: DAN REED

Date: 04/25/90

Data Entered:

OIL MAP



XXXX Wide

/ / Medium

---- Narrow

TTTT Very Light

0000 No Oil

ST-AG-9-A

Total Segment Length: 3723



Map Key: PWS-10

Name: K. DERUSSCHER

Date: 4/25/90

Date Entered:

REVISION 1
7/28/90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT AG-9 SUBDIVISION A (1 of 2)

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN WORK 7/1 TO 8/15
Bioremediation Manual Tilling	OPEN WORK 7/1 TO 7/31

NO TIME CONSTRAINT. AUTHORIZED
PER MEMORANDUM DATED 5/14/90
FROM KATHY FROST/ADFBG TO
MARK KUWADA/ADFBG

STANDARD ARCHAEOLOGICAL CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

3N,3P,3O,3Q Pinnipeds

- NO CONSTRAINT TO
OR MANUFACTURING
- Do not manual till or apply bioremediation prior to 7/1 or after 7/31.
 - Closed to all activities 5/15 to 7/1 and 8/15 to 9/15.
- NO CONSTRAINT TO MANUAL PICKUP/TARMAT REMOVAL

OTHER ECOLOGICAL CONSIDERATIONS

Avoid any unnecessary disturbance or damage to uncolled biota and substrate. Restrict all activity to essential minimum, especially air traffic.

TAG ADDENDUM DATE 5/18/90
ADEC Art Weiler
EXXON Andy Galt
NOAA Gary Peterson
USCG G.A. Fritter

FOSC

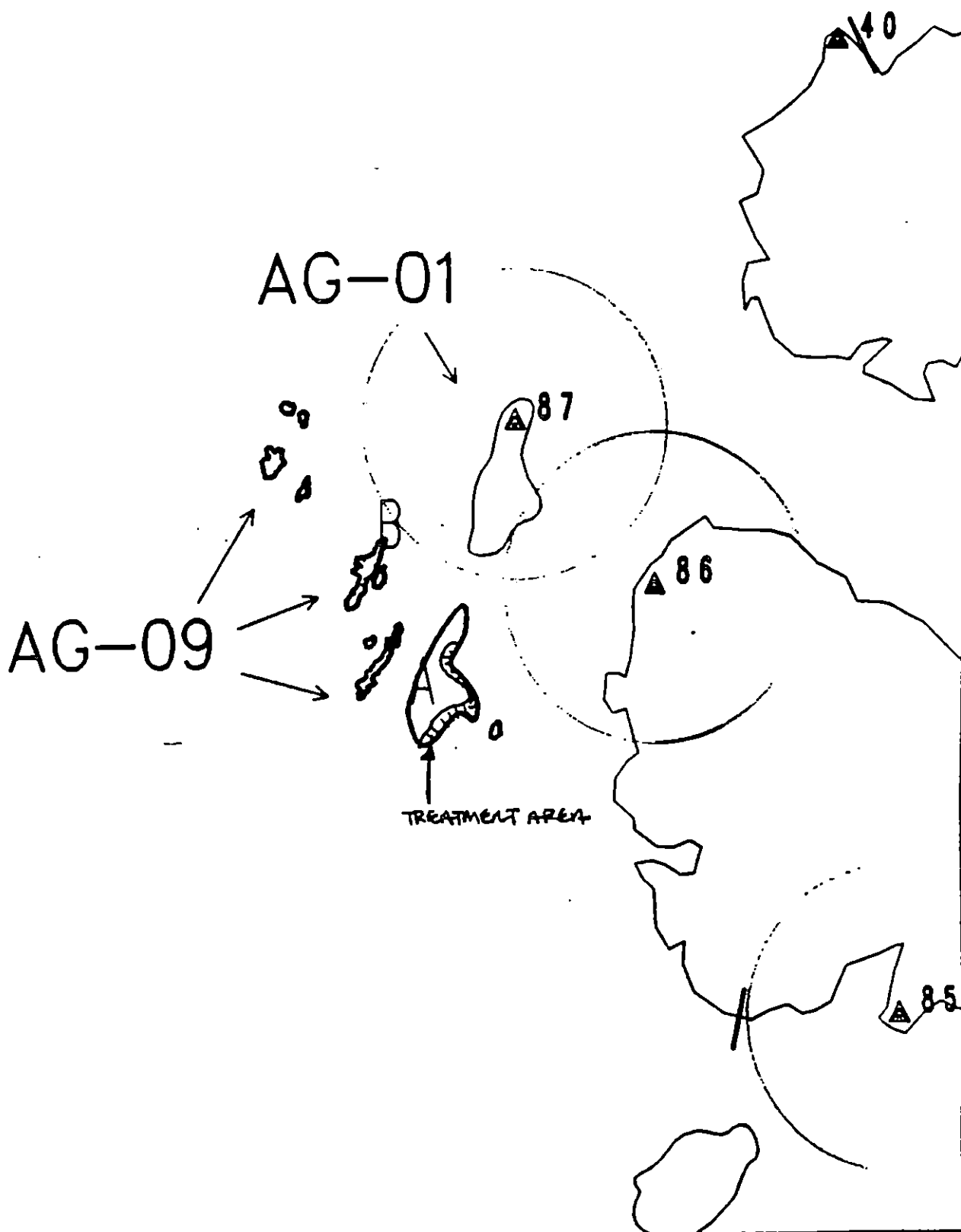
DATE 5-18-90

Prepared by:

Anders Meyer WRK

Date:

5/14/90



Exxon Company, USA
Map Key: KNI-AG-9



ECOLOGY MAP
SEGMENT AG-9
SUBDIVISION A (1 of 2)
METERS

- ★ Seabird Colony
- ▲ Eagle Nest

W = WALK
S = SKIP

Pickup Mouse/
Tadpoles +
BIO

CORT/C
MOUSE/S
COVER/S
TADPOLES/S
(EYEWID)

CORT/S
PIT# 7+8

COVER/B
CORT/B (± 3M wide)
TADPOLES/S

Remove
Pondweed
BIO

SEE SKETCH MAP
SKETCH MAP
PIT# 1-6
CORT/S & CORT/P
COVER/P
CORT/P (20M x 20M)

CORT/P

CORT/P
COVER/P
HP/P

CORT/C
COVER/S
BIO

CORT/P

START

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

ST-AG-9-A

Total Segment Length: 3723



Map Key: PWS-10

Name: K. DEBUSS CHORE

Date: 4/25/90

SHORELINE EVALUATION

SEGMENT ST/ AG-09 SUBDIVISION B (2 OF 2) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

3N,3P Harbor seal and sea lion pupping (5/15 to 7/1)

3O,3Q Harbor seal and sea lion molting (8/15 to 9/15)

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: J. David McMan

DATE: 5/2/90

OILING CATEGORIZATION:

Wide 258 m: Medium 0 m: Narrow 0 m: V.Light 1783 m: No Oil 0 m
Subsurface Oil Observed: Yes X No Maximum Depth 11 cm

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: Recommend bioremediation in areas shown on sketch map. Work should be conducted between 7/2 to 7/31 based on pinniped constraints.

TAG COMMENTS:

BIOREMEDIATION NOT RECOMMENDED DUE TO ENV. SENSITIVITIES (DENSE MUDFLAT BEDS). MANUAL PICKUP OF TARBALLS AS INDICATED ON SKETCH, SPOT WASH ON AREAS OF COVER INDICATED ON SKETCH.

TAG APPROVAL DATE: 5/3/90

ADEC At Weiner
EXXON At Weiner
NOAA At Weiner
USCG At Weiner

FOSC: ML

DATE: 5-12-90

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 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, prior to at least July 1 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 Habitat Division prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G John Morison 267-2324
- 1C Salmon fry nursery area (8/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to July 31 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 Esther Hatchery release (4/15 to 6/15)
 1E Main Bay Hatchery release (4/20 to 6/15)
 1F Sawmill Bay Hatchery release (4/15 to 6/1)
 1G Cannery Creek Hatchery release (4/21 to 6/1)
 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. 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 or PWS Aquaculture Association for confirmation and authorization.
 AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
 1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I Gill net area (8/7 to 8/31)
 1J Purse seine area (7/20 to 9/30)
 1K Purse seine hook-off (7/20 to 9/30)
 1L Set net sites (8/11 to 7/25)
 Contact ADF&G for specific dates, locations and constraints. 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 James Brady 424-3212
- 2M Herring spawning (4/1 to 6/15)
 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 Evelyn Biggs 424-3235
- Harbor seal and sea lion pupping (5/15 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 267-2208
- 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
- 7Z Subistence area: Salmon harvesting (5/1 to 9/30)
 7H-1 Finfish harvesting
 7H-2 Deer harvesting (8/15 to 2/28)
 7H-3 Invertebrate harvesting
 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 / AG-9 SUBDIVISION: B DATE 7-25-90

BAA
BOB

NAME STEPHEN STURM SIGNATURE Stephen Sturm

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS ALL ISLANDS IN THIS SUBDIVISION HAVE A COAT OF TARRY BLACK OIL ON THE SOUTHERN AND EASTERN FACING VERTICAL ROCK FACES ABOVE OR AT MHW. ADDITIONALLY, LOCALITY #3 HAS OILED SURFACE / SUBSTRATE ON A PERCHED COBBLE-VENERED PLATFORM AT THE CENTER OF THE ISLAND. MANUALLY RAKING/TILLING THIS AREA FOLLOWED BY APPLICATION OF INIPOL IS RECOMMENDED IN THIS AREA. TREATMENT SHOULD COMMENCE AT A TIME WHEN THE LIT COMMUNITY IS COVERED SO IT IS NOT DISTURBED BY PHYSICAL OR CHEMICAL IMPACT.

OIL COAT SHOULD BE EVALUATED AT A LATER TIME, TAKING INTO ACCOUNT PHYSICAL DEGRADATION, PHOTODEGRADATION, AND TOXICITY TO THE SURROUNDING BIOTA.

ADEC
NAME Wesley Ghormley SIGNATURE Wesley Ghormley

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS This ^{subdivision} is made up of some islands to the west of the AGULIAK islands. A large amount of wildlife was observed in area & has been determined to be a sea otter haul out area. Seals were also observed in area on rocks. Due to the fact that it is a sensitive area I suggest bioremediation not even be a consideration due to the amount of time it takes to degrade the oil. I suggest it be cleaned early in operation & as thoroughly as possible, as quick as possible due to wildlife windows. (Location #3)
Location #3 - Subsurface oil is present along w/ coat, cover earballs. Suggest working @ high tide with Hot-warm H₂O to remove oil aggregating OF sediment needs to be applied with Hot-warm H₂O. Care should be taken not to disturb the amount of organisms in area. Recommend a small work crew that only works the small beach & bedrock. Foot traffic to other parts of island should be minimal do to large amounts of muscles.
Location #5 - Manually remove earballs.
Location #6 - Manually remove earballs.

LAND MANAGER
NAME Ray Burger BOER SIGNATURE Ray Burger

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS
- Treat as outlined by BOEC above
- Timing is critical.

SHORELINE OILING SUMMARY

REVISION NO. 04-12-90

OG K. DEBUSSCHERE ^{NOTE} STEPHEN STURM SEGMENT ST/ AG-9
 BIO D. REED LAND REP Ray Burger ADM SUBDIVISION B (2 OF 2)
 EXXON T. DIRZ ADEC Wes Chermay TIME 9:30 to 10:45
 TEAM NO. 9 TIDE LEVEL -1 to 3 DATE 4/25/90
 T. SUBDIVISION LENGTH: 2328 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 LANDS DESCRIPTION: ☐ Grass ☐ Forest ☒ Rock NO UPLANDS - ROCK - OUTCROPS
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 80% B 5% C 5% P 5% G 2% S 2% M 0% V 0%
 SLOPE: Long 15% Hang 80% Vert 5% WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 230 m M 0 m N 0 m VL 2048 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	R	B	P	S	1	2	3	4	SU	U	M	U
ASPHALT PAVEMENT												
POOLED												
COVER		V		X	X							
COAT		V		X	X							
STAIN	X				X							
MOUSSE												
PATTIES												
TARBALLS				X	X							
FILM												
IL									X		X	X

PAVEMENT H F S 0 sq. m by 0 cmPATTIES / TARBALLS 1 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 0#BAGS 0

Photographs:

Roll No. ST-9-3Frames 27-28

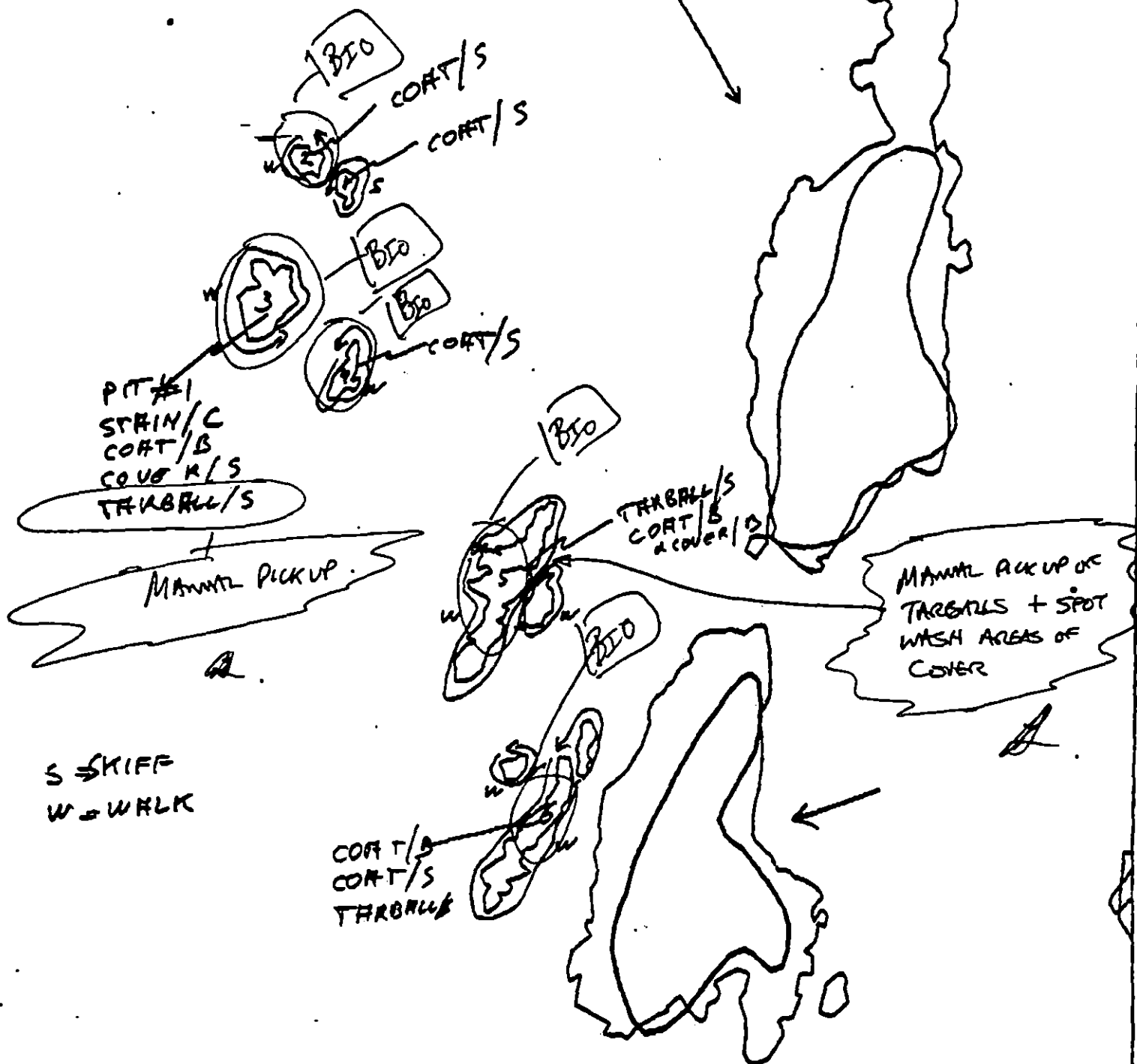
SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR				PIT ZONE				AN A	SHEEN (Y/N)	↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	CP	NO		US	US	1	2	3	4	SU	U	M	U				
1	30	X					6-11	X		X				X				YES	N	-	C-P&M/M&V
							.														
							.														
							.														
							.														
							.														

COMMENTS

- SUBDIVISION CONSISTS OF ROCKY ISLETS
- MOST SIGNIFICANT OILING IS IN LOCATION ③: ROCKY ISLET WITH SUBMERGED CENTRAL BASIN - LRG DEPOSITS (COBBLES & Boulders)
- ON C/B: STAIN / C WITH SUBSURFACE OIL 6-11 CM. / SUBSURFACE SEDIMENTS ARE IN ANAEROBIC ENVIRONMENT.
- ON BEDROCK FACIES: COAT / B, COVER / S (IN CRACKS) AND TARBALL / S

REVIEWED MILDATE 4-26-90



XXXX Wide
 / / / Medium
 --- Narrow
 TTTT Very Light
 0000 No Oil

ST-AG-9-B

Total Segment Length: 3723

0 100 200 300
 METERS

Map Key: PWS-10

Name: K. DEBUSCHERE

Date: 4/25/90

Date Entered:

SHORELINE ECOLOGICAL SUMMARY

REVISION: 08/28/90

Segment ST / AG-9 Subdivision B Date (mo / day / yr) 04/25/90

Time (24 hr) 0930-1045 Biologist D. REED

(A) Substrate type and % of segments:
(1) Bedrock 80 (2) Boulder 5 (3) Cobble 5 (4) Pebble 5 (5) Sand 5 (6) Silt

(B) Overall % cover of biota (% of segment): Dense 50 Moderate 30 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-9-3

Frames 27, 28

BARNACLES

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

GASTROPODS

Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	X	2	2	2	X	2	2	2	2	NOT PRESENT
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	
6	6	6	6	6	6	6	6	6	6	6	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	X	2	2	2	2	NOT PRESENT
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	
6	6	6	6	6	6	6	6	6	6	6	6	

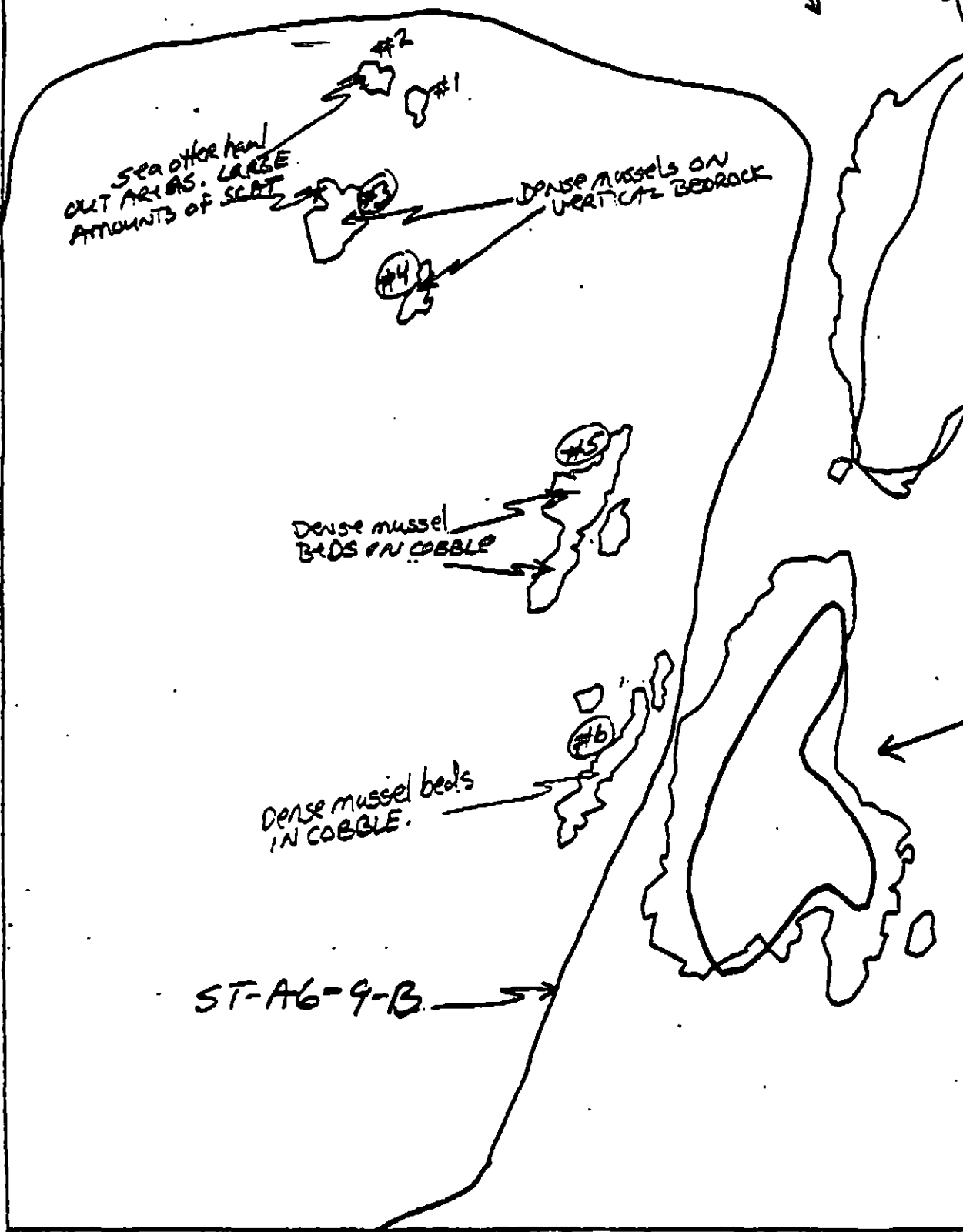
Wildlife Observations/ General Comments:

1 SEA LION, 10 SEA OTTERS, 1 HARBOR SEAL, small pod of DOLPHINS, 3 FLOCKS OF SANDHILL CRANES FLYING OVER HEAD (400, 200, 200 BIRDS respectively), 2 OYSTER CATCHERS, BULL Kelp DRIFT WITH HERRING ROE, 2 SURFBIRDS.

Ecological Considerations:

THIS SUBDIVISION IS COMPOSED OF A NUMBER OF SMALL ISLETS THAT APPEAR TO BE EXTENSIVELY USED BY SEA OTTERS AND SEALS AS HANG OUT AREAS. PRESENCE OF GUANO ENRICHES SEA BIRDS MAY ALSO USE THESE ISLETS FOR ROOSTING. DENSE ALGAL COVER IN MID AND LOW ZONES QUITE LUSH. MANY FLAT COBBLE AREAS WITH DENSE MUSSEL BEDS THAT MAY BE SENSITIVE TO HEAVY FOOT TRAFFIC. THESE ISLETS APPEAR TO BE RELATIVELY PRODUCE A WIDE DIVERSITY OF ORGANISMS.

Ecology Map
Resource Lobes For Entire Segment
None



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

ST-AG-9-B

Total Segment Length: 940



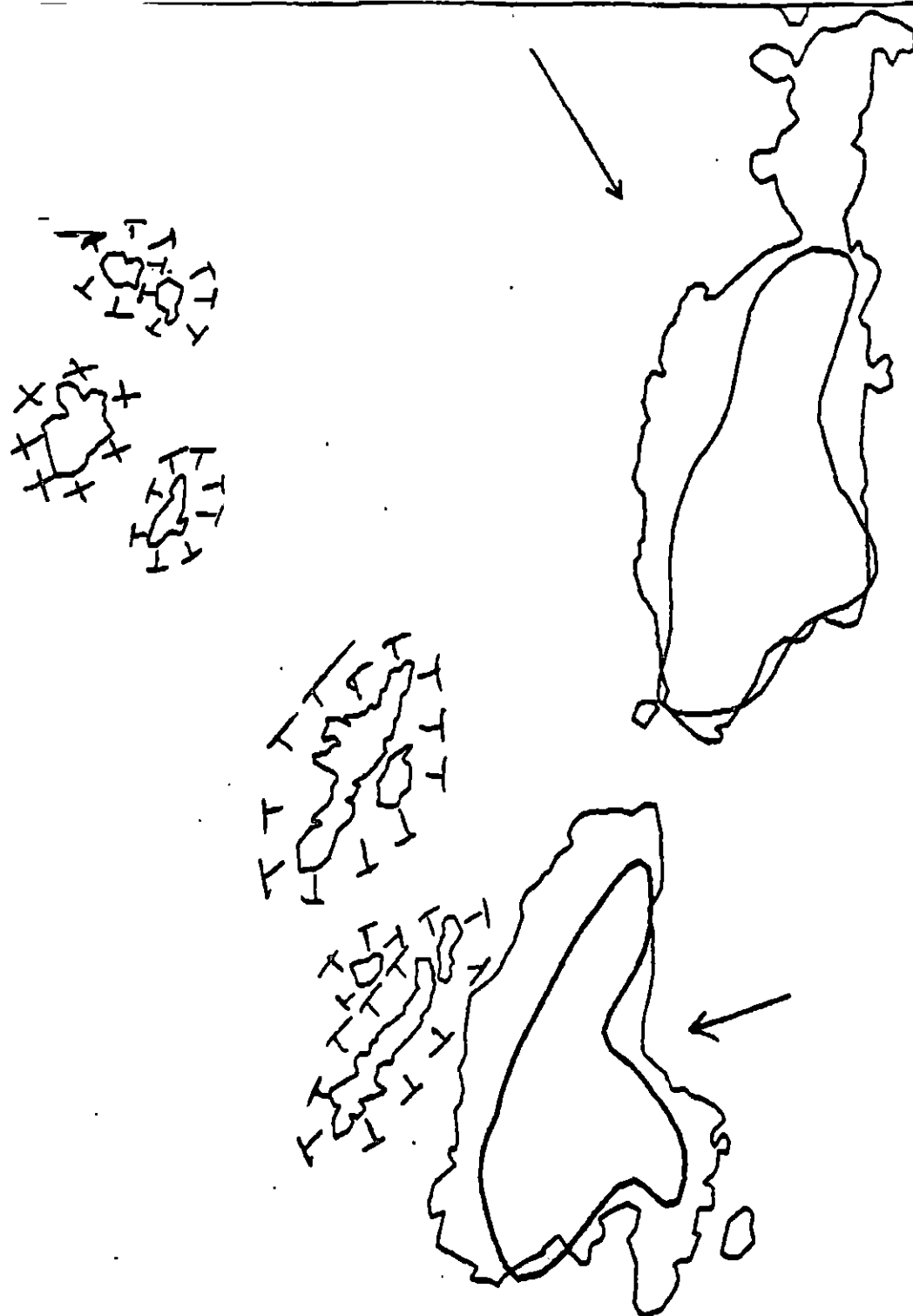
Map Key: PWS-10

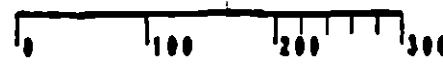
Name: DAN REED

Date: 04/25/90

Date Entered:

OIL MAP



XXXX Wide	ST-AG-9-B		Map Key: PWS-10
/ / Medium	Total Segment Length: 3723 3723		Name: <u>K. DERUSS CHORO</u>
--- Narrow			Date: <u>4/25/90</u>
TTTT Very Light			Date Entered:
0000 No Oil	 METERS		

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT AG-9 SUBDIVISION B (2 of 2)

WORK WINDOW	
Manual Pickup	OPEN
Spot Washing	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

3N,O,P,Q

Harbor Seal & Seal Lion
Pupping and Molting

NO TIME CONSTRAINT. Authorized per memorandum dated 5/14/90 from Kathryn Frost/ADF&G to Mark Kuwada/ADF&G.

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

TAG APPROVAL DATE 5/29/90.
ADEC ART WEINER ArtWeiner
EXXON ANDY KAT
NOAA BURROUGHS BURROUGHS
USCG GA. REITER GA.Reiter

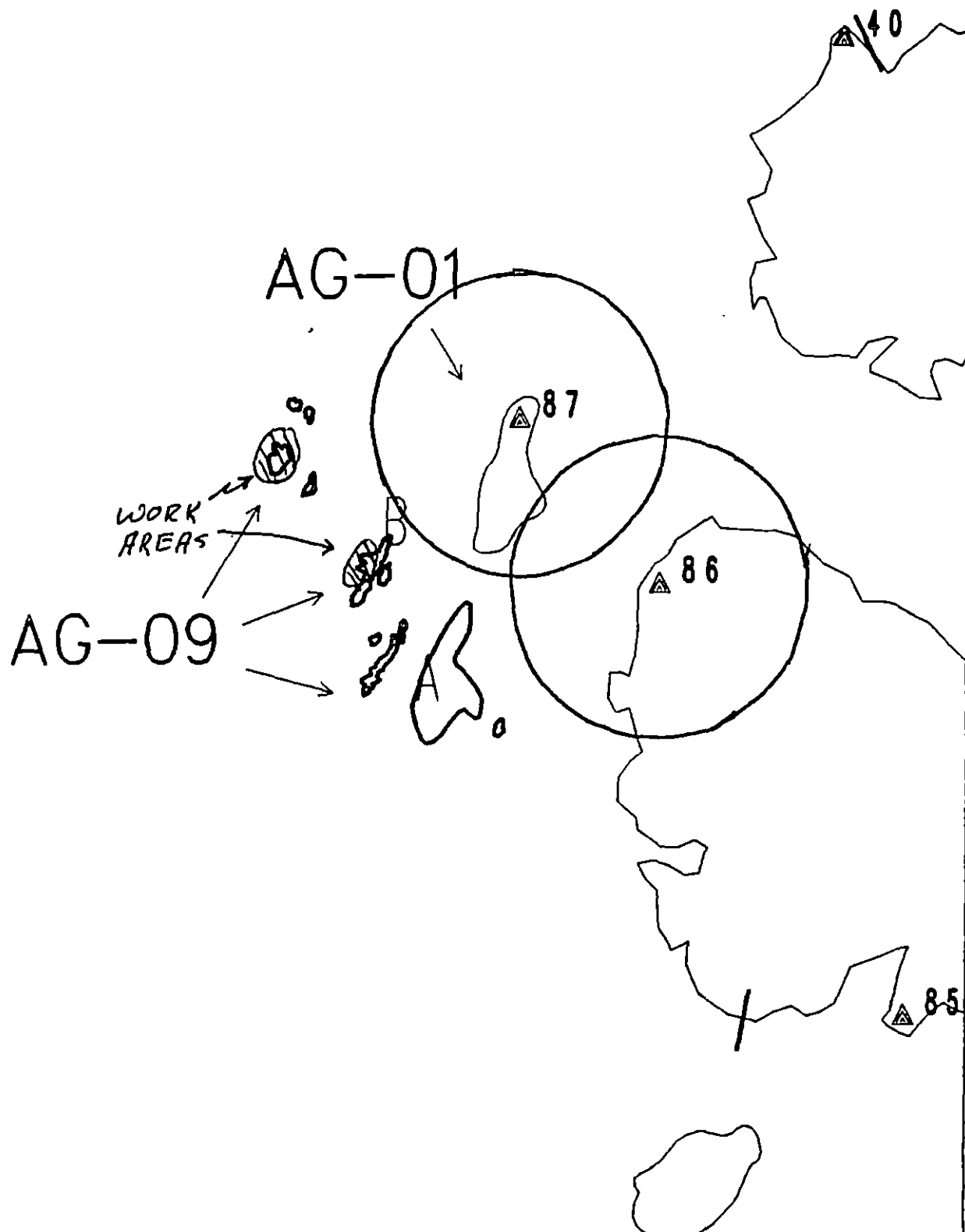
FOSC

DATE

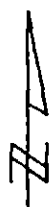
MAY 29 1990

Prepared By: Anders Meyer WRE

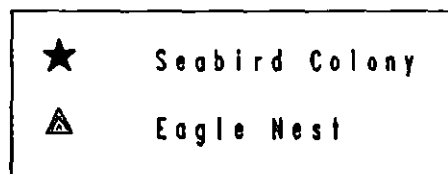
Date 5/27/90



Exxon Company, USA
Map Key: KNI-AG-9
May 11, 1990



ECOLOGY MAP
SEGMENT AG-9
SUBDIVISION B (2 of 2)
METERS
0 403 807



1 inch = 1324 feet

SHORELINE EVALUATION

SEGMENT ST/ AI-03 SUBDIVISION A (1 OF 1) DATE 4/10/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All bald eagle nests (3/1 to 6/1)-Active eagle nest (3/1 to 9/1)
6V Recreation: Anchorages (6/1 to 9/15)
6NN Recreation: Sportfishing
4LL Kenai Fjords National Parks

See attached Ecological Constraint Sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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

OILING CATEGORIZATION:

Wide 0 m: Medium 40 m: Narrow 76 m: V. Light 1556 m: No Oil 7316 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: 4/17/90
ADEC Art Weimer
EXXON Andy Ted
NOAA Burt Werrett
ISCG Kenneth Korne

FOSC: D-E-Y DATE: 4-22-90

Specific Comment necessary: NTR because of
SAFETY of clean-up crews, accessibility to area
+ size of area - in addition, natural cleaning
should resolve issue.

PWS ECOLOGICAL CONSTRAINTS

AI-03

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
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 Esther Hatchery release (4/15 to 6/1)
1E Main Bay Hatchery release (4/20 to 5/10)
1F Sawmill Bay Hatchery release (4/20 to 5/10)
1G Cannery Creek Hatchery release (4/21 to 6/1)
1H Remote release site
1I Gill net area (6/7 to 8/31)
1J Purse seine area (7/21 to 9/30)
1K Purse seine hook-off (7/20 to 9/30)
1L Set net sites (6/11 to 7/25)
For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/1 to 6/15)
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 (5/15 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.
- 5R Seabird colony (5/1 to 9/1)
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 (5/1 to 9/30)
7HH Finfish harvesting
7II Deer harvesting (8/15 to 2/28)
7JJ Invertebrate harvesting
For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ AI-3 SUBDIVISION: A DATE 4/10/90NAME IG/NOAA JACQUI MICHEL SIGNATURE Michel☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Pony Cove has improved significantly, compared to Fall SCAT/NOER data. The only area that we considered for further treatment was sketch site 1 - the area marked Medium oiling on the map. However, Access is very treacherous and manual removal would not be very effective. This oiled area is very isolated and is unlikely to pose an environmental risk if left alone. No further treatment is warranted.

ADEC

NAME JOHN R. REED SIGNATURE John R. Reed☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Segment AI-3, site #1, has some medium oiling but this is a very hard site to get to and perform any type of cleanup. There is a marked improvement from last year in the ~~entire~~ entire segment. Scattered splatters are spaced throughout the segment. I have read and agree with all data on S.S.A.T. Forms.

LAND MANAGER NPSNAME Michael Tetra SIGNATURE Michael Tetra☐ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Good survey. Apparently there has been significant natural removal of oil from most of this segment over the winter. Manual removal of oil is possible from site #1 although it would be difficult. This site is not likely to release oil this summer. The site where type A/hot water wash was done last year looks very good - in fact so good that I am suspicious of buried oil that we may have missed during this survey. If buried oil does exist, it is probably a very small amount.

REVISION NO. 03/21/89

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST/ AI-3 Subdivision A (of 4) Date (mo / day / yr) 4/10/90Time (24 hr) 0800 Biologist M. CARR(A) Substrate type and % of ^{SUBDIVISION} segments:
(1) Bedrock 70 (2) Boulder 25 (3) Cobble 5 (4) Pebble — (5) Sand — (6) Silt —(B) Overall % cover of biota (% of ^{SUBDIVISION} segment): Dense 70 Moderate 20 Low 10

(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. 6Frames 8-38

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 IN ANY ZONE
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 IN ANY ZONE
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:

N.W. crow (1)

Bald eagle (3) mature, (1) immature

Ecological Considerations:

Sensitivity codes: 4-LL (National Park), 6-NM (Sportfishing), 6-V (Recreational anchorage)

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Mean USCG NOAA Michel SEGMENT ST/ A1-3
 RIO Carr LAND REP Tetecan - NPS SUBDIVISION A
 EXXON Boyer ADEC Reed TIME 8:00 to 11:00
 TEAM NO.: 18 TIDE LEVEL: +1 to +4 DATE 4/10/90
 EST. SUBDIVISION LENGTH: 9570 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 70 % B 30 % C 0 % P 0 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Lang 5 % Hang 70 % Vert 25 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 35 m N 60 m VL 1500 m NO 3975 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	TC	TS	TR	TL	ST	ST	ST	ST	ST	ST	ST	ST	SU	U	M	U
ASPHALT PAVEMENT				✓										✓		
POOLED																
COVER			✓	✓										✓		
COAT			✓	✓										✓		
STAIN			✓	✓										✓		
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL													✓		✓	✓

PAVEMENT: H (F) S 5 sq. m by 6 cmPATTIES / TARBALLS 5 of asphalt BAGS

NEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☒ YES ☐ NOTYPE asphalt#BAGS 1

Photographs:

Roll No. 18-6Frames (8-27)

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		UO	UC	ST BT	ST FW	ST BL	ST TL	ST LR	SU	U	M	U				
1	25					✓	-									✓						PGCB throughout
2	25					✓	-									✓						" "
3	20					✓	-									✓						PCB throughout
4	25					✓	-									✓						" " "
5	15					✓	-									✓						CB throughout
6	30					✓	-									✓						CPG throughout

COMMENTS This segment covers Pony Cove and its bordering headlands. The shoreline is mainly granite cliffs with frequent rock falls of large to very large, angular boulders. Pocket "beaches" contain large boulders with small boulders and rare cobbles in sheltered pockets. Oil is rare - the most we found was mainly CT and ST (with occasional asphalt) hidden in a jumble of large boulders. Wave action (and

(19 boulders with fine debris.
Most oil or carbonaceous
remnant of v. heavy
poor oil
much evidence of
natural flame)

19.
boulders

Pony
Cove

large boulders
(low angle
beach with
dense, very
slippery
sea weed)

granite cliff

AI-3 subdiv. A (of A)
SKETCH SITE #1

MANN 4-10-90

$$\Delta^{1,2} = \text{pits}$$

~10 m

segment
AI-14

v. large boulders

OG Ma

SI CH MAP

SEGMENT ST/ AI-3

SUBDIVISION A

DATE 4, 10 90

CHECKLIST

- ☐ M Arrow
- ☐ Approx. Scale
- ☐ Sep/Sub Bdry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HWW/LA/VL
- ☐ SGL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pit Location(s)
- ☐ Photo Location(s)

No sketch.

LEGEND

1 

Pit - No Subsurface Oil

2 

Pit - Subsurface Oil

 CT/C

Continuous Distribution

 CT/B

Broken Distribution

 CT/P

Patchy Distribution

 CT/S

Splashed Distribution

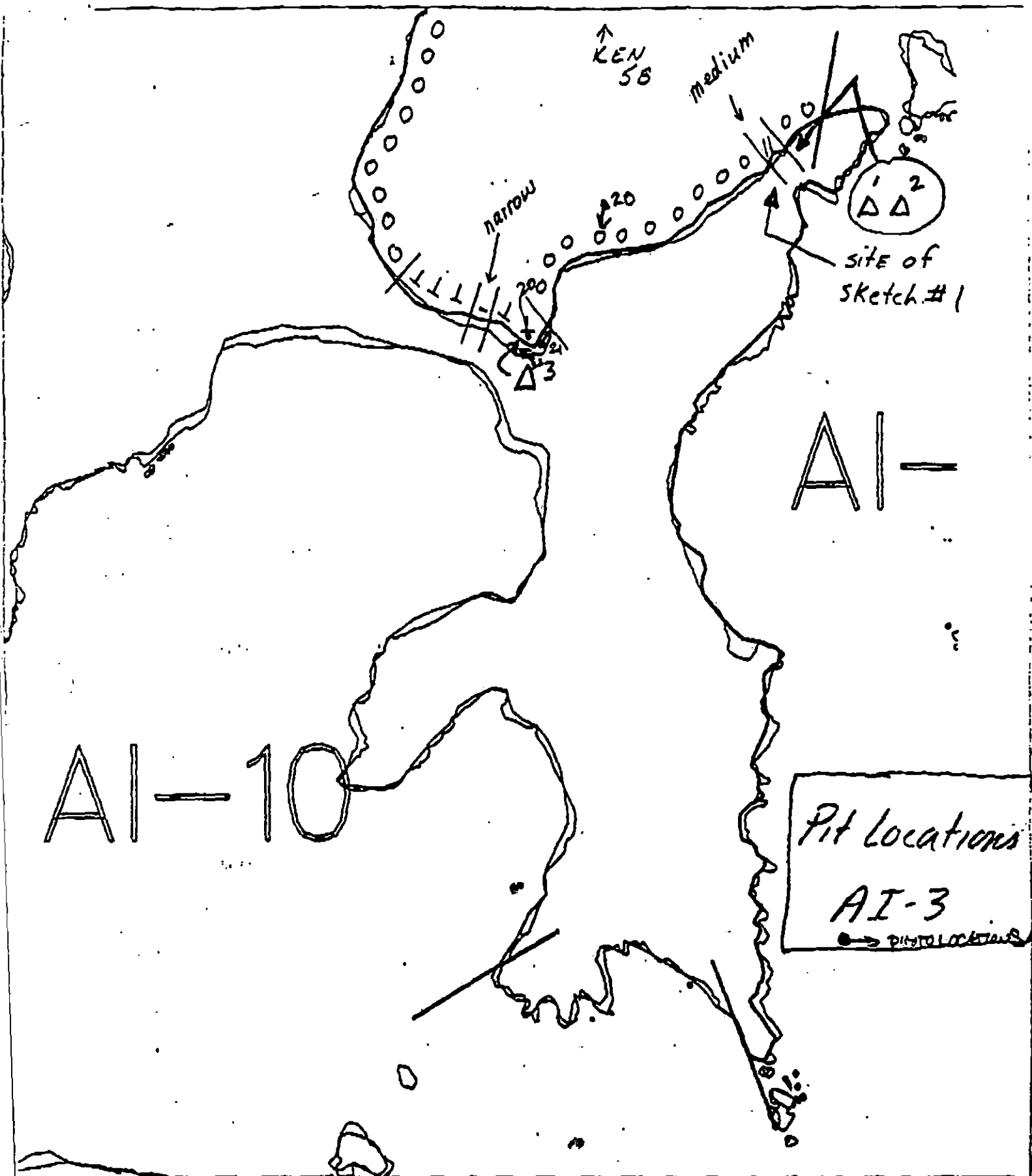
Obd Vegetation

1 

Photo location, direction,
and number

Oil Character Length (m): AP 10 PO 0 CV 45 CT 50 ST 60 MS 0 PT 0 TB 0 FL 0 NO 9910

REVISION: 8/24/90



y y X X W i d e

Medium

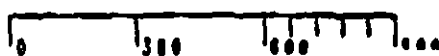
----- Narrow

TTTT Very Light

0000 M. 0:1

AI-14

ADEC Segment Length: 10607m



Map Key: KEN-50

Name: Mann

Date: 4/10/90

AI-2

pit locations
AI-3

5
4
PONY
cove
6
26
27

AI-3

23, 24
25

↓ KEN 5A

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

AI-14

ADEC Segment Length: 10607m

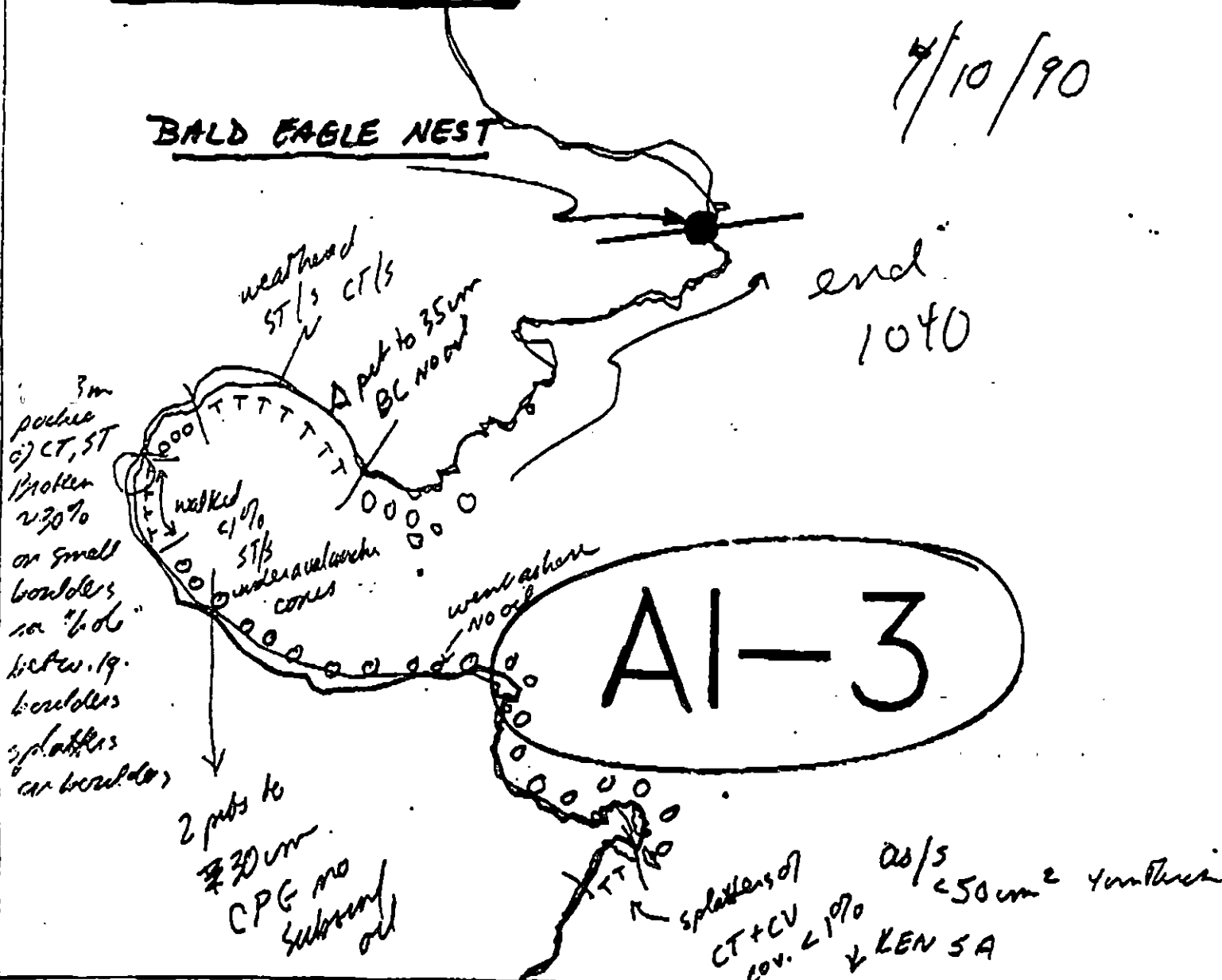
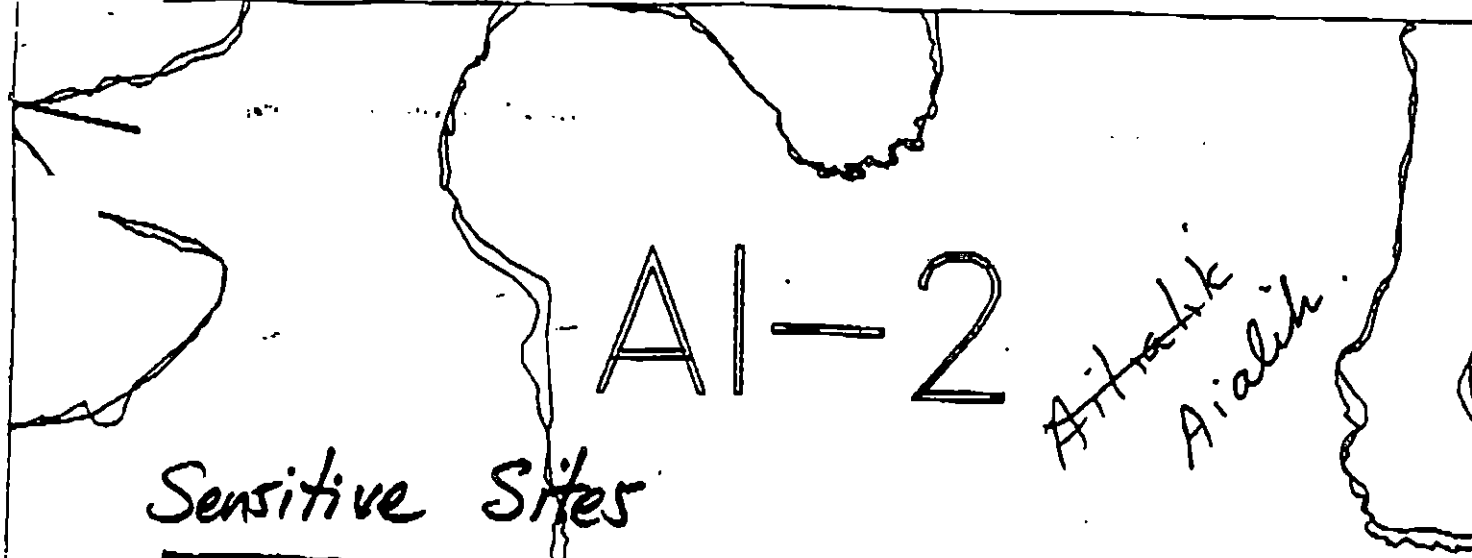


Map Key: KEN-5b

Name: Marr

Date: 4/10/90

Data Entered:



✓ XXX Wide
/// Medium
--- Narrow
TTTT Very Light
OOOO No Oil

AI-14

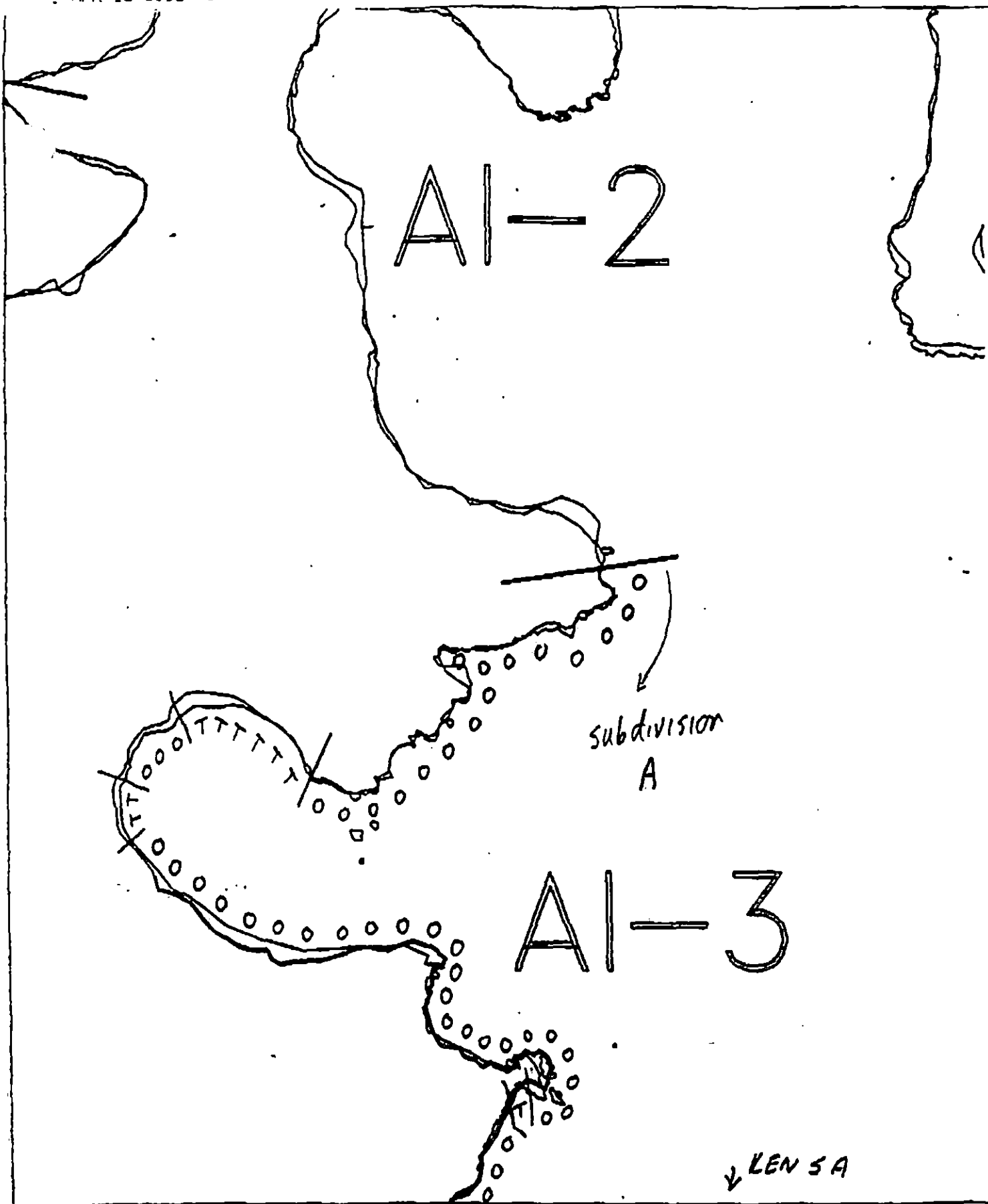
ADEC Segment Length: 10607m

0 500 600 900

Map Key: KEN-5b

Name: _____

Date: _____



x x x x Wide

, / / / Medium

- - - - Narrow

T T T T Very Light

O O O O No Oil

AI-14

ADEC Segment Length: 10607m

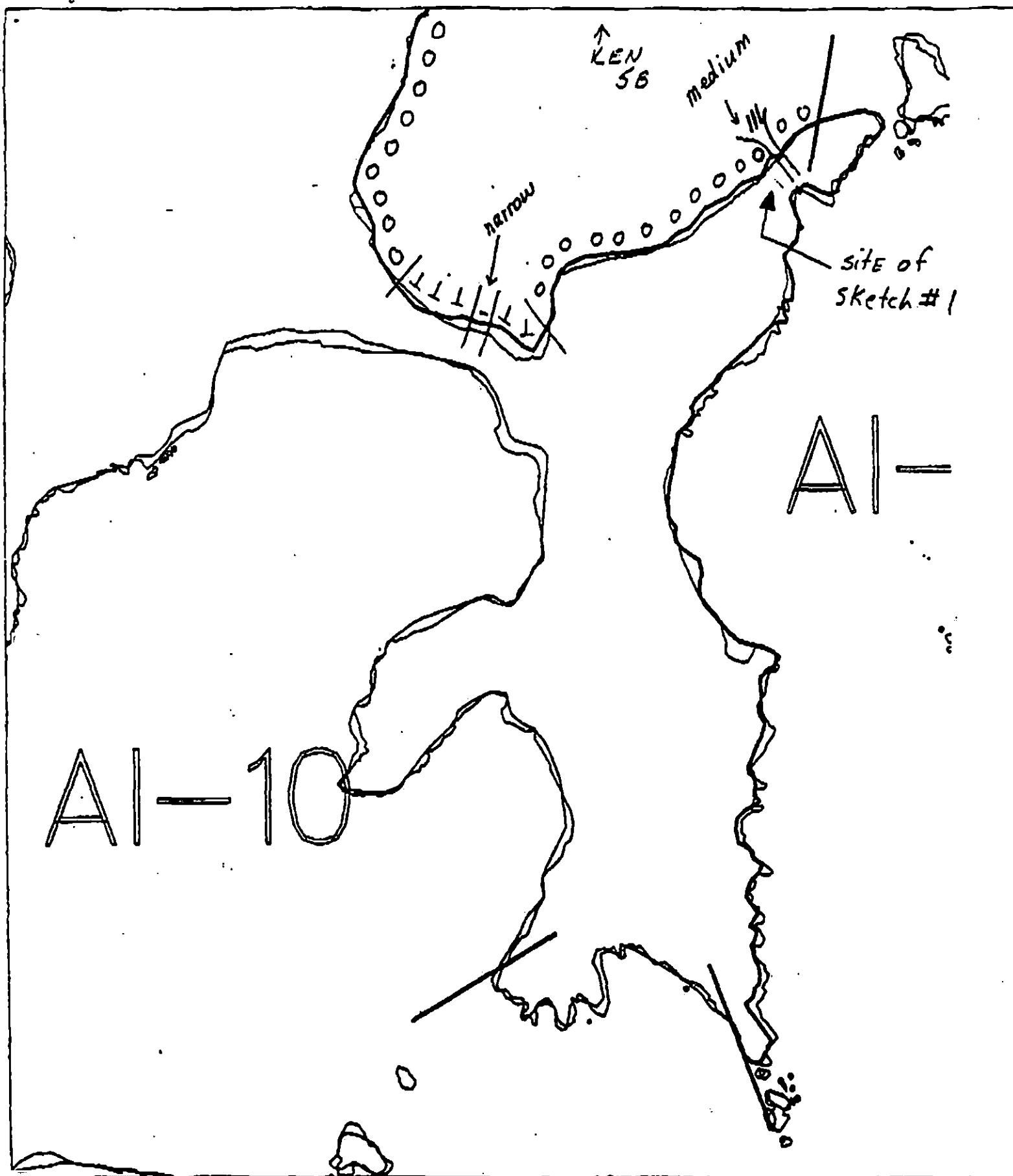


Map Key: KEN-5b

Name: Mann

Date: 4/10/90

Data Entered:



XXX Wide

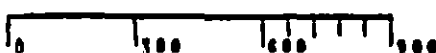
//// Medium

--- Narrow

TTTT Very Light

AI-14

ADEC Segment Length: 10607m



Map Key: KEN-5a

Name: Mann

Date: 4/10/90

SHORELINE EVALUATION

SEGMENT ST/ AI-014 SUBDIVISION A (1 OF 1) DATE 4/10/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
5R Seabird colony (5/1 to 9/1)
4LL National Park
6NN Recreation: Sport fishing
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. Adams

DATE: 4/23/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 4771 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: 4/21/90

ADEC AET WEINER Art Weiner

EXXON ANDY JEN Andy Jen

NOAA Burt Wescott Burt Wescott

USCG KENNETH KOTINE Kenneth Kotine

FOSC: WJL

DATE: 5-1-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ AI-14 SUBDIVISION: A DATE 4/10/90

USCG/NOAA

NAME JACQUI MICHEL SIGNATURE Michael☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

There was no observable oil along this
very exposed, sheer cliff shoreline.

ADEC

NAME JOHN R. REED SIGNATURE John R. Reed☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

No oil was observed. I have read and agree with all
data on S.S.A.T. Forms.

LAND MANAGER NPSNAME Michael Tetreau SIGNATURE Michael Tetreau☒ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Good survey. No oil was observed along This high energy shoreline.

SHORELINE OILING SUMMARY

REVISION NO. 03/22/79

OG Mann USCG NOAA Michel SEGMENT ST/ AI-14
 BIO Call LAND REP Tetean NPS SUBDIVISION A
 EXXON Boyer ADEC Reed TIME 07:05 to 8:00
 TEAM NO.: 18 TIDE LEVEL: +5 to -1 DATE 10 Apr 1990
 EST. SUBDIVISION LENGTH: 5255 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☐ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 95 % B 5 % C 0 % P 0 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 1 % Hang 19 % Vert 80 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 5255 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	10	15	17	18	19	20	21	22	23	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 <u>NO</u>	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE NIA#BAGS 0

Photographs:

Roll No. 18-6Frames (6-7)SUBSURFACE OIL No pits dug because of bedrock substrate and inaccessibility

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	UD	19	20	21	22	23	SU	U	M	U		
0																				

COMMENTS This segment consists of granite cliffs plunging into a high wave-energy sea. Occasional rockfalls have deposited very large boulders in gullies. We were able to land at only 1 spot - see sketch site #1 on segment AI-3. We failed to find any oil on this segment.

OG Mann

SKETCH MAP

SEGMENT

~~AI-14~~ AI-14

SUBDIVISION

A

DATE 4 / 10 / 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Sec/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. NW/SE/NE/SW
- ☐ SGL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pit Location(s)
- ☐ Photo Location(s)

No sketch.

LEGEND

1 ▲

Pit - No Subsurface Oil

2 ▲

Pit - 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

Oil Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 0 PT 0 TB 0 FL 0 NO 5255

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST AI-14 Subdivision A (of A) Date (mo / day / yr) 4/10/90

Time (24 hr) 0705 Biologist M. CARR

(A) Substrate type and % of ^{SUBDIVISION} segments:
(1) Bedrock 95 (2) Boulder 5 (3) Cobble — (4) Pebble — (5) Sand — (6) Silt —

(B) Overall % cover of biota (% of ^{SUBDIVISION} segment): Dense 90 Moderate — Low 10

(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. 6

Frames 6-7

BARNACLES

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

MYTILUS

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

STROPODS

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

FUCUS

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

Wildlife Observations/ General Comments:

White-winged scoter (15)

Harlequin duck (2)

Glaucous-winged gull (50)

Sea otter (1)

Steller sea lion (3)

Oyster catcher (2)

Comorants (5) pelagic

Bald eagle (2) nest (1) immature

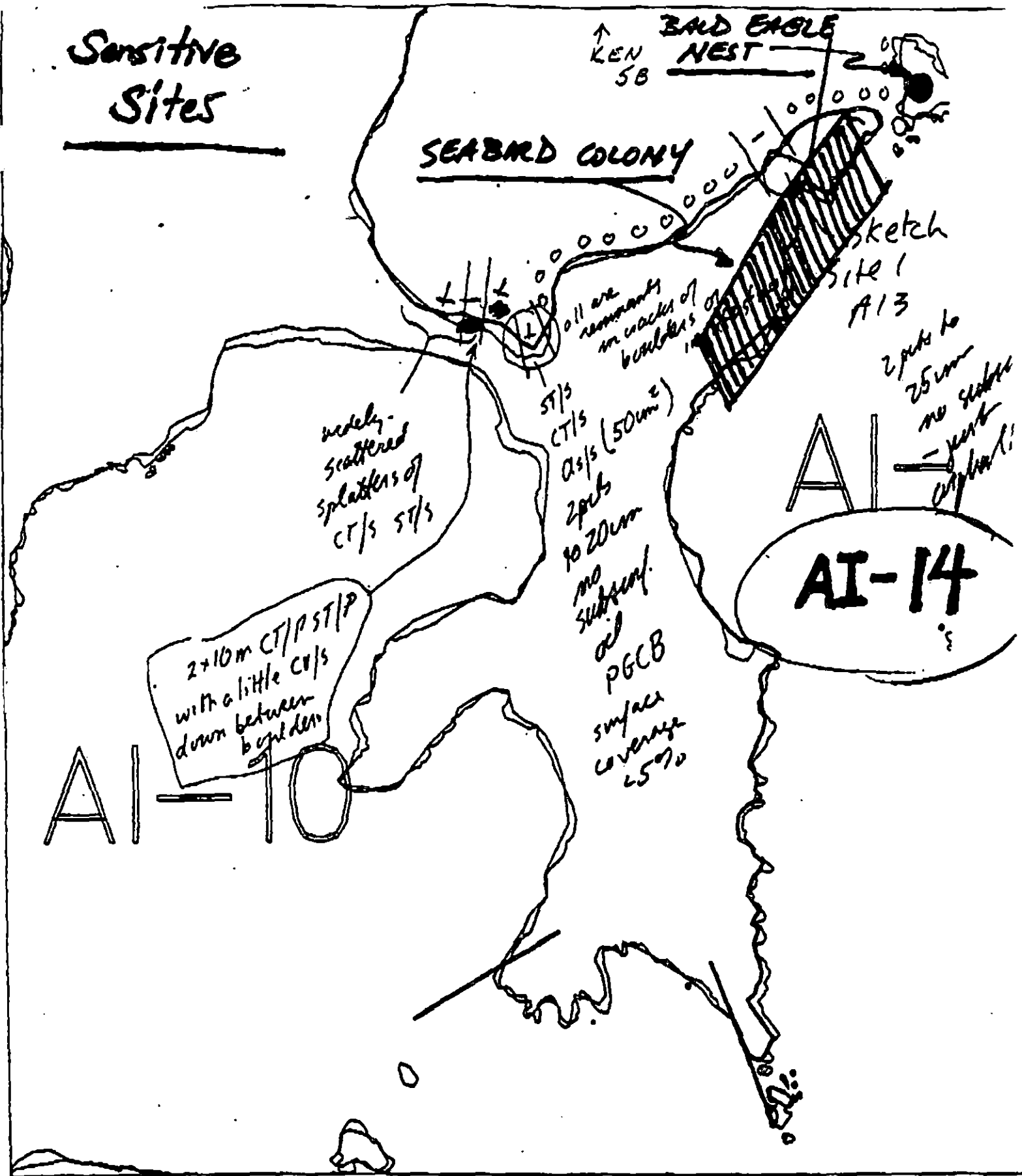
Ecological Considerations:

Sensitivity codes: 4-LL (National Park), 6-NN (Sportfishing), 5-T (Bald eagle nest), 5-R (Seabird colony).

PWS ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 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 Esther Hatchery release (4/15 to 6/1)
- 1E Main Bay Hatchery release (4/20 to 5/10)
- 1F Sawmill Bay Hatchery release (4/20 to 5/10)
- 1G Cannery Creek Hatchery release (4/21 to 6/1)
- 1H Remote release site
- 1I Gill net area (6/7 to 8/31)
- 1J Purse seine area (7/21 to 9/30)
- 1K Purse seine hook-off (7/20 to 9/30)
- 1L Set net sites (6/11 to 7/25)
 For Codes 1C through 1L, contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/1 to 6/15)
 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 (5/15 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.
- 5R Seabird colony (5/1 to 9/1)
 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 (5/1 to 9/30)
- 7HH Finfish harvesting
- 7II Deer harvesting (8/15 to 2/28)
- 7JJ Invertebrate harvesting
 For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

Sensitive Sites



XXXX Wide

/// Medium

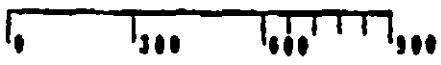
---- Narrow

TTTT Very Light

OOOO No Oil

AI-14

ADEC Segment Length: 10607m



Map Key: KEN-5a

Name: _____

Date: _____

↑ KEN
50

AI-10

AI-

YXXX Wide

.. // Medium

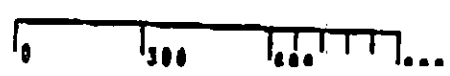
---- Narrow

TTTT Very Light

OOOO N. ...

AI-14

ADEC Segment Length: 10607m



Map Key: KEN-50

Name: Mann

Date: 4/10/90

SHORELINE EVALUATION

SEGMENT ST/ AP-38 SUBDIVISION A (1 OF 1) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

3N,3P Harbor seal and sea lion pupping (5/15 to 7/1)

3O,3Q Harbor seal and sea lion molting (8/15 to 9/15)

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. Hume

DATE: 4/20/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 57 m: No Oil 991* 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: *NOTE: ADEC shows no shoreline for this segment; lengths of oiling are from Exxon's shoreline.

TAG COMMENTS:

TAG APPROVAL DATE: 4/20/90

ADEC Art Wenter
EXXON Amy Tork
NOAA Burl Wescott
USCG Kenneth Keane

FOSC: W L

DATE: 4-21-90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 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 Esther Hatchery release (4/15 to 6/1)
 1E Main Bay Hatchery release (4/20 to 5/10)
 1F Sawmill Bay Hatchery release (4/15 to 6/1)
 1G Cannery Creek Hatchery release (4/21 to 6/1)
 1H Remote release site
 1I Gill net area (6/7 to 8/31)
 1J Purse seine area (7/20 to 9/30)
 1K Purse seine hook-off (7/20 to 9/30)
 1L Set net sites (6/11 to 7/25)
 For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/1 to 6/15)
 Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
- 3R, 3P Harbor seal and sea lion pupping (5/15 to 7/1)
 3Q, 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 9/1)
 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 (5/1 to 9/30)
 7HH Finfish harvesting
 7I Deer harvesting (8/15 to 2/28)
 7JJ Invertebrate harvesting
 For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ AP 38 SUBDIVISION: None DATE 7/31

USCG

NAME

Robert G. Jansen SIGNATURE (Robert G. Jansen)☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

ADEC

NAME

Rowann T. Hudnall SIGNATURE Rowann T. Hudnall☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

Sporadic splashes only.

LAND MANAGER

NAME

U.S. Forest Service SIGNATURE Leo Teuler☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDContinue Natural cleaning
Only found one small area of "black type"
oil remaining - haul out area clean.

SHORELINE OILING SUMMARY

REVISION 110, 08/28/90

OG Sam T. Sample USCG Bob Jensen SEGMENT ST/ AP-38
 BIO John Dixon LAND REP Bob Keeler SUBDIVISION No Subdivision
 FXXOR Jim Ellison ADEC Renee H. Hume PR TIME 06:40 1007:30
 EAM NO. 3 TIDE LEVEL: +9' 10 +5 1/2' DATE March / 31 / 90
 ST. SUBDIVISION LENGTH: 1047 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: Walked all segment
 SURFACE SEDIMENTS: R 55 % B 40 % C 5 % P - % G - % S - % M - % V - %
 SLOPE: Long 100 % Hang - % Vert - % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 60 m NO 987 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	IC	IS	IP	IR	1	2	3	4	5	SU	U	M	U
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 - cmPATTIES / TARBALLS No BAGSNEAR SHORE SHEENT NO BR RW SL TL

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

DEBRIS COLLECTED
☐ YES ☒ NOTYPE -#BAGS -

Photographs:

Roll No. ST-2-2Frames 1-4SUBSURFACE OIL NO Bedrock Ramp.

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		UO	UC	1	2	3	4	5	SU	U	M	U		

COMMENTS

OG John S. Semph

SEGMENT ST/ AP-38

SUBDIVISION Name

DATE MARCH 31 80

CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Seg/Sub Bndry
- ☒ Oil Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HWL/LWL
- ☒ SS
- ☒ 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 $\Rightarrow$

Photo location, direction,
and number

SKETCH MAP

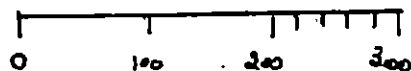
Legend

width (m) $\downarrow$ $\Delta, 60$
length (m) $\downarrow$ CT/S
Distribution Character

— Overall area within which
oil splashes occur.
— LWL --- HWL



Profile A-B



Bedrock outcrop
Vertical foliation.

Bedrock Ramp
covered with boulders
some cobbles.
Very few splashes in
miz, 2 m wide band
< 10% coverage

Oil Character Length (m): AP — PO — CV — CT 60 ST — MS — PT — TB — FL — NO 987

REVISIONS: 000000

Applegate Islands, AP-38, March 31, 1990

Segment AP-38 includes the northernmost of the Applegate Rocks, three small islands located north of Green Island. This segment is exposed to a fetch of about 20 km to the east and west; to the north and south, it is exposed to longer fetch distances that are partially blocked by other islands (Seal and Smith, Green).

The segment is made up entirely of bedrock with steep to vertical foliation on the northwestern side, and a gently sloping narrow debrock ramp on the southeastern side. This bedrock ramp is covered with rounded boulders and cobbles in the middle intertidal zone.

Oil was found on the southwestern side of this island, within a 2 m wide, 60 m long band in the middle intertidal range. It occurs as very scattered coatings of small splashes made up of dull black tar less than 1 mm thick.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 08/22/90

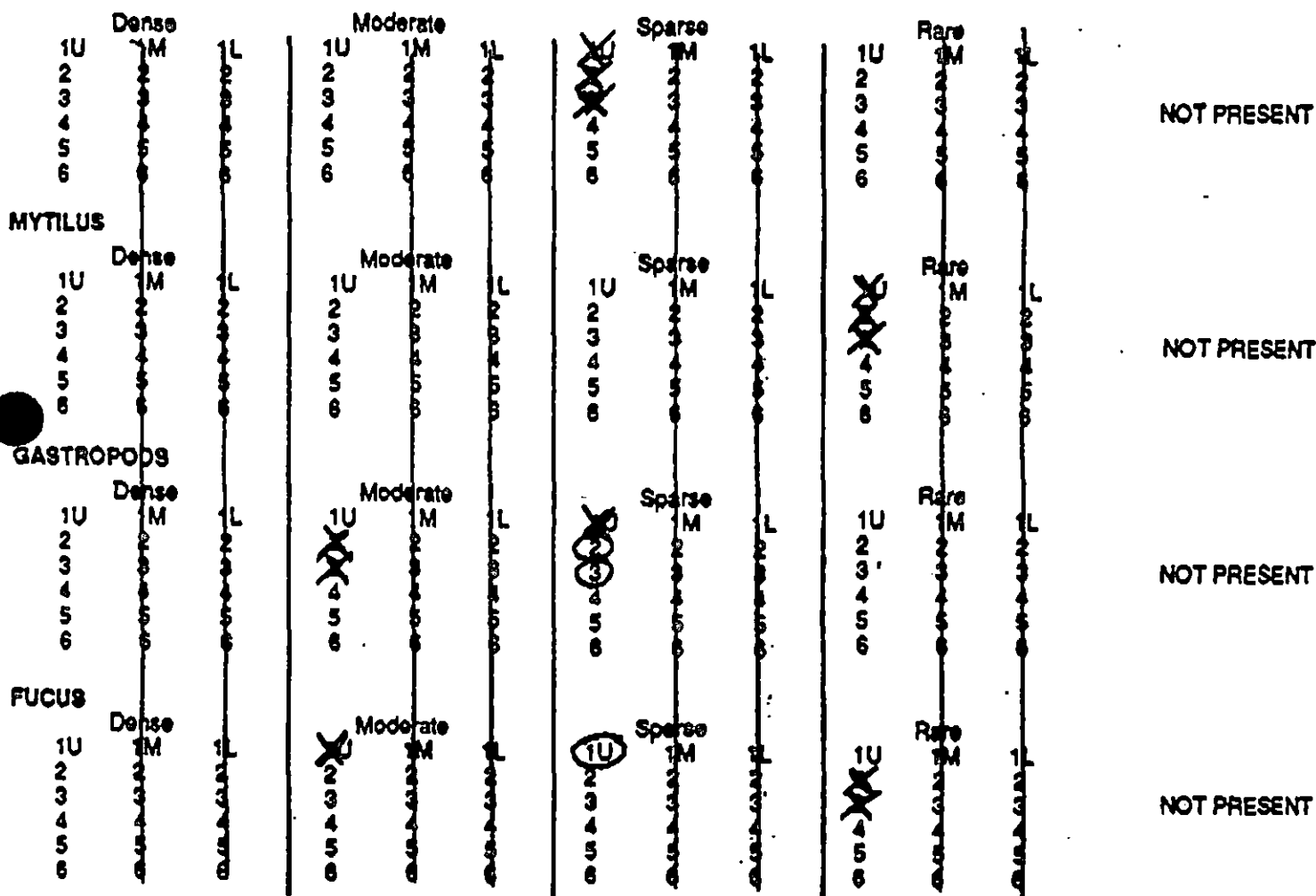
Segment ST / AP-38 Subdivision N/A Date (mo / day / yr) 08/31/90
 Time (24 hr) 0655-0730 Biologist John DIXON

- (A) Substrate type and % of segments:
 (1) Bedrock 55 (2) Boulder 40 (3) Cobble 5 (4) Pebble (5) Sand (6) Silt
- (B) Overall % cover of biota (% of segment): Dense 15 Moderate 25 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. ST-2-2Frames 1-3

BARNACLES



Wildlife Observations/ General Comments:

Tide at + 8' feet. Only upper intertidal observed. 4 bald eagles resting on island as we approached - also many gulls & some cormorants. Several harbor seals offshore.

Ecological Considerations:

The upper intertidal of this small island is about 80% bedrock on the E side which has moderate to high algae cover. The W half is about 80% unstable boulders with little algae but moderately dense littorines & limpets. Appears to be extensive Fucus at lower tidal levels.

Harbor Seal & Sea Lion pupping & molting site.

$\frac{1}{2}$

8-5	AT
C-1	2
D-1	

P-1

Box 75

8-5121

2-1

[illegible]

10

20-



18

2

152

114



1

22

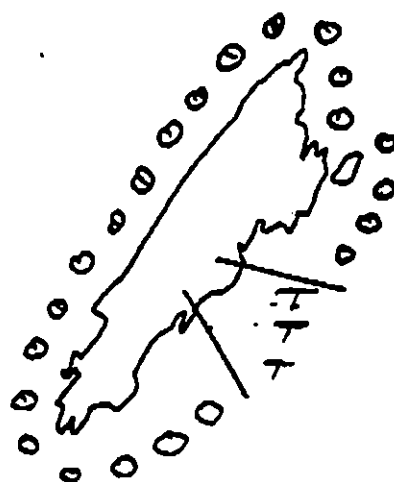


22

→ 1000

— — — — —

P. 03 03/11



AP-3



XXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

AP-38

ADEC Segment Length: 1047m



Map Key: PWS-27

Name: Don Bollinger

Date: March 3/90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ AP-39 SUBDIVISION A (1 OF 1) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Harbor seal and sea lion pupping (3N, 3P) - 5/15 to 7/1 and molting (3O, 3Q) - 8/15 to 9/15.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Restrict boat and air traffic to essential minimum. Contact ADF&G and USFWS prior to treatment. Treatment to be completed prior to 5/15 or between 7/1 and 8/15 unless otherwise approved by ADF&G and/or USFWS.

SHPO SIGNATURE: Charles E. H. Smith DATE: 4/17/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 407 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 Al Kizner
EXXON ANDY GIL FOSC: DATE: 4-10-90
NOAA Buc/Wescott
USCG G.A. REITER

FIELD SHORELINE COMMENT SHEET

1737 137

SEGMENT ST / AP 39 SUBDIVISION: None DATE 3/31

SCG
NAME Robert G. Jensen SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADEC
NAME Rowann T. Hudnall SIGNATURE Rowann T. Hudnall

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

No oil observed.

LAND MANAGER
NAME U.S. Forest Service SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

No oil found

SHORELINE OILING SUMMARY

REVISION NO. 02/23/90

OG Team Texas Semper USCG 3rd Jensen SEGMENT ST/ AP-39 A(1 of 1)
 BIO John Dixon LAND REP Lee Neeson SUBDIVISION no subdivision
 EXXON T.M. Ellison ADEC Roxanna Hudnell TIME 07:30 to 08:00
 TEAM NO: 3 TIDE LEVEL: +5 1/2' to +4' DATE March 31 / 90
 EST. SUBDIVISION LENGTH: 407 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: looked over island
 SURFACE SEDIMENTS: R 95 % B — % C 5 % P — % G — % S — % M — % V — %
 SLOPE: Long — % Hang 100 % Vert — % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W — m M — m N — m VL — m NO 407 m

SURFACE OIL

No Surface Oil

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	TC	TS	TP	TR	1	2	3	4	5	SU	U	MS	U
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT													
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL										X	X	X	X

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED

☐ YES ☒ NOTYPE —#BAGS —

Photographs:

Roll No. St-2-2Frames F-5

SUBSURFACE OIL

No Subsurface oil

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		UO	UC		SU	U	MS	U		
							—									
							—									
							—									
							—									
							—									
							—									
							—									

COMMENTS

Applegate Islands, AP-39, March 31, 1990

Segment AP-39 includes the middle of the Applegate Rocks, three small islands located north of Green Island. This segment is exposed to a fetch of about 20 km to the east and west; to the north and south, it is exposed to longer fetch distances that are partially blocked by other islands (northern Applegate, Seal and Smith, Green).

The segment is made up entirely of bedrock with steep to vertical foliation and very rounded cobbles in the upper and middle intertidal zones. No oil was found on this segment.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 01/22/90

Segment ST / AP-39 Subdivision N/A Date (mo / day / yr) 03/31/90
 Time (24 hr) 0742-0800 Biologist John Dixon

- (A) Substrate type and % of segments:
 (1) Bedrock 60 (2) Boulder 30 (3) Cobble 10 (4) Pebble (5) Sand (6) Silt
- (B) Overall % cover of biota (% of segment): Dense 15 Moderate 15 Low 70
- (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-2-2

Frames 4-5

BARNACLES

	Dense	Moderate	Sparse	Rare	
1U	1M	1M	1U	1M	
2	2	2	2	2	
3	3	3	3	3	
4	4	4	4	4	NOT PRESENT
5	5	5	5	5	
6	6	6	6	6	
MYTILUS					
1U	1M	1U	1U	1M	
2	2	2	2	2	
3	3	3	3	3	NOT PRESENT
4	4	4	4	4	
5	5	5	5	5	
6	6	6	6	6	
GASTROPODS					
1U	1M	1U	1U	1M	
2	2	2	2	2	
3	3	3	3	3	NOT PRESENT
4	4	4	4	4	
5	5	5	5	5	
6	6	6	6	6	
FUCUS					
1U	1M	1U	1U	1M	
2	2	2	2	2	
3	3	3	3	3	NOT PRESENT
4	4	4	4	4	
5	5	5	5	5	
6	6	6	6	6	

Wildlife Observations/ General Comments: Tide at +5'. Only upper intertidal observed. Many gulls & 6 shorebirds on island as we approached. A seal & Harbor seal were just offshore.

Ecological Considerations: Island is mostly irregular horizontal bedrock in upper zone with scattered boulders & cobbles. Stable surfaces covered with Fucus, Rodanala & Heterocoris in depressions. Phyllogadus & Corallina rare in surge channels & tide pools.

Harbor seal & sea lion pupping & molting site.

JDD AP-38 3/2

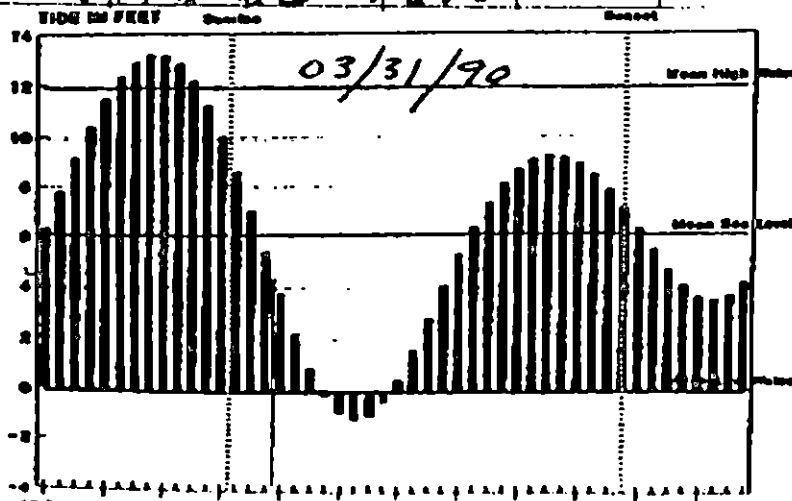
til on higher Har surf
Turkey rock on low
Har surf

Bar B Caravan 15
25 Road & B place (5H)
+ Chhanna (5H) 10% Road

0.325

Dryden surf

4 Bald eagles on island
Numerous golden plover
several harbor seals
offshore to E



3/31/90 AP-39 JDD 1/1

Low 0.742-0.81

Phyllosiphia survey
channel & pool
aerial view

Island has irregular den
surface w/ 5-10 ft
Boulders & Colli

Stable surface covered
with 10-15 cm
Turf & a Nuts
1/2 100m area

7% B dead Fox

Sealion, Harbor seal
to shoreland - 100m

Sus Bed - 60
IS - 30
E - 10

OG flora in Sample

SEGMENT ST/ A.P-39

SUBDIVISION Nema

DATE March 11/80

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Off Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HWA/LWA
- ☐ SSI
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pit Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

PI - No Subsurface Oil

2 Δ

PI - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

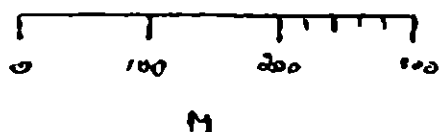
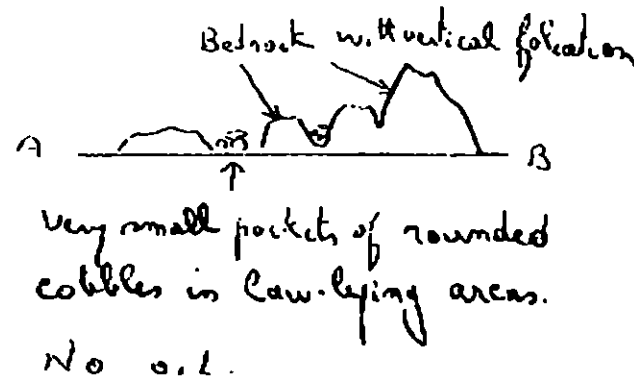
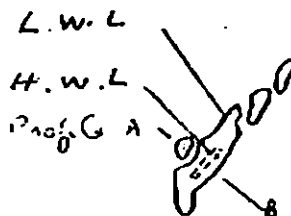
Splashed Distribution

Other Vegetation

1 $\Rightarrow$

Photo location, direction,
and number

SKETCH MAP



Character Length (m): AP PO CV CT ST MS PT TB FL NO 407

REVISION 02/24/74

3001
P. 39
287



AP-39



AP-39



XX Wide

/// Medium

--- Narrow

TTTT Very Light

oooo

AP-39

ADEC Segment Length: 1047m



Map Key: PWS-27

Name: Sam Toi Sempel

Date: March 31/90



SHORELINE EVALUATION

SEGMENT ST/ AP-40 SUBDIVISION A (1 OF 1) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Harbor seal and sea lion pupping and molting area (3N.P.O.,
Q) - 5/17 to 7/1 and 8/15 to 9/15.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Same as above

SHPO SIGNATURE: Charles E. Horner

DATE: April 6, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 17 m: No Oil 719m

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

X No Treatment Recommended

 Treatment Recommended

 Manual Pickup Shore Booms/Sorbents Tarmat Breakup/Removal

 Bioremediation SPOT WASHING Other

 Wands

 Beach Cleaner

Comments: Recommend no treatment as only a very light surface
splash was found in an isolated area. High energy in area should
continue to reduce remnant oil. Please review field shoreline
comment sheet.

TAG COMMENTS:

TAG APPROVAL DATE: 4-6-90

ADEC JOHN BAKER

EXXON ANDY GIL

NOAA Burt W. Warratt

USCG G.A. REITER

FOSC:

DATE: 4-19-90

FIELD SHORELINE COMMENT SHEET

INMENT ST / AP-40

SUBDIVISION: No SubdivisionsDATE 31 March 90**USCG**NAME James C. GambillSIGNATURE James C. Gambill☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Two small spots of oil sheen approx. 30 yards south of light.

ADECNAME Brian K. FitzSimonsSIGNATURE Brian K. FitzSimons☐ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

One small area @ 10m x 30m $\frac{B}{BR}$ where occasional boulders have oil trapped beneath which sheen into H₂O
No Treatment recommended - High energy beach produces sufficient scouring

LAND MANAGERNAME Carol Huber

USFS

SIGNATURE Carol S. Huber☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Continued natural cleansing recommended.
This island is an extremely high energy environment subject to severe scouring and flushing. Only one small area showed an oil sheen (just south of light) in 2 pits.

SHORELINE OILING SUMMARY

REVISION NO. 03/23/90

OG B. Berglund USCG J. Gamble SEGMENT ST AP-410
 BIO S. Schuster LAND REP C. Habert SUBDIVISION —
 EXXON C. Levine ADEC B. Fritzsims TIME 7:00 to 7:30
 TEAM NO.: 1 TIDE LEVEL: 7 to 5.5 DATE 3/31/90
 EST. SUBDIVISION LENGTH: 9.50 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 40 % B 30 % C 20 % P 10 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 15 % Hang 5 % Vert 0 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 5 m NO 9.50 m
 745

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	IC	IS	IP	IR	SP	SN	ST	SL	SC	SR	SB	SS	SU	SI	SM	SL
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 ☒ NO

TYPE _____

#BAGS _____

Photographs:

Roll No. ST-1-1Frames 30, 31

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		UC	UC	SP	SN	ST	SL	SC	SR	SB	SS	SU	SI	SM	SL		
1	30					X	.																C/P
							.																
							.																
							.																
							.																
							.																
							.																

COMMENTS

Essentially no visible oil present except for minor patch noted on sketch. (Film, 5%). No tar, coat or stains visible on exposed rock. However lower MI & LI was not visible due to tide height.

SUBDIVISION —

DATE 3 / 31 / 90

CHECKLIST

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

LEGEND

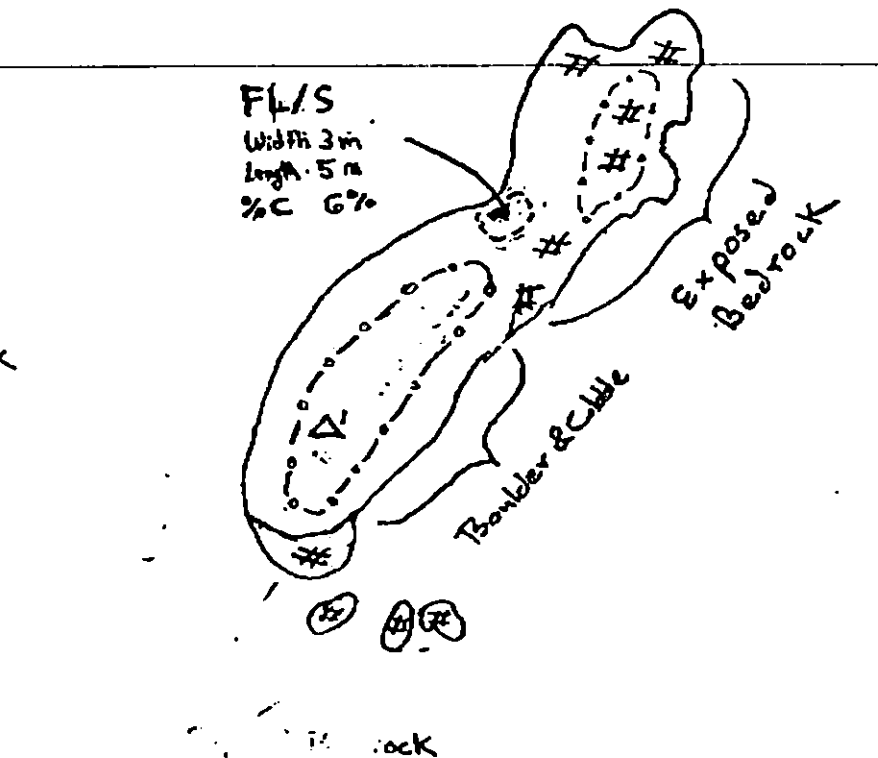
- 1 Δ —o—o— HWL
- Pit - No Subsurface Oil * Exposed Bedrock
- 2 Δ
- Pit - Subsurface Oil
- CT/C

Continuous Distribution
- CT/B

Broken Distribution
- CT/P

Pachy 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 5 NO 265

3/31/90 Team 1 Bio J. Schroeter AP-40 -1
 AP-40 is small island. In the upper intertidal
 about 1/3 is bedrock 2/3 boulder/cobble.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / AP-40 Subdivision N/A Date (mo / day / yr) 3/31/90
 Time (24 hr) 0700 0730 Biologist S. Schroeter

- (A) Substrate type and % of segments:
 (1) Bedrock 40 (2) Boulder 40 (3) Cobble 15 (4) Pebble 5 (5) Sand 0 (6) Silt 0
- (B) Overall % cover of biota (% of segment): Dense 30 Moderate 20 Low 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 (G)

Photographs: ST-1-1
 Roll No. ST-1-1

Frames 29

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	NOT PRESENT
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			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	2	2	2	2	2	NOT PRESENT
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			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	2	2	2	2	2	NOT PRESENT
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	

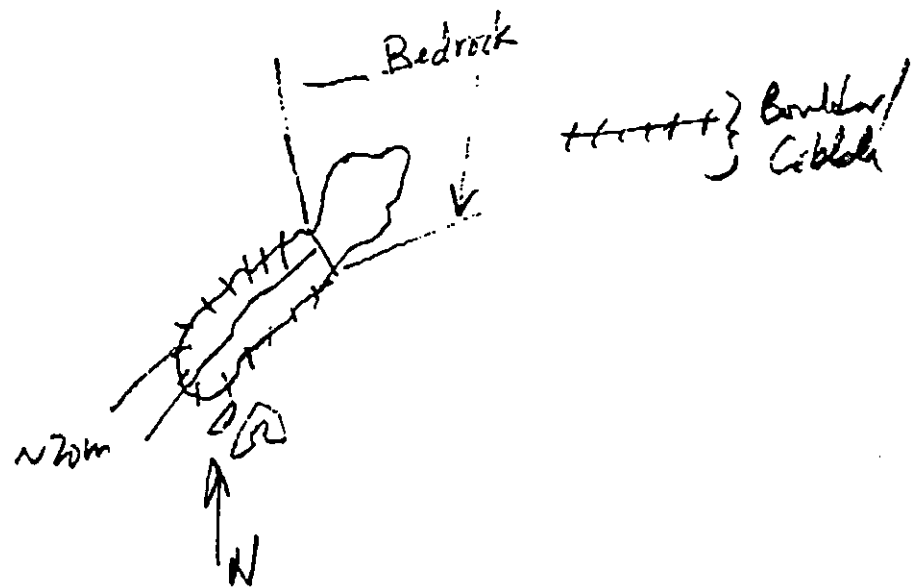
FUCUS

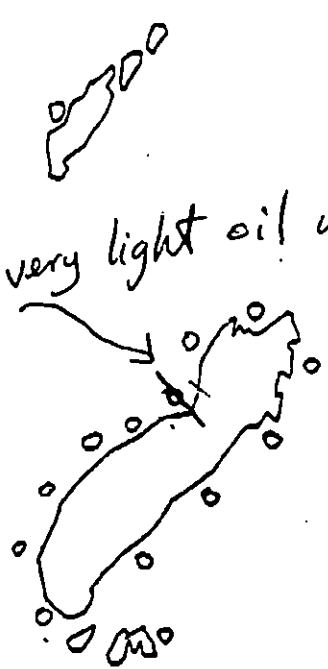
Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	2	2	2	2	2	NOT PRESENT
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

Wildlife Observations/ General Comments: ~50 spotted seals; 1 sea otter; 6-10 oystercatchers; adult bald eagle - no harbor seal or sea lions spotted / light sheen in upper intertidal pools, but no discernible stains on white gloves

Ecological Considerations: Due to tide conditions, only upper intertidal upper intertidal consists of roughly 1/2 bedrock + 1/2 boulder/cobble bench; on bedrock were dense patches of barnacles + Fucus + moderate-density patches of mussels. Except for gastropods, there were low densities of biota. Under boulders were dense aggregations of *Littorina littorea* laying eggs + *Notoacmea* *Scutellum*

5/31/90 Team 1 310 S. Schroeder HP-40-2





5m of very light oil where line is shown,
no oil on rest of coast

AP-40

<XXX Wide
/// Medium
--- Narrow

AP-40

ADEC Segment Length: 964m

Map Key: PWS-29

Name: B. Bevalund