



EVOS
GC
1552
.P75
S42
1990
v.2

[Shoreline evaluations, 1990].

BA-01– BP-04

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SHORELINE EVALUATION

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

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Two bald eagle nests (5T) - 3/1 to 6/1; Salmon stream mouth (nos. 16446, 16442, 16414, 16372, 16369); Outmigration (1A) - 3/1 to 5/15 and spawning (1B) - 7/10 to 8/15; Finfish subsistence harvesting (7HH) - Consult ADF&G and Chenega Bay for appropriate dates.

SUBDIVISION ECOLOGICAL CONSTRAINTS: No disturbance of stream beds or banks unless authorized by ADF&G. Contact ADF&G Habitat Division and the Chenega Village Corp. prior to treatment for permits.

SHPO SIGNATURE: Charles G. Holmes DATE: April 14, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 3571 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: 4/13/90
ADEC JOHN BAUER
EXXON ANDY TATE
NOAA Byrl Weisheit
USCG G.A. BEITER

FOSC: My L DATE: 4-20-90

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Randy McBride ^{NO AA} used Gary Ott SEGMENT ST/ BA-1
 BIO Lewis Shorman LAND REP Don Brattinger SUBDIVISION A
 EXXON Leonard Herbst ADEC Mike Ebel TIME 09:30 to 13:30
 TEAM NO.: 12 TIDE LEVEL: -2.2' to +6.4' DATE 3/30/90
 EST. SUBDIVISION LENGTH: 3450 m ☐ Sun ☒ Clouds ☒ Fog ☒ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: South to North
 SURFACE SEDIMENTS: R 30 % B 40 % C 30 % P _____ % G _____ % S _____ % M _____ % V _____ %
 SLOPE: Long 20 % Hang 50 % Vert 30 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W _____ m M _____ m N _____ m VL _____ m NO 3450 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	IC	IR	IP	IS	SB	BR	OR	OL	OF	NO	SU	U	M	U
ASPHALT PAVEMENT														
POOLED														
COVER														
COAT														
STAIN														
MOUSSE														
PATTIES														
TARBALLS														
FILM														
NO OIL											X	X	X	X

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

PATTIES / TARBALLS _____ BAGS

NEAR 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. _____

Frames _____

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			SB	BR	OR	OL	OF	NO	SU	U	M	U		

COMMENTS

Had to return to MV Auriga at 10:30 due to intense snowstorm and near zero visibility. Warmed up and departed MV Auriga at 11:30 for beach.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / BA-1 Subdivision A Date (mo / day / yr) 3/30/90

Time (24 hr) 0930-1330 Biologist SHARMAN

(A) Substrate type and % of segments: SUBDIV.
(1) Bedrock 30 (2) Boulder 40 (3) Cobble 30 (4) Pebble (5) Sand (6) Silt

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

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

Photographs: Roll No. ST-12-1

Frames NONE

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 (*Nacella*, *Littorina*, *Limpeta*)

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:

Please see Addendum to this Shoreline Ecological Summary sent in afternoon of 4/1/90.

Ecological Considerations:

Same as for BA-1 (D). Sensitivity Codes (entire segment): ST-2, 1B, 7HH.

BA-2-A

3/30/90

Shoreline Ecological Survey Addendum (Sharon)
Ben 12

General Comments: No oiling was observed within this subdivision, although VLT was reported for the northern portion in previous surveys. The intertidal zone appears normal and healthy. In the absence of observable oil, an abbreviated Shoreline Oiling Summary was completed, and no Shoreline Ecological Survey was formally compiled for the intertidal zone. However, field notes follow:

Wildlife: 1 river otter, 1 pair mergansers, 1 pair adult eagles (no visible nest), 1 sea otter, 1 sea lion.

Intertidal Community: Apparently normal and healthy. Substrate is primarily boulder/cobble. Moderate to dense Fucus on large boulders. Below Fucus is a 1-m vertical band of red foliose algae subtended by Laminaria. Lowest water during low tide today was at red foliose / Laminaria contact. Healthy Fucus and barnacles in MTZ. Pagurus not uncommon beneath LTZ boulders. Sparse to rare barnacle and mussel recruitment (thus far). Barnacles show $\approx 5\%$ mortality (empty tests). Limited Fucus sporling production in lower Fucus zone.

Apparently this general portion of the N.E. Bainbridge Island shoreline was uplifted ≈ 2 m in the 1964 earthquake. There is a 1-m broad (vertically) band of dead, white, crumbling barnacle tests at ≈ 1 m above MHHW (within and above supratidal), ≈ 2 m above highest live barnacles.

Important:

BA-1-A

Sent originally on

March 30, 1990

This is an Addendum!

Thanks

↑ PWS 11N

BA-1-B

BA-

BA-1-A

4 of 4

↓ PWS 11F

XXX Wide

/// Medium

--- Narrow

TTTT Very Light

BA-1

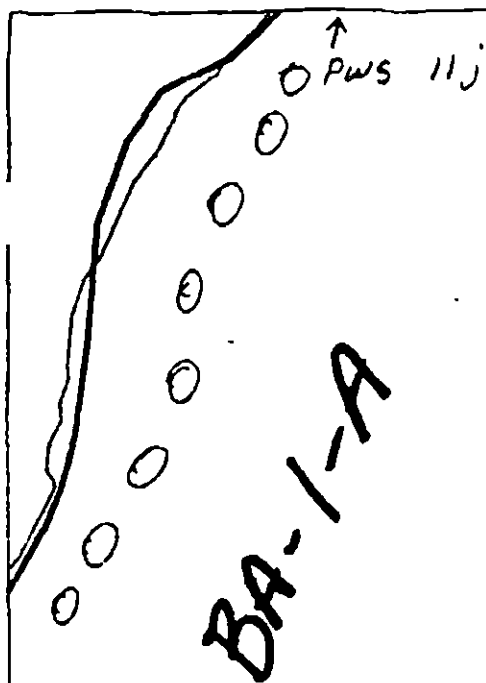
ADEC Segment Length: 13318m

0 100 200 300 400

Map Key: PWS-11i

Name: Landy McBride

Date: 3/30/90



← PWS 11E

3 of 4

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

BA-1

ADEC Segment Length: 13318m

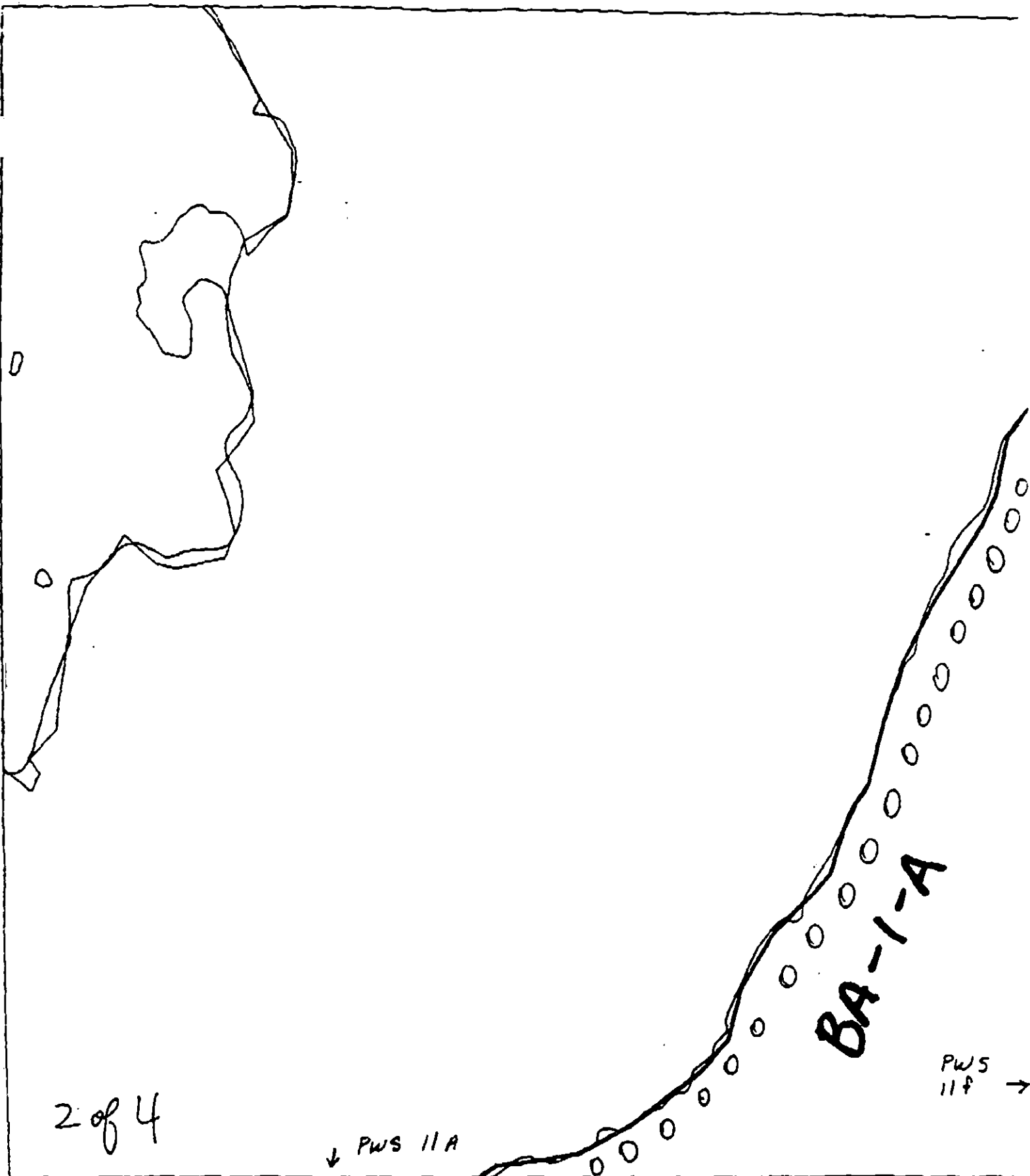


Map Key: PWS-11f

Name: Randy McBride

Date: 3/30/90

Data Entered:



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

BA-1

ADEC Segment Length: 13318m

0 100 200 300



Map Key: PWS-11a

Name: Randy McBride

Date: _____

↑ PWS 11c

PRINCE OF WALES
PASSAGE

BA-1-A

BA-2-A

BA-2

1064

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

BA-1

ADEC Segment Length: 13318m

0 100 200 300

Map Key: PWS-11c

Name: _____

Date: _____



SHORELINE EVALUATION

SEGMENT ST/ BA-01 SUBDIVISION B (2 OF 6) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Two bald eagle nests (5T) - 3/1 to 6/1; Salmon stream mouth (nos. 16446, 16442, 16414, 16372, 16369); Outmigration (1A) - 3/1 to 5/15 and spawning (1B) - 7/10 to 8/15; Finfish subsistence harvesting (7HH) - Consult ADF&G and Chenega Bay for appropriate dates.

SUBDIVISION ECOLOGICAL CONSTRAINTS: No disturbance of stream beds or banks unless authorized by ADF&G. Contact ADF&G Habitat Division prior to treatment for permits. Re: bald eagle nests, restrict air traffic to essential minimum. Air approach and takeoff from and to seaward only. Contact USFWS prior to treatment for confirmation of dates and avoidance minimums.

ARC ARCHAEOLOGICAL CONSTRAINTS: Consultation and ~~site~~ inspection with an Exxon archaeologist is required _____ prior to treatment. Specific on-site monitoring _____ requirements will be determined at that time. _____

SHPO SIGNATURE: Charles E. Hume DATE: April 14, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 2020m: No Oil 0 m
Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: _____

See Constraint Addendum Dated 6/9/90 WKK

TAG COMMENTS: CHECK FOR OILED DEBRIS/TRASH

TAG APPROVAL DATE: 4/13/90

ADEC JOHN BAKER John Baker

EXXON ANNY TATE _____ FOSC: _____ DATE: _____

NOAA Burl Wescott Burl Wescott

USCG G.A. REITER G.A. Reiter

FIELD SHORELINE COMMENT SHEET

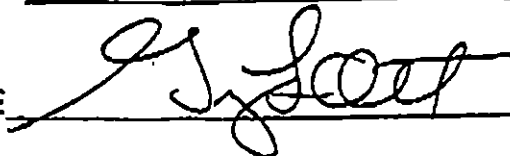
SEGMENT ST / BA1 SUBDIVISION: B DATE 3/31/90

USCG

NAME

GARY OTT

SIGNATURE

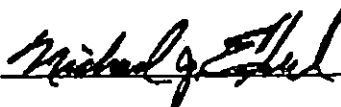
☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

ADEC

NAME

Michael J. Ebel

SIGNATURE

☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDBA-1-B

LAND MANAGER

U.S.D.A. - Forest Service

NAME

Don J. Breitinger

SIGNATURE

☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDBA-1-sub. B

SHORELINE OILING SUMMARY

REVISION NO. 02/22/90

OG Randy McBride ^{NORTH} USCGA Gary Ott SEGMENT ST/ BA-1
 BIO Lewis Shannon LAND REP Don Breitingen SUBDIVISION B (2 OF 6)
 EXXON Leonard Herbst ADEC Mike Ebel TIME 07:26 to 08:05
 TEAM NO.: 12 TIDE LEVEL: +5.6 to +3.8 DATE 3 / 31 / 90
 EST. SUBDIVISION LENGTH: 5100 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 55 % C 5 % P % G % S % M % V %
 SLOPE: Lang % Hang 80 % Vert 20 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W m M m N m VL 5100 m NO m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES				
	TC	TS	TP	TD	BR	OR	OL	SL	TL	LR	SU	U	M	U
ASPHALT PAVEMENT														
POOLED														
COVER			X						X			X		
COAT														
STAIN														
MOUSSE														
PATTIES														
TARBALLS														
FILM														
NO OIL											X		X	X

PAVEMENT: H F S sq. m by cm

PATTIES / TARBALLS BAGS

NEAR 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-12-1Frames 11-12-14

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	BR	OR	OL	OF	NO	UC	SU	U	M	U		

COMMENTS

An oil mark was found along the HWL that was 15 cm wide. The oil character was and distribution was patchy cover with drip marks along a wide variety of coastal geomorphological features.

REVIEWED FW

DATE

4-1-90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 08/22/90

Segment ST / BA-1 Subdivision B Date (mo / day / yr) 3/31/90Time (24 hr) 0715-0745 Biologist SHARMAN (Dan 12)(A) Substrate type and % of segment: SUBDIV.(1) Bedrock 40 (2) Boulder 55 (3) Cobble 5 (4) Pebble (5) Sand (6) Silt (B) Overall % cover of biota (% of segment): Dense Moderate X Low
SUBDIV.

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

Photographs:

Roll No. ST-12-1Frames 11-16

BARNACLES

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

NOT PRESENT

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 (Nucella, Littorina, Limpata)

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments: LTE submerged (∴ no observations), 3 sea lions, 3 sea otters, 1 pr. Barrow's goldeneyes, 1 pr. cormorants. Eagle nest - no adults in vicinity, appears to be inactive. Intertidal zone appears normal and healthy except for ~ 50% greater-than-normal barnacle mortality within LTE tar band.

Ecological Considerations: Environmental priority 1 for the BA-1 segment according to Priorities and Windows Table. Work window is 6/1-7/10. High constraints (1-2) due to salmon spawning stream (7/10-9/1) and finfish sublethals. Also, constraint 5 (eagle nests) give priority 2 weight. But higher constraints give overall treatment priority of 1-2.

Sensitivity Codes (entire segment): ST-2, 12, 7HH.

(7)

OG.R. McBride

SEGMENT ST/ BA-1

SUBDIVISION B

DATE 3 / 31 90

CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☒ See Sub Bdry
- ☒ Loc Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HWL/LWL
- ☒ SSL
- ☒ Profile Location(s)
- ☒ Profile(s)
- ☒ Pit Location(s)
- ☒ Photo Location(s)

LEGEND

1 Δ
Pit - No Subsurface Oil

2 Δ
Pit - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

CT/P
Patched Distribution

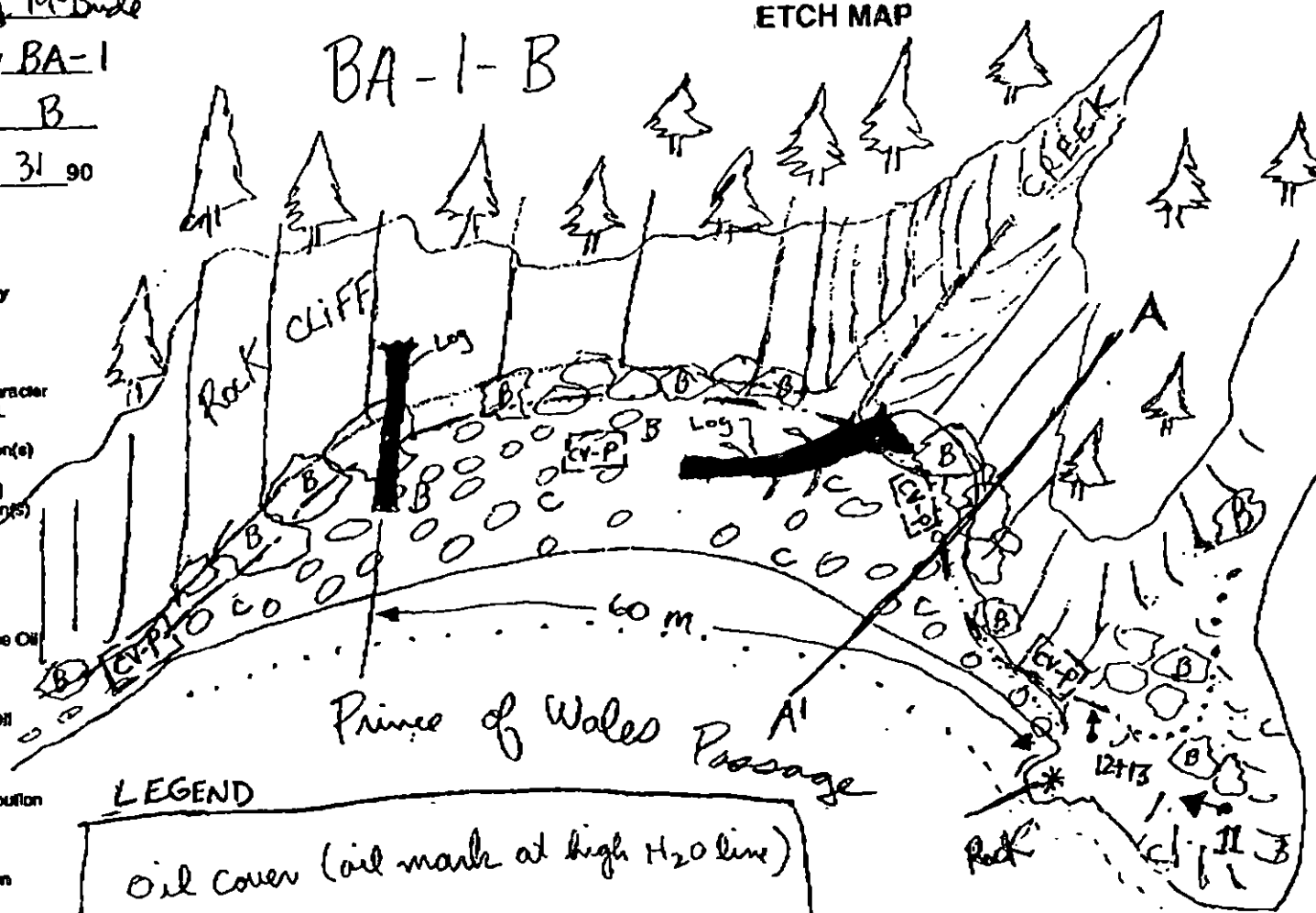
CT/S
Splashed Distribution

Oil Vegetation

1 →
Photo location, direction,
and number

ETCH MAP

BA-1-B



LEGEND

Oil cover (oil mark at high H₂O line)

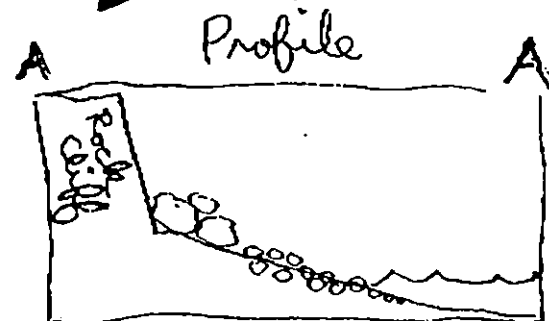
width - 15 cm

length - ~100 m patchy

% cover - < 5%

Note: No Pits!

N 23° E
353' (true)



Oil Character Length (m): AP _____ PO _____ CV 100 CT _____ ST _____ MS _____ PT _____ TB _____ FL _____ NO _____

REVISION: 01/2000

AGENT ST/ BA-1

SUBDIVISION B

DATE 3 / 31 90

CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Seg/Sub Bathy
- ☒ Oil Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. H₂O/L₂O
- ☒ SSL
- ☒ Profile Location(s)
- ☒ Profile(s)
- ☒ P's 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

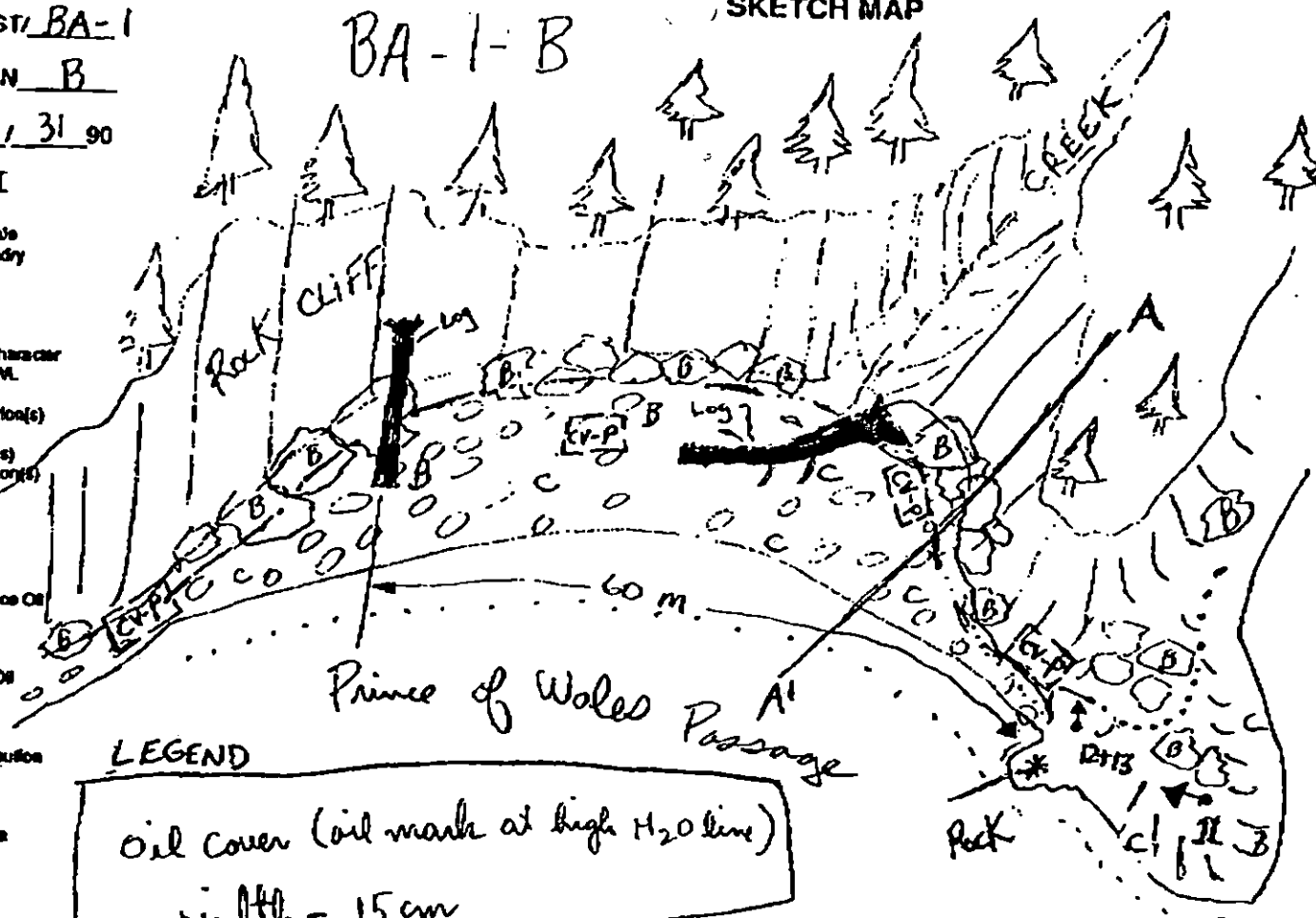
CT/S
Splashed Distribution

Oiled Vegetation

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

SKETCH MAP

BA-1-B



LEGEND

Oil cover (oil mark at high H₂O line)

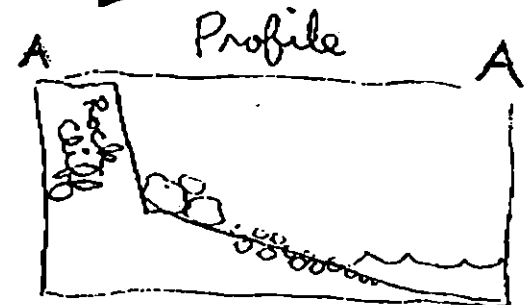
Width - 15 cm

Length - ~100 m patchy

% cover - < 5%

Note: No Pits!

N 23° E
353' (true)



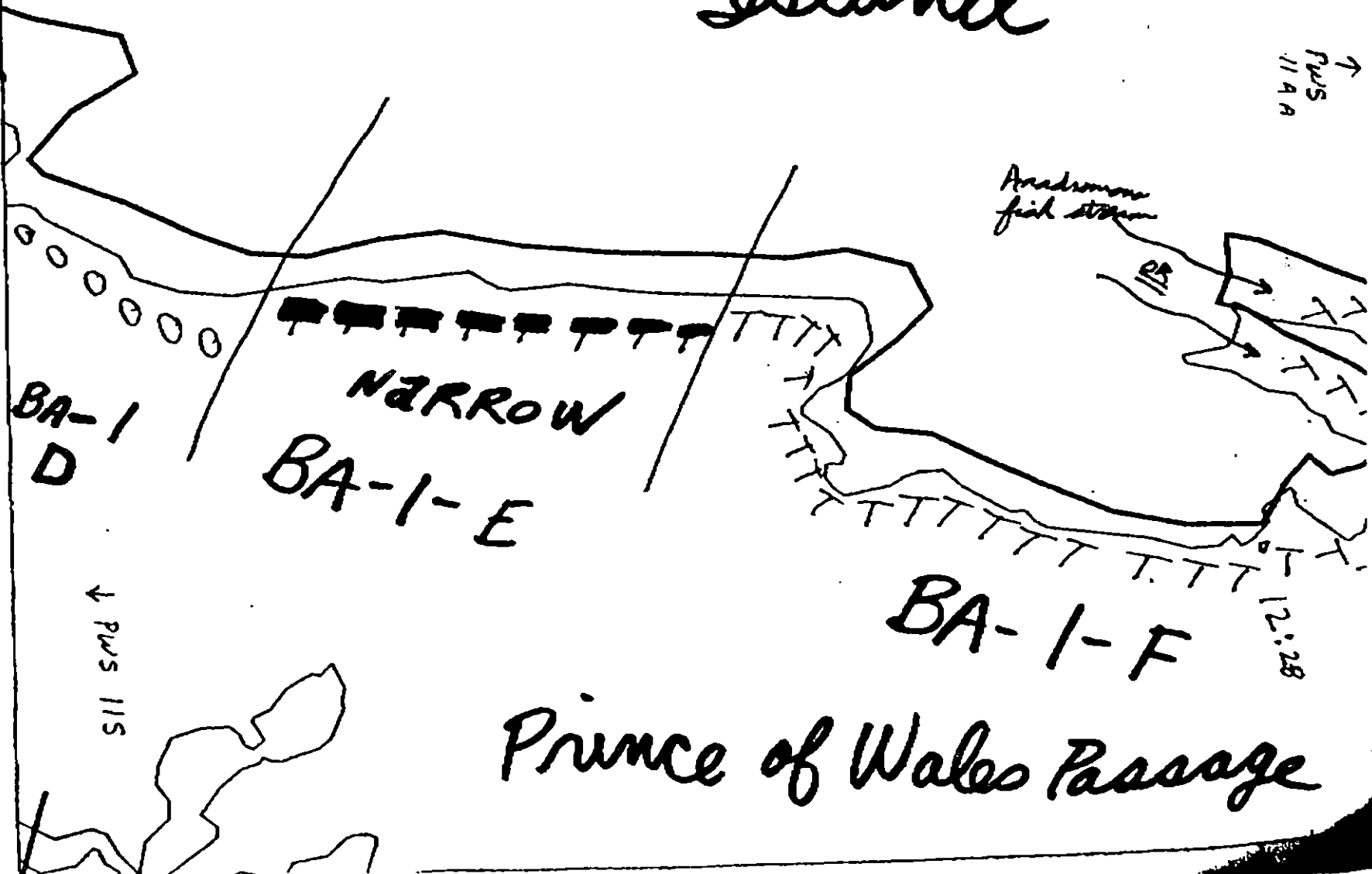
Oil Character Length (m): AP _____ PO _____ CV 100 CT _____ ST _____ MS _____ PT _____ TB _____ FL _____ NO _____

REVISION: 002008

↑
PWS
114A

Bainbridge Island

Anadromous fish stream



XXXX Wide

BA-1

//// Medium

---- Narrow

TTTT Very Light

NNNN No Nil

ADCC Segment Length: 13318m



UTMPC



Map Key: PWS-11A

Name: Randy M. Bude

Date: 3/3/90

Data Entered: 34

↑ PWS
11ee

BA-1-F

↓ PWS
11w

PWS
1188 →

XXXX Wide
//// Medium
--- Narrow

ADEC Segment Length: 13318m

TTTT Very Light

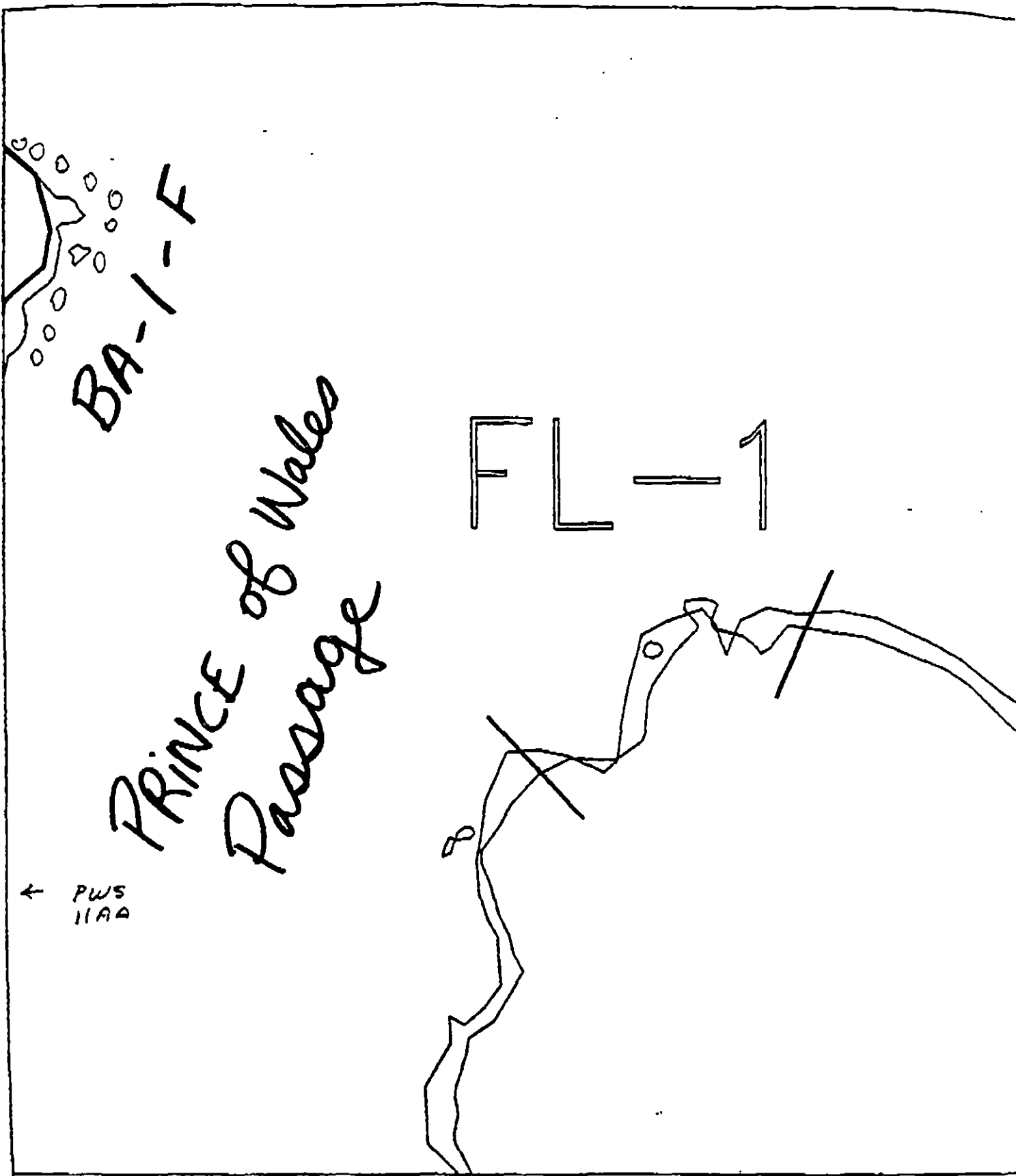
0 100 200 300

Map Key: PWS-1100

Name: _____

Date: _____

Date Entered: 72



XXXX Wide

//// Medium

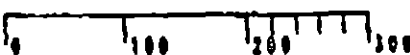
--- Narrow

TTTT Very Light

0000 " " "

BA-1

ADEC Segment Length: 13318m



Map Key: PWS-11bb

Name: _____

Date: _____

Bainbridge
Island

BA-1-D

PWS 11N
↓

PWS
11S →

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

BA-1

ADEC Segment Length: 13310m

0 100 200 300



Map Key: PWS-11r

Name: Randy McQuinn

Date: 3/31/90

Date Entered: 1171

Bainbridge
Island

BA-1-D

Prince of Wales Passage

↑ PWS
11W0000 PWS
11R

↓ PWS 110

XXXX Wide

//// Medium

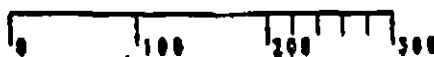
---- Narrow

TTTT Very Light

0000 No Oil

BA-1

ADEC Segment Length: 13318m

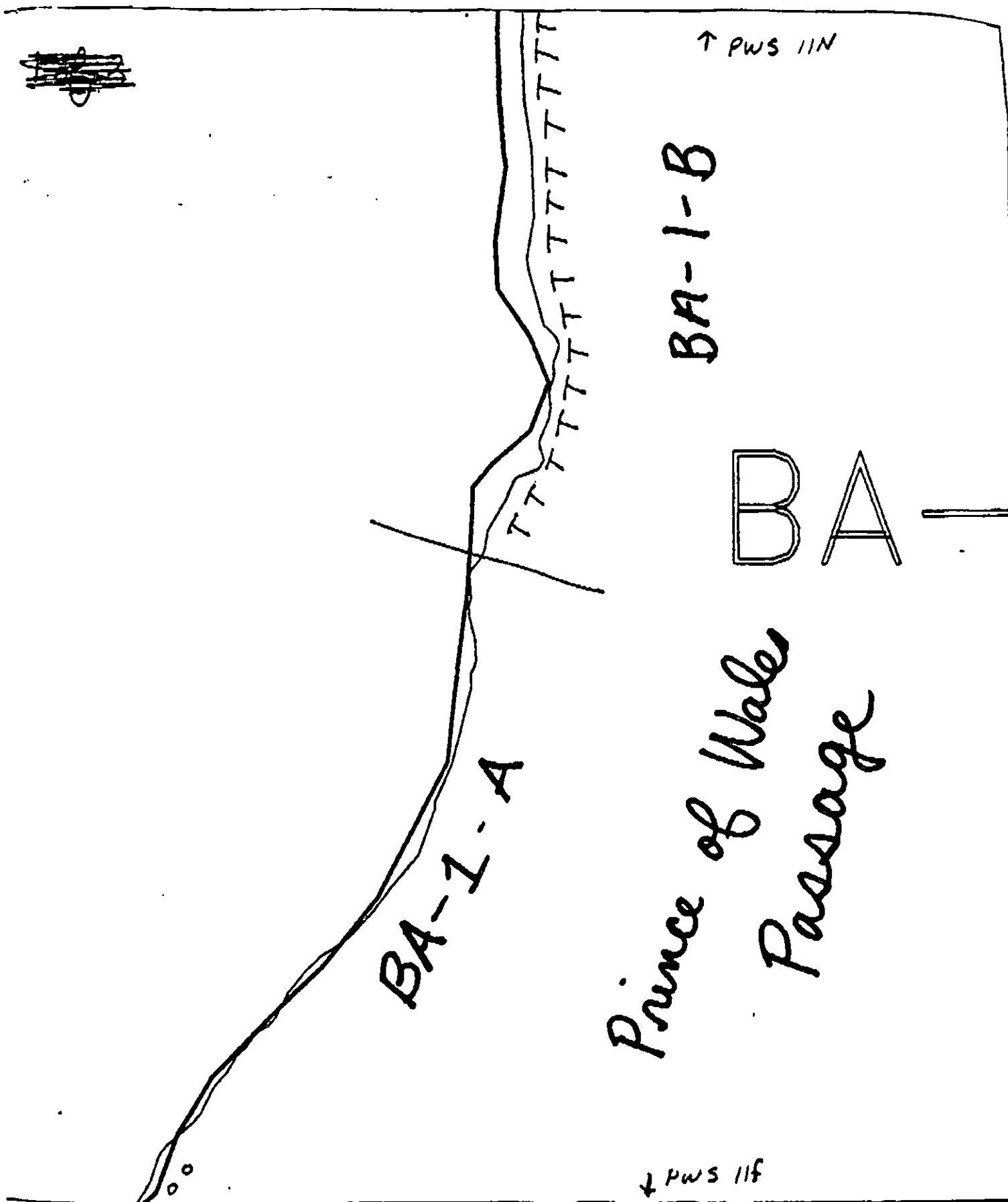

METERS

Map Key: PWS-11s

Name: Randy McBride

Date: 3/31/90

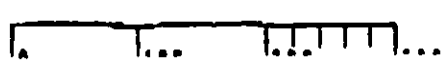
Data Entered: (22)



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

BA-1

ADEC Segment Length: 13318m



Map Key: PWS-111
 Name: Randy McBride
 Date: 3/31/90

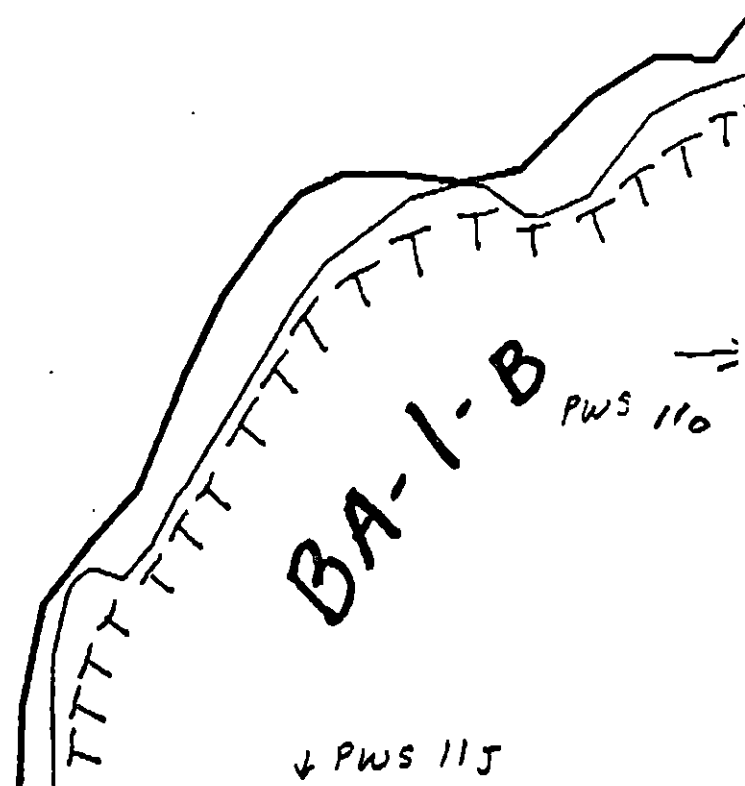
8

Bainbridge Island

↑ PWS 11R

BA-1-D

BA-1-C



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

BA-1

ADEC Segment Length: 13318m



Map Key: PWS-11n
Name: Randy McBride
Date: 3/31/90
Data Entered: (15)

↑ PWS 115

BA-1-C

BA-1-B

==
PWS
115

XXXX Wide

BA-1

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

ADEC Segment Length: 13318m



Map Key: PWS-110

Name: Randy McBride

Date: 3/31/90

Date Entered: (signature)

ADDENDUM: SUBDIVISION CONSTRAINTS

- SEGMENT BA-1 SUBDIVISION B (2 of 6)

WORK WINDOW

Manual Pickup Less Than 400m From Active Nest **CLOSED**

Manual Pickup More Than 400m From Active Nest **OPEN**

ARCHAEOLOGICAL INSPECTION/CONSULTATION REQUIRED.

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

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

NO CONSTRAINT. ADF&G catalogued anadromous streams are located in adjacent subdivisions more than 100m from recommended treatment area: 226-40-16442 and 16446 in Subdivision A; 226-40-16414 in Subdivision D; and 226-40-1639 and 16372 in Subdivision F.

1K Purse Seine Hook-off

No constraint to manual pickup.

5T Bald Eagle Nest

USFWS 6/1/90 map indicates an active nest in Subdivision B. Closed to manual pickup within 400m of active nest.

7HH Subsistence: Finfish Harvesting

No constraint to manual pickup.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict boat and air traffic and all disturbance to essential minimum. Air approach and takeoff from and to seaward only; maintain 400m horizontal, 300m vertical distance from nests. Avoid any unnecessary disturbance or damage to uncollected biota and substrate.

FOSC

DATE 6-10-90

Prepared By: W. Kelley

Date 6/9/90

SHORELINE EVALUATION

SEGMENT ST/ BA-01 SUBDIVISION C (3 OF 6) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Two bald eagle nests (5T) - 3/1 to 6/1; Salmon stream mouth (nos. 16446, 16442, 16414, 16372, 16369); Outmigration (1A) - 3/1 to 5/15 and spawning (1B) - 7/10 to 8/15; Finfish subsistence harvesting (7HH) - Consult ADF&G and Chenega Bay for appropriate dates.

SUBDIVISION ECOLOGICAL CONSTRAINTS: No disturbance of stream beds or banks unless authorized by ADF&G. Contact ADF&G Habitat Division and Chenega Village Corp. prior to treatment for permits.

SHPO SIGNATURE: Charles E. H. Hume DATE: April 14, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 235 m: Narrow 111 m: V.Light 101 m: No Oil 0 m
Subsurface Oil Observed: Yes X No Maximum Depth 12 cm

RECOMMENDATIONS:

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

COMMENTS: Breakup and Removal of tarmats as shown on sketch map. Bioremediate cover and coat areas shown on map. Work to be performed between 6/1 and 7/10 based on constraints.

TAG COMMENTS:

TAG APPROVAL DATE: 4/13/90.

ADEC John Bauer EXXON Andy Teal FOSC: DATE: 4-20-90
NOAA Buel Waroff USCG G.A. Reiter

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / BA 1 SUBDIVISION: C DATE 3/31/90USCG
NAMEGARY OTT

SIGNATURE

☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

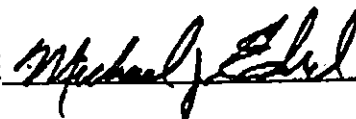
MANUAL COLLECTION OF TAR MATS.

ADEC

NAME

Michael J. Ebel

SIGNATURE

☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

-1-C Recommend small crew to walk this subdivision and manually remove the patches of asphalt and any patties or tarballs that can be found in this confined, discontinuous band — limiting

① sweep across the length of beach and picking up whatever can be seen at that pass.

LAND MANAGER

U.S.P.A. Forest Service

NAME

Don J. Brubaker

SIGNATURE

☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

BA 1 Sub. C — Manual collection of tar mats.

⑧

SHORELINE OILING SUMMARY

Temp. 38°

REVISION NO. 03/23/90

OG Randy McBride NoAA Gary Ott SEGMENT ST/ BA-1
 BIO Lewis Shannon LAND REP Don Bretinger SUBDIVISION C (3 of 6)
 EXXON Leonard Herbst ADEC Mike E. Hel TIME 08:50 to 10:10
 TEAM NO.: 12 TIDE LEVEL: +0.9 to -1.0 ft. DATE 3/31/90
 EST. SUBDIVISION LENGTH: 700 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: east to west
 SURFACE SEDIMENTS: R 5 % B 50 % C 50 % P 25 % G 15 % S 5 % M 5 % V 5 %
 SLOPE: Long 75 % Hang 25 % Vert 5 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 190 m M 190 m N 355 m VL 155 m NO 155 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	IC	IS	IP	IR	OR	OC	OP	OS	OT	OL	OTL	OTL	SU	U	M	U
ASPHALT PAVEMENT			X							X				X		
POOLED			X							X				X		
COVER			X							X				X		
COAT			X							X				X		
STAIN																
MOUSSE																
PATTIES				X						X				X		
TARBALLS				X						X				X		
FILM																
NO OIL													X		X	X

PAVEMENT: H 8 280 sq. m by 4 cm

PATTIES / TARBALLS _____ BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	X		
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NO

TYPE _____

#BAGS _____

Photographs:

Roll No. ST-12-1Frames 17-26

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	OR	OC	OP	OS	OT	OTL	SU	U	M	U					
1	20				X		5-8		X					X			X								C, P, G
2	30				X		5-12		X				X					X							C, P, G
3	42					X	- - -		X								X								P, G
4	36.5				X		5-10		X					X			X								C, P, G
							.																		
							.																		

COMMENTS

Curvilinear pocket beach with rock cliffs and boulders occurring at either end of ~~sub~~ subdivision (Rock, boulders, cobbles) and fining ~~or~~ toward the center of the pocket beach. Air temperature was 38°. Medium oiling was found at eastern end of subdivision characterized patchy and broken asphalt pavement.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/22/90

Segment ST / BA-2 Subdivision C Date (mo / day / yr) 3/31/90Time (24 hr) 0630-1015 Biologist SHARMAN (Team 12)

- (A) Substrate type and % of ~~segment~~ SUBDIV. granules + sand
 (1) Bedrock 5 (2) Boulder 1 (3) Cobble 49 (4) Pebble 25 (5) Sand 20 (6) Silt
- (B) Overall % cover of biota (% of ~~segment~~ SUBDIV.): Dense Moderate Low X
- (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-12-1Frames 17-24

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	NOT PRESENT
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	
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	NOT PRESENT
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 (Nucella, Littorina, Lingula)

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	NOT PRESENT
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	
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	NOT PRESENT
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: Note presence of Fucus in surface substrate types 4 and 5 - plants are attached to subsurface cobble. 1 pair of gulls, 3 pairs Barnow's goldeneyes, 3 sea otters at Pan Hat Point. See other carcass lower MT 2 (bones + hide) - no oil visible. Active red squirrels in forest adjacent to beach. See page 2 for intertidal comments.

Ecological Considerations: Same as for BA-2 (B). Sensitivity codes (entire segment):
ST-2, 2B, 7HH.

(16)

BA-1-SC

3/31/90

Stordie Ecological Summary (Stordie
Team 12)General Comments (cont.)

Subdivision embraces a moderately low-angle, protected "lagoon" dominated by shingley cobble/pebble surface sediments (pebbly/sandy in LTZ) supporting a typically depauperate epifauna. Some weathered oil (VLT) in wrack line. In MTZ, barnacles are young and small (3-8 mm dia.), spat are rare. Moderately abundant Fucus in MTZ (with Spirobrion on fronds), $\approx 50\%$ of which is unattached. Shells of Saxidomus, Protothaca, and Chinocardium common on surface in MTZ and LTZ. Mytilus moderate $\rightarrow$ dense abundances in MTZ and LTZ. LTZ supports large Balanus cariosus on rare boulders, as well as rare Natica egg cases in fine sediment zone. Intertidal community appears quite normal and healthy.

(17)

SEC TST/ BA-1

SUBDIVISION C

DATE 3/31/90

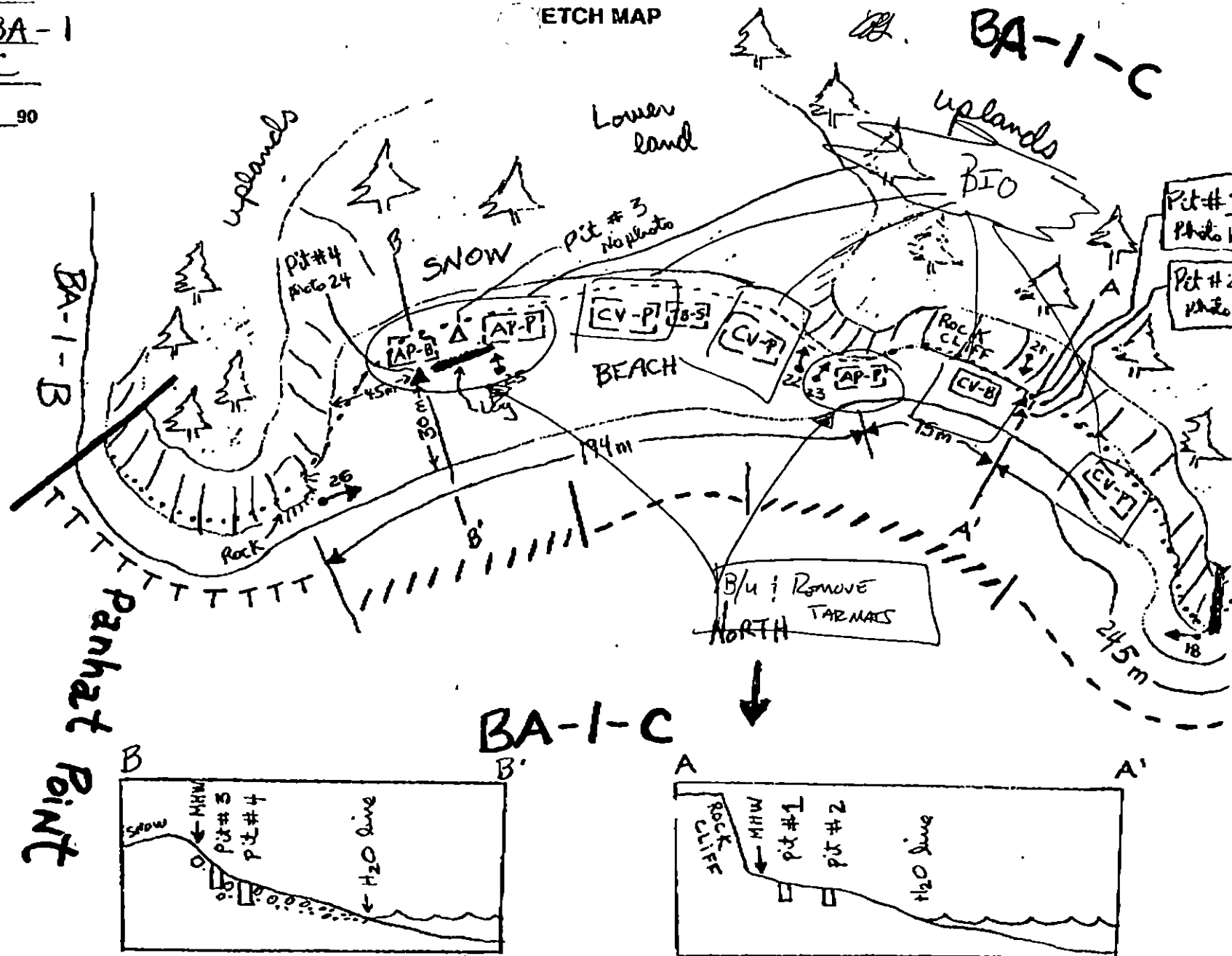
CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Sub. Sub. Endry
- ☒ Oil Dm.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. H/M/L/V/L
- ☒ SSL
- ☒ Profile Location(s)
- ☒ Profile(s)
- ☒ P/L 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

ETCH MAP



BA-1-C

Oil Character Length (m): AP 190 PO 100 CV 100 CT 156 ST MS PT 25 TB 50 FL NO

REVISION: 03/24/90

APR-01-1990 13:16 FROM PWSH X

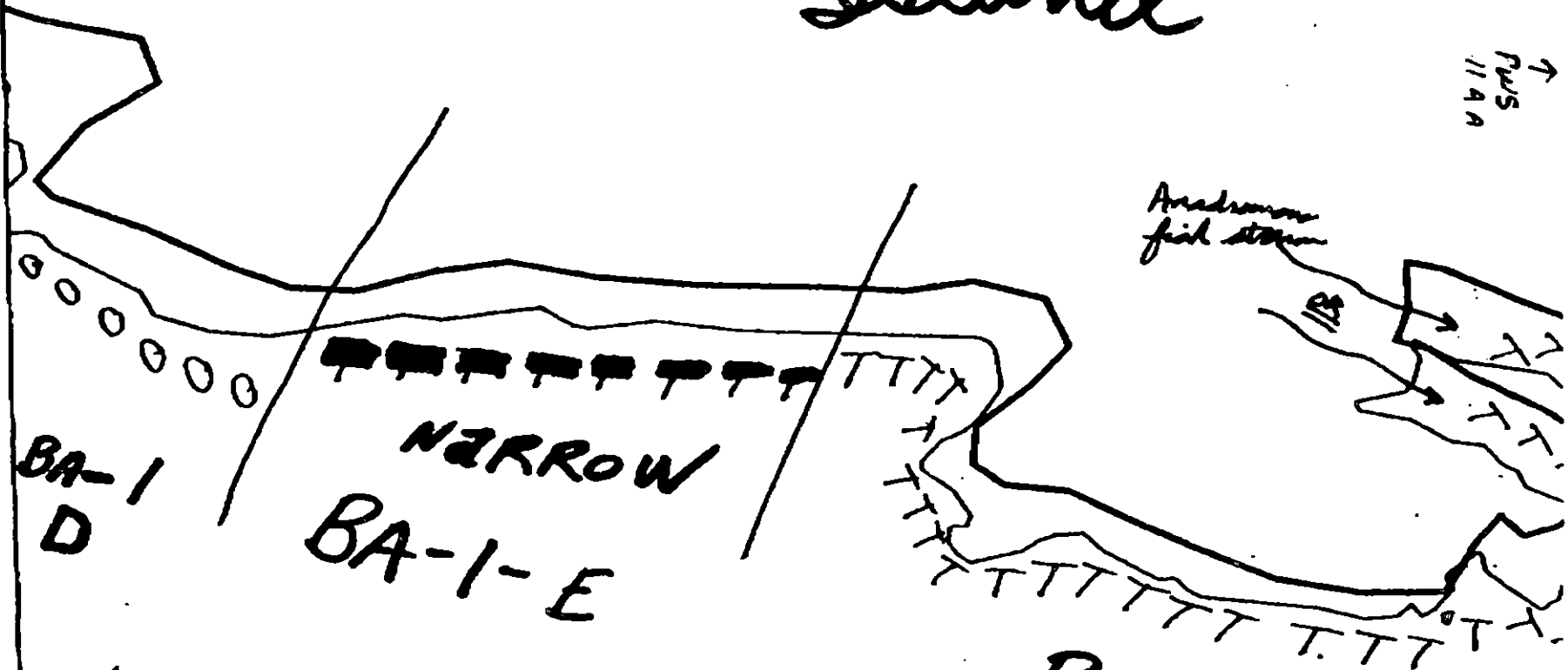
TO 1#-----0019075645771#

P.13

Bainbridge Island

↑ PWS 114A

Anadromous fish stream



12:28

Prince of Wales Passage

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

BA-1

ADCC Segment Length: 13318m



Map Key: PWS-114
Name: Randy McBrade
Date: 3/3/90
Data Entered: (34)

↑ PWS
11cc

BA-1-F

↓ PWS
11W

PWS
11BB →

XXXX Wide

//// Medium

---- Narrow

TTTT

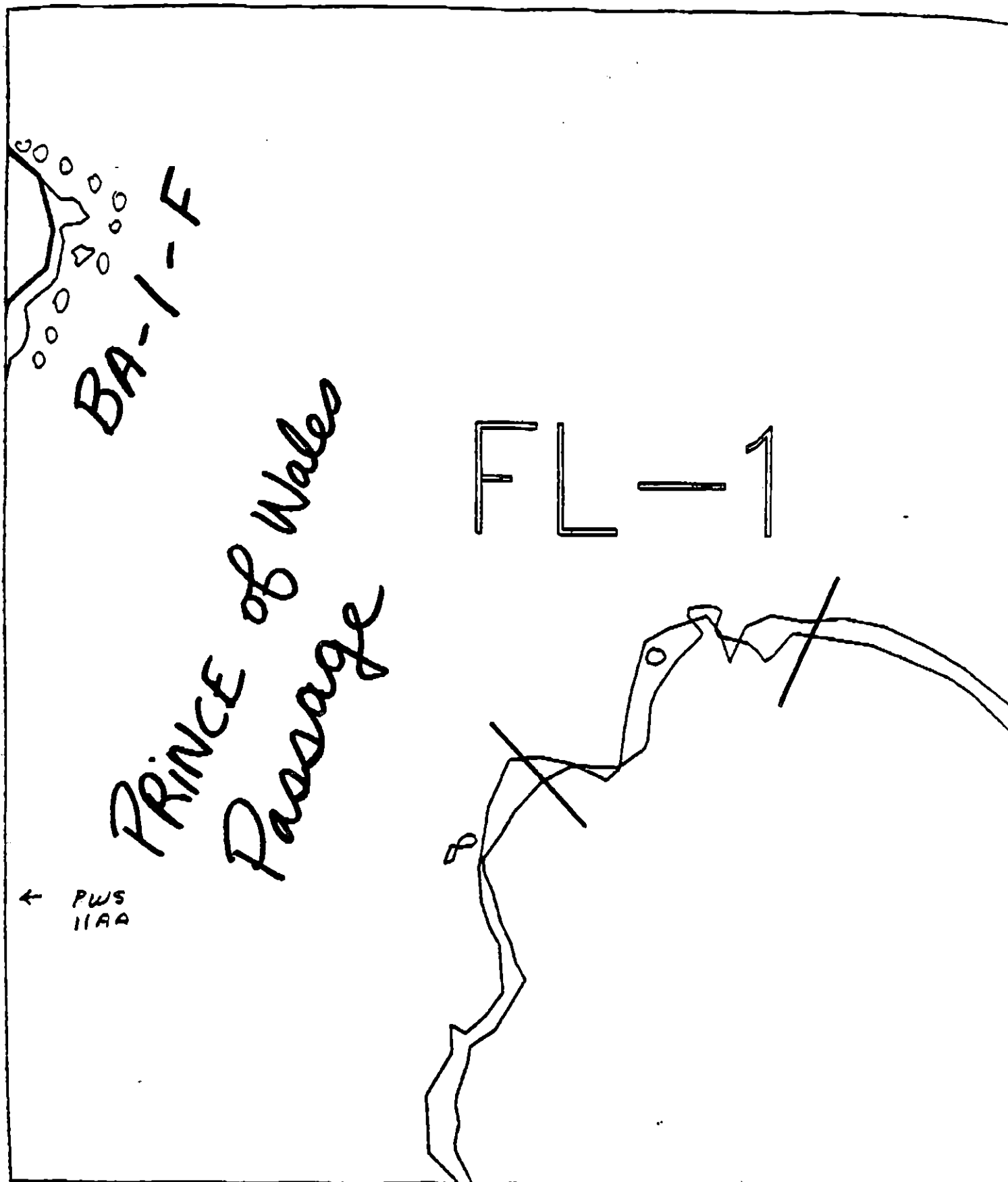
BA-1

ADEC Segment Length: 13318m

Map Key: PWS-11cc

Name: _____

Date: _____



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

BA-1

ADEC Segment Length: 13318m

Map Key: PWS-11bb

Name: _____

Date: _____



Bainbridge
Island

BA-1-D

PWS
11S

PWS 11N
↓

XXXX Wide

//// Medium

---- Narrow

TTTT Very light

BA-1

ADEC Segment Length: 13318m

Map Key: PWS-11r-

Name: Randy McBr

Date: 3/31/90

Prince of Wales Passage

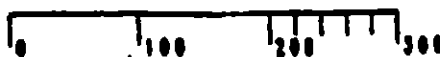
$\uparrow$
PWS
11w

00 ← PWS
11R

↓ PWS 110

BA-1

ADEC Segment Length: 13318m



Map Key: PWS-11s
Name: Randy McBride
Date: 3/31/90
Date Entered: 77

[illegible]

$\uparrow$ pws 11N

BA-1

ADBC Segment Length: 13318m

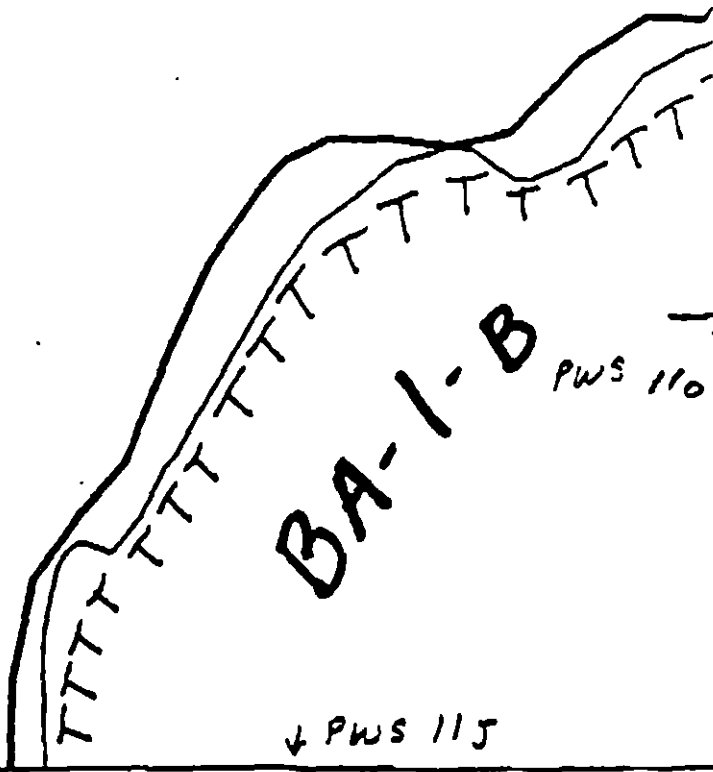
①

Bainbridge Island

↑ PWS 112

BA-1-D

BA-1-C



XXXX Wide

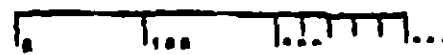
//// Medium

--- Narrow

TTTT Very Light

BA-1

ADEC Segment Length: 13318m



Map Key: PWS-11a

Name: Randy McBride

Date: 3/31/90



PWS 115

BA-1-C

BA-1-B

PWS
115

XXX Wide

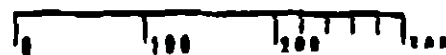
/// Medium

--- Narrow

TTTT Very Light

BA-1

ADEC Segment Length: 13318m



Map Key: PWS-110

Name: Randy McBride

Date: 3/31/90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT BA-1 SUBDIVISION C (3 of 6)

WORK WINDOW	
Tarmat Removal	OPEN
Bioremediation	WORK PRIOR TO 7/1

ARCHAEOLOGICAL MONITOR REQUIRED ON SITE.

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

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

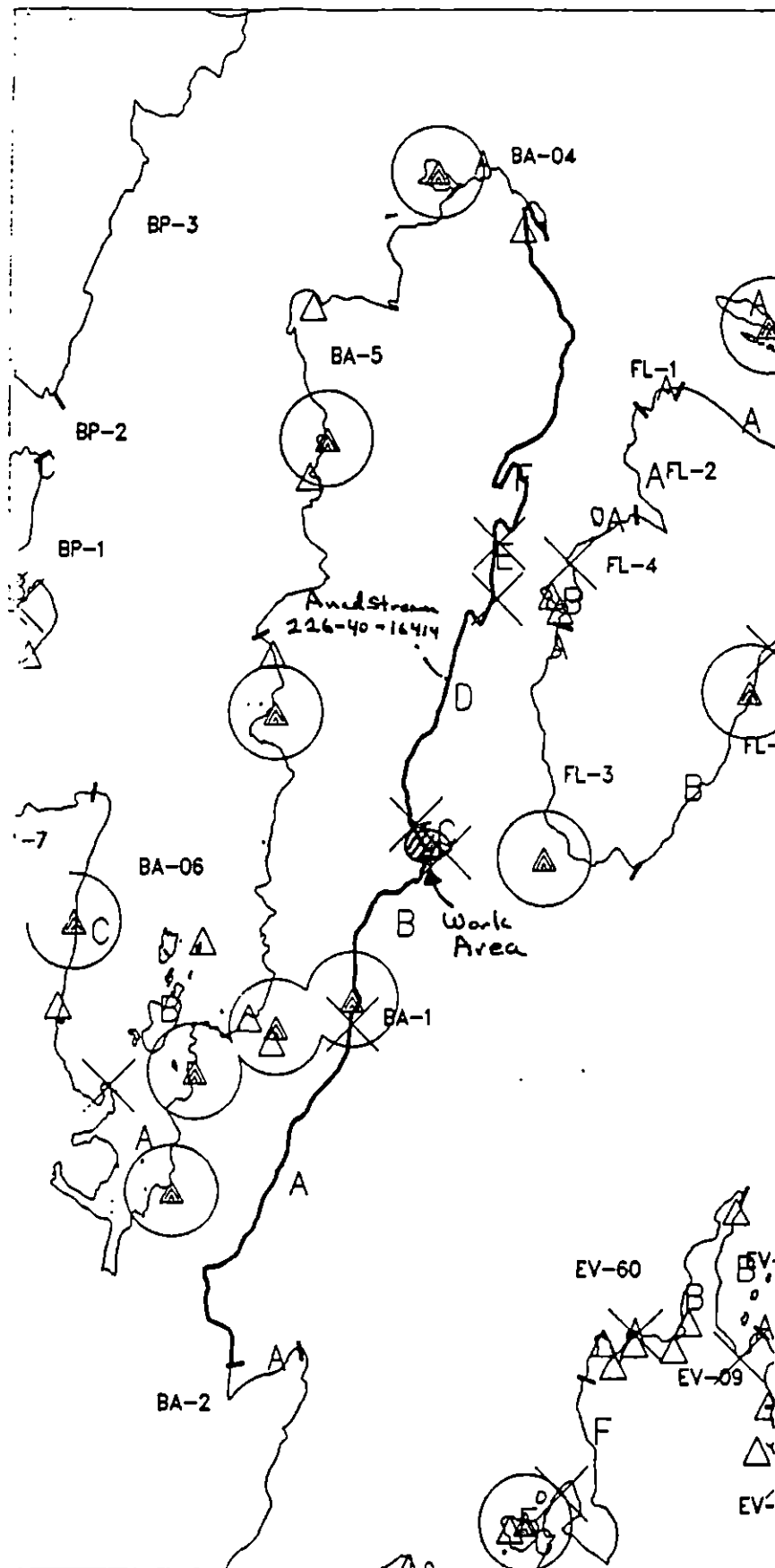
1A,1B	Salmon Stream	NO CONSTRAINT. ADF&G catalogued anadromous streams are located in adjacent subdivisions more than 100m from recommended treatment areas: 226-40-16442 and 16446 in Subdivision A; 226-40-16414 in Subdivision D; and 226-40-16369 and 16372 in Subdivision F.
1K	Purse Seine Hook-off	No constraint to tarmat removal; closed to bioremediation after 7/20.
5T	Bald Eagle Nest	NO CONSTRAINT. USFWS 6/1/90 map indicates no active nest within 400m of Subdivision C work site. C wtk
7HH	Subsistence: Finfish Harvesting	No constraint to tarmat removal. Closed to bioremediation after 7/1.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC W L Date 6-10-90

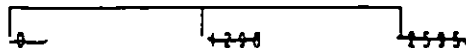
Prepared by W. Kelley Date 6/9/90



Exxon Company, USA
Map Key: PWS-BA-1
June 04, 1990



ECOLOGY MAP SEGMENT BA-1 SUBDIVISION C (3 of 6) METERS



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

1 inch = 2540 feet

SHORELINE EVALUATION

SEGMENT ST/ BA-01 SUBDIVISION D (4 OF 6) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Two bald eagle nests (5T) - 3/1 to 6/1; Salmon stream mouth (nos. 16446, 16442, 16414, 16372, 16369); Outmigration (1A) - 3/1 to 5/15 and spawning (1B) - 7/10 to 8/15; Finfish subsistence harvesting (7HH) - Consult ADF&G and Chenega Bay for appropriate dates.

SUBDIVISION ECOLOGICAL CONSTRAINTS: No disturbance of stream beds or banks unless authorized by ADF&G. Contact ADF&G Habitat Division prior to treatment for permits.

SHPO SIGNATURE: Charles E. Hohen DATE: April 14, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 2419 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: 4/13/90

ADEC JOHN BAKER John Baker

EXXON ANDY TOL Andy Tol

NOAA Bruce Wescott Bruce Wescott

USCG G.A. REITER G.A. Reiter

FOSC: My DATE: 4-20-90

SHORELINE OILING SUMMARY

REVISION NO. 06/20/90

OG Randy McBride NoAA Gary Ott SEGMENT ST/ BA-1
 BIO Lewis Sherman LAND REPT Breitunger SUBDIVISION D (4 of 6)
 EXXON Leonard Herbert ADEC Mike Elrod TIME 10:30 to 11:15
 TEAM NO.: 12 TIDE LEVEL: -1.0 to -0.2 DATE 3/31/90
 EST. SUBDIVISION LENGTH: 4500 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: South to North
 SURFACE SEDIMENTS: R 10 % B 60 % C 30 % P 0 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 0 % Hang 100 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 4500 m

SURFACE OIL

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

DEBRIS COLLECTED
☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. ST-12-1Frames No picturesSUBSURFACE OIL NONE

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

COMMENTS

No oil no Shoreline Ecological Summary.No sketch20

SHORELINE ECOLOGICAL SUMMARY

REVISION: 09/22/90

Segment ST / BA-1 Subdivision D Date (mo / day / yr) 3/31/90

Time (24 hr) 1030-1115 Biologist SHARMAN

(A) Substrate type and % of segments: SUBDIV.
(1) Bedrock 10 (2) Boulder 60 (3) Cobble 30 (4) Pebble (5) Sand (6) Silt

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

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

Photographs:
Roll No. ST-12-1

Frames NONE

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 (*Anacella*, *Littorina*, *Lingula*)

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 pairs common goldeneyes, 1 sea otter, 1 adult eagle. Healthy, normal boulder/cobble intertidal community. No oiling observed.

Ecological Considerations:

Same as for BA-1 (D). Sensitivity codes (entire segment): ST-2, 1B, 7HH.

↑ PWS
11ee

BA-1-F

↓ PWS
11w

PWS
1188 →

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

BA-1

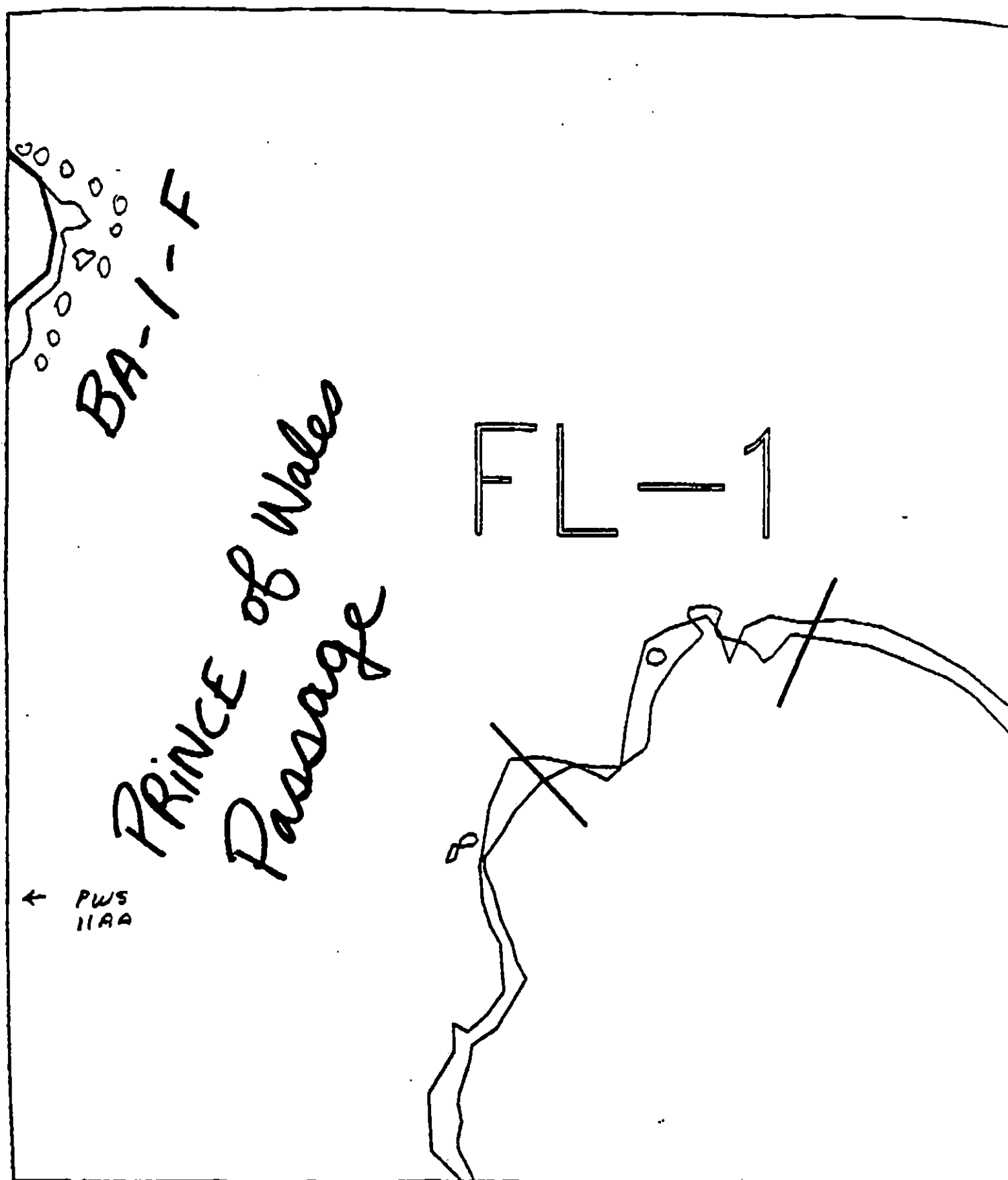
ADEC Segment Length: 13318m

Map Key: PWS-1100

Name: _____

Date: _____





XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

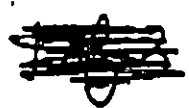
BA-1

ADEC Segment Length: 13318m

Map Key: PWS-11bb

Name: _____

Date: _____



↑ PWS 11N

BA-1-B

BA -

Prince of Wales
Passage

BA-1-A

↓ PWS 11F

X X Wide
/// Medium
--- Narrow
TTTT

BA-1

ADEC Segment Length: 13318m

Map Key: PWS-111

Name: Randy McBride

Date: 3/31/90



↑ PWS 115

BA-1-C

BA-1-B

↑ PWS 115

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

BA-1

ADEC Segment Length: 13318m

0 100 200 300

Map Key: PWS-110

Name: Randy McBride

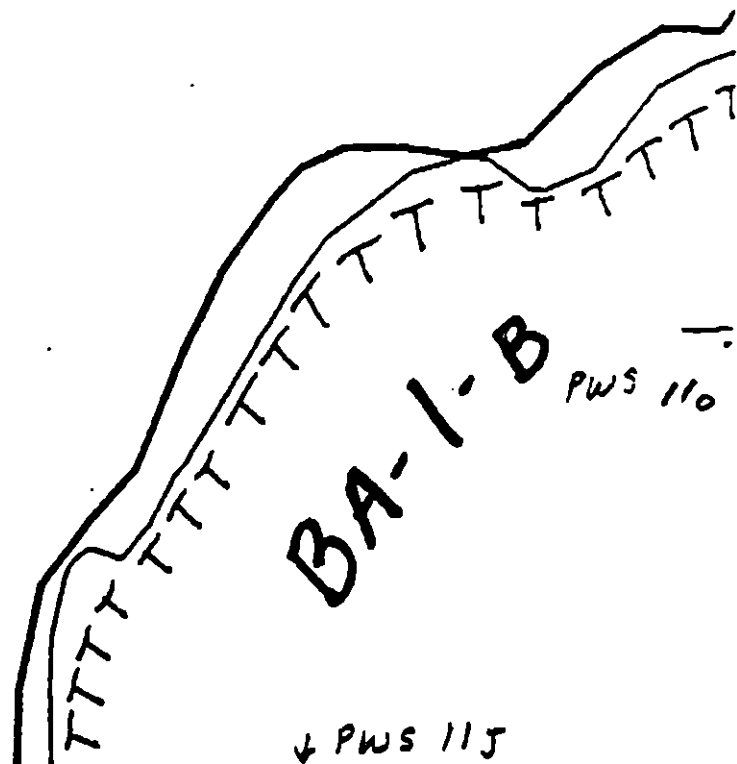
Date: 3/31/90

Sainbridge Island

↑ PWS 11R

BA-1-D

BA-1-C



↓ PWS 11J

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

^ ^ ^ ^

BA-1

ADEC Segment Length: 13318m



Map Key: PWS-11n

Name: Randy McBride

Date: 3/31/90

*Bambridge
Island*

BA-1-D

PWS
11S -

PWS 11N
↓

XXXX Wide

//// Medium

---- Narrow

TTTT Very light

BA-1

ADEC Segment Length: 13318m

Map Key: PWS-11r -

Name: *Randy McBr*

Date: *3/31/90*

↑
PWS
11A A

12:28

Bainbridge
Island

Anchorage
field station

BA-1-F

NARROW

BA-1-E

BA-1
D

↓ PWS 11S

Prince of Wales Passage

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

BA-1

ADEC Segment Length: 13318m

0 100 200 300

Map Key: PWS-11v --

Name: Randy McBride

Date: 3/3/90

Date Entered: (34)

SHORELINE EVALUATION

SEGMENT ST/ BA-01 SUBDIVISION E (5 OF 6) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Two bald eagle nests (5T) - 3/1 to 6/1; Salmon stream mouth (nos. 16446, 16442, 16414, 16372, 16369); Outmigration (1A) - 3/1 to 5/15 and spawning (1B) - 7/10 to 8/15; Finfish subsistence harvesting (7HH) - Consult ADF&G and Chenega Bay for appropriate dates.

SUBDIVISION ECOLOGICAL CONSTRAINTS: No disturbance of stream beds or banks unless authorized by ADF&G. Contact ADF&G Habitat Division and Chenega Village Corp. prior to treatment for permits.

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 476 m: V.Light 0 m: No Oil 0 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Bioremediation of surface oil as shown on sketch map.
CHECK FOR TAR PATCHES AND PICKUP

TAG COMMENTS:

TAG APPROVAL DATE: 4/13/90.

ADEC JOHN BAUER

EXXON WYI TATE

NOAA Bruce W. Wright

USCG G.A. BEITER, G.A. Beiter

FOSC: My L

DATE: 4-20-90

FIELD SHORELINE COMMENT SHEET

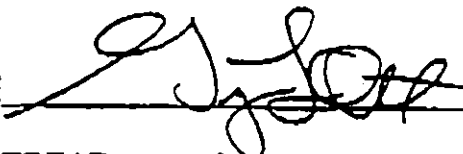
SEGMENT ST / BA 1 SUBDIVISION: E DATE 3/31/90

USCG

NAME

GARY OTT

SIGNATURE

☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

ADEC

NAME

Michael J. Ebel

SIGNATURE

☐ NO TREATMENT RECOMMENDED
COMMENTS

?

☐ TREATMENT SUGGESTED

3A-~~1E~~ * If there happens to be a BAT team in the area they could
 bioremediate this discontinuous land in the heavier parts — but
 I would not recommend a special trip by any group to
 come here if not already within the vicinity

LAND MANAGER

U.S. Forest Service

NAME

Don J. Benting

SIGNATURE

☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDBA1-Sub-E.

(29)

SHORELINE OILING SUMMARY

REVISION NO. 02/08/90

OG Randy McBride NOAA USEG Gary Ott SEGMENT ST/ BA-1
 BIO Leah O'Shannon LAND REP Dan Breitinger SUBDIVISION E (S of 6)
 EXXON Leonard Herbert ADEC Mike F. hel TIME 11:43 to 12:16
 TEAM NO.: 12 TIDE LEVEL: -0.2' to +0.5' DATE 3/31/90
 EST. SUBDIVISION LENGTH: 900 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: SOUTH to NORTH
 SURFACE SEDIMENTS: R 5 % B 45 % C 45 % P 5 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 0 % Hang 65 % Ven 35 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 900 m VL 0 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	S	P	B	SP	BP	OP	BP	TP	LT	LT	LT	SU	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	X	X

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. ST-12-1Frames 27-31

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			SP	BP	OP	BP	TP	LT	LT	LT	SU	U	M	U		
<u>1</u>	<u>10</u>					X	<u>---</u>	X									X					<u>B,C,P</u>

COMMENTS

Narrow fairly straight beach with boulders, cobbles, and some pebbles as matrix. Oiling ~~2.5~~ 2.5 meters wide and characterized by patchy cover + coat. Rock cliff w/ spruce trees line the beach. One pit was dug but no oil found in subsurface.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/28/90

Segment ST / BA-1 Subdivision E Date (mo / day / yr) 3/31/90Time (24 hr) 1120-1200 Biologist SHARMAN (Team 12)

- (A) Substrate type and % of ~~segment~~ SUBDIV.
 (1) Bedrock 5 (2) Boulder 45 (3) Cobble 45 (4) Pebble 5 (5) Sand (6) Silt
- (B) Overall % cover of biota (% of ~~segment~~ SUBDIV.): Dense Moderate X Low
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
Roll No. ST-12-1Frames 27-31

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS (musculidae, Littorina, limpets)

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments: Oiled (tar) band is in UTE immediately above top bound of Encina zone. 50% barnacle mortality within tar band; 5% mortality elsewhere.

Ecological Considerations: Same as for BA-1 (D). Sensitivity codes (entire segment): ST-2, 1B, 7HH.

(B)

OG Pa McBride

SEGMENT ST/ BA-1

SUBDIVISION E

DATE 3/31 90

CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Seg/Sub Bndry
- ☒ Oil Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HWA/LWA
- ☒ 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

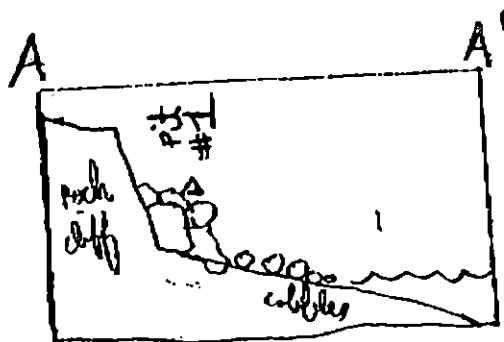
1 $\rightarrow$

Photo location, direction, and number

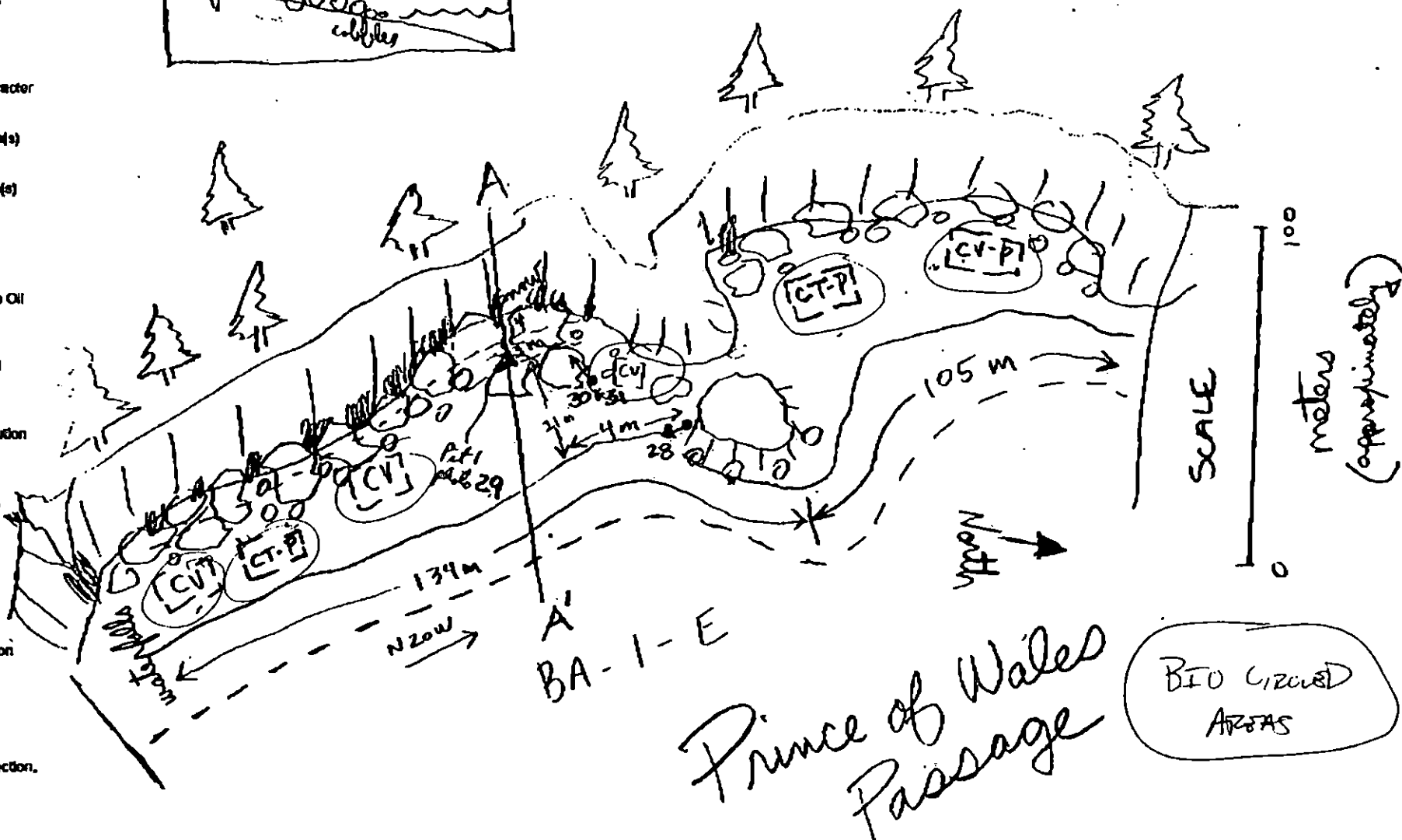


Oil Character Length (m): AP _____ PO _____ CV 239 CT 239 ST _____ MS _____ PT _____ TB _____ FL _____ NO _____

SURFACE MAP



* 2.80 meters oil band - patchy coat and cover of narrow oiling



OG Randy McBride

SEGMENT ST/ BA-1

SUBDIVISION E

DATE 3/31/90

CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Sog/Sub Entry
- ☒ Oil Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ E at NW/NE/SE/SW
- ☒ CGL
- ☒ Profile Location(s)
- ☒ Profile(s)
- ☒ Pit 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

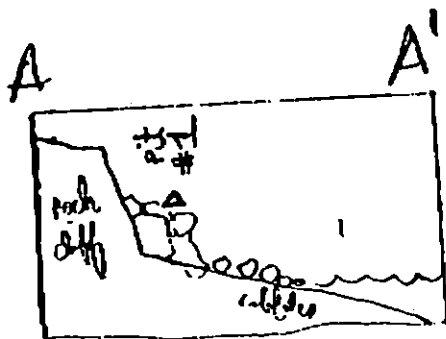
Oiled Vegetation

1 ●

Photo location, direction, and number

SKETCH MAP

* 2.80 meters oil band - patchy coat and cover of narrow oiling



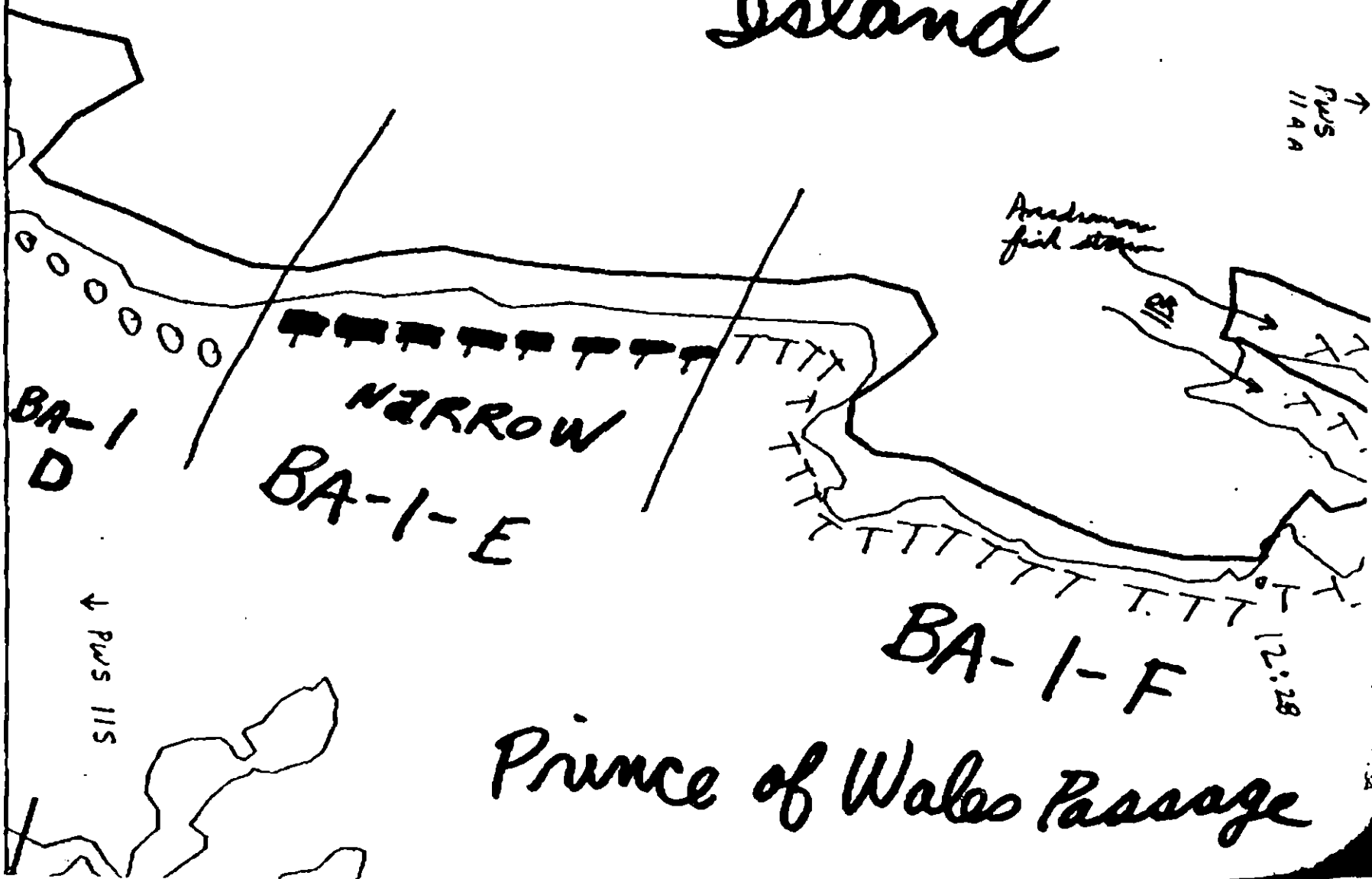
Oil Character Length (m): AP _____ PO _____ CV 239 CT 239 ST _____ MS _____ PT _____ TB _____ FL _____ NO _____

REVISION 03/90

Bainbridge Island

↑ PWS
114A

Anadromous
fish stream



BA-1

BA-1
D

↑ PWS 115

BA-1-F

Prince of Wales Passage

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

NNNN No Nit

ADCC Segment Length: 1331m

0 100 200 300
Meters

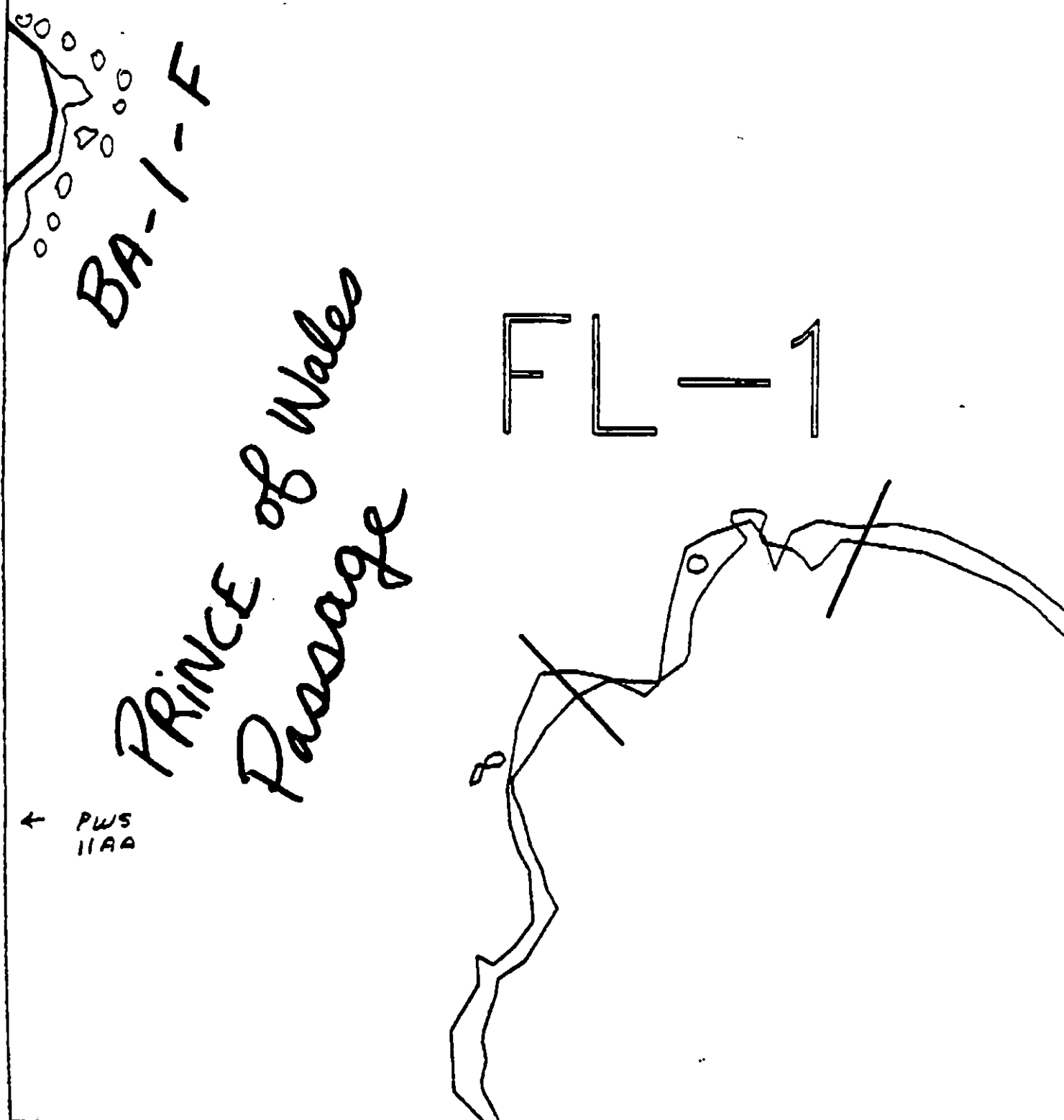
Map Key: PWS-114

Name: Randy H. Gude

Date: 3/3/90

Date Entered:

(34)



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

AAAA "

BA-1

ADEC Segment Length: 13318m

0 100 200 300

Map Key: PWS-11bb

Name: _____

Date: _____



*Bambridge
Island*

BA-1-D

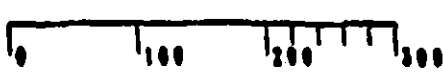
*PWS
112*

*PWS 11N
↓*

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

BA-1

ADEC Segment Length: 13318m



Map Key: PWS-11r
 Name: *Randy McB*
 Date: *3/31/90*
 Data Entered: *17*

Bainbridge
Island

BA-1-D

Prince of Wales Passage

↑ PWS
11W

← PWS
11R

↓ PWS 110

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

BA-1

ADEC Segment Length: 13318m

0 100 200 300
METERS

Map Key: PWS-11s
Name: Randy McB
Date: 3/31/90
Date Entered: 27

↑ PWS 11N

BA-1-B

BA -

Prince of Wales
Passage

BA-1-A

↓ PWS 11F

XX Wide

/// Medium

--- Narrow

TTTT Very Light

BA-1

ADEC Segment Length: 13318m

Map Key: PWS-111

Name: Randy McBride

Date: 3/31/90

8

PWS 115

BA-1-C

BA-1-B

PWS
11a

XXXX Wide

/// Medium

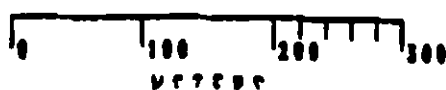
--- Narrow

TTTT Very Light

OOOO No Oil

BA-1

ADEC Segment Length: 13318m



Map Key: PWS-11a

Name: Randy McBride

Date: 3/31/90

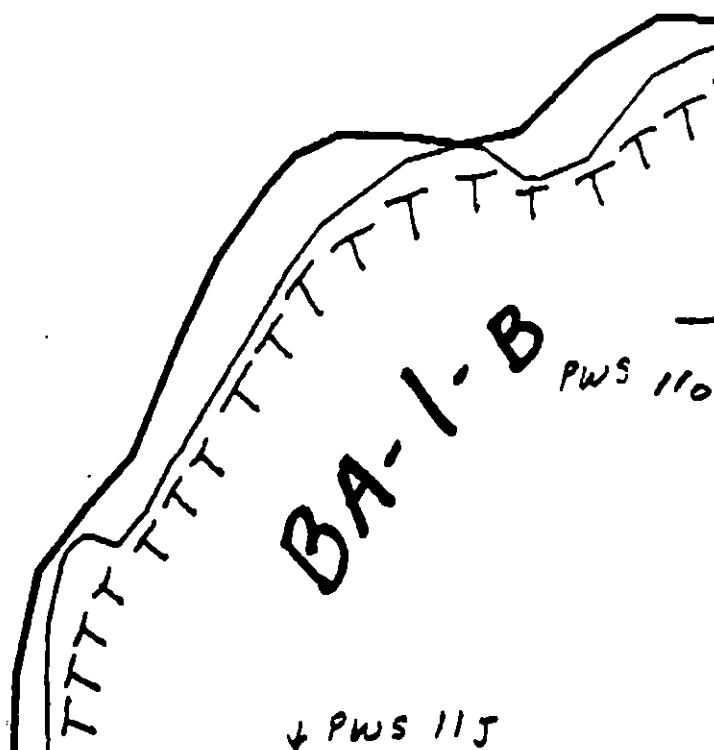
Date Entered: (initials)

Rainbridge Island

PWS 112

BA-1-D

BA-1-C



PWS 115

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

BA-1

ADEC Segment Length: 13318m



Map Key: PWS-110

Name: Randy McBride

Date: 3/31/90

Date Entered: (15)

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT BA-1 SUBDIVISION E (5 of 6)

WORK WINDOW	
Manual Pickup	OPEN
Bioremediation	WORK PRIOR TO 7/1

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B	Salmon Stream	NO CONSTRAINT. ADF&G catalogued anadromous streams are located in adjacent subdivision more than 100m from recommended treatment areas: (226-40-16442) and 226-40-16446) in Subdivision A; (226-40-16414) in Subdivision D; and (226-40-16369 and 226-40-16372) in Subdivision F.
1K	Purse Seine Hook-off	No constraint to manual pickup; closed to bioremediation after 7/20.
5T	Bald Eagle Nest	NO CONSTRAINT. USFWS 6/1/90 map indicates no active nest within 400m of Subdivision E work site.
7HH	Subsistence: Finfish Harvesting	No constraint to manual pickup. Closed to bioremediation after 7/1.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict boat and air traffic and beach disturbance to essential minimum after 7/1. Avoid any unnecessary disturbance or damage to uncollected biota and substrate.

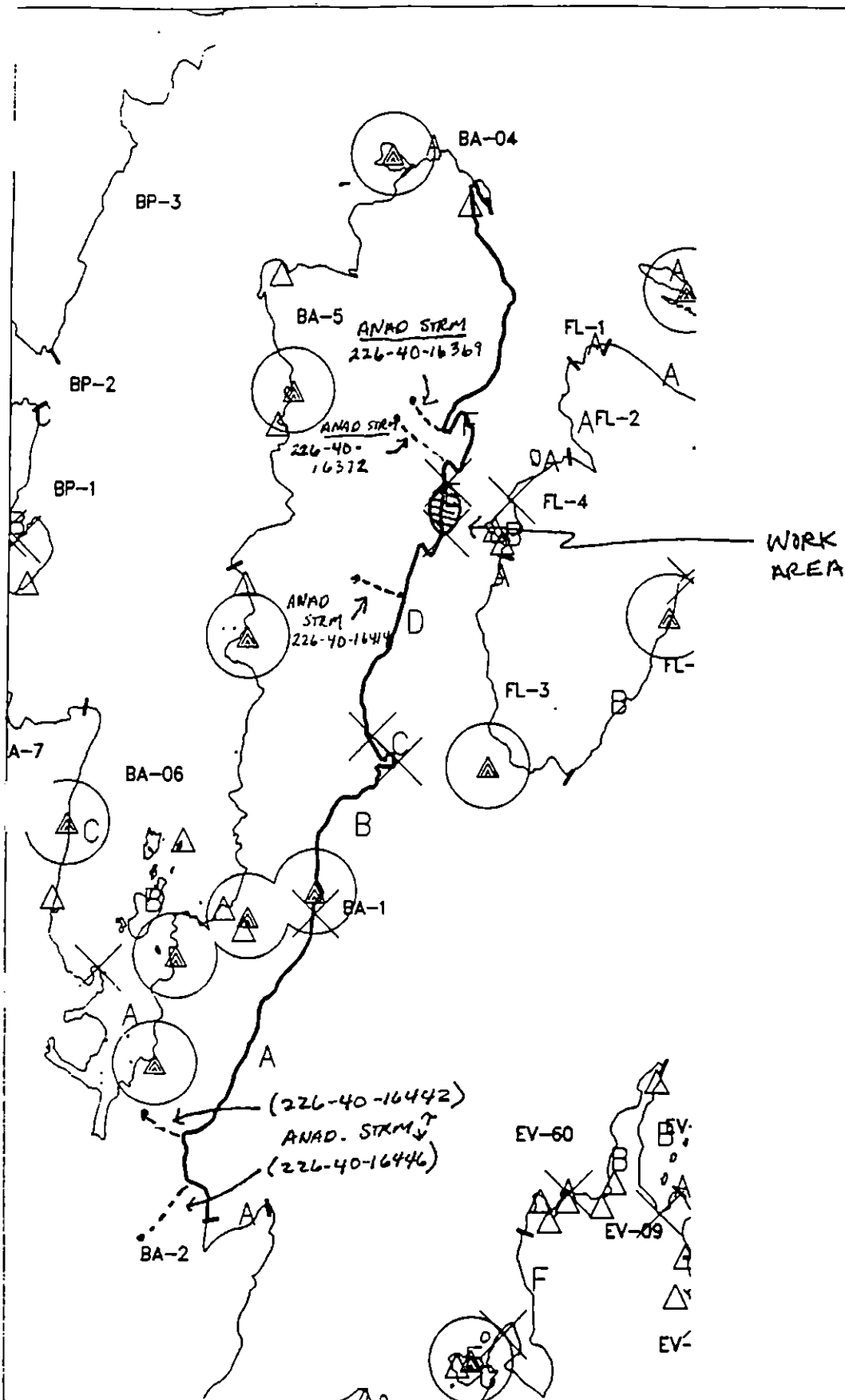
FOSC

[Signature]

DATE 6-10-90

Prepared by: W. Keller

Date: 6/9/90



Exxon Company, USA

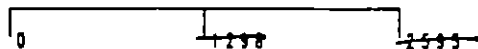
Map Key: PWS-BA-1

June 04, 1990

ECOLOGY MAP SEGMENT BA-1

SUBDIVISION E (5 of 6)

METERS



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

1 inch = 4258 feet

2042

SHORELINE EVALUATION

SEGMENT ST/ BA-01 SUBDIVISION F (6 OF 6) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Two bald eagle nests (5T) - 3/1 to 6/1; Salmon stream mouth (nos. 16446, 16442, 16414, 16372, 16369); Outmigration (1A) - 3/1 to 5/15 and spawning (1B) - 7/10 to 8/15; Finfish subsistence harvesting (7HH) - Consult ADF&G and Chenega Bay for appropriate dates.

SUBDIVISION ECOLOGICAL CONSTRAINTS: No disturbance of stream beds or banks unless authorized by ADF&G. Contact ADF&G Habitat Division prior to treatment for permits. Re: bald eagle nests, restrict air traffic to essential minimum. Air approach and takeoff from and to seaward only. Contact USFWS prior to treatment for confir-

SHPO SIGNATURE: Charles E. Holmes DATE: April 14, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 1886m: No Oil 2350 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: 4/13/90
ADEC JOHN BAUER
EXXON ANDY TELL FOSC: DATE: 4-20-90
NOAA Burt Wescott
USCG G.A. BEITER

FIELD SHORELINE COMMENT SHEET

MGMENT ST / BA 1 SUBDIVISION: F DATE 3/31/90

USCG

NAME GARY OTT SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADEC

NAME Michael J. Ebel SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

BA-1-F

LAND MANAGER

NAME Dan T. Breitinger SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

BA1-Sub-F

(36)

SHORELINE OILING SUMMARY

REVISION NO. 02/22/90

OG Randy McBride ^{NOAA} uses Gary Ott SEGMENT ST/ BA-1
 BIO Lewis Shermen LAND REP Dan Britten SUBDIVISION F (6 OF 6)
 EXXON Leonard Herbert ADEC Mike Ebel TIME 12:20 to 13:21
 TEAM NO.: 12 TIDE LEVEL: +1.75 to +4.0 DATE 3/31/90
 EST. SUBDIVISION LENGTH: 8400 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 40 % C 20 % P % G % S % M % V %
 SLOPE: Lang % Hang 80 % Vert 20 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W — m M — m N — m VL 8400 m NO — m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES				
	C	B	P	S	30% BR	10% RW	OT	2% SL	TL	LA	SU	U	M	U	
ASPHALT PAVEMENT															
POOLED															
COVER			X					X				X			
COAT															
STAIN															
MOUSSE															
PATTIES															
TARBALLS															
FILM															
NO OIL	=										X		X	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				DEBRIS COLLECTED ☐ YES ☐ NO TYPE <u>—</u> #BAGS <u>—</u>
Vegetation				
Trash				
Debris				

Photographs:

Roll No. ST-12-1Frames No photos

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm-cm)	BELOW	OIL / FILM COLOR								PIT ZONE	A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO			UO	UC	30% BR	10% RW	OT	2% SL	TL	LA			

COMMENTS

Oil mark was found along the high water line that averaged about 10-25 cm wide w/ drip marks. Oil character and distribution was patchy ~~and~~ cover along a wide variety of coastal geomorphological features. No photos taken. ~~_____~~ No pits.

BA-1-F

3/31/90

Shoreline Ecological Summary
(Summary field notes)(Sharman)
Team 12

General Comments: This portion of BA-1 has been coded VLT oiling in previous surveys, but we observed only 2 small (0.1 m²) weathered mouse patties on the gravel delta of the salmon stream, which we removed. In the absence of any other observable oil, an abbreviated Shoreline Oiling form was completed, and a Shoreline Ecological Summary was not filled out. However, field notes follow: (except remove the tar band)

Wildlife: 2 Sitka blacktail deer in ITZ - appeared to be in good health. In addition, deer tracks (and 1 deer rib) were observed at 2 additional locations within the subdivision. 1 sea otter, 1 harbor seal, 6 pairs Barrow's goldeneyes, 1 pair harlequin ducks, 1 merganser, 1 adult eagle, 1 raven, 1 crow. Deer scat on stream banks. This region from just S. of Gaff Pt. to just N. of and including the lagoon area with the salmon stream is very productive and probably very sensitive to human disturbance.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / BA-1 Subdivision F Date (mo / day / yr) 3/31/90

Time (24 hr) 1220-1320 Biologist SHARMAN

(A) Substrate type and % of segments: SUBDIV.
(1) Bedrock 40 (2) Boulder 40 (3) Cobble 20 (4) Pebble (5) Sand (6) Silt

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

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

Photographs: Roll No. ST-12-1

Frames NONE

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 (Tucella, Littorina, Glycymeris)

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:

Please see Ecological Summary field notes sent in afternoon of 4/1/90.

Ecological Considerations:

Same as for BA-1 (B). Sensitivity codes (entire segment): ST-2, 1B, 7HH.
This subdivision contains the anadromous fish stream. This entire segment is very productive and probably very sensitive to human disturbance.

↑
PWS
11 A A

Bainbridge Island

Arachnids
fill stream

12:28

BA-1-F

NARROW

BA-1-E

BA-1 D

↓ PWS 115

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

BA-1

ADEC Segment Length: 13318m

0 100 200 300

Map Key: PWS-11v

Name: Randy McBride

Date: 3/3/90

Data Entered: (34)

↑ PWS
11ee

BA-1-F

↓ PWS
11w

PWS
11BB →

XXXX Wide

//// Medium

---- Narrow

TTTT Very light

BA-1

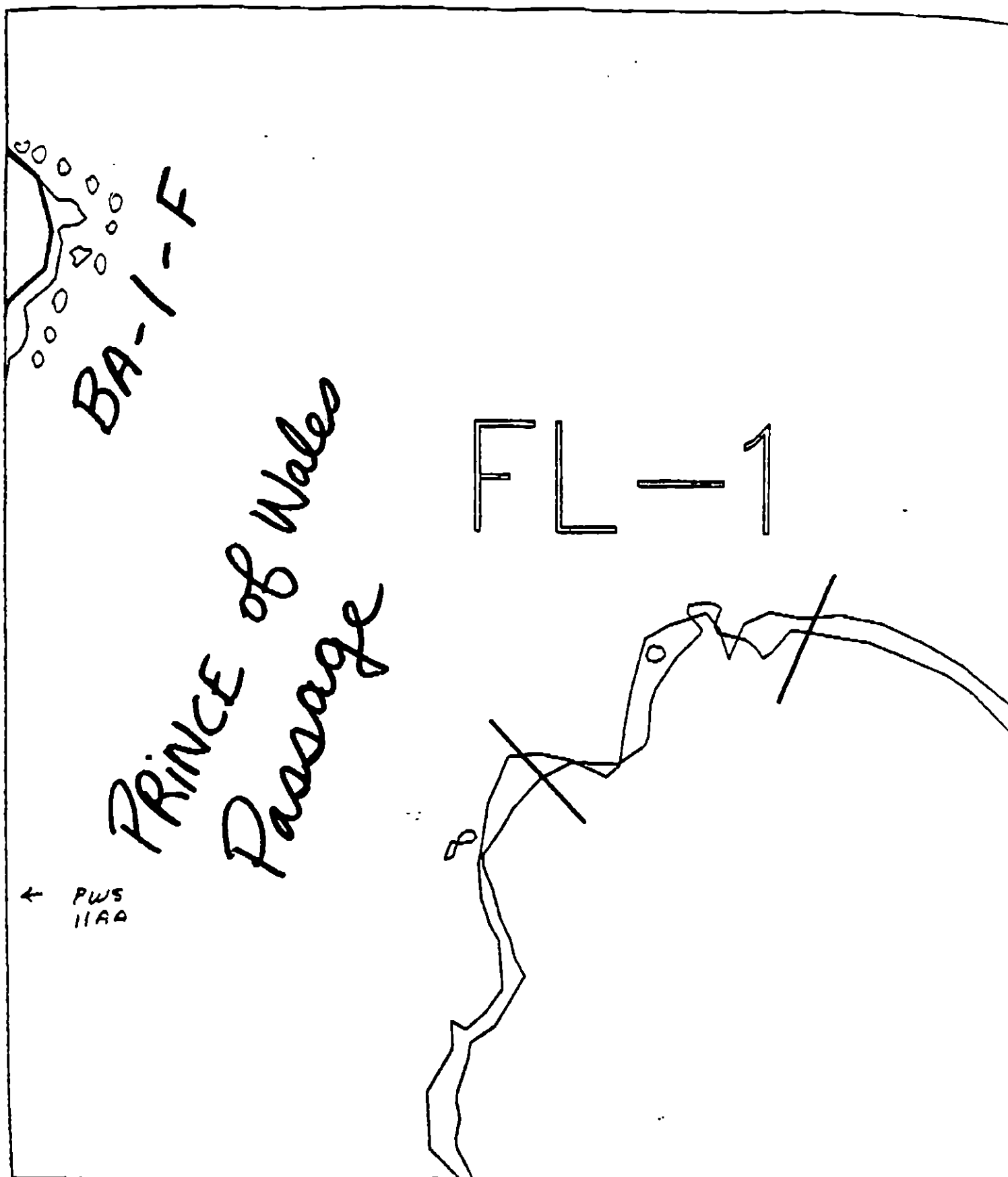
ADEC Segment Length: 13318m

Map Key: PWS-11ee

Name: _____

Date: _____





XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

BA-1

ADEC Segment Length: 13318m

Map Key: PWS-11bb

Name: _____

Date: _____



BA-0

BA-4-A

BA-4-A

BA-1-F

3 of 10

↓ PWS 112a

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

oooo " " "

BA-1

ADEC Segment Length: 13318m

0 100 200 300

Map Key: PWS-1100

Name: Randy McBride

Date: 3/31/90

Note: Extended



SHORELINE EVALUATION

SEGMENT ST/ BA-2 SUBDIVISION A* DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Tent sites (6U) - 6/1 to 9/5: Cataloged anadromous stream
(1B #16578) - 7/10 to 8/31.
16450

SUBDIVISION ECOLOGICAL CONSTRAINTS: Same as above.

SHPO SIGNATURE: Charles E. Dineen DATE: April 5, 1990

OILING CATEGORIZATION:

0 m Wide, 246 m Medium, 54 m Narrow, 543 m V. Light, 252 m No Oil
Subsurface Oil Observed X Yes No Maximum Depth 15 cm

RECOMMENDATIONS:

 No Treatment Recommended
 X Treatment Recommended
 Manual Pickup Snare Booms/Sorbents X Tarmat Breakup/REMOVAL
 Bioremediation SPOT WASHING Other
 Wands
 Beach Cleaner

Comments: ~~Any~~ Treatment recommended is removal of tar mats, in + oiled debris
area indicated on attached sketch map. Work prior to 7/10/90 due (leave logs)
to anadromous stream constraints. Bioremediate in area where surface
and subsurface oil remains. Anadromous stream restrictions apply (no application
within 100m of the stream) further clarification by Anad SCTR in the form
of an addendum to this package. A.

TAG COMMENTS: As indicated above.

TAG APPROVAL DATE: 4/5/90

ADEC JOHN BAUER
EXXON ANDY TELL
NOAA Burl Wescott
USCG G.A. REITER

FOSC:

DATE: 4-19-90

SHORELINE OILING SUMMARY

REVISION NO. 06/22/90

OG Randy McBride NOAA Garry Ott SEGMENT ST/ BA-2
 BIO Lewis Sherman LAND REP Don Breitingen SUBDIVISION A (entire segment)
 EXXON Leonard Herbst ADEC Mike Ebel TIME 07:15 to 09:20
 TEAM NO.: 12 TIDE LEVEL: +4' to -2' DATE 3/30/90
 EST. SUBDIVISION LENGTH: 819 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock low bedrock cliffs in some areas
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: east to west
 SURFACE SEDIMENTS: R 5 % B 15 % C 60 % P 10 % G 10 % S 0 % M 0 % V 0 %
 SLOPE: Lang 60 % Hang 35 % Vert 5 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 150 m N 55 m VL 248 m NO 366 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES				
	C	B	P	S	BR	BL	FW	GY	SL	TL	LR	SU	U	M	L
ASPHALT PAVEMENT POOLED		X	O							X			X	O	
COVER			X							X			X		
COAT			X							X			X		
STAIN															
MOUSSE															
PATTIES				X						X			X		
TARBALLS				X						X			X		
FILM															
NO OIL												X		X	X

PAVEMENT: H (F)S 560 sq. m by 6.25 cm

PATTIES / TARBALLS 0 BAGS

NEAR SHORE SHEEN? (NO) BR RW SL TL

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

DEBRIS COLLECTED
☐ YES ☒ NO

TYPE 0

#BAGS 0

Photographs:

Roll No. ST-12-1

Frames 1-10

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	SBL OR	SBL FW	GY SL	DRY TL	LR	SU	U	M	L					
1	50					X	- - -	X								X								P, G
2	50					X	- - -	X								X								P, G
3	20		X				5-15	X					X			X								C, P, G
							.																	
							.																	
							.																	

COMMENTS

Curvilinear pocket beach with cobbles and boulders along low rock cliffs on either end of segment with grain size of sediments fining towards the center of the pocket beach (cobbles, pebbles, and granules). An anadromous stream

McBride, J. L. Del

IDENT ST/ BA-2

DIVISION A

3130/90

CKLIST

Arrow
prox. Scale
y/Sub Bndry
Dist.
dth
ngth
Cover
bstrate Character
1. HWLAWL
2. Life Location(s)
3. Life(s)
4. Location(s)
5. Old Location(s)

END

Subsurface Oil

Surface Oil

T/C
ous Distribution

T/B
Distribution

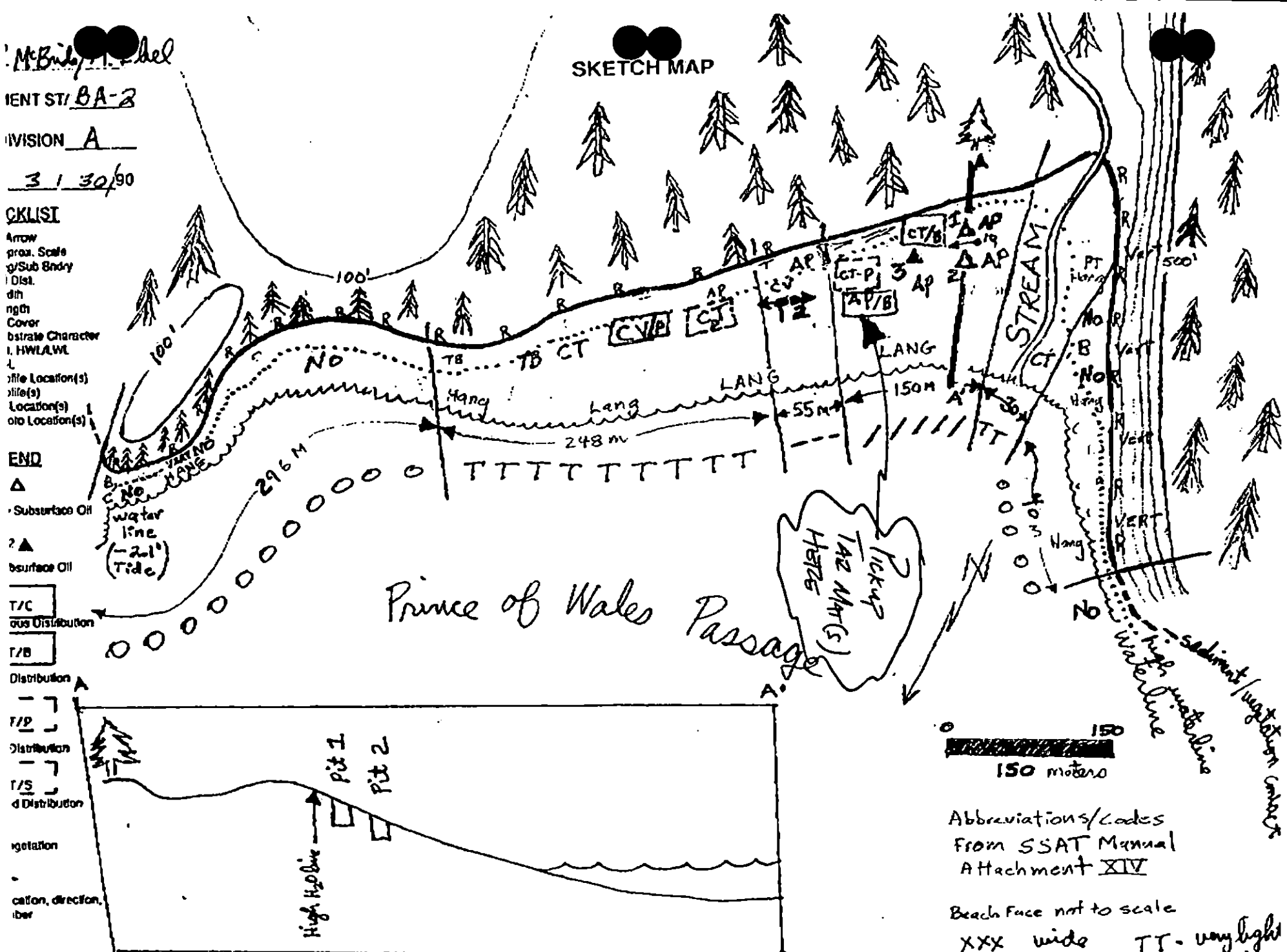
T/P
Distribution

T/S
d Distribution

vegetation

cation, direction,
iber

SKETCH MAP



Prince of Wales Passage

pickup
142 Mth(s)
14726
14726

150 meters

Abbreviations/Codes
From SSAT Manual
Attachment XIV

Beach Face not to scale

XXX wide TT - very light
/// medium 60 - No Oil
--- Narrow

REVISION: 8/24/90

Profile A - A'

water Length (m): AP 160 PO - CV 139 CT 139 ST - MG - PT 10 TD 5 FL - NO 336

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/80

Segment ST / BA-2 Subdivision A Date (mo / day / yr) 3/30/90

Time (24 hr) 0730-1830 Biologist SHARMAN

(A) Substrate type and % of segments: SUBDIV. GRAVELS
(1) Bedrock 5 (2) Boulder 15 (3) Cobble 60 (4) Pebble 10 (5) Sand 10 (6) Silt

(B) Overall % cover of biota (% of segment): Dense 15 Moderate 70 Low 15
SUBDIV.

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

Photographs: Roll No. ST-12-1

Frames 1-10

BARNACLES

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

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	O	O	
3	3	3	3	3	3	3	3	3	3	X	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

GASTROPODS (*Littorina* and *Nucella*)

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	X	2	X	1M	X	
3	3	3	3	3	3	3	3	3	3	X	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

FUCUS

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

Wildlife Observations/ General Comments: 3 sea otters, 4 sealions. 3 pre. Common goldeneyes at stream mouth, 6 pre. and scoters offshore, also 2 pelagic cormorant. 8 Canada geese flew over in a group. Pair of coasting bald eagles at E. end of segment at point - did not locate nest. Subtotal pelagic position + 1 (bird) (found) in grassy field, center portion of segment - appear to be winterkill. See page 2 for intertidal comments.

Ecological Considerations: Environmental priority 1 according to Priorities and Windows Table. Work window is pre- 7/10. High constraint (1) due to salmon spawning stream 7/10 - 9/1. Treatment priority = 1.

General Comments: This segment supports a normally rich, diverse, and healthy intertidal biota. The most stable substrate types (bedrock and large boulders) occur at the E. end at the point, and support the most diverse epifauna. This appears to be a bit early for heavy barnacle settlement - spat are very rare throughout, but perhaps a bit less rare at this portion of the segment. Fucus is recruiting well, especially on bedrock / large boulders at this E. end as well as on isolated bedrock exposures in the central portion of the segment. Also at this E. end: several Pyropodia helianthoides (but small, ≈ 10 cm dia.) in LTZ, along with large Balanus cariacus, Anthopleura, common Halosaccion glandiforme, Ulva sp., Sargassum lomentaria (?), Rhodomychia sp., Poly/Pteropodia sp., green filamentous. Beneath boulders are some Nucella lima (?), Tectura peruviana, amphipods, bryozoans. Spirorbis on tops of boulders & on bedrock. Except on large boulders & at the bedrock / large boulder E. point area, barnacles are young, ^(probably post-spill) 3-5 mm dia., but are not recruits-of-the-year. Tar mats in LTZ to E. of stream only, at MHW. No organisms found oiled. Stream mouth and lower banks free of oil. Concern with rest of team that Type A pickup of tar mat material will offer net benefit in terms of protection of stream spawning/incubating habitat, with minimal impact from envisioned treatment operation (10 people with bags and shovels). Finer sediments area below stream mouth have common Saxidomus & common small Clinocardium shells on surface. Of the barnacle coverage, approximately 5% is composed of dead individuals, empty tests.

FIELD SHORELINE COMMENT SHEET

REVISION: 1

SEGMENT ST / BA-2 SUBDIVISION: A (CONCRETE SEGMENT) DATE 3/30/90NOAA/
USCGNAME GARY OTT SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

ADEC

NAME Michael F. EbelSIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

BA-2 : Recommend manual removal of the surface asphalt found toward the west end of segment along with the scattered patches of weathered tar (splotches). The subsurface, sticky, weathered, brown tar was in a mostly small cobble/gravel matrix and apparently confined to isolated patches (see sketch) to a maximum observed depth of 15 cm. considering the amount of material involved I would suggest manual removal of these sediments and disposing of them or washing them after removal and replacing them.

LAND MANAGER

NAME Don J. Breitingen
U.S.D.A. Forest ServiceSIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Agree with treatment

Suggested by ADEC rep.

with the exception of removing sediments and disposal of and washing. 3/30/90
of same.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / BA-2 SUBDIVISION: A (entire segment) DATE 3/30/90

NOAA/
USCG

NAME GARY OTT SIGNATURE [Signature]
☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

ADEC

NAME Michael J. Ebel SIGNATURE [Signature]
☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

A-2 : Recommend manual removal of the surface asphalt found toward the west end of segment along with the scattered patches of weathered tar (splashes). The subsurface, sticky, weathered, brown tar was in a mostly small cobble/gravel matrix and apparently confined to isolated patches (see sketch) to a maximum observed depth of 15 cm. considering the amount of material involved I would suggest manual removal of these sediments and disposing of them or washing them after removal and replacing them.

LAND MANAGER

NAME Don J. Breitingen SIGNATURE [Signature]

U.S.D.A. Forest Service

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Agree with treatment

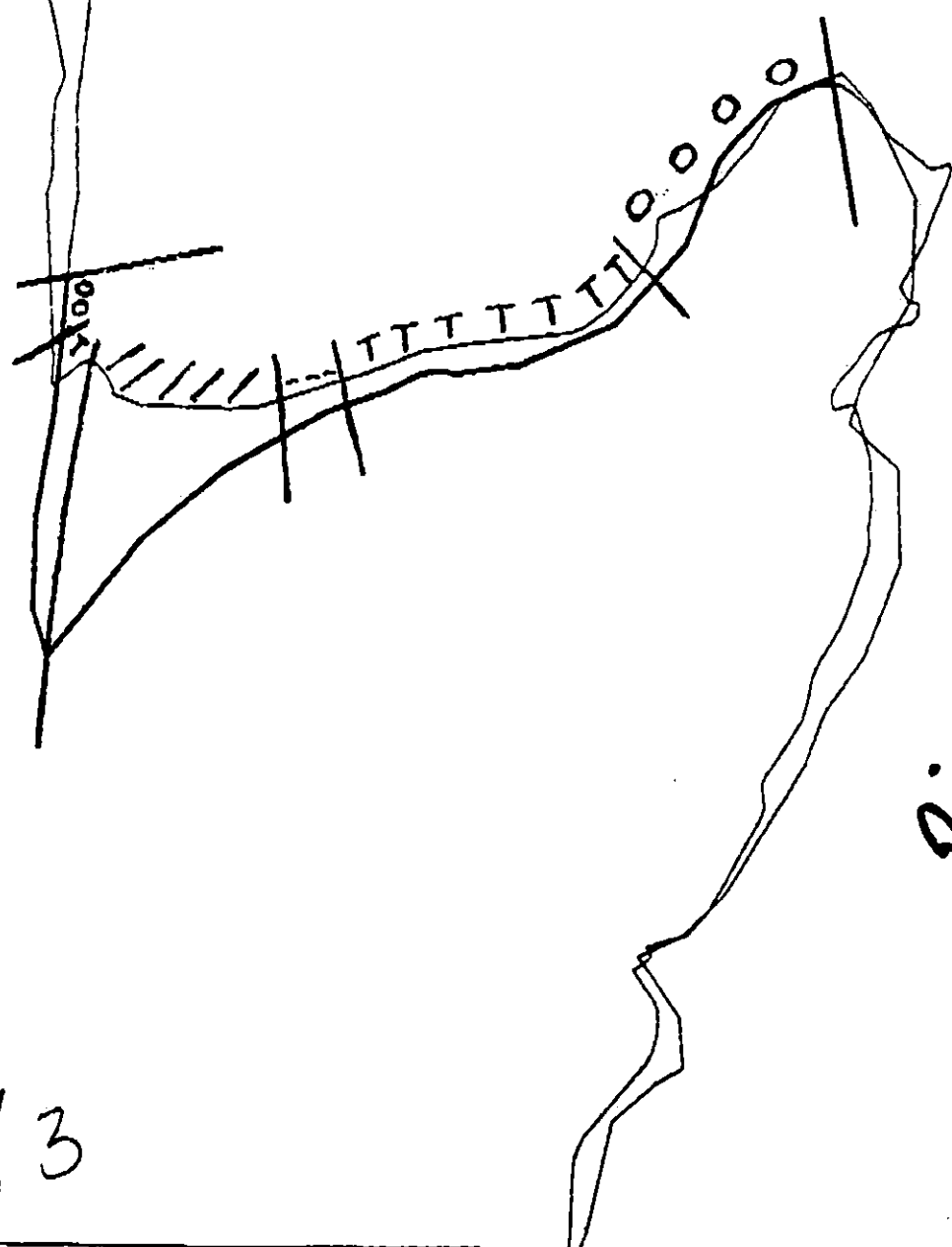
Suggested by ADEC rep.

DJB 3/30/90

BA-2-A

Prince of Wales Passage

1 of 3



XXXX Wide

//// Medium

---- Narrow

TTTT Very little

BA-2

ADEC Segment Length: 1095m

Map Key: PWS-13

Name: Randy McBride

Date: 3/25/90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT BA-2 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN
Bioremediation More Than 100m From Stream	WORK PRIOR TO 7/20
Bioremediation Less Than 100m From Stream	WORK PRIOR TO 7/10 (ADF&G MONITOR REQ.)

ARCHAEOLOGICAL INSPECTION/CONSULTATION REQUIRED.

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

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

- 1A,1B Salmon stream** Two ADF&G catalogued anadromous streams are present in Subdivision A (226-40-16450 and 226-40-16451). This subdivision is closed to bioremediation less than 100m from stream 7/10 to 8/31. Before 7/10, bioremediation is permitted less than 100m from stream with on-site ADF&G monitor or ADEC alternate present. No constraint to bioremediation more than 100m from stream.
- 1K Purse seine hook-off** No constraint to Manual Pickup and Tarmat Removal; closed to bioremediation after 7/20.

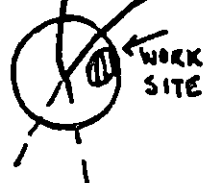
OTHER ECOLOGICAL CONSIDERATIONS

No disturbance of stream bed or banks. No flushing of pollutants or sediments into stream drainage. Restrict boat and air traffic to essential minimum after 7/20. Avoid any unnecessary disturbance or damage to unrolled substrate and biota.

SEE ANADROMOUS FISH STREAM EVALUATION ADDENDA
(STREAM NOS. 226-40-16450 and 226-40-16451)
FOR ADDITIONAL CONSTRAINT INFORMATION

TAG ADDENDUM DATE 6/04/90
 ADEC Ray Moen R. H. H. H.
 EXXON John T. T. Paul
 NOAA Joseph T. T. John
 USCG John T. T. John
 FOSC John T. T. DATE 6/5/90
 Prepared by: Andie Meyer AP Date: 6/4/90

BA-2



ANADROMOUS
STREAMS
(226-40-16450, 16451)
100m ZONE

WORK
SITE

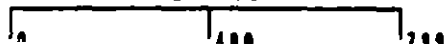
611



Exxon Company, USA
Map Key: PMS-BA-2
MAY 11 1988



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



Seabird Colony



Eagle Nest

1 inch = 1311 feet

ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 226-40-16451

SEGMENT BA-2 SUBDIVISION A

WORK WINDOW	
Manual Pickup Tarnat Removal	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

ADF&G catalogued anadromous streams (226-40-16451 and 226-40-16450) are in Subdivision A and are more than 100m from work site. No constraint to manual pickup and tarnat removal.

OTHER ECOLOGICAL CONSIDERATIONS

No disturbance to stream bed or banks. Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

**SEE SUBDIVISION CONSTRAINT ADDENDUM BA-2A
FOR ADDITIONAL CONSTRAINT INFORMATION.**

FOSC

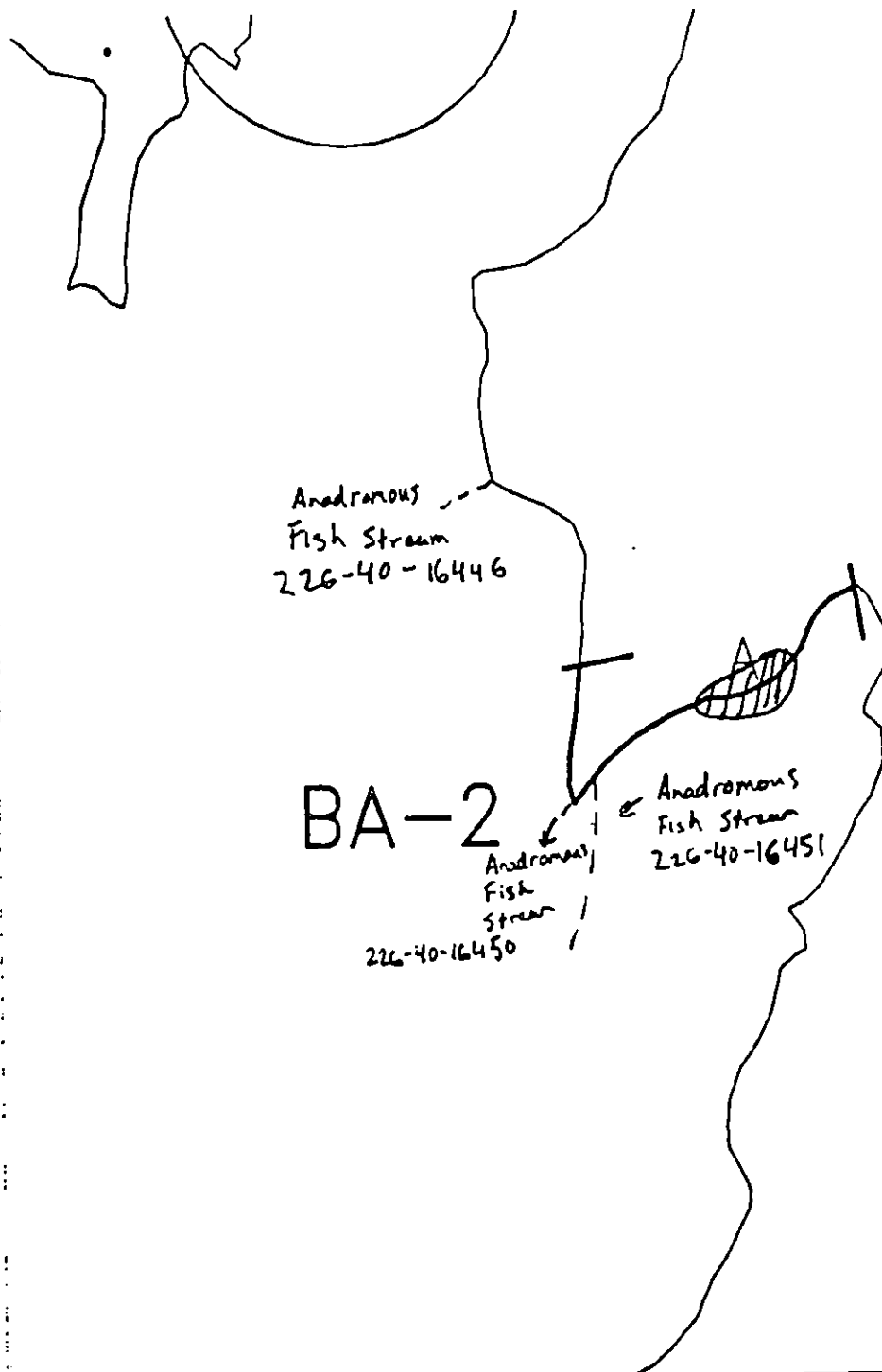
Date

6-20-90

Prepared by

Date

6/18/90



Exxon Company, USA
Map Key: PWS-BA-2
June 08, 1990



ECOLOGY MAP
SEGMENT BA-2
SUBDIVISION A (1 of 1)
METERS
0 400 700

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

1 inch = 1311 feet

FIELD SHORELINE COMMENT SHEET

SEGMENT AS/ BA 2 SUBDIVISION: A SITE: 1 DATE 8/2/90

SCG

NAME MSE Michael D. Brown SIGNATURE Michael D. Brown

☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

ADEC

NAME John Hayer SIGNATURE John Hayer

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

North east end of segment has SOR/m with subsurface OR/m 5-10cm. Recommend reapplication of curbs to area identified on sketch map in 1990. OR SS oiling on this segment did not show signs of appreciable degradation.

LAND MANAGER

NAME DOUGLAS GIBSON SIGNATURE Douglas Gibson

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

NOTE: ARCHAEOLOGICAL CONSTRAINTS FOR BA 2

EXXON

NAME Martinez N.J. SIGNATURE Nicholas J. Martinez

☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

TAG: Bio remediate

TEAM NO. ONE EXXON MARTINEZ SEGMENT AS 2-4-10
 OG Reimer USCG BROWN SUBDIVISION A
 ADEC HAYES LAND REP GIBSON TOTAL NO. SITES 1
 DATE 8/2/90 TIME 17:12 to 17:50 TIDE LEVEL 5.5 to 6
 TOTAL EST LENGTH OF SHORELINE SURVEYED: 720 m
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WEATHER: ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 OIL CATEGORY LENGTH: W 6 m M 10 m N 0 m VL 570 m NO 40 m US 375 m

SURFACE OIL

SITE 1

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SU	UI	MI	LI
ASPHALT								
S.O.R.		H M	X	✓		H M	X V	
POOLED								
COVER			✓	X		✓	X	
COAT				X		X		
STAIN								
MOUSSE			I			I		
PATTIES/T.B.				X		X	X	
FILM		X				X	X	
NO OIL					X			X
EST. SITE LENGTH					720			

SITE 2

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SU	UI	MI	LI
ASPHALT								
S.O.R.								
POOLED								
COVER								
COAT								
STAIN								
MOUSSE								
PATTIES/T.B.								
FILM								
NO OIL								
EST. SITE LENGTH								

SITE 3

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SU	UI	MI	LI
ASPHALT								
S.O.R.								
POOLED								
COVER								
COAT								
STAIN								
MOUSSE								
PATTIES/T.B.								
FILM								
NO OIL								
EST. SITE LENGTH								

SUBSURFACE OIL

SITE NO.	PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER				OILED INTERVAL (cm)	CLEAN BELOW (Y/N)	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS
			OP	OR	OF	NO			SU	UI	MI	LI	
1	1	12		M			5-9	Y		X			P-GP
1	2	15		M			5-10	Y		X			P-GP
							.						
							.						
							.						
							.						
							.						
							.						
							.						
							.						
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							.						
							.						
							.						
							.						

Photographs:

Roll No. ASA-201-2

Frames 33

COMMENTS The heaviest oiling conditions are just to the east of the canal stream (226-40-16450) in this site Oiling is predominately SOR remaining after Tarmat removal and CU/CT on cobbles/pbbles associated with Tarmats. The area has been fairly well filled however the underside of some cobbles are still coated

ASX SHORELINE LINE SUMMARY

PAGE 01

TEAM NO ONE EXXON MARTINEZ SEGMENT AS/ BA-2A
 OG Reimer USCG BROWN SUBDIVISION A
 ADEC HAYES LAND REP GIBSON TOTAL NO. SITES 1
 DATE 8/2/90 TIME 17:12 to 17:50 TIDE LEVEL 5.5 to 6
 TOTAL EST LENGTH OF SHORELINE SURVEYED: 720 m
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WEATHER: ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 OIL CATEGORY LENGTH: W 6 m M 10 m N 0 m VL 570 m NO 40 m US 375 m

SURFACE OIL

SITE 1

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SU	UI	MI	LI
ASPHALT								
S.O.R.		H _M	X	✓		HM	XV	
POOLED								
COVER			✓	X		✓	X	
COAT				X		X		
STAIN								
MOUSSE			I			I		
PATTIES/T.B.				X		X	X	
FILM		X				X	X	
NO OIL					X			X
EST. SITE LENGTH					720			

SITE 2

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SU	UI	MI	LI
ASPHALT								
S.O.R.								
POOLED								
COVER								
COAT								
STAIN								
MOUSSE								
PATTIES/T.B.								
FILM								
NO OIL								
EST. SITE LENGTH								

SITE 3

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SU	UI	MI	LI
ASPHALT								
S.O.R.								
POOLED								
COVER								
COAT								
STAIN								
MOUSSE								
PATTIES/T.B.								
FILM								
NO OIL								
EST. SITE LENGTH								

SUBSURFACE OIL

SITE NO.	PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER				OILED INTERVAL (cm)	CLEAN BELOW (Y/N)	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS
			OP	OR	OF	NO			SU	UI	MI	LI	
1	1	12		M			5-9	Y		X			P-GP
1	2	15		M			5-10	Y		X			P-GP
							.						
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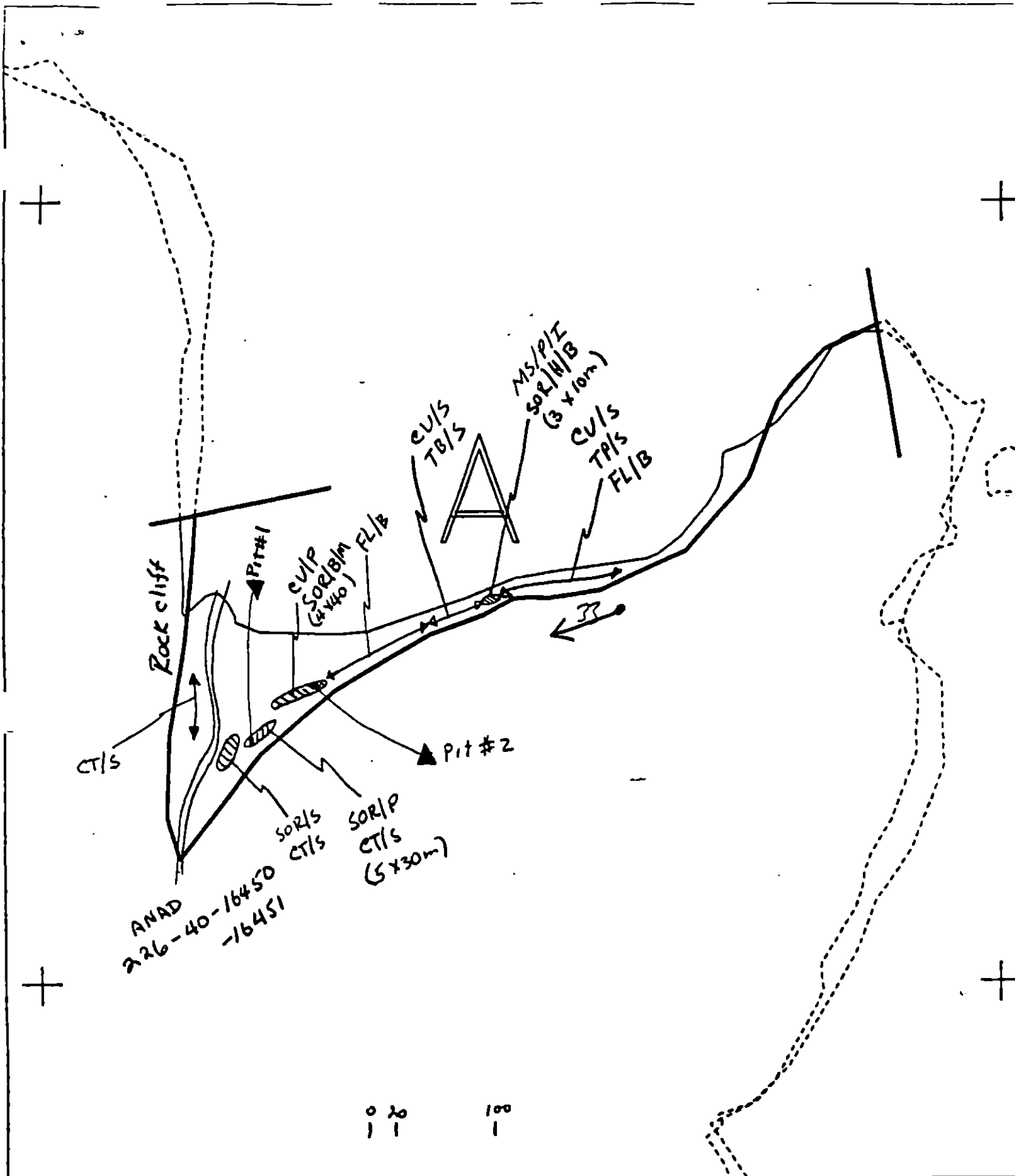
Photographs:

Roll No. ASX201-21

Frames 33

Reviewed
8/6/90 *[Signature]*

COMMENTS The heaviest oiling conditions are just to the east of the canal stream (226-40-16450) in this site oiling is predominately SOR remaining after Tarmat removal and CU/CT on cobbles/pbbles associated with Tarmat to area has been found in all 2.11.1.



XXXX
'///'

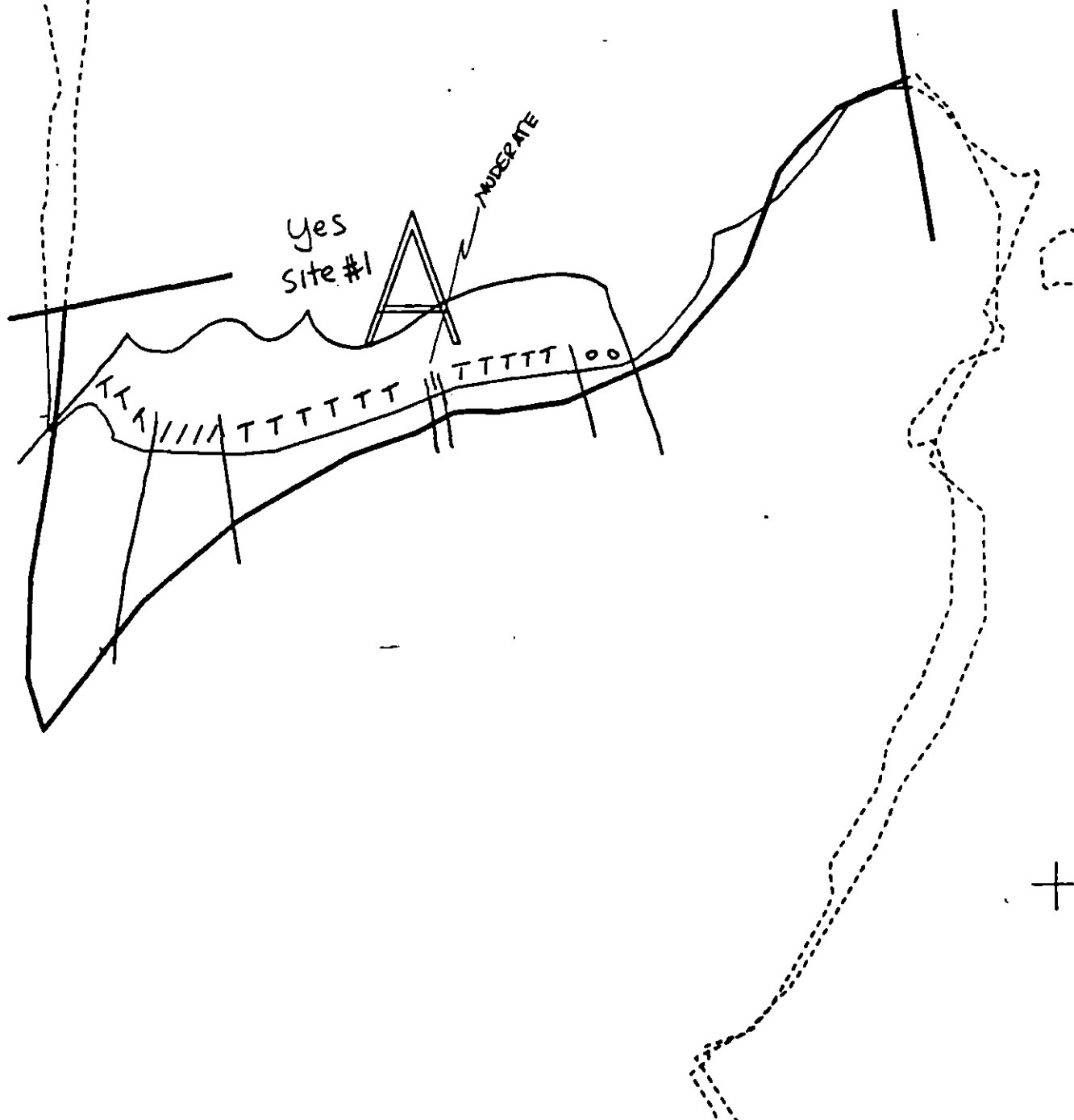
TTTT
0000

Wide
Medium
Narrow
Very Light
No Oil

BA-2 A
ADEC Subsegment Length: 1095m
METERS
0 112 225
AK State Plane Zone 4
aba-2a



Subdivision Field Map
Map Key: PWSBA-2A
Name: Reimer
Date: 8/2/90
Data Entered:



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

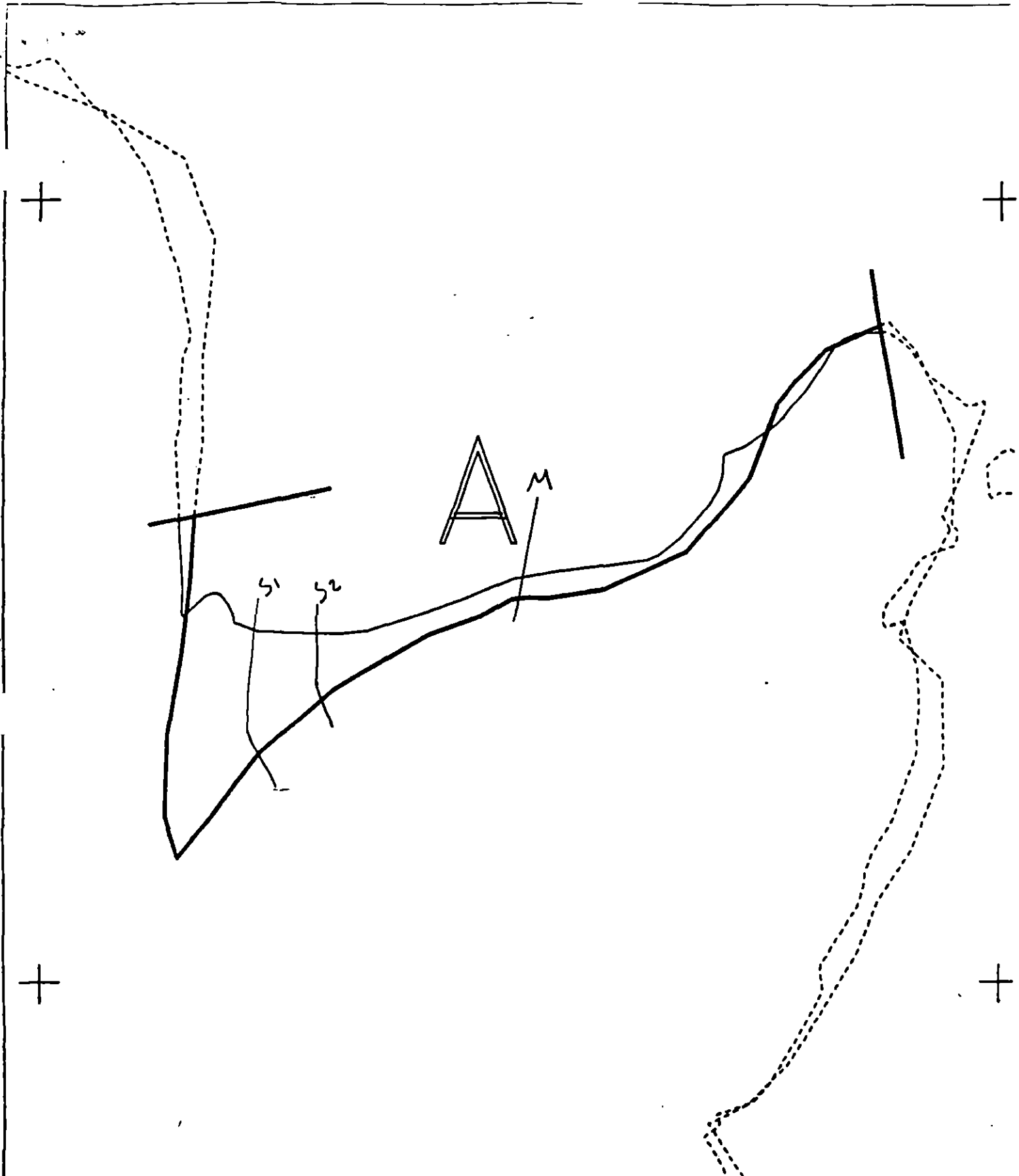
BA-2 A
 ADEC Subsegment Length: 1095m
 METERS

0 112 225

AK State Plane Zone 4 1:4428
 pba-2a



Subdivision Field Map
 Map Key: PWSBA-2A
 Name: Reimer
 Date: 8/2/90
 Date Entered:



XXXX
 ///

 TTTT
 0000

Wide
 Medium
 Narrow
 Very Light
 No Oil

BA-2 A
 ADEC Subsegment Length: 1095m
 METERS
 0 112 225
 AK State Plane Zone 4 1:4428
 pba-2a



Subdivision Field Map
 Map Key: PWSBA-2A
 Name: Berner
 Date: 8/2/90
 Date Entered:

SEGMENT ST/ BA-03 SUBDIVISION A (1 OF 1) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
 6U Recreation: Tent sites (6/1 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. Hoffman DATE: 5/5/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 899 m: No Oil 2996 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 5, 1990

ADEC ART WEINER Dist. Director
 EXXON Mark N. Willett Mark N. Silbert FOSC: My L DATE: 5-9-90
 NOAA Gary Petras Gary Petras
 USCG G.A. REITER G.A. Reiter

Salmon stream mouth - fry outmigration (3/1 to 5/15)

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

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 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)

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

6F 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 designation

7Z Subistence area: Salmon harvesting (5/1 to 9/30)

7H-H Finfish harvesting

7I Deer harvesting (8/15 to 2/25)

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/ BA-3 SUBDIVISION: A DATE 4/25/90

NAME CA RANDolph N. [Signature] SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

1. Very small amounts of oil found on rock wall of
steep cliff.

ADEC NAME Patrick J. Endres SIGNATURE Patrick J. Endres

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

Oiling observed was too minimal to require treatment

LAND MANAGER NAME MARSHA MARTIN/DNR SIGNATURE Marsha Martin

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

Oiling observed was minimal.

SHORELINE OILING SUMMARY

REVISION NO. 04/12/90

OG Reimer USCG Hubbard SEGMENT ST/ BA-3
 BIO Zamora LAND REP M. MARTIN (DNE) SUBDIVISION A (1 OF 1)
 EXXON Arcticle ADEC ENDRES TIME 08:25 10:11:55
 TEAM NO. 16 TIDE LEVEL -3 to +6 DATE 4 / 15 / 90
 EST. SUBDIVISION LENGTH: 3723 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: South to North
 SURFACE SEDIMENTS: R 25 % B 45 % C 10 % P 15 % G 5 % S 2 % M 0 % V 0 %
 SLOPE: Long 45 % Hang 40 % Vert 25 % WAVE EXPOSURE: ☒ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 870 m NO 3052 m

SURFACE OIL

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

Photographs:

Roll No. ST-16-11, 12Frames 23-37, 1-7

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	SHEEN (Y/N)	T	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UO	1	2	3	4	BU	U	M	U				
1	30					X	-										X		NO	25	P+S-PG-S
2	40					X	-									X					PG-S-GSP
3	40					X	-								X						PG-GSP
4	35					X	-								X						P-G-SP
5	30					X	-									X					S-SP
6	40					X	-									X					P-P

COMMENTS Long shore line segment with predominantly pebble cobble beaches along the southern quarter of the segment. This grades into boulder cobble beaches to the north and then into steep boulder rubble shoreline near the center of the segment. From here north to the end of the segment is mostly rock cliff often mantled in the shore zone with large angular lag deposits, with periodic pockets beaches of pebbles, cobbles, boulders and occasional small pockets of sand and gravel. The dominant oiling is a sporadic striping of oil near the high tide line along sections of cliff and rubble shorelines.

REVIEWED 7WDATE 4/26/90

03 mer

SKETCH MAP #1

SEGMENT ST/ BA-3

SUBDIVISION A

DATE 4 / 25 80

CHECKLIST

- ~~H Area~~
~~Approx. Scale~~
~~Org/Sub Grid~~
~~On Dist.~~
~~Width~~
~~Length~~
~~% Cover~~
~~Substrate Character~~
~~E. #, HSL, A, W, L~~
~~SS~~
~~Profile Location(s)~~
~~Photo(s)~~
~~Pin Location(s)~~
~~Photo Location(s)~~

LEGEND

- Fit - No Substantive Oil**

- 2 A
Fit - Substitution ON

CT/C
Construction Division

CT/B
Broken Distribution

CT/P

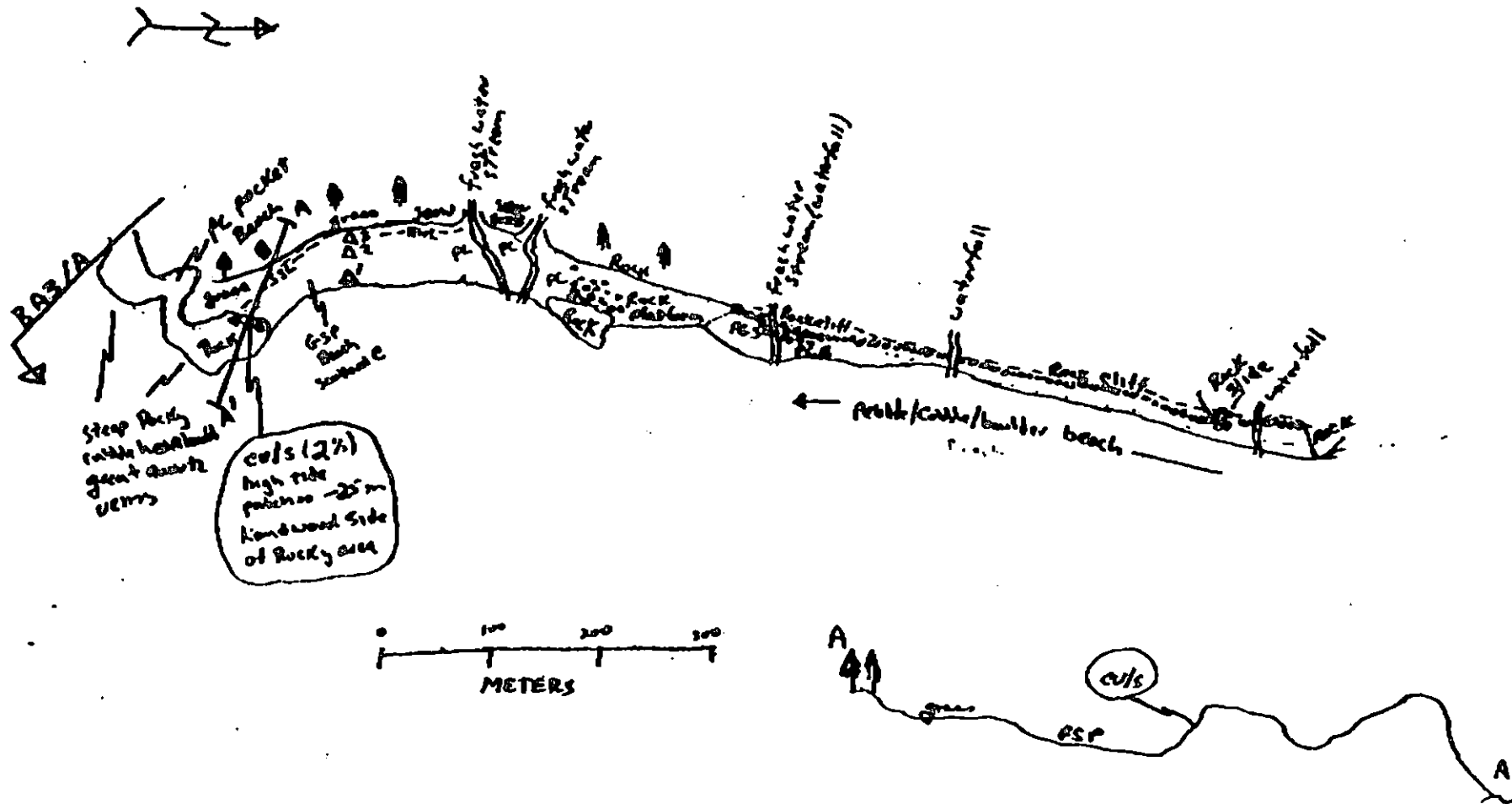
Policy Distribution

[CT/S]
Spliced Distribution

Old Vegetables

Philip Brandon, director,
and mother

 - large boulders / rubble



Oil Character Length (m): AP 0 PO 0 CV 25 CT 0 ST 0 MS 0 PT 0 TB 0 FL 0 NO 1240

RESEARCH DESIGN

(21061)

SKETCH MAP #2

SEGMENT ST/ BA-3

SUBDIVISION A (Map #2)

DATE 4 / 15 90

CHECKLIST

- ☒ Arrow
- ☒ Approx. Scale
- ☒ Spot/Sub Entry
- ☒ Oil Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Ext. HAZARDOUS
- ☒ POC
- ☒ Profile Location(s)
- ☒ Profile(s)
- ☒ Pit Location(s)
- ☒ Photo Location(s)

LEGEND

1 Δ
Pit - No Substrate Oil

2 Δ
Pit - Substrate Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

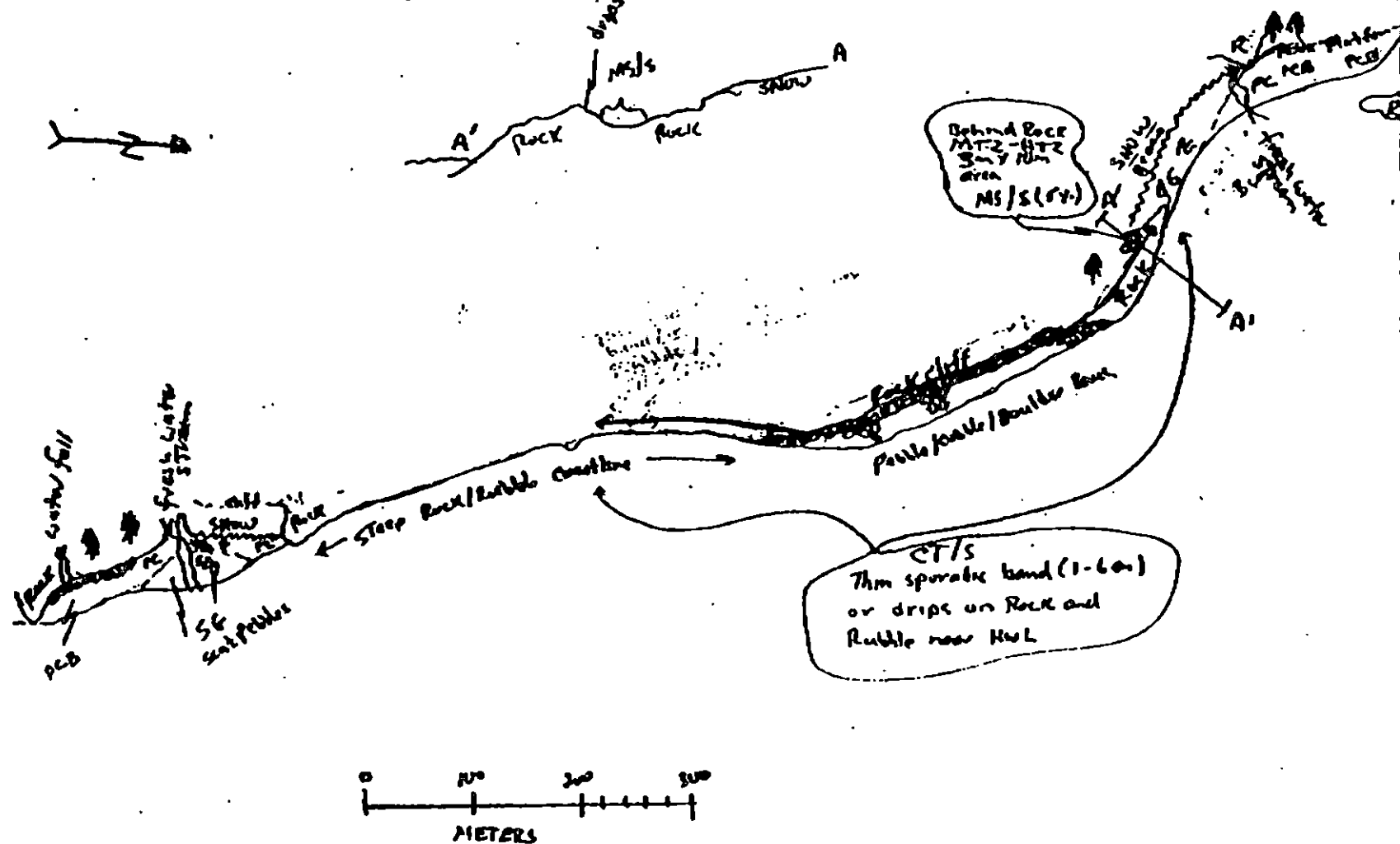
CT/P
Patchy Distribution

CT/S
Sporadic Distribution

Oil Vegetation

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

~~~~~ - STORM BERM  
○○○ - Large boulders/Rubble



Oil Character Length (m): AP 0 PO 0 CV 0 CT 580 ST 0 MS 10 PT 0 TB 0 FL 0 NO 851

REVISIONS

00. 11/21/90

# SKETCH MAP #3

SEGMENT ST/ BA-3

SUBDIVISION A

DATE 4 / 25 90

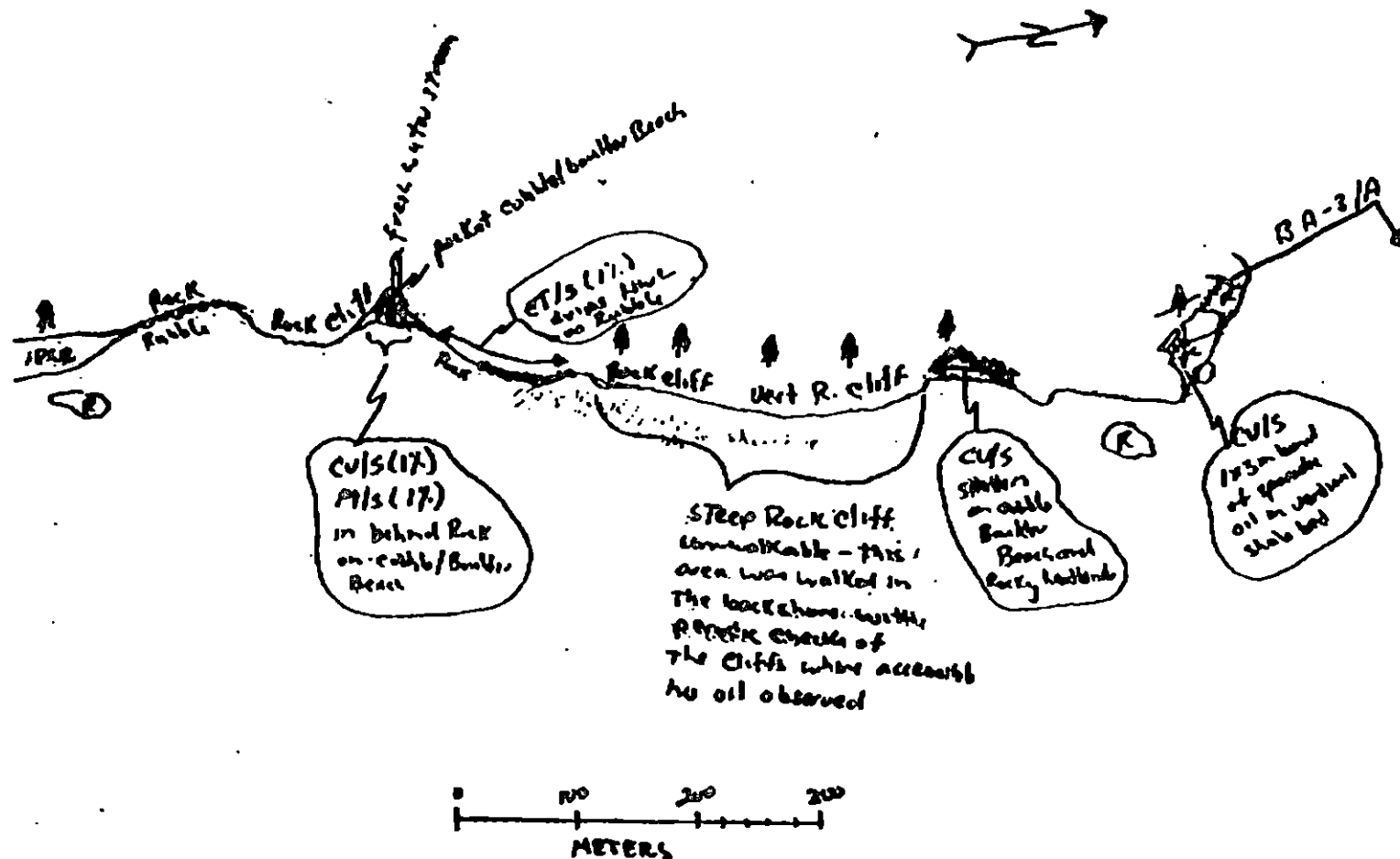
## CHECKLIST

- ☒ Is Area
- ☒ Approx. Scale
- ☒ Substrate Entry
- ☒ On Cliff
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HULLAGE
- ☒ SCL
- ☒ Profile Location(s)
- ☒ Profile(s)
- ☒ P/L Location(s)
- ☒ Photo Location(s)

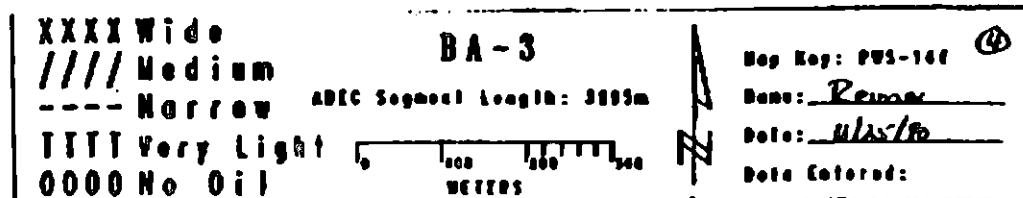
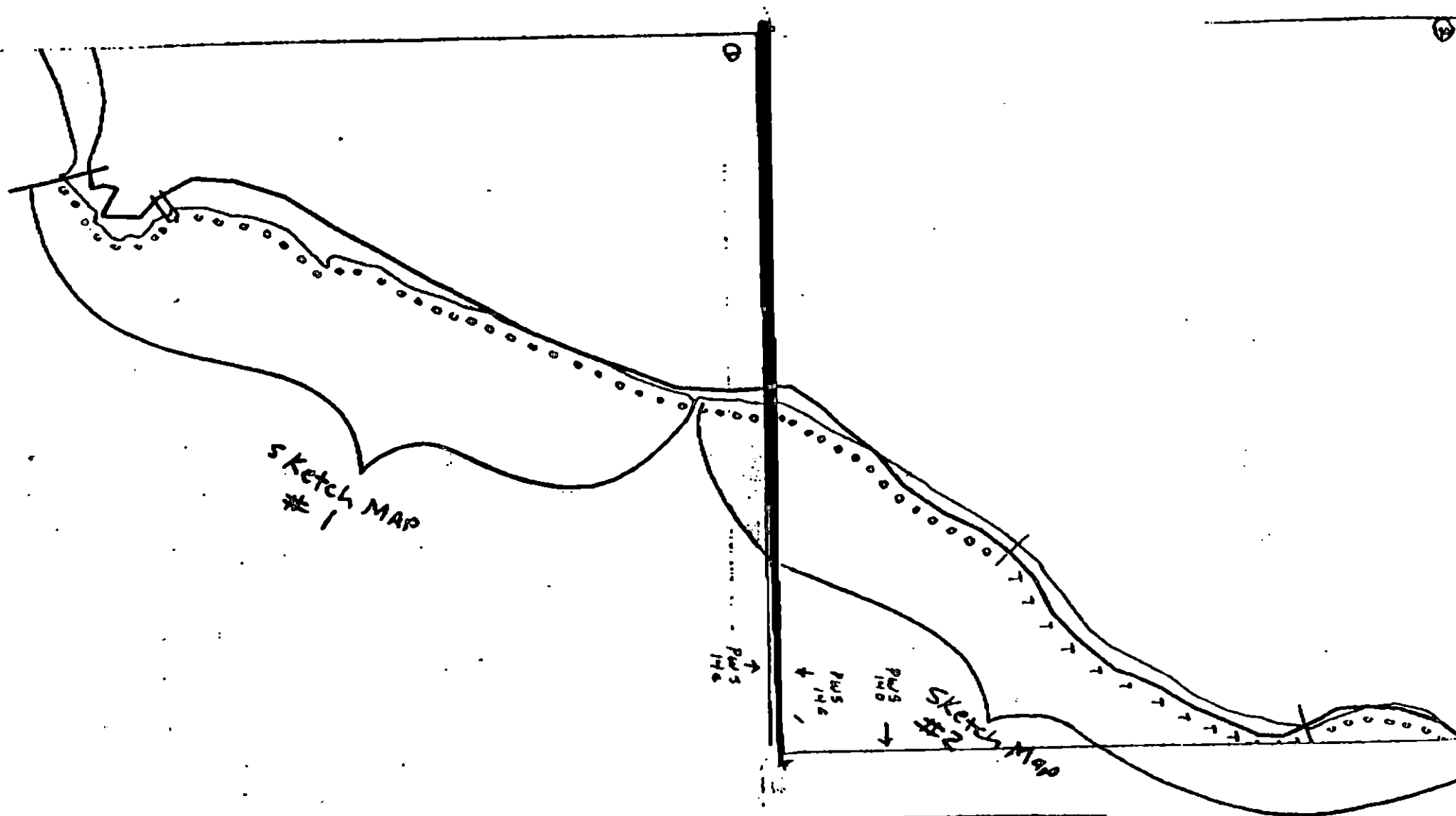
## LEGEND

- ☒ No Substrate Oil
- ☒ Substrate Oil
- CT/C  
Complete Distribution
- CT/D  
Broken Distribution
- CT/P  
Patchy Distribution
- CT/S  
Splashed Distribution
- lll  
Oiled Vegetation
- Photo location, direction, and number

~ ~ ~ - Storm Worm  
o o o - Large boulders / Rubble

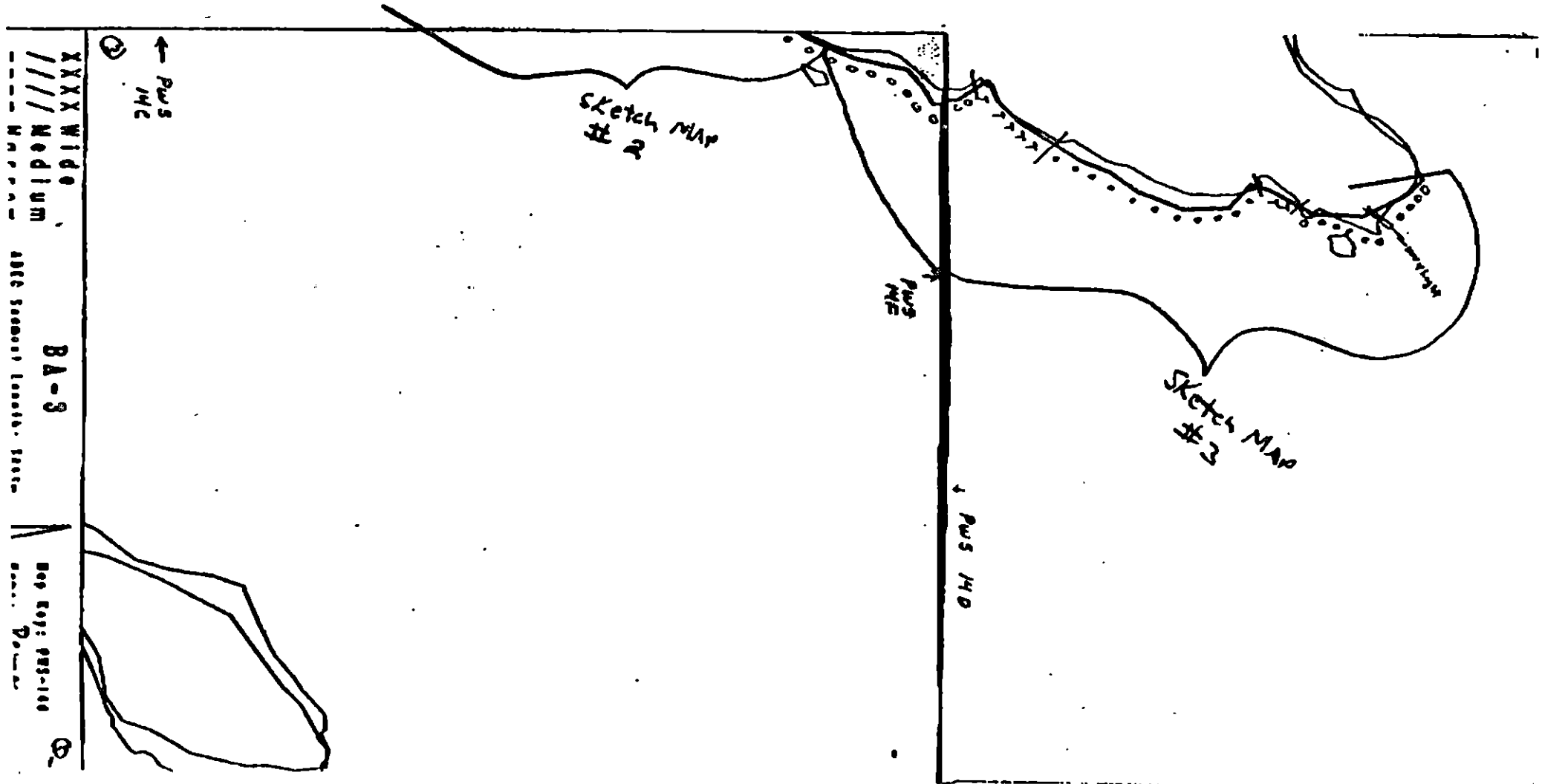


OS Character Length (m): AP 0 PO 0 CV 223 CT 0 ST 0 MS 0 PT 10 TB 0 FL 0 NO 0003



OG SKETCH MAP LOCATIONS

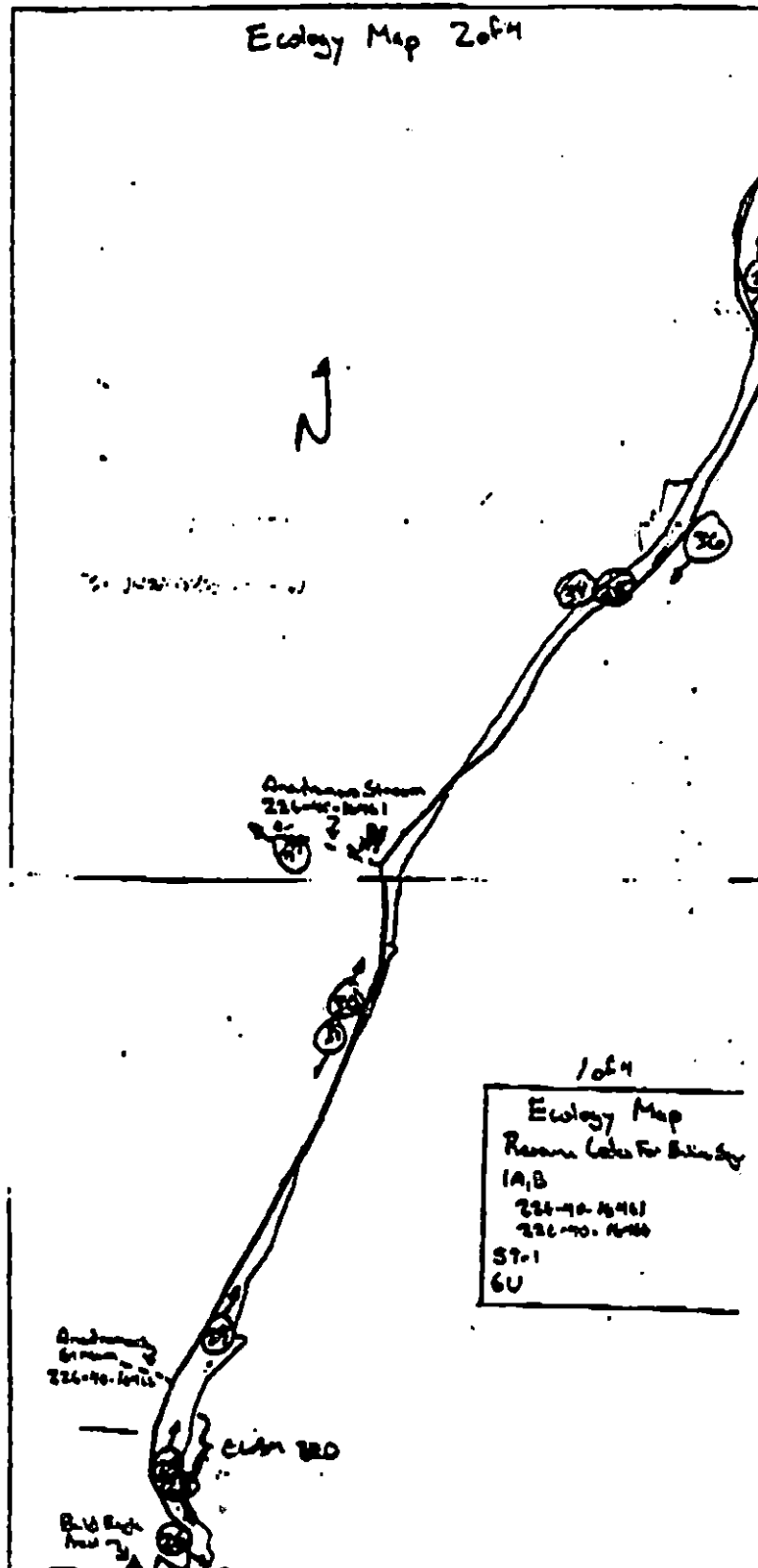
# OG SKETCH MAP LOCATIONS



# BAINBRIDGE ISLAND

BA3

PHOTO LOCATIONS



# SHORELINE ECOLOGICAL SUMMARY

12/94

REVISION: 03/22/1

Segment ST / B43 Subdivision A Date (mo / day / yr) 4 / 25 / 90

Time (24 hr) \_\_\_\_\_ Biologist TONY BAIER

(A) Substrate type and % of segments:  
(1) Bedrock \_\_\_\_\_ (2) Boulder \_\_\_\_\_ (3) Cobble \_\_\_\_\_ (4) Pebble \_\_\_\_\_ (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. ST-16-11, 12

Frames 23-37, 1-7

## BARNACLES

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

## 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  | X      | X  | 2  | X    | X  | 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  | X        | X  | X  | 2      | 2  | 2  | 2    | 2  | 2  |             |
| 3     | 3  | 3  | 3        | 3  | 3  | X      | X  | X  | 3    | 3  | 3  |             |
| 4     | 4  | 4  | 4        | 4  | 4  | 4      | 4  | 4  | 4    | 4  | 4  |             |
| 5     | 5  | 5  | 5        | 5  | 5  | 5      | 5  | 5  | 5    | 5  | 5  |             |
| 6     | 6  | 6  | 6        | 6  | 6  | 6      | 6  | 6  | 6    | 6  | 6  |             |

## FUCUS

| Dense |    |    | Moderate |    |    | Sparse |    |    | Rare |    |    | NOT PRESENT |
|-------|----|----|----------|----|----|--------|----|----|------|----|----|-------------|
| 1U    | 1M | 1L | 1U       | 1M | 1L | 1U     | 1M | 1L | 1U   | 1M | 1L |             |
| 2     | 2  | 2  | X        | X  | 2  | X      | X  | 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:

- 10 SEA LIONS, 1 OTTER, 1 EAGLE, 4 STELLAR'S JAYS, 1 GROUSE

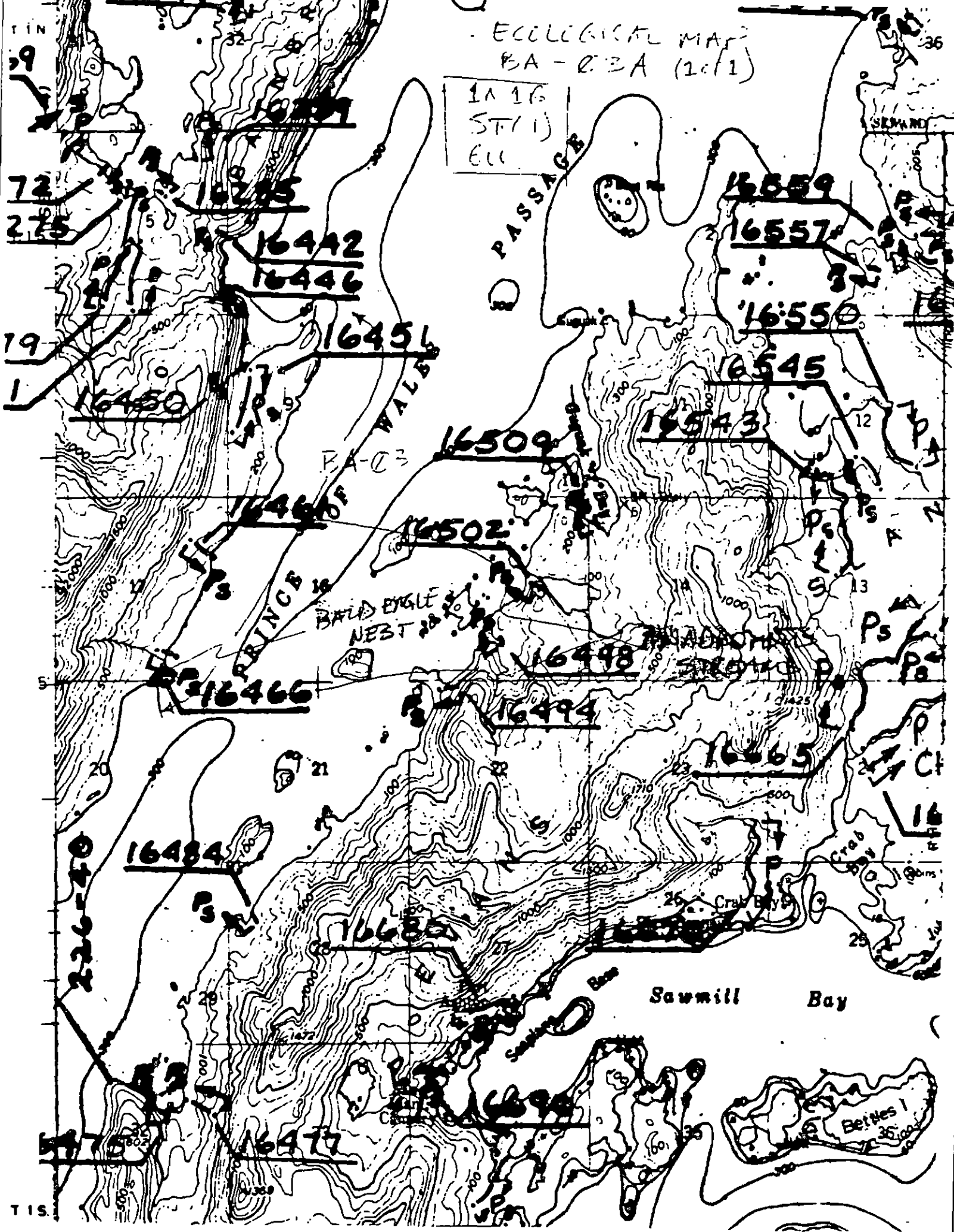
## Ecological Considerations:

~~EAGLE NEST~~  
ST-1, 1A/B, 755

TIN

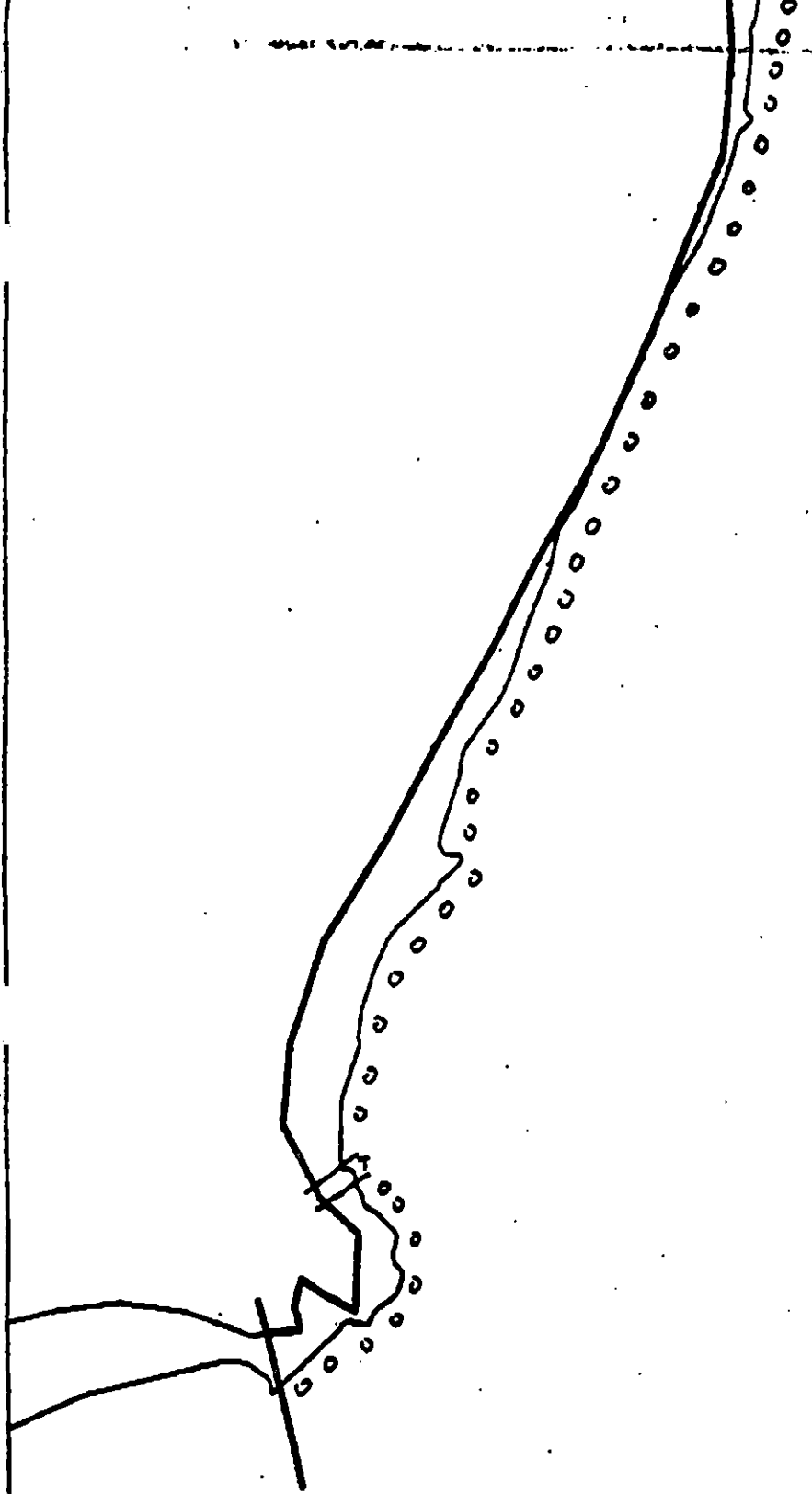
ECOLOGICAL MAP  
BA-23A (1 of 1)

1A 16  
ST(1)  
ELL



TIS

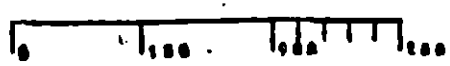
↑  
PWS 8/44  
14c



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

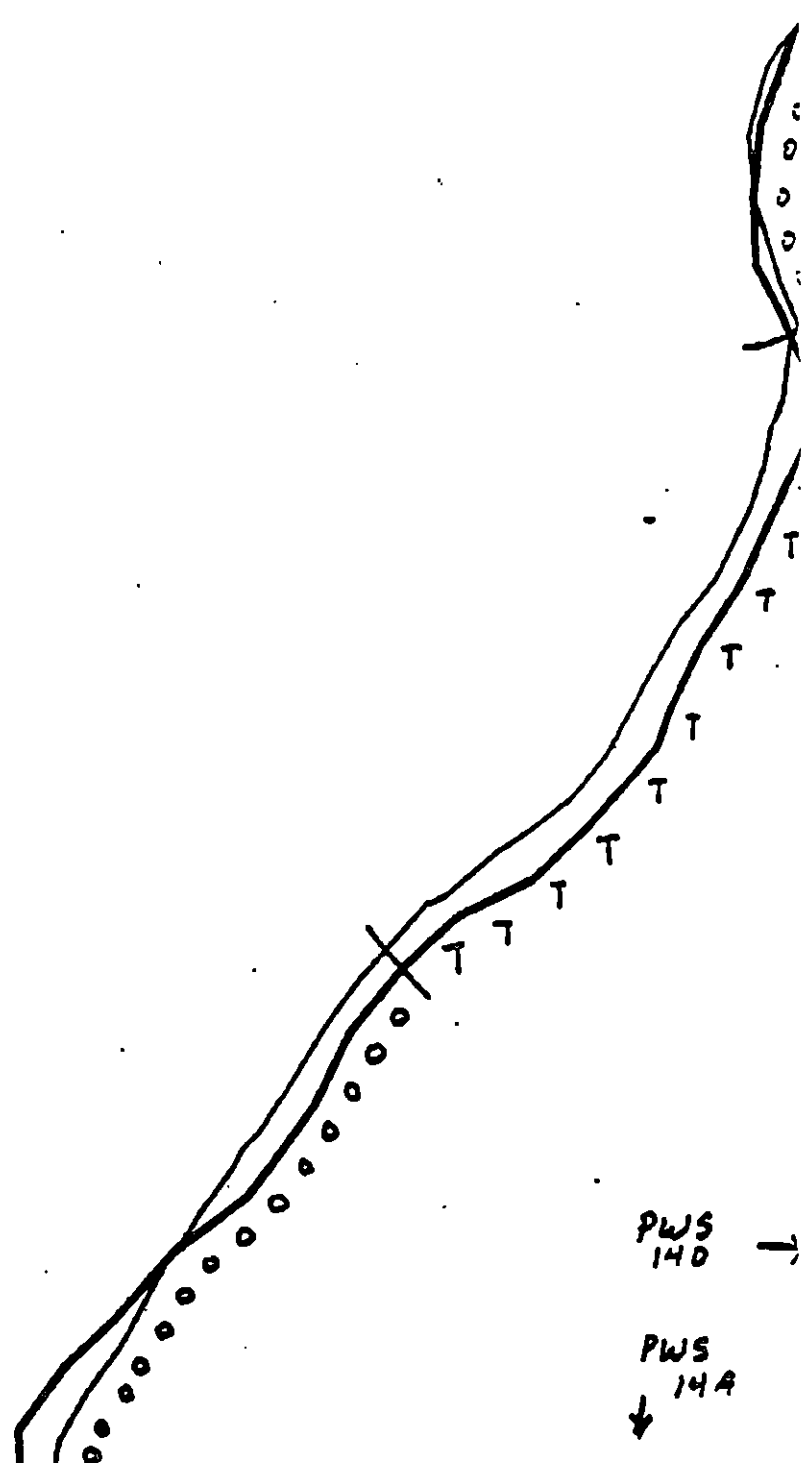
BA-3

ADEC Segment Length: 3895m



Map Key: PWS-14c  
Name: Reimer  
Date: 4/25/90

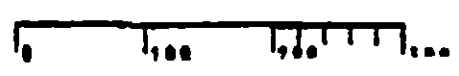
C



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

BA-3

ADEC Segment Length: 3885m



Map Key: PWS-14c

Name: Reimer

Date: 4/25/90

②

PWS
14F

10/94

← PWS
14C

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

BA-3

ADEC Segment Length: 3895m

0 100 200 300

Map Key: PWS-14d

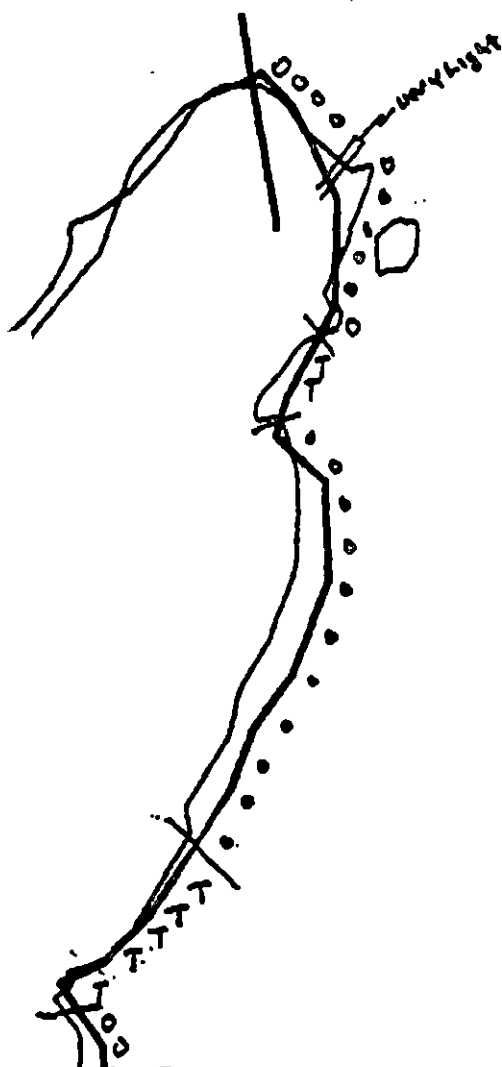
Name: Reimer

Date: 4/25/90

Data Entered:

③

7/44



PWS 140

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

BA-3

ADEC Segment Length: 3895m



Map Key: PWS-141

Name: Reima

Date: 4/25/90

④

SHORELINE EVALUATION

SEGMENT ST/ BA-04 SUBDIVISION A (1 OF 1) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Possible active Bald Eagle nest (5T) - 3/1 to 6/1; Purse seine
hook off (1K) - 7/20 to 9/30.

SUBDIVISION ECOLOGICAL CONSTRAINTS: No specific subdivision con-
straints although should treatment be required, restrict substrate
disturbance to a minimum.

SHPO SIGNATURE: Charles E. Holmes

DATE: April 6, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 228m: No Oil 2076m
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: No treatment recommended on BA-4 (A) due to only very
light, sporadic oiling being observed. Please review Field
Shoreline Comment Sheet.

TAG COMMENTS:

TAG APPROVAL DATE: 4-6-90

ADEC JOHN BAUER

EXXON ANDY BR

NOAA Burt Wescott

USCG G.A. REITER

FOSC:

DATE: 4-19-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / BA 4 SUBDIVISION: A - ENTIRE SEG. DATE 3/31/90

USCG

NAME

GARY OTT

SIGNATURE

[Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADEC

NAME

Michael J. Ebel

SIGNATURE

[Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

BA-4-A

LAND MANAGER

USDA Forest Service

NAME

Don J. Breitingar

SIGNATURE

[Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

BA4-Sab-A.

6 of 10

SHORELINE OILING SUMMARY

REVISION NO. 09/22/90

OG Randy McBride USCG NOAA Gary Ott SEGMENT ST/ BA-4
 BIO Lewis Shorman LAND REP Don Breittinger SUBDIVISION A (1 of 1)
 EXXON Leonard Herliet ADEC Mike Ebel TIME 14:00 to 14:52
 TEAM NO.: 12 TIDE LEVEL: +5.4 to +6.3 DATE 3/31/90
 EST. SUBDIVISION LENGTH: 2263 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: east to west
 SURFACE SEDIMENTS: R 10 % B 35 % C 40 % P 15 % G % S % M % V %
 SLOPE: Long 50 % Hang 50 % Vert % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W m M m N m VL 250 m NO 2013 m

SURFACE OIL

| CHARACTER | DISTRIBUTION | | | | OIL / FILM COLOR | | | | | | | | IMPACTED ZONES | | | |
|------------------|--------------|---|---|---|------------------|---|---|---|---|---|---|---|----------------|---|---|---|
| | C | N | P | S | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | SU | U | M | U |
| ASPHALT PAVEMENT | | | | | | | | | | | | | | | | |
| POOLED | | | | X | | | | | X | | | | | | X | |
| COVER | | | 6 | X | | | | | 0 | X | | | | X | X | 0 |
| COAT | | | | X | | | | | X | | | | | X | | |
| STAIN | | | | | | | | | | | | | | | | |
| MOUSSE | | | | | | | | | | | | | | | | |
| PATTIES | | | | | | | | | | | | | | | | |
| TARBALLS | | | | | | | | | | | | | | | | |
| FILM | | | | | | | | | | | | | | | | |
| NO OIL | | | | | | | | | | | | | X | | 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. ST-12-1Frames 33-35

SUBSURFACE OIL

| PIT NO. | PIT DEPTH (cm) | SUBSURFACE OIL CHARACTER | | | | | OILED INTERVAL (CM-DM) | BELOW | | OIL / FILM COLOR | | | | | | | | PIT ZONE | A
N
A | SUBSURFACE SEDIMENTS |
|---------|----------------|--------------------------|----|----|----|----|------------------------|-------|----|------------------|---|---|---|---|---|---|---|----------|-------------|----------------------|
| | | OP | OR | OL | OF | NO | | UC | UC | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | |
| 1 | 40 | | | | | X | - | | | | | | | | | | | X | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |

COMMENTS

(only 26 m wide)

Small pocket beach, dominated by cobble and boulder boulders with rock cliff on either side of pocket beach. Very light oiling along detrital organic unackline beach. and oil mark at the high water line on adjacent rock cliffs. Due to the very small amount of oiling, a sketch map was redundant. Saw walrus w/ dead deer along high water line.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 002200

Segment ST/ BA-4 Subdivision A Date (mo / day / yr) 3/31/90
 Time (24 hr) 1345-1500 Biologist SHARMAN (Dm 12)

- (A) Substrate type and % of segments: SUBDIV.
 (1) Bedrock 15 (2) Boulder 35 (3) Cobble 35 (4) Pebble 15 (5) Sand (6) Silt
- (B) Overall % cover of biota (% of segment): Dense Moderate X Low
SUBDIV.
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)
 Photographs:
 Roll No. ST-12-1
 Frames 32-35

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 | |
| 6 | 8 | 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 | |
| 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 | |
| 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 | |
| 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |

Wildlife Observations/ General Comments: Could not observe LTZ due to tide. Walrus in brush above ITZ with deer (unleashed) which it apparently dragged up from ITZ. Cause of death unknown - could have been walrus - dead < 2 day. Eagle nest (apparently inactive) with one adult flying nearby. Deer tracks in 2 locations. Mink prints (one pair in one location, one common, one pair in another). Red-tailed hawk seen at head on top of S.W. end of segment.

Ecological Considerations: Environmental Priority 1 according to Priorities and Window table. Work window is pre-7/10 due to purse seine hook-off constraint (1-2) 7/20-7/30. Overall treatment priority = 1.

Sensitivity Codes: 1K.

Buried under 30cm gravel in UTZ and MTZ. Intertidal community appear normal and healthy.

BA-0

BA-4-A

BA-4-A

BA-1-F

3 of 10

↓ PWS 1122

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

ADEC Segment Length: 13318m

BA-1



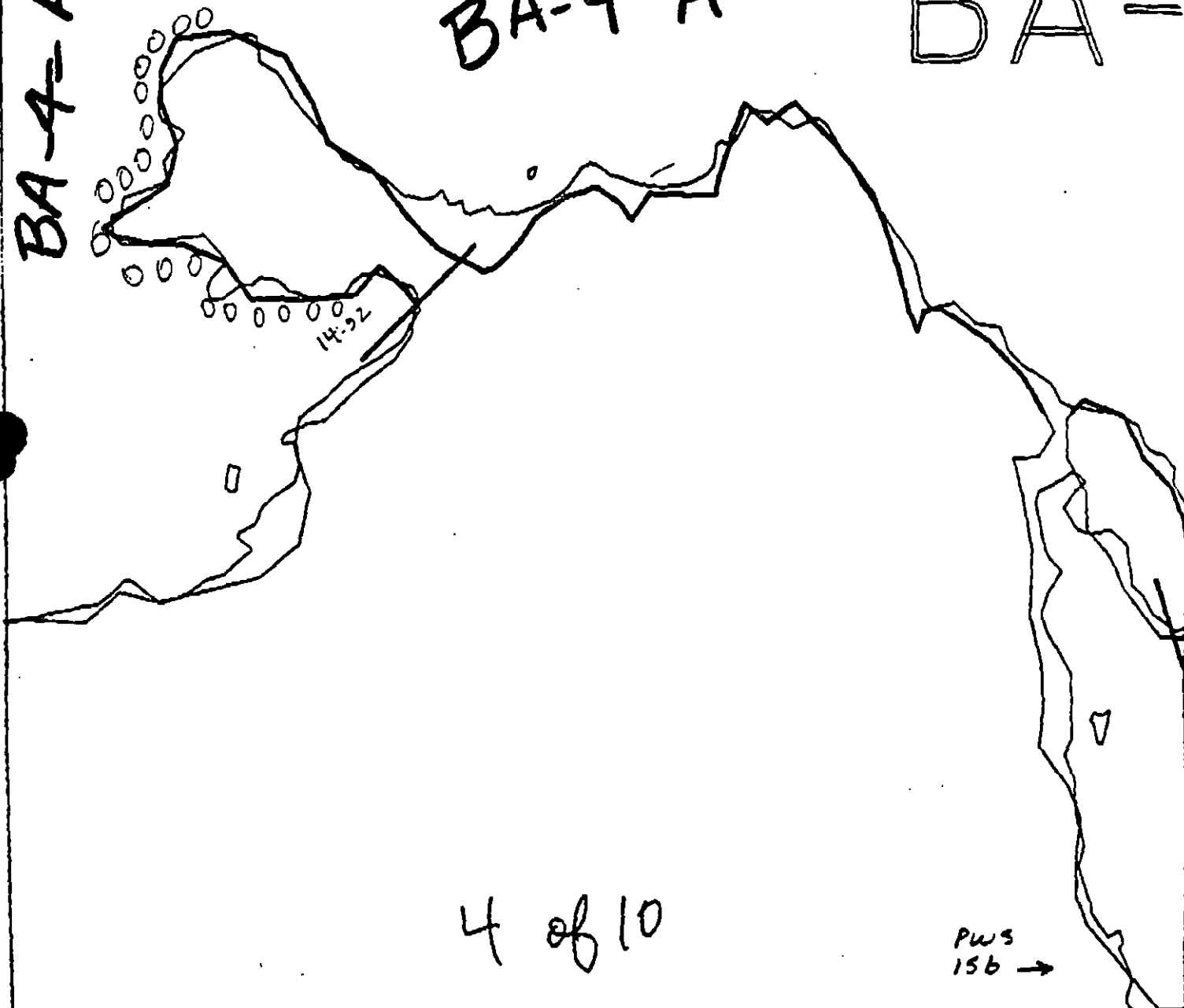
Map Key: PWS-1100
Name: McBride
Date: 3-31-90
Data P. 1100

Note:
continued!

BA-4-A

BA-4-A

BA-



4 of 10

PWS
156 →

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

OOOO No Oil

BA-4

ADEC Segment Length: 2284m



Map Key: PWS-156

Name: Randy McBride

Date: 3/31/90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ BA-06 SUBDIVISION C (3 OF 3) DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

14 Catalogued ADF&G anadromous streams

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)

1B Salmon stream mouth - spawning (7/10 to 8/31)

5T-7 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 uncoiled biota and substrate. 5T (2).

SHPO SIGNATURE: Rachel Dan Oase DATE: 6/20/90

OILING CATEGORIZATION:

Wide 0 m: Medium 120 m: Narrow 78 m: V.Light 57 m: No Oil 3007 m
Subsurface Oil Observed: Yes X No Maximum Depth 5 cm

RECOMMENDATIONS:

No Treatment Recommended

X Treatment Recommended

X Manual Pickup

X Bioremediation

X Tarmat Removal

Snare/Absorbent Booms

 Oil Snares (pom poms)

 Absorbents (pads, rolls, etc)

Spot Washing: Wands

Beach Cleaner

Other (see comments)

COMMENTS: Recommended treatment includes 1) manual removal of tarmats, 2) manual pickup of patties, 3) bioremediation of areas indicated on attached sketch maps. Work should be conducted between 6/1 and 7/10 based on eagle nest and salmon constraints after approval of USFWS regarding eagle nest.

TAG COMMENTS: _____

TAG APPROVAL DATE: 5/10/90.

ADEC ART WEFNER Art Wefner

EXXON *Handwritten signature*

NOAA Bay Watershed Guidelines

USCG D. D. ROME *DD Rome*

* Customers only; NO In'po

FOSC: D. J. Janghi DATE: 7/3/80

DATE: 1/3/80

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

Salmon stream mouth - fry outmigration (3/1 to 5/15)

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

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 uncoiled intertidal and subtidal algae and eelgrass. 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)

3L Harbor seal and sea lion molting (5/15 to 9/15)

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

AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235

ADF&G Don Calkins 267-2403

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

ADF&G Tom Roth 267-2206

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

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

6U Recreation: Tent sites (5/1 to 9/15)

6V Anchorage (5/1 to 9/15)

6W Forest Service cabins (5/1 to 9/15)

6X Lodge (5/1 to 9/15)

6Y Special use destination

7Z Subsistence area: Salmon harvesting (5/1 to 9/30)

7HH Finfish harvesting

7I Deer harvesting (5/15 to 2/25)

7JJ 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 267-2350

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ BA-06 SUBDIVISION: C (3 of 3) DATE 4/24/90

NOAA

NAME Michael Buchner SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Frequent Tarry asphalt patches on south end beach.
(map 2) Thick Tarry patches observed in rock fissures of headlands at north end too. ~~Translucent~~ Translucent to silver sheen observed in tide pools there. Tide pools with asphalt were abiotic also. Coat to cover observed in this area of tilted uplifted slate rock outcrop.

ADEC

NAME John Hayes SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

① Manual removal and map up of Asphalt patches U.I.T.Z. See sketch map #'s 2+3

② Map 3 Oiling in U.I.T.Z. + S.T.Z. oiling is asphalt patches + weathered oil between cobbles. Manually remove + map up. Shovels + Suckers No S.S. Oiling

LAND MANAGER

NAME Tom Cronan SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Tar patches on hot pocket beach on east end need manual pickup. No treatment required on remainder of segment except at west end where a 20m x 2m cover of asphalt patches need manual p/u. No bio needed. Oiled veg also noted above 20% patch in U.I.

SHORELINE OILING SUMMARY

REVISION NO. 04/12/90

OG Mike Foget NAAA Michael Bixman SEGMENT ST/ BA-06
 BIO Kathleen Conlin LAND REP (DNR, Ron Greenhaw) SUBDIVISION C (3 OF 3)
 EXXON Larry Olson ADEC John Hayes TIME 11:00:00
 TEAM NO. 11 TIDE LEVEL +0.9 DATE 4/24/90
 ST. SUBDIVISION LENGTH: 3200 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 PLANDS DESCRIPTION: ☐ Grass ☐ Forest ☒ Rock steep rocky back shore
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: to N
 SURFACE SEDIMENTS: R 45 % B 40 % C 10 % P 5 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 5 % Hang 55 % Vert 40 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 80 m N 78 m VL 50 m NO 2992 m

SURFACE OIL

| CHARACTER | DISTRIBUTION | | | | OIL / FILM COLOR | | | | | | | | IMPACTED ZONES | | | |
|------------------|--------------|---|---|---|------------------|---|---|---|---|---|---|---|----------------|---|---|---|
| | N | S | E | W | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | SU | U | M | U |
| ASPHALT PAVEMENT | | | X | X | | X | | | | | | | | X | | |
| POOLED | | | | | | | | | | | | | | | | |
| COVER | | | | | | | | | | | | | | | | |
| COAT | | | X | | | X | | | | | | | | X | | |
| STAIN | | | | | | | | | | | | | | | | |
| MOUSSE | | | | | | | | | | | | | | | | |
| PATTIES | | | X | X | | X | | | | | | | | X | | |
| TARBALLS | | | | | | | | | | | | | | | | |
| LM | | | | | | | | | | | | | | | | |
| NO OIL | | | | | | | | | | | | | | X | X | X |

PAVEMENT H (F) S 10 sq. m by 5 cmPATTIES/TARBALLS 10 BAGSNEAR SHORE SHEEN? (NO) BR RW SL TL

| OILED DEBRIS | AMOUNT | | | DID YOU COLLECT DEBRIS? |
|--------------|--------|----|----|---|
| | SM | MD | LG | |
| Logs | | | | YES ☒ NO ☐ |
| Vegetation | | | | |
| Trash | | | | |
| Debris | X | | | |

DID YOU COLLECT DEBRIS?

YES ☒ NO ☐TYPE 2 star Patties#BAGS 1

Photographs:

Roll No. ST-11-4Frames 1-8

SUBSURFACE OIL

| PIT NO. | PIT DEPTH (cm) | SUBSURFACE OIL CHARACTER | | | | | OILED INTERVAL (CM) | BELOW | | OIL / FILM COLOR | | | | | | | | PIT ZONE | | | | A
N
A | SHEEN (Y/N) | ▼ | SURFACE - SUBSURFACE SEDIMENTS |
|---------|----------------|--------------------------|----|----|----|----|---------------------|-------|----|------------------|---|---|---|---|---|---|---|----------|---|---|---|-------------|-------------|----|--------------------------------|
| | | OP | OR | OL | OF | NO | | UO | UC | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | SU | U | M | U | | | | |
| 1 | 25 | | X | | | | 0-5 | | X | | | | | | X | | | X | | | | | Y | 15 | C, P, G |
| 2 | 20 | | X | | | | 0-5 | | X | | | | | | X | | | X | | | | | Y | 20 | C, P, G |
| 3 | 30 | | | | | X | . | | X | | | | | | | | X | | | | | N | - | P | |
| 4 | 30 | | | | | X | . | | X | | | | | | | | X | | | | | N | - | P | |
| 5 | 25 | | | | X | | 0-5 | | X | | | | X | | | | | X | | | | | Y | 10 | C, P |
| 6 | 20 | | | | | X | . | | X | | | | | | | | | X | | | | | N | - | C, P |

COMMENTS

Oiling was observed at the south end (map 2) and North end (map 3) of the segment, no oiling was observed for most of the segment. The shore zone consisted of high angle bedrock/boulder zone w/ a few pocket cobble/pebble beaches located at the southern end of the segment. Most of the oil observed was Asphalt/Patties in the HITZ.

REVIEWED W DATE 4-26-90

SEGMENT ST/ BA-06

SUBDIVISION C

DATE 4 / 24 90

CHECKLIST

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

LEGEND

1 ▲

PH - No Subsurface Oil

2 ▲

PH - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

Oiled Vegetation

1 ➡

Photo location, direction,
and number

Scale

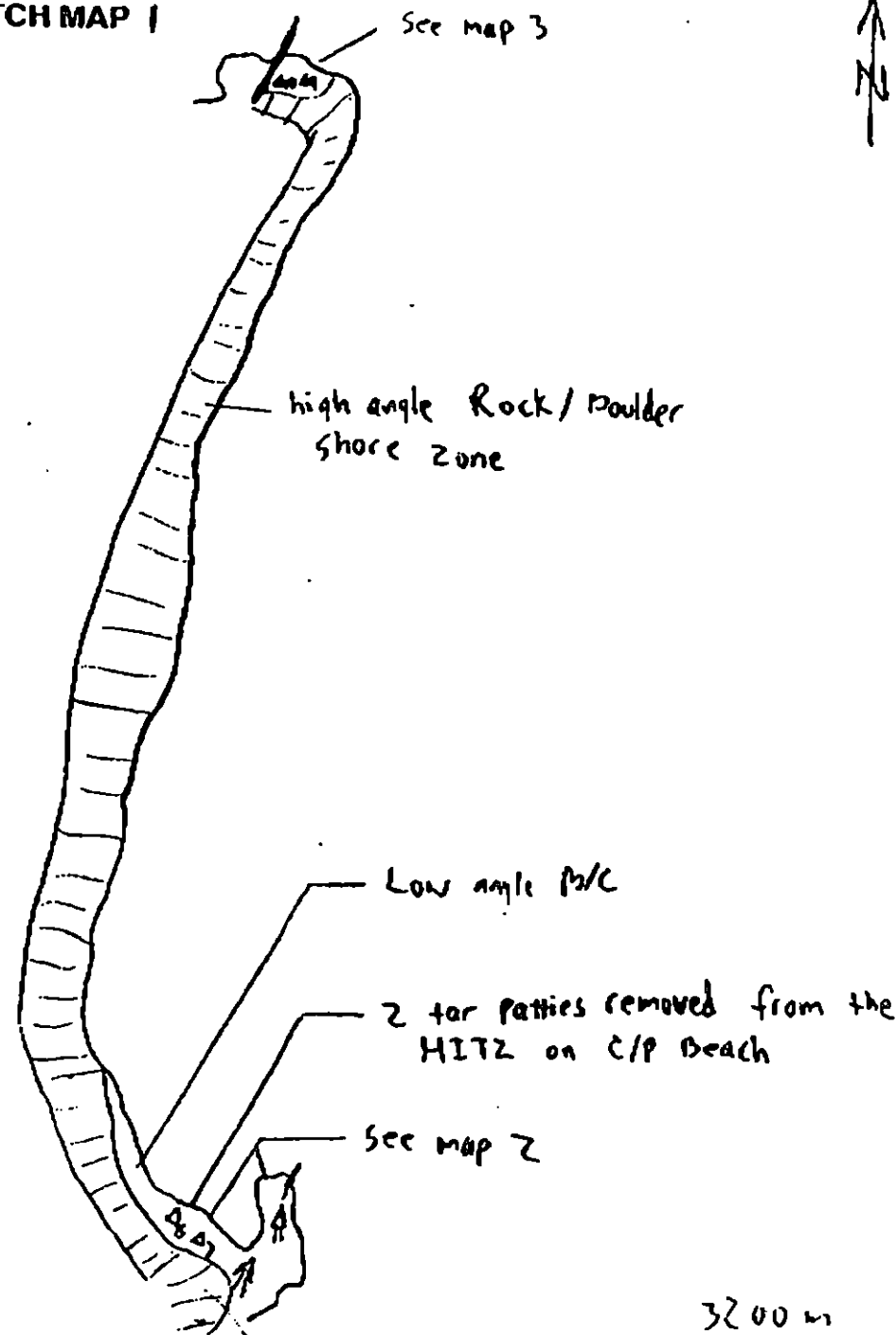
500 m

Legend

/// - high angle Rock / Boulder
shore zone

▲ - trees

SKETCH MAP 1



Oil Character Length (m): AP 168 PO 0 CV 0 CT 40 ST 0 MS 0 PT 0 TB 0 FL 0 NO 2992

3200 m

REVISED: 03/2000

SEGMENT ST/ BA-06

SUBDIVISION C

DATE 4 / 24 90

CHECKLIST

- Map
- Approx. Scale
- Seg/Sub Entry
- Oil Dist.
- Width
- Length
- % Cover
- Substrate Character
- Est. MW/LA/WL
- SSI
- Profile Location(s)
- Photo(s)
- Pt. Location(s)
- Photo Location(s)

LEGEND

- 1 Δ
Pt. No Subsurface Oil
- 2 Δ
Pt. Subsurface Oil
- CT/C
Continuous Distribution
- CT/B
Broken Distribution
- CT/P
Patchy Distribution
- CT/S
Splashed Distribution
- Oil on Vegetation
- 1 $\Rightarrow$
Photo location, direction, and number

SKETCH MAP 2

Scale

50m

Legend

/// - Low angle
Rock outcrop

$\bigcirc$ - Large Boulders/Rock

$\Rightarrow$ - drift Logs
Supra ITZ

3m x 8m
AP/P in
the HITZ on
boulder/cobble

1m x 10m
CT/B on O/R
in HITZ

10m x 60m
AP/P in the
HITZ on
P/C

10m x 20m
AP/S in
the HITZ
on P/C

3m x 20m AP/S on Low angle
P/C beach HITZ

3m x 10m AP/P on Low angle
P/C beach in HITZ

10m x 20m AP/P on cobble/pebble
in the HITZ

MANUALLY RETRIEVE
AP PATTERNS & BIO

See map 1

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

REVISION: 08/2000

SEGMENT ST/ BA-06

SUBDIVISION C

DATE 4/24/90

SKETCH MAP 3

CHECKLIST

- ☐ N Area
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ E. st. FORM, VAL
- ☐ SSI
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Photo Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ
P1 - No Subsurface Oil

2 Δ
P1 - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

CT/P
Patched Distribution

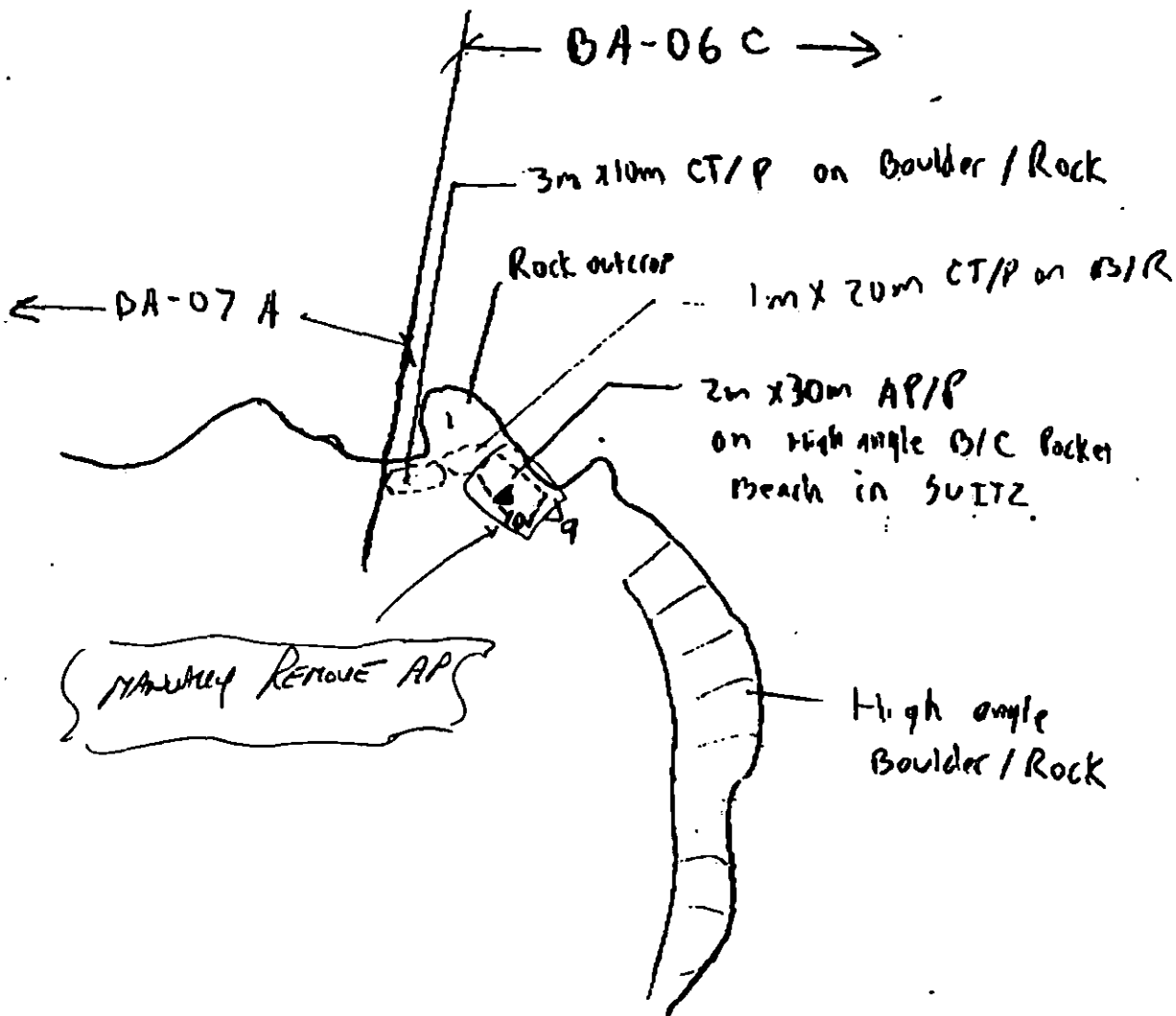
CT/S
Splashed Distribution

Oiled Vegetation

1 →
Photo location, direction,
and number

Scale

100m



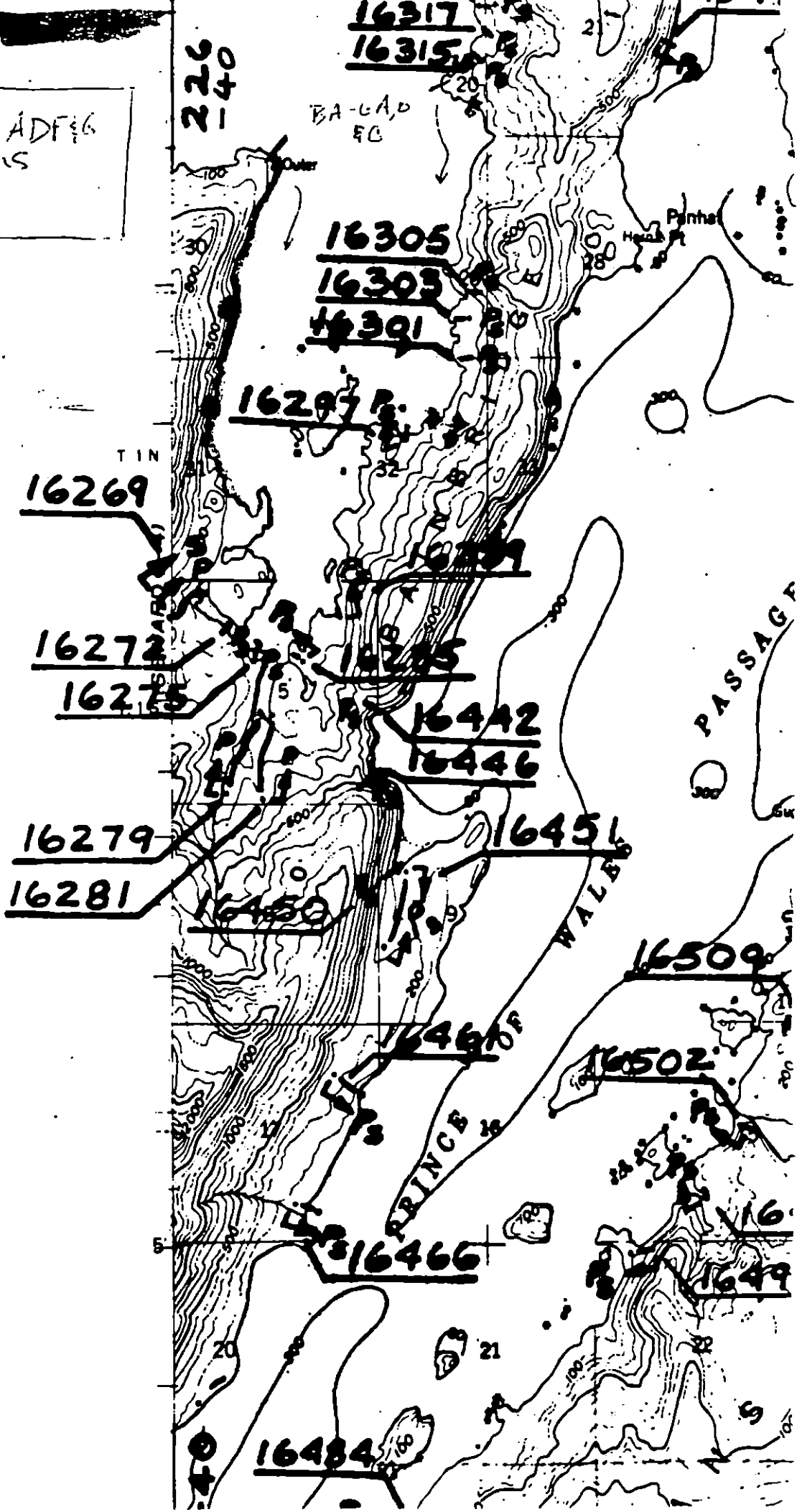
SEE MAP 1

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

REVISION: 000000

11 CATALOGUED ADF#6
SALMON STREAMS
5T (7)

Eagle
Nests



SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / BA-06 Subdivision C (3 OF 3) Date (mo / day / yr) 4/24/90Time (24 hr) 1900-2006 Biologist KATHLEEN CONLAN

A) Substrate type and % of segments:

(1) Bedrock 45 (2) Boulder 40 (3) Cobble 10 (4) Pebble 5 (5) Sand 0 (6) Silt 0(B) Overall % cover of biota (% of segment): Dense 80 Moderate 10 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. ST-11-4Frames 1-8

BARNACLES

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

NOT PRESENT

FUCUS

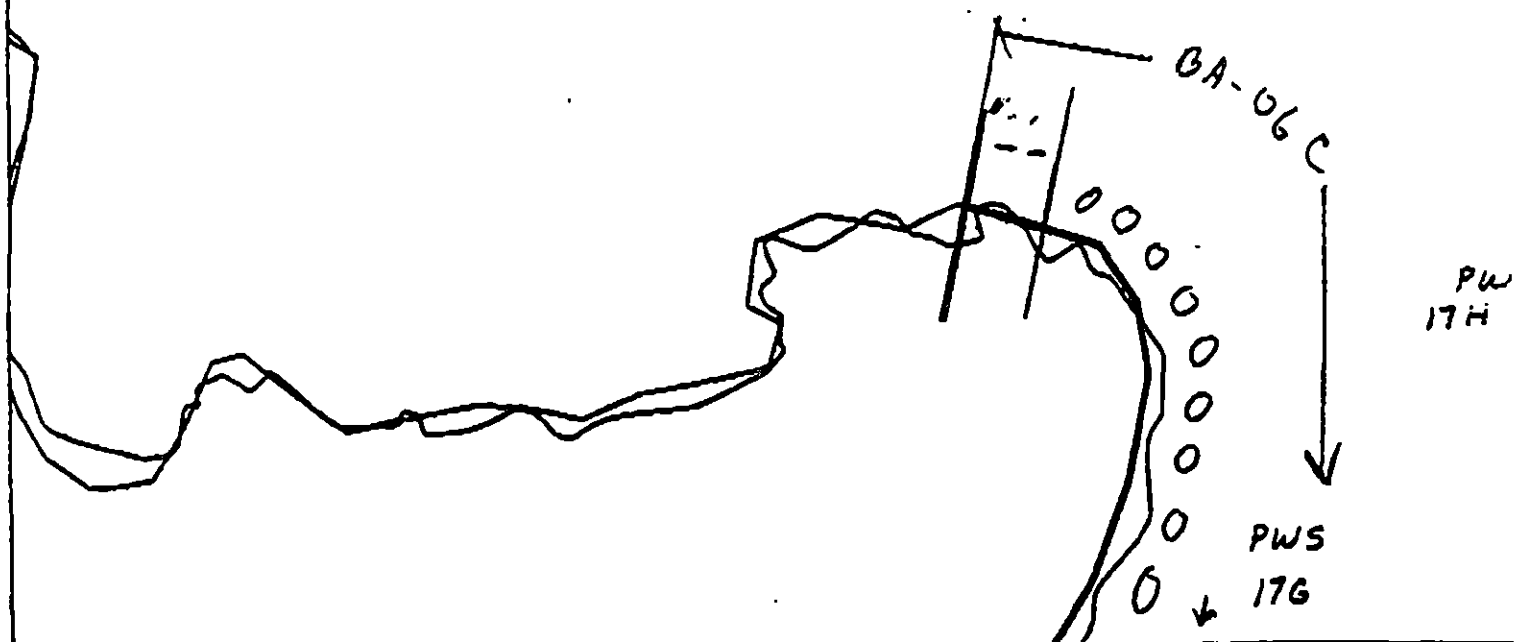
| Dense | | | Moderate | | | Sparse | | | Rare | | |
|-------|----|----|----------|----|----|--------|----|----|------|----|----|
| 1U | 1M | 1L | 1U | 1M | 1L | 1U | 1M | 1L | 1U | 1M | 1L |
| 2 | 2 | 2 | 2 | X | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 4 | 4 | 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 BALD EAGLE

Ecological Considerations:



XXXX Wide

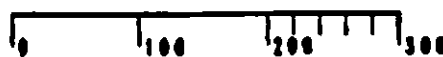
//// Medium

----- Narrow

TTTT Very Light

BA-6C

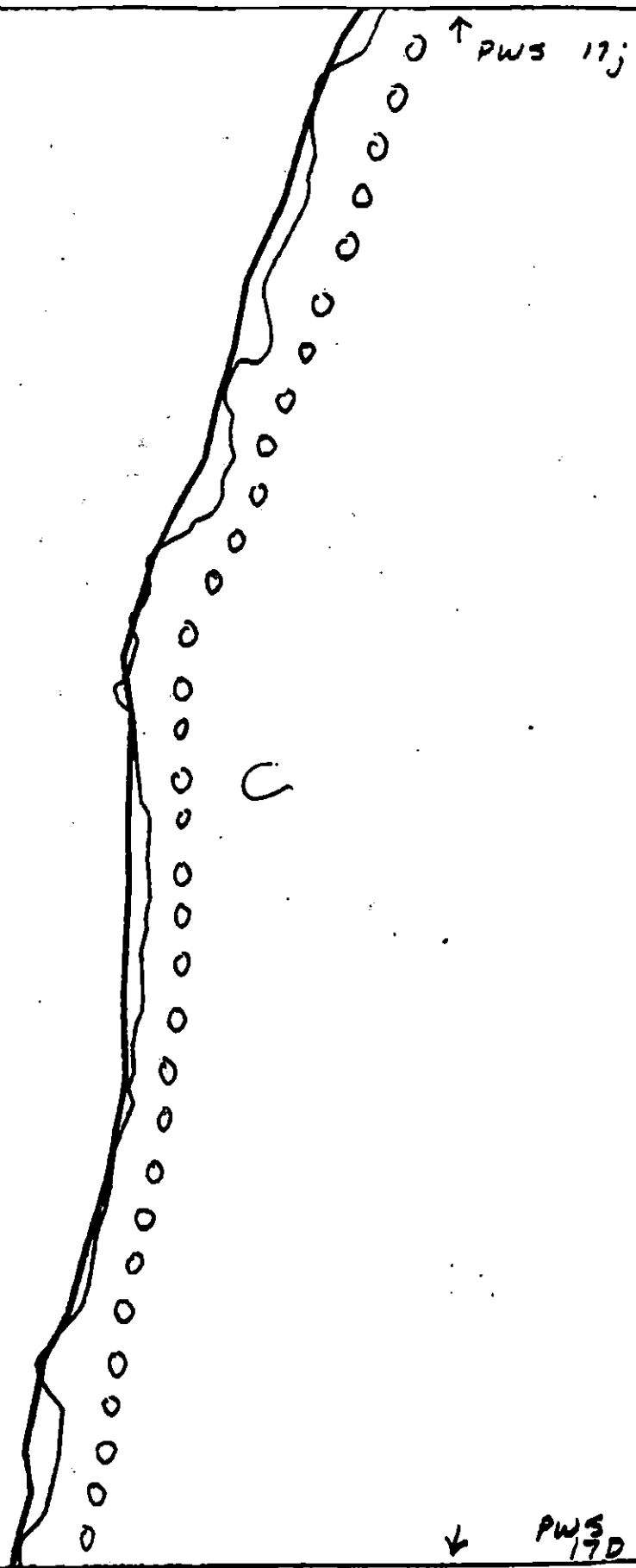
ADEC Segment Length: 16653m



Map Key: PWS-17i

Name: Mike Fogel

Date: 4/24/90

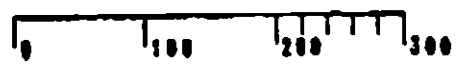


E

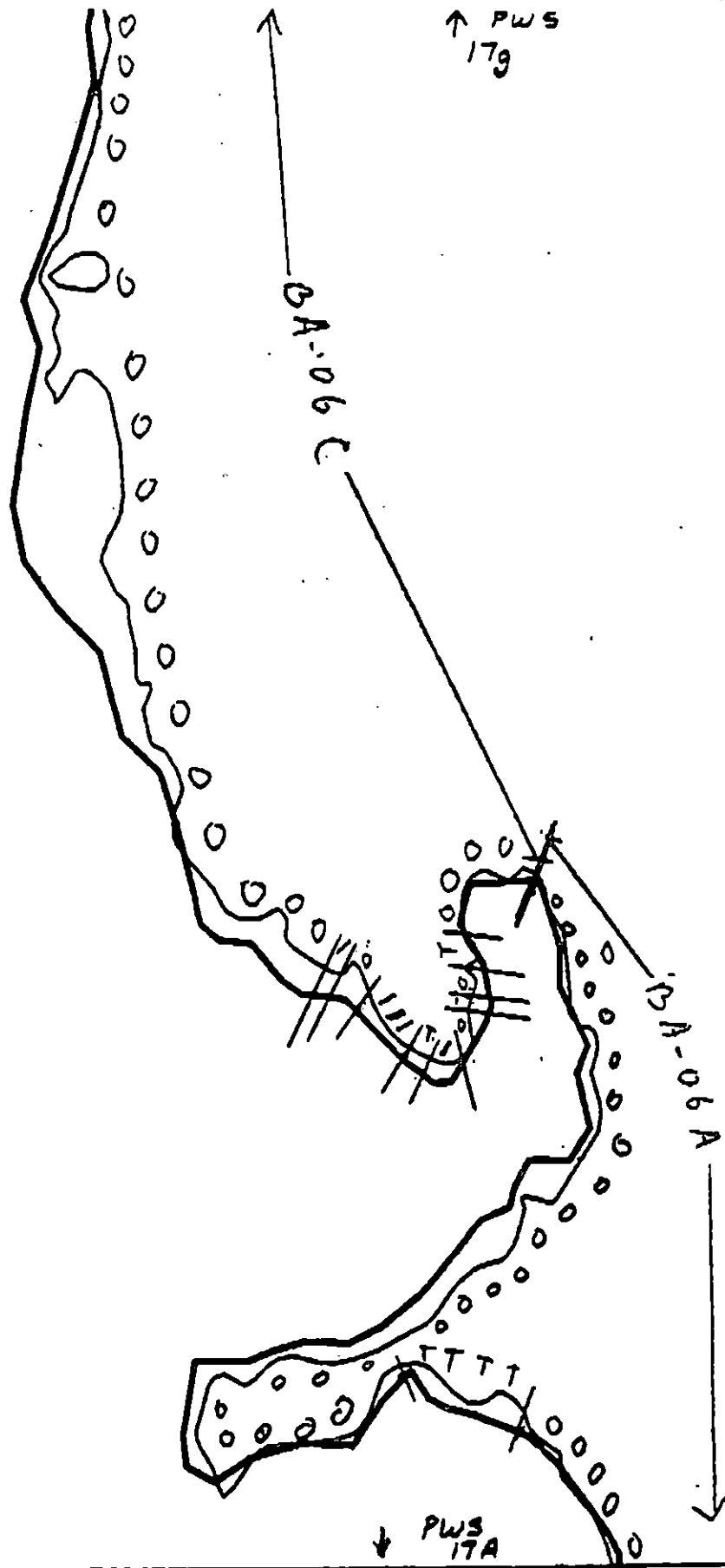
XXXX Wide
 /// Medium
 --- Narrow
 TTTT Very Light
 ^ ^ ^ ^ " ^ . .

BA-6C

ADEC Segment Length: 16653m



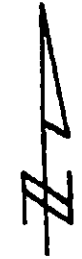
Map Key: PWS-17g
 Name: Mike Fogel
 Date: 4/24/90
 Data Entered:



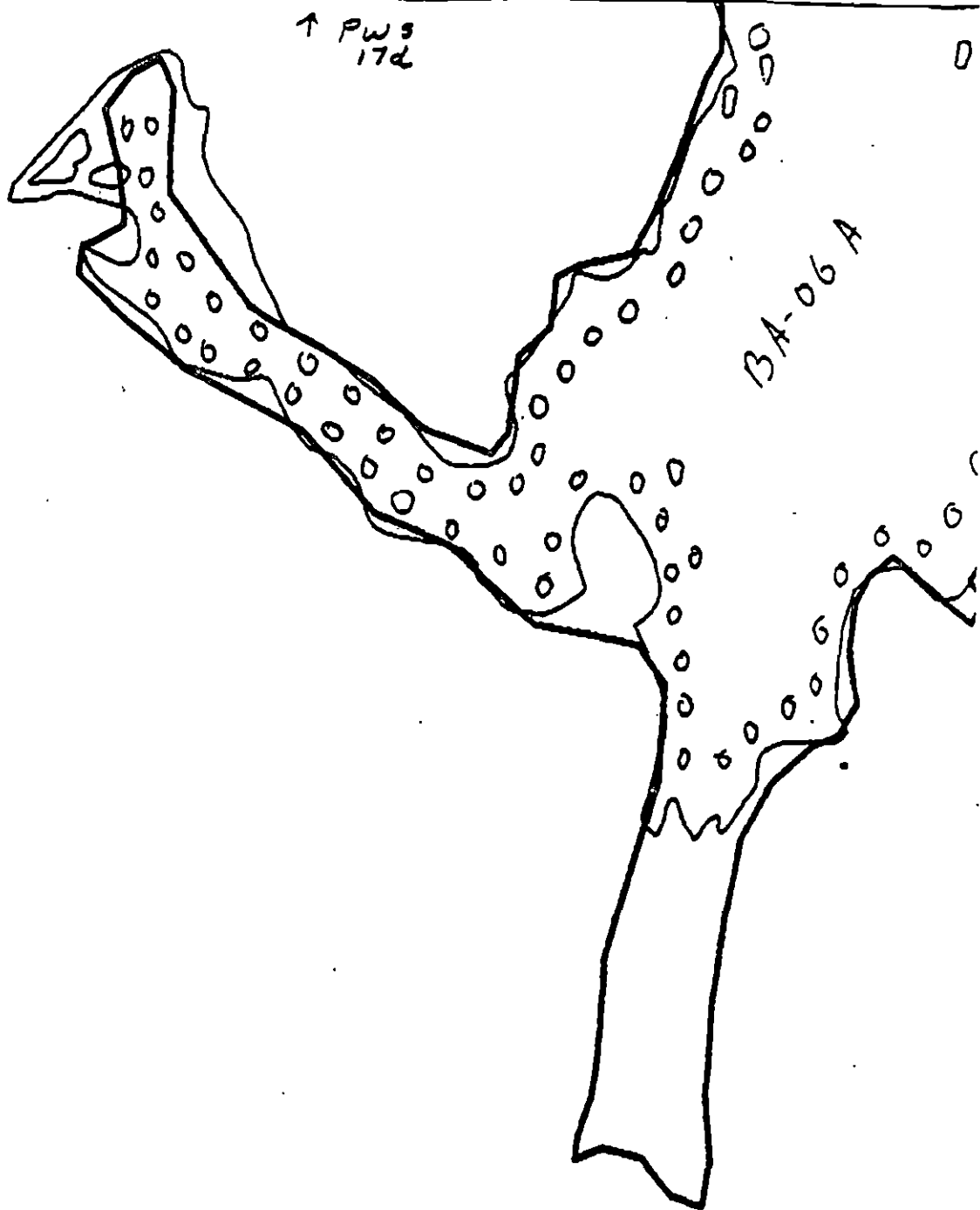
XXXX Wide
 /// Medium
 --- Narrow
 TTTT Very Light
 OOOO No Oil

BA-6

ADEC Segment Length: 16653m



Map Key: PWS-17d
 Name: Mike Foyen
 Date: 4/24/90
 Data Entered:

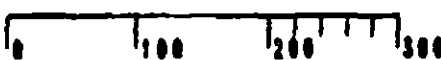


PWS
17b

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

BA-6A

ADEC Segment Length: 16653m



Map Key: PWS-17a

Name: Mike Foget

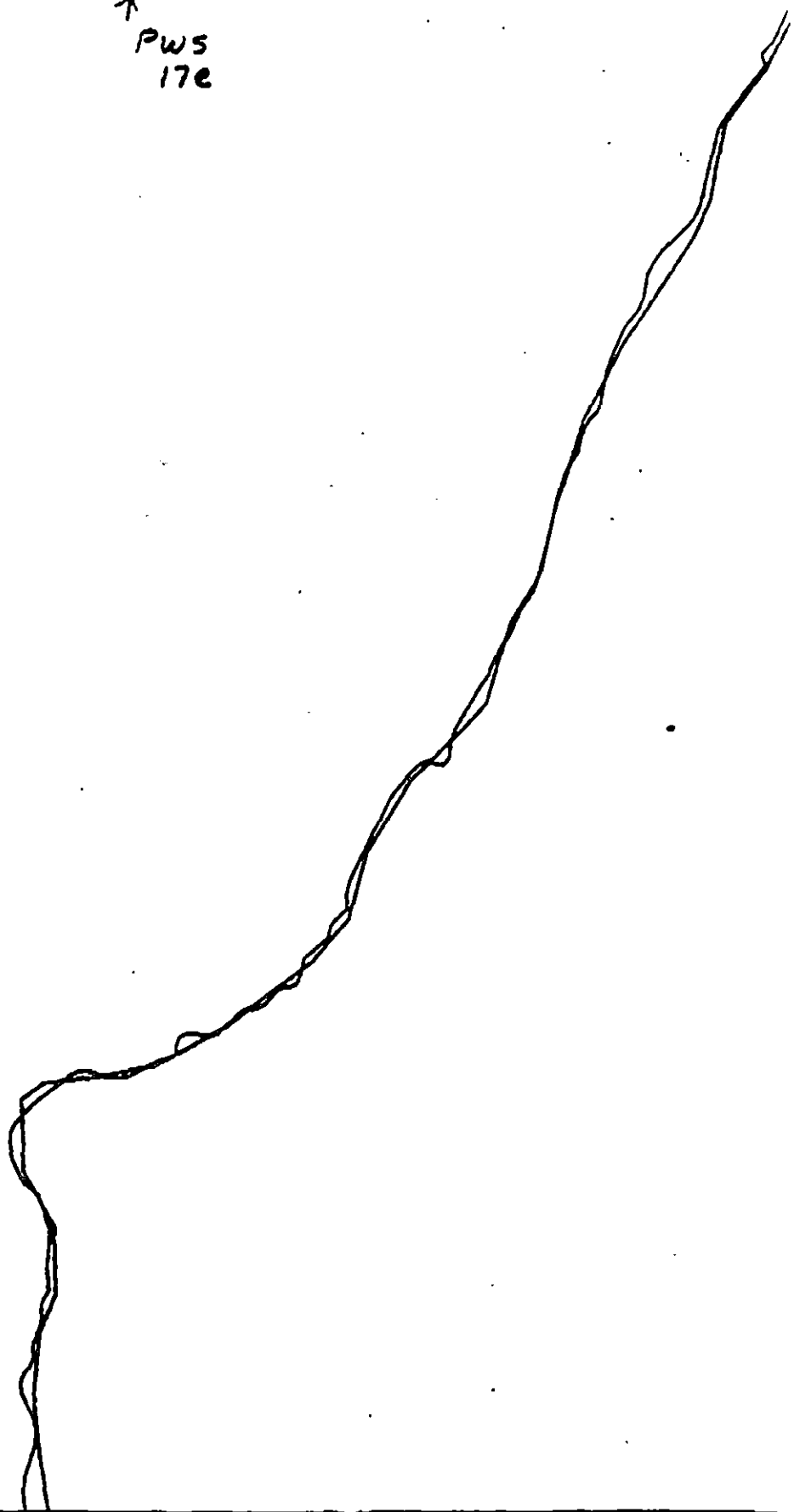
Date: 4/24/90

Data Entered:

↑ PWS
17c

← BA-06A →

← PWS
17a



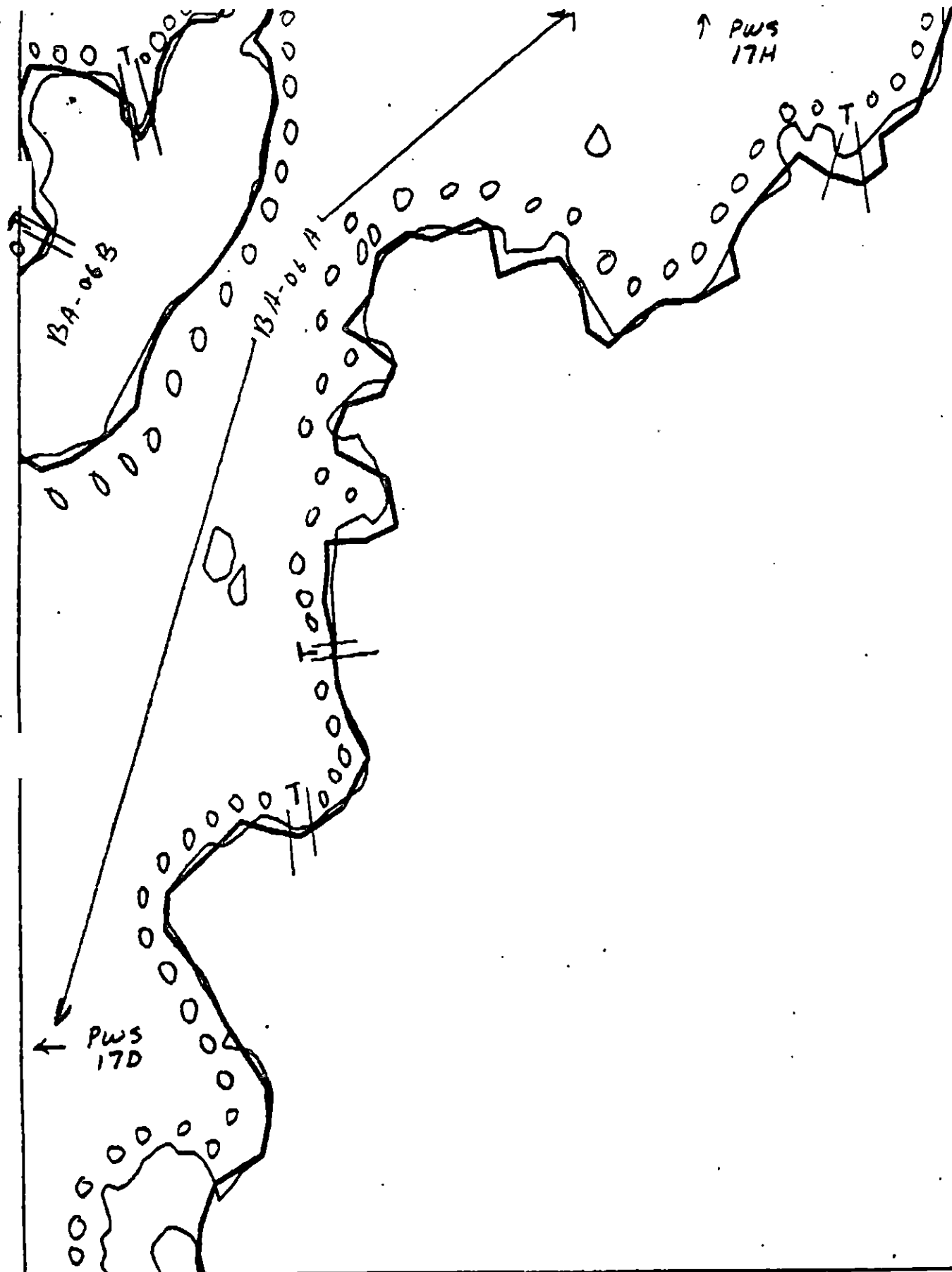
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
OOOO No. 0:1

BA-6A

ADEC Segment Length: 16853m



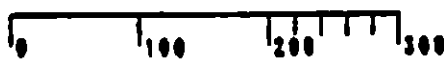
Map Key: PWS-17b
Name: Mike Foyen
Date: 4/24/00
Data Entered:



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

BA-6,

ADEC Segment Length: 16653m



Map Key: PWS-170

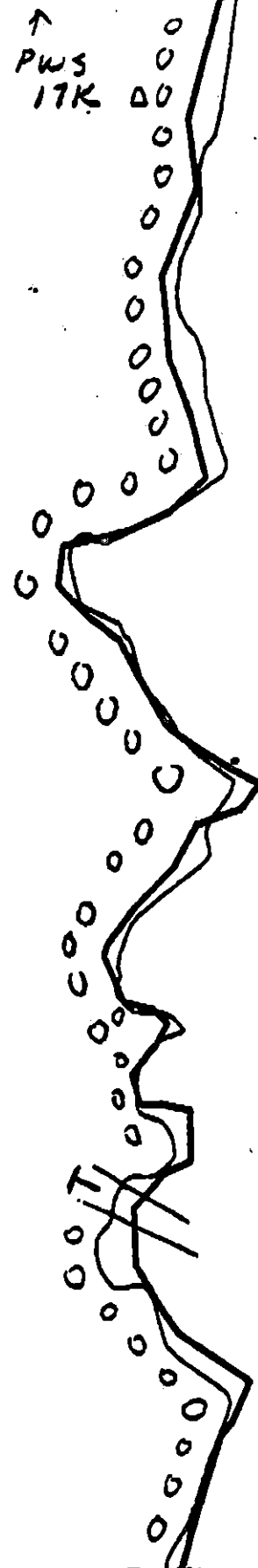
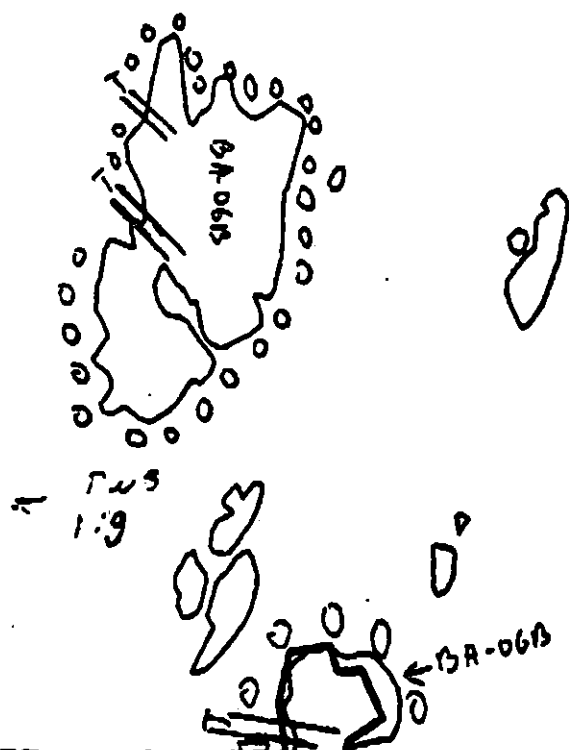
Name: Mike Foye

Date: 4/24/90

Date Entered:

A-06

BA-06A



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

BA-6A

ADEC Segment Length: 16853m

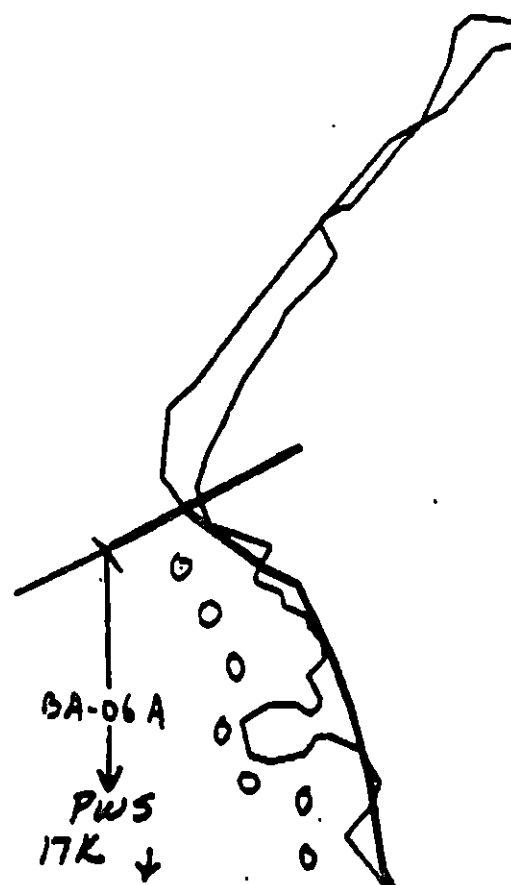
0 100 200 300

Map Key: PWS-17h

Name: Mike Fogel

Date: 4/24/90

Date Entered:



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

BA-6A

ADEC Segment Length: 10053m

Map Key: PWS-17a

Name: Mike Foyer

4/24/90

BA-06A

PWS
171 →

↓ PWS
17H

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000

BA-6A

ADEC Segment Length: 16653m

0 100 200 300

Map Key: PWS-17k

Name: Mike Fogar

Date: 4/24/90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT BA-6 SUBDIVISION C (3 of 3)

| WORK WINDOW | |
|---------------------------------|------|
| Manual Pickup
Tarmat Removal | OPEN |
| Bioremediation* | OPEN |

*Customblen Only - No Inlpol

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

| | | |
|------|-----------------|--|
| 1A,B | Salmon Stream | ADF&G catalogued anadromous streams (226-40-16269, 226-40-16272, 226-40-16275, 226-40-16281) are in Subdivision A and more than 100m from work site. No constraint to manual pickup, tarmat removal, and bioremediation. |
| 5T | Bald Eagle Nest | NO CONSTRAINT. USFWS 6/1/90 map indicates no active nest within 400m of Subdivision C work site. |

OTHER ECOLOGICAL CONSIDERATIONS

No disturbance to stream bed or banks. Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

FOSC

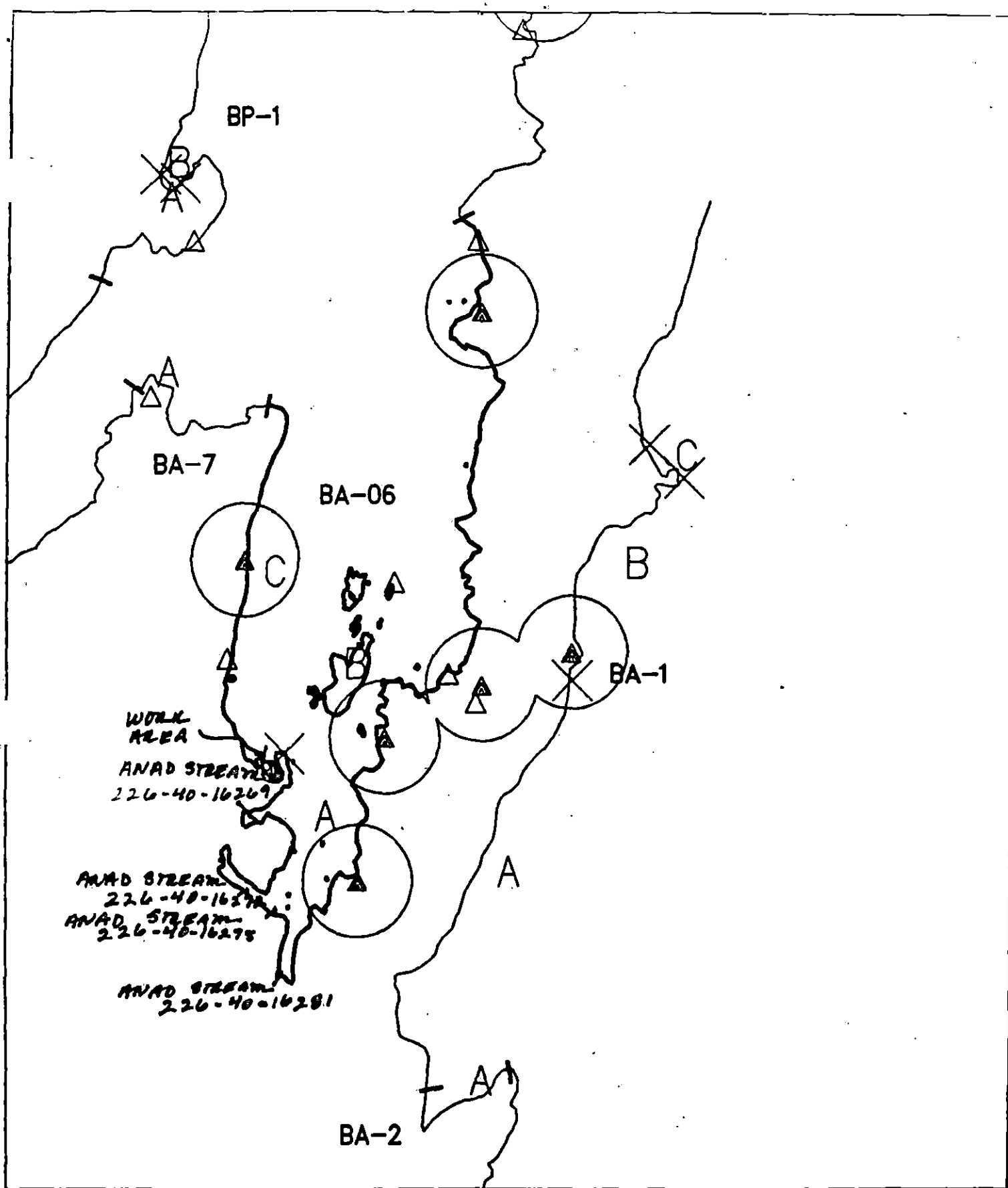
Date

7 Jul 90

Prepared by

Date

7/5/90



Exxon Company, USA
Map Key: PMS-BA-6
June 08, 1990



ECOLOGY MAP
SEGMENT BA-6
SUBDIVISION C (3 of 3)
METERS
0 949 1898

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

1 inch = 3114 feet

ASAP

SEGMENT AS/ BA-6 SUBDIVISION: C SITE: 1 DATE 8/4/90JSCGNAME MTE Michael D. Brown SIGNATURE Michael D. Brown

☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
 REASON:

ADECNAME John Hayer SIGNATURE John Hayer

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991
 REASON:

Work Plan Modification written for North Beach.
 The rest of the site has additional SOR + MD.

LAND MANAGERNAME DOUGLAS GIBSON SIGNATURE Douglas Gibson

☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
 REASON:

~~PROVIDED~~ ^{reg} CONDITIONAL PROVIDED ASAP WORK ORDER
 REQUEST FOR 1990 IS ~~reg~~ ^{reg} COMPLETED.

EXXONNAME Martinez M.D. SIGNATURE Martinez M.D.

☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
 REASON:

Minimum S.O.R. Nature should take care
 of what little is left.

FIELD SHORELINE COMMENT SHEET

SEGMENT AS BA-6 SUBDIVISION: C SITE: 2 DATE 8/4/90JSCGNAME MTC Michael D. Brown SIGNATURE Michael D. Brown☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:ADECNAME John Hoyer SIGNATURE John Hoyer☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

MS SOR in UITZ, screen was observed in
tide pools. Most of the SOR was in areas where
manual work was done at May form AP.

LAND MANAGERNAME DOUGLAS GIBSON SIGNATURE Douglas Gibson☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:EXXONNAME Martinez N.J. SIGNATURE Nicholas G. Martinez☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

No significant oiling in area

TEAM NO ONE EXXON MARTINEZ SEGMENT AS 12-4-6
 OG Reimer USCG BROWN SUBDIVISION C
 ADEC HAYES LAND REP GIBSON TOTAL NO. SITES 2
 DATE 8/14/90 TIME 6:00 to 6:50 TIDE LEVEL 6 to 5
 TOTAL EST LENGTH OF SHORELINE SURVEYED: 300 m
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WEATHER: ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 OIL CATEGORY LENGTH: W 0 m M 25 m N 90 m VL 130 m NO 55 m US 296 m

SURFACE OIL

SITE 1

| CHARACTER | DISTRIBUTION | | | | OILED ZONES | | | |
|------------------|--------------|----|----|----|-------------|----|----|----|
| | /C | /B | /P | /S | SU | UI | MI | LI |
| ASPHALT | | | | | | | | |
| S.O.R. | | X | ✓ | X | | X | ✓ | |
| POOLED | | | | | | | | |
| COVER | | | | | | | | |
| COAT | | | X | ✓ | | X | ✓ | |
| STAIN | | | | | | | | |
| MOUSSE | | | | I | | I | | |
| PATTIES/T.B. | | | | X | | X | X | |
| FILM sheen | | X | | | | X | X | X |
| NO OIL | | | | | X | | | |
| EST. SITE LENGTH | | | | | <u>200</u> | | | |

SITE 2

| CHARACTER | DISTRIBUTION | | | | OILED ZONES | | | |
|------------------|--------------|----|----|----|-------------|----|----|----|
| | /C | /B | /P | /S | SU | UI | MI | LI |
| ASPHALT | | | | | | | | |
| S.O.R. | M | | I | I | M | I | I | |
| POOLED | | | | | | | | |
| COVER | | | | | | | | |
| COAT | | | ✓ | X | | X | X | |
| STAIN | | | | | | | | |
| MOUSSE | | | | I | | I | | |
| PATTIES/T.B. | | | | | | | | |
| FILM sheen | | | | | | | | |
| NO OIL | | | | | | | | X |
| EST. SITE LENGTH | | | | | <u>100</u> | | | |

SITE 3

| CHARACTER | DISTRIBUTION | | | | OILED ZONES | | | |
|------------------|--------------|----|----|----|-------------|----|----|----|
| | /C | /B | /P | /S | SU | UI | MI | LI |
| ASPHALT | | | | | | | | |
| S.O.R. | | | | | | | | |
| POOLED | | | | | | | | |
| COVER | | | | | | | | |
| COAT | | | | | | | | |
| STAIN | | | | | | | | |
| MOUSSE | | | | | | | | |
| PATTIES/T.B. | | | | | | | | |
| FILM sheen | | | | | | | | |
| NO OIL | | | | | | | | |
| EST. SITE LENGTH | | | | | | | | |

SUBSURFACE OIL

| SITE NO. | PIT NO. | PIT DEPTH (cm) | SUBSURFACE OIL CHARACTER | | | | OILED INTERVAL (CM-CE) | CLEAN BELOW (Y/N) | PIT ZONE | | | | SURFACE-SUBSURFACE SEDIMENTS |
|----------|---------|----------------|--------------------------|----|----|----|------------------------|-------------------|----------|----|----|----|------------------------------|
| | | | OP | OR | OF | NO | | | SU | UI | MI | LI | |
| 1 | 1 | 10 | | | | X | . | Y | X | | | | P-PC |
| | | | | | | | . | | | | | | |
| | | | | | | | . | | | | | | |
| | | | | | | | . | | | | | | |
| | | | | | | | . | | | | | | |
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| | | | | | | | . | | | | | | |
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Photographs:

Roll No. 40-01-02

Frames 15, 16, 17

REVIEWED
 8/7/90 YU

COMMENTS

OC 12 12

SEGMENT ST/ BA-6

SUBDIVISION C - SITE #1

DATE 8, 4 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)
PH Location(s)
Photo Location(s)

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

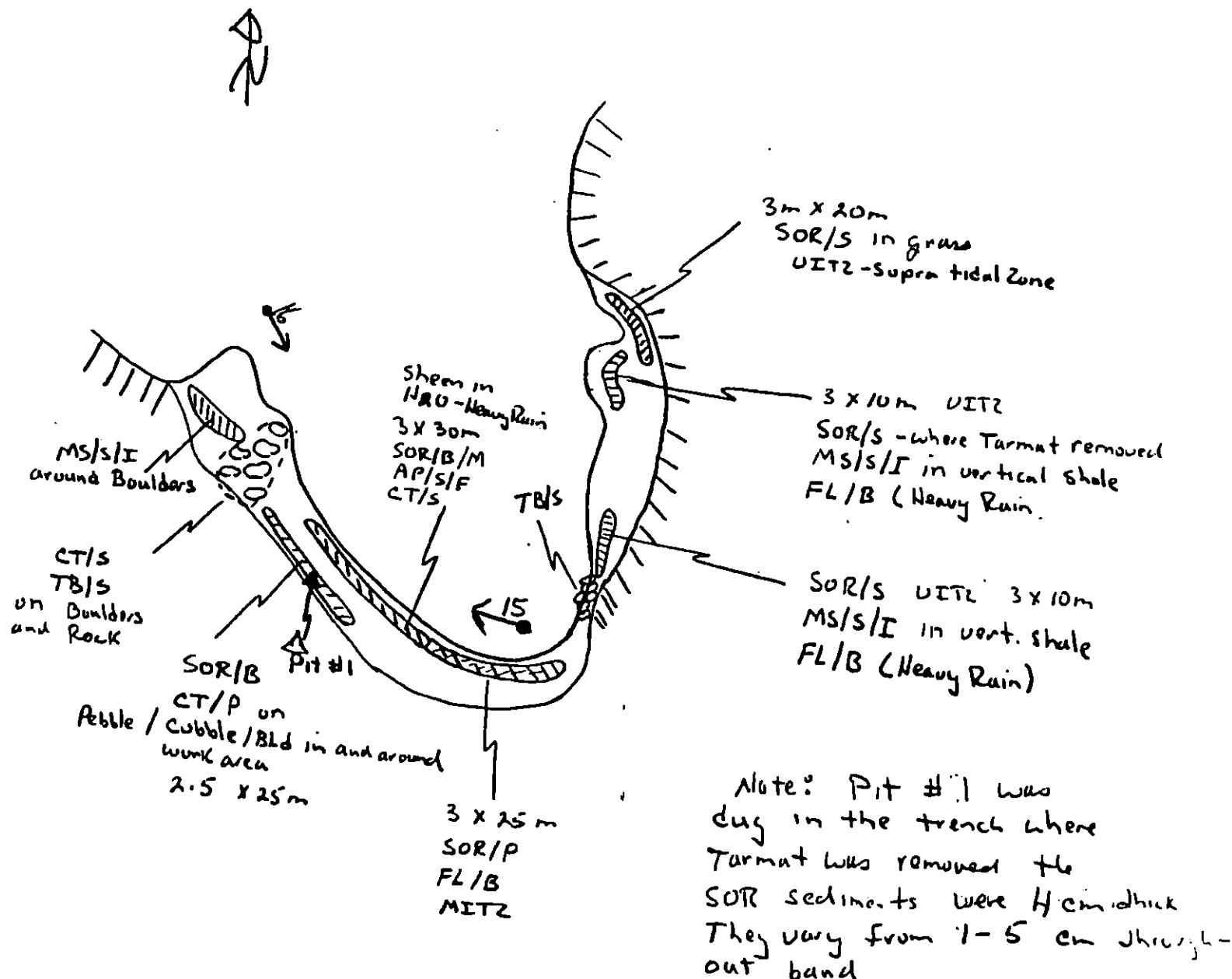
Oil Vegetation

1 ●→

Photo location, direction, and number

SKETCH MAP

SITE #1



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

REVISION: 03/24/90

KEIMOR
 SEGMENT ST/ BA-6
 DIVISION C
 DATE 8/4 90

SKETCH MAP

ANOTATED SSAT SKETCH

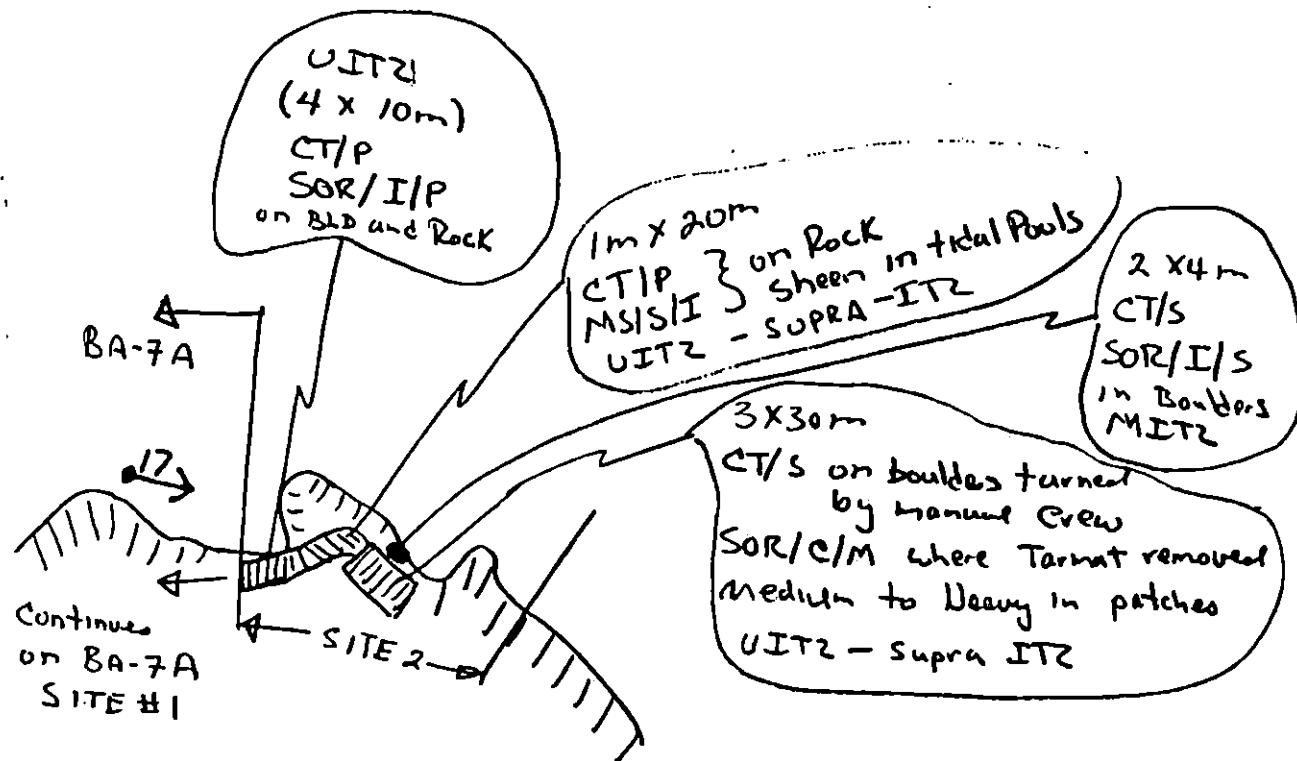
SITE # 2

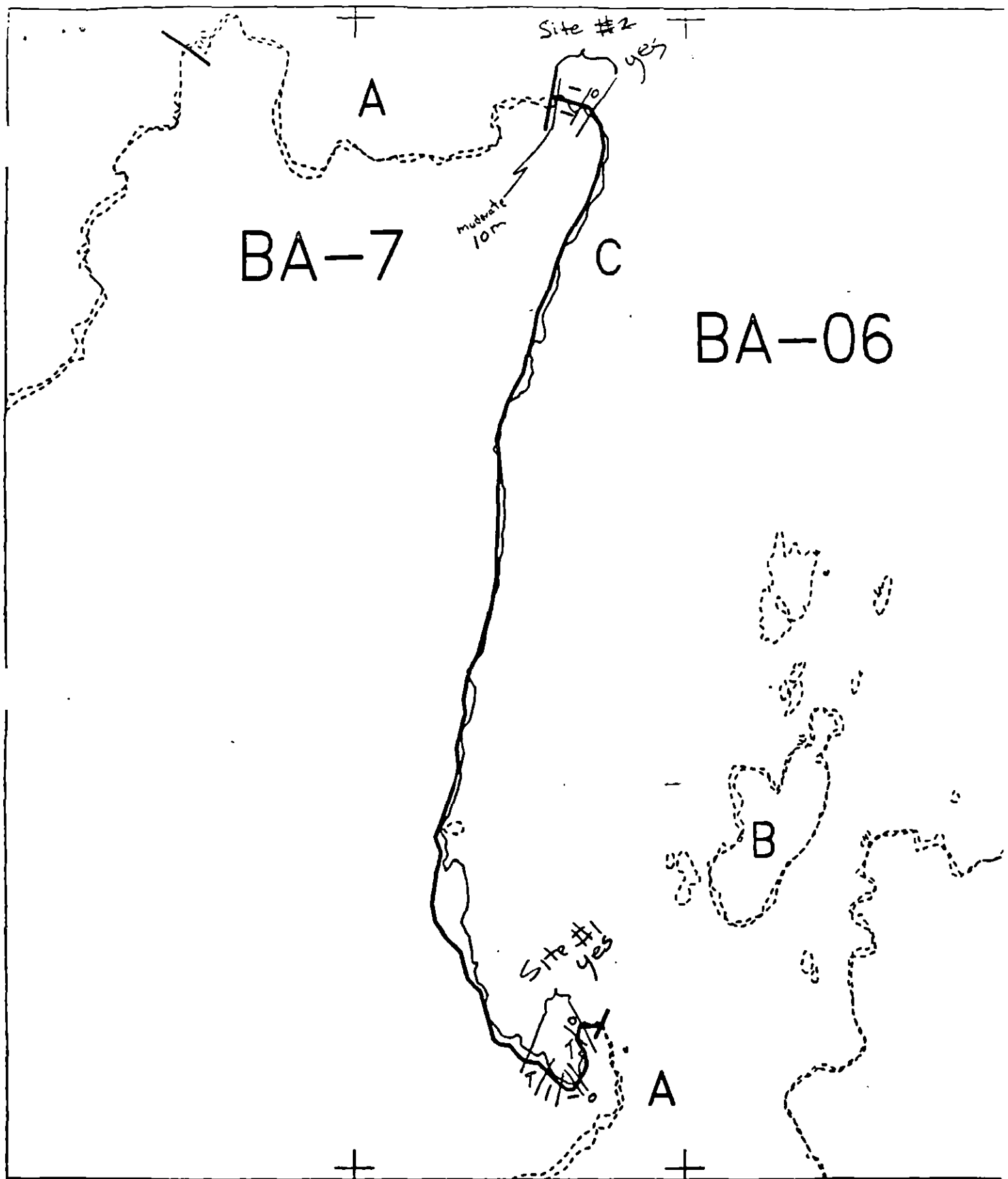
CHECKLIST

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

LEGEND

1 ▲
 P/I - No Subsurface Oil
 2 ▲
 P/I - Subsurface Oil
 CT/C
 Continuous Distribution
 CT/B
 Broken Distribution
 CT/P
 Patchy Distribution
 CT/S
 Splashed Distribution
 lll
 Oiled Vegetation
 1 ●→
 Photo location, direction,
 and number





XXXX
 ////

 TTTT
 0000

Wide
 Medium
 Narrow
 Very Light
 No Oil

BA-6 C

ADEC Subsegment Length: 3261m

METERS

0 348 696

AK State Plane Zone 4
 pba-6c

1:13706



Subdivision Field Map

Map Key: PWSBA-6C

Name: Reimer

Date: 8/4/90

Data Entered:

ASAP FOLLOWUP RECOMMENDATIONS

Segment: AS/BA Subd.: 06/C Site: E 1 Date: 8-4 1990

Conditions Observed: 1. ^{3x30m} SOR/B/m AP/S/F screening at
waterline. Surface oiling was OR/M+H 0.5cm.

2. 3x25m SOR/P FL/B MITZ

3. 2.5x25m SOR/P

Followup Recommendations: ① Manual Tilling
② Removal of OR/H
③ Reapply custom blen

Completed by Pickup Crew: ☐ YES ☐ NOPriority for Addressing in 1990: ☐ High ☐ Mod. ☐ Low

ADEC

(name)

(signature)

Comments: Surface oiling was predominantly SOR/m with
patches of OR/H. Worksite is on N shore of Site 1.

Exxon

(name)

(signature)

Comments: No visible oil, light SOR, high energy shore
no need for further work (was recoverable)
Nature should break down remaining SOR.

USCG

(name)

(signature)

Comments: NO CLEAN-UP. NO Re-survey for Spring 91

Land Rep.

(name)

(signature)

Comments: RECOMMEND BA-006/C/SITE 1 BE GIVEN PRIORITY
SITE STATUS FOR REASSESSMENT IN 1991 IF THIS ASAP
WORK REQUEST FOR 1990 IS NOT COMPLETED.

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)

Eagle nest in adjacent segment $\leq$ 400M (at boundary with BA-08)

6Y Recreation: Special use destination

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. Hoffman DATE: 5/5/90

OILING CATEGORIZATION:

Wide 0 m: Medium 105 m: Narrow 124 m: V.Light 315 m: No Oil 1116 m

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

 No Treatment Recommended

X Treatment Recommended

X Manual Pickup

 Bioremediation

X Tarmat Removal

 Snare/Absorbent Booms

 Oil Snares (pom poms)

 Absorbents (pads, rolls, etc)

 Spot Washing: Wands

 Beach Cleaner

 Other (see comments)

COMMENTS: Recommended treatment includes manual removal of tarmats in
three areas indicated on sketch map. Work should be conducted after
6/1 with approval of USFWS regarding eagle nest constraint.

TAG COMMENTS:

TAG APPROVAL DATE: May 9 1990

ADEC ART WEINER

EXXON Mark N. Silbert FOSC: W. L.

NOAA Gary Petrac

USCG G.A. REITER

DATE: 5-9-90

Salmon stream mouth - fry outmigration (3/1 to 5/15)

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

on 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

Esther Hatchery release (4/15 to 6/15)

Main Bay Hatchery release (4/20 to 5/15)

Sawmill Bay Hatchery release (4/15 to 6/1)

Cannery Creek Hatchery release (4/21 to 6/1)

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: ADF&G Larry Peltz 424-3214

PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511

Gill net area (5/7 to 8/31)

Purse seine area (7/20 to 9/30)

Purse seine hook-off (7/20 to 9/30)

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

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

for seal and sea lion pupping (5/15 to 7/1)

for 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: USFWS National Marine Fisheries Service Steve Zimmerman 585-7235

ADF&G Don Calkins 267-2403

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

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

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

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

Recreation:

Tent sites (5/1 to 9/15)

Anchorage (5/1 to 9/15)

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

Lodge (5/1 to 9/15)

Special use disturbance

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

Finfish harvesting

Deer harvesting (5/15 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

SEGMENT ST/ GA-07 SUBDIVISION: A (101) DATE 4/24/90

NOAA

NAME Michael B. L. ... SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

~~Asphalt putty is found in~~
~~in the center of the segment~~
~~and is found in the~~
~~center of the segment~~

SEE following Amended Comment Sheet

ADEC

NAME John Hayer SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

(pocket beaches)
 ① Manual removal of Asphalt putty in N.E. section
 of segment. Shovels + mop up w/ sorbents.

② Manual removal of putties in M.I.T.Z. three
 areas in center (see sketch map) of segment. Shovels + golden rakes.
 MITZ Putties are hard and solid from cool inerted water and
 should be removed at low tide. No S.S. oiling observed

LAND MANAGER

NAME Don Crumshaw (DNE) SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Nearly every pocket beach had CT/p in 1M band at
 M.I.T.Z. zone on vertical faces. Likewise, these same
 beaches had putties & asphalt in pebbles & gravels
 2cm - 4cm thick & in pockets & cracks of boulders.
 Recommend manual removal from all above areas. No
 bio.

SEGMENT ST/ BA 07 SUBDIVISION: A. (1061) DATE 4-29-90

NOAA

IME Michael Buchman SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Asphalt patches observed in every pocket bench. Frequency & thickness diminished from EAST to WEST. Thick + many patches observed in rock fissures of headlands too (especially on EAST END). Patches were observed in the middle of the Fucus zone in the center of the segment.

ADEC

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY

REVISION NO. 04-13-93

OG Mike Foget NOAA Michael Buchman SEGMENT ST/ BA-22
 BIO Kathleen Collins LAND REP (DNR) Ben Greenhaw SUBDIVISION A (1 OF 1)
 EXXON Larry Olson ADEC John Hayes TIME 20:00 to 2:30
 TEAM NO. 11 TIDE LEVEL +0.9 DATE 4/24/98
 T. SUBDIVISION LENGTH: 1602 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 LANDS DESCRIPTION: ☐ Grass ☐ Forest ☒ Rock Vertical Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 60 % B 20 % C 15 % P 5 % G 0 % S 0 % W 0 % V 0 %
 SLOPE: Long 10 % Hang 40 % Vert 50 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 106 m N 65 m VL 300 m NO 1212 m

SURFACE OIL

| CHARACTER | DISTRIBUTION | | | | OIL / FILM COLOR | | | | IMPACTED ZONES | | | |
|------------------|--------------|---|---|---|------------------|---|---|---|----------------|---|---|---|
| | N | E | S | W | 1 | 2 | 3 | 4 | BU | U | M | U |
| ASPHALT PAVEMENT | | | X | | X | | | | X | X | X | |
| POOLED | | | | | | | | | | | | |
| COVER | | | | | | | | | | | | |
| COAT | | | X | X | X | | | | X | X | | |
| STAIN | | | X | X | X | | | | | X | | |
| MOUSSE | | | | | | | | | | | | |
| PATTIES | | | X | | X | | | | X | X | | |
| TARBALLS | | | | | | | | | | | | |
| FILM | | | | | | | | | | | | |
| OIL | | | | | | | | | | | | X |

PAVEMENT H (F) S 10 sq. m by 5 cm(PATTIES) TARBALLS 100 BAGS

NEAR SHORE SHEEN? (NC) BFR RW SL TL

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

Photographs:

Roll No. ST-11-4Frames 9-12

SUBSURFACE OIL

| PIT NO. | PIT DEPTH (cm) | SUBSURFACE OIL CHARACTER | | | | | OILED INTERVAL | BELOW | | OIL / FILM COLOR | | | | PIT ZONE | | | | AN A | DEPTH (cm) | ! ▼ | SURFACE - SUBSURFACE SEDIMENTS |
|---------|----------------|--------------------------|----|----|----|----|----------------|-------|----|------------------|---|---|---|----------|---|---|---|------|------------|-----|--------------------------------|
| | | OP | OR | OL | OF | NO | | UO | UO | 1 | 2 | 3 | 4 | BU | U | M | U | | | | |
| 1 | 30 | | | | | X | . | X | | | | | | X | | | | | N | 1- | P, C |
| 2 | 40 | | | | | X | . | X | | | | | | X | | | | | N | 1- | P |
| 3 | 25 | | | | | X | . | X | | | | | | | X | | | | N | 1- | P, G |
| 4 | 20 | | | | | X | . | X | | | | | | | X | | | | N | 1+5 | G, C, P |
| 5 | 20 | | | | | X | . | X | | | | | | | X | | | | N | 1- | P, C |
| 6 | 20 | | | | | X | . | X | | | | | | | X | | | | N | 4+5 | P, C |

COMMENTS

Shore zone consisted mostly of steep rocky headlands w/ small pocket boulder cobble beaches. Most of the oiling occurred in the eastern end of the segment in all of the pocket boulder beaches. type of oiling that mostly occurred was asphalt pavement / patties coming from the MITZ → supra ITZ. (see map)

REVIEWED 7u DATE 4/24/98

JG M. Foget
 SEGMENT ST/ DA-07
 SUBDIVISION A
 DATE 4/24/80

CHECKLIST

N Arrow
 Approx. Scale
 Seg/Sub Bndry
 Oil Dist.
 Width
 Length
 % Cover
 Substrate Character
 Est. HWR/LWR
 SSL
 Profile Location(s)
 Profile(s)
 PI 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

Oil Vegetation

1 ●
 Photo location, direction, and number

Scale

100m

Legend

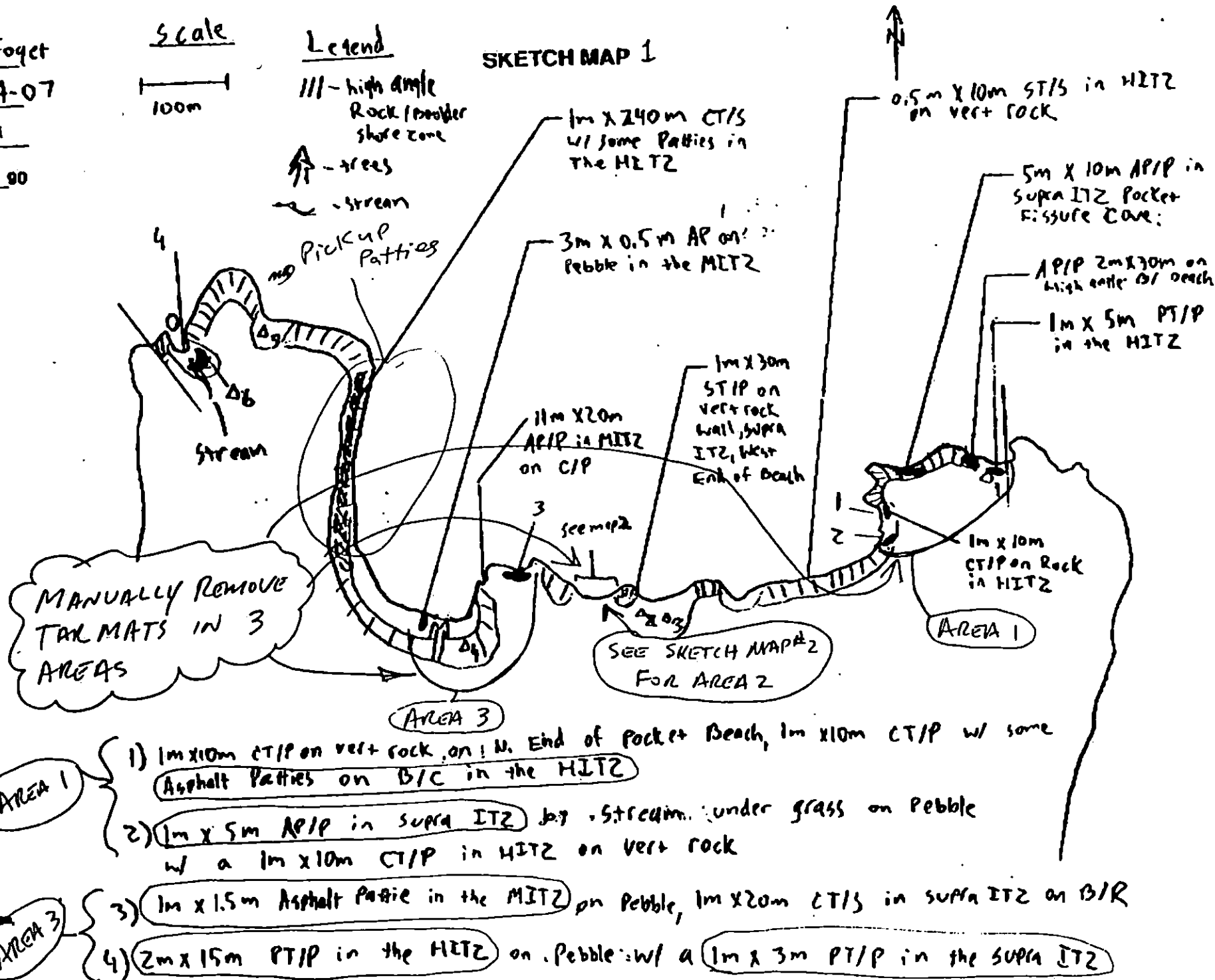
/// - high angle
 Rock / Boulder
 shore zone

▲ - trees

~ - stream

no Pickup
 Patties

SKETCH MAP 1



Oil Character Length (m): AP 8.7 PO 0 CV 0 CT 300 ST 40 MS 0 PT 23 TB 0 FL 0 NO 1262

REVISIONS

00 RE HQ CT

SEGMENT ST/ DA-07

SUBDIVISION A

DATE 4/25 80

SKETCH MAP 2

CHECKLIST

- ☐ H Area
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HWLA/WL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pli Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ
Pli - No Subsurface Oil

2 Δ
Pli - Subsurface Oil

CT/C
Continuous Distribution

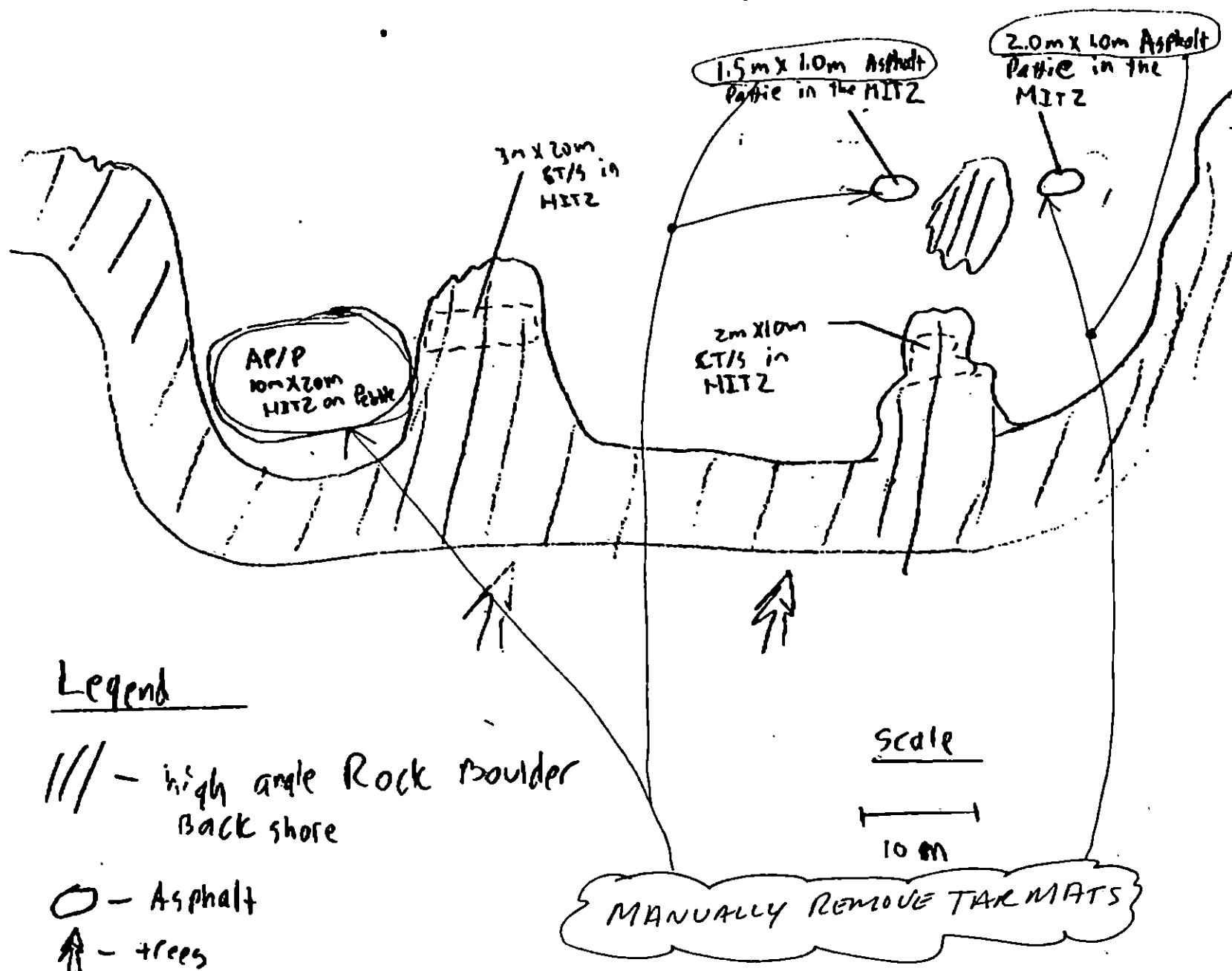
CT/B
Broken Distribution

CT/P
Patchy Distribution

CT/S
Splashed Distribution

Oil-d Vegetation

1 ●
Photo location, direction,
and number



See map 1

Oil on Beach length (m): AP PO CV CT ST MS PT TB FL NO

REVISION 002400

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03

Segment ST/ BA-07 Subdivision A (1 OF 1) Date (mo/day/yr) 04/24/90Time (24 hr) 2006 - 2145 Biologist KATHLEEN CONLANA) Substrate type and % of segments:
(1) Bedrock 60 (2) Boulder 20 (3) Cobble 15 (4) Pebble 5 (5) Sand 0 (6) Silt 0(B) Overall % cover of biota (% of segment): Dense 20 Moderate 60 Low 20

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

Photographs:

Roll No. ST-11-4Frames 9-12

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 | X | X | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| 4 | 4 | 4 | 4 | 4 | 4 | X | X | 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:

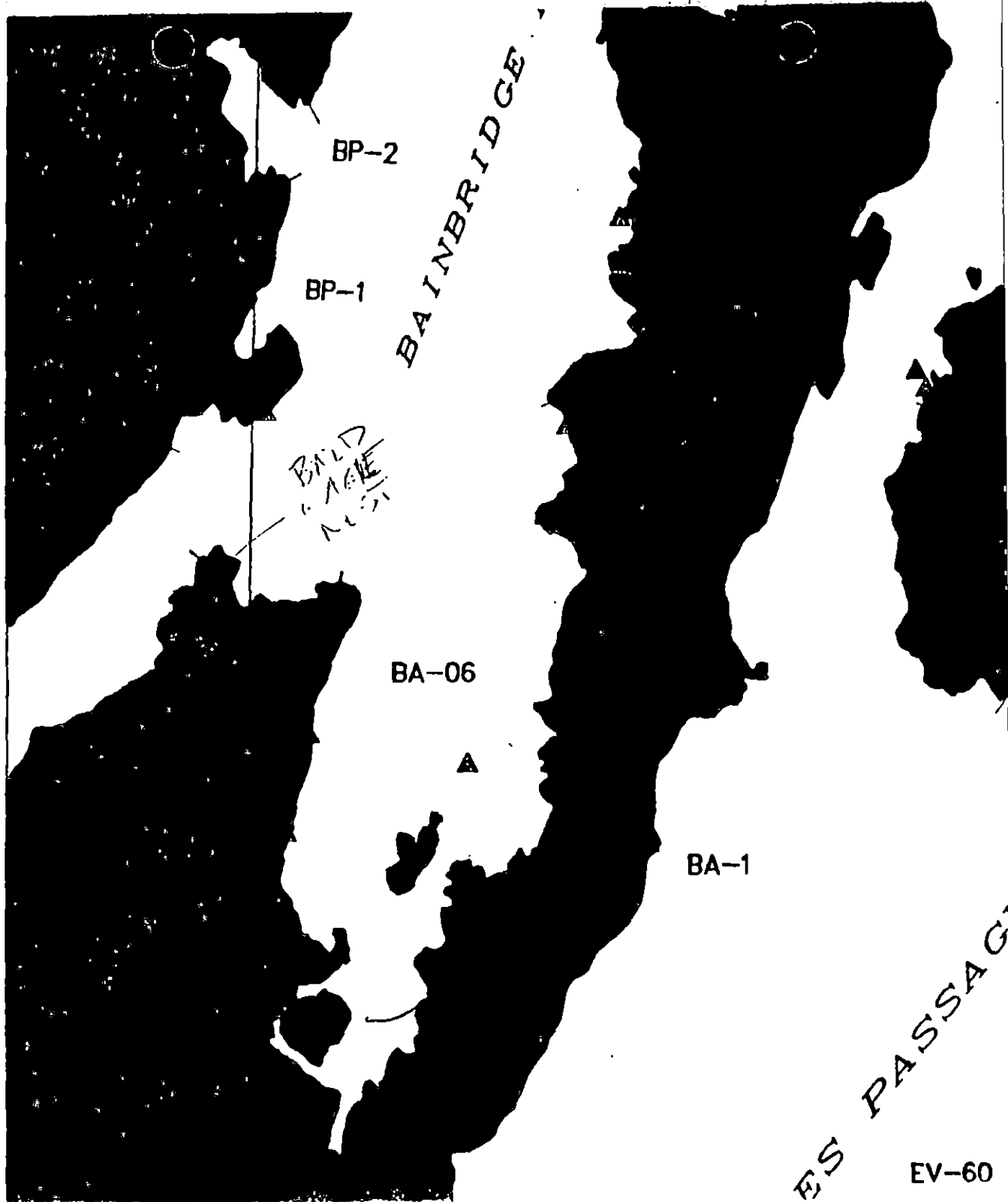
2 MERMAIDERS

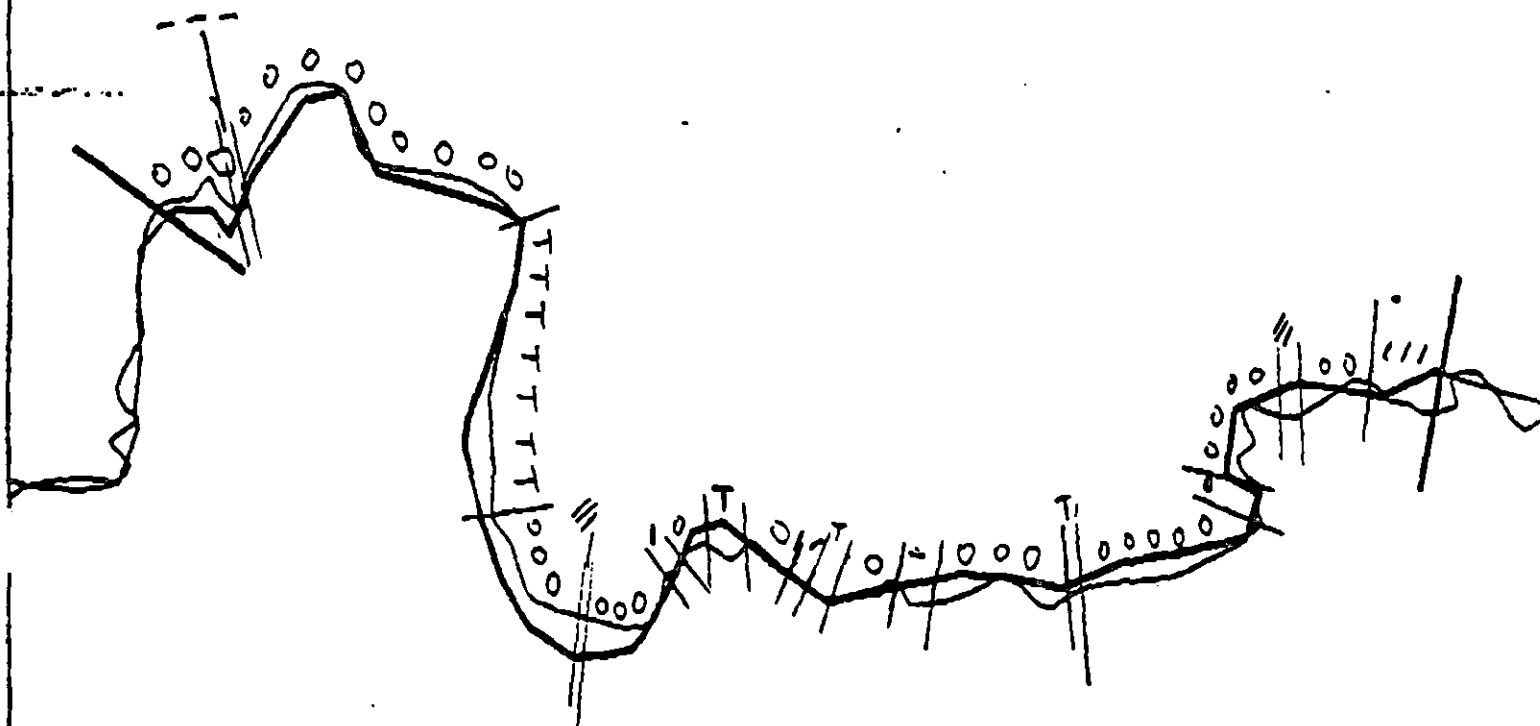
2 RAVENS

Ecological Considerations:

● ECOLOGICAL
MAP

ST(1)





BA-7A

XXXX Wide

/// Medium

--- Narrow

TTTT Very light

BA-7A

ADEC Segment Length: 1651m



Map Key: PWS-18

Name: Mike Fogel

Date: 4/24/90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT BA-7 SUBDIVISION A (1 of 1)

| WORK WINDOW | |
|---------------------------------|------|
| Manual Pickup
Tarmat Removal | OPEN |

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

| | | |
|----|----------------------|---|
| 1K | Purse Seine Hook-off | No constraint to manual pickup and tarmat removal. |
| 5T | Bald Eagle Nest | NO CONSTRAINT. USFWS bald eagle impact assessments conducted on 5/12/90 and 5/19/90 by Mike Lockhart indicate no active nests within 400m of the work area. |

OTHER ECOLOGICAL CONSIDERATIONS

Restrict boat and air traffic to essential minimum after 7/20. Avoid any unnecessary disturbance or damage to unrolled blots and substrate.

FOSC

DATE

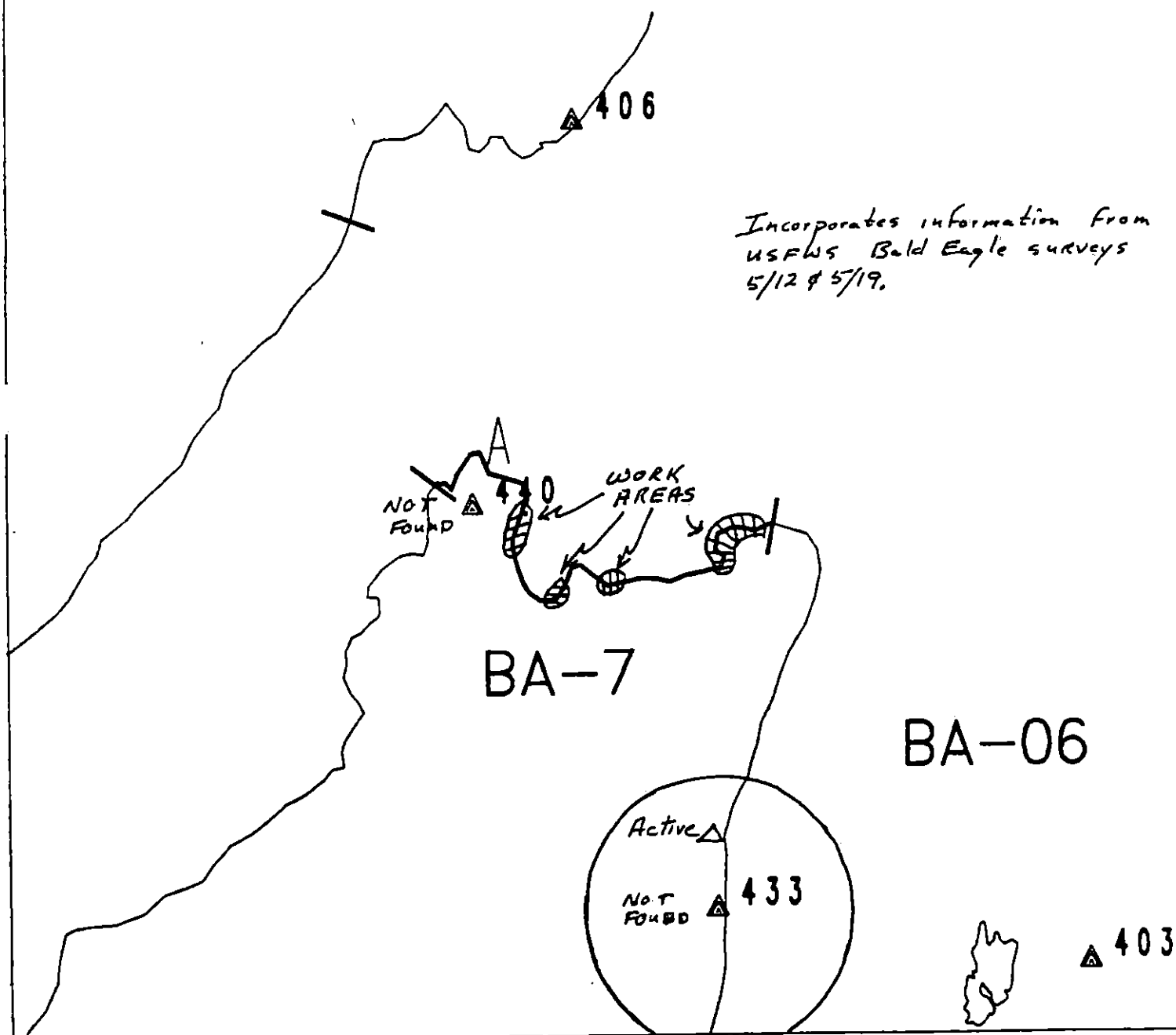
6-10-90

Prepared By:

Andrea Meyer

Date

5/31/90



Exxon Company, USA
Map Key: PWS-BA-7



ECOLOGY MAP 5/30
SEGMENT BA-7
SUBDIVISION A (1 of 1)
METERS

- ★ Seabird Colony
- ▲ Eagle Nest

SEGMENT AS / BA-7 SUBDIVISION: A SITE: 1 DATE 8/4/90SCGNAME MTC Michael D. Brown SIGNATURE Michael D. Brown☐ YES☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

ADECNAME John Hayer SIGNATURE John Hayer☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Work Plan Modification written for on pocket beach
on this site. The rest of site has JOR, MS and
should be reassessed to determine effectiveness of
b.b. + weathering.

LAND MANAGERNAME DOUGLAS GIBSON SIGNATURE Douglas Gibson☐ YES☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

EXXONNAME Martinez Al. SIGNATURE Richard G. Martinez☐ YES☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

FIELD SHORELINE COMMENT SHEET

SEGMENT AS / BA-7 SUBDIVISION: A SITE: 2 DATE 8/4/90

USCG

NAME MSTC Michael O. Brown SIGNATURE Michael O. Brown

☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

ADEC

NAME John Hayes SIGNATURE John Hayes

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

Site two has two areas in MITZ with SOR/H that were screening at waterline. In addition there is MS + TB's in the UITZ. Surface silt is 2-4 cm of OR/H. Crew manually removed most of the MS puffer observed in the MITZ next to the bedrock although there is still AP + SCR.

LAND MANAGER

NAME DOUGLAS GIBSON SIGNATURE Douglas Gibson

☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

EXXON

NAME Martinez, N. SIGNATURE N. Martinez

☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

FIELD SHORELINE COMMENT SHEET

SEGMENT AS/ BA-7 SUBDIVISION: A SITE: 3 DATE 8/4/90

JSCG

NAME Mr. Michael D. Brown SIGNATURE Michael D. Brown

☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

ADEC

NAME John Hayer SIGNATURE John Hayer

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

SOR and MS observed on site also seen was
observed at waterline MITZ.

LAND MANAGER

NAME DOUGLAS GIBSON SIGNATURE Douglas Gibson

☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

EXXON

NAME Martinez N.W. SIGNATURE Nicholas G. Martinez

☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

FIELD SHORELINE COMMENT SHEET

SEGMENT AS BA-7 SUBDIVISION: A SITE: 4 DATE 8/4/90

ISCG

NAME MTE Michael D. Brown SIGNATURE Michael D. Brown

REASON: ☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991

ADEC

NAME John Hayer SIGNATURE John Hayer

REASON: ☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991

Site No treatment necessary at this time.
is lightly oiled with weathered s/patter.

LAND MANAGER

NAME DOUGLAS GIBSON SIGNATURE Douglas Gibson

REASON: ☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991

EXXON

NAME Martinez M.D. SIGNATURE Martinez M.D.

REASON: ☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991

ASAP SHORELINE OILING SUMMARY

PAGE 1 OF 1

TEAM NO ONE EXXON MARTINEZ SEGMENT AS B 2 7
 OG: Reimer USCG BROWN SUBDIVISION A
 ADEC HAYES LAND REP GIBSON TOTAL NO. SITES 4
 DATE 8/14/90 TIME 16:50 to 19:00 TIDE LEVEL 5 to 4
 TOTAL EST LENGTH OF SHORELINE SURVEYED: 850 m
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WEATHER: ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 OIL CATEGORY LENGTH: W 0 m M 45 m N 58 m VL 260 m NO 487 m US 801 m

SURFACE OIL

SITE 1

| CHARACTER | DISTRIBUTION | | | | OILED ZONES | | | |
|------------------|--------------|----|----|----|-------------|----|----|----|
| | /C | /B | /P | /S | SU | UI | MI | LI |
| ASPHALT | | | | | | | | |
| S.O.R. | | X | I | | | X | | |
| POOLED | | | | | | | | |
| COVER | | | | | | | | |
| COAT | | X | X | X | | X | | |
| STAIN | | | | | | | | |
| MOUSSE | | | I | I | | I | | |
| PATTIES/T.B. | | | | | | | | |
| FILM | | | | | | | | |
| NO OIL | | | | | X | | X | X |
| EST. SITE LENGTH | | | | | 260 | | | |

SITE 2

| CHARACTER | DISTRIBUTION | | | | OILED ZONES | | | |
|------------------|--------------|----|----|----|-------------|----|----|----|
| | /C | /B | /P | /S | SU | UI | MI | LI |
| ASPHALT | | | | | | | | |
| S.O.R. | | H | H | X | I | X | X | H |
| POOLED | | | | | | | | |
| COVER | | | | | | | | |
| COAT | | | ✓ | X | | ✓ | X | X |
| STAIN | | | | | | | | |
| MOUSSE | | | | I | | I | I | |
| PATTIES/T.B. | | | | X | | | X | |
| FILM | | | | | | | | |
| NO OIL | | | | | X | | | |
| EST. SITE LENGTH | | | | | 130 | | | |

SITE 3

| CHARACTER | DISTRIBUTION | | | | OILED ZONES | | | |
|------------------|--------------|----|----|----|-------------|----|----|----|
| | /C | /B | /P | /S | SU | UI | MI | LI |
| ASPHALT | | | F | | | | F | |
| S.O.R. | | X | | I | | I | X | |
| POOLED | | | | | | | | |
| COVER | | | | | | | | |
| COAT | | | X | X | | X | | |
| STAIN | | | | | | | | |
| MOUSSE | | | | I | | I | | |
| PATTIES/T.B. | | | | X | | | X | |
| FILM | | | | | | | | |
| NO OIL | | | | | X | | | X |
| EST. SITE LENGTH | | | | | 220 | | | |

SUBSURFACE OIL

| SITE NO. | PIT NO. | PIT DEPTH (cm) | SUBSURFACE OIL CHARACTER | | | | OILED INTERVAL (cm) | CLEAN BELOW (Y/N) | PIT ZONE | | | | SURFACE-SUBSURFACE SEDIMENTS |
|----------|---------|----------------|--------------------------|----|----|----|---------------------|-------------------|----------|----|----|----|------------------------------|
| | | | OP | OR | OF | NO | | | SU | UI | MI | LI | |
| 2 | 1 | 15 | | | | X | . | Y | | | X | | P-GP |
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Photographs:

Roll No. 11-01-02

Frames 18, 19, 20

REVIEWED
8/7/90 YW

COMMENTS Predominately Rocky shoreline with narrow crevices and small pocket beaches. residue is still found trapped in crevices and in pockets in sheltered areas behind near shore rocky areas. The beaches have patchy areas of SOR and friable Tarmato. Site 4 is a long Boulder beach with sporadic coat and patties in between boulders.

001 Keimer

SEGMENT ST/ BA-7

SUBDIVISION A - Site 2

DATE 8/4/90

CHECKLIST

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

LEGEND

1 Δ
Pit - No Subsurface Oil

2 Δ
Pit - Subsurface Oil

$\boxed{\text{CT/C}}$
Continuous Distribution

$\boxed{\text{CT/B}}$
Broken Distribution

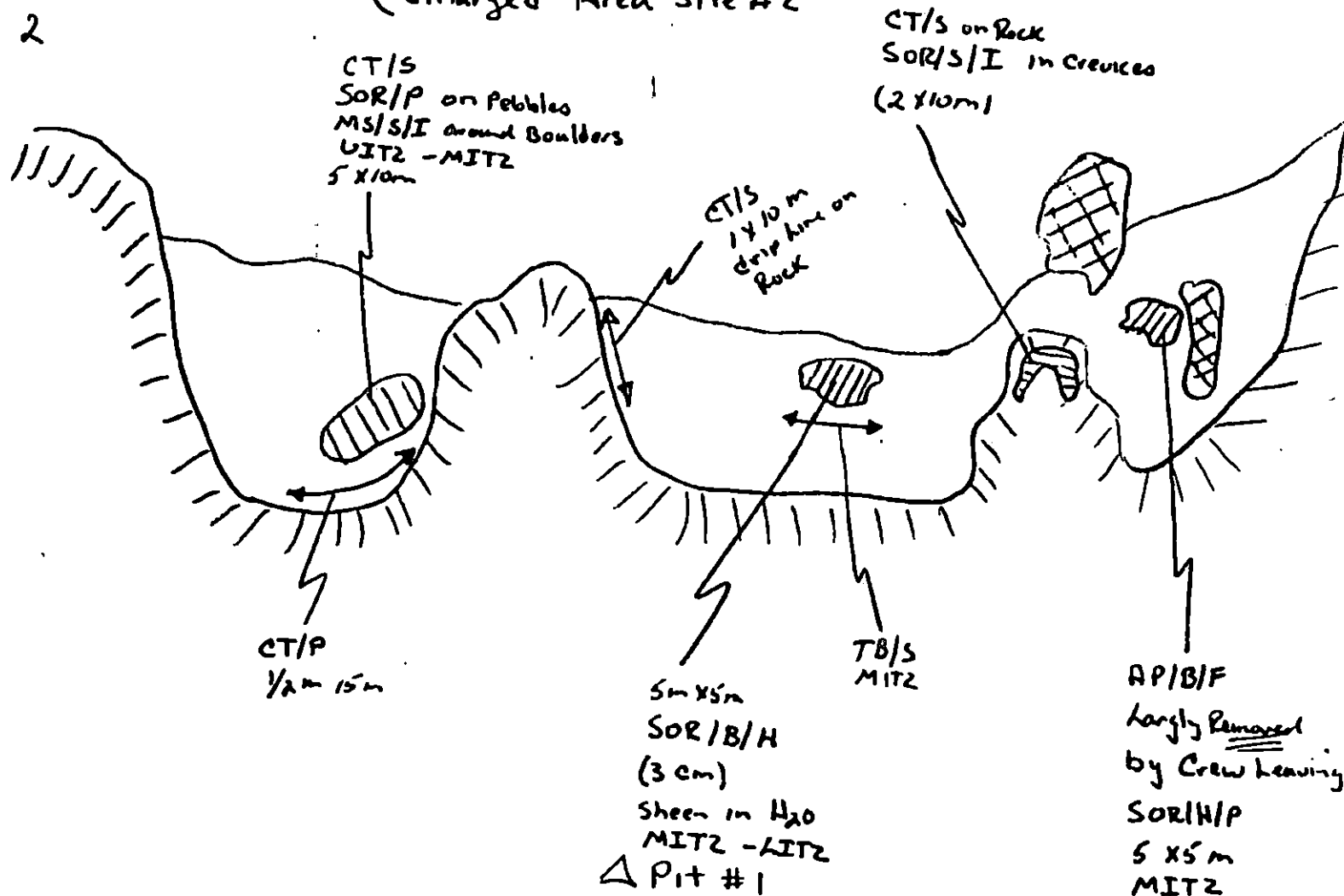
$\boxed{\text{CT/P}}$
Patchy Distribution

$\boxed{\text{CT/S}}$
Splashed Distribution

lll
Oiled Vegetation

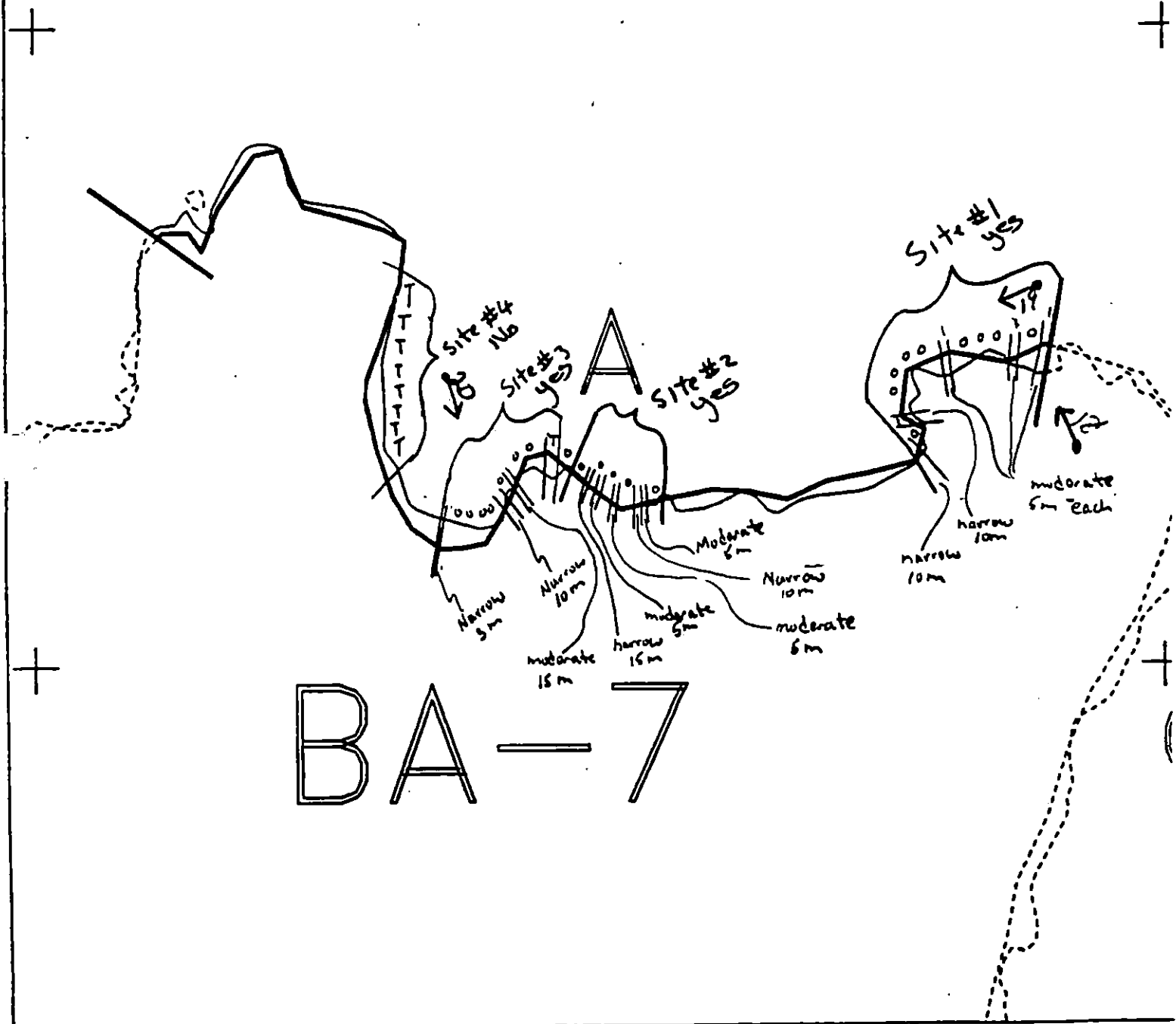
1 $\rightarrow$
Photo location, direction,
and number

SKETCH MAP (Enlarged Area Site #2)



Oil Character Len. 1): AP _____ PO _____ CV _____ CT _____ ST _____ MS _____ I _____ TB _____ FL _____ NO _____

REVISION: 2/24/90



BA-7

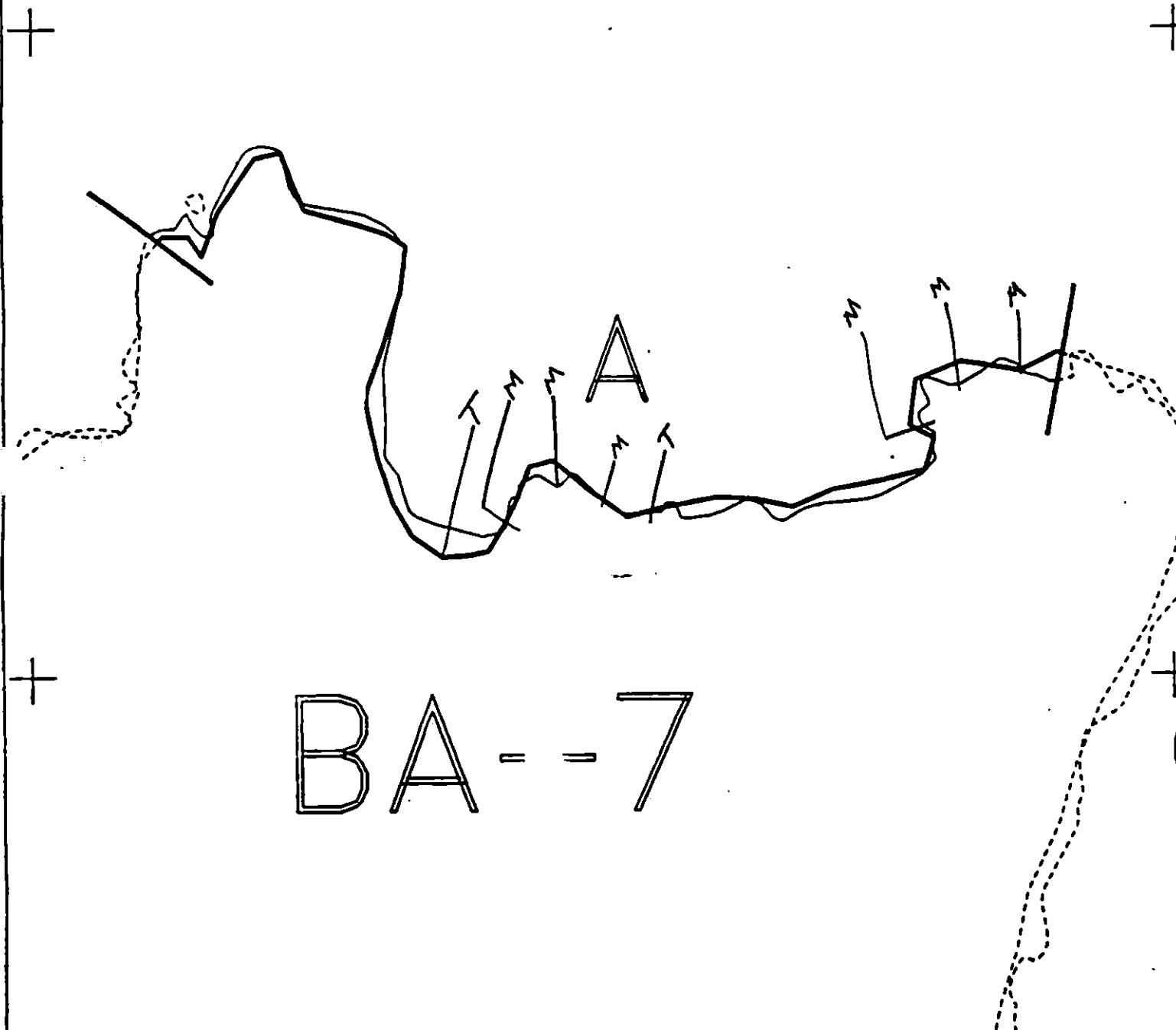
XXX Wide
 , , , Medium
 --- Narrow
 TTTT Very Light
 0000 No Oil

BA-7 A
 ADEC Subsegment Length: 1851m
 METERS

0 100 320
 AK State Plane Zone 4 1:6418
 818-79



Subdivision Field Map
 Map Key: PWSBA-7A
 Name: Reimer
 Date: 8/4/90
 Date Entered:



BA--7

XXXX
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TTTT
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Wide
Medium
Narrow
Very Light
No Oil

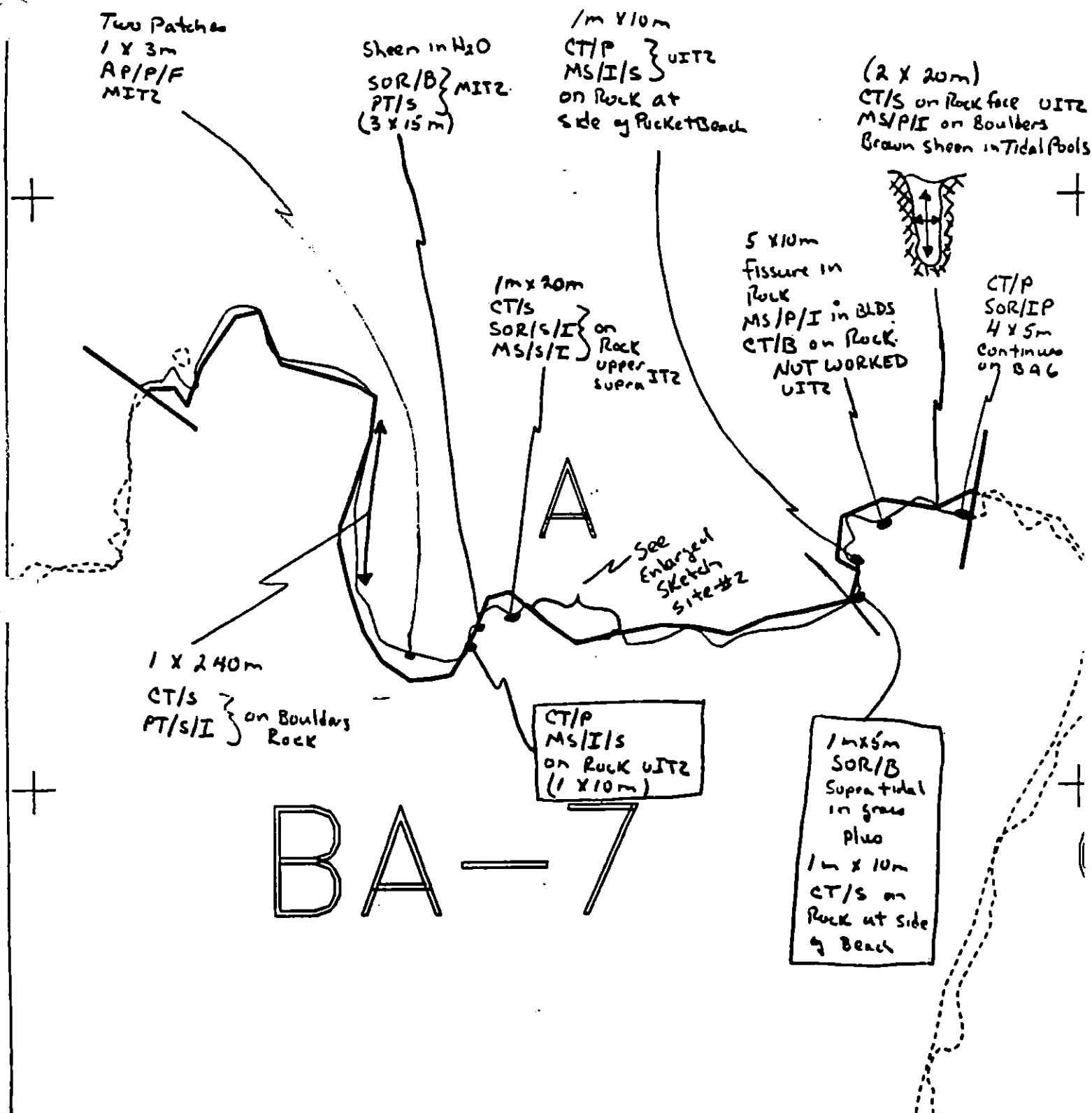
BA- ; A
ADEC Subsegment Length: 1651m
METERS

0 100 320

AK State Plane Zone 4 1:6418
pba-7a



Subdivision Field Map
Map Key: PWSBA-7A
Name: Remer
Date: 8/4/90
Data Entered:



XXX
///

TTTT
0000

Wide
Medium
Narrow
Very Light
No Oil

BA-7 A
ADEC Subsegment Length: 1851m
METERS
0 185 320
AK State Plane Zone 4 1:6418
pba-7a



Subdivision Field Map
Map Key: PWSBA-7A
Name: Reimer
Date: 8/4/90
Date Entered:

ASAP FOLLOWUP RECOMMENDATIONS

Segment: AS/ BA-7A Subd.: A Site: 1 Date: 8/5/90 1990Conditions Observed: Oiled fissure pocket cave identified on
original OG map but not recommended for treatment in 1990
by TAG.MS/P/I 5x10m in UIZ

Followup Recommendations:

- ① Manual removal of MS/P/I
- ② Acute, manually expose subsurface oiling under
manageable rocks.
- ③ Customble

Completed by Pickup Crew: ☐ YES ☐ NOPriority for Addressing in 1990: ☐ High ☐ Mod. ☐ Low

ADEC

John Hayer
(name)[Signature]
(signature)Comments: This area was overlooked and not treated.
Difficult to locate see sketch map.

Exxon

Martinez NJ.
(name)[Signature]
(signature)Comments: Not a priority site, given the degree of oiling
its exposure to winter wave action I believe
it will take care of itself.

USCG

MSTC Michael D. Brown
(name)[Signature]
(signature)Comments: NO, see conditions observed.

Land Rep.

DOUGLAS GIBSON
(name)[Signature]
(signature)Comments: NOT A PRIORITY SITE FOR REASSESSMENT IN 1991
IF THIS 1990 WORK REQUEST IS ACCOMPLISHED

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT BA-8 SUBDIVISION A (1 of 1)

| WORK WINDOW | |
|---------------|------|
| Manual Pickup | OPEN |

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

| | | |
|-------|----------------------|--|
| 1A,1B | Salmon Stream | ADF&G catalogued streams (226-40-16249 and 226-40-16243) are in Subdivision A. No constraint to manual pickup. |
| 1K | Purse Seine Hook-off | No constraint to manual pickup. |
| 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

Restrict boat and air traffic to essential minimum after 7/20. Avoid any unnecessary disturbance or damage to unrolled blots and substrate.

TAG APPROVAL DATE _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC _____

DATE

8 June 90

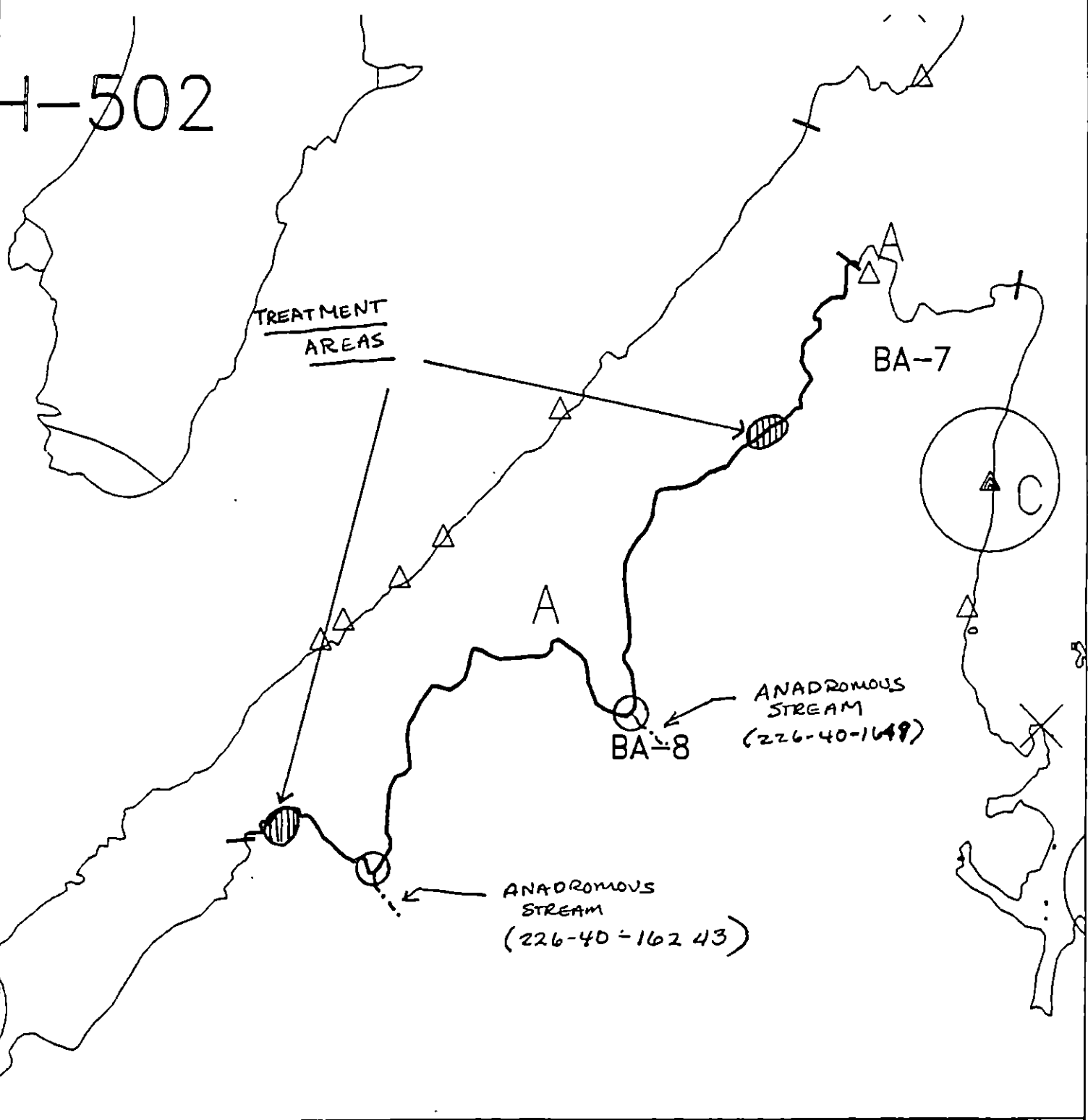
Prepared By: _____

WIK

Date

6/7/90

H-502



EXXON
Exxon Company, USA
Map Key: PWS-BA-8



ECOLOGY MAP
SEGMENT BA-8
SUBDIVISION ___ (___ of ___)
METERS

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

SHORELINE EVALUATION

SEGMENT ST/ BB-901 SUBDIVISION A (1 OF 1) DATE 4/26/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no's: 232-22-10145 (Ps, 2/90), 232-22-10140 (Ps, 2/90), 232-22-10130 (Ps, 2/90). NOTE: 2nd stream # is questionable.

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)

1B Salmon stream mouth - spawning (7/10 to 8/31)

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: 5/8/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 10166 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

X No Treatment Recommended
 Treatment Recommended
 Manual Pickup
 Bioremediation
 Tarmat Removal

 Snare/Absorbent Booms
 Oil Snares (pom poms)
 Absorbents (pads, rolls, etc)
 Spot Washing: Wands
 Beach Cleaner
 Other (see comments)

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 5/7/90

ADEC ART WEINER D. H. Weiner

EXXON ANDY TEAL

NOAA Gay Pattee Gay Pattee

USCG G.A. HEITER G.A. Heiter

FOSC: W L DATE: 5-12-90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

VIA
VIB

- Salmon stream mouth - fry outmigration (3/1 to 5/15)**
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
- 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
- Esther Hatchery release (4/15 to 6/15)**
Main Bay Hatchery release (4/20 to 6/15)
Sawmill Bay Hatchery release (4/15 to 6/1)
Cannery Creek Hatchery release (4/21 to 6/1)
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
- Gill net area (6/7 to 8/31)**
Purse seine area (7/20 to 9/30)
Purse seine hook-off (7/20 to 9/30)
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
- 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 (6/15 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
- 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
- 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
- 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
- Recreation:**
Tent sites (6/1 to 9/15)
Anchorage (6/1 to 9/15)
Forest Service cabins (6/1 to 9/15)
Lodge (6/1 to 9/15)
Special use destination
- Subsistence area: Salmon harvesting (5/1 to 9/30)**
Finfish harvesting
Deer harvesting (6/15 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 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / BB901 SUBDIVISION: A (ENTIRE SEGMENT) DATE 4/26/63

USCG NAME Jerry Schultz SIGNATURE Jerry Schultz

☒ NO TREATMENT RECOMMENDED COMMENTS ☐ TREATMENT SUGGESTED

ADEC NAME Mike Ebel SIGNATURE Michael Ebel

☒ NO TREATMENT RECOMMENDED COMMENTS ☐ TREATMENT SUGGESTED

BB-901-A: This extensive low angle almost level, gravel beach that made up the formerly oiled part of segment was clean (including substrate) with the exception of one splash of coat on a rock and a single tar-ball that was retrieved. No further impact recommended.

LAND MANAGER NAME Mike Tetreau - NPS SIGNATURE Mike Tetreau

☐ NO TREATMENT RECOMMENDED COMMENTS ☐ TREATMENT SUGGESTED

Good survey. One tarball and one small splash seen. No oil observed where cleanup took place last year. It appears That no treatment is necessary.

26/63

SHORELINE OILING SUMMARY

Peter Zollars

REVISION NO. 06/13/88

OG Randy Siegel USCG Terry Schulte SEGMENT ST/ BB-90d
 BIO Lewis Sherman LAND REP Mike Tetlow (WPA) SUBDIVISION A (1 OF 1)
 EXXON Leonard Herbst ADEC Mike Ebel TIME 07:30 to 01:45
 TEAM NO. 12 TIDE LEVEL -1.2' to -2.80' DATE 4/26/90
 EST. SUBDIVISION LENGTH: 9790 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: SW to NW
 SURFACE SEDIMENTS: R 5 % B 5 % C 10 % P 30 % G 30 % S 10 % M 9 % V 1 %
 SLOPE: Long 85 % Hang 10 % Vert 5 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 9790 m

SURFACE OIL

| CHARACTER | DISTRIBUTION | | | | OIL / FILM COLOR | | | | IMPACTED ZONES | | | |
|------------------|--------------|---|---|---|------------------|---|---|---|----------------|---|---|---|
| | N | S | E | W | 1 | 2 | 3 | 4 | SU | U | M | L |
| ASPHALT PAVEMENT | | | | | | | | | | | | |
| POOLED | | | | | | | | | | | | |
| COVER | | | | | | | | | | | | |
| 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 F.B#BAGS 1Photographs: NoneRoll No. —Frames —

SUBSURFACE OIL

| PIT NO. | PIT DEPTH (cm) | SUBSURFACE OIL CHARACTER | | | | | OILED INTERVAL | BELOW | | OIL / FILM COLOR | | | | | | PIT ZONE | | | | A
N
A | SHEEN (Y/N) | ▼ | SURFACE - SUBSURFACE SEDIMENTS | |
|---------|----------------|--------------------------|----|----|----|----|----------------|-------|----|------------------|--------------|--------------|--------------|--------------|----|----------|---|---|--|-------------|-------------|---|--------------------------------|-----|
| | | OP | OR | OL | OF | NO | | UD | UC | 1 | 2 | 3 | 4 | 5 | SU | U | M | L | | | | | | |
| 1 | 34 | | | | | X | 0-0 | | X | | | | | | X | | | | | | | 1 | 1 | S |
| 2 | 30 | | | | | X | 0-0 | | X | | | | | | X | | | | | | | N | 10 | G |
| 3 | 30 | | | | | X | 0-0 | | X | | | | | | X | | | | | | | N | 10 | G |
| 4 | 30 | | | | | X | 0-0 | | X | | | | | | X | | | | | | | N | 15 | G.S |
| 5 | 25 | | | | | X | 0-0 | | X | | | | | | X | | | | | | | N | 15 | G.S |
| 6 | 34 | | | | | X | 0-0 | | X | | | | | | X | | | | | | | N | 20 | G.S |

COMMENTS

* No Exxon segment length provided in Table. Value shown was taken from
~~segment~~ value shown on computer map.

Very long segment (almost 6 miles). consisting primarily of pebble-gravel beach ~~in~~ along a large bay. Several streams cut through the beach, including the Nuka River. One splash of coat was found on a ~~coast~~ rock for the entire segment. An asphalt tarball was also found and picked up. All pits were decontaminated.

REVIEWED 7WDATE 4/27/90

14/63

SHORELINE OILING SUMMARY (PAGE 2)

REVISION 04 13 9

SEGMENT ST/ B3-9a SUBDIVISION A (2 OF 2)

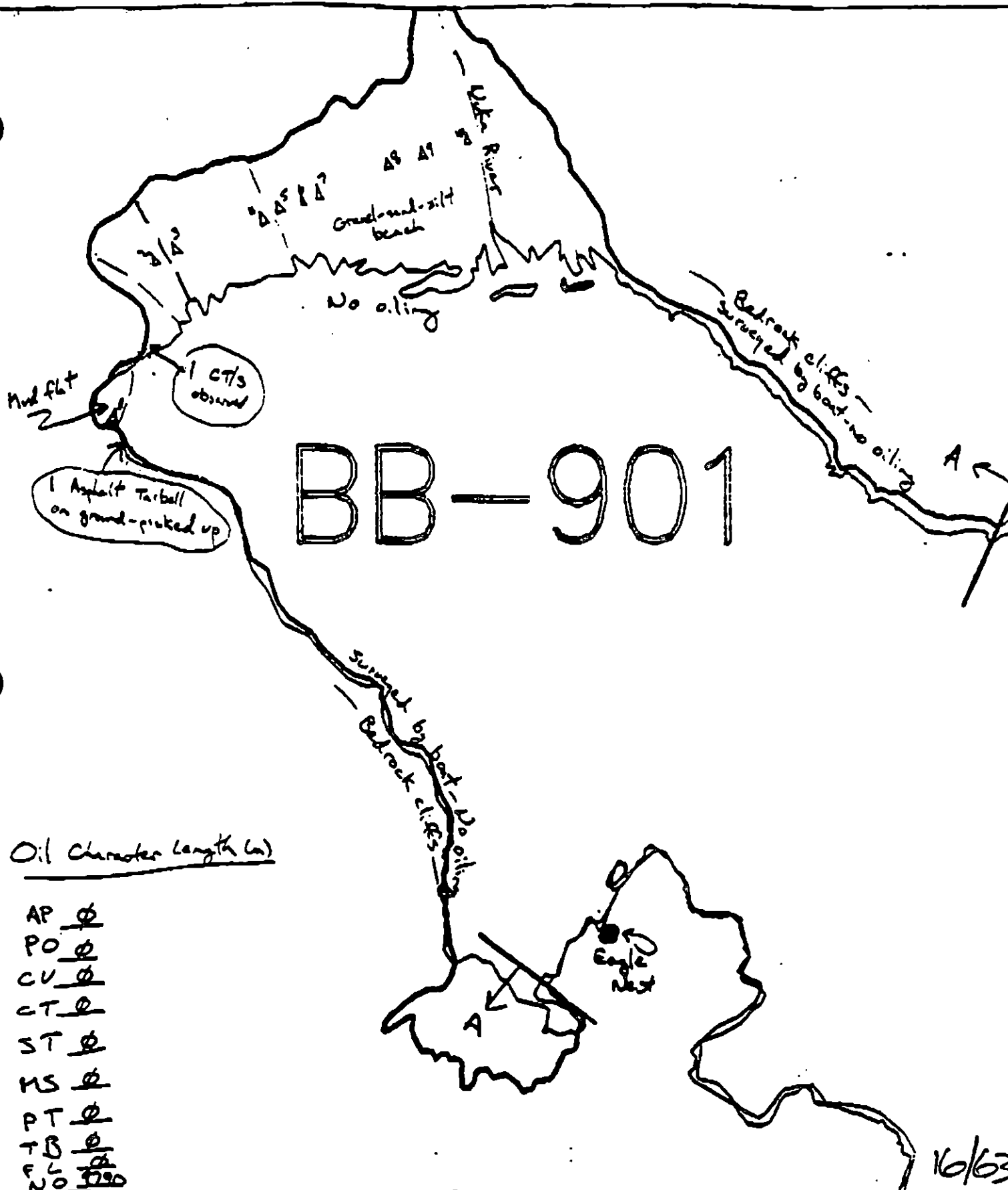
SUBSURFACE OIL (CONTINUED)

| PIT NO. | PIT DEPTH (cm) | SUBSURFACE OIL CHARACTER | | | | | OILED INTERVAL (CM) | BELOW | | OIL / FILM COLOR | | | | | | PIT ZONE | | | | A
N
A | SHEEN (Y/N) | ▽ | SURFAC SUBSURF. SEDIMENT |
|---------|----------------|--------------------------|----|----|----|----|---------------------|-------|----|------------------|----|----|----|----|----|----------|---|---|---|-------------|-------------|----|--------------------------|
| | | OP | OR | OL | OF | NO | | VO | UC | SL | ST | ST | ST | ST | ST | SU | U | M | U | | | | |
| 7 | 20 | | | | | X | 0-0 | | X | | | | | | | | X | | | | N | 10 | G |
| 8 | 30 | | | | | X | 0-0 | | X | | | | | | | | X | | | | - | - | S, G, P |
| 9 | 28 | | | | | X | 0-0 | | X | | | | | | | | X | | | | - | - | S, P |
| 10 | 35 | | | | | X | 0-0 | | X | | | | | | | | X | | | | - | - | S |
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COMMENTS

15/63

REVIEWED _____ DATE _____



Oil Character Length (m)

AP ϕ
 PO ϕ
 CV ϕ
 CT ϕ
 ST ϕ
 MS ϕ
 PT ϕ
 TB ϕ
 FL ϕ
 NO ϕ

XXXX Wide

//// Medium

-- -- Narrow

TTTT

BB-901

Approx. Segment Length: 9790m

Approx. Scale
 2400m

Map Key: KEN-BB-9010

Name: Andy Siegel

Date: 4/26/90

SHORELINE ECOLOGICAL SUMMARY (Page 1 of 3)

Segment ST / BA901 Subdivision A Date (mo / day / yr) 4/24/90Time (24 hr) 0730-1000 Biologist SHARMAN(A) Substrate type and % of segments: SUBSTR.
(1) Bedrock 5 (2) Boulder 5 (3) Cobble 10 (4) Pebble 30 (5) Sand 40 (6) SR 10 ^{+ gravel} ^{+ mud}(B) Overall % cover of biota (% of segment): Dense 30% Moderate 0 Low X

(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 (ALCEGA, LITTORINA, LIMAEYS)

| 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: 40 pairs *Barnia goldeneye*, 50 pairs *glaucous-winged gulls*, 20 pairs *harlequin ducks*, 1 *Canada goose*, 2 *reticulate eagles*, *Spizella thunders* in forest, 1 *oystercatcher*, 4 pairs *surf scoters*, 1 *crow*, 5 pairs *common mergansers*, 4 pairs *canuckbacks*. Red squirrel in forest. 3 sets river otter tracks in UTE board. 1 *hedgehog* seen in water, 3 *skunk* tracks but on rock just N. of Slater Cove entrance, W. side. Ecological Considerations: (cont.)

We received no information regarding resource sensitivities for this segment. There is a presently inactive eagle nest just beyond the S. segment boundary (see map). Also see attached map for general locations of anadromous streams at the head of the bay, along with information gleaned from a recent report to N.P.S. by Milner. This segment cannot benefit biotically from further human intrusion/physical disturbance.

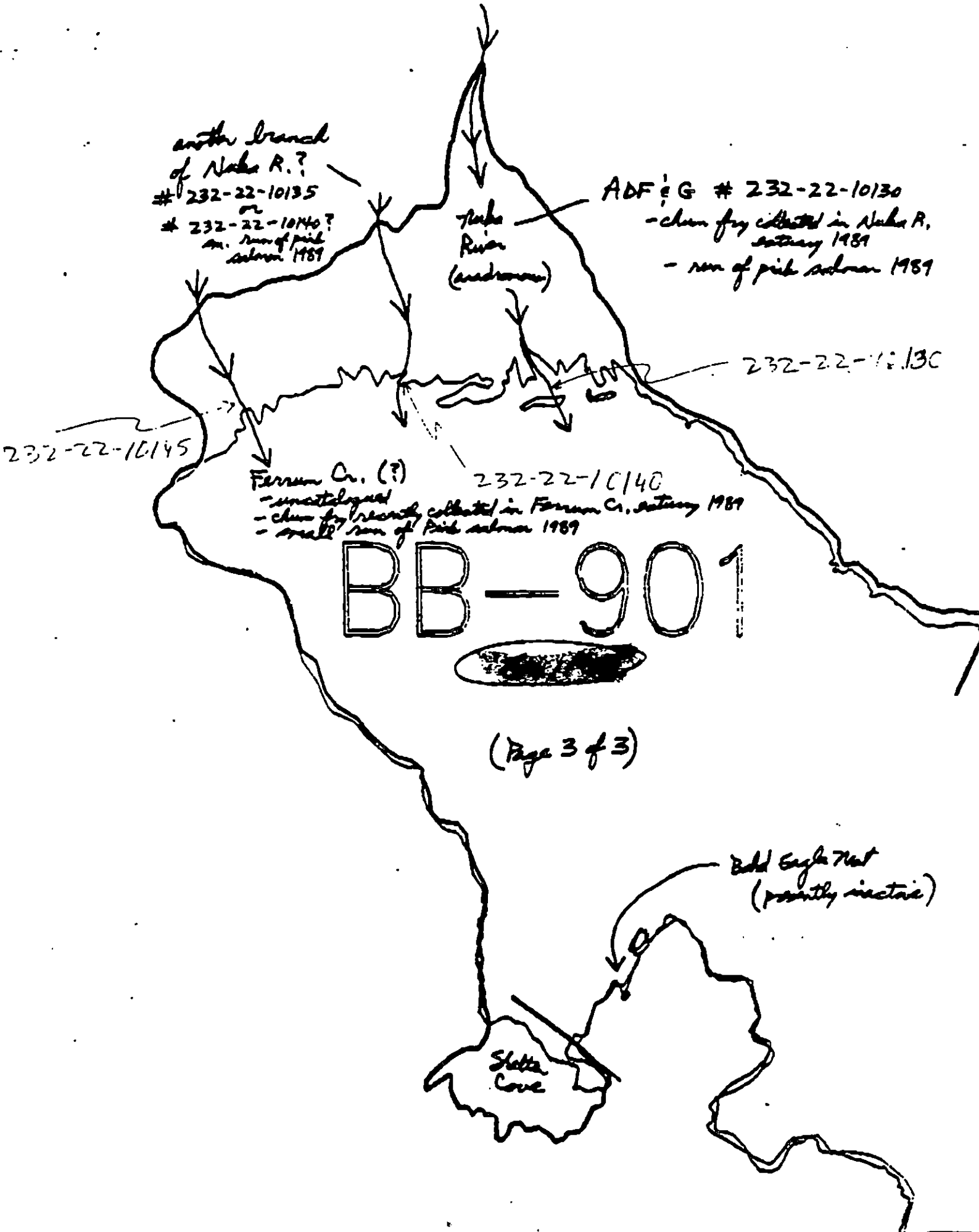
22/63

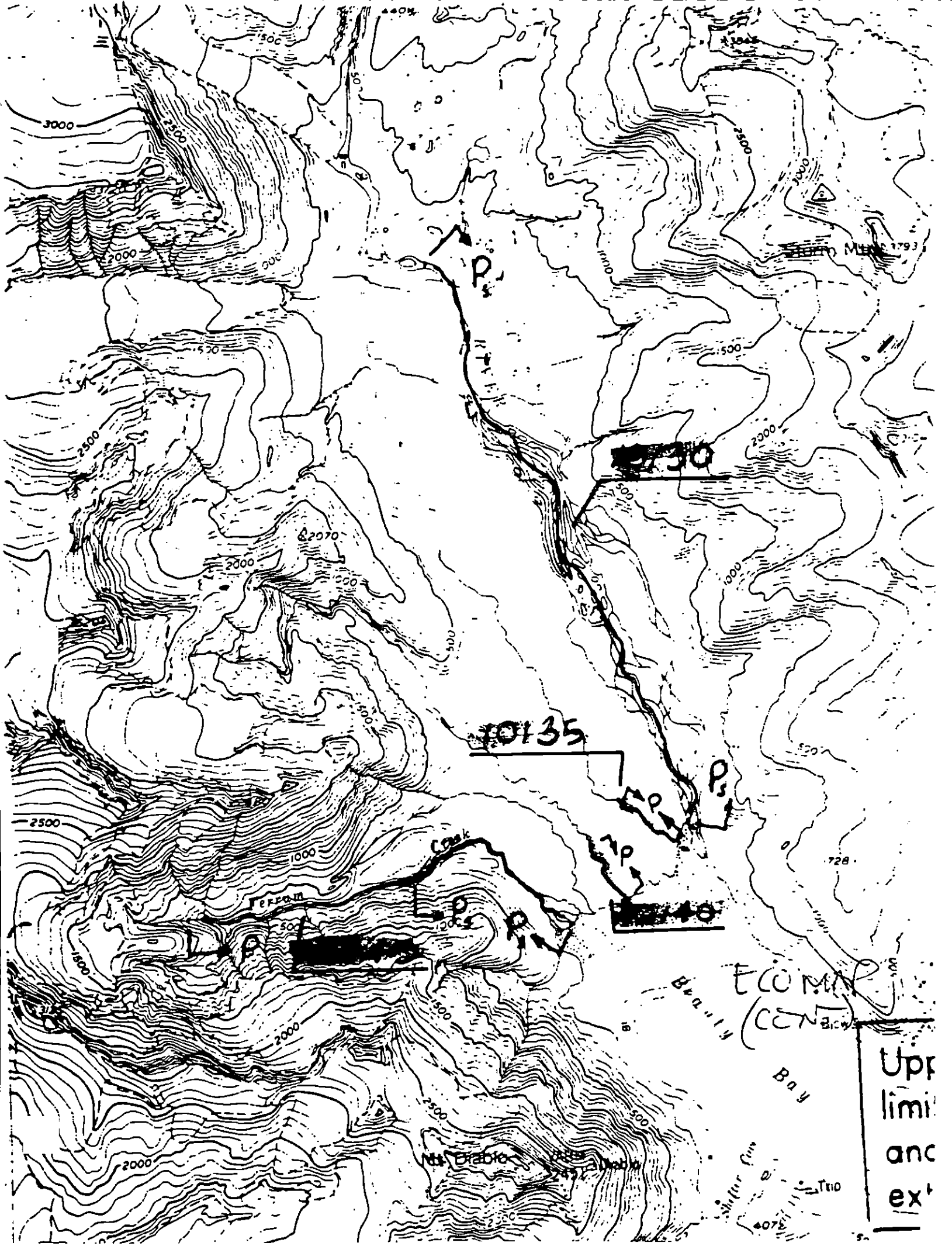
BB901

Shordine Ecological Summary (cont.)
(Page 2 of 3)Shorman
4/26/90General Comments (cont.):

Several tabs of pan ice floating & stranded in intertidal zone - probably carried down Nuka River (?). 1 sea otter hauled out on floating ice tab. Several sets moose tracks in UTE sandy outwash at head of bay. 3 moose browsing 1/4 mi. up Nuka R. on bank - 1 cow & 2 yearlings (all 3 are skinny). 1 mink in intertidal zone, foraging. 3 ravens. Local area shows subsidence from '64 earthquake, evidenced by dead trees along shoreline - very extensive at head of bay. Some Protodaca, Capidonus, Pige, Macoma, Chiocardinia shells in finer-sediment outwash areas at & near head of bay. This appears to be a perfectly healthy & normal group of intertidal communities. A very rich LTE in the rare areas of bedrock & large boulders away from the outwash, & normally depauperate biota occupying the fine-grained unstable outwash substrate. Some sparse & discontinuous eelgrass patches in the shallow subtidal, often with occasional Pycnopodia.

23/63





APR-26-1990 21:23 FROM AURIGA
APR-26-1990 06:36 FROM EXXON

TO
TO

EXXON BOAT P.11
AURIGA P.87

1

18/63

XXXX Wide
/// Medium
--- Narrow

BB-901

Approx. Segment Length: 9700m

Map Key: KEN-BB-901c

Name: Randy Siegel
4/26/90

BB-901



XXXX Wide
//// Medium
--- Narrow
TTTT V. ...

BB-901

Approx. Segment Length: 9700m

Map Key: KEN-88-9010
Name: R. L. Sings
Date: 4/26/90



SHORELINE EVALUATION

SEGMENT ST/ BC-002 SUBDIVISION A (1 OF 2) DATE 3/30/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
3N,3P Harbor seal and sea lion pupping (5/15 to 7/1)
4GA State wilderness park
6U Recreation: Tent sites (6/1 to 9/15)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid disturbance or damage to unoiled biota and substrate.

SHPO SIGNATURE: [Signature] DATE: 4/18/90

OILING CATEGORIZATION:

Wide 18 m: Medium 227 m: Narrow 262 m: V.Light 89 m: No Oil 53 m
Subsurface Oil Observed: Yes X No Maximum Depth 25+ 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: Recommend treatment includes 1) manual pick up of mousse patties and tar balls. 2) Manual pick up of oiled debris and logs if more than 10% coverage. 3) Bioremediation of areas shown on attached map. Work should be conducted between 7/1 and 7/10 based on above harbor seal and salmon constraints unless otherwise authorized by ADF&G and USFWS. MANUALLY TILL IN AREA of PTS 1,2+3 PRIOR TO BIOREMEDIATION.

TAG COMMENTS: _____

TAG APPROVAL DATE: 4/18/90.

ADEC ART WEINER
EXXON ANDY TEAL
NOAA Burt Westcott
USCG G.A. REITER

FOSC: [Signature]

DATE: 6-8-90

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 (8/7 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 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 (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)
- 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/ BC-2 SUBDIVISION: A DATE 4-1-98

USCG

NAME R. BRYAN HIRTLE^{DCI} SIGNATURE R. Bryan Hirtle

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

I agree with the findings of the
Shoreline Oiling Summary form

ADEC

NAME Russell Kuribe SIGNATURE Russell Kuribe

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Comments Attached

LAND MANAGER

NAME Roger L. McCampbell SIGNATURE Roger L. McCampbell

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Comment attached.

Segment: BC-2 Subdivision: A Date: 4/1/90

ADEC

Name: Russell Kunibe Signature Russell Kunibe 4/1/90 1 of 2

Area Discription:

The area had oil stain and coat on the bedrock and boulders in a patchy distribution in the UITZ over most of the subdivision. There was an area at the east end of the subdivision 10 M. X 30 M. with asphalt between the boulders up to 5 cm. thick. The adjacent 25 M. X 30 M. gravel area had oil penetration to over 35cm. with a patchy brown oil film (two pits were dug).

There was mousse and soft asphalt (mousse saturated sediments) in a splashy distribution in the boulder cobble area at the base of the large gravel area at the west end of the segment.

On the first large (50 M. X 150 M.) gravel area at the west end of beach segment BC-2 there is evidence for a possible buried lens of anaerobic oil.

The hole which the SSAT team dug in the gravel began to cave in at 35 cm. below the surface, which was below the level of the ground water. When the shovel was pushed below the ground water and gravel to a approximate depth of 50 cm the shovel came up with a dark brown mousse that saturated the pores of the gravel. The layer was at least 8 cm. thick in some areas as evidenced by the thickest chunk of mousse which was shoveled up. 5 holes were dug in a 4 square meter area and mousse saturated sediments were pulled out of 4 of these holes. 4 holes were dug outside of this area with no oil found.

Recomended treatment:

Because we were finding a definite subsurface, anaerobic layer of mousse which was not weathering at the limit of how deep we could dig, there is a possibility that the sub-surface lens of oil is more extensive then that found. The raw data from the ADEC fall beach survey would support this contention. It is my feeling that this beach should be looked at later in the spring when the ground water level is lower and a determination of the size of the buried lens of oil could be made. This should be followed by a determination of the appropriate treatment method required to remove this oil.

Manual pick up methods should be used to pick up all asphalt and mousse patties in this segment. This includes the biologically rich boulder field below the gravel beach at the west end of the segment. The mousse and soft asphalt (mousse saturated sediments) were confined to the upper MITZ and lower HITZ and especially the 8M. X 8M. area described in the report.

The gravel areas at the top of the narrow shoots with deep

penetration of oil could be tilled with shovels and bioremediated with granular fertilizer. Rototilling with the application of granular fertilizer would be appropriate for the 25 M. X 30 M. gravel area at the east end of the segment.

Revised
4/1/90

ADNR LAND MANAGER SSAT COMMENTS
HOMER BEACH SEGMENT BC-2
TREATMENT RECOMMENDED

This segment is within Kachemak Bay State Wilderness Park. It is suspected as being a pinniped haulout and possible seal pupping area.

At first glance this segment would not appear to have significant oiling. The oil stained or coated rocks are not noticable to the untrained eye. However with warmer temperatures and closer inspection this would change. This first SSAT of this area was disorganized and I don't feel the report indicates the true extent or degree of oiling though for the most part it is complete. The biological report is complete and accurate as far as I can ascertain.

This area will need to be reassessed at a later date. The sketch map is not an accurate representation of what I observed or remember. It is obvious we will need to work better together as a team.

Follow the sketch map, note section A. The narrow gorges had up to 80% oil coating on both sides from the MITZ to the HITZ. Some sheens were noted in small pools with a small amount of saturated gravels under large rocks. Most of this area would not be workable nor are there significant amounts of oil to be recovered or treated here. However, in the splash zone at the storm berm, test pits revealed saturated gravel beach material at a depth of 10 cm. The surface was noted to have stains, indicating that the area had been 'worked'. The subsurface gravels were saturated. This area could easily be turned over by a crew with shovels to expose the saturated subsurface sediments to wave action. In addition granular fertilizer may be indicated.

on map? last 3/31/80

However, at 18 to 24 inches, which is as far as we could dig in the sandy beach, the shovel would bring up brown moussey nearly pure looking oil. It appeared that the oil lens would be several centimeters thick. We dug these test pits in the lower end of the sandy beach along the northern edge. Towards the south the beach sloped upwards and was covered with larger gravel. These test pits are not indicated between sections B and D on the sketch map.

Below the above described area, in the LITZ, we found sheens. Further investigation revealed brown coppery mousse below and under the cobble rocks and on bottom of tide pools. Disturbance of this oil caused significant sheening, with brown oil collecting on the surface of the sheen in thin layers. Mike Faucet, SSAT biologist, noted that this area had been worked by recent storm tides indicated by turned over rocks. He also indicated it was rich in intertidal life. However he advised not to collect limpets for consumption. This area can be worked fairly easily under the supervision of someone with a trained eye for the oil. Very little, if any, significant disturbance would occur to the LITZ life.

Anybody using this area for subsistence or recreational collection would run the risk of contamination.

The other area of significance is at the eastern end of subdivision A in section E. This area has saturated gravels with a tarry consistency. Gravels in storm berm should be turned over and exposed, some saturated gravels should be removed.

D. l. l. shikhi

Subdivision B found little recoverable oil. A small amount of saturated sands and gravels could be recovered under the rock faces at the South end of this beach.

This beach contained a substantial amount of drift logs, all were clean of oil except a few small pieces of driftwood of little significance.

On the Isthmus-grass and snag covered upland area between sub. A and B (helo LZ and ADEC transect site) I noted that foot traffic from last year had noticeably trampled the grass/vegetation. (beach rye grass). In addition a possible culturally modified tree was noted as well as an old snag (standing dead tree) which may have been culturally modified.

A pair of Bald Eagles was noted as indicated by size difference and both had adult coloration.

Several land otter tracks were noted on beach sub. B.

With manual removal there should be approximately a dozen or more bags of oil and oily material to collect.

As discussed, the saturated subsurface lens should be resurveyed at a later date. However, if remaining it should be removed or exposed by whatever means.

RZ M. Lumbert 3/21/90

SHORELINE OILING SUMMARY

REVISION NO. 312210

OG Randy Siegel USCG Bryan Hittle SEGMENT ST/ BC-2 (1562)
 BIO Mike Fawcett LAND REP Roger McCampbell SUBDIVISION A (440000000)
 EXXON John Dean ADEC Russell Kuntze DNR TIME 8:00 10 14 00
 TEAM NO.: 17 TIDE LEVEL: 0.0 to +7.2 DATE 3 / 30 / 90
 EST. SUBDIVISION LENGTH: 750 m 600 ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: SW to NE
 SURFACE SEDIMENTS: R 40 % B 30 % C 20 % P 5 % G 5 % S 0 % M 0 % V 0 %
 SLOPE: Long 80 % Hang 20 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 15 m M 150 m N 235 m VL 100 m NO 50 m NO 6

SURFACE OIL

| CHARACTER | DISTRIBUTION | | | | OIL / FILM COLOR | | | | | | IMPACTED ZONES | | | |
|------------------|--------------|----|----|----|------------------|----|----|----|----|----|----------------|---|---|---|
| | IC | IS | IP | IR | BR | BL | GR | OR | TL | LR | SU | U | M | U |
| ASPHALT PAVEMENT | | X | | | X | | | | | | X | | | |
| POOLED | | | | X | | | | | | X | X | X | | |
| COVER | | X | ✓ | + | X | ✓ | | | | | X | ✓ | | |
| COAT | | X | ✓ | + | X | ✓ | | + | | | X | ✓ | + | |
| STAIN | | X | ✓ | + | X | ✓ | | + | | | X | ✓ | + | |
| MOUSSE | | | | X | | | | | | X | X | | | |
| PATTIES | | | | X | | | | | | X | X | | | |
| TARBALLS | | | | X | | | | | | X | X | | | |
| FILM | | | | X | X | X | X | | | | X | | | |
| NO OIL | | | | | | | | | | | | | | X |

PAVEMENT: H (F) S 3 sq. m by 2 cmPATTIES / TARBALLS 30 BAGS

NEAR SHORE SHEEN? (NO) BR RW SL TL

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

DEBRIS COLLECTED
☒ YES ☒ NOTYPE oil#BAGS 3

Photographs:

Roll No. ST-17-1ST-17-2Frames 27-371-14

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 | | | BR | BL | GR | OR | TL | LR | SU | U | M | U | | |
| 1 | 20 | X | | | | | 15 - 20 | X | | | | | | X | X | | | | X | P.G. Peat |
| 2 | 25 | X | X | | | | 15 - 20 | X | | X | | | | X | X | | | | | G |
| 3 | 25 | X | | | | | 20 - 25 | X | | | | | | X | X | | | | | G |
| 4 | 25 | | | | | X | 0 - 0 | X | | | | | | | X | | | | | G |
| 5 | 30 | | | | | X | 0 - 0 | X | | | | | | | X | | | | | G |
| 6 | 50 | | | | | X | 0 - 0 | X | | | | | | | X | | | | | G |

COMMENTS

* Film frequently observed on surface of intertidal water. Color varied with location.
 This subdivision was comprised largely of bedrock and large boulders extending into the water. A number of surge channels extended inland, rising but. The pebbles and gravel sediments within these channels often had narrow patties/tarballs and ~~thin~~ subsurface mousse layers. Boulders frequently coated with 10-40% distribution. No map was available in field - I hand-drew it in field. Channels often steep - difficult access at times. Shallow groundwater (<0.5 meters) and bedrock. No access to first 200 meters of section (from SW to NE).

REVISION 01 32/80

SUBSURFACE OIL (CONTINUED)

[illegible]

COMMENTS

REVIEWED FAY DATE 11-12-90

OG Randy Angel
 SEGMENT ST/ BC-2
 SUBDIVISION A
 DATE 5/30/90

100 m
 Approximate
 Scale

SKETCH MAP

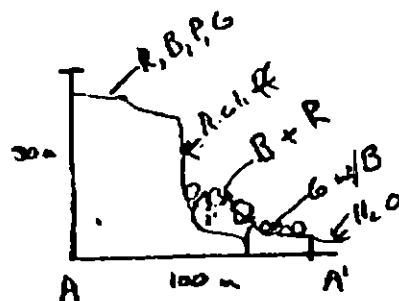
CHECKLIST

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

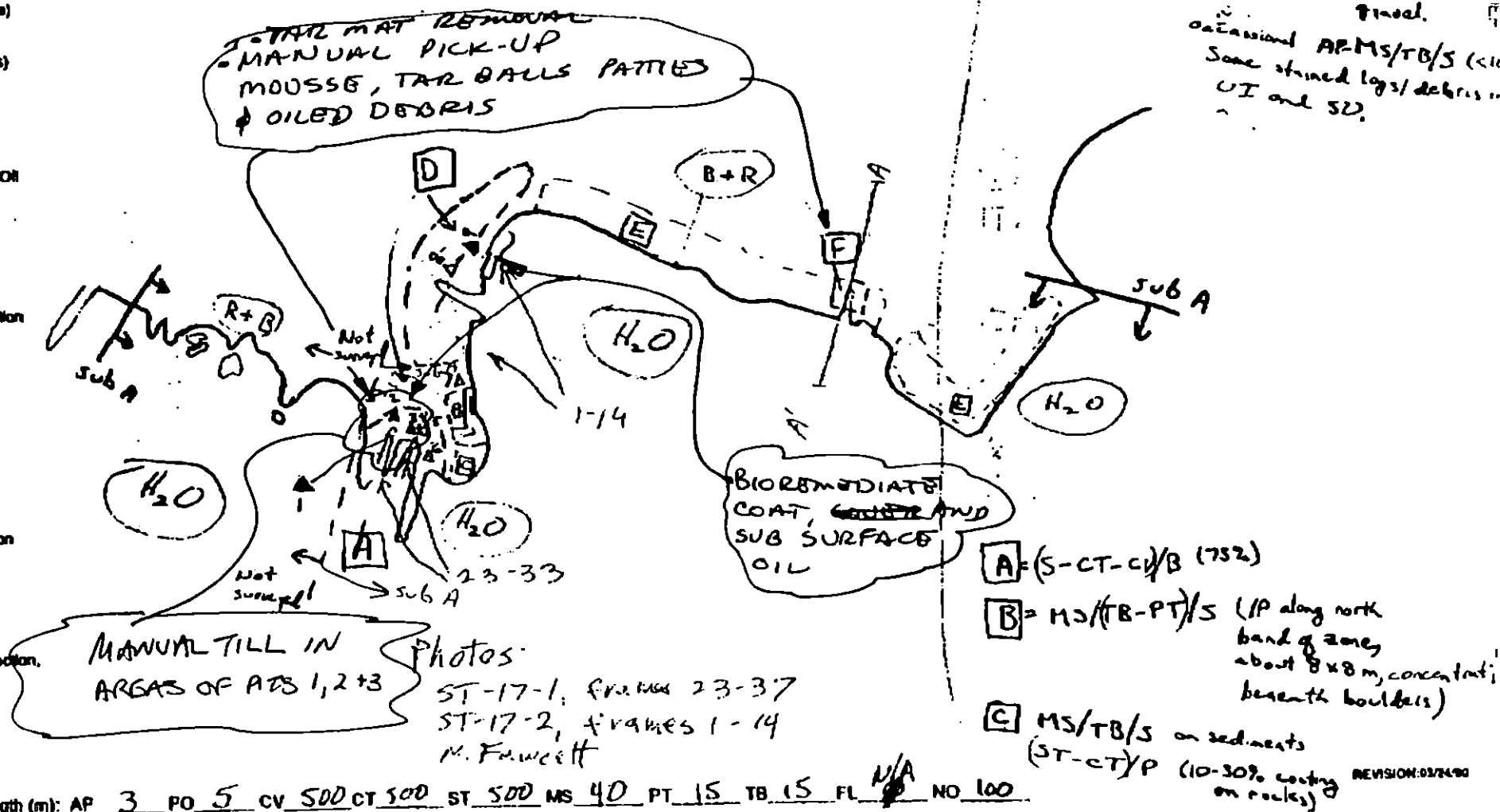
LEGEND

1 Δ
 Pli - No Subsurface Oil
 2 Δ
 Pli - 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

1 Δ P+1/100
 2 Δ P+1/100



D (ST-CT)/P - from <10% to
 observed on boulders,
 bedrock, some sur-
 face gravel. Numerous sp-
 E (ST-CT)/P - usually <10-30%
 observed on boulders/be-
 numerous spikes, irreg-
 distributed.
 F (ST-CT)/S with one 6x10 m
 of /C observed on
 ground.
 occasional APMS/TB/S (all
 Some stained logs/debris
 UI and SL.



BC-2 subdivision A (continuation of "Comments"
from OG Form)

Last 2 lines of page are:

" meters of section (from SW to NE) - not surveyed, due to hi-angle cliff face. Might try to survey by ship. Some form of oiling present across most of this subdivision, although never very "heavy".

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / BC 2 Subdivision A Date (mo / day / yr) 3 / 30 / 90

Time (24 hr) 0830-1300 Biologist M. Fawcett

(A) Substrate type and % of segments:
(1) Bedrock 40 (2) Boulder 30 (3) Cobble 20 (4) Pebble 10 (5) Sand 0 (6) Silt 0

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

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

Photographs:
Roll No. ST-17-1 / ST-17-2
Frames 23-37 / 1-14

BARNACLES

| Dense | | | Moderate | | | Sparse | | | Rare | | |
|-------|----|----|----------|----|----|--------|----|----|------|----|----|
| 1U | 1M | 1L | 1U | 1M | 1L | 1U | 1M | 1L | 1U | 1M | 1L |
| 2 | X | 2 | 2 | O | 2 | X | 2 | 2 | 2 | 2 | 2 |
| 3 | X | 3 | 3 | O | 3 | X | 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 |

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 | O | 2 | 2 | 2 | 2 |
| 3 | 3 | 3 | 3 | 3 | 3 | 3 | X | 3 | 3 | 3 | 3 |
| 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |

mussels dense
patches, spar.
overall
NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

* - overall density of biota applicable only to mid. & low intertidal, as it is always "low" in upper zone.
- see attached sheet

Ecological Considerations:

very diverse, densely populated, healthy community in mid- and low intertidal areas. Avoid trampling.

Most of this subsection consists of high vertical faces and stacks dissected by deep surge channels, with bedrock reefs and large boulders. One sand/gravel beach in semi-protected cove near east end of subsection. Except for that cove, the area is exposed to fairly high wave energy.

Throughout the area the middle and lower intertidal zones are densely populated by a rich variety of plants and animals. In the low zone some starfish (Pisaster ochraceus and Derasterias imbricata) were observed in pools and crevices, the first I've seen intertidally since last September-October, when they migrated down to the subtidal areas for the winter. Leptasterias hexactis was common under boulders.

Dense patches of newly recruited mussels (2-4 mm) were seen mostly on bedrock on lee sides of reefs. Limpets abundant in mid-lower zones, including adults, juveniles, & new recruits (Nitidulana scutum and Collisella pelta were most abundant limpets, Acma mitra and A. porsua also observed.

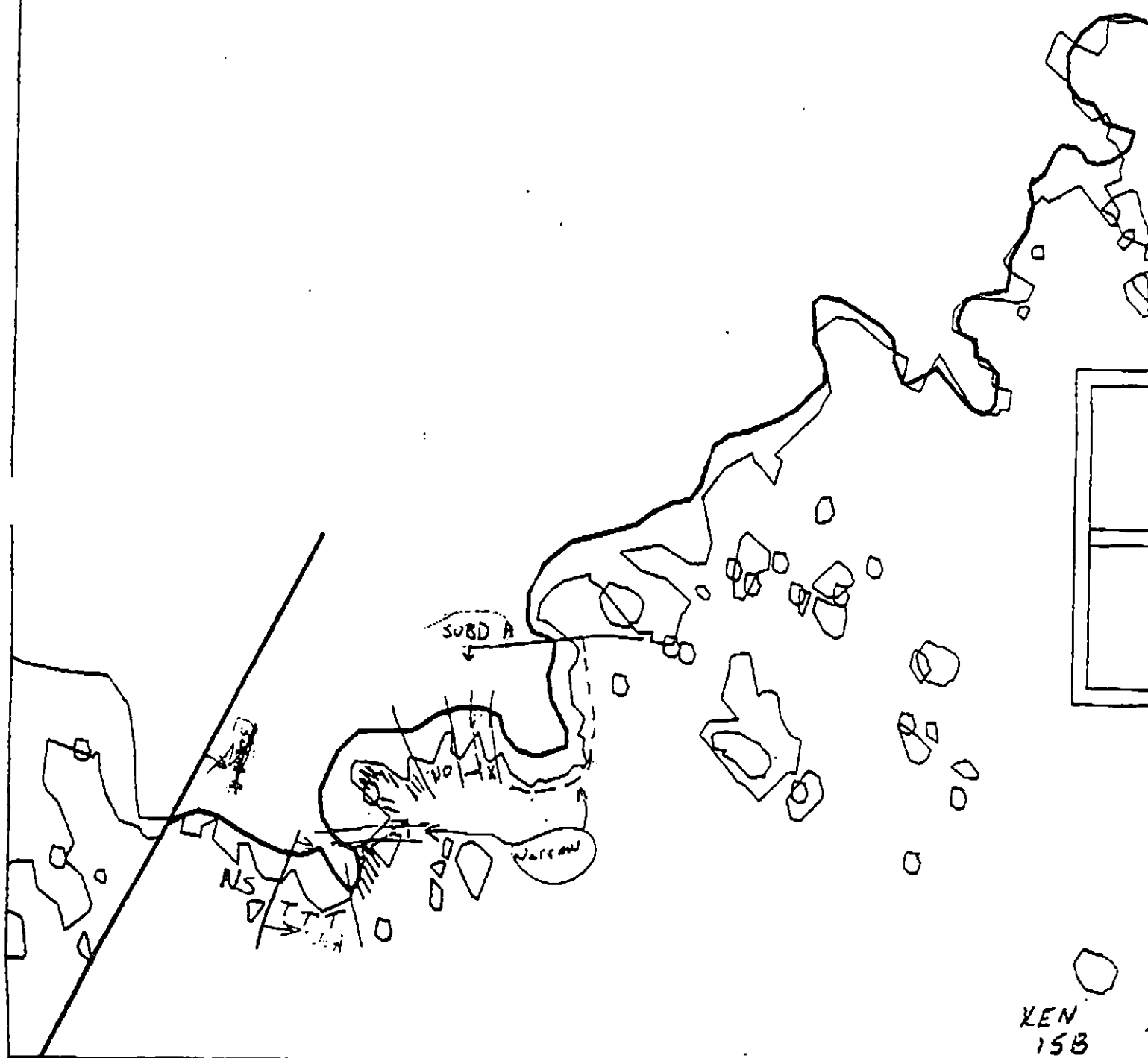
The boulderfield below the sand/gravel beach has dense covering of red, green, and brown algae, including Ulva, Halosaccaria, Enteromorpha, Callithrix, Porphyra, Gigartina, Hypophyllum, Costaria & Lomentaria with several kinds of coralline algae in pools along with surfgrass (Phyllospadix). Beneath the boulders are Leptasterias (6-armed starfish) large isopods, Littorina hermit crabs, ophiuroids, siphonulids, anemones.

sculpin, clingfish, gunnels, blennies, chitons (Tor, Katharina, Mopalia), limpets and other animals. About 10% of boulders have recently been overturned, indicating some strong wave action in storms, as many of these are fairly large boulders (the boulders appearing white on top in photographs are overturned). Considerable mousse remains under some of the boulders, causing sheen on some tidepools (Roger McCampbell said this boulderfield was heavily oiled last summer). However, the remaining oil does not appear to having much impact on the biota; many of the limpets, chitons, snails, etc are large, old individuals that were certainly present before the spill, as were many of the mature plants.

Littorina sittkana (periwinkles) extremely abundant in boulder-cobble areas throughout this subsection (easily 10,000/m² in many areas). Large breeding aggregations of Littorina were found beneath several boulders.

Dense patches of recently recruited barnacle spat were seen on bedrock areas, near dense patches of 3-4 mm barnacles (mostly Balanus glandula) which probably settled in summer of 1989. B. cariosus were moderately abundant in low intertidal areas.

EN
153

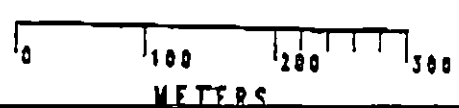


KEN
153

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

BC-2

ADEC Segment Length: 4119m



Map Key: KEN-15a
Name: Ruby 153
Date: 3/5/70
Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT BC-2 SUBDIVISION A (1 of 2)

| WORK WINDOW | |
|----------------------------------|-----------------|
| Manual Pickup
Tarmat Removal | WORK 7/1 - 8/15 |
| Bioremediation
Manual Tilling | WORK 7/1 - 7/31 |

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

| | | |
|----------|---|---|
| 1A,1B | Salmon Stream | An ADF&G uncatalogued anadromous stream is more than 100m from work site. No constraint to manual pickup, tarmat removal, bioremediation, and manual tilling. |
| 3N,O,P,Q | Harbor Seal & Seal Lion Pupping and Molting | Closed to bioremediation and manual tilling prior to 7/1 and after 7/31. Closed to manual pickup and tarmat removal prior to 7/1 and after 8/15. |
| 1J | Purse Seine Area | Closed to bioremediation after 7/10. No constraint to manual pickup and manual tilling. |

OTHER ECOLOGICAL CONSIDERATIONS

Do not apply bioremediation to specific areas where seals are observed to haulout. Do not chase or harass seals or sea lions, and do not approach pups under any circumstances. When working on or near haulouts, complete the job as quickly as possible with minimum personnel, equipment, noise and disturbance. Keep boats and personnel as far from actual haulouts as is practical to do the work specified. Minimize air traffic near haulouts, maintain elevation as is practical, and avoid repeated overflights of the same haulout areas. Restrict boat and air traffic to essential minimum after 7/10. Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

FOSC

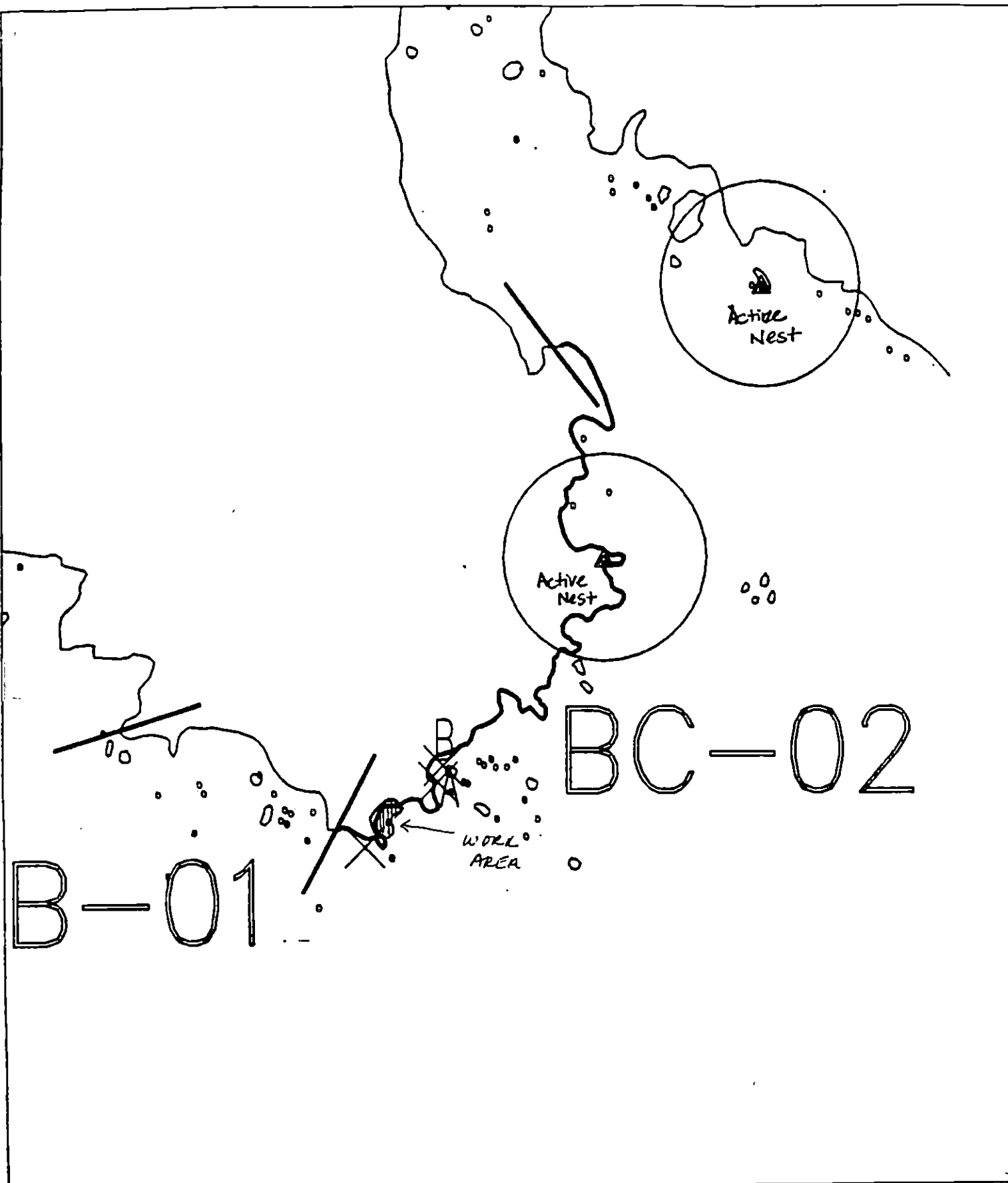
Date

6-14-90

Prepared by

Date

6/16/90



Exxon Company, USA
Map Key: KEN-BC-2
May 16, 1990



ECOLOGY MAP
SEGMENT BC-2
SUBDIVISION A (1 of 2)
METERS
0 400 975

| | |
|---|----------------|
| ★ | Seabird Colony |
| ▲ | Eagle Nest |

1 inch = 1600 feet

SHORELINE EVALUATION

SEGMENT ST/ BC-002 SUBDIVISION B (2 OF 2) DATE 3/30/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)

1B Salmon stream mouth - spawning (7/10 to 8/31)

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

4G State wilderness park

6U Recreation: Tent sites (6/1 to 9/15)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid disturbance or damage to uncoiled biota and substrate.

SHPO SIGNATURE

DATE: 4/18/90

OILING CATEGORIZATION:

Wide 12 m: Medium 0 m: Narrow 0 m: V.Light 87 m: No Oil 23 m

Subsurface Oil Observed: Yes X No **Maximum Depth** 8 **cm**

RECOMMENDATIONS:

No Treatment Recommended

| | |
|----------|------------------------------|
| X | Treatment Recommended |
|----------|------------------------------|

X Manual Pickup

X Bioremediation

X Tarmat: Breakup

X Removal

Snare/Absorbent Booms

Oil Snares (pom poms)

_____ Absorbents (pads, rolls, etc)

Spot Washing: _____ **Wands** _____

Beach Cleaner

____ Other (see comments)

COMMENTS: Recommend treatment includes 1) manual pick up and removal of tarmats, 2) Manual pick up of oiled debris and logs with greater than 10% coverage, 3) bioremediation of areas shown on attached sketch map. Work should be conducted between 7/1 and 7/10 based on above salmon constraints unless otherwise authorized by ADF&G and USFWS.

TAG COMMENTS:

TAG APPROVAL DATE:

ADEC

EXXON

NOAA

USCG

FOSC:

DATE :

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 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/ BC-002 SUBDIVISION: B DATE 3-30-90

SCG
NAME R. BRYAN HIRTZ SIGNATURE R. Bryan Hirtz

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

I agree with the findings of the Shoreline Diling Summary sheet for BC-002 subdivision B

ADEC
NAME Russell Kunibe SIGNATURE Russell Kunibe

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

This subdivision had an area of gravel asphalt in the LITZ. There is also cover, coat and stain on the Bedrock and boulders in this subdivision.

I recomend manual pick up of the gravel asphalt in the LITZ

LAND MANAGER
NAME Roger McCampbell SIGNATURE Roger McCampbell

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

This subdivision has an area of asphalted gravel in the LITZ as well as a small amount of weathered oil in .8cm of surface sediments near Pit 6. The rock faces and bedrock have a stain and coat of oil that will scape off in some areas.

I recommend manual removal of the gravel asphalt in the LITZ which can be accomplished at the same as any work in Subdivision A.

SHORELINE OILING SUMMARY

REVISION NO 02-20

OG Randy Siegel USCG Ronan Hirtle SEGMENT ST/ RC-2 (4-1)
 BIO 11 Kel Everett LAND REP Roger McCampbell SUBDIVISION B (2nd - 2)
 EXXON John Dean ADEC Russell Kumber TIME 13:00 10 14 22
 TEAM NO.: 17 TIDE LEVEL: 2.0 10+7.2 DATE 3/30/90
 EST SUBDIVISION LENGTH: 180 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 20% B 20% C 10% P 5% G 15% S 30% M 0% V 0%
 SLOPE: Long 20% Hang 20% Vert 0% WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 20 m M N/A m N N/A m VL 80 m NO 20 m

SURFACE OIL

| CHARACTER | DISTRIBUTION | | | | OIL / FILM COLOR | | | | | | | | IMPACTED ZONES | | | |
|------------------|--------------|---|---|---|------------------|----|----|----|----|----|----|----|----------------|---|---|---|
| | R | B | P | S | BR | BL | BY | GL | GR | OR | OL | TL | SU | U | M | L |
| ASPHALT PAVEMENT | | | | X | X | | | | | | | | | | | X |
| POOLED | | | | | | | | | | | | | | | | |
| COVER | X | | ✓ | | ✓ | X | | | | | | | | | | X |
| COAT | | | ✓ | X | | X | | | | | | | | | | X |
| STAIN | | | | X | | X | | | | | | | X | | | |
| MOUSSE | | | | | | | | | | | | | | | | |
| PATTIES | | | | | | | | | | | | | | | | |
| TARBALLS | | | | | | | | | | | | | | | | |
| FILM | | | | X | | | X | | | | | | | | | X |
| NO OIL | | | | | | | | | | | | | X | X | | |

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

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

DEBRIS COLLECTED
☐ YES ☒ NO

TYPE _____

#BAGS _____

Photographs:

Roll No. 3T-17-2Frames 15-20

SUBSURFACE OIL * Sheen on intertidal water

| PIT NO. | PIT DEPTH (cm) | SUBSURFACE OIL CHARACTER | | | | | OILED INTERVAL (CM-CM) | BELOW | OIL / FILM COLOR | | | | | | | | PIT ZONE | | | | A
N
A | SUBSURFACE SEDIMENTS | | |
|---------|----------------|--------------------------|----|----|----|----|------------------------|-------|------------------|----|-----------|-----------|----------|-----------|-----------|----|----------|---|---|---|-------------|----------------------|--|---|
| | | OP | OR | OL | OF | NO | | | UO | UC | 60L
BR | 60L
RW | 64
BL | 60R
TL | 60R
LR | SU | U | M | L | | | | | |
| 1 | 40 | | | | | X | 0-0 | | X | | | | | | | | X | | | | | | | S |
| 2 | 15 | | | | | X | 0-0 | | X | | | | | | | | X | | | | | | | S |
| 3 | 15 | | | | | X | 0-0 | | X | | | | | | | | X | | | | | | | S |
| 4 | 15 | | | | | X | 0-0 | | X | | | | | | | | | X | | | | | | S |
| 5 | 30 | | | | | X | 0-0 | | X | | | | | | | | | | | X | | | | G |
| 6 | 15 | | X | | | | 0-8 | | X | X | | | | | | | | | | X | | | | G |

COMMENTS

This subdivision consists largely of a sandy beach with patches of bedrock and boulders. The SSL behind the beach is covered with sand and debris. Portions of the B + R areas had patches of oil, particularly where sheltered from wind.

OG Rund 1

SEGMENT ST/BC-2

SUBDIVISION B

DATE 3/30/90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HWL/WL
- ☐ SSL
- ☐ 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

Oil Vegetation

1 ●

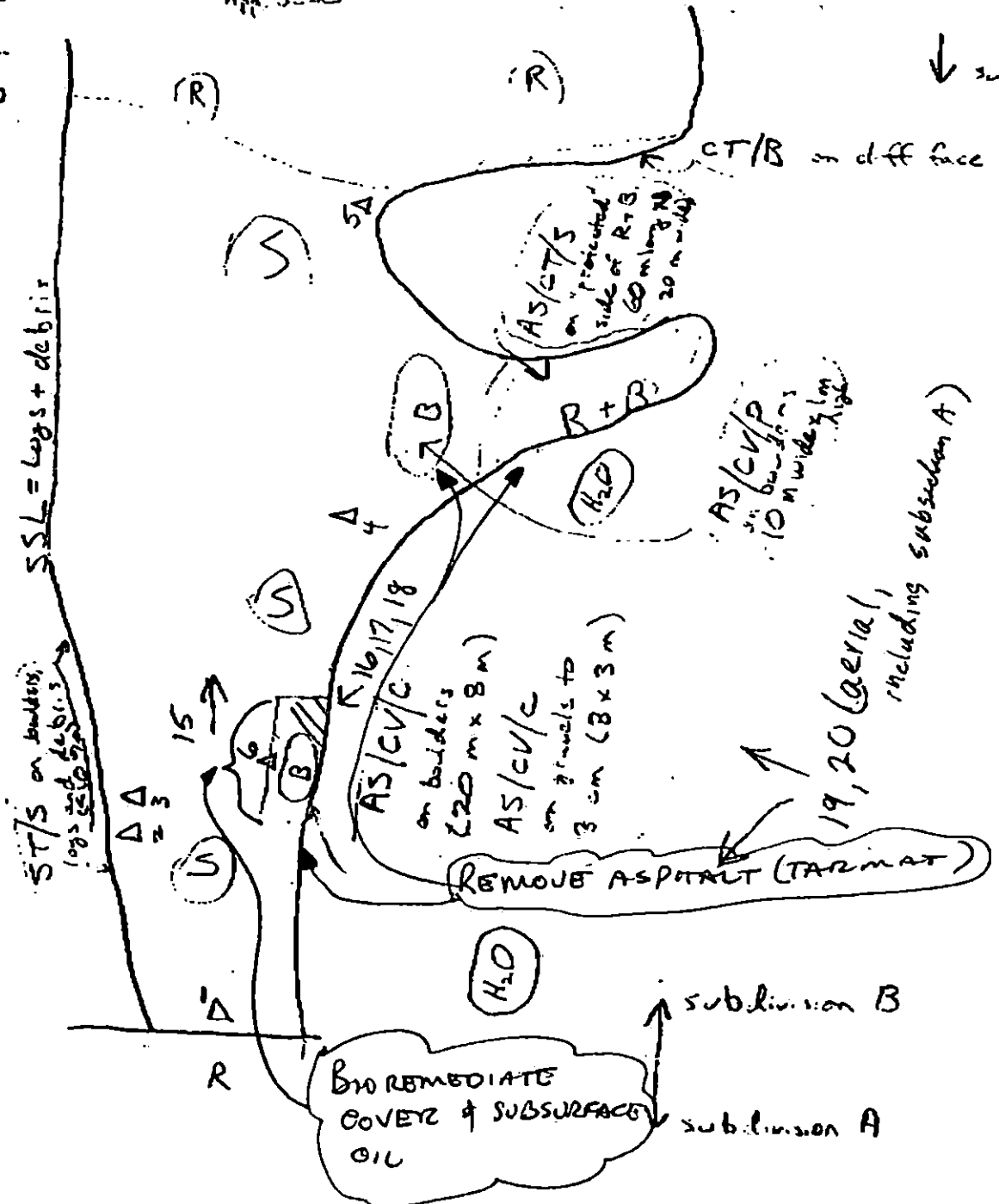
Photo location, direction, and number

1:2 cm = 200 m
App. Scale



SHORE MAP

↓ subdivision B



Photos
ST-17-2
Frames 15-20

BIO REMEDIATE
COVER & SUBSURFACE
OIL

subdivision B

subdivision A

Oil Character Length (m): AP 40 PO N/A CV 30 CT 35 ST 60 MS N/A PT N/A TB N/A FL N/A NO 30

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / BC Subdivision 2 Date (mo / day / yr) 3/30/90
 Time (24 hr) 1300 Biologist M. Fawcett

- (A) Substrate type and % of segments:
 (1) Bedrock 20 (2) Boulder 20 (3) Cobble 10 (4) Pebble 20 (5) Sand 30 (6) Silt 0
- (B) Overall % cover of biota (% of segment): Dense Moderate Low
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
 Roll No. ST 17-2

Frames 15-20

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:

- river otter tracks on beach
 - weathered oil coating bedrock at east end of subsegment - some mussels coated, but alive. Filamentous green algae growing on top of oil

Ecological Considerations:

4 GA

1 B (NO salmon stream in this subdivision)

3 N possible pupping area, harbor seal

6 U

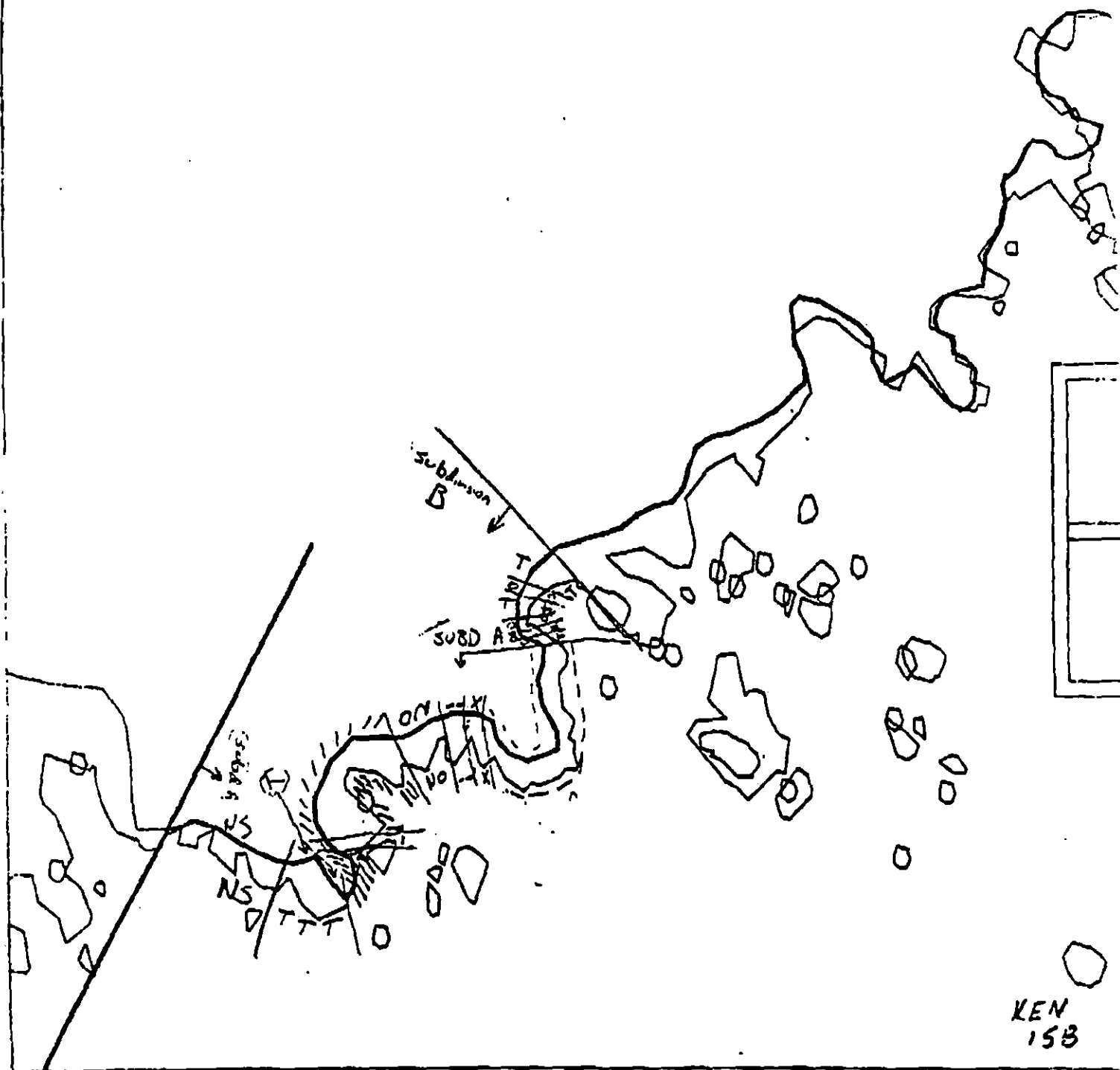
4/4/90

Note:

Under ecological considerations
for BC 2 A (3/30/90), sensitivities
listed should include 46A, 3N, & 6J

M H Fawcett

↑
EN
100



KEN
15B

XXXX Wide

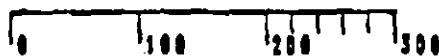
//// Medium

--- Narrow

TTTT Very Light

BC-2

ADEC Segment Length: 4119m



Map Key: KEN-15a

Name: Ruby

Date: 3/20/90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT BC-2 SUBDIVISION B (2 of 2)

WORK WINDOW

Manual Pickup
Tarmat Removal

WORK 7/1 to 8/15

Bioremediation

WORK 7/1 to 7/31

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

| | | |
|----------|--|---|
| 1A,1B | Salmon Stream | NO CONSTRAINT. No ADF&G catalogued stream in Segment. |
| 1J | Purse Seine Area | Closed to bioremediation after 7/20. No constraint to manual pickup and tarmat removal. |
| 3N,O,P,Q | Harbor Seal & Sea Lion Pupping and Molting | Closed to bioremediation prior to 7/1 and after 7/31. Closed to manual pickup and tarmat removal prior to 7/1 and after 8/15. |

OTHER ECOLOGICAL CONSIDERATIONS

Do not apply bioremediation to specific areas where seals are observed to haulout. Do not chase or harass seals or sea lions, and do not approach pups under any circumstances. When working on or near haulouts, complete the job as quickly as possible with minimum personnel, equipment, noise and disturbance. Keep boats and personnel as far from actual haulouts as is practical to do the work specified. Minimize air traffic near haulouts, maintain elevation as is practical, and avoid repeated overflights of the same haulout areas. Restrict boat and air traffic to essential minimum after 7/20. Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

FOSC

[Signature]

Date

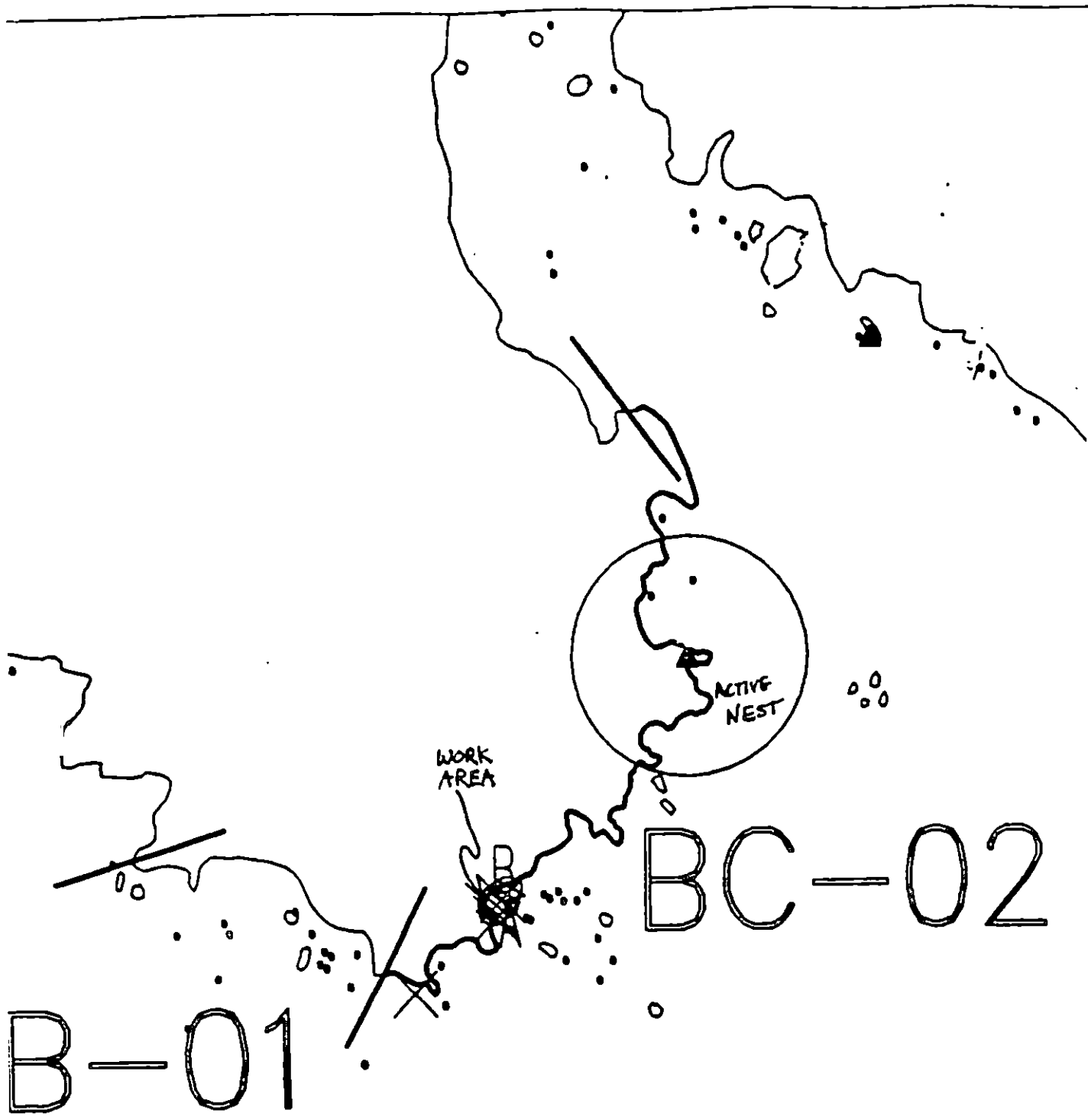
6/14/90

Prepared by

[Signature]

Date

6/14/90



NO ADF&G Cataloged Stream in this Segment



Exxon Company, USA

ECOLOGY MAP
SEGMENT BC-2
SUBDIVISION B (2 of 2)

- | | |
|---|----------------|
| ★ | Seabird Colony |
| ▲ | Eagle Nest |

SHORELINE EVALUATION

SEGMENT ST/ BG-01 SUBDIVISION A (1 OF 1) DATE 4/29/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
4LL National Parks
6U Recreation: Tent sites (6/1 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 McManis DATE: 5/10/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 3465 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: 5/10/90

ADEC ART WEINER Art Weiner

EXXON Art Tate Art Tate

NOAA Sam Westcott Sam Westcott

USCG D.D. ROME D.D. Rome

FOSC: DATE: 5-12-90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

1A
1B

Salmon stream mouth - fry outmigration (3/1 to 5/15)

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

2N, 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. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.

AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235

ADF&G Don Calkins 267-2403

5R

Seabird colony (5/1 to 9/1)

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

5S

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

ADF&G Tom Roth 267-2206

5T

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

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

6U

Recreation:

Tent sites (8/1 to 9/15)

6V

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)

Finfish harvesting

Deer harvesting (8/15 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 267-2360

FIELD SHORELINE COMMENT SHEET

SEGMENT ST BG-1 SUBDIVISION: A DATE 4/29/90

USCG

NAME JERRY SCHURESIGNATURE Jerry Schure☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

ADEC

NAME Mike EbelSIGNATURE Michael Ebel☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDBG-1-A: No oil found.LAND MANAGER NPSNAME Michael TetreauSIGNATURE Michael Tetreau☒ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Only surveyed part of The segment, but due to The very limited history of oil here and The high wave energy I feel That no further survey is warranted. No oil was found.

SHORELINE OILING SUMMARY

REVISION NO. 04/13/90

OG Randy Siegel USCG Jerry Schultz Mike Tetlow (WPS) SEGMENT ST/ BG-1
 BIO Levi Sherman LAND REP Pat Zeller (CAE) SUBDIVISION A (1 OF 1)
 EXXON Leonard Herbst ADEC Mike Ebel TIME 10:14:50
 TEAM NO. 12 TIDE LEVEL 3.0' to 5.7' DATE 4/29/90
 EST. SUBDIVISION LENGTH: 3420 m ☐ Sun ☐ Clouds ☒ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 5 % B 10 % C 40 % P 25 % G 10 % S 10 % M 0 % V 0 %
 SLOPE: Long 95 % Hang 5 % Vert 0 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 3420 m

SURFACE OIL

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

PAVEMENT H F S 0 sq. m by 0 cm

PATTIES / TARBALLS 0 BAGS

NEAR SHORE SHEEN? ☒ NO BR RW SL TL

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

DID YOU COLLECT DEBRIS?

YES ☒ NO ☐

TYPE Boat-floats Plastic trash

#BAGS 3

Photographs:

Roll No. None

Frames —

SUBSURFACE OIL No pits dug - see comments

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

COMMENTS

Segment consists of high-energy beach, with zones of sand, cobbles, pebbles. Cobbles predominant. No oil at all observed across segment walked approximately half of segment. Did not survey second half due to small likelihood of oil being present. Oiled driftwood only was observed by ADEC in 9/89 SCAT. No pits dug.

31/46

REVIEWED

BAL

DATE May 90

00 Randy gel
 SEGMENT ST/ BG-1
 SUBDIVISION A
 DATE 4/29/90

SKELETON MAP

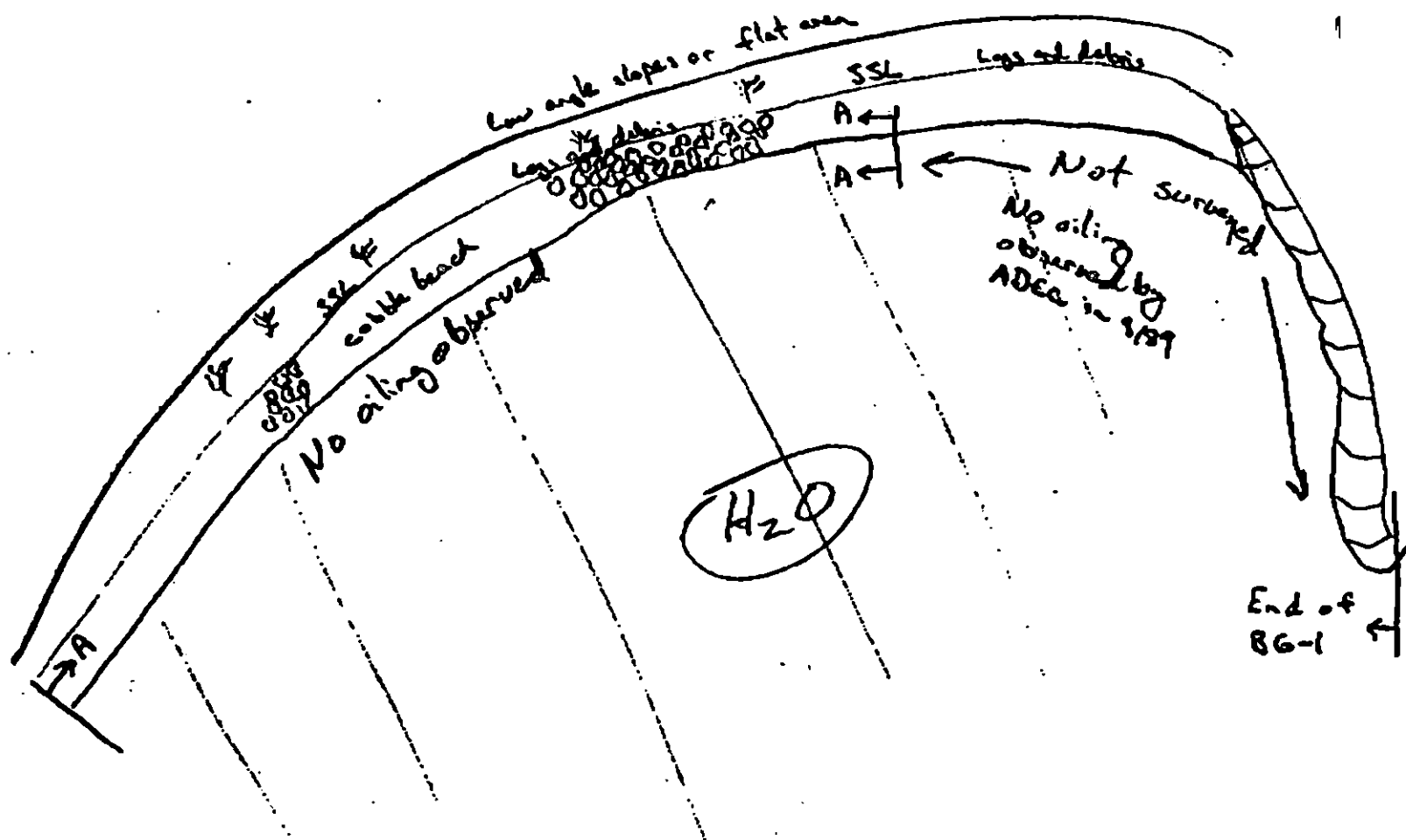
App. Scale
 500 m

CHECKLIST

- NI Area
- Approx. Scale
- Seg/Sub Body
- Oil Dist.
- Width
- Length
- % Cover
- Substrate Character
- Est. FFWL/WL
- 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
- Oil Vegetation
- 1 ●
 Photo location, direction, and number



REVISION 200400

Oil Character Length (m): AP ϕ PO ϕ CV ϕ CT ϕ ... ST ϕ MS ϕ PT ϕ TB ϕ FL ϕ NO 3420

SHORELINE ECOLOGICAL SUMMARY

REVISION: 08/12/90

Segment ST / BG-2 Subdivision A Date (mo / day / yr) 4/29/90

Time (24 hr) 1400-1450 Biologist SHARMAN

(A) Substrate type and % of segments: SUBDIV.
 (1) Bedrock 5 (2) Boulder 10 (3) Cobble 40 (4) Pebble 25 (5) Sand 20 (6) SA +

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

(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 (ANCELA, LITTORINA, LIMAEYE)

| 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

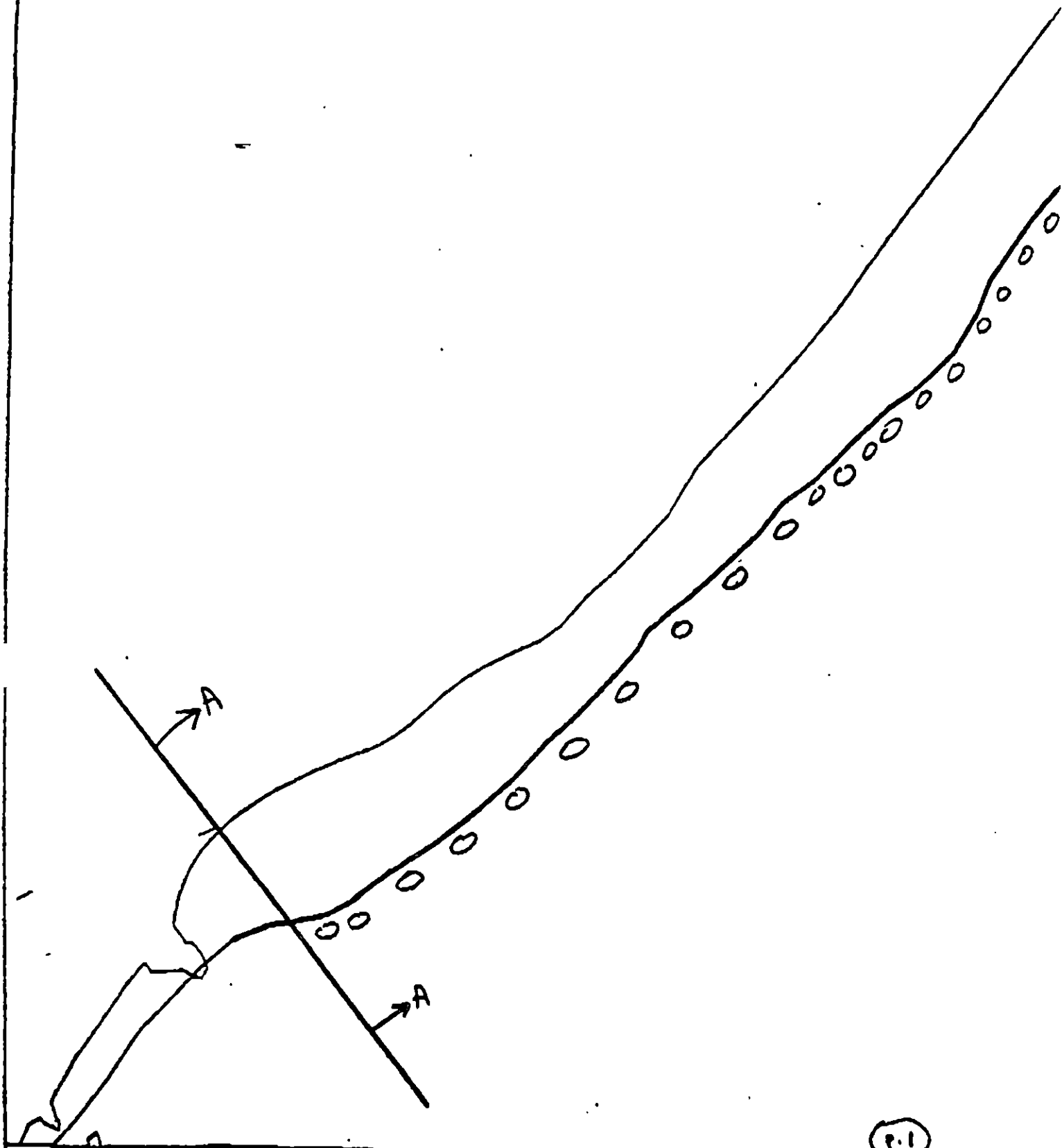
| Dense | | | Moderate | | | Sparse | | | Rare | | | NOT PRESENT |
|-------|----|----|----------|----|----|--------|----|----|------|----|----|-------------|
| 1U | 1M | 1L | 1U | 1M | 1L | 1U | 1M | 1L | 1U | 1M | 1L | |
| 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| 3 | 3 | 3 | 3 | 3 | 3 | 3 | 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: 6 surf scoters, 1 adult eagle, 1 subadult eagle, 3 pygmy gulls, 2 gulls on cliffs. Cattle / dog tracks in subtidal sand. As for BG-2, this beach segment is extremely biologically homogeneous (initially). Not obviously so, however, on the highly eroded section of coastline and the unstable nature of the substrate. What is there seems to be recruiting in low numbers but satisfactorily!

Ecological Considerations:

We received no information regarding resource sensitivity previously identified for this segment. Nor do there appear to be any particular restrictions.

40/46



(P.1)

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

BG-1

Approx. Segment Length: 4670m



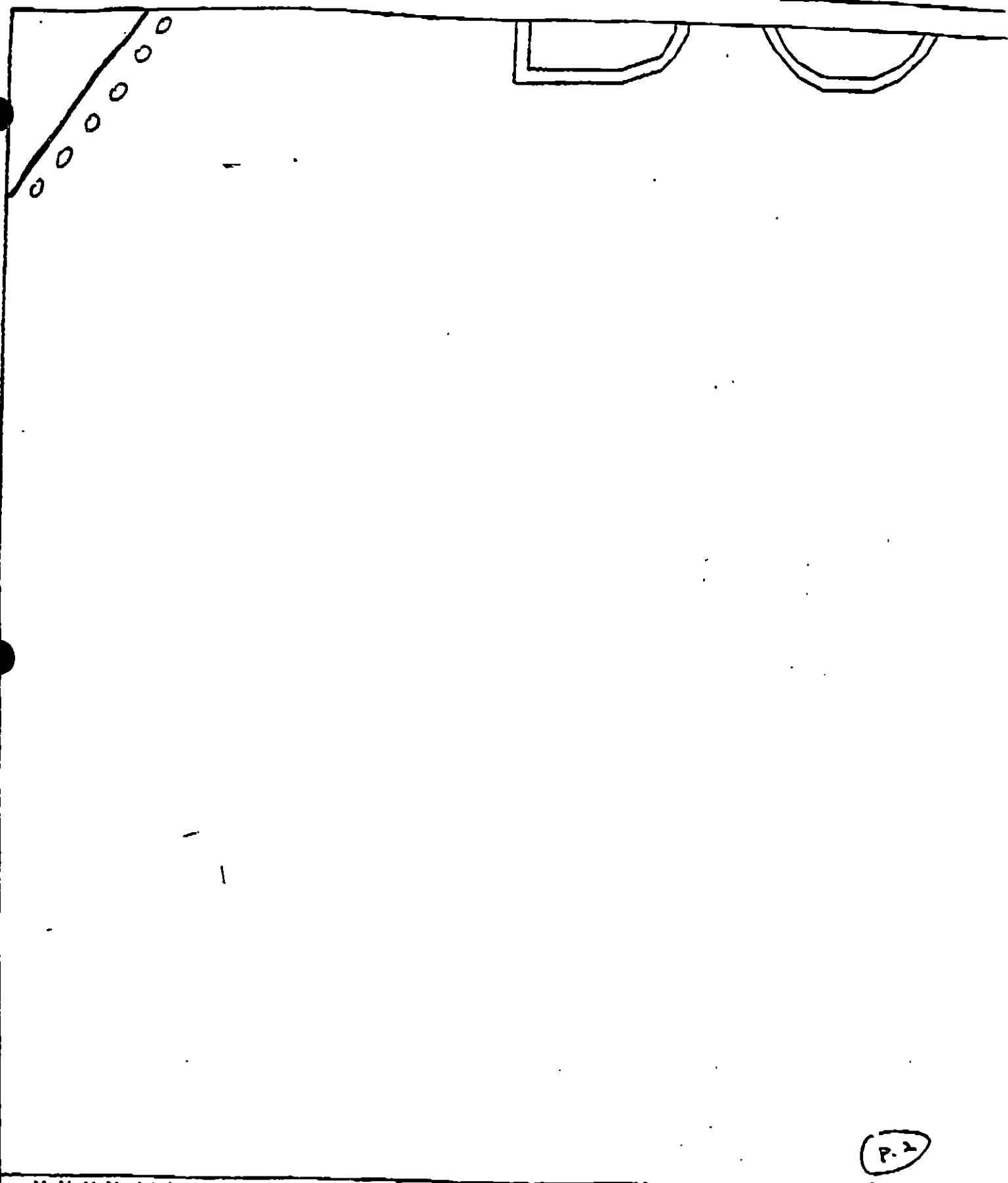
Map Key: KEN-BG-10

Name: Ruby Singh

Date: 9/29/90

Date Entered:

22/1/91



P.2

XXXX Wide

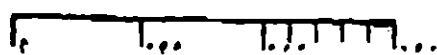
//// Medium

--- Narrow

TTTT Very Light

BG-1

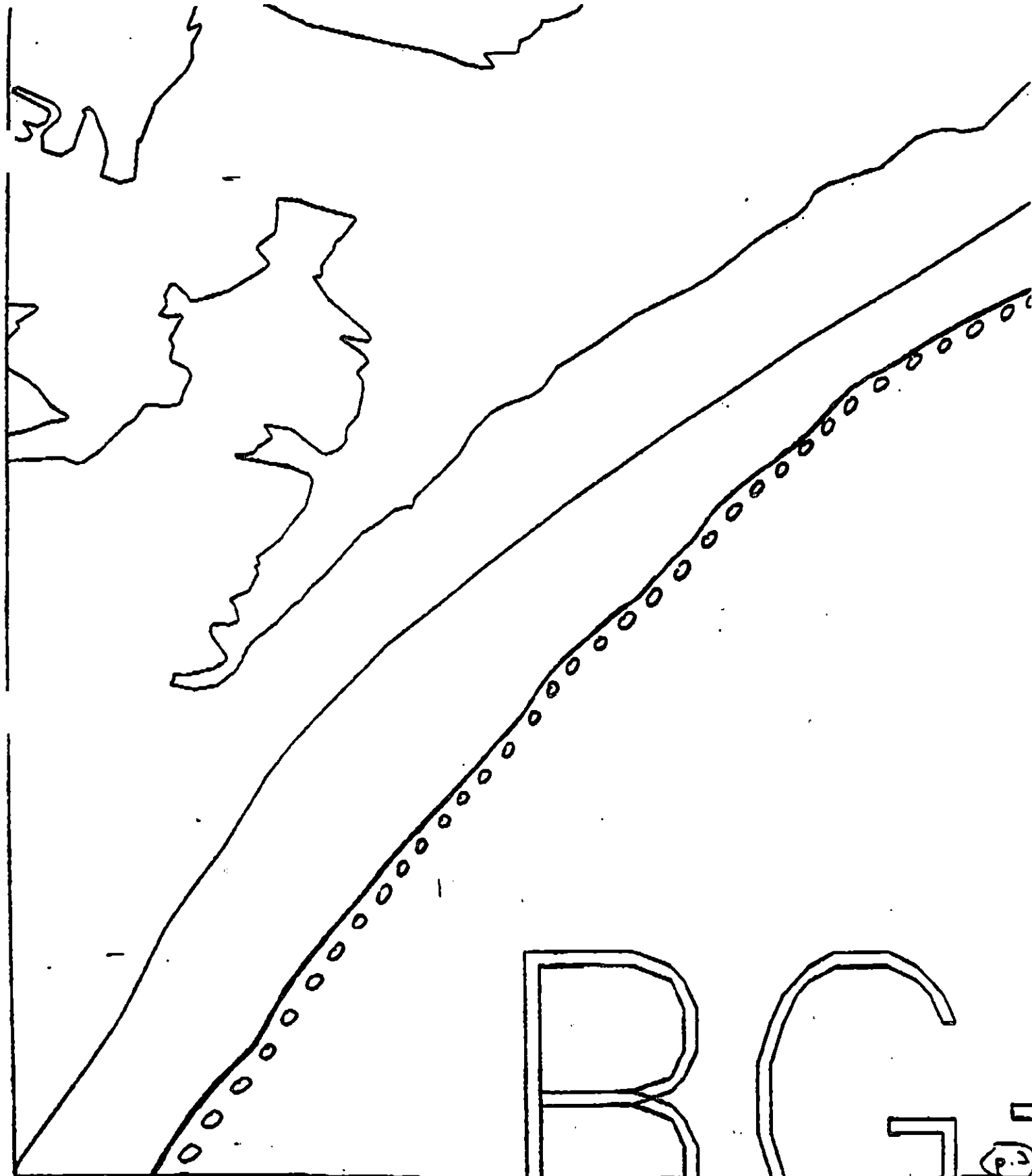
Approx. Segment Length: 4870m



Map Key: KEN-BG-10

Name: _____

Date: _____



BC

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

BC-1

Approx. Segment Length: 4670m



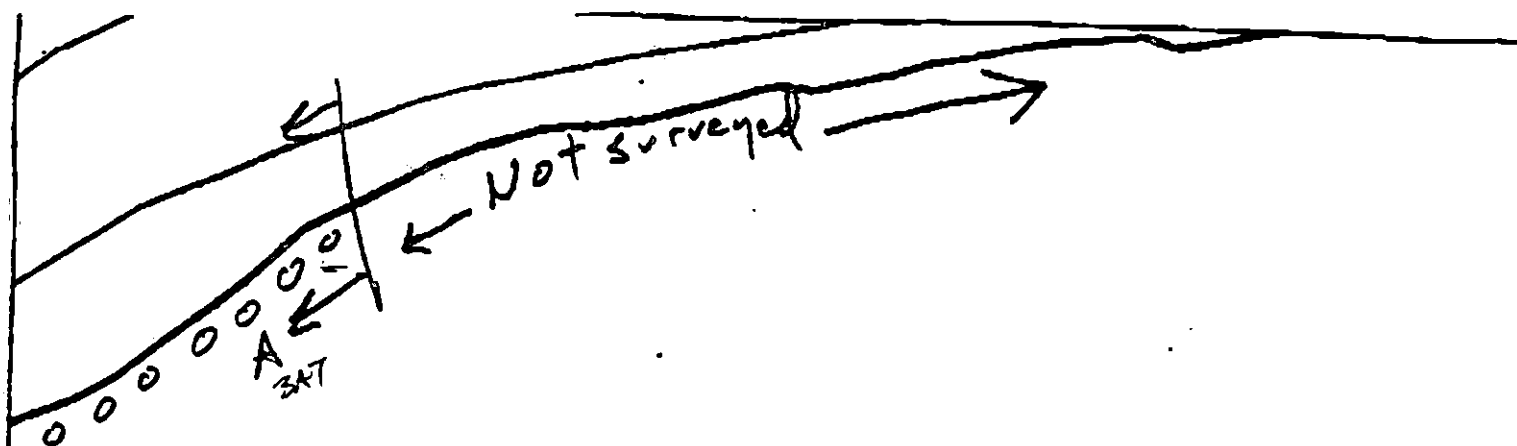
Map Key: KEN-BC-11

Name: Ruby Diesel

Date: 4/29/90

Date Entered:

1/1/91



(P.4)

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No

BG-1

Approx. Segment Length: 4670m



Map Key: KEN-BG-1g

Name: R. J. Singh

Date: 4/29/90

Scale: 1:10



XXXX Wide

BG-1

/// Medium

--- Narrow

Approx. Segment Length: 4870m

TTTT Very Light

OOOO No Oil

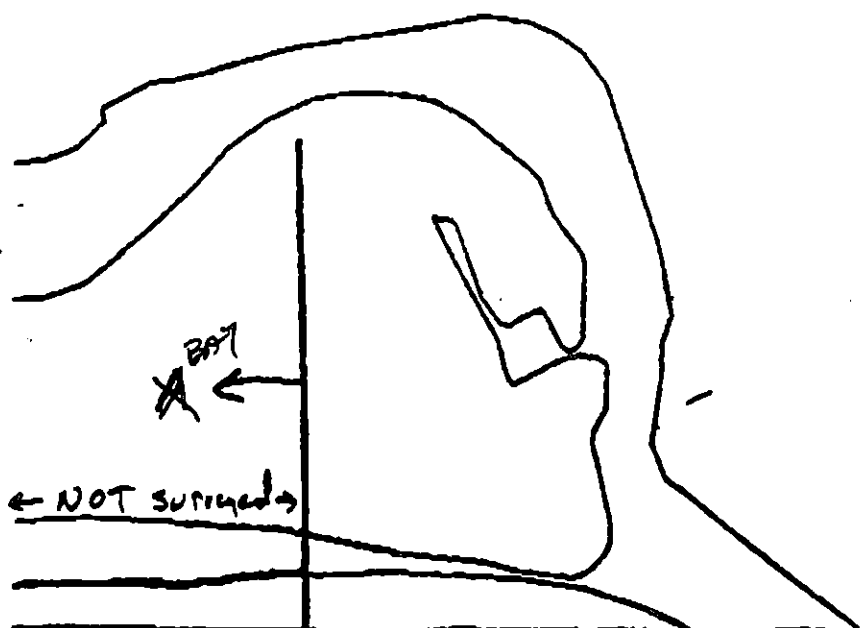


Map Key: KEN-BG-1b

Name: Ruby Singh

Date: 4/29/90

Data Entered:



XXXX Wide

BG-1

/// Medium

--- Narrow

Approx. Segment Length: 4670m

TTTT Very Light

DDDD



Map Key: KEN-BG-11

Name: Ruby Sigel

Date: 4/29/90

Date Entered:

27/1/90

SHORELINE EVALUATION

SEGMENT ST/ BL-12 SUBDIVISION A (1 OF 1) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-2 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
6Y Recreation: Special use destination
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: 4/25/90

OILING CATEGORIZATION:

Wide 44 m: Medium 81 m: Narrow 787 m: V.Light 1668 m: No Oil 194 m
Subsurface Oil Observed: Yes X No Maximum Depth 10 cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual pick up of oiled debris and trash, 2) bioremediation of surface and subsurface oil in areas shown on attached sketch maps. Work should be conducted after 6/1, with the approval of USFWS regarding eagle nest.

TAG COMMENTS: MANUAL TILLING IN AREA OF PIT 3 PRIOR TO BIO IF FEASIBLE

MANUAL PICKUP OF NOISE PATRIES AS INDICATED ON SKETCH

TAG APPROVAL DATE: 4/24/90.

ADEC ART WEINER Art Weiner

EXXON ANDY GALT Andy Galt

NOAA Joseph Talbot Joe Talbot

USCG M. J. Hall M. J. Hall

FOSC: W L DATE: 5-6-90

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 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.
- 6J 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/ BL-12-A SUBDIVISION: A DATE 4/8/90

USCG
NAME DAVID A. SCHNEIDER SIGNATURE David A. Schneider
TSS/USCGR

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

MANUAL SCRAPPING & WIRE BRUSHING OF COATING ON LARGE BOULDERS AND ROCK FACES RECOMMENDED FOR 3 OILED BEACH AREAS IN THIS SUBDIV. REMOVAL OF TAR SPOTS AND MOUSSE PATTIES FROM ^{POCKET} BEACH IN NE QUADRANT OF ISLAND. ~~REMOVE~~ PICK UP OF OILED BOOM SEGMENT & OTHER DEBRIS AROUND SHORELINE.

ADEC
NAME Peter Montesano SIGNATURE Peter Montesano

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS Description of Segment working way into Lower passage:
- on second Pocket Beach remove 15cm thick Mousse patty
- Beaches #3 + Beach #4 correspond to Pit 2 and Pit 3 on map. Hand wipe scrape oil, on, under, + around faces, and surface sediments, on Beach #4 clean oil behind near shore Island and remove mousse matting.
- The west side is washable to remove loose oil trapped near surface. Locations indicated on map give general areas. Area not easily washed when tide rips through channel
- NW side of Island has several pocket beaches which deserve spotty hand wiping and removal of oil sediments - penetrations to 3cm into surface sediments, interstitial rainwater silver sheens among sand boulders.

LAND MANAGER
NAME Janetta Pritchard SIGNATURE Janetta Pritchard
- Supratidal snow cover covered all along NW Side.

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Recommend manual pick up of Mousse patties, tar balls, asphalt and debris in this segment. Manual removal of pebbles depicted on sketch map #2 to remove coat.

OG C. DILLON USCG D. SCHNEIDER SEGMENT ST/ B1-12
 BIO T. BARRY LAND REP J. PRITCHARD SUBDIVISION A (1 of 1)
 EXXON A. SNOOK ADEC P. MONTESANO TIME 07:45 to 09:45
 TEAM NO.: 6 TIDE LEVEL: +2 to +5.5 DATE 04/07/90
 EST. SUBDIVISION LENGTH: 3111 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: NE to S to N
 SURFACE SEDIMENTS: R 50 % B 40 % C 8 % P 2 % G 0 % S 0 % M 0 % V 0
 SLOPE: Long 15 % Hang 45 % Vert 40 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 40 m M 6.5 m N 775 m VL 1981 m NO 250

SURFACE OIL

| CHARACTER | DISTRIBUTION | | | | OIL / FILM COLOR | | | | | | | | IMPACTED ZONES | | | |
|------------------|--------------|---|---|---|------------------|---|---|---|---|---|---|---|----------------|---|---|---|
| | C | S | P | N | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | SW | W | M | U |
| ASPHALT PAVEMENT | | | | | | | | | | | | | | | | |
| POOLED | | | | | | | | | | | | | | | | |
| COVER | | | X | | | X | | | | | | | | | X | |
| COAT | X | X | X | X | | X | | | | | | | X | X | | |
| STAIN | X | X | X | | | | | X | | | | | X | X | | |
| MOUSSE | | | | | | | | | | | | | | | | |
| PATTIES | | | | X | | | | X | | | | | | | X | |
| TARBALLS | | | | X | | X | | | | | | | | | X | |
| FILM | | | | | | | | | | | | | | | | |
| NO OIL | | | | | | | | | | | | | | | | X |

PAVEMENT: H F S 0 sq. m by 0

PATTIES / TARBALLS 1 B/

NEAR SHORE SHEEN? NO BR RW (SL)

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

DEBRIS COLLEC
☐ YES ☒ NO

TYPE 0

#BAGS 0

Photographs:

Roll No. ST-6-5

Frames 1, 2

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 | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | | | | |
| 1 | 25 | | | | X | | 0-10 | | X | | | | | X | | | X | | | | | | C/P/G |
| 2 | 10 | | X | | | | 0-7 | | X | | | | | X | | | X | | | | | | C/P/G |
| 3 | 12 | X | | | | | 0-7 | | X | X | | | | | | | X | | | | | | C/P/G |
| 4 | 8 | | X | | | | 0-5 | | X | | | | | X | | | X | | | | | | C/P/G/M |
| | | | | | | | . | | | | | | | | | | | | | | | | |
| | | | | | | | . | | | | | | | | | | | | | | | | |

COMMENTS MOST OF SUBDIVISION CONSISTS OF VERTICAL / HIGH ANGLE ROCK AND BOULDER WITH A BROKEN OR PATCHY STAIN AT THE HIGH TIDE LINE. WITHIN THE STAIN BAND (USUALLY 1-2 m WIDE) IS A SPORADIC OR PATCHY DULL BLACK COAT (VERY WEATHERED, ALMO: A THIN TAR COAT).

THERE ARE 3 OILED BEACH AREAS WHICH WERE SKETCHED ON THE TWO ATTACHED SKETCH MAPS.

Page 1 of

REVIEWED CED DATE 4/11/90

OG C.2 on
SEGMENT STI BL-12
SUBDIVISION A
DATE 07 April 90

CHECKLIST

☐ Arrow
☐ Approx. Scale
☐ Seg/Sub Entry
☐ Oil Dist.
☐ Width
☐ Length
☐ % Cover
☐ Substrate Character
☐ Est. HRA/LA/MR
☐ SSI
☐ Profile Location(s)
☐ Profile(s)
☐ Pit Location(s)
☐ Photo Location(s)

LEGEND

1 Δ
PR - No Subsurface Oil

2 Δ
PR - Subsurface Oil

$\begin{bmatrix} CT/C \\ CT/B \end{bmatrix}$
Continuous Distribution

$\begin{bmatrix} CT/B \end{bmatrix}$
Broken Distribution

$\begin{bmatrix} CT/P \end{bmatrix}$
Patchy Distribution

$\begin{bmatrix} CT/S \end{bmatrix}$
Splashed Distribution

Oil on Vegetation

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

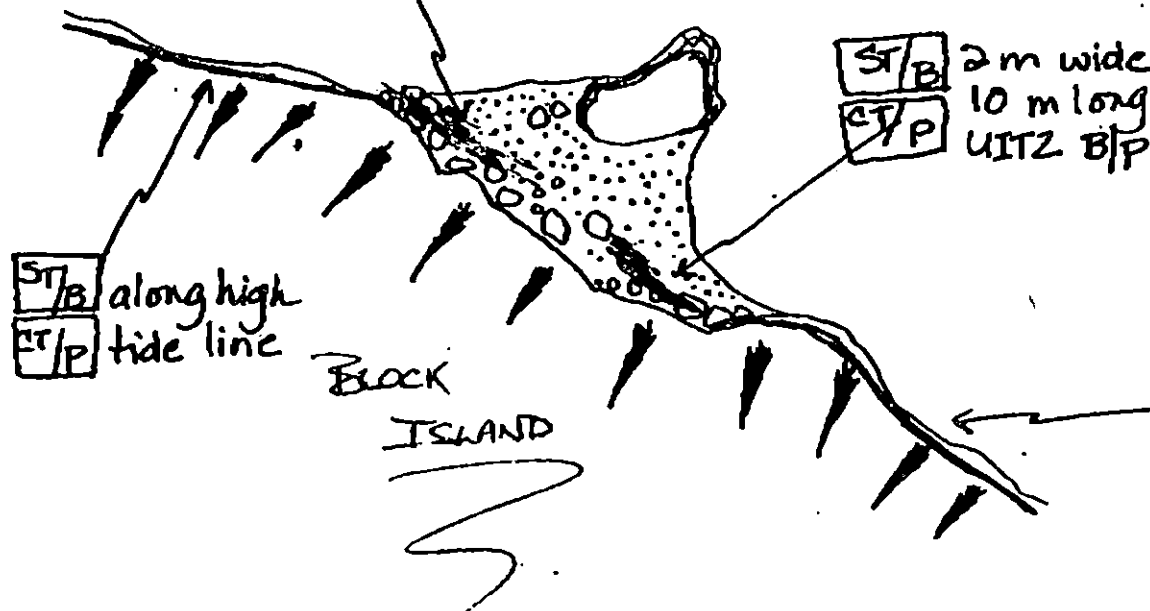
SCH MAP #2

SEGMENT BL-12
SUBDIVISION A
LENGTH 325 meters

MANUAL PICK UP OF
MOUSSE PATTIES

~~NTR~~

UITZ $\begin{bmatrix} ST/P \end{bmatrix}$ 2m wide
15 m long
with 15-20 cm diameter
mousse patties of
pebbles and vegetation



(Oil lengths are for sketched area only)

Oil Character Length (m): AP 0 PO 0 CV 0 CT 10 ST 314 MS 0 PT 1 TB 0 FL 0 NO 0

SCHNEIDER

REVISION 000000

OG C. LON

SEGMENT ST/BL-12

SUBDIVISION A

DATE 07 APR 80

CHECKLIST

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

LEGEND

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

SKETCH MAP #1

SEGMENT BL-12
SUBDIVISION A

LENGTH = Approx. 700 METERS

$\boxed{CT/S}$ on hang rock/boulders
 $\boxed{ST/B}$ along high tide line

Pit 3 photo 2

MANUAL TILL/RAKE
PRIOR TO BIO
(IF FEASIBLE)

BIO

$\boxed{ST/B}$ 11m wide
15m long
M-UITZ

Pit 2

Small amt.
oiled boom

MANUAL
PICK UP

$\boxed{CT/C}$ 2-3m wide
5m long
 $\boxed{CV/P}$ UITZ boulders
Photos: 1, 2

$\boxed{ST/B}$ 5m wide
 $\boxed{CT/P}$ 25m long
UITZ boulders

$\boxed{CT/B}$ 1-2 m wide
at high tide line

$\boxed{CT/C}$ 1m wide
10 m long
with tar spots

$\boxed{ST/B}$ along high tide line
 $\boxed{CT/S}$ on hang rock + boulders



(Oil lengths for sketched area only)

SCHNEIDER

Oil Character Length (m): AP 0 PO 0 CV 5 CT 40 ST 645 MS 0 PT 0 TB 10 FL 0 NO 0

SHORELINE ECOLOGICAL SUMMARY

Revision: 01

Segment ST/ B12 Subdivision A Date (mo/day/yr) April 6/7 1990
 1990-2000 April 6
 Time (24 hr) 0900-1000 AM Biologist Jim Barry Length - 3111 m

- (A) Substrate type and % of segments:
 (1) Bedrock 50 (2) Boulder 40 (3) Cobble 8 (4) Pebble 2 (5) Sand (6) Silt
- (B) Overall % cover of biota (% of segment): Dense 25 Moderate 60 Low 75
- (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-6-4

Frames 34-36

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 |

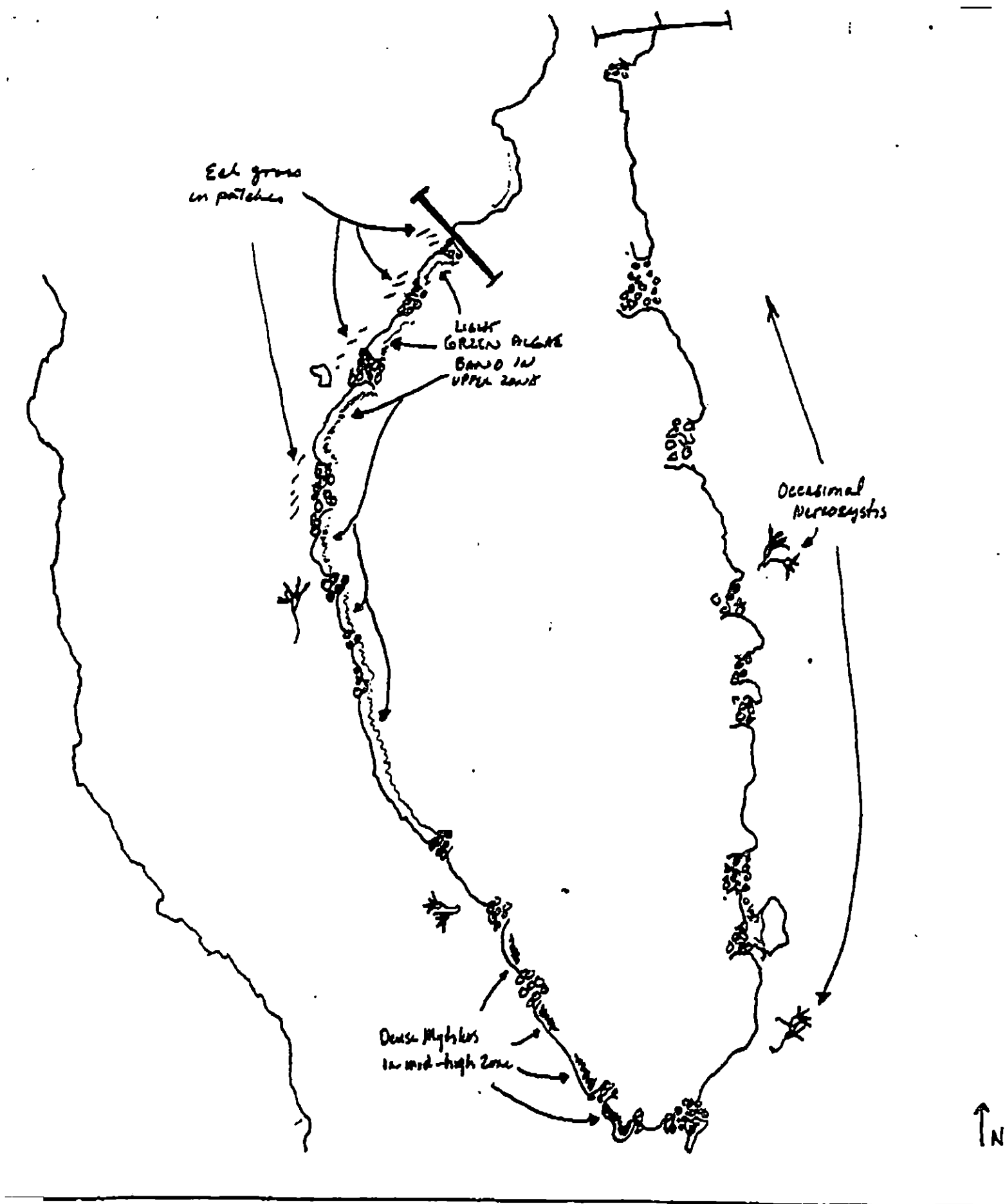
NOT PRESENT

Wildlife Observations/ General Comments:

BAND EAGLES - 3-4 (w/ nest material) - couldn't see nests (2)
 Ravens - 2 Common Merganser - 2 Pelagic Cormorant - 3
 Gulls - 5 Sea Otter - 1 Pigeon Guillemot - 2

Ecological Considerations:

- ST-2 2 BAND EAGLE NESTS ARE SUPPOSED TO BE PRESENT
 we saw 1 eagle carrying nesting material, but did not see nests.
- See grass beds over near the shore and may be used for spawning sites by herring.



BL-12 2775 m

BL12

April 7/1990

Time 1930 - 2000 April 6
and 0800 - 1000 " 7TIDE +1 → +3
TIDE +2.5 → +6

I General Comments.

A. BL12 is a segment that contains high angle cliffs and cobble/boulder beaches. Biotra along the segment are generally moderate in density, with no outstanding features. Along the exposed cliffs at the south end of block island *Mytilus* and barnacles (*Semibalanus*) are quite abundant, even dense. Towards the north, no species are particularly dense, ~~and~~ except for a thick mat of green filamentous algae.

B. Ecological Consideration - No outstanding sensitivities. Nearshore eel grass beds ~~and~~ may be used by herring as a spawning substrate ~~and~~

Bald Eagle nests (2) are listed as special sensitivities, but were not observed, though an adult ~~sooty~~ eagle was observed carrying nesting materials -

II Major Species.

- A. Barnacles: Acorn barnacles (*Semibalanus cariosus*) are moderate to dense in the middle zone at the exposed end of the segment. The Z; smaller species (*Balanus glandula* and *Citharus dalli*) are moderate to dense in some upper and middle zone sites. Sponges are present on cobble in the mid to high zone.
- B. *Mytilus*: Mussels are most abundant at the exposed end of the transect, and scarce to moderate in protected sites.
- C. Gastropods: *Pseudonittulus* (*littorina*) were common in most rock types. Limpets were less abundant. Whelks were moderate.
- D. Fucus: Fucus was moderately abundant at protected sites and slightly more abundant at the south end of Block Island. Juveniles were present in moderate densities on mid to high intertidal rocks at several locations.

III Other Species

Most of the species typical of other locations were present in this habitat, but with moderately lower abundances. Several ~~the~~ more rare species were not found at this site. Filamentous green algae were abundant.

IV Oil related Comments.

- 1) Dead Fucus adults were seen at several locations in the upper intertidal - these appear to have been killed by heat during cleaning operations. Juveniles ~~are~~ are present & will replenish the adult population.

April 7, 1990

V Wildlife Observations

Several species of birds were observed in the area of IN32A

Common Merganser - 2

Belted Goldeneye - 2

Crow - 6

Raven - 2

Bald Eagle - 3

Glaucous-winged gull - 5

Pelagic Cormorant - 3

Pigeon Guillemot - 2

Sea Otter - 1

VI Species List

A. MARINE PLANTS

DIATOMS / BLUE GREEN ALGAE M1214

2) Green Algae - CHLOROPHYTA

Acrosiphonia / Siphonophora 023

Cladophora 512

Enteromorpha 023

Ulva M123

Urospora 023

3) RED ALGAE - RHODOPHYTA

Bosmina ? 512

Cylindrocapsa ? 512

Ceramium sp. 512

Endocladia muricata 512

Halosaccion glandiforme M123

Rhodospira ? 512

Cryptosiphonia ? M12

Mastocarpus sp. 512

Membranoptera sp. M12

Microcladia ? M12

Lithothamnion pacificum 512

Petrocelis middendorffii 512

Porphyra ? 023

Rhodomela larix M12

Rhodymenia palmata M12

* SPAT OR JUVENILES

D DENSE

M MODERATE

S SPARSE

R RARE

1 BEACH

2 BOULDER

3 CORALS

4 PEBBLE

5 SAND

VI SPECIES LIST (cont)

4) BROWN ALGAE - PHAEOPHYTA (unsubtd)

ALARIA MARGINATA M12 U

COSTARIA spp S12 U

AGARUM spp. O U

Hedophyllum sessile S12 U

HILDENBRANDIA M1

LAMINARIA sp MU

NERIUCYSTIS sp SU

FUCUS DISTICHUS M12

SYSTOSIPHON lomentaria M12

Ralfsia S12

5) HIGHER PLANTS

ZOSTERA MARINA - eel grass SU

B MARINE INVERTEBRATES

1) Jellyfish / Anemones / Corals - Cnidaria

1) Hydroids - Order Hydroida

~~Sertularia Sertularia? RT.~~

2) Hydrocorals - Order Siphonaria

~~Altopora siphonaria RT~~

3) Anemones - Class Anthozoa

Epuchis vittata? M12

Urticina crassicornis S12

Anthopleura elegantissima S12

A. artemisia S12

A. xanthogrammica S12

3) Ctenophores - ~~Eurostoma? R. communis~~

4) FLATWORMS - PLATYHELMINTHES -

2 unknown spp. R23

5) Annelid Worms

Polychaetes -

Nereidae M12

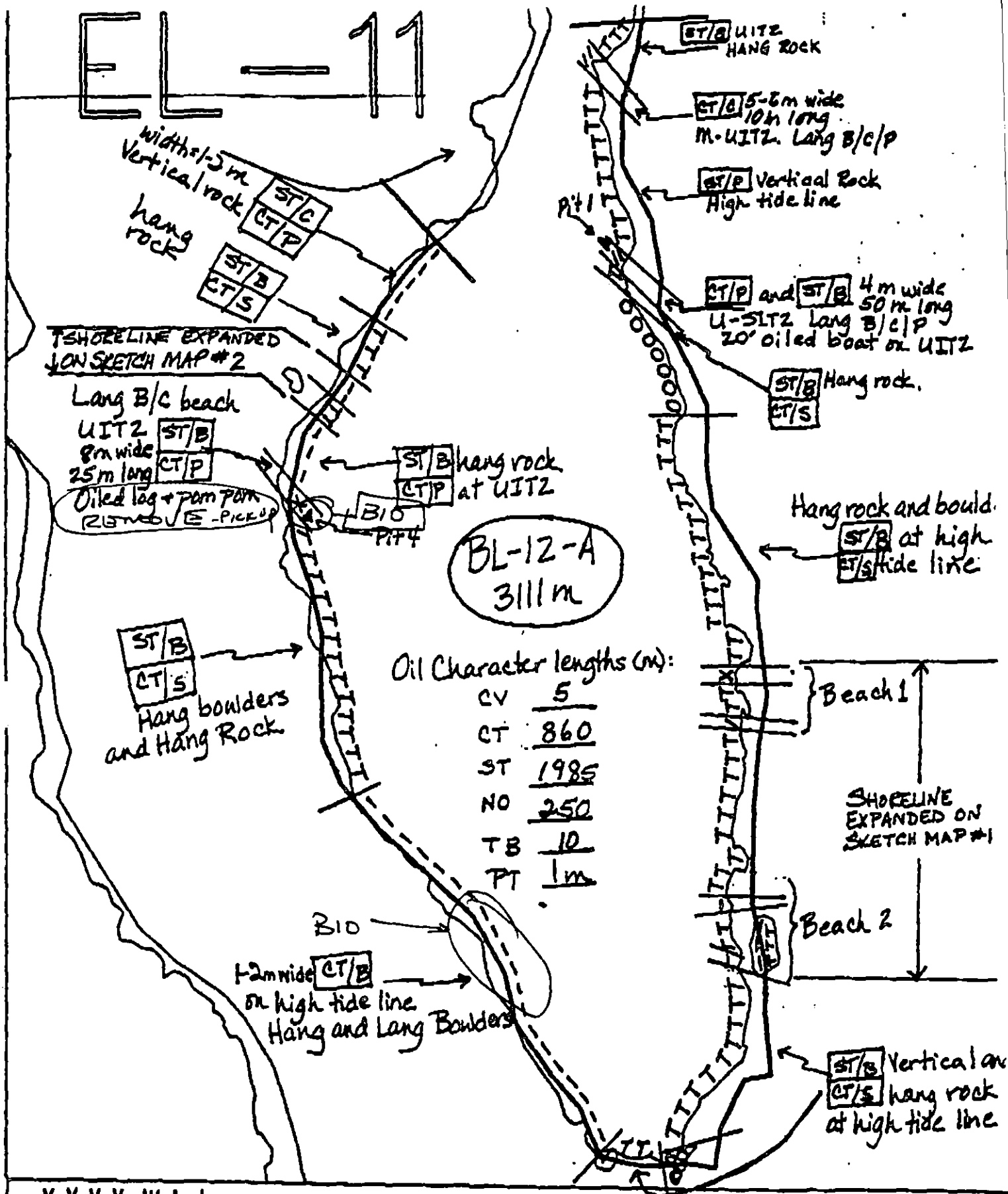
Nephtyidae M12

Serpulidae Serpula M123

Crucigera spp. M123

Spirobridae - Spirobrus M123

EL-11



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

BL-12

EXXON Segment Length: 3111m

ADEC Segment Length: 2775m



Map Key: PWS-30a

Name: C. DILLON

Date: 4/7/90

Date Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT BL-12 SUBDIVISION A (1 of 1)

| WORK WINDOW | |
|--|--------|
| Manual Pickup More Than 400m From Active Nest | OPEN |
| Manual Pickup Less Than 400m From Active Nest | CLOSED |
| Bioremediation and Manual Tilling
More Than 400m From Active Nest | OPEN |
| Bioremediation and Manual Tilling
Less Than 400m From Active Nest | CLOSED |

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T Bald Eagle Nest

USFWS 6/1/90 map indicates an active nest in Subdivision A. Closed to manual pickup, bioremediation, and manual tilling within 400m of active nest. No constraint to manual pickup, bioremediation and manual tilling more than 400m from active nest.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

[Signature]

Date

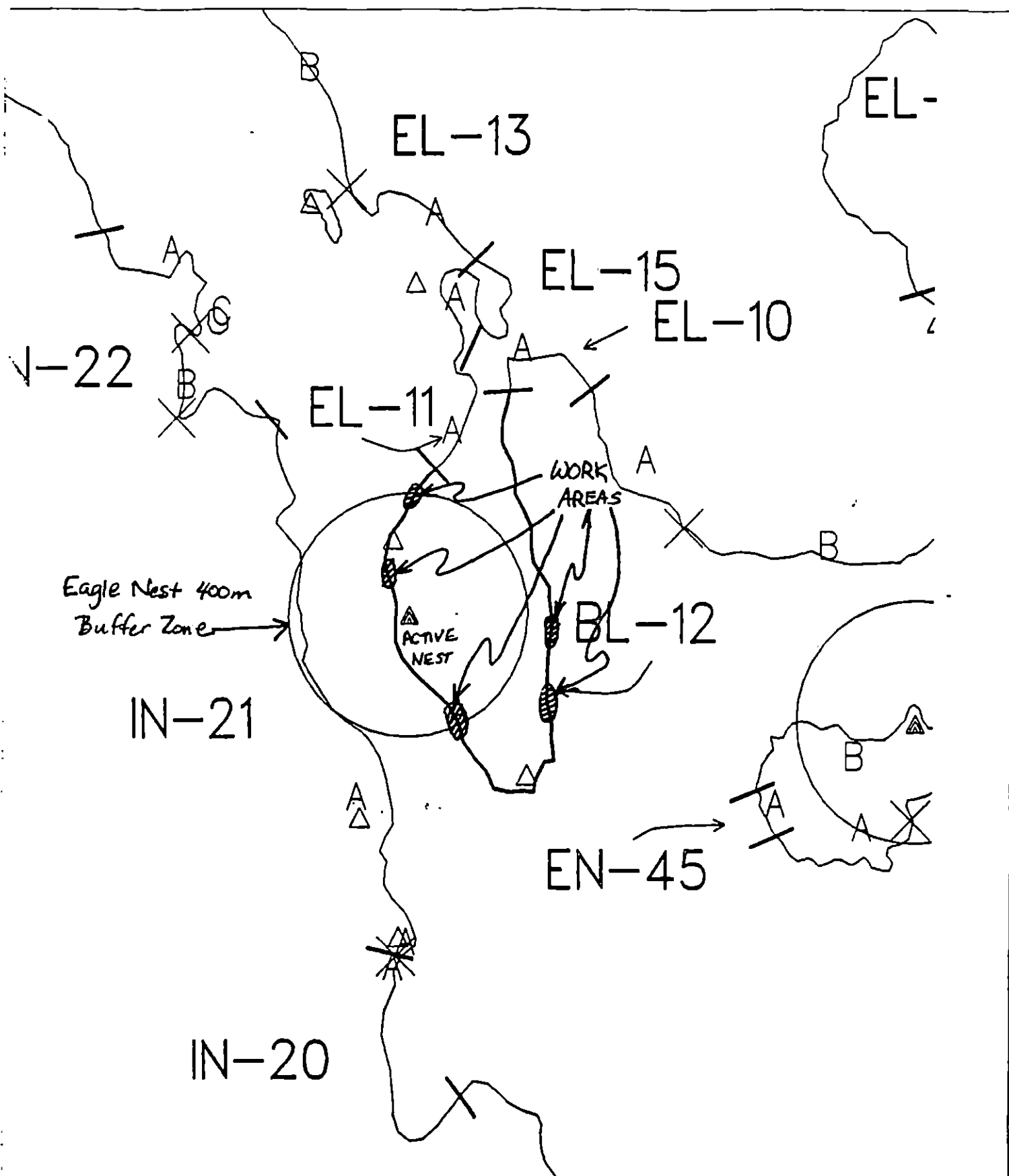
6-10-90

Prepared by

[Signature: J.P. Phillips]

Date

6-10-90
6/10/90



Exxon Company, USA
Map Key: PWS-BL-12
June 04, 1990

SHORELINE EVALUATION

SEGMENT ST/ BM-001 SUBDIVISION A (1 OF 1) DATE 4/4/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Kenai Fiords National Park (4LL) - no time constraints.

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

SHPO SIGNATURE: Charles J. Hines DATE: April 12, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 42 m: V.Light 1111m: No Oil 94 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/12/90.

ADEC John Bauer
EXXON Andy Galt
NOAA Burl Wescott
USCG M. J. Hall

FOSC: DATE: 4-20-90

Consultation between NOAA + NPS on
13 April revealed that NPS agrees NTR.

✓

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / BMOI SUBDIVISION: A DATE APR 2, 1990

2G/NOAA
NAME JACQUI MICHEL SIGNATURE Michel

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

Although there is oil on the vertical walls of the fissures, it poses little environmental risk to wildlife, and there are no treatment techniques that could be used here. It should be noted that there has been little natural removal of oil from this sheltered area over the winter, so natural removal will be slow.

ADEC
NAME JOHN R. REED SIGNATURE John R. Reed

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

The oiled band on the vertical walls of fissured granite is in a location where it should not go anywhere and would be a hazard to workers. I have read and agree with all information on S.S.A.T Forms.

LAND MANAGER NPS
NAME Michael Tetreau SIGNATURE Michael Tetreau

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

I feel That This segment was sufficiently surveyed and The information on This form is accurate. Little weathering has occurred on This oil although it has hardened significantly. usse and patties on small substrate can be removed with hand tools and some of The heavier cover and coat could be removed with sorbents if The oil becomes softer during The summer.

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG MANN USCG/NOAA MICHEL SEGMENT STI BM 01
 BIO CARR LAND REP TETRAU - NPS SUBDIVISION A
 EXXON BOYER ADEC REED TIME 10:40 to 12:30
 TEAM NO.: 18 TIDE LEVEL: +6.0 to +1.8 DATE 4/2/90
 EST. SUBDIVISION LENGTH: 1200 m ☐ Sun ☐ Clouds ☐ Fog ☒ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: EAST to WEST
 SURFACE SEDIMENTS: R 90 % B 5 % C 5 % P 0 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 20 % Hang 20 % Vert 60 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 30 m VL 110 m NO 60 m

SURFACE OIL

| CHARACTER | DISTRIBUTION | | | | OIL / FILM COLOR | | | | | IMPACTED ZONES | | | |
|------------------|--------------|---|---|---|------------------|--------|-------|----|----|----------------|--------|---|---|
| | C | B | P | S | SOL BR | DOL RW | GL SL | TL | LB | SU | UI | M | U |
| ASPHALT PAVEMENT | | | | | | | | | | | | | |
| POOLED | | | | | | | | | | | | | |
| COVER | | | ✓ | X | | ✓ | | | | | ✓
X | ✓ | |
| COAT | ✓ | | X | | | ✓ | | | | | ✓
X | ✓ | |
| STAIN | | | | ✓ | | ✓ | | | | | ✓ | | |
| MOUSSE | | | ✓ | | | | | ✓ | | | ✓ | | |
| PATTIES | | | | ✓ | | | | ✓ | | | ✓ | | |
| TARBALLS | | | | | | | | | | | | | |
| FILM | | | | | | | | | | | | | |
| NO OIL | | | | | | | | | | ✓ | | | ✓ |

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

| OILED DEBRIS | AMOUNT | | |
|--------------|--------|----|----|
| | SM | MD | LG |
| Logs | | | |
| Vegetation | | | |
| Trash | | | |
| Debris | | | |

DEBRIS COLLECTED
☐ YES ☒ NOTYPE N/A#BAGS N/APhotographs: We collected 14 bags of patties.Roll No. ST 18 - 3Frames (1 - 11)

SUBSURFACE OIL

| PIT NO. | PIT DEPTH (cm) | SUBSURFACE OIL CHARACTER | | | | | OILED INTERVAL (CM-CM) | BELOW | | OIL / FILM COLOR | | | | | | PIT ZONE | | | | A N A | SUBSURFACE SEDIMENTS |
|---------|----------------|--------------------------|----|----|----|----|------------------------|-------|----|------------------|--------|-------|--------|----|----|----------|---|---|---|-------------------|----------------------|
| | | OP | OR | OL | OF | NO | | VO | UC | SOL BR | DOL RW | GL SL | CEM TL | LB | SU | U | M | L | | | |
| 1 | 20 | | | | | ✓ | - | | | | | | | | ✓ | | | | N | C.B.P. throughout | |
| 2 | 20 | | | | | ✓ | - | | | | | | | | ✓ | | | | N | B, C " | |
| 3 | 20 | | | | | ✓ | - | | | | | | | | ✓ | | | | N | C.B. " | |
| 4 | 20 | | | | | ✓ | - | | | | | | | | ✓ | | | | N | C.B. " | |
| 5 | 20 | | | | | ✓ | - | | | | | | | | ✓ | | | | N | C.B. " | |
| 6 | 20 | | | | | ✓ | - | | | | | | | | ✓ | | | | N | C.B. " | |

COMMENTS

Along outer bedrock and boulder surfaces that border the cove, oil consists of scattered coat and cover splashes. Several patches of oil, several meters long and ~1m wide occur on vertical faces. Little wave abrasion of oil was observed. The one location of concern is where oil coats the walls of fissures between exfoliating granite slabs. This small area (~30m long) is illustrated in an attached sketch.

OG Man

SI CH MAP

SEGMENT ST/ 15M-1SUBDIVISION ADATE 4, 2 90

CHECKLIST

☐ N Arrow
☐ Approx. Scale
☐ Sep/Sub Bndry
☐ Oil Dist.
☐ Width
☐ Length
☐ % Cover
☐ Substrate Character
☐ Est. HMA/LWL
☐ SSL
☐ Profile Location(s)
☐ Profile(s)
☐ Pk Location(s)
☐ Photo Location(s)

LEGEND

1

P1 - No Subsurface Oil

2

P1 - 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

No sketch map - see

GIS map.

*largely due to Jacqui Michel's
 input
 Dean Dale of NOAA concurs

Brian: We* compute oil character length in the following way:

(1) Where oiling is in discontinuous groupings of splatters, we compute oil character length based on estimates of what % of the total shoreline classified as very ^{light} ~~medium~~ has some oil category type (ie CV, CT, ST). For instance, on segment XXX-1, we estimate that ^(clumps of) CV/S occupies only 1% of a 1000m shoreline. This yields an oil character length of 10m.

(2) where oiling is continuous, we compute oil char. length in the obvious manner.

Oil Character Length (m): AP 0 PO 0 CV 560 CT 560 ST 560 MS 20 PT 365 TB 0 FL 0 NO 640

REVISION: 03/24/90

BM-1
2 April 90
Chance COVE
Subdiv. A

~~SEALING POST TREATMENT
ENGINEER'S ASSESSMENT~~

~~24 OCT 1989~~

~~GARY L. BENTON~~

NO EXXON MAP
WAS IN MY PACKET.
Please transfer to
Exxon map.

No Oil observed
on bedrock and
boulder shoreline
on 24 OCT 1989

BM001

500.0m

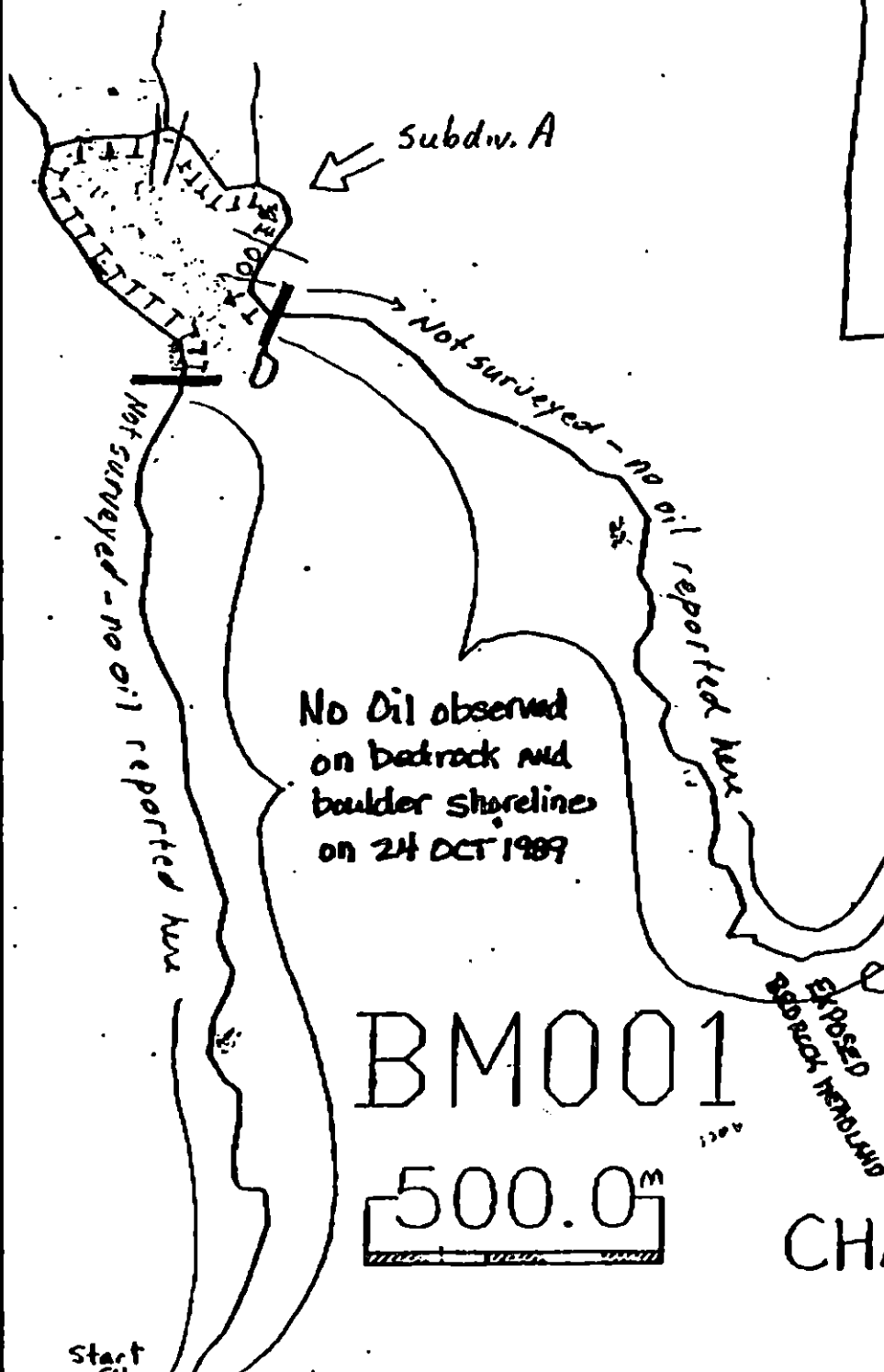
CHANCE COVE

| OILING | |
|--------|--------------|
| H | Heavy |
| M | Moderate |
| L | Light |
| VL | Very Light |
| N | None |
| NS | Not Surveyed |

(2)

N

Start



3 BM-1

200 mm

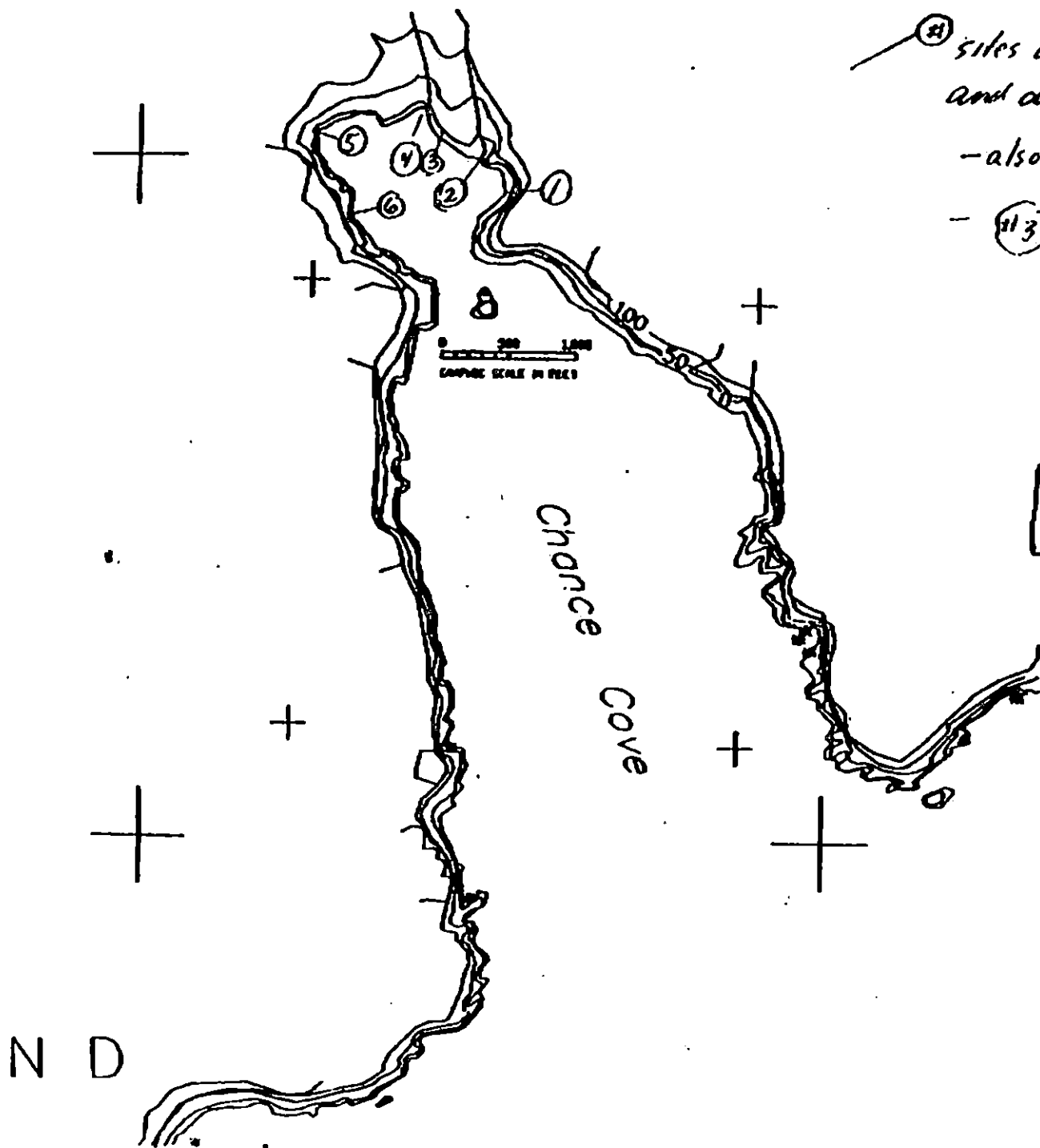
2 April 1990

KEY

① sites where we landed, took photographs,
and dug pits.

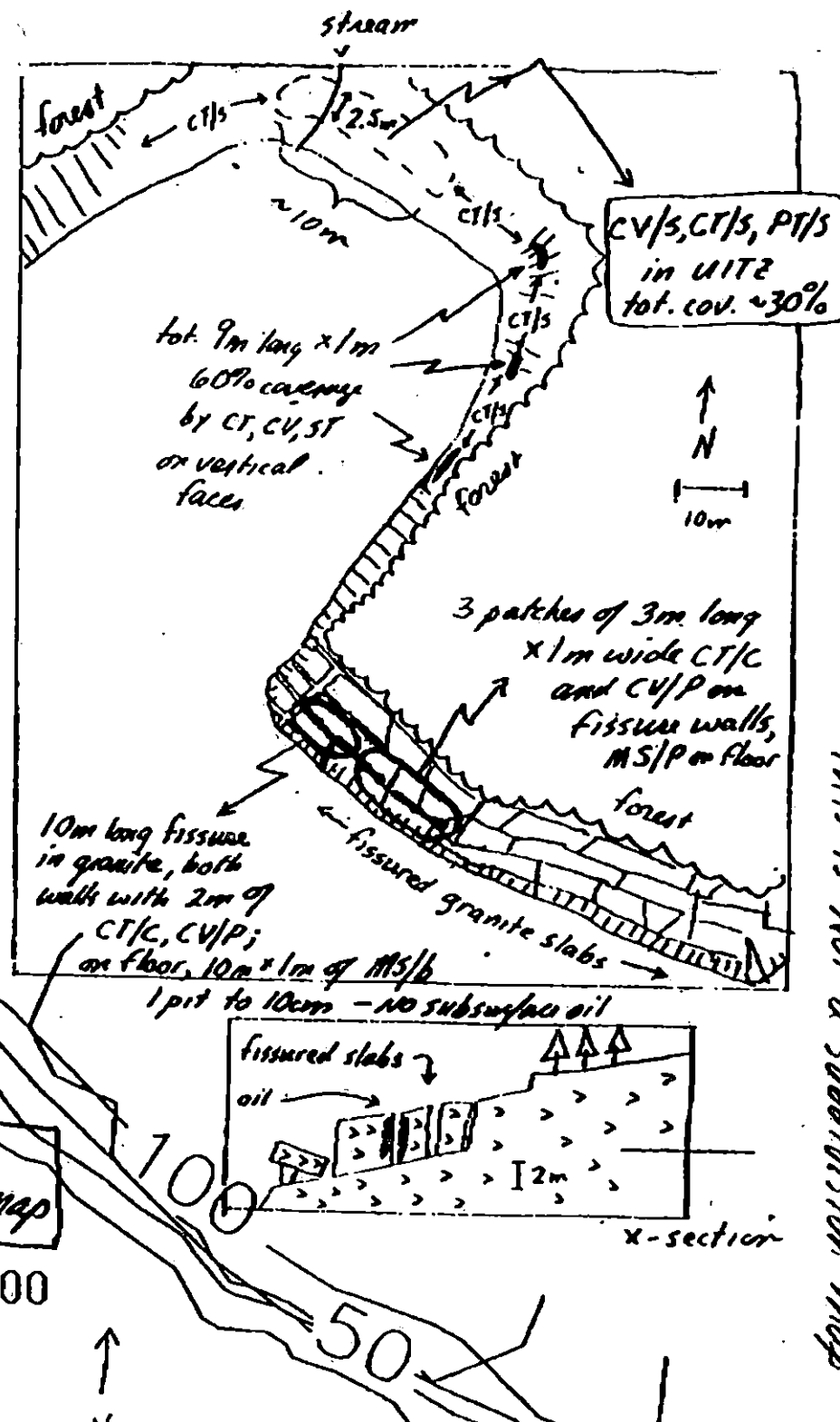
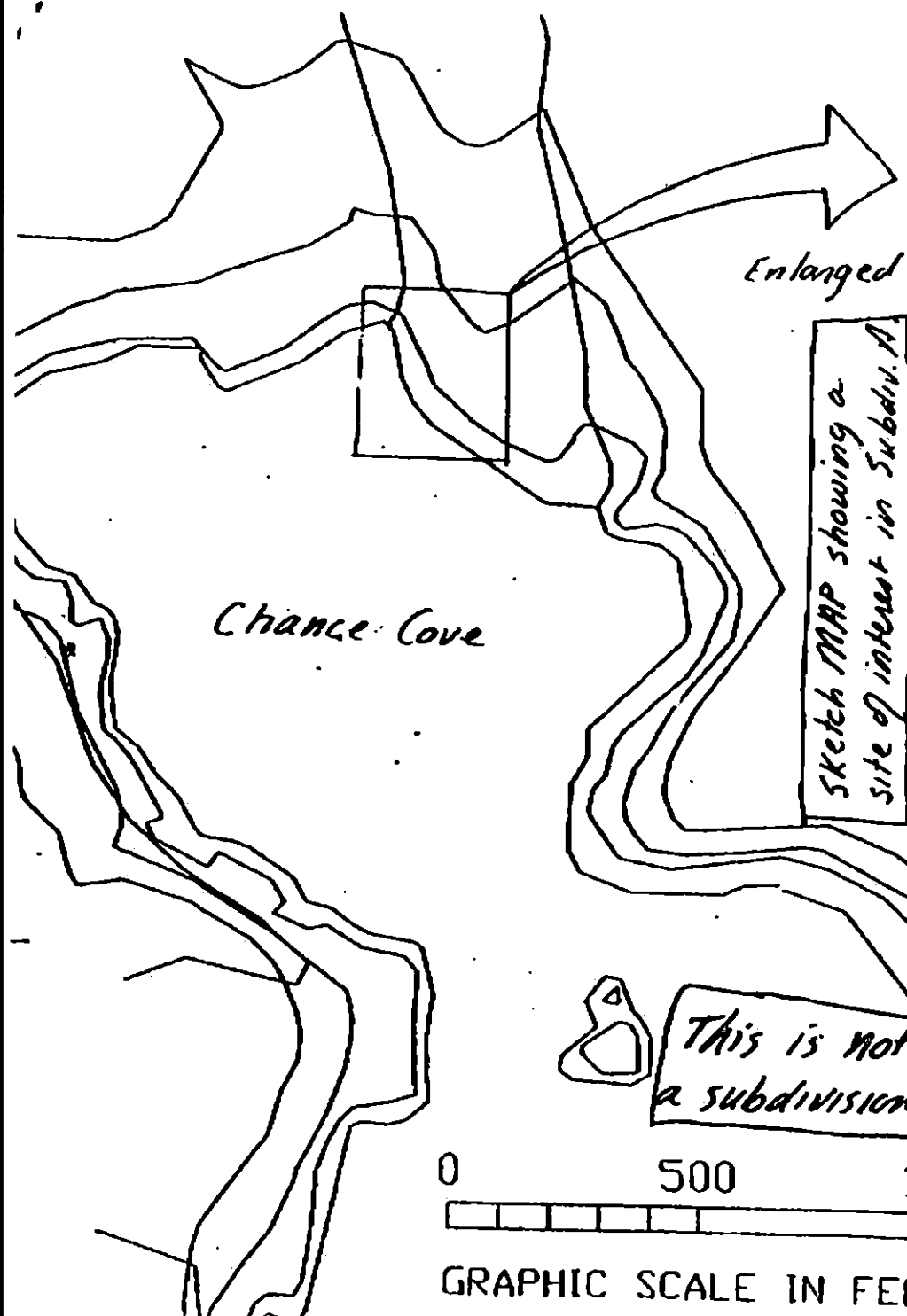
- also photo. locations.

- ③ is fissure/slab site



This is not a subdivision
map.

This is not a subdivision map



SHORELINE ECOLOGICAL SUMMARY

REVISION: 000000

Segment ST / BM-1 Subdivision A (of A) Date (mo / day / yr) 4 / 2 / 90Time (24 hr) 1040 Biologist M. CARR(A) Substrate type and % of segments:
(1) Bedrock 90 (2) Boulder 5 (3) Cobble 5 (4) Pebble (5) Sand (6) Silt (B) Overall % cover of biota (% of segment): Dense 30 Moderate 10 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. 3Frames 1-11

BARNACLES

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

MYTILUS

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

Not present on these substrates.

GASTROPODS

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

FUCUS

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

Wildlife Observations/ General Comments:

White-winged scoters - (4)

Ecological Considerations:

Sensitivity codes: 4-LL (National Park)

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / BM-01 SUBDIVISION: A DATE 2/4/90USCG

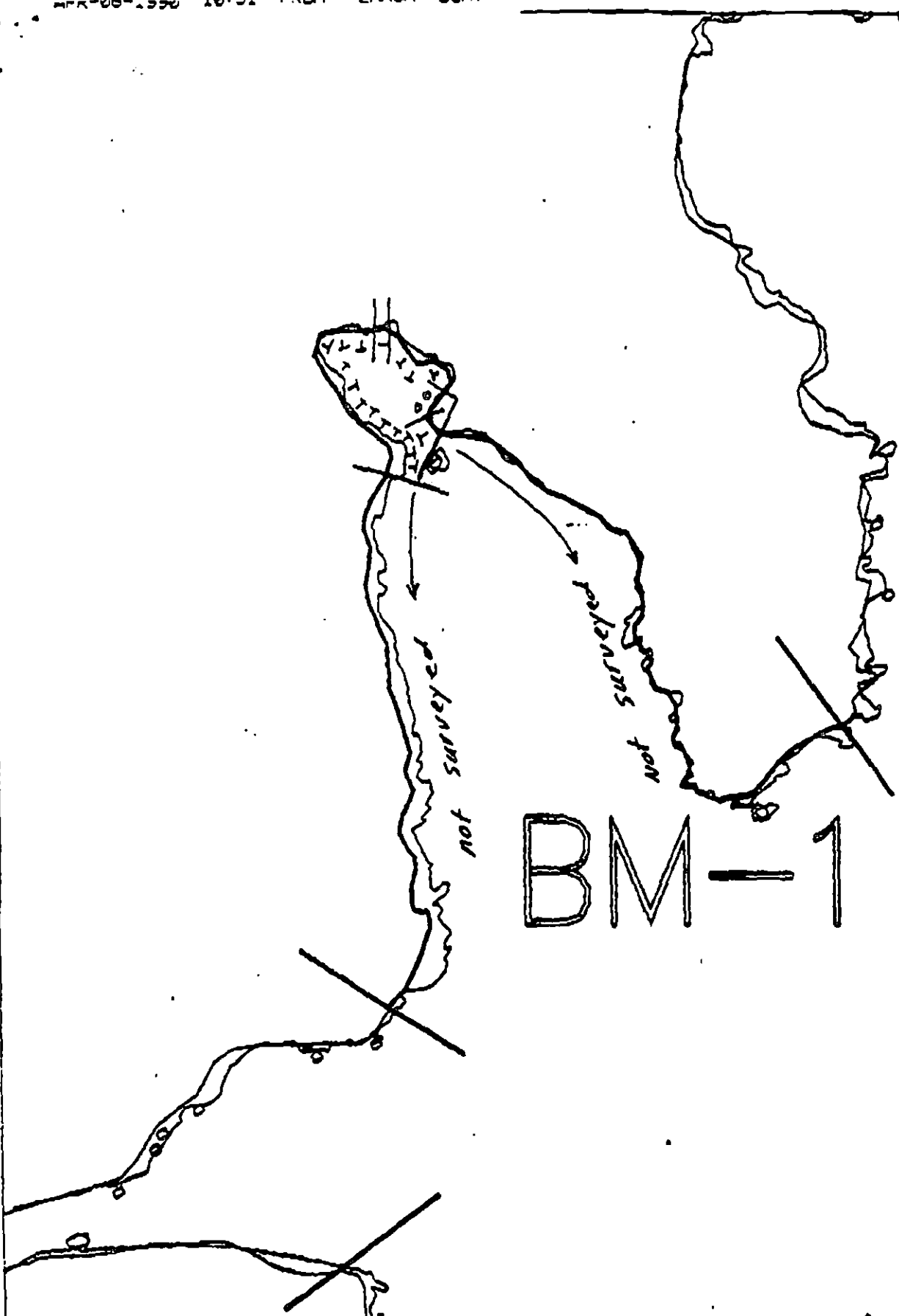
NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDADEC

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDLAND MANAGERNAME Peter Zellars SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

I was not present for the BM-1 Assessment-4/2/90. I did review all information collected by the visiting SSAT members, and sat in on their deliberations with regard to site treatment. Based on my five visits last summer and fall to BM-1, I feel that present oil conditions, as described by SSAT, poses little environmental threat to the area. I do believe that a reassessment in mid summer would be appropriate as a responsible followup measure.



B1

BM-1

XXXX Wide

/// Medium

--- Narrow

TFTT Very Light

0000 No Oil

BM-1

ADEC Segment Length: 6404m



Map Key: PWS-BM-1

Name: Mann

Date: 4/2/90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ BM-004 SUBDIVISION A (1 OF 1) DATE 4/9/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
4LL National Park
5R Seabird colony (5/1 to 9/1)
5T All bald eagle nest (3/1 to 6/1) - Active eagle nests (3/1 to 9/1)
6U Recreation: Tent sites (6/1 to 9/15)
6V Anchorages (6/1 to 9/15)

See attached Ecological Constraint Sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid disturbance/damage to unoiled biota and substrate.

SHPO SIGNATURE: *Charles Z. Hines*

DATE: 4/18/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V. Light 39 m: No Oil 6922 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: 4/18/90

ADEC *Art Weiner*

EXXON *Andy Tate*

OAA *Burt Werckel*

SCG *G.A. Heiter*

FOSC: *My L*

DATE: 4-22-90

SEGMENT ST/ BM-4 SUBDIVISION: A DATE 6/9/90

USCG/NOAA

NAME JACQUI MICHEL SIGNATURE J. Michel

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Thunder Bay is exposed to direct wave attack from the SE. This segment is the first one where we failed to find oil in specific areas mapped in the Fall 1989, as oiled (though the Fall oiling was very light). The cobble beaches are very steep and obviously reworked by waves (we saw multiple berms on most beaches). No further treatment is warranted.

ADEC

NAME JOHN R. REED SIGNATURE John R. Reed

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

No oil was observed in this segment. I have read and agree with all data on SSAT Forms. The Annelanous Stream mouth was clean.

LAND MANAGER NPS

NAME Michael Tetreau SIGNATURE Michael Tetreau

☒ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Most of the areas we surveyed are very high energy beaches and oil that was reported in previous surveys was not found. The small patch of oil that was found does not warrant cleaning. The extensive reworking of these beaches may have buried oil which may resurface as the beach profile changes. Significant amounts of oil, however, should not be expected.

SHORELINE OILING SUMMARY

REVISION NO. 03/23/90

OG Mann USOG NORA Michel SEGMENT ST/ BM-4
 Carr LAND REP Tetreau - NPS SUBDIVISION A
 AXON Boyer ADEC Reed TIME 17:00 to 20:15
 TEAM NO.: 18 TIDE LEVEL: +6 to +1 DATE 4/19/90
 EST. SUBDIVISION LENGTH: 16429 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock SNOW
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: all to over
 SURFACE SEDIMENTS: R 40 % B 20 % C 25 % P 15 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 35 % Hang 25 % Vert 40 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 2 m NO 7200 m

SURFACE OIL

NOT OBSERVED 9227

| CHARACTER | DISTRIBUTION | | | | OIL / FILM COLOR | | | | | | IMPACTED ZONES | | | |
|---------------------|--------------|---|---|---|------------------|----------|----------|-----------|----|----|----------------|---|---|--|
| | A | B | P | S | SP
BY | BP
FW | GT
SL | DBL
TL | LR | SU | U | M | L | |
| ASPHALT
PAVEMENT | | | | | | | | | | | | | | |
| POOLED | | | | | | | | | | | | | | |
| COVER | | | | | | | | | | | | | | |
| COAT | | | ✓ | | | ✓ | | | | | ✓ | | | |
| STAIN | | | | | | | | | | | | | | |
| MOUSSE | | | | | | | | | | | | | | |
| PATTIES | | | | | | | | | | | | | | |
| TARBALLS | | | | | | | | | | | | | | |
| FILM | | | | | | | | | | | | | | |
| NO OIL | | | | | | | | | | ✓ | | ✓ | ✓ | |

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

| OILED DEBRIS | AMOUNT | | |
|--------------|--------|----|----|
| | SM | MD | LG |
| Logs | | | |
| Vegetation | | | |
| Trash | | | |
| Debris | | | |

DEBRIS COLLECTED
☒ YES ☐ NOTYPE NON-oiled
trash
#BAGS 4

Photographs:

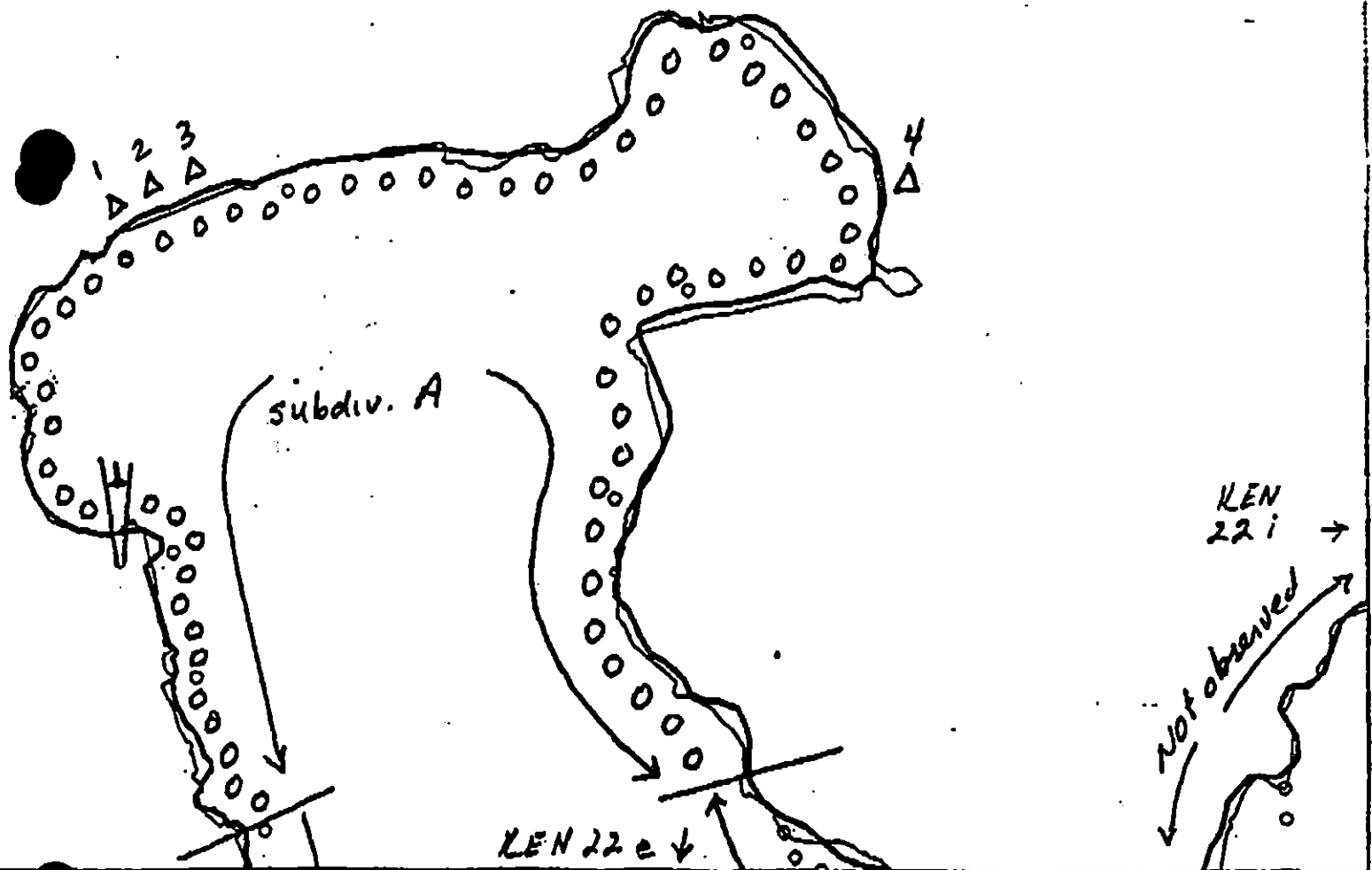
Roll No. 18-5 18-6Frames 35-39 (1-5)

SUBSURFACE OIL

| PIT NO. | PIT DEPTH (cm). | SUBSURFACE OIL CHARACTER | | | | | OILED INTERVAL (CM-CM) | BELOW | | OIL / FILM COLOR | | | | | | PIT ZONE | | | | A N A | SUBSURFACE SEDIMENTS |
|---------|-----------------|--------------------------|----|----|----|----|------------------------|-------|----|------------------|----|----|----|----|----|----------|---|---|---|-------|----------------------|
| | | OP | OR | OL | OF | NO | | UO | UC | SP | BP | GT | BR | TL | LR | SU | U | M | L | | |
| 1 | 60 | | | | | ✓ | - | | | | | | | | | ✓ | | | | N | PC throughout |
| 2 | 75 | | | | | ✓ | - | | | | | | | | | ✓ | | | | " | " " |
| 3 | 50 | | | | | ✓ | - | | | | | | | | | ✓ | | | | " | " " |
| 4 | 75 | | | | | ✓ | - | | | | | | | | | ✓ | | | | " | " " |
| | | | | | | | - | | | | | | | | | | | | | | |
| | | | | | | | - | | | | | | | | | | | | | | |

COMMENTS Segment BM-4 comprises Thunder Bay, a spectacular fjord surrounded by steep snow-avalanche slopes and cliffs. The pocket beaches are very high energy with steep double and triple beams of rounded pebbles and cobbles. An exception is the NE beach which has a marked low tide platform armored by angular rock. We could find only 1 m² of CT/P. No other remnant of previously reported oiling was found, despite a

BN

 Δ pit location

XX Wide $\downarrow$ Not observed
 /// Medium
 --- Narrow
 TTTT Very Light

ADEC Segment Length: 33294m
 BM-4 NOT OBSERVED

Map Key: KEN-22h

Name: MannDate: 4/9/90

OG MANNA
 SEGMENT ST/ BH-4
 SUBDIVISION A
 DATE 4 19 90

SKETCH MAP

CHECKLIST

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

LEGEND

1 ▲

PR - No Subsurface Oil

2 ▲

PR - 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

NO SKETCH.

Oil Character Length (m): AP 0 PO 0 CV 0 CT 2 ST 0 MS 0 PT 0 TB 0 FL 0 NO 7200

NOT OPS. 9227

REVISION: 9072600

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / TSN-4 Subdivision A of A Date (mo / day / yr) 4 / 9 / 90Time (24 hr) 11:00 Biologist M. CAR

- (A) Substrate type and % of ^{SUBDIVISION} segments:
 (1) Bedrock 40 (2) Boulder 20 (3) Cobble 25 (4) Pebble 15 (5) Sand — (6) Silt —
- (B) Overall % cover of biota (% of ^{SUBDIVISION} segment): Dense 50 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. 6Frames 1-5

BARNACLES

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

NOT PRESENT

NOT PRESENT IN ANY ZON.

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

NOT PRESENT IN UPPER ZON.

ASTROPODS

| 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

NOT PRESENT IN UPPER ZON.

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 IN UPPER ZON.

NOT PRESENT

NOT PRESENT IN ANY ZON.

Wildlife Observations/ General Comments:

Bald eagle (2) mature, (1) immature.

Surf scoter (1)

Mountain goat (1)

Ecological Considerations:

Golden-eye (5)

N.W. crows (2)

Harlequin ducks (31)

Magpies (6)

Sensitivity codes:

1-A (stream mouth, salmon fry outmigration)

1-B (stream mouth, salmon spawning)

5-T (Bald eagle nest)

5-R (Seabird colony)

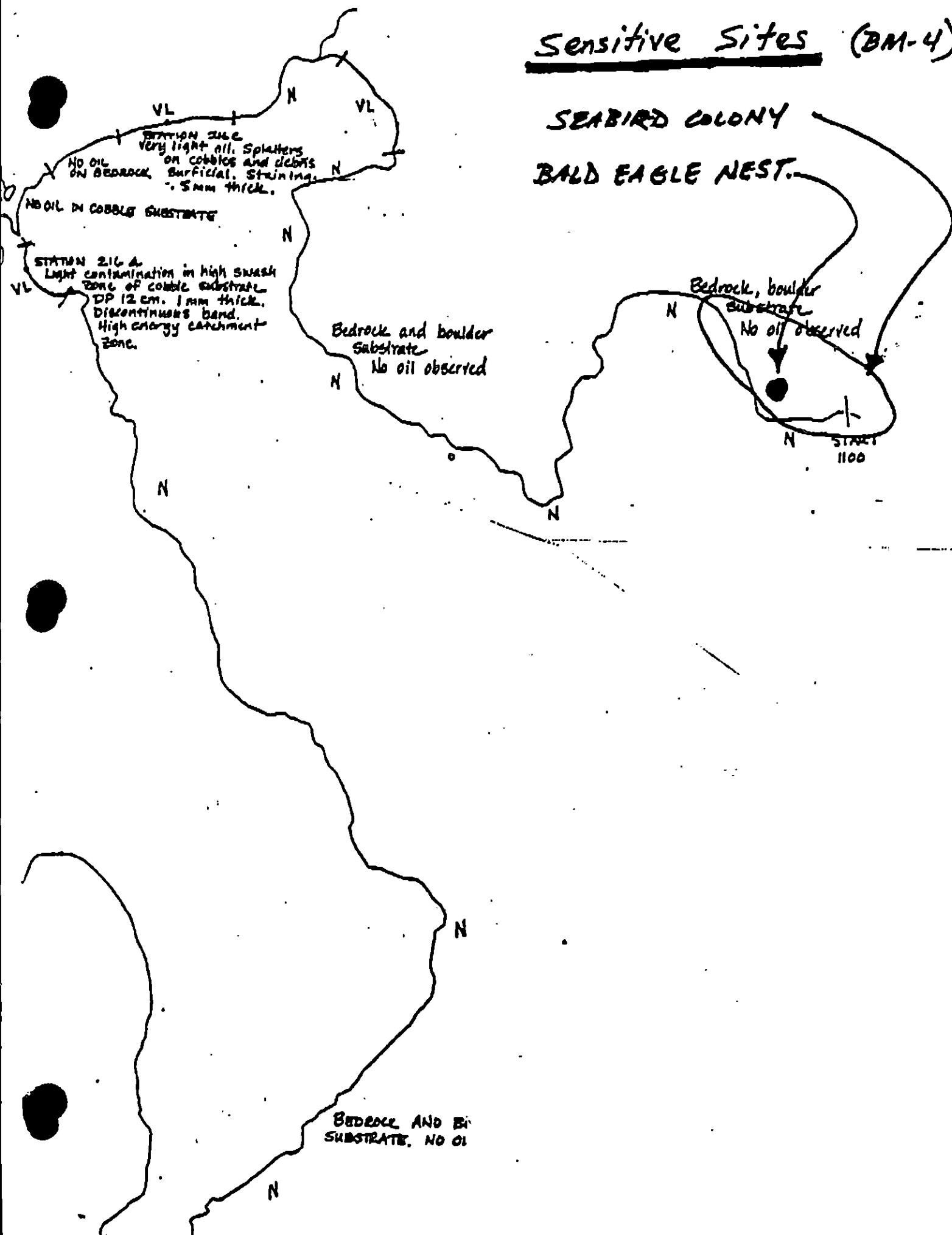
①-L (National Park)

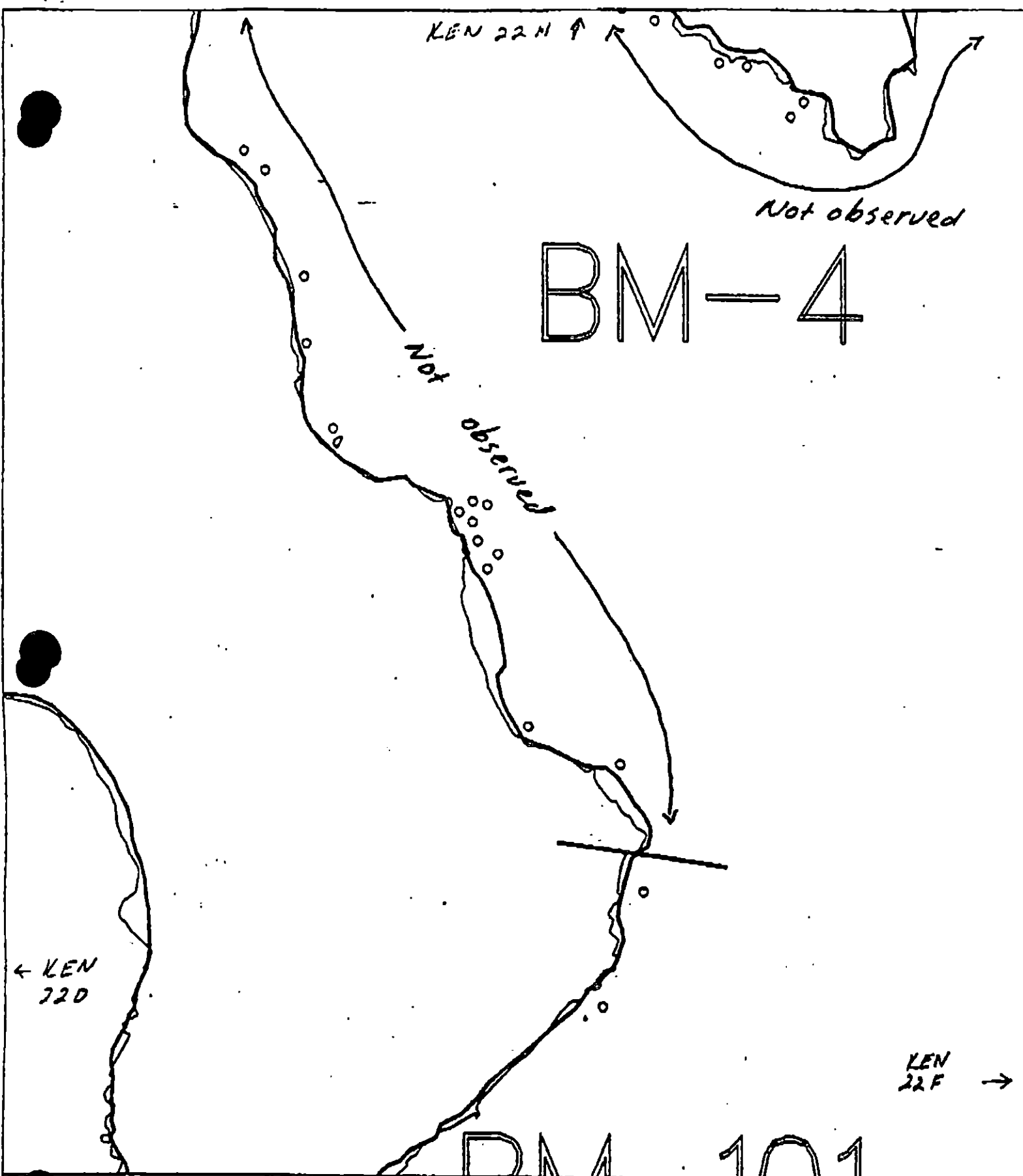
U-V (Recreation anchorage)

Sensitive Sites (BM-4)

SEABIRD COLONY

BALD EAGLE NEST.





XXX Wide

/// Medium

--- Narrow

TTTT Very Light

BM-4

ADEC Segment Length: 33294m

Map Key: KEN-22e.

Name: MANNDate: 4/9/90

not observed

↑
KEN 221

← KEN
22E

XXX Wide

/// Medium

--- Narrow

TTTT Very Light

BM-4

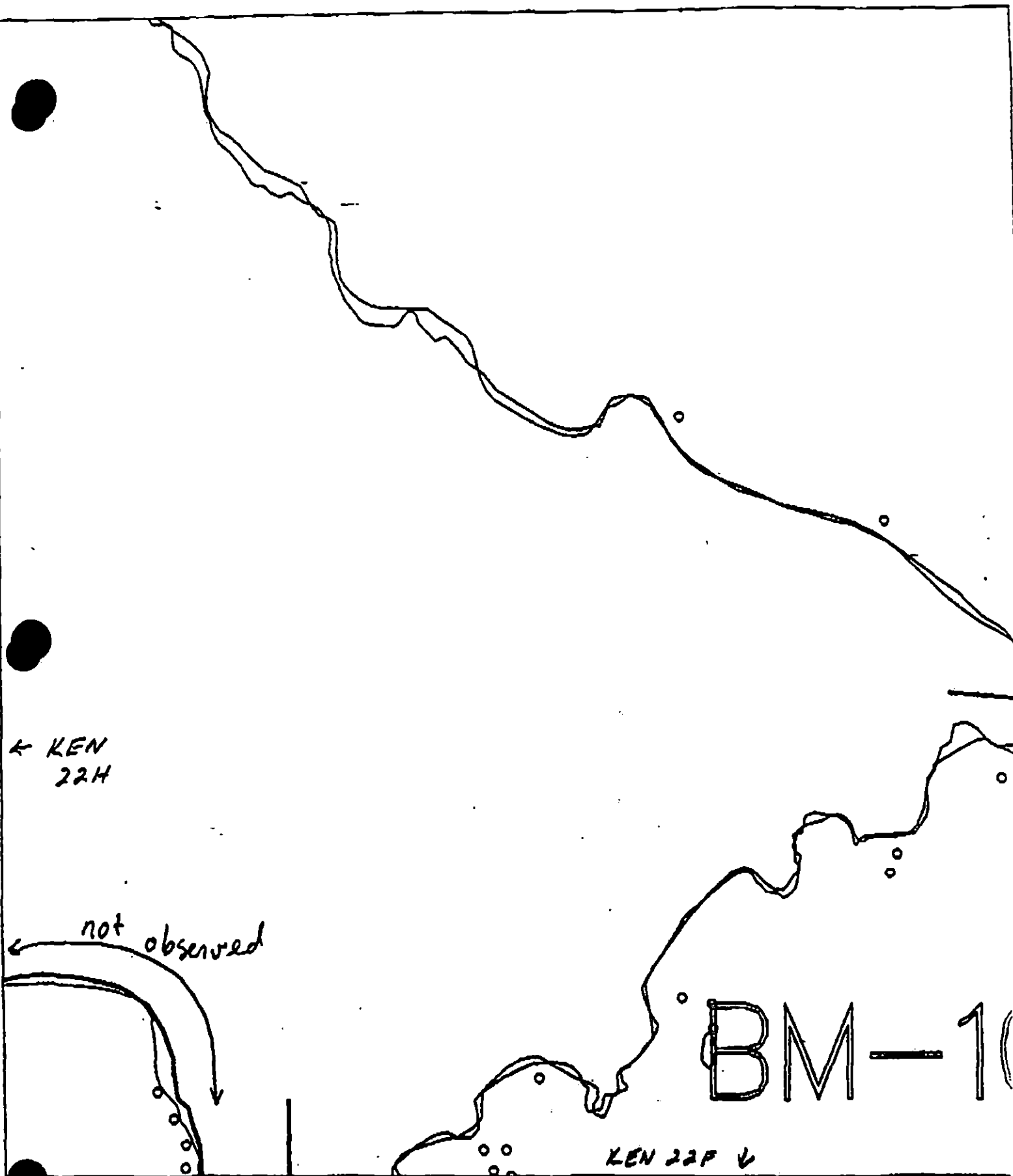
ADEC Segment Length: 33294m

0 500 1000 1500 2000

Map Key: KEN-221

Name: Maner

Date: 4/9/90



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

BM-4

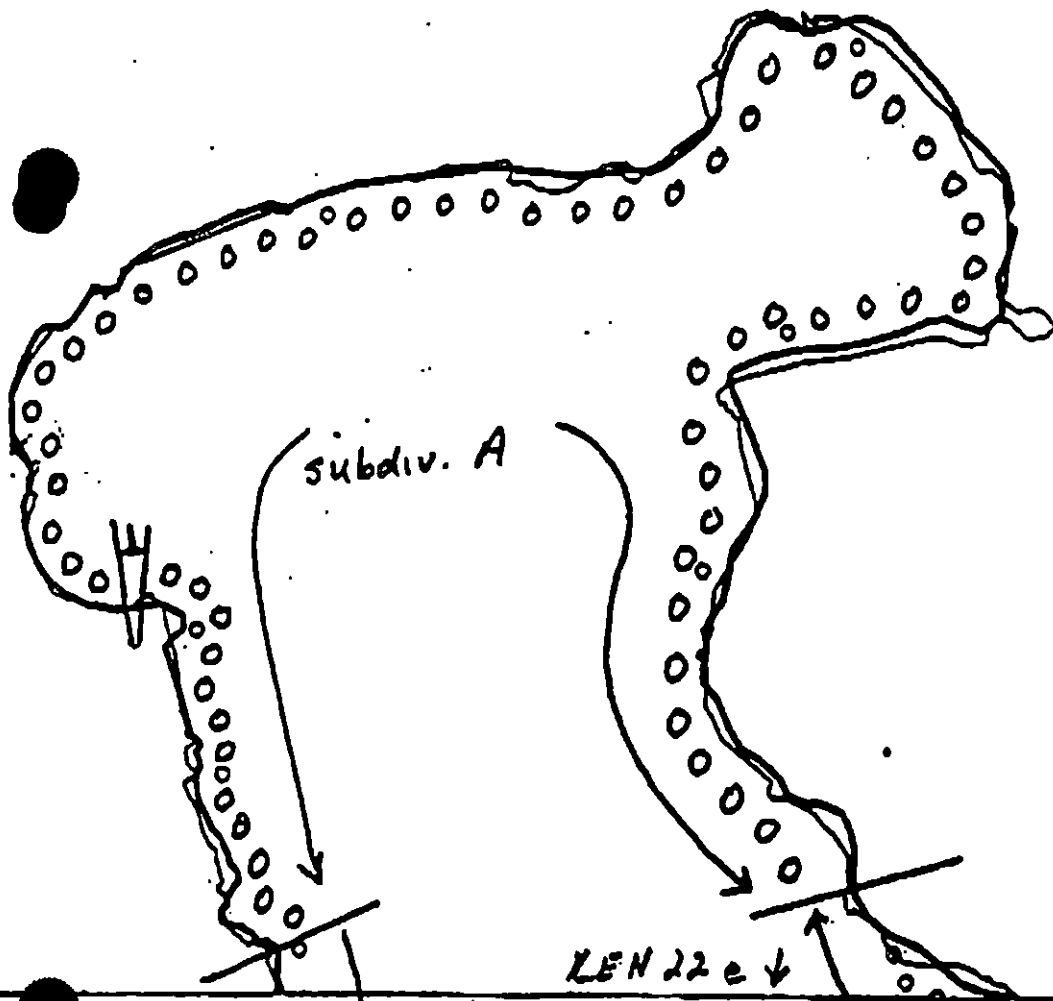
ADEC Segment Length: 33294m

Map Key: KEN-22i

Name: Mann

Date: 4/9/90

BN



XXX Wide Not observed
//// Medium BM-4 NOT OBSERVED
--- Narrow ADEC Segment Length: 33294m
TTTT Very Light

Map Key: KEN-22h

Name: Mann

Date: 4/9/90

SHORELINE EVALUATION

SEGMENT ST/ BM-05 SUBDIVISION A (1 OF 1) DATE 4/28/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
- 1B Salmon stream mouth - spawning (7/10 to 8/31)
- 2M Herring spawning (4/1 to 6/15)
- 5S Shorebird/Waterfowl concentration (4/1 to 5/15)
- 5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
- 6U Recreation: Tent sites (6/1 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: [Signature] DATE: 5/15/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 92 m: V.Light 276 m: No Oil 8262 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>of 5/31/90</u> | <u>X</u> Spot Washing: <u>X</u> Wands <u>A</u> |
| <u> </u> Tarmat Removal | <u> </u> Beach Cleaner |
| | <u> </u> Other (see comments) |

COMMENTS: Recommended treatment includes 1) manual pickup of pooled oil, and 2) bioremediation of areas as indicated on attached sketch map #2. Work should be conducted between 6/15 and 7/10 based on herring and salmon constraints, with USFWS approval regarding eagle nest.

TAG COMMENTS: SPT WASH IF REQUIRED FOLLOWING REMOVAL OF POOLED OIL

TAG APPROVAL DATE: 5/15/90

ADEC [Signature]

EXXON [Signature]

NOAA [Signature]

USCG [Signature]

FOSC: [Signature] DATE: 5-20-90

- 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 (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
- IP Harbor seal and sea lion pupping (5/15 to 7/1)
Q Harbor seal and sea lion molting (8/15 to 9/15)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
ADF&G Tom Roth 267-2208
- 5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (6/1 to 9/15)
6V Anchorages (6/1 to 9/15)
6W Forest Service cabins (6/1 to 9/15)
6X Lodge (6/1 to 9/15)
6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
7HH Finfish harvesting
7I Deer harvesting (8/15 to 2/28)
7JJ 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 / BM-5 SUBDIVISION: A DATE 4/28/

USCG

NAME Jerry Schultz

SIGNATURE Jerry Schultz

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS THE 42m BADO INDICATED ON MAP NEEDS TREATMENT. CONSIDERING THE CONSTRAINTS OF BIOREMEDIATION IN THE PARK, THE ONLY OTHER VIABLE ALTERNATIVE IS MANUAL PICKUP & REMOVAL WITH HAND WIPING THE LARGER ROCKS WHERE THE RESIDUE OIL IS MORE MOBILE.

ADEC

NAME Mike Ebel

SIGNATURE Michael J. Ebel

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

BM-5-A: The segment had two locations of oiling. On the SE end of this shoreline a bank of splash & cast was degrading into stern. all very light and being removed well by natural washing. The second area is the N shore of the lagoon found at the NW end of segment. It is a narrow band (25m W) extended 22m having pooled oil 2cm thick immediately under the surface cover. This layer then changed from a broken distribution into a patchy and splashy distribution; the transition was abrupt as the bank graded into splashy distribution (containing).

LAND MANAGER NPS

NAME Michael Tetreau

SIGNATURE Michael Tetreau

☒ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Manual removal of The band of pooled oil in Broken Lagoon is needed. as This is a popular anchorage and a relatively high use recreation area. Removal of oiled sediment would be easy by moving the armor cobbles aside and scraping up the oiled layer with shovels.

and extended on another 20m, tapering in width as it went. Thus, the total band was 42m in L. If this was a section of shoreline outside of the National Park I would recommend stirring up the surface along the band with long-tined rakes and sprinkling granular fertilizer while stirring the sedo, which is the first part of treatment proposed. However, if after ~~another~~ another winter the oil was still persisting and not at least 75% degraded I would recommend manual removal of the contaminated sediments. This second step is recommended because we are dealing with park-land.

Because of recreational use I would not be opposed to immediate manual removal but feel that there is not an urgency to do so (the oil is below the layer of surface armor and will be washed away if bioenhancement does what is promised). There is not a significant risk to the limited intertidal biota found on the site to preclude granular fertilizer and it would appear to consume the least ~~amount~~ amount of resources as a method, in contrast to generating more solid waste to transport about.

* Note sketch maps. End

Michael J. Ebel ADEC

SHORELINE OILING SUMMARY

REVISION NO 04.12.90

OG Randy Siegel USCG Jerry Schulte SEGMENT ST/ BM-5
 BIO Lewis Sherman LAND REP Jerry Schulte (CGR) / SUBDIVISION A (LOF 1)
 EXXON Leonard Herbert ADEC Mike Ebel TIME 12:00 10/13/90
 TEAM NO. 12 TIDE LEVEL -0.35' to 4.65' DATE 4/28/90
 EST. SUBDIVISION LENGTH: 3093 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: SW to NE
 SURFACE SEDIMENTS: R 70 % B 20 % C 5 % P 3 % G 1 % S 1 % M 0 % V 0 %
 SLOPE: Long 0 % Hang 95 % Vert 15 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 41 m VL 30 m NO 4022 m

SURFACE OIL

| CHARACTER | DISTRIBUTION | | | | OIL / FILM COLOR | | | | IMPACTED ZONES | | | |
|------------------|--------------|---|-----|---|------------------|---|---|---|----------------|---|---|---|
| | R | B | P | S | 1 | 2 | 3 | 4 | SU | U | M | L |
| ASPHALT PAVEMENT | | | | | | | | | | | | |
| POOLED | | X | 1/2 | 0 | | | | | X | | X | |
| COVER | | | | | | | | | | | | |
| COAT | | | X | ✓ | | X | ✓ | | | X | ✓ | |
| STAIN | | | X | ✓ | | X | ✓ | | | X | ✓ | |
| MOUSSE | | | | | | | | | | | | |
| PATTIES | | | | | | | | | | | | |
| TARBALLS | | | | | | | | | | | | |
| FILM | | | | | | | | | | | | |
| NO OIL | | | | | | | | | X | | X | X |

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

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

Photographs: NoneRoll No. ST-12-7Frames 14-16

SUBSURFACE OIL

| PIT NO. | PIT DEPTH (cm) | SUBSURFACE OIL CHARACTER | | | | | OILED INTERVAL (cm) | BELOW | | OIL / FILM COLOR | | | | PIT ZONE | | | | A N A | SHEEN (Y/N) | ↓ | SURFACE - SUBSURFACE SEDIMENTS |
|---------|----------------|--------------------------|----|----|----|----|---------------------|-------|----|------------------|---|---|---|----------|---|---|---|-------|-------------|---|--------------------------------|
| | | OP | OR | OL | OF | NO | | VO | UC | 1 | 2 | 3 | 4 | SU | U | M | L | | | | |
| 1 | 12 | | | | | X | 0.0 | | X | | | | | | X | | | | - | - | P, C |
| 2 | 25 | | | | | X | 0.0 | | X | | | | | | X | | | | - | - | P |
| 3 | 20 | | | | | X | 0.0 | | X | | | | | | X | | | | - | - | P, G |
| 4 | 35 | | | | | X | 0.0 | | X | | | | | | X | | | | - | - | P, G |
| 5 | 31 | | | | | X | 0.0 | | X | | | | | | X | | | | - | - | P, G |
| 6 | 33 | | | | | X | 0.0 | | X | | | | | | X | | | | - | - | B, P, G |

COMMENTS

Segment consists primarily of bedrock cliff. Much of segment was surveyed by boat and no oiling observed. Taroka Lagoon in NW corner of segment had a band of oiling in UI. Broken distribution of pooled oil under cobbles/boulders for 22 meters and splashes of pooled oil for 19-21 meters.

REVIEWED 7WDATE 4/30/9015/46

SHORELINE OILING SUMMARY (PAGE 2)

REVISION 04.13.90

SEGMENT ST/ BM-5 SUBDIVISION A (2 OF 2)

SUBSURFACE OIL (CONTINUED)

| PIT NO. | PIT DEPTH (cm) | SUBSURFACE OIL CHARACTER | | | | | OILED INTERVAL (CM-CH) | BELOW | | OIL / FILM COLOR | | | | | | PIT ZONE | | | | A
N
A | SHEEN (Y/N) | ! | SURFACE - SUBSURFACE SEDIMENTS | |
|---------|----------------|--------------------------|----|----|----|----|------------------------|-------|----|------------------|--------------|--------------|--------------|--------------|----|----------|---|---|--|-------------|-------------|---|--------------------------------|---------|
| | | OP | OR | OL | OF | NO | | UO | UO | 1 | 2 | 3 | 4 | 5 | SU | U | M | U | | | | | | |
| 7 | 22 | | | | | X | 0-0 | | X | | | | | | | X | | | | | | - | - | C, P |
| 8 | 10 | | | | | X | 0-02 | | X | | | | | X | | X | | | | | | - | - | C, P, B |
| 9 | 23 | | | | | X | 0-0 | | X | | | | | | | X | | | | | | - | - | C, P, B |
| 10 | 30 | | | | | X | 0-0 | | X | | | | | | | X | | | | | | - | - | P |
| | | | | | | | . | | | | | | | | | | | | | | | | | |
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COMMENTS

* Not subsurface

REVIEWED JW DATE 4/30/90
16/46

00 Ra Siegel
 SEGMENT ST/ BM-5
 SUBDIVISION A
 DATE 4 / 28 80

CHECKLIST

☐ N Arrow
☐ Approx. Scale
☐ Seg/Sub Entry
☐ Oil Dist.
☐ Width
☐ Length
☐ % Cover
☐ Substrate Character
☐ Est. NWFL/WWL
☐ STL
☐ Profile Location(s)
☐ Profile(s)
☐ Pt Location(s)
☐ Photo Location(s)

LEGEND

1 Δ
 Pt - No Subsurface Oil

2 Δ
 Pt - Subsurface Oil

CT/C
 Continuous Distribution

CT/B
 Broken Distribution

CT/P
 Patchy Distribution

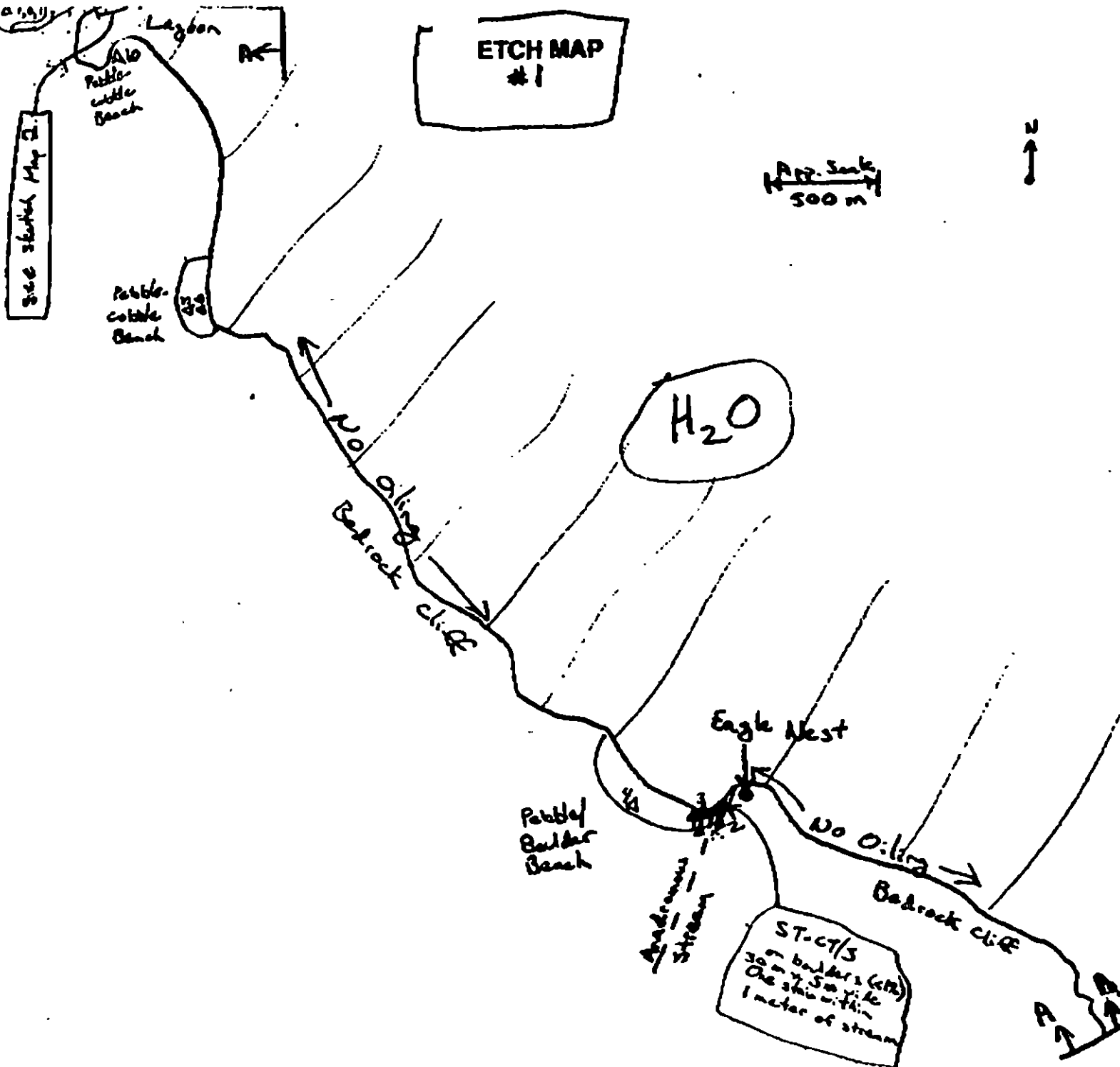
CT/S
 Splashed Distribution

lll
 Oil Vegetation

1 ●
 Photo location, direction,
 and number

ETCH MAP
 #1

App. Scale
 500 m



Oil Character Length (m): AP ϕ PO 41 CV ϕ CT 71 ST 71 MS ϕ PT ϕ TB ϕ FL ϕ NO 9022

REVISION 000000

OG R 4 Siegel

SEGMENT ST/ BM-5

SUBDIVISION A

DATE 4/28/90

CHECKLIST

- ☐ N Area
- ☐ Approx. Scale
- ☐ Sog/ Sub Bdry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HWR/LAWL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Photo(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

PT - No Subsurface Oil

2 Δ

PT - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

Oil Vegetation

1 →

Photo location, direction, and number

KETCH MAP

#2

→ N

Shrubs

Low-angle slope

Snow cover at SSL

16 m

22 meters

16

Pooled Oil
under boulders
splash distribution

ST-CT/P on boulders
Pooled Oil under boulders
near or deep Broken Boulders

Pooled Oil under
boulders - 2-3 m deep

ST-CT/S
on boulders

Cobble Beach

Boulder beach

cobble beach

H₂O

Remove
Pooled Oil
BIO

SPOT WASH
PRIOR TO BIO IF NECESSARY

Taroka Lagoon

Oil Character Length (m) AP PO CV OT ST MS PT TB FL NO

1 1 1 1 1 1 1 1 1 1

REVISION 000000

Segment ST / BM-5 Subdivision A Date (mo / day / yr) 4/28/90Time (24 hr) 1205-1350 Biologist SHARMAN(A) Substrate type and % of segments: SUBDIV.(1) Bedrock 70 (2) Boulder 20 (3) Cobble 5 (4) Pebble 3 (5) Sand 2 (6) Silt granular(B) Overall % cover of biota (% of segment): Dense SUBDIV. Moderate X Low

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

Photographs:

Roll No. ST-12-7Frames 14, 15, 16

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 (ALCEGA, LITTORINA, LYMNAEAE)

| 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: 100 glaucous-winged gulls, 5 cormorants, 25 pigeon guillemots, 10 Marston's goldeneyes, 2 murrelets, 150 surf scoters, 20 Harlequin ducks, 1 pair oystercatchers. 1 pair bald eagles (nest not associated with any known nest). 1 subadult eagle. 2 blue lions, 1 mountain goat on cliffs. 1 inactive eagle nest (see map). 1 dipper in stream "A" (see map).

Ecological Considerations:

We received no information regarding resource activities previously identified for this segment. Note, however, the presently inactive eagle nest and the collecting pair of adults (nest location unknown - probably somewhere near N. end of segment). Some information re. the 2 anadromous streams (see map) is gleaned from a recent draft report to the NPS by Milner: stream "A" may dry up in summer but the stream - lake system has a run (cont.)

25/46

Sherman
4/23/90General Comments (cont.):

(see eco. map). The lake is still mostly ice-covered. River otter scat at lake margin. The intertidal zone here is perfectly healthy and normal. Even the area of oiling concern in Taroko Lagoon does not appear to have been significantly impacted biotically. All species appear to be recruiting normally, albeit in generally quite low numbers. As with other bleaches in this Kuroi area, these appear to have subsided during the '64 earthquake, as evidenced by dead trees along the supratidal fringe.

Ecological Considerations (cont.):

of 100-200+ pink and sockeye spawning. Stream "B" in the lagoon apparently supports a pink run on the order of 60+, with the lagoon itself supporting several hundred probable brook spawning. Neither of these streams apparently is catalogued by ADF & G. Significantly, seine netting last July in the lagoon produced over 2,000 larvae.

↑
KEN
23C

BM-5

Page 3 of 4
BM-5
Eco. Map

presently
inactive
eagle nest

Anadromous
stream "A"

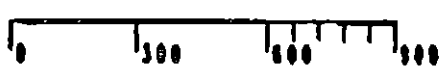
Lake

KEN
23B -

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

BM-5

ADEC Segment Length: 8629m



Map Key: KEN-230

Name: _____

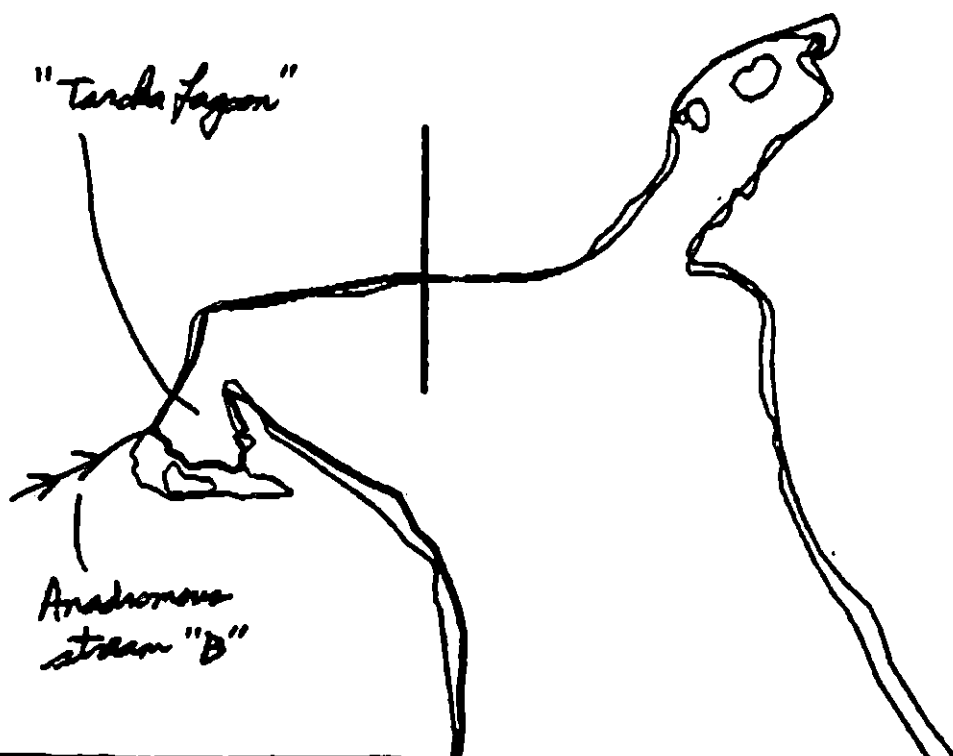
Date: _____

Data Entered: 27/46

Page 4 of 4

BM-5

Eco. Map



BM-6

↓ ILEN
23B

XXXX Wide.

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

BM-5

ADEC Segment Length: 8629m

0 500 1000 1500
METERS



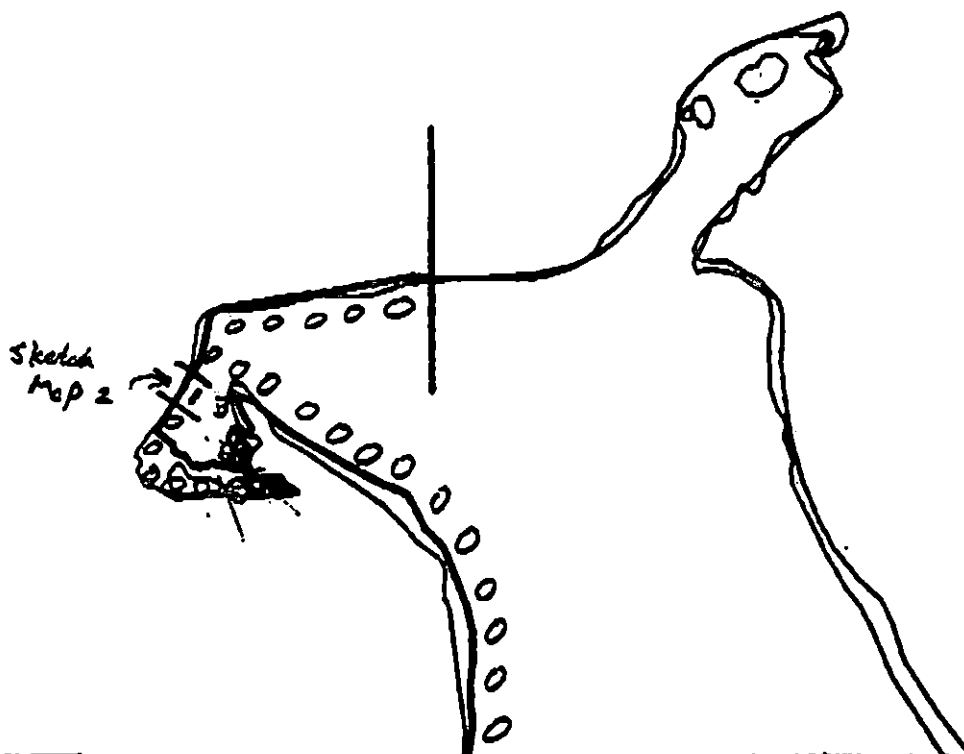
Map Key: KEN-23c

Name: _____

Date: _____

Data Entered: _____

28/46



BM-6

↓ KEN 23B

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

BM-5

ADEC Segment Length: 8629m



Map Key: KEN-23c

Name: Ruby Lloyd

Date: 4/28/90

Date Entered:

21/46

↑
KEN
23C

BM-5

KEN
23B

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

BM-5

ADEC Segment Length: 8629m

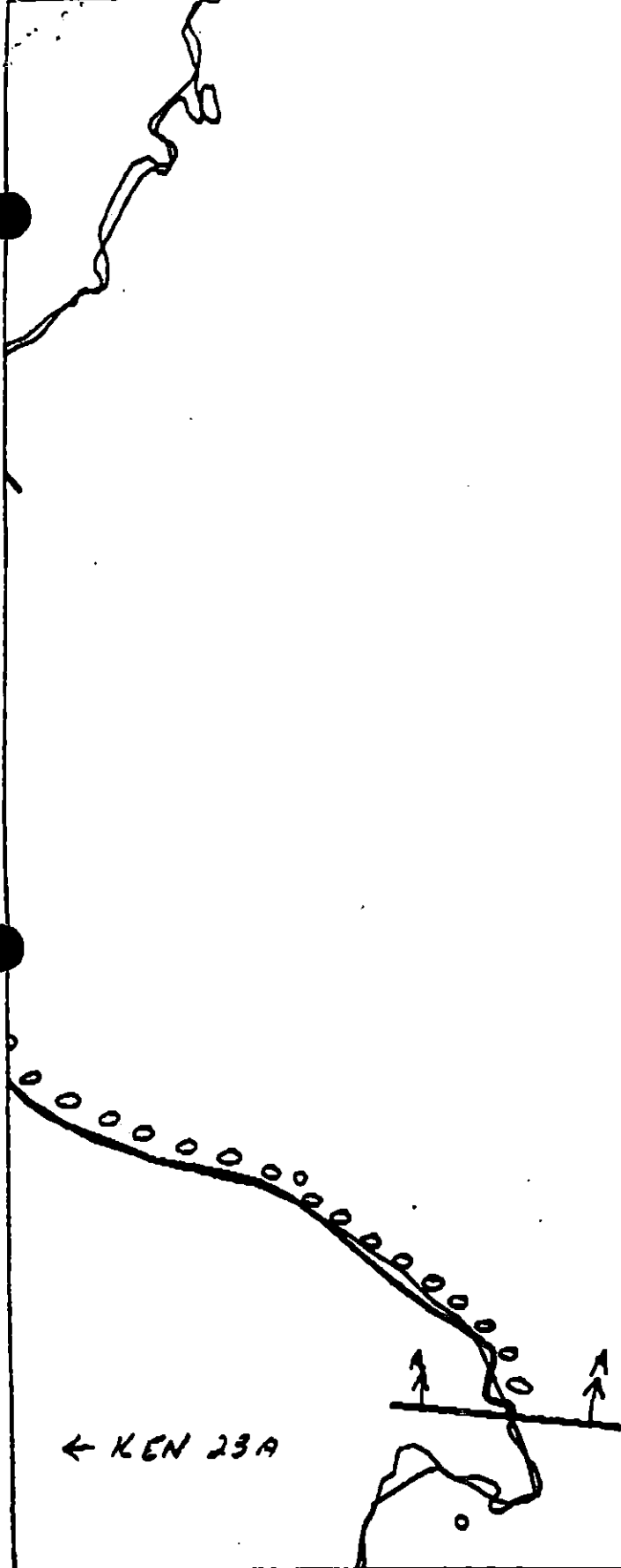


Map Key: KEN-230

Name: Randy Siegel

Date: 4/28/90

Date Entered: 7/21/90



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

BM-5

ADEC Segment Length: 8629m



Map Key: KEN-23b
Name: Ray Siegel
Date: 4/29/90
Data Entered:
19/46

WORK PLAN ADDENDUM

Segment ST/BM-005

Subdivision A

Dated 5/22/90

MODIFICATION

1. REASON FOR MODIFICATION

- FOSC Request
- Landowner comments

2. ADJUSTMENT TO WORK PLAN

- No bioremediation

SHPO APPROVAL NEEDED YES _____ SHPO SIGNATURE _____

NO X

TAG APPROVAL DATE 5/31/90

ADEC ART WEINER Art Weiner

EXXON ANDY TEAL Andy Teal

NOAA Joseph Talbott Joseph Talbott

USCG G.A. REITER G.A. Reiter

FOSC [Signature] DATE 5/31/90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT BM-5 SUBDIVISION A (1 of 1)

| WORK WINDOW | |
|---|--|
| Manual Pickup | OPEN |
| Spot Washing Less Than 100m From Stream | WORK 6/15 - 7/10
(ADF&G MONITOR REQ.) |
| Spot Washing More Than 100m From Stream | WORK AFTER 6/15 |

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

ADF&G catalogued anadromous streams (232-30-10350, 232-30-10355, 232-10-10375) are in Subdivision A. This subdivision is closed to spot washing less than 100m from stream 7/10 to 8/31. Before 7/10, spot washing is permitted less than 100m from stream with on-site ADF&G monitor or ADEC alternate present. No constraint to spot washing more than 100m from stream. No constraint to manual pickup.

2M Herring Spawning

Closed to spot washing before 6/15. No constraint to manual pickup.

5S Shorebird/Waterfowl Concentration

No constraint to manual pickup.

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

No disturbance to stream bed or banks. Restrict boat traffic to essential minimum. Avoid any unnecessary disturbance or damage to unloiled substrate and biota especially intertidal and subtidal algae and seagrass.

FOSC

[Signature]

Date

6/16/90

Prepared by

[Signature]

Date

6/14/90



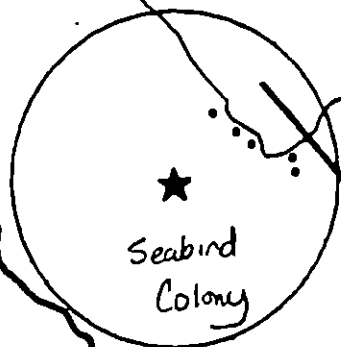
ANAD STRM
100m Buffer Zone

BM-6

WORK
AREA

232-30-10350

232-30-10355 BM-5



Seabird
Colony

232-30-10375

BM-102



Exxon Company, USA



ECOLOGY MAP

SEGMENT BM-5

SUBDIVISION A (1 of 1)

METERS



Seabird Colony



Eagle Nest

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT BM-6 SUBDIVISION A (1 of 1)

WORK WINDOW

Manual Pickup

OPEN

Bioremediation

WORK AFTER 6/15

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

| | | |
|-------|------------------|---|
| 1A,1B | Salmon Stream | ADF&G catalogued anadromous stream (232-30-10340) is in Subdivision A. No constraint to manual pickup and bioremediation. Work site is over 100m from stream. |
| 2M | Herring Spawning | Closed to bioremediation before 6/15. No constraint to manual pickup. |
| 5R | Seabird Colony | NO CONSTRAINT. Work site is more than 800m from seabird colony. |

OTHER ECOLOGICAL CONSIDERATIONS

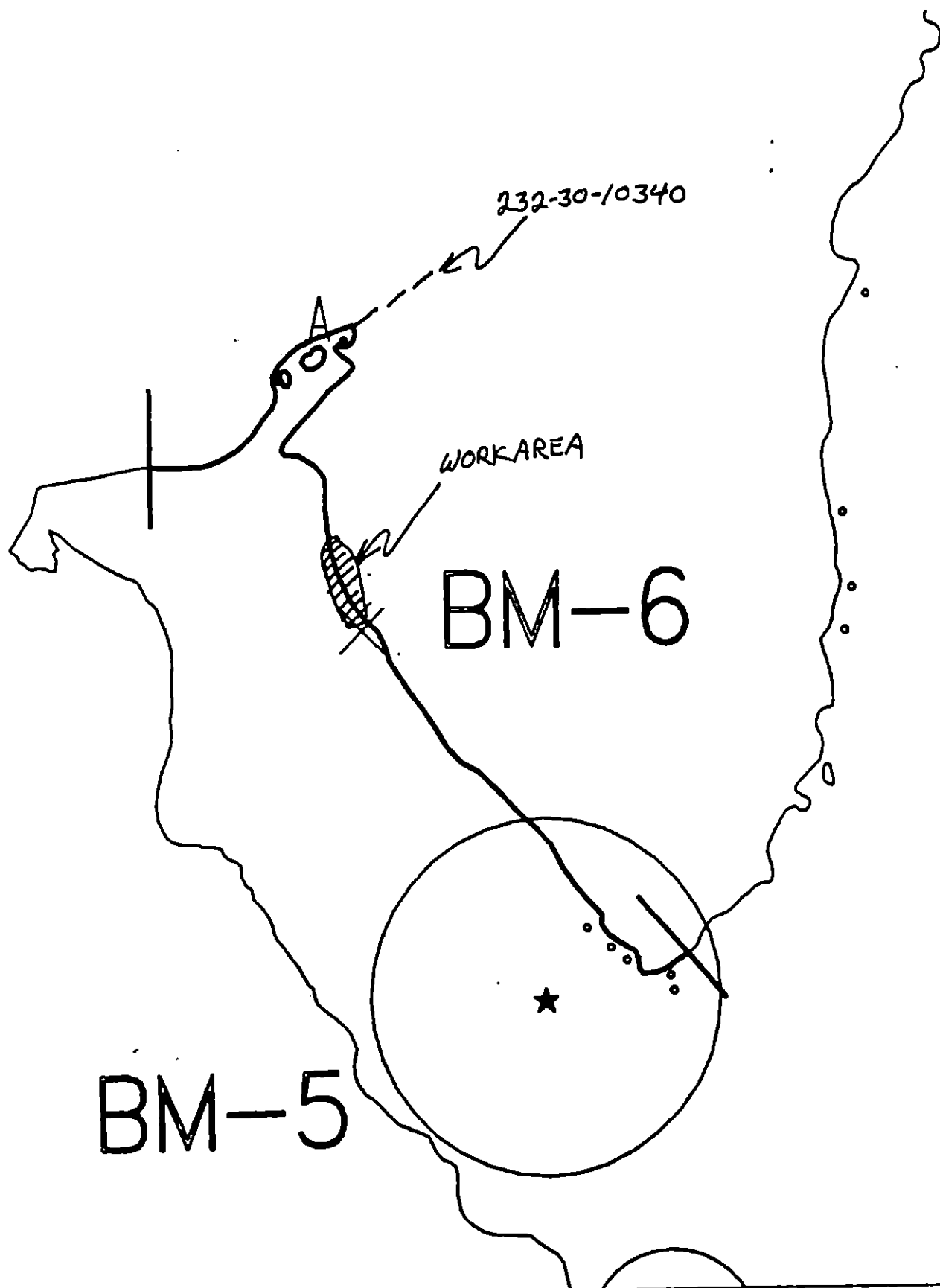
Restrict boat traffic to essential minimum. Avoid any unnecessary disturbance or damage to unloiled substrate and biota especially intertidal and subtidal algae and seagrass.

FOSC

Date

Prepared by

Date



Exxon Company, USA
The King of Oil

ECOLOGY MAP
SEGMENT BM-6
SUBDIVISION A (1 of 1)
METERS

- ★ Seabird Colony
- ▲ Eagle Nest

SHORELINE EVALUATION

SEGMENT ST/ BP-01 SUBDIVISION A (1 OF 3) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Active bald eagle nest (5T) - 3/1 to 6/1; recreation special use destination (6Y) - 6/1 to 9/15; Subsistence area for finfish harvesting (7HH).

SUBDIVISION ECOLOGICAL CONSTRAINTS:

(7HH) Contact ADF&G and Chenega Corp. for dates, locations, constraints.
(5T) Restrict air traffic to essential minimum. Air approach and takeoff from land to seaward only. Contact USFWS prior to treatment for confirmation of dates and avoidance minimums.

SHPO SIGNATURE: Charles E. Homan

DATE: 4/17/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V. Light 170 m: No Oil 1966 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/16/90

ADEC AL KETNER

EXXON ANDY TALL

NOAA Bar/Wesport

USCG G.A. REITER

FOSC: E. W. C.

DATE: 4-20-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ BP-1 SUBDIVISION: A DATE 4/1/90

USCG

NAME GARY OTTSIGNATURE *Gary Ott*☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

ADEC

NAME MICHAEL J. EBELSIGNATURE *Michael J. Ebel*☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

BP-1-A

LAND MANAGER - U.S.D.A. - FOREST SERVICE

NAME DON J. BREITINGERSIGNATURE *Don J. Breiting*4/1/90☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY

REVISION NO. 02/28/90

OG Randy McBride ^{Norfolk} Gary Ott SEGMENT ST/ BP - 1
 BIO Lewis Shannon LAND REP Don Bretinger SUBDIVISION A
 EXXON Leonard Herbol ADEC Mike Ebel TIME 11:05 to 12:10
 TEAM NO.: 12 TIDE LEVEL: +1.8 to +0.2 DATE 4/1/90
 EST. SUBDIVISION LENGTH: 1854 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 40 % C 15 % P 5 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 5 % Hang 60 % Vert 35 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 60 m NO 1794 m

SURFACE OIL

| CHARACTER | DISTRIBUTION | | | | OIL / FILM COLOR | | | | | IMPACTED ZONES | | | |
|------------------|--------------|---|---|---|------------------|---|----|----|----|----------------|---|---|---|
| | C | B | P | R | W | Y | OR | GR | BL | SU | U | M | L |
| ASPHALT PAVEMENT | | | | | | | | | | | | | |
| POOLED | | | | | | | | | | | | | |
| COVER | | | | | | | | | | | | | |
| COAT | | | | X | | | X | | | | | X | |
| STAIN | | | | | | | | | | | | | |
| MOUSSE | | | | | | | | | | | | | |
| PATTIES | | | | X | | | | X | | | | X | |
| 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 | | | |

DEBRIS COLLECTED
☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. No photosFrames No photos

SUBSURFACE OIL

| PIT NO. | PIT DEPTH (cm) | SUBSURFACE OIL CHARACTER | | | | | OILED INTERVAL (COLOR) | BELOW | | OIL / FILM COLOR | | | | | PIT ZONE | | | | A
N
A | SUBSURFACE SEDIMENTS |
|---------|----------------|--------------------------|----|----|----|----|------------------------|-------|----|------------------|---|----|----|----|----------|---|---|---|-------------|----------------------|
| | | OP | OR | OL | OF | NO | | VO | UC | W | Y | OR | GR | BL | SU | U | M | L | | |
| 1 | ~40 | | | | | X | . | | X | | | | | | | X | | | | C, P, G |
| | | | | | | | . | | | | | | | | | | | | | |
| | | | | | | | . | | | | | | | | | | | | | |
| | | | | | | | . | | | | | | | | | | | | | |
| | | | | | | | . | | | | | | | | | | | | | |
| | | | | | | | . | | | | | | | | | | | | | |

COMMENTS

Overall, BP-1-A was dominated by no oiling (1794 m) or 97% while very light oiling occurred along only 60 m or 3% of the subdivision. This light oiling was characterized by an oil mark (sporadic coat) along the high water mark as well as some patties (>10 cm wide) along the upper intertidal zone. Had to hunt hard to find the oil which was not appropriate.

OILING

D.L.

DATE 4/8/90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 08/23/90

Segment ST / BP-1 Subdivision A Date (mo / day / yr) 4/1/90Time (24 hr) 1105-1210 Biologist SHARMAN(A) Substrate type and % of segments: SUBDIV.
(1) Bedrock 40 (2) Boulder 40 (3) Cobble 15 (4) Pebble 5 (5) Sand (6) Silt (B) Overall % cover of biota (% of segment): Dense Moderate X Low
SUBDIV.

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

Photographs:
Roll No. ST-12-2Frames None

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 (*Nucella*, *Littorina*, *Limpeta*)

| 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

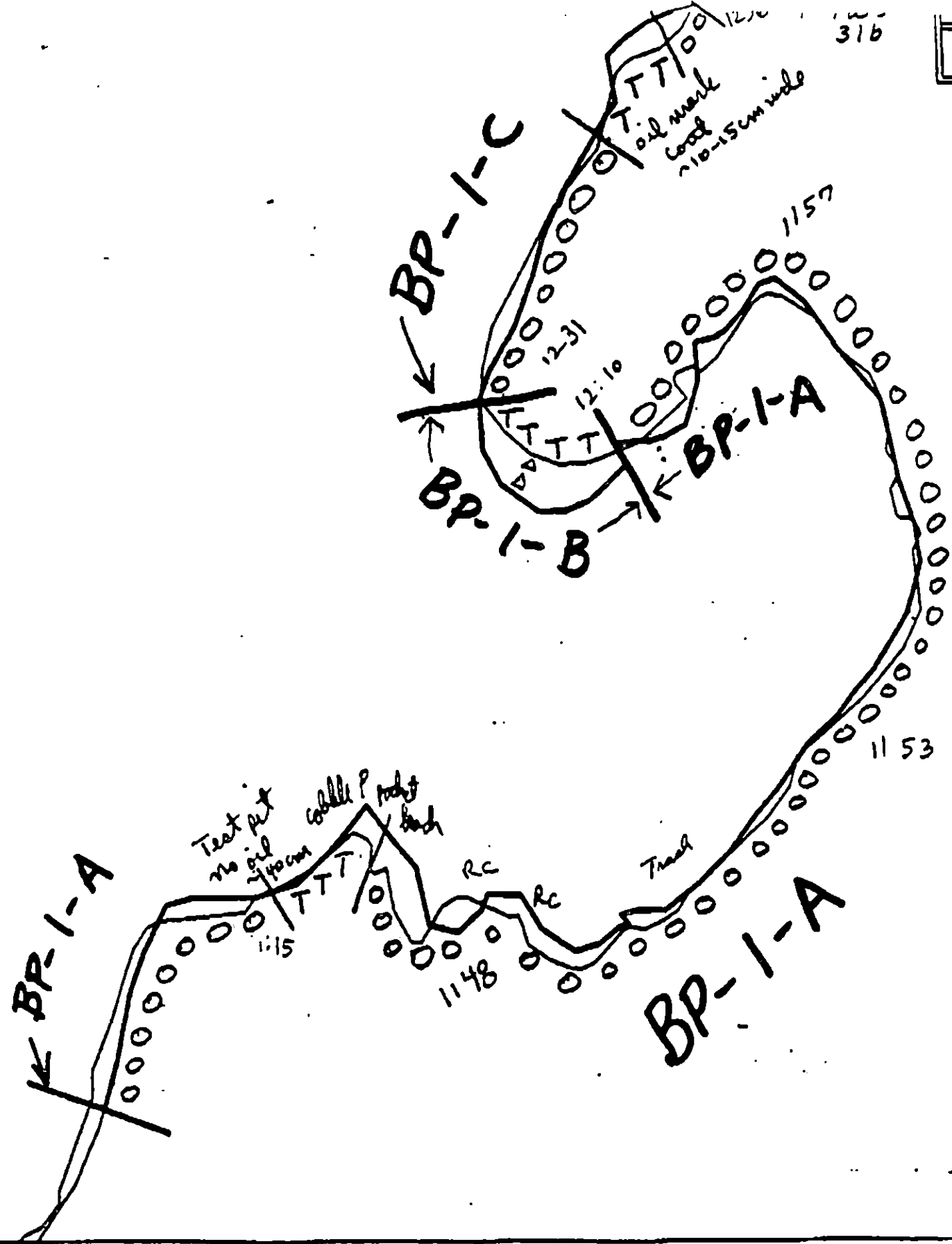
| Dense | | | Moderate | | | Sparse | | | Rare | | | NOT PRESENT |
|-------|----|----|----------|----|----|--------|----|----|------|----|----|-------------|
| 1U | 1M | 1L | 1U | 1M | 1L | 1U | 1M | 1L | 1U | 1M | 1L | |
| 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| 3 | 3 | 3 | 3 | 3 | 3 | 3 | 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: 1 cormorant, 1 pair goldeneye, 2 adult eagles, 6 pairs mergansers, 8 assorted gulls (mostly glaucous-winged), 2 sea otters, 1 harbor seal. Intertidal community here is typical of semi-protected high angle rock walls and large boulders. Appears normal.

Ecological Considerations:

According to the Priorities and Windows table, the entire BP-1 segment is Environmental Priority 3 with VLT oiling and no penetration. In this subdivision we found None / VLT. The only listed ecological constraint is subsistence finfish (high constraints 1-2) giving an overall treatment priority of 4. Sensitivity code = FHH.

Add eagle nest
from USFWS map (in)



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

BP-1

ADEC Segment Length: 3699m



Map Key: PWS-316

Name: Randy McBride

Date: 4/1/90

Date Entered:

UIC Date 23 at 24/12 3.5 36

SHORELINE EVALUATION

SEGMENT ST/ BP-01 SUBDIVISION B (2 OF 3) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Active bald eagle nest (5T) - 3/1 to 6/1; recreation special use destination (6Y) - 6/1 to 9/15; Subsistence area for finfish harvesting (7HH).

SUBDIVISION ECOLOGICAL CONSTRAINTS:

(7HH) Contact ADF&G and Chenega Corp. for dates, locations, constraints.

SHPO SIGNATURE: Marked Holmes DATE: 4/17/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 279 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: 4/16/90
ADEC AL KIEFER
EXXON ROY GIL FOSC: My L DATE: 4-20-90
NOAA Burt W. Scott
USCG G.A. BEITER

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ BP-1 SUBDIVISION: B DATE 4/1/90

USCG

NAME GARY OTT

SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADEC

NAME MICHAEL J. EBEL

SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

BP-1-B

LAND MANAGER - U.S.D.A. - FOREST SERVICE

NAME DON J. BREITINGER

SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY

REVISION NO. 02-2898

OG Randy M. Bride ~~NOAA~~ Gary Ott SEGMENT ST/ BP-1
 BIO Levi's Sherman LAND REP Don Breitinger SUBDIVISION B
 EXXON Leonard Herbat ADEC Mike Ebel TIME 12:10 to 12:31
 TEAM NO.: 12 TIDE LEVEL: 2.07' to 0' DATE 4/1/90
 EST. SUBDIVISION LENGTH: 164 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: _____ to _____
 SURFACE SEDIMENTS: R 7 % B 3 % C 5 % P 40 % G 40 % S 5 % M _____ % V _____ %
 SLOPE: Long 40 % Hang 60 % Vert _____ % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W _____ m M _____ m N _____ m VL 164 m NO _____ m

SURFACE OIL

| CHARACTER | DISTRIBUTION | | | | OIL / FILM COLOR | | | | | | | | IMPACTED ZONES | | | |
|------------------|--------------|---|---|---|------------------|---|---|---|---|---|---|---|----------------|---|----|---|
| | C | N | P | S | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | SU | U | ME | U |
| ASPHALT PAVEMENT | | | | | | | | | | | | | | | | |
| POOLED | | | | X | | | | | | | | | | | | |
| COVER | | | | | | | | | | | | | | | | |
| COAT | | | | X | | | | | | | | | | | | |
| STAIN | | | | | | | | | | | | | | | | |
| MOUSSE | | | | | | | | | | | | | | | | |
| PATTIES | | | | X | | | | | | | | | | | | |
| TARBALLS | | | | | | | | | | | | | | | | |
| FILM | | | | | | | | | | | | | | | | |
| NO OIL | | | | | | | | | | | | | X | X | X | X |

PAVEMENT: H F S _____ sq. m by _____

PATTIES / TARBALLS _____ BAGS

NEAR 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-12-2Frames 8-12 (#11 is incorrect - should read BP-1-1)

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 | OT | NO | | | UO | UO | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | | 11 | 12 | |
| 1 | 47.5 | | | | | X | --- | | X | | | | | | | | | X | | | | | | | P, G |
| 2 | 45 | | | | | X | --- | | X | | | | | | | | | | X | | | | | | G, S |
| | | | | | | | . | | | | | | | | | | | | | | | | | | |
| | | | | | | | . | | | | | | | | | | | | | | | | | | |
| | | | | | | | . | | | | | | | | | | | | | | | | | | |
| | | | | | | | . | | | | | | | | | | | | | | | | | | |

COMMENTS 140' W
131' 1st P:-
450'

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/82/R

Segment ST / BP-2 Subdivision B Date (mo / day / yr) 4/1/90Time (24 hr) 1200-1231 Biologist SHARMAN(A) Substrate type and % of segments: SUBDIV.
(1) Bedrock 7 (2) Boulder 3 (3) Cobble 5 (4) Pebble 40 (5) Sand 45 (6) Silt + granules(B) Overall % cover of biota (% of segment): Dense SUBDIV. Moderate Low X

(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-12-2Frames 7-12

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: Some tar among HTZ boulders on S. side of surveyed beach, but intertidal community appears normal. Observed 2 deer in forest edge, 5 pairs goldeneyes, 5 pairs harlequin ducks, 2 harbor seal. A normally expansive intertidal community of pebble/cobble pocket beaches.

Ecological Considerations:

Please see BP-1-A.

Sensitivity Code FHH (substance ignored).

OG MUB

SEGMENT ST/VI 1

SUBDIVISION B

DATE 4 / 1 / 90

CHECKLIST

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

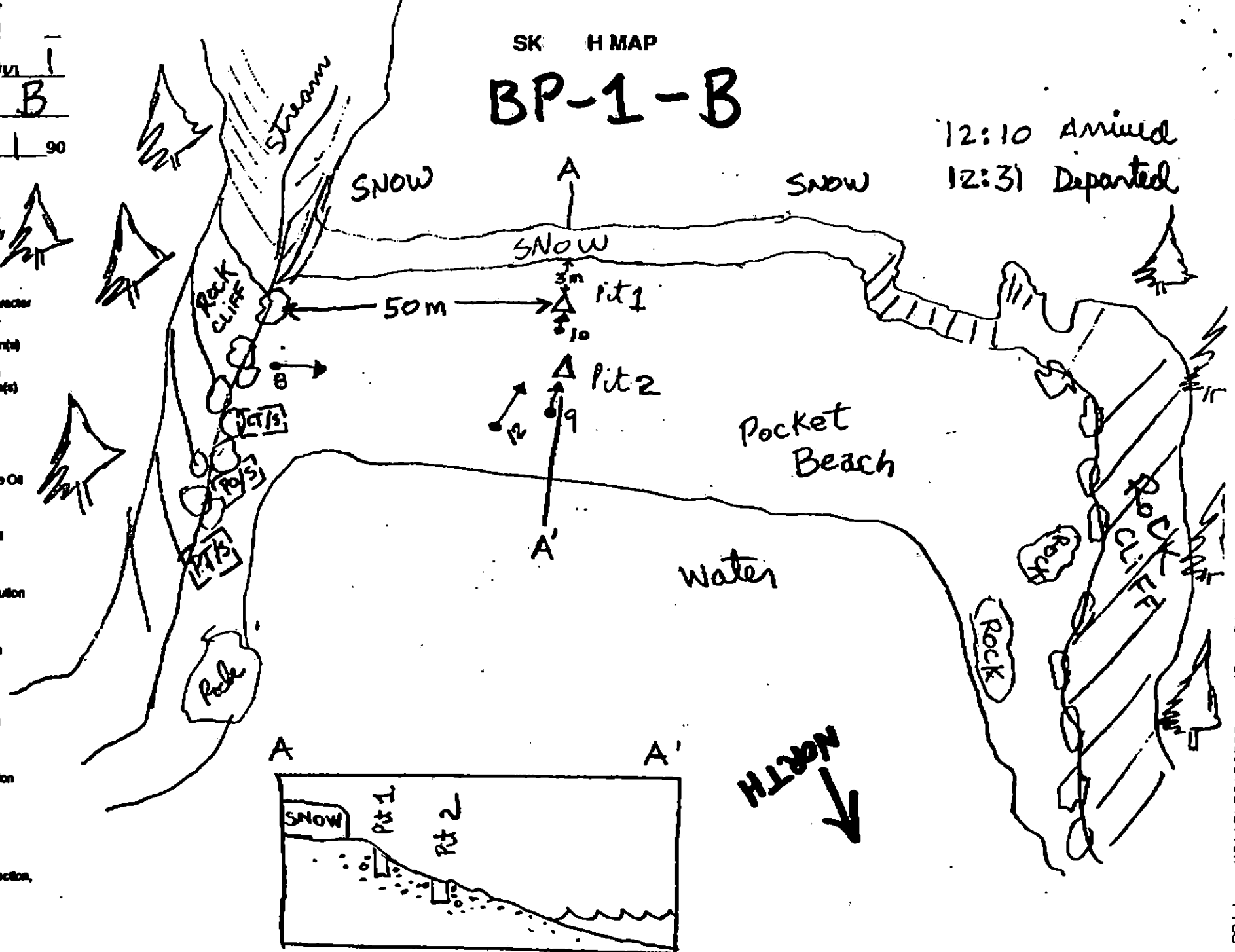
LEGEND

- 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
- Photo location, direction, and number

SK H MAP

BP-1-B

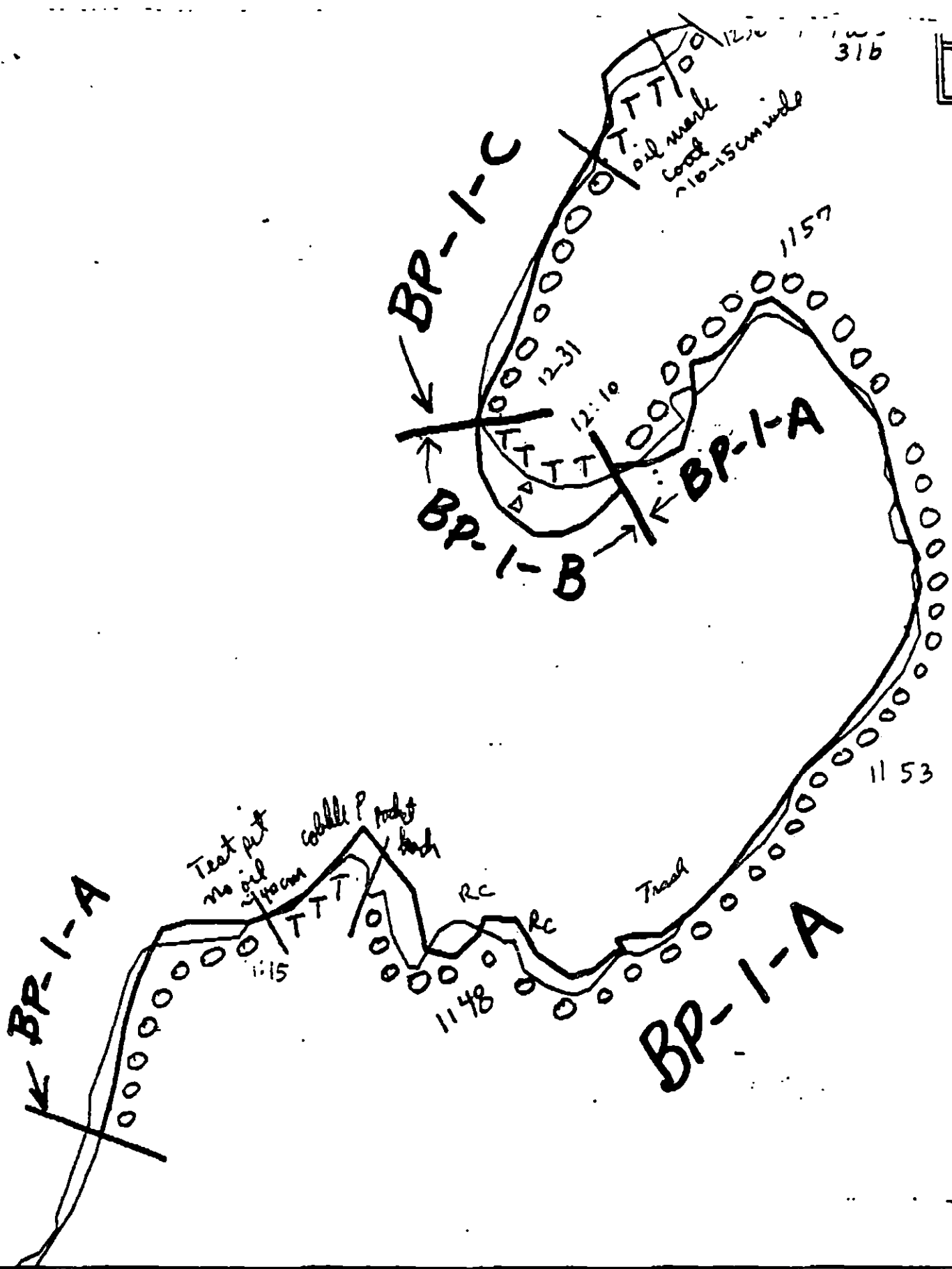
12:10 Arrived
12:31 Departed



Oil Character Length (m): AP 15 CV 8 ST 3 MS 3 TB 3 FL NO

REVISIONS

APR-02-1990 20:36 FROM PUGA X TO 1# 0019075643771# P.06



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

BP-1

ADEC Segment Length: 3699m



Map Key: PWS-31a
 Name: Randy McBride
 Date: 4/1/90
 Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ BP-01 SUBDIVISION C (3 OF 3) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Active bald eagle nest (5T) - 3/1 to 6/1; recreation special use destination (6Y) - 6/1 to 9/15; Subsistence area for finfish harvesting (7HH).

SUBDIVISION ECOLOGICAL CONSTRAINTS:

(7HH) Contact ADF&G and Chenega Corp. for dates, locations, constraints.

ARCHAEOLOGICAL CONSTRAINTS:

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

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 496 m: No Oil 788 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: ☐ Breakup | ☐ Beach Cleaner |
| ☐ Removal | ☐ Other (see comments) |

COMMENTS:

TAG COMMENTS:

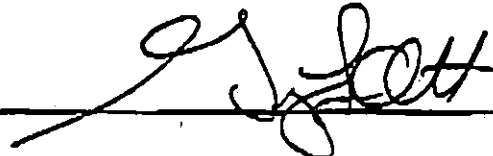
TAG APPROVAL DATE: 4/16/90

ADEC AL HEGGEL
EXXON ANDY TEAL
IOAA Burt Wescott
JSCG G.A. BEITER
FOSC: DATE: 4-20-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ BP-1 SUBDIVISION: C DATE 4/1/90USCG
NAMEGARY OTT

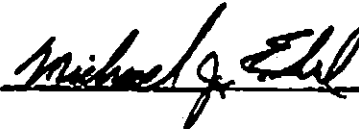
SIGNATURE

☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

ADEC

NAME MICHAEL J. EBEL

SIGNATURE

☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDBP-1-C

LAND MANAGER - U.S.D.A. FOREST SERVICE

NAME DON J. BREITINGER

SIGNATURE

☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY

REVISION NO. 06/28/90

OG Randy McBride ^{NOAA} Gary Ott SEGMENT ST/ BP-1
 BIO Louis Shannon LAND REP Dave Breitingen SUBDIVISION C
 EXXON Leonard Harbor ADEC Mike Elise TIME 12:31 to 12:40
 TEAM NO.: 12 TIDE LEVEL: 0.0 to +0.1 DATE 4/1/90
 EST. SUBDIVISION LENGTH: 1129 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: South to North
 SURFACE SEDIMENTS: R 45 % B 40 % C 15 % P _____ % G _____ % S _____ % M _____ % V _____ %
 SLOPE: Long _____ % Hang _____ % Vert _____ % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W _____ m M _____ m N _____ m VL 470 m NO 659 m

SURFACE OIL

| CHARACTER | DISTRIBUTION | | | | OIL / FILM COLOR | | | | | IMPACTED ZONES | | | |
|------------------|--------------|----|----|----|------------------|---|---|---|---|----------------|---|---|---|
| | TO | RS | RP | RL | 1 | 2 | 3 | 4 | 5 | SU | U | M | U |
| ASPHALT PAVEMENT | | | | | | | | | | | | | |
| POOLED | | | | | | | | | | | | | |
| COVER | | | | | | | | | | | | | |
| COAT | | | | | | | | | | | | | |
| STAIN | | | | | | | | | | | | | |
| MOUSSE | | | | | | | | | | | | | |
| PATTIES | | | | | | | | | | | | | |
| TARBALLS | | | | | | | | | | | | | |
| FILM | | | | | | | | | | | | | |
| NO OIL | | | | | | | | | | | | | |

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

PATTIES / TARBALLS _____ BAGS

NEAR SHORE SHEEN? ☒ NO BR RW SL TL

| OILED DEBRIS | AMOUNT | | | DEBRIS COLLECTED
☐ YES ☒ NO |
|--------------|--------|----|----|---|
| | SM | MD | LG | |
| Logs | | | | |
| Vegetation | | | | |
| Trash | | | | |
| Debris | | | | |

TYPE _____

#BAGS _____

Photographs:

Roll No. No photosFrames No photos

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 | | BO | BC | 1 | 2 | 3 | 4 | 5 | SW | SI | MR | U | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |

COMMENTS

Subdivision BP-1-C alternated between no oiling and very light oiling. The very light oiling was characterized by an oil mark (blocky and patchy coat) that was 10-15 cm wide with drip marks in most places. This oil mark was hard to recognize in some cases. Sketch map not appropriate - see computer maps.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 00259C

Segment ST / BP-2 Subdivision C Date (mo / day / yr) 4/1/90Time (24 hr) 1231-1240 Biologist SHARMAN(A) Substrate type and % of segments: SUBDIV.(1) Bedrock 45 (2) Boulder 40 (3) Cobble 15 (4) Pebble (5) Sand (6) Silt (B) Overall % cover of biota (% of segment): Dense Moderate X Low
SUBDIV.

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

Photographs:

Roll No. ST-12-2Frames None

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 (Nucula, Littorina, Lirapota)

| 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: 3 coronata, Steller's jay, fox sparrow, 4 pairs goldeneye, 4 pairs harlequin duck. Intertidal community is typical of semi-protected high angle rock walls & large boulders/cobbles. Apparent normal. Abundant VLT - no drilling.

Ecological Considerations:

Please see BP-2-A.
Sensitivity Code 7HH (substantial firgrail).

B

1236 ↑ PWS 31b

BP-1-C

BP-1-B

BP-1-A

Important

N = O
VL = T

Test pit
no oil
~40cm
V L V L
RC
RC
Trash

11:15

11:48

11:53

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

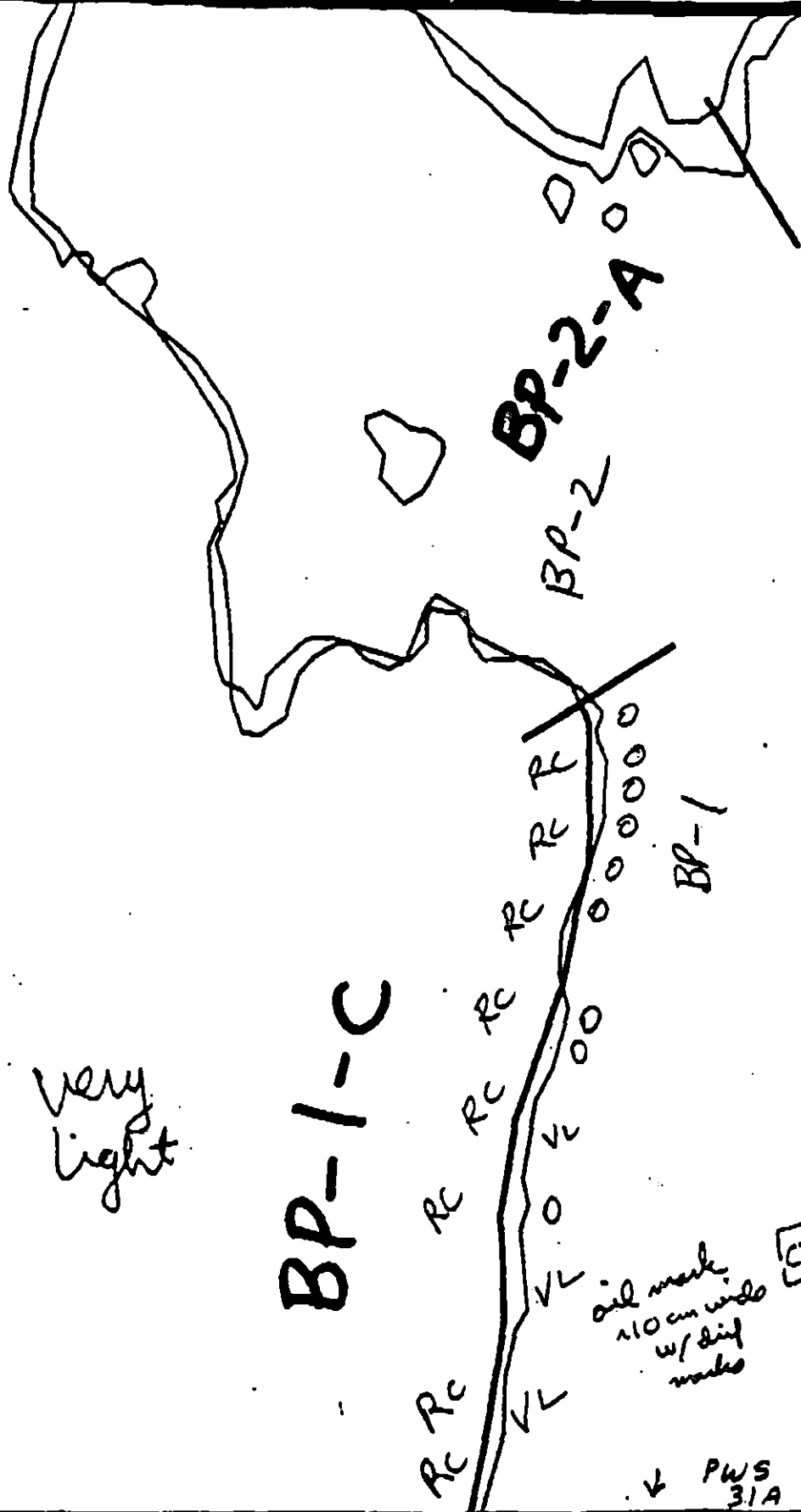
BP-1

ADEC Segment Length: 3699m



Map Key: PWS-31a
Name: Randy McBride
Date: 4/1/90
Date Entered:

VL = very light



BP-1

XXXX Wide

/// Medium

---- Narrow

TTTT Very Light

0000 No Oil

ADEC Segment Length: 3699m



Map Key: PWS-31b

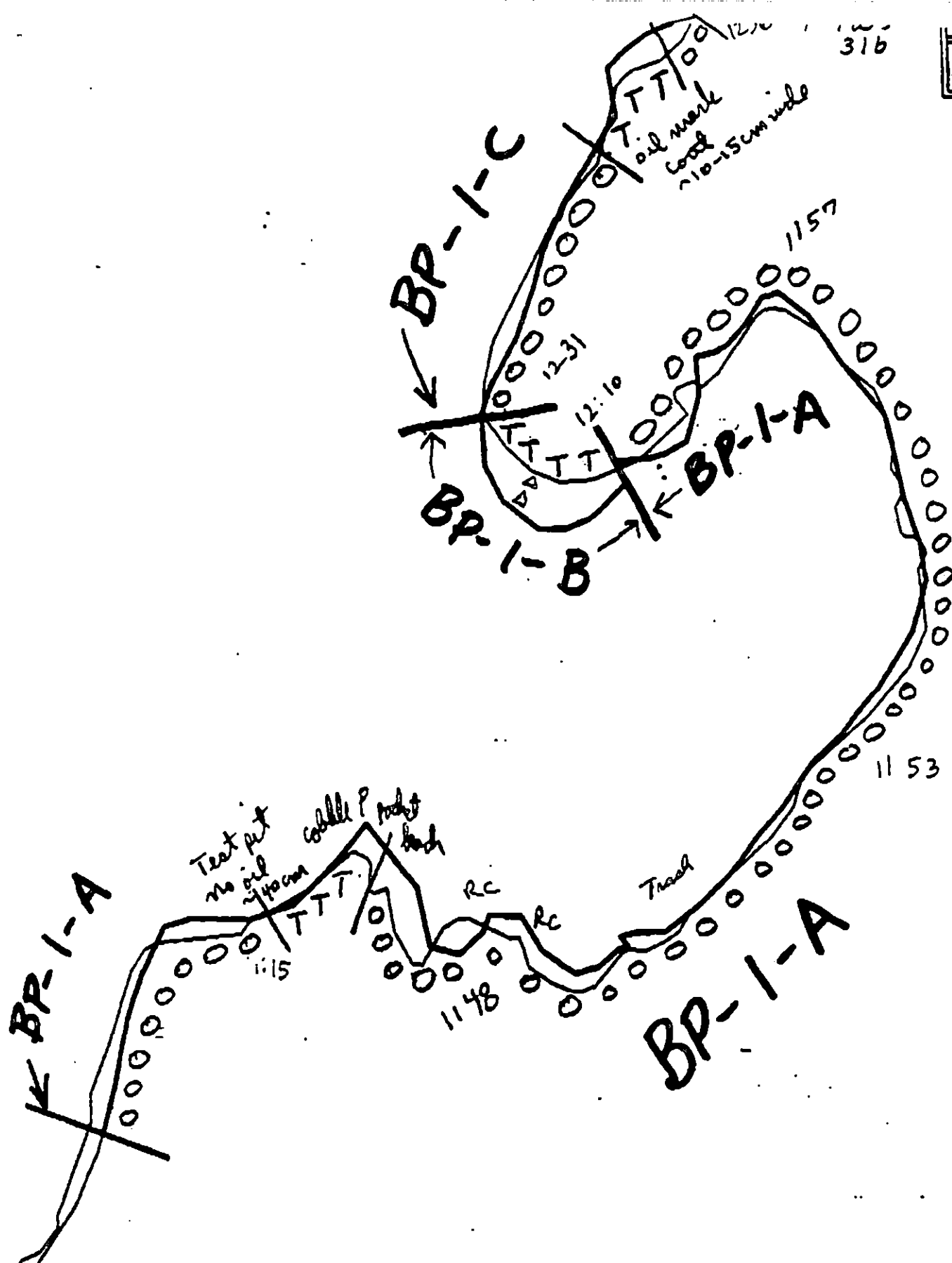
Name: _____

Date: _____

Date Entered: _____



B



BP-1

Map Key: PWS-3100 -

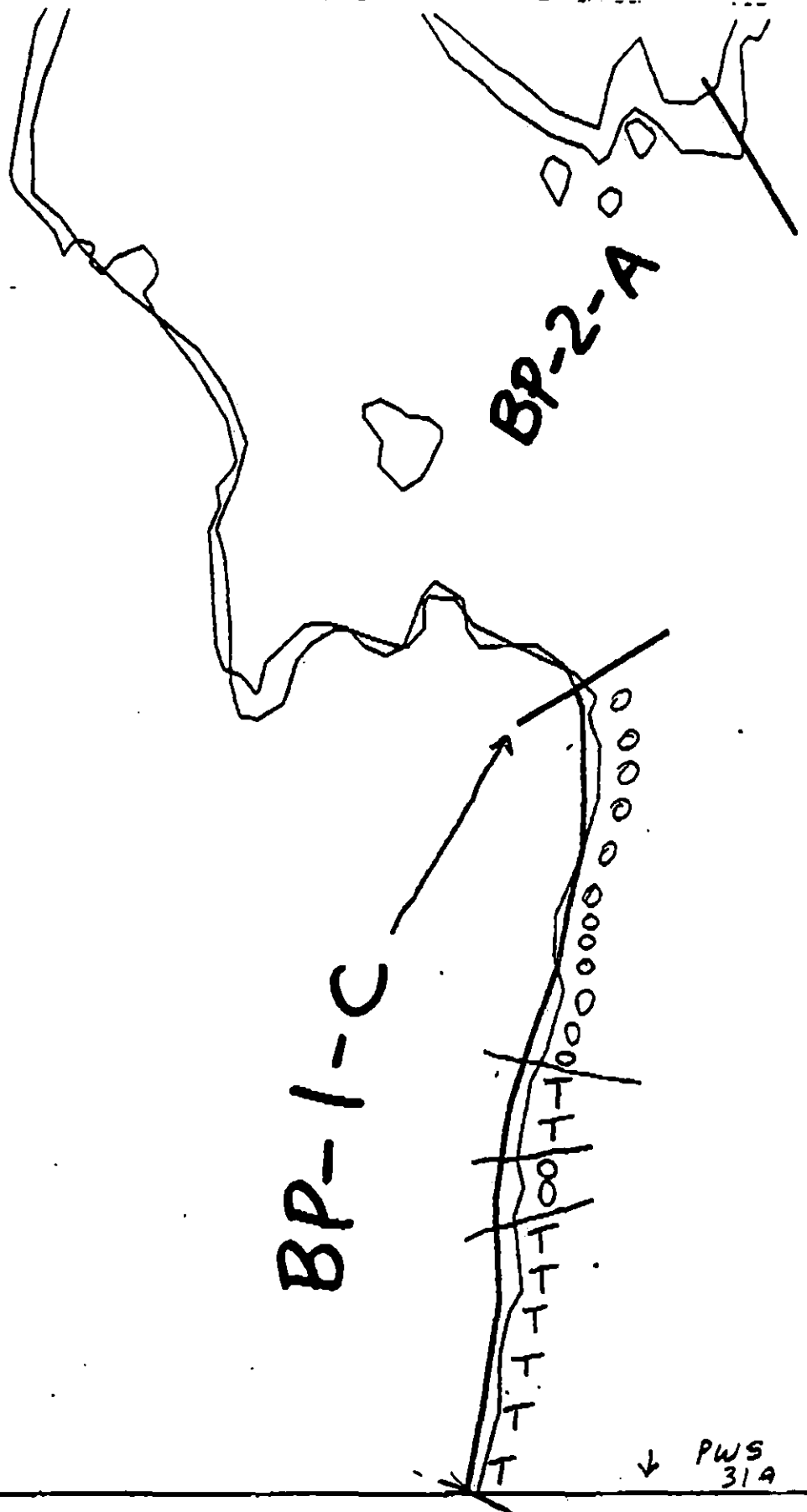
ADEC Segment Length: 3699m

Name: Randy McBride

Date: 4/1/90

METERS

Date Entered:



XXXX Wide

//// Medium

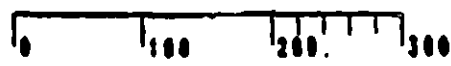
--- Narrow

TTTT Very Light

0000 No Oil

BP-1

ADEC Segment Length: 3699m



METERS

Map Key: PWS-31b

Name: Randy McBine

Date: 4/1/90

Date Entered:

1112 0.20 392 7.17 29.02 2

SHORELINE EVALUATION

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

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream mouth (ADF&G catalogue no. 226-40-16181 rev. 12/89)

1A Salmon stream - fry outmigration (3/1 to 5/15)

1B Salmon stream - spawning (7/10 to 8/31)

6Y Recreation: Special use destination (6/1 to 9/15)

7HH Subsistence area: Finfish harvesting

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Chapman 3/15/90 DATE: 4/18/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 2745 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: 4/18/90.

ADEC Art Weiner Art Weiner

XXON Amy Katz Amy Katz

OAA Burl Weisheit Burl Weisheit

USCG G.A. Heiter G.A. Heiter

FOSC: h h DATE: 4-22-90

PWS ECOLOGICAL CONSTRAINTS

BP-2

- 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.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / BP-2 SUBDIVISION: A (ENTIRE SEGMENT) DATE 4/1/90

USCG

NAME GARY OTT

SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADEC

NAME MICHAEL J. EBEL

SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

BP-2-A

LAND MANAGER - U.S.D.A. - FOREST SERVICE

NAME DON J. BREITINGER

SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

54/5 Page 20 of 24

REVISION NO. 03/21/90

1 ACT PAGE 32 OF 32

SHORELINE OILING SUMMARY

REVISION NO. 03/28/90

OG Randy McBride NOAA Gary Ott SEGMENT ST/ BP-2
 BIO Lewis Shannon LAND REP Dan Breitingen SUBDIVISION A
 EXXON Leonard Herbst ADEC Mike Eidel TIME 12:40 to 13:14
 TEAM NO.: 12 TIDE LEVEL: 0.0 to +0.2 DATE 4/1 / 90
 EST. SUBDIVISION LENGTH: 2994 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: north to south
 SURFACE SEDIMENTS: R 15 % B 20 % C 40 % P 20 % G 5 % S % M % V %
 SLOPE: Long 5 % Hang 75 % Vert 20 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W m M m N m VL m NO 2994 m

SURFACE OIL

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

PAVEMENT: H F S sq. m by cr

PATTIES / TARBALLS BAGS

NEAR 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. No photos

Frames No photos

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 | | | 1 | 2 | 3 | 4 | 5 | SU | U | ME | U | | |
| 1 | 30 | | | | | X | - - - | X | | | | | | X | | | | | CPG |
| | | | | | | | . | | | | | | | | | | | | |
| | | | | | | | . | | | | | | | | | | | | |
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| | | | | | | | . | | | | | | | | | | | | |
| | | | | | | | . | | | | | | | | | | | | |

COMMENTS

No surface or subsurface oiling found along entire BP-2 segment.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 08/22/91

Segment ST / BP-2 Subdivision A Date (mo / day / yr) 4/1/90Time (24 hr) 1240-1320 Biologist SHARMAN(A) Substrate type and % of segments: SUBDIV.(1) Bedrock 15 (2) Boulder 20 (3) Cobble 40 (4) Pebble 20 (5) Sand 5 (6) Silt grinder(B) Overall % cover of biota (% of segment): Dense SUBDIV. Moderate X Low (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)Photographs: Roll No. ST-12-2Frames None

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 (naselli, littorine, limpeta)

| 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 | |

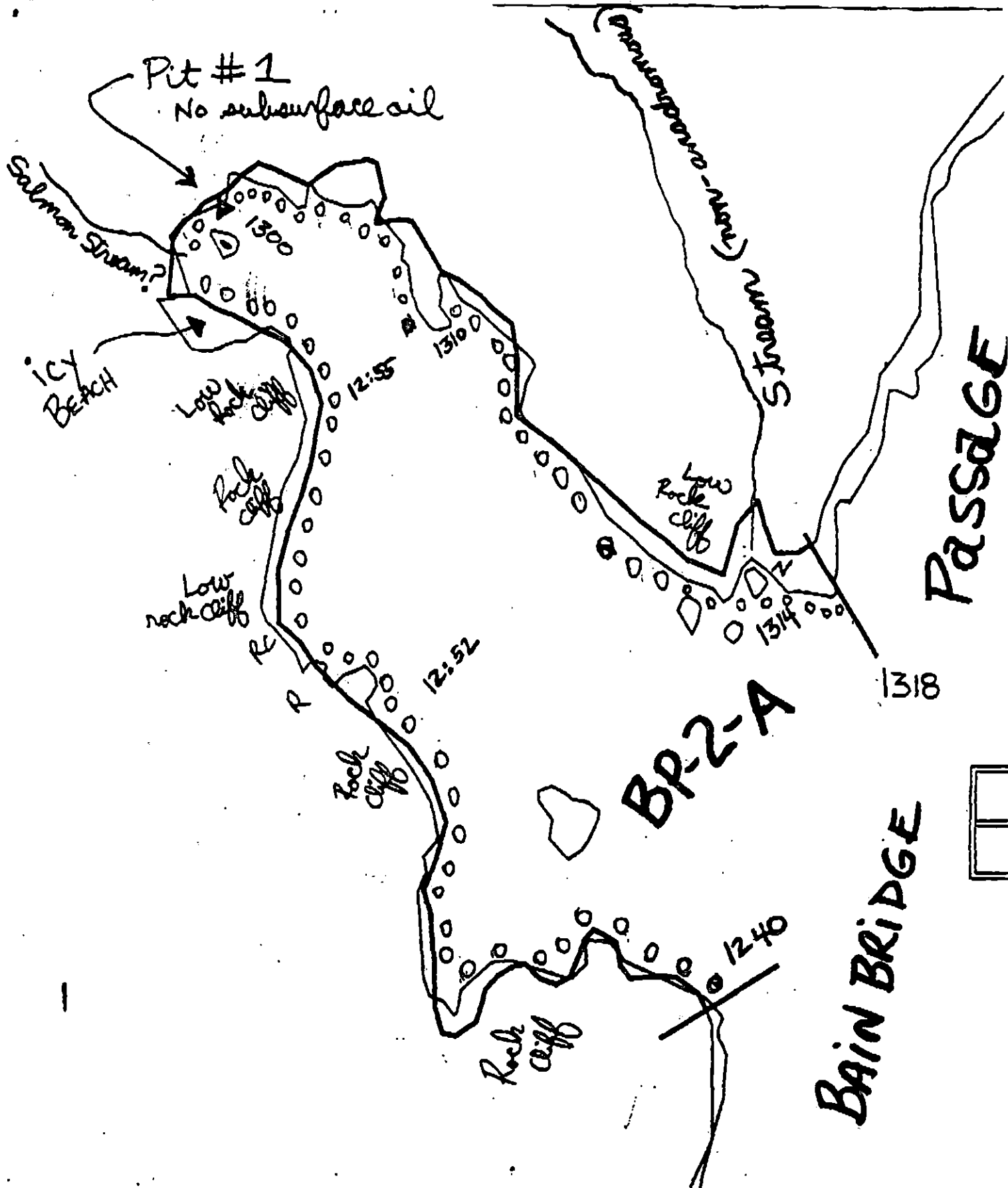
FUCUS

| 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: 1 harbor seal, 1 sea otter, 11 pairs goldeneyes, 2 sea otters, 5 pairs mergansers, 2 cormorants, 2 pair adult eagles (no nest visible). Spawning stream (see sketch map) is clean and unobstructed. This area is quite rich and diverse. Generally (very similar to BP-2) with numerous protected covelets, small islands, etc. Appears to be a normal and healthy intertidal community.

Ecological Considerations:

According to the Priorities and Windows table, this segment is given Environmental priority 1 with a pre-7/10 work window. It was listed as having VLT oiling, but we observed no oil. Sensitivities are finfish harvest (code = FHH) with high constraints (1-2) and treatment priority 4, and salmon spawning stream (code = 1B) with high constraints (1-2) and treatment priority 1.



XXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

BP-2

ADEC Segment Length: 2754m



Map Key: PWS-32

Name: Randy McBride

Date: 4/1/90

Date Entered:

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ BP-04 STREAM NO: 226-20-16388 DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Four catalogued anadromous streams in BP-04: 226-20-16388, 226-20-16392, 226-20-16397, 226-20-16395.

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)

1B Salmon stream mouth - spawning (7/10 to 8/31)

5T-4 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 uncoiled biota and substrate. There are no ecological constraints re: cleanup. Eagle nests > 400 M from area, manual pickup with 10 man crew.

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

Subsurface Oil Observed: Yes X No Maximum Depth 10 cm

RECOMMENDATIONS:

 No Treatment Recommended

X Treatment Recommended

X Manual Pickup

 Bioremediation

X Tarmat Removal

 Snare/Absorbent Booms

 Oil Snares (pom poms)

 Absorbents (pads, rolls, etc)

 Spot Washing: Wands

 Beach Cleaner

 Other (see comments)

COMMENTS: Recommended treatment includes 1) manual removal of debris,
2) manual pickup of tarmat, tarballs and patties in areas shown on
attached sketch map.

TAG COMMENTS:

TAG APPROVAL DATE: 5/7/90

ADEC ART WEINER [Signature]

EXXON ANDY TCH [Signature]

NOAA GARY PATRICK [Signature]

USCG G.A. REITER [Signature]

FOSC: [Signature] DATE: 5-18-90

NOTIFY CVC 24 HRS PRIOR TO WORK.

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS



Salmon stream mouth - fry outmigration (3/1 to 5/15)

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 Morrison 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

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

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 Roth 267-2206



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 **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)**

HH **Finfish harvesting**

7H **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 1 BP 004 SUBDIVISION: 226-20 16388 DATE 4/20/90

USCG

NAME CWO MC NATIONSIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

1. MANUAL TREATMENT: REMOVE TAR MATS
RIGHT + LEFT SIDES PER MAP.

ADFG
ABEC
NAME NO TEAM MEMBER

TOM CROWE

SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

MANUAL REMOVAL OF ALL TAR MATS INDICATED BY MAP. REMOVE
OIL LOGS IN POCKET COVES TO GAIN ACCESS TO THICK TAR
MATS.

LAND MANAGER

NAME NO TEAM MEMBER SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ASC # 226-20-16388

Segment BP-004

Observations This is a well-protected, gravelly beach bordered by boulders to the northwest. A heavy tar band rings the high tide line across the entire head of the cove. This band is quite broad and thick where it extends to and through several branches of the anadromous stream. On the west side of the cove, a mobile gravel berm covers a portion of the tar band with more than a meter of clean material. However, the tar band is fairly light at the point where it is covered by the berm. Tar patties are scattered throughout the mid- and lower-intertidal zone west of the channel. The boulders on the east side of the cove have trapped deposits of mobile mousse.

Treatment Recommendations Manually remove all tar mats and patties from the site, including those on the stream bank and in the stream channel. Manually remove mousse deposits from protected coves. Removal of mousse may require trowels and absorbents.

SHORELINE OILING SUMMARY (ANAD.)

REVISION 11

OG William Reid USCG McMAHON SEGMENT ST/ 8 P0704 91
 BIO Michael Fawcett LAND REP 105 STRAB 22882-48388 0
 EXXON Gus Garcia ADPG Mike Vindner TIME 10:2610
 TEAM NO. 15 TIDE LEVEL 4.5 ft DATE 24 / APR / 90
 EST. SUBDIVISION LENGTH: 45 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☐ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 0 % B 0 % C 35 % P 55 % G 0 % S 0 % M 0 % V 0
 SLOPE: Long 0 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ H
 OIL CATEGORY LENGTH: W 0 m M 2.5 m N 20 m VL 0 m NO 0

SURFACE OIL

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

PAVEMENT (H) (F) 8 200 sq. m by 6

PATTIES / TARBALLS 1

NEAR SHORE SHEEN? (NO) BP RW SL

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

Did you C DEBRIS ☐ YES ☒ NO

TYPE 0
#BAGS 0

Photographs:

Roll No. 0

Frames 0

SUBSURFACE OIL * OILED INTERVAL < 5 cm IN PIT NO. 2 DOES NOT CONSTITUTE SUBSURFACE OIL

| PIT NO. | PIT DEPTH (cm) | SUBSURFACE OIL CHARACTER | | | | | OILED INTERVAL | BELOW | | OIL / FILM COLOR | | | | | PIT ZONE | | | | A | N | A | V | SURF SUBSU SEDIM |
|---------|----------------|--------------------------|----|----|----|----|----------------|-------|----|------------------|---|---|---|---|----------|---|---|---|---|---|---|---|------------------|
| | | OP | OR | OL | OF | NO | | NO | NO | 1 | 2 | 3 | 4 | 5 | SU | M | M | U | | | | | |
| 1 | 35 | | | | | X | 0-10 | | | | | | | | X | | | | | | | | P/C |
| 2 | 25 | X | X | | | | 4-10 | X | | | | X | | | X | | | | | | | | P/G |
| 3 | 45 | | | | | X | 0-10 | | | | | | | | X | | | | | | | | P/G |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |

COMMENTS

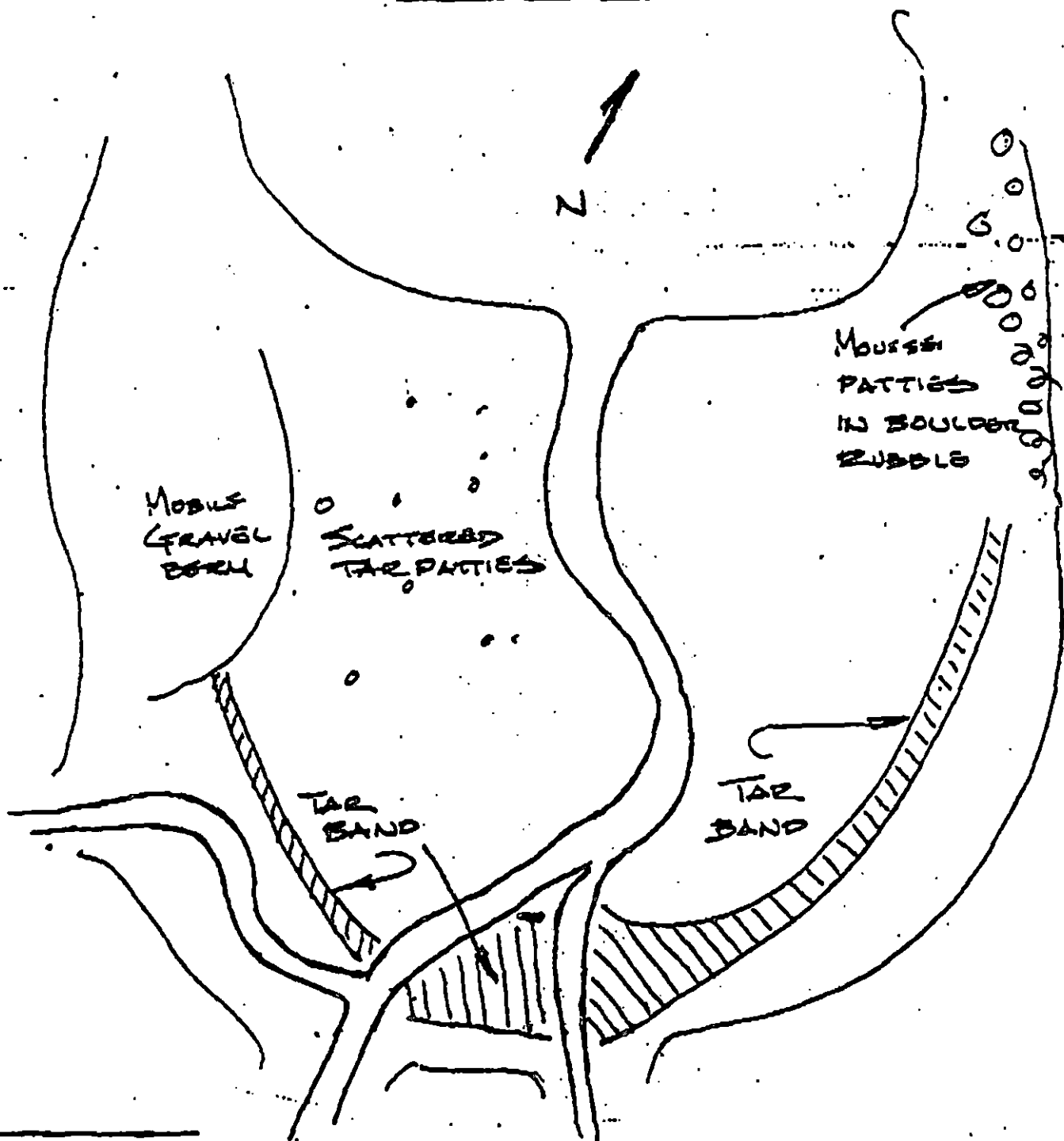
REVIEWED FW DATE 4-2

REMOVE OILED LIM
p BACK OF
REMOVE TREE

48 PHOTOLOG

| ID | DESCRIPTION |
|----|--|
| | <p>RECOMMENDATIONS: MANUALLY REMOVE TAR MATS AND PATTIES THROUGHOUT AREA INCLUDING STREAM CHANNEL AND BANKS. REMOVE MOUSSE DEPOSITS FROM BOULDER RUBBLE ON EAST SIDE OF CHANNEL. MOUSSE REMOVAL MAY REQUIRE TROWELS AND ABSORBENTS.</p> <p>I agree with recommendations. M. H. [Signature]</p> |

48 OIL DISTRIBUTION DIAGRAM



Segment BP004
Stream 226-20-16388
Ecological Summary

4/23/90
Michael Fawcett

This small stream enters a small cove via an unconsolidated pebble/gravel beach, with isolated cobbles and boulders. Fucus are sparse overall, dense in small patches. Littorine and barnacles are also patchy, dense in places. New barnacle spat are dense in places. There is a moderately dense, mature mussel bed among pebbles at the stream mouth in MTZ. Two mink were seen foraging on the beach. There are no ecological constraints re: cleanup.

Michael Fawcett

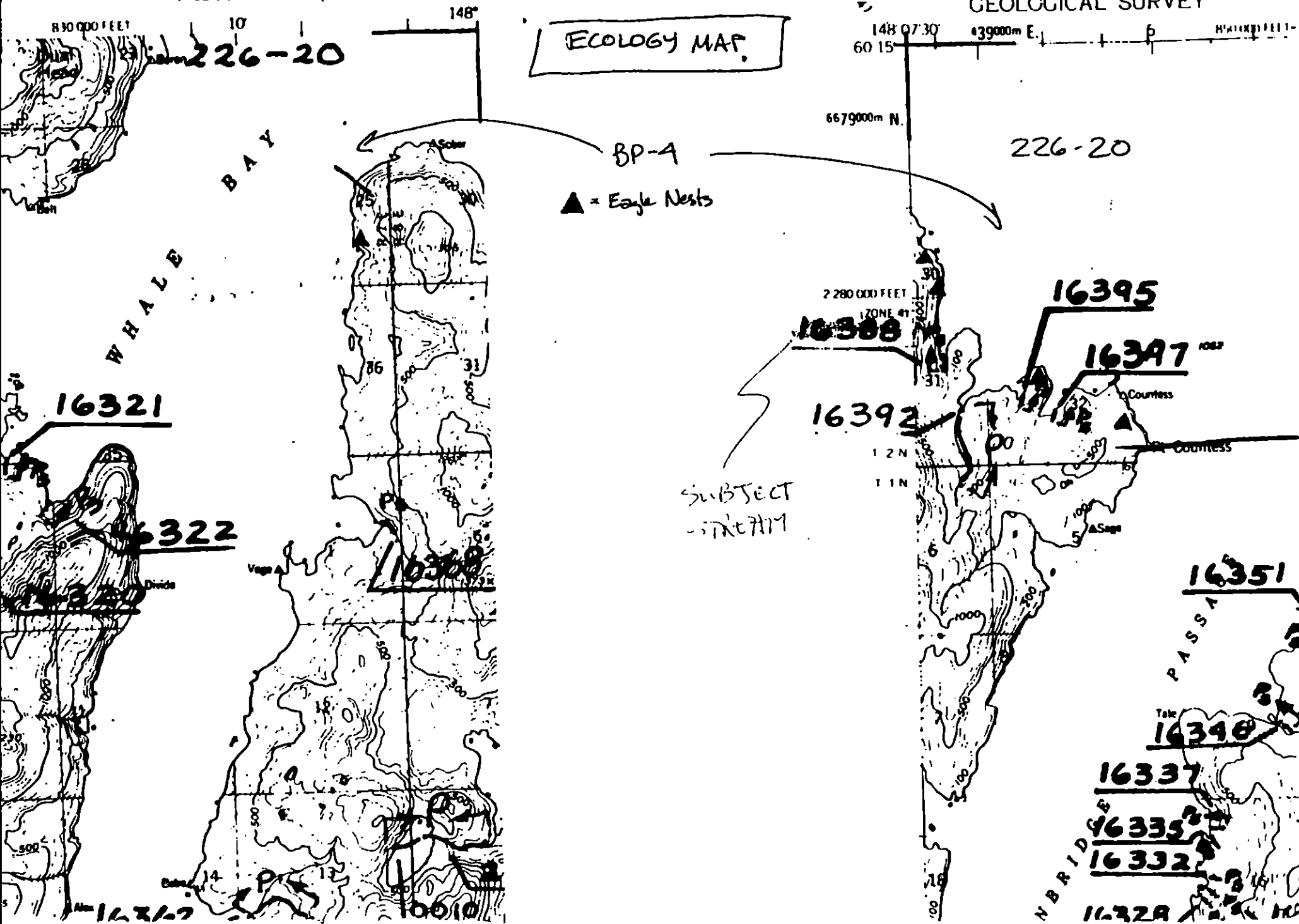
SEWARD (A-4) QUADRANGLE

ALASKA

1 63.360 SERIES (TOPOGRAPHIC)

UNITED STATE
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

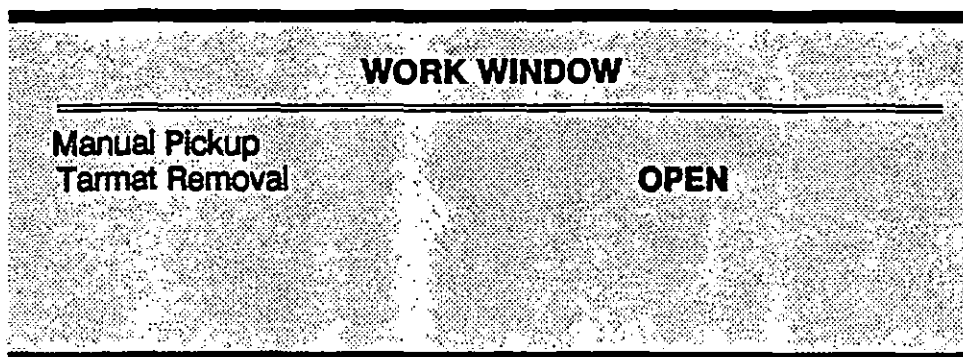
ECOLOGY MAP



ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 226-20-16388

SEGMENT BP-004 SUBDIVISION A



ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

| | | |
|-------|-----------------|---|
| 1A,1B | Salmon Stream | ADF&G catalogued anadromous stream (226-20-16388) is in Subdivision A. No constraint to manual pickup and tarmat removal. |
| 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

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

SEE SUBDIVISION CONSTRAINT ADDENDUM BP-004A
FOR ADDITIONAL CONSTRAINT INFORMATION.

FOSC

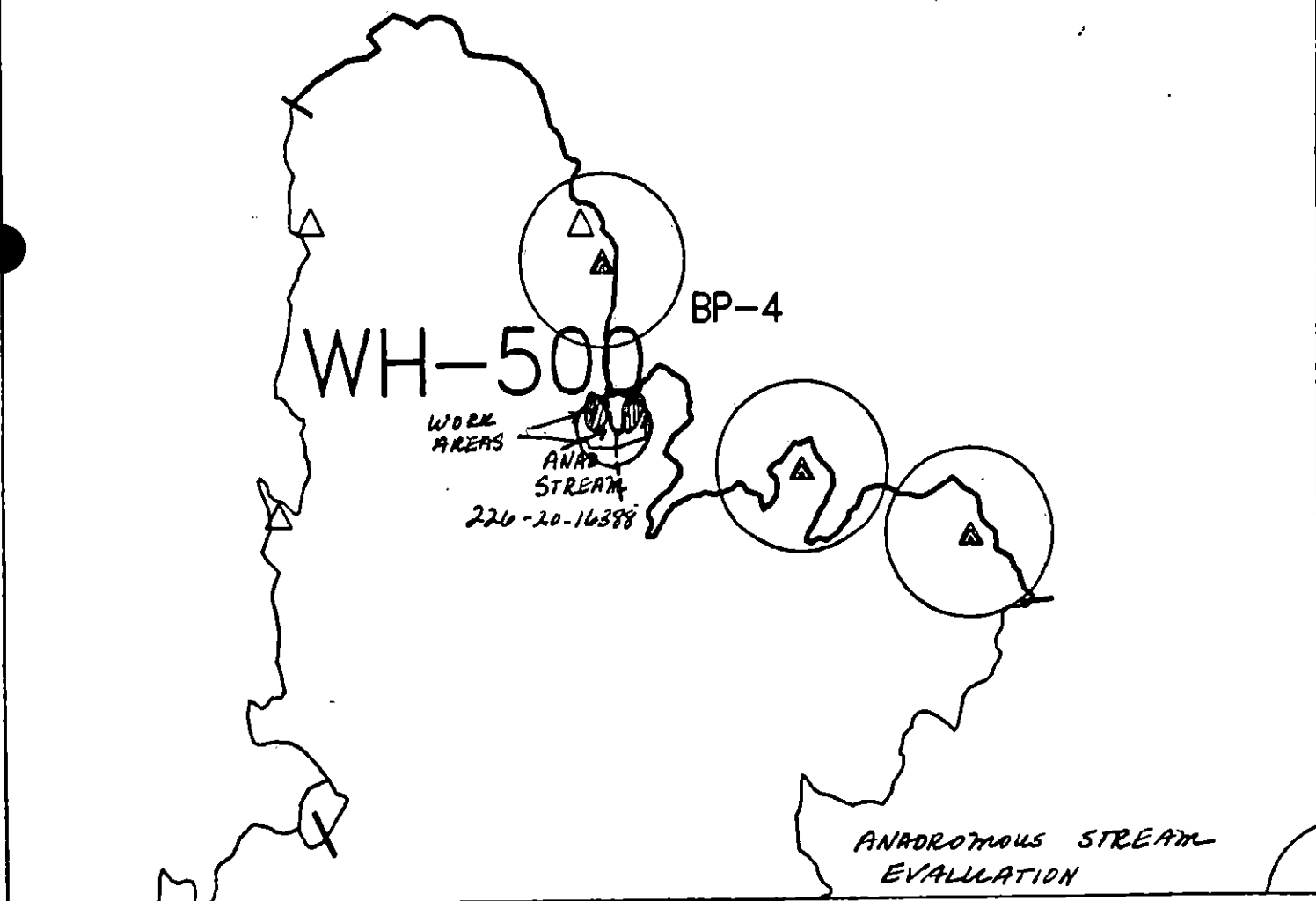
Date

6-18-90

Prepared by

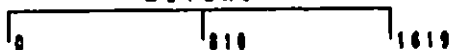
Date

6/16/90



Exxon Company, USA
 Map Key: PWS-BP-4
 June 12, 1990

ECOLOGY MAP
 SEGMENT BP-4
 SUBDIVISION A (1 of 1)
 METERS



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

1 inch = 2656 feet

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ BP-04 STREAM NO: 226-20-16392 DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Subject salmon stream and 226-20-16388 (Ps, 12/89), 226-20-16395 (Ps, 12/89), 226-20-16397 (Ps, 12/89)

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)

1B Salmon stream mouth - spawning (7/10 to 8/31)

5T-4 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 uncoiled biota and substrate. Eagle nest > 400 M from work area - manual pickup with 10 man crew.

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

Subsurface Oil Observed: Yes X No Maximum Depth 6 cm

RECOMMENDATIONS:

 No Treatment Recommended

X Treatment Recommended

X Manual Pickup

 Bioremediation

X Tarmat Removal

 Snare/Absorbent Booms

 Oil Snares (pom poms)

 Absorbents (pads, rolls, etc)

 Spot Washing: Wands

 Beach Cleaner

 Other (see comments)

COMMENTS: Recommended treatment includes manual removal of tarmats and pickup of mousse in areas shown on attached sketch map.

TAG COMMENTS:

TAG APPROVAL DATE: 5/7/90

ADEC [Signature]

EXXON [Signature]

NOAA [Signature]

USCG [Signature]

FOSC: [Signature]

DATE: 5-7-90

Access road for Custardland following Tarmat removal. Notify CVC 24 hours prior to work.

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

Salmon stream mouth - fry outmigration (3/1 to 5/15)

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

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 Roth 267-2206

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)

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

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FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1 BP004 SUBDIVISION: 16992 DATE 4/24/90

USCG

NAME CWO McMAHON

SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

1. MANUAL TREATMENT; REMOVE TAR BALLS
AND MOUSSE PER MAP LEFT SIDE (KOLING ONSHORE)

ADP
ADP
NAME TOM CRONE

~~ADP~~ NAME [Signature]

SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

MANUAL TREATMENT; REMOVE TAR MATS WITH SPECIAL
CONSIDERATION TO POCKET COVES.

LAND MANAGER

NAME ADP TEAM MEMBER

SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Alaska Department of Fish and Game

ANADSCAT Observations and Recommendations
Team 15 - Michael Wiedmer and Tom Crowe

24 April 1990

ASC # No numberSegment BA-002

Observations This site supports a very rich intertidal flora and fauna. The intertidal zone is bordered by bedrock walls north and south of the stream channel. The bases of these walls are littered with boulder rubble. Two tar patties were found in the boulder rubble south of the channel and two to three tar splatters were found in the boulders north of the channel. No buried oil was observed at the site.

Treatment Recommendations Manually remove tar patties. This was done by the ANADSCAT crew, therefore no further treatment is required.

ASC # 226-20-16392Segment BP-004

Observations A long, protected intertidal zone borders this stream channel. North and south of the channel, bedrock walls confine the intertidal zone. South of the stream mouth, bedrock outcrops protect two small beach pockets. The upper portions of each of these protected pockets contain mobile mousse deposits trapped between boulders. Further up the south side of the stream channel, tar mats and patties ring the high tide line. No significant quantities of buried mousse were identified.

Treatment Recommendations Manually remove surface tar mats and patties. Manually remove mousse deposits from protected coves. Removal of mousse may require trowels and absorbents.

SHORELINE OILING SUMMARY (ANAD.)

REVISION NO. 2

OG WILLIAM LED USCG McMAHON SEGMENT ST/ 37074
 BIO MICHAEL FAWCETT LAND REP 5 STRAIN 325-24572.1 OF
 EXXON GUS GARCIA ADFG MIKE WIDMER TIME 24 / 18 / 90
 TEAM NO. 15 TIDE LEVEL 0 FT DATE 24 / 18 / 90
 EST. SUBDIVISION LENGTH: 55 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 5 % B 5 % C 35 % P 60 % G 0 % S 0 % M 0 % V
 SLOPE: Long 80 % Hang 20 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ H
 OIL CATEGORY LENGTH: W 8 m M 3 m N 2 m VL 0 m NO 45

SURFACE OIL

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

PAYEMENT H (F) (9) 150 sq. m by Z

PATTIES / TARBALLS

NEAR SHORE SHEEN? (NO) BR RW SL

| OILED DEBRIS | AMOUNT | | |
|--------------|--------|----|----|
| | SM | MD | LG |
| Logs | | | |
| Vegetation | | | |
| Trash | | | |
| Debris | | | |

Did you see DEBRIS
☐ YES ☒ NO
 TYPE _____
 #BAGS _____

Photographs:

Roll No. _____

Frames _____

SUBSURFACE OIL * OILED INTERVAL < 5cm IN PIT NO. 1 DOES NOT CONSTITUTE SUBSURFACE OIL

| PIT NO. | PIT DEPTH (cm) | SUBSURFACE OIL CHARACTER | | | | | OILED INTERVAL (cm) | BELOW | | OIL / FILM COLOR | | | | PIT ZONE | | | | AN A | REMARKS | SURF SUBSURF SEDIM |
|---------|----------------|--------------------------|----|----|----|----|---------------------|-------|----|------------------|----|----|----|----------|-----|-----|-----|------|---------|--------------------|
| | | OP | OR | OL | OF | NO | | NO | NO | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | | | |
| * 1 | 40 | X | | | | | 0-6 | X | | X | | | | X | | | | N | | P/G |
| 2 | 35 | | | | | X | . | | | | | | | X | | | | N | | P/G |
| 3 | 30 | | | | | X | . | | | | | | | | X | | | N | | P/G |
| 4 | 30 | | | | | X | . | | | | | | | | X | | | N | | P/G |
| 5 | 35 | | | | | X | . | | | | | | | X | | | | N | | P/G |
| 6 | 25 | | | | | X | . | | | | | | | X | | | | N | | P/G |

COMMENTS

REVIEWED

Jw

DATE 4-25-90

MENT ST/

STK=AH22640-8392

E 24 / APR 90

ECCLIST

1 Arrow
Approx. Scale
log/Scale Study
N Dist.
Dist.
Length
Cover
Substrate Character
at NW/AVE
15L
Y-axis Location(s)
X-axis Location(s)
Photo Location(s)

3END

1 Δ
to Substrate Cl

2 Δ
Substrate Cl

CT/C
WDS Distribution

CT/D
n Distribution

CT/P
y Distribution

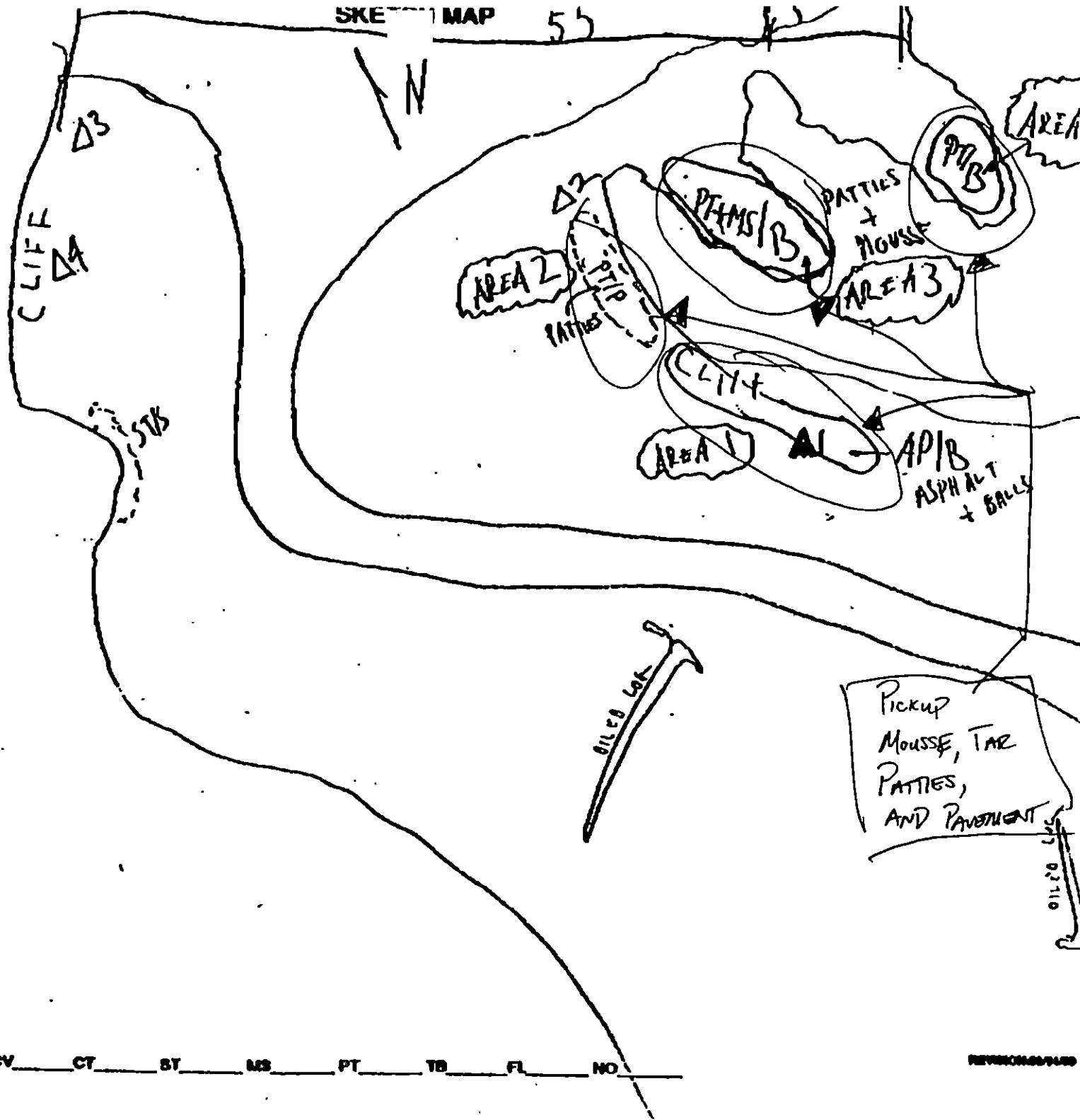
CT/E
ed Distribution

ee
Registration

1-
location, direction,
color

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

SKE MAP 55



REVISION 02/94/90

ASPED MULTI-ASSESSMENT DATA FORM

 1 SURVEY TYPE: 55 55 DE TS AVS SCH 1000 PTA

 2 REGION: PHS KP,CI X,AP

 METHOD: Aerial Ground Seas

 3 DATE: 4/24/90 18 HIGH TIDE TIMES: 0059, 1547

 21 TEAM RECORDER: M. WIEDER

 4 START TIME: 0920 19 HIGH TIDE HTS: 12.5, 10.9

 22 OBSERVERS: T. CROWE

 5 STOP TIME: 1005 17 LOW TIDE TIMES: 0731, 1935

 23 AGENCY: ADPFG

 6 SEGMENT #: BP-004 18 LOW TIDE HTS: -2.2, 0.7

24 PHOTOS TAKEN: Y N

 7 STATION #: 226-20-16392 19 TIDE HT AT SURVEY: 0.71'

Roll #: _____ Frame: _____

 8 X-UNIT: _____ Ebb Slack Flood Slack

25 VIDEO TAKEN: Y N TAPES: _____

9 STAT AREA: _____ 20 USCG QUAD: _____

Starts: _____ Ends: _____

10 LAT: _____ 11 LONG: _____

26 SAMPLES TAKEN? Y N Number

12 SOURCE: Map Loran

Oil _____

 13 LOCATION: POINT COUNTESS

Sediment _____

14 DESCRIPTION: _____

Biological _____

EXTENT OF OIL

Water _____

| | SHORELINE | | | | STREAM | | | |
|---------------------|-----------|-----|---|---|--------|---|---|----|
| | L | Y | M | S | L | Y | M | S |
| 27 SURFACE COVERAGE | 75 | 200 | | 3 | 200 | 4 | | <1 |

 36 CATALOGED ANAD. FISH STREAM Y N

 37 CATALOG #: 226-20-16392

38 STREAM NAME: _____

| | 2cm | 1cm | 3cm | | | |
|----------------------|-----|-----|-----|--|--|--|
| 28 SURFACE THICKNESS | | | | | | |

 39 OIL IN STREAM BED? Y N

| | 4cm | 5cm | 6cm | | | |
|----------------|-----|-----|-----|--|--|--|
| 29 PENETRATION | | | | | | |

 40 OIL ON STREAM BANK? Y N

 30 OVERALL OIL IMPACT: N YL L N H

 41 OIL ON BEACH ADJACENT TO MOUTH? Y N
(within 50 meters)

 31 OIL TYPES: Pooled House Tar Asphalt Sticky Stain

 42 OIL WITHIN 1 MILE OF STREAM? Y N

 32 OILED DEBRIS? Y N

Where: _____

 33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cave
Lagoon Marsh

 43 ANADROMOUS FISH PRESENT? Y N

ALBUQUERQUE

 34 WAVE EXPOSURE: High Moderate Low

44 ANADROMOUS FISH OBSERVATION

 35 SUBSTRATE TYPES: Bedrock 2 Boulder 10 Cobble 44

Species Aerial Ground

 Gravel 44 Sand _____ Mud/silt _____

| | | |
|--|--|--|
| | | |
| | | |
| | | |
| | | |

 COMMENTS: ASPHALT BAND ALONG HIGH TIDE LINE EAST OF CHANNEL
SCATTERED ASPHALT PARTICLES SEAWARD FROM CONTINUOUS BAND

45 PHOTOLOG

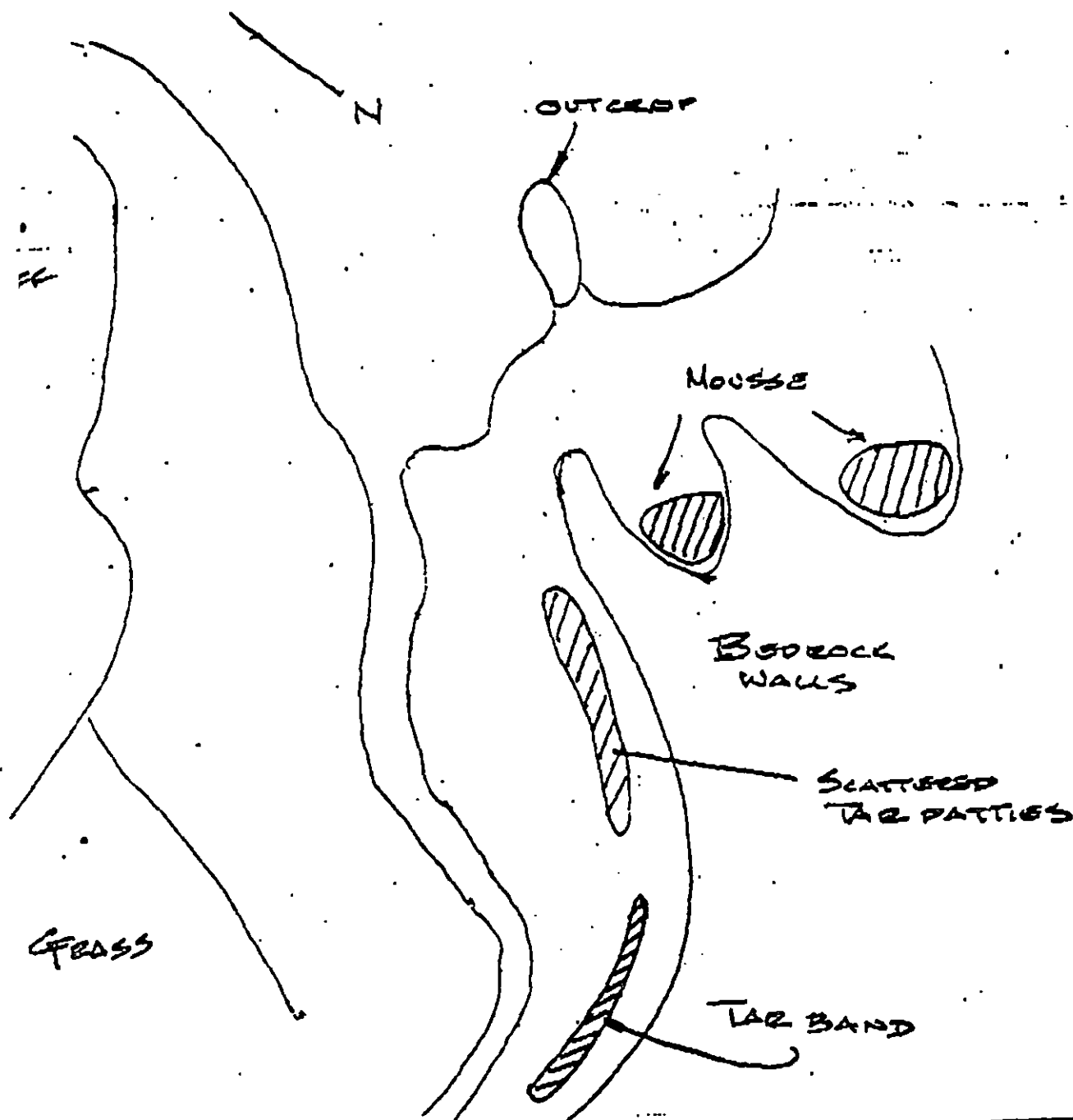
(S)

DESCRIPTION

RECOMMENDATIONS: MANUALLY REMOVE ALL SURFACE
TAR MATS AND PATTIES AND MOUSSE. REMOVE
MOUSSE FROM BETWEEN BOULDER WALLS
REQUIRE SHOVELS AND ABRASIVES.

I agree with recommendations. M. H. Fawcett

46 OIL DISTRIBUTION DIAGRAM



ECCOLOGICAL MAP 1 of 2

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

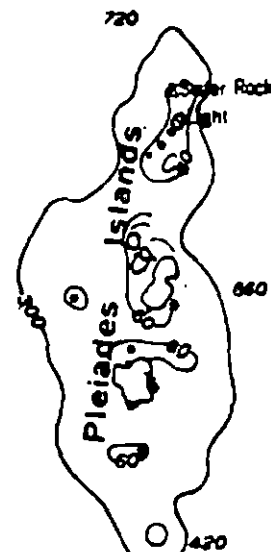
SEWARD B-4)

148° 07' 30" 439000m E. 5 850 000 FEET - ZONE 4 148°

226-20

6679000m N.

BALD EAGLE
NESTS



2 280 000 FEET

16388

16395

BP-04

16397

Countess

Pt. Countess

226-2

226-4

T 2 N

T 1 N

Sage

16351

Bain

Bainbridge Pt

PASSA

Tate

16348

16337

16335

16332

16229

IN BRIDGE

Gage I

16390

16388

16384

15

15

15

15

15

15

15

15

15

FINAL

ECOLOGICAL DATA

ALASKA

63 360 SERIES (TOPOGRAPHIC)

830 000 FEET

10

148°07

226-20

01-04

16290

WHALE BAY

BLIND
LXGLI
NEST

16321

16322

16320

16368

16310

16362

16360

16360

-40

ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 226-20-16392

SEGMENT BP-004 SUBDIVISION A

WORK WINDOW

Manual Pickup
Tarmat Removal

OPEN

Bioremediation Less Than 100m From Stream

WORK PRIOR TO 7/10
(ADF&G MONITOR REQ.)

Bioremediation More Than 100m From Stream

OPEN

*No Inipol - Use Customblen Only

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

ADF&G catalogued anadromous stream (226-20-16392) is in Subdivision A. This subdivision is closed to bioremediation less than 100m from stream 7/10 to 8/31. Before 7/10, bioremediation is permitted less than 100m from stream with on-site ADF&G monitor or ADEC alternate present. No constraint to bioremediation more than 100m from stream. No constraint to manual pickup and tarmat removal.

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

Restrict air traffic and all disturbance to essential minimum. No personnel or boat traffic within 400m of active nests. Air approach and takeoff from and to seaward only; maintain 400m horizontal, 300m vertical distance from active nests. No disturbance to stream bed or banks. No flushing of pollutants or sediments into stream drainage; do not allow Inipol to enter stream flow. On-site examination and consultation by ADF&G monitor is required prior to bioremediation in order to authorize a setback distance from the stream during chemical application; if ADF&G monitor's presence is impossible, authorization may be given by the ADEC monitor. Avoid any unnecessary disturbance or damage to uncolled biota and substrate.

SEE SUBDIVISION CONSTRAINT ADDENDUM BP-004A
FOR ADDITIONAL CONSTRAINT INFORMATION.

FOSC

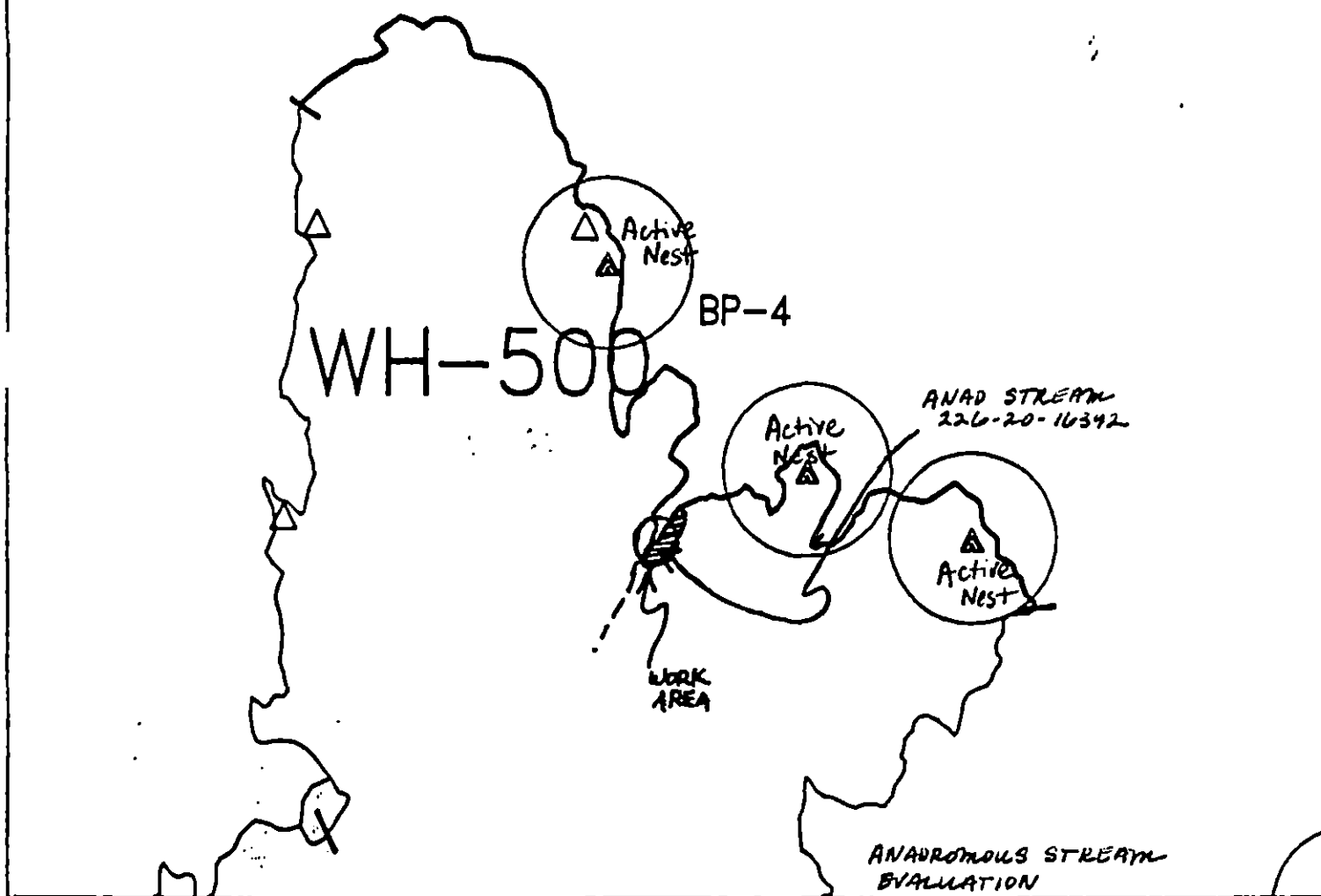
Date

6-14-90

Prepared by

Date

6/16/90



Exxon Company, USA
Map Key: PWS-BP-4
June 12, 1990

ECOLOGY MAP
SEGMENT BP-4
SUBDIVISION A (1 of 1)
METERS
0 810 1610

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

1 inch = 2656 feet

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ BP-04 STREAM NO: 226-20-16395 DATE 4/23/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Four catalogued anadromous streams in BP-04: 226-20-16395, 226-20-16397, 226-20-16392, and 226-20-16388.

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)

1B Salmon stream mouth - spawning (7/10 to 8/31)

5T-4 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 uncoiled biota and substrate. 5T - one bald eagle nest is within 400M of stream 226-20-16395. Cleanup activities should be conducted with as little disturbance as possible to the diverse lower tidal area.

SHPO SIGNATURE: *P. Karl M. McKim* DATE: 5/8/90

Subsurface Oil Observed: Yes X No Maximum Depth 10 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: Recommended treatment includes 1) manual pickup of mousse and tarballs, and 2) bioremediation of area shown on attached sketch map. Work should be conducted between 6/1 to 7/10 based on eagle nest and salmon constraints with approval of USFWS regarding eagle nest.

TAG COMMENTS: MONITORS TO ASSESS LOGS IN FIELD TO DETERMINE THE SIGNIFICANCE OF THE OIL STAINING.

TAG APPROVAL DATE: 5/7/90

ADEC *Art Weber*

EXXON *Andy Telle*

NOAA *Greg Patney*

USCC *C. A. Riemer*

FOSC: *W L* DATE: 5-18-90

NOTIFY AVO 72 HRS PRIOR TO WORK.

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS



Salmon stream mouth - fry outmigration (3/1 to 5/15)

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 (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 (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 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 (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)

HH Finfish harvesting

7H 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

46/53

FIELD SHORELINE COMMENT SHEET

PWS

226-20^{2m}

SEGMENT ST / BP 004 SUBDIVISION: 16395 DATE 1/23/90

USCG

NAME CWO MC NATION SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
 COMMENTS

1. MANUAL TREATMENT: REMOVE TAR MATS LEFT+RIGHT

ADEC

NAME ADF+G NO TEAM member SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
 COMMENTS

MANUALLY REMOVE TAR MATS BETWEEN LARGE BUNGLES AND
 TIDAL BANDS OF SCATTERED TAR PATCHES. TROWELS MAY BE
 REQUIRED TO REMOVE TAR/MOSS BETWEEN BUNGLES.

LAND MANAGER

NAME NO TEAM member SIGNATURE _____

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
 COMMENTS

OG WILLIAM LEID USCG McMAHON SEGMENT ST/ BP00A 49/53
 BIO MICHAEL FALCETT LAND REP TOM CROWE ADFG STRAB 22620-16311 OF
 EXXON CUS GARCIA ADFG MIKE WILDER TIME 18:4800
 TEAM NO. 15 TIDE LEVEL 0.5 FT DATE 23 / APR / 90
 EST. SUBDIVISION LENGTH: 55A m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 9 % B 0 % C 20 % P 70 % G 0 % S 0 % M 0 % V 0
 SLOPE: Long 90 % Hang 10 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Mod ☐ High
 OIL CATEGORY LENGTH: W 0 m M 35 m N 0 m VL 0 m NO 15

SURFACE OIL

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

PAVEMENT H F S 0 sq. m by 0

PATTIES/TARBALLS 1 BAG

NEAR SHORE SHEEN? ☒ NO BR RW SL TI

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

Did You COLLECT DEBRIS
☐ YES ☒ NO

TYPE 0

#BAGS 0

Photographs:

Roll No. 0

Frames 0

SUBSURFACE OIL * OILED INTERVAL IN PIT NO. 1 < 5 cm DOES NOT CONSTITUTE SUBSURFACE OIL

| PIT NO. | PIT DEPTH (cm) | SUBSURFACE OIL CHARACTER | | | | | OILED INTERVAL | BELOW | | OIL / FILM COLOR | | | | | PIT ZONE | | | | A
N
A | Z
E
N
E | Y | SURFACE SUBSURFACE SEDIMENT |
|---------|----------------|--------------------------|----|----|----|----|----------------|-------|----|------------------|---|---|---|---|----------|---|---|---|-------------|------------------|---|-----------------------------|
| | | OP | OR | OL | OF | NO | | NO | NO | 1 | 2 | 3 | 4 | 5 | W | M | N | U | | | | |
| * 1 | 30 | | X | | | | 3-0 | X | | X | | | | | X | | | | | N | | P/G/C |
| 2 | 35 | | | | | X | . | | | | | | | | X | | | | | N | | P/G/C |
| 3 | 40 | | | | | X | . | | | | | | | | X | | | | | N | | P/G |
| 4 | 35 | | | | | X | . | | | | | | | | X | | | | | N | | P/G/C |
| 5 | 20 | | | | | X | . | | | | | | | | X | | | | | N | | P/G/C |

COMMENTS

REVIEWED JW DATE 4-25-9

WILLIAM FIELD

Film AS-15-4, frame 8:39

EGMENT ST/ 8300A

SKETCH MAP

STREAM 226-20-16395

DATE 23 / 10 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Topographic Boundary
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HW/LW
- ☐ SBL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pt Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ No Subsurface Oil

2 Δ Subsurface Oil

CT/C CT/C Distribution

CT/D CT/D Distribution

CT/P CT/P Distribution

CT/S CT/S Distribution

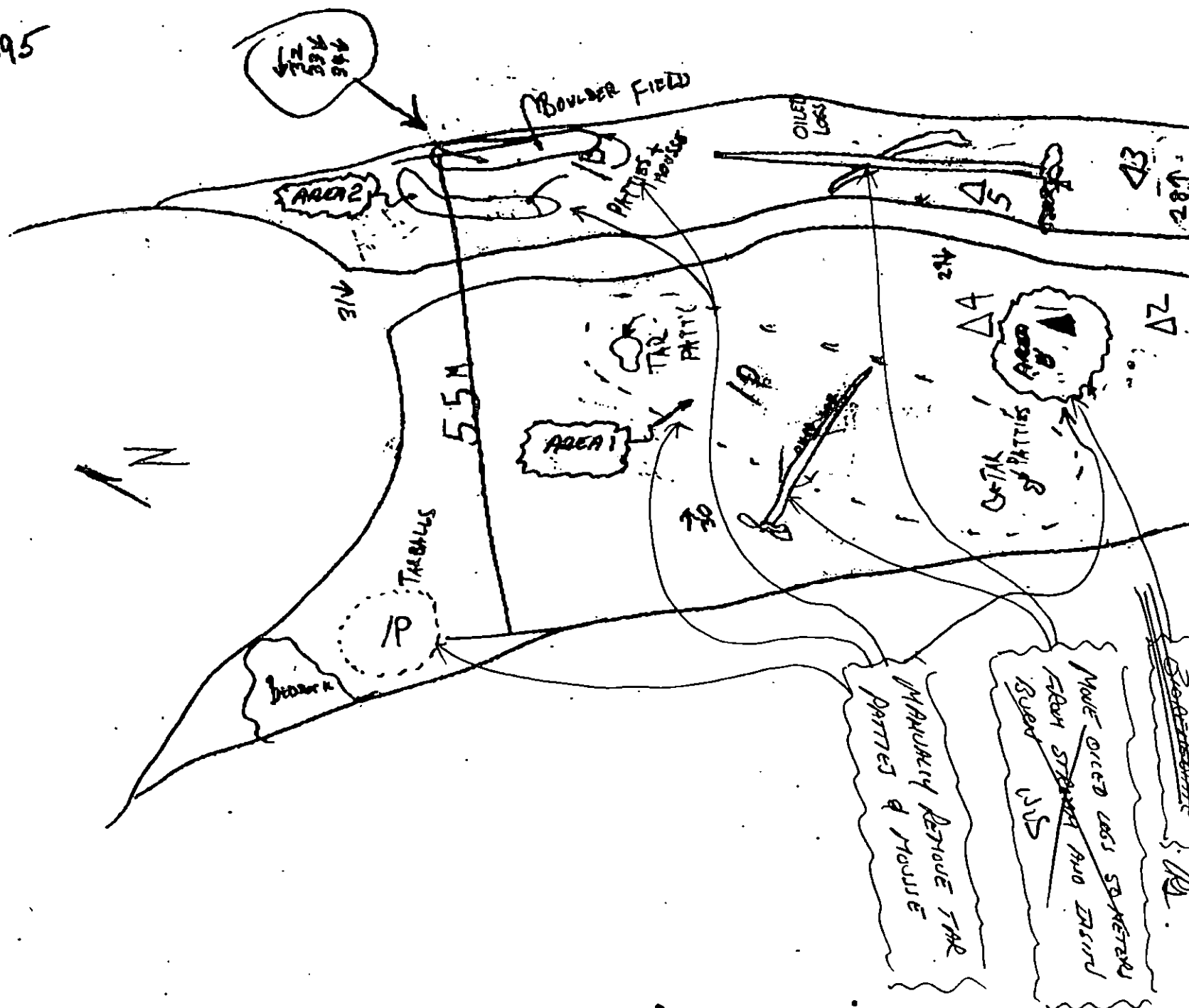
ee Vegetation

ee Vegetation

ee

ee location, direction, number

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



47/53

ADPAC MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: ES SS CS TS AVE SCA MMH PTA 2 REGION: P78 CP,CI KAP

METHOD: Aerial Ground Boat

3 DATE: 4/23/90 15 HIGH TIDE TIMES: 0021 11257 21 TEAM RECORDER: M. WIEDNER

4 START TIME: 1850 16 HIGH TIDE HTS: 11.5' 10.5' 22 OBSERVERS: T. CROWE

5 STOP TIME: 1915 17 LOW TIDE TIMES: 0648 1855 23 AGENCY: ADPAC

6 SEGMENT #: BP-004 18 LOW TIDE HTS: -0.8' 0.5' 24 PHOTOS TAKEN: Y (N)

7 STATION #: 236-10-16395 19 TIDE HT AT SURVEY: 0.5' Roll #: _____ Frames: _____

8 K-UNIT: 226-20-16395 ebb Stack Flood Stack 25 VIDEO TAKEN: Y (N) TAPE#: _____

9 STAT AREA: _____ 26 USCG QUAD: _____ Sta#: _____ Ends: _____

10 LAT: _____ 11 LONG: _____ 28 SAMPLES TAKEN: Y (N) Number: _____

12 SOURCE: Map Loran Oil: _____

13 LOCATION: Point Counters Sediment: _____

14 DESCRIPTION: _____ Biological: _____

15 WATER: _____

EXTENT OF OIL

| | SHORELINE | | | | STREAM | | | |
|------------------------|-----------|----------------|------------|-------------|-----------|-------|---|---|
| | L | V | K | N | L | V | K | N |
| 27 SURFACE COVERAGE | 100 | 75 | | | 75 | 1 | | 0 |
| 28 SURFACE THICKNESS | 5mm | 1mm | 2cm | 0 | 0 | 0 | 0 | 0 |
| 29 PENETRATION | 5cm | 5cm | 10cm | 0 | 0 | 0 | 0 | 0 |
| 30 OVERALL OIL IMPACT: | N | VL | L | <u>(N)</u> | N | | | |
| 31 OIL TYPE: | Pooled | Mousse | <u>Tar</u> | Asphalt | Slippy | Stain | | |
| 32 OILED DEBRIS: | Y | N | | | | | | |
| 33 SHORELINE TYPE: | Headland | Lowlying Rocks | Beach | <u>Cove</u> | | | | |
| 34 WAVE EXPOSURE: | High | Moderate | <u>Low</u> | | | | | |
| 35 SUBSTRATE TYPE: | Bedrock | Boulder | <u>10</u> | Cobble | <u>45</u> | | | |
| | Gravel | <u>45</u> | Sand | | Mud/silt | | | |

36 CATALOGED ANAD. FISH BREAST (Y) N

37 CATALOG #: 226-20-16395

38 STREAM NAME: _____

39 OIL IN STREAM BED? Y (N)

40 OIL ON STREAM BANKS? (Y) N

41 OIL ON BEACH ADJACENT TO MOUTH? (Y) N
(within 50 meters)

42 OIL WITHIN 1 MILE OF STREAM? (Y) N

Where: _____

43 ANADROMOUS FISH PRESENT? (Y) N
ALEVIN PRESENT

44 ANADROMOUS FISH OBSERVATION

| Species | Aerial | Ground |
|---------|--------|--------|
| | | |
| | | |
| | | |

REMARKS: Tar patties in two rings along mid and upper intertidal zones (in gravels & small cobbles). Some patties are partially to completely buried. Pools of mousse in large boulders east of channel.

48 PHOTOLOG

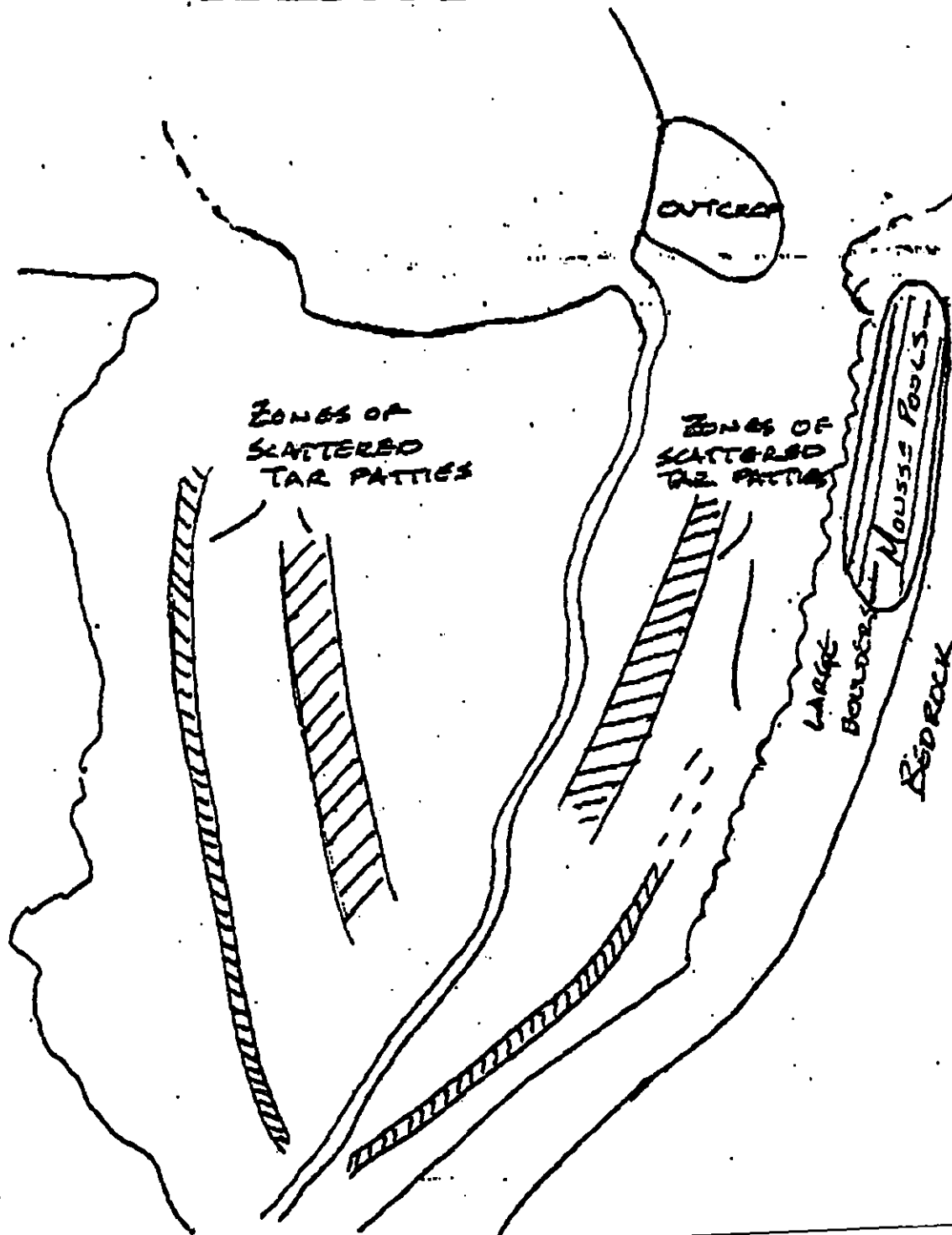
DESCRIPTION

RECOMMENDATIONS: MANUAL REMOVAL OF ALL TAR PATTIES.
MANUAL REMOVAL OF MOUND POOLS BETWEEN ROCKS -
WILL REQUIRE TROWELS ETC.
REMOVE OILED LOGS.

I agree with recommendations.

W. H. FARRAR

48 OIL DISTRIBUTION DIAGRAM



BEDROCK

147

Segment BP004
Stream 226-20-16395
Ecological Summary

4/23/90
Michael Fawcett

This small stream enters a sheltered cove via a cobble/gravel/pebble delta, with bedrock at the ends. Patchy dense Fucus occurs along the stream on cobbles and bedrock. Dense barnacles, Fucus, mussels (including recently settled 3-5mm juveniles), and Littorines (also including new juveniles) occur on bedrock outcrops in MTZ & UTZ. Large old barnacles (Balanus cariosus) are sparsely distributed in LTZ. The sand/gravel beach in LTZ has a surface and infaunal community similar to that at 226-20-16397 (clams, worms, gunnels, etc.) One sea otter watched our activities. Numerous otter holes (from clam digging) were seen in LTZ. About 12 Pycnopodia (sun stars) were observed in an LTZ tidepool on bedrock. Cleanup activities should be conducted with as little disturbance as possible to LTZ area.

M Fawcett

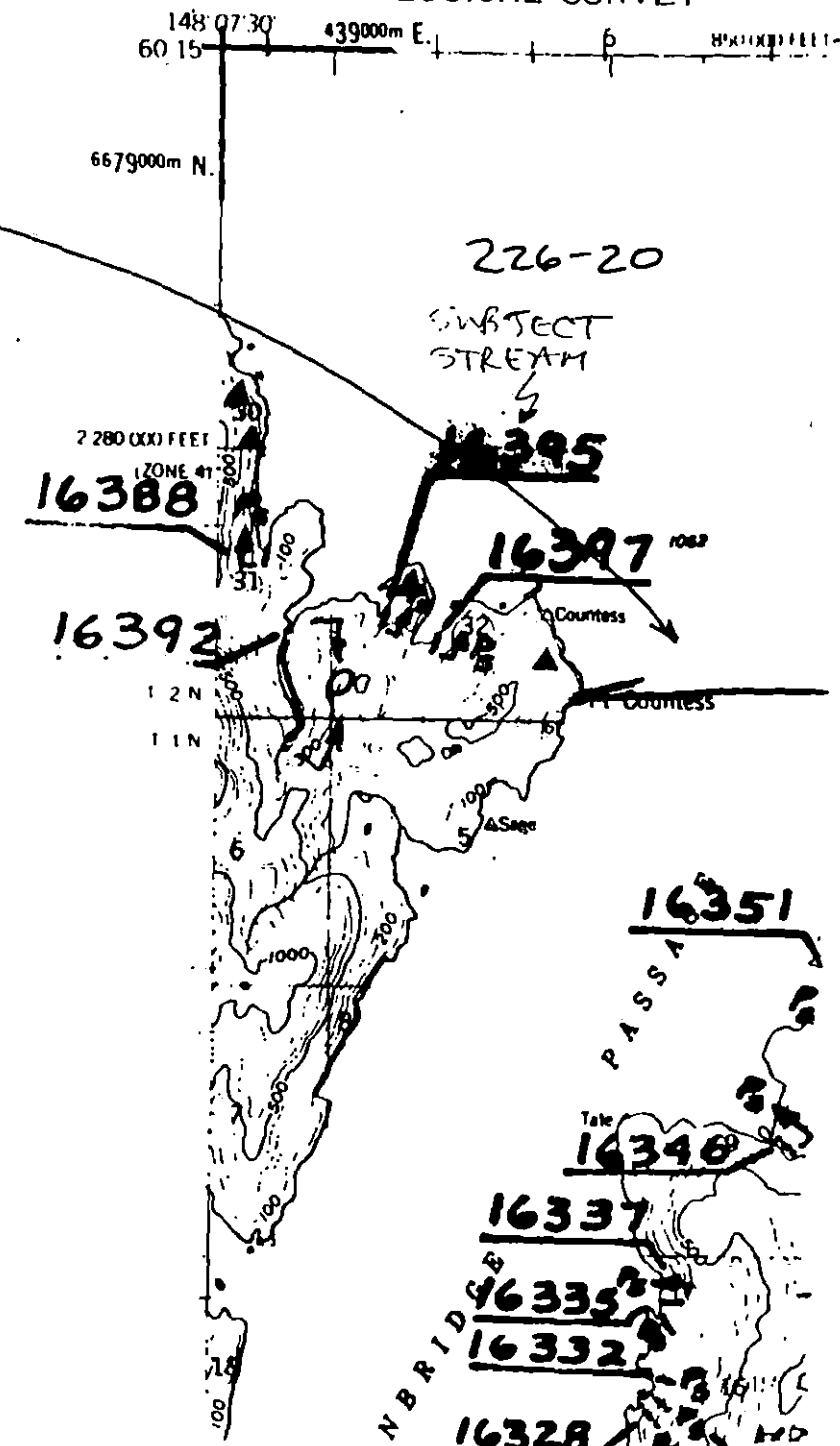
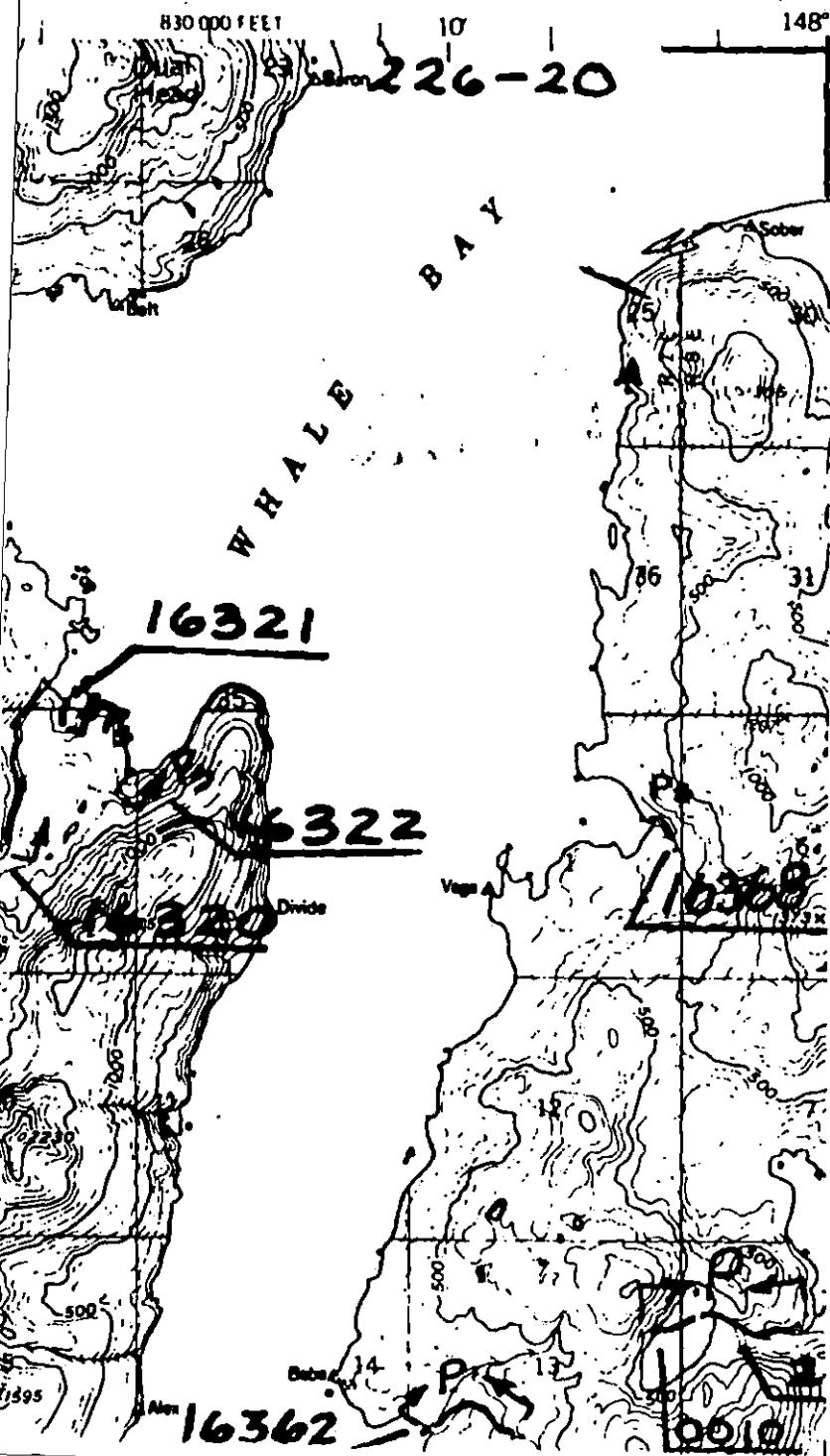
SEWARD (A-4) QUADRANGLE

ALASKA

1 63.360 SERIES (TOPOGRAPHIC)

ECOLOGY MAP

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



▲ = Eagle Nests

ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 226-20-16395

SEGMENT BP-004 SUBDIVISION A

| WORK WINDOW | |
|---------------|--------|
| Manual Pickup | CLOSED |

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

| | |
|---------------------|---|
| 1A,1B Salmon Stream | ADF&G catalogued anadromous stream (226-20-16395) is in Subdivision A. No constraint to manual pickup. |
| 5T Bald Eagle Nest | USFWS 6/1/90 map indicates an active nest in Subdivision A. Closed to manual pickup within 400m of active nest. |

OTHER ECOLOGICAL CONSIDERATIONS

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

SEE SUBDIVISION CONSTRAINT ADDENDUM BP-004A
FOR ADDITIONAL CONSTRAINT INFORMATION.

FOSC

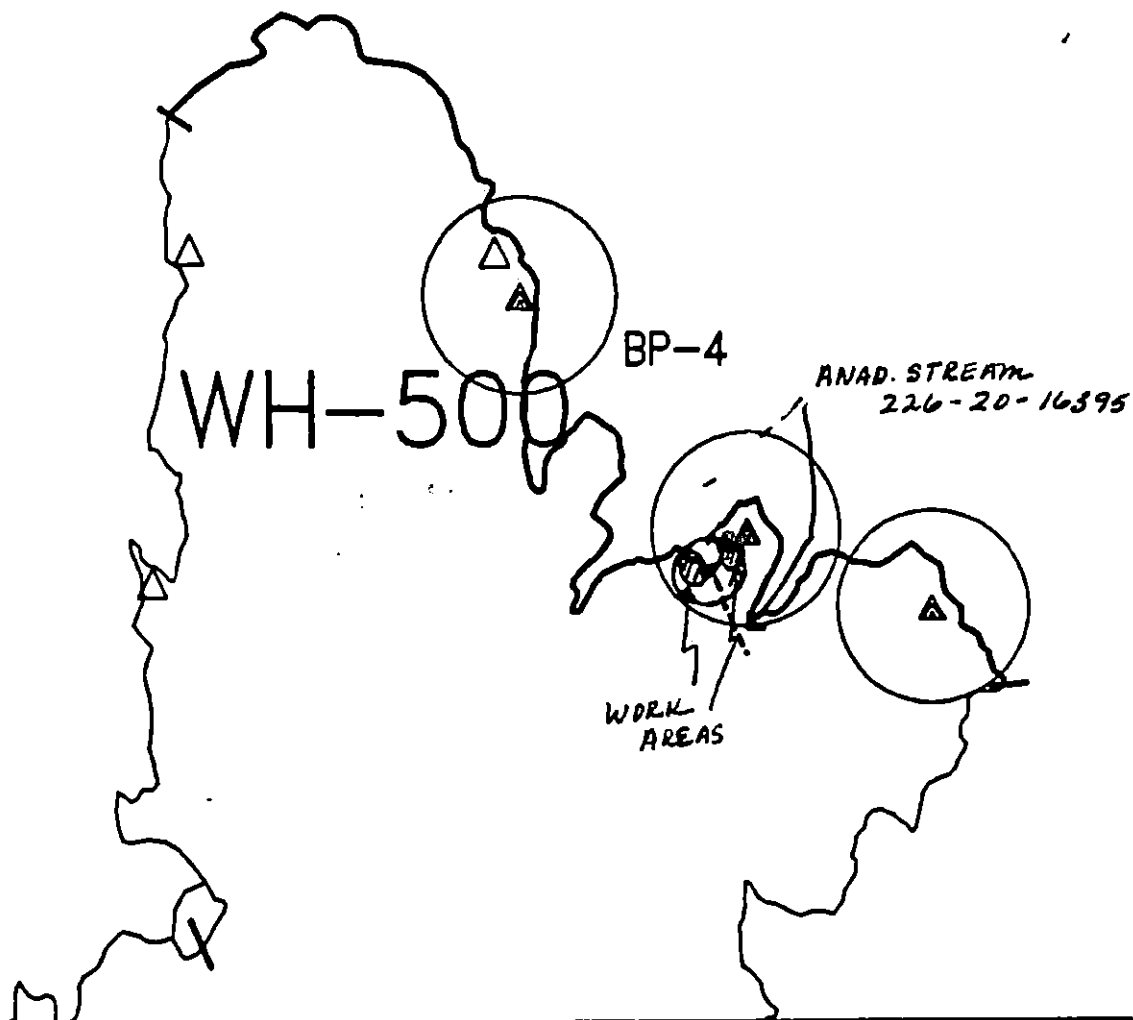
Date

6-14-90

Prepared by

Date

6/16/90



Exxon Company, USA
Map Key: PWS-BP-4
June 12, 1990

ECOLOGY MAP
SEGMENT BP-4
SUBDIVISION A (___ of ___)
METERS
0 810 1619

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

1 inch = 2656 feet

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ BP-004 STREAM NO: 226-20-16397 DATE 4/23/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-4 All bald eagle nests (3/1 to 6/1)
Active eagle nests (3/1 to 9/1)
6U Recreation: Tent sites (6/1 to 9/15)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Subject stream is located in an unsurveyed segment. No additional ecological constraints.

SHPO SIGNATURE: Rickie Ann Darr DATE: 5/22/90

Subsurface Oil Observed: Yes X No Maximum Depth 15 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: Recommend manual removal of tarmat and patties in the MITZ and
2) removal of oiled grass (if dead and > 10% splash) as indicated on the
attached sketch map. Work from 6/2 to 7/9 with approval from USFWS
regarding eagle nests.

TAG COMMENTS: BIOREMEDIATION (CUSTOMER) FOLLOWING TARMAT REMOVAL
IF REQUIRED. MONITORING TO ASSESS OILED LOGS.

NO WORK WITHIN THE STREAM CHANNEL PRIOR TO JUNE 1.

TAG APPROVAL DATE: 5/18/90.

ADEC ART WEINER Art Weinert

EXXON AMY GIL Amy Gil

NOAA GARY PETRUS Gary Petrus

USCG G.A. REITER G.A. Reiter

FOSC: W L DATE: 6-6-90

Notify CRC 24 hrs prior to cleanup

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 (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 (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 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
- IP Harbor seal and sea lion pupping (5/15 to 7/1)
- , -Q 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 Rothly 267-2208
- ✓ 8T 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
- ✓ 8U, Recreation: Tent sites (5/1 to 9/15)
- 6V Anchorage (5/1 to 9/15)
- 6W Forest Service cabins (5/1 to 9/15)
- 6X Lodge (5/1 to 9/15)
- 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
- 7-H-I Finfish harvesting
- 7-I Deer harvesting (8/15 to 2/28)
- 7-L-I 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/ BP004 SUBDIVISION: 16397 DATE 9/23/90

USCG

NAME DW MC NATION SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

1. MANUAL TREATMENT, REMOVE TAR MATS (see also)
2. Remove debris.
3. Promenade v-side (looking onshore) By log area #4

ADFC

NAME ADF+4 SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

MANUAL REMOVAL OF ALL SURFACE AND BURIED TAR MATS.
REMOVE TAR MATS FROM GRASS AT ^(SUPRATIDAL) STORM BERM ON THE RIGHT AND LEFT SIDE OF THE STREAM. REMOVE OILED LOGS CROSSING THE MOUTH OF THE STREAM. REMOVE ALL OILED/TARRED SUBSTRATE WITHIN THE STREAM CHANNEL.

LAND MANAGER

NAME NO TEAM MEMBER SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY (ANAD.)

REVISION

OG William Reid USCG McMahon SEGMENT ST/ BP004 28/

BIO Michael Fawcett LAND REP Tom Grove STRA 22542-16397 OF

EXXON Gus Garcia ADFG Mike Wiermer TIME 17:45 18:15

TEAM NO. 15 TIDE LEVEL 1 FT DATE 23 / APR / 90

EST. SUBDIVISION LENGTH: 25 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow

UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock

SURVEYED FROM: ☐ Foot ☐ Boat ☐ Helo

SURFACE SEDIMENTS: R % B 10 % C 40 % P 50 % G % S % M % V

SLOPE: Lang % Hang % Vert % WAVE EXPOSURE: ☐ Low ☒ Med ☐ H

OIL CATEGORY LENGTH: W m M m N 50 m VL m NO 25

SURFACE OIL

| CHARACTER | DISTRIBUTION | | | | OIL / FILM COLOR | | | | IMPACTED ZONES | | | |
|------------------|--------------|---|---|---|------------------|---|---|---|----------------|----|----|---|
| | N | E | S | W | 1 | 2 | 3 | 4 | SW | SE | NE | U |
| ASPHALT PAVEMENT | X | X | | | | X | | | | X | | |
| POOLED | | | | | | | | | | | | |
| COVER | | | | | | | | | | | | |
| COAT | | | | | | | | | | | | |
| STAIN | | | | | | | | | | | | |
| MOUSSE | | | | | | | | | | | | |
| PATTIES | X | X | | | | | X | | | X | | |
| TARBALLS | | | | | | | | | | | | |
| FILM | | | | | | | | | | | | |
| NO OIL | | | | | | | | | X | X | X | |

PAVEMENT H (F) 8 400 sq. m by 7

PATTIES / TARBALLS

NEAR SHORE SHEEN? (NO) BR RW SL

| OILED DEBRIS | AMOUNT | | | |
|--------------|--------|----|----|---|
| | SM | MD | LG | |
| Logs | | X | | Did you G |
| Vegetation | X | | | DEBRIS |
| Trash | | | | ☐ YES ☒ NO |
| Debris | | | | TYPE <u> </u> |
| | | | | #BAGS <u> </u> |

Photographs:

Roll No.

Frames

SUBSURFACE OIL * OILED INTERVAL < 5cm IN PITS 1 AND 3 DOES NOT CONSTITUTE SUBSURFACE OIL

| PIT NO. | PIT DEPTH (cm) | SUBSURFACE OIL CHARACTER | | | | | OILED INTERVAL | BELOW | | OIL / FILM COLOR | | | | PIT ZONE | | | | A | N | S | T | SURF SUBSU SEDIM |
|---------|----------------|--------------------------|----|----|----|----|----------------|-------|----|------------------|---|---|---|----------|----|----|---|---|---|---|----|------------------|
| | | OF | OR | OL | OF | NO | | NO | SC | 1 | 2 | 3 | 4 | SW | SE | NE | U | | | | | |
| * 1 | 35 | | X | | | | 0.5 | X | | X | | | | X | | | | | | N | | P/G |
| * 2 | 35 | | | | | X | . | | | | | | | X | | | | | | N | | P/G |
| * 3 | 35 | | X | | | | 0.5 | X | | | X | | | X | | | | | | N | | P/G |
| 4 | 35 | | | | | X | . | | | | | | | | X | | | | | N | 25 | P/G |
| 5 | 30 | | | | | X | . | | | | | | | | | X | | | | N | 25 | P/G |
| 6 | 15 | | | | | X | . | | | | | | | | X | | | | | N | | G/P |

COMMENTS

REVIEWED SW DATE 4-25

SHORELINE OILING SUMMARY (PAGE 2)

REVISION 06/13/90

SEGMENT ST/ STREAM 18971 OF 1

SUBSURFACE OIL (CONTINUED)

| PIT NO. | PIT DEPTH (FT) | SUBSURFACE OIL CHARACTER | | | | | OILED INTERVAL | BELOW | | OIL / FILM COLOR | | | | | PIT ZONE | | | | ANALYSIS (Y/N) | ↓ | SURFACE SUBSURFACE SEDIMENT |
|---------|----------------|--------------------------|----|----|----|----|----------------|-------|----|------------------|---|---|---|---|----------|---|---|---|----------------|---|-----------------------------|
| | | OP | OR | OL | OF | NO | | US | US | 1 | 2 | 3 | 4 | 5 | SU | M | M | U | | | |
| 7 | 30 | | | | | X | . | | | | | | | | | X | | | N | | P/G/L |
| | | | | | | | . | | | | | | | | | | | | | | |
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COMMENTS

REVIEWED fw DATE 4-25-9

SEGMENT ST/ B3009

SKETCH MAP

STREAM 226-20-16397

DATE 23 / APR 00

Film A5-15-4
frames 19-27

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Study
- ☐ OS Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HW/L/W/L
- ☐ SBL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pt Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ
PR - No Subsurface OS

2 Δ
PR - Subsurface OS

CT/C
Continuous Distribution

CT/S
Broken Distribution

[CT/P]
Patchy Distribution

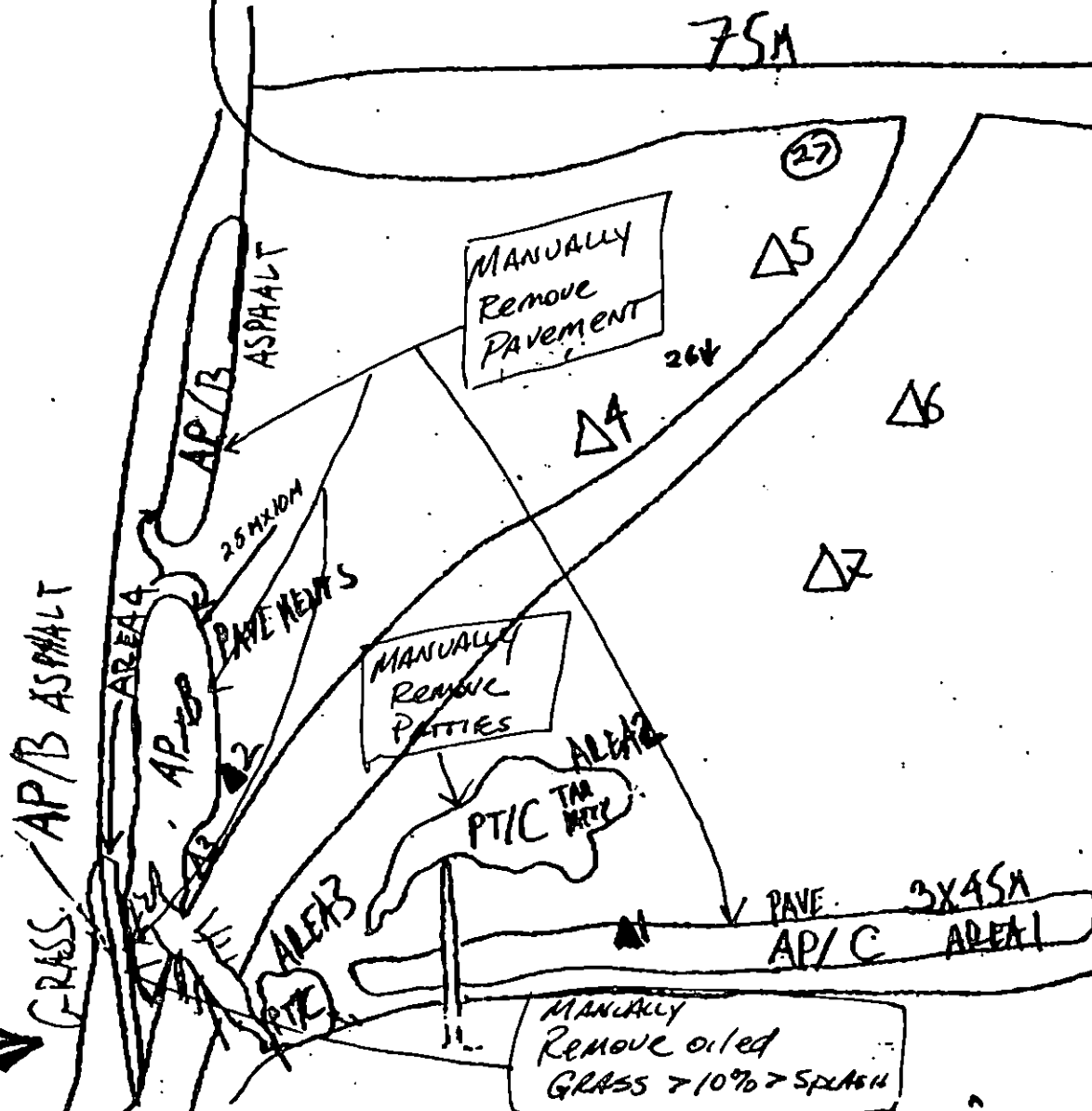
[CT/S]
Splashed Distribution

eee
Oiled Vegetation

1 →
Photo location, direction, and number

↑ 19 20 21 22 23 24 25
② 24 23 22 21 20 19

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



245

DEPESY

ADFG MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: 23 23 08 73 AVE SCA MOB PTA 2 REGION: PNB XP,CI K,AP
 METHOD: Aerial Ground Boat
 3 DATE: 4/23/90 15 HIGH TIDE TIMES: 0021 11257 21 TEAM RECORDER: M. WIEGNER
 4 START TIME: 1745 16 HIGH TIDE HTS: 11.5' 10.5' 22 OBSERVERS: T. CROWL
 5 STOP TIME: 1830 17 LOW TIDE TIMES: 0648 1855 23 AGENCY: ADFG
 6 SEGMENT #: 38-004 18 LOW TIDE HTS: -9.8' 0.5' 24 PHOTOS TAKEN: Y (N)
 7 STATION #: 226-20-16397 19 TIDE HT AT SURVEY: 0.65' Roll #: _____ Frames: _____
 8 K-UNIT: _____ 20 USCG QUAD: _____ 25 VIDEO TAKEN: Y (N) Tapes: _____
 9 STAT AREA: _____ 21 LONG: _____ Starts: _____ Ends: _____
 10 LAT: _____ 22 SAMPLES TAKEN: Y (N) Number: _____
 12 SOURCE: Map Loran 23 OIL _____
 13 LOCATION: POINT COUNTERSS 24 Sediment _____
 14 DESCRIPTION: _____ 25 Biological _____
 26 Water _____

EXTENT OF OIL

27 SURFACE COVERAGE

| SHORELINE | | | | STREAM | | | |
|-----------|-----|---|----|--------|---|---|---|
| L | V | N | S | L | V | N | S |
| 100 | 100 | | 10 | 100 | 3 | | 2 |

28 SURFACE THICKNESS

| | | | | | |
|---|---|----|-----|-----|-----|
| 5 | 7 | 10 | 1mm | 5mm | 3cm |
|---|---|----|-----|-----|-----|

29 PENETRATION

| | | | | | |
|----|----|---|-----|-----|-----|
| 10 | 15 | 8 | 1cm | 5cm | 2mm |
|----|----|---|-----|-----|-----|

30 OVERALL OIL IMPACT: N VL L N (N)
 31 OIL TYPE: Pooled Mousse Tar Asphalt Slimy Stain
 32 OILED DEBRIS: Y (N)
 33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cave
Lagoon Marsh
 34 WAVE EXPOSURE: High Moderate Low
 35 SUBSTRATE TYPE: Bedrock Boulder 5 Cobble 45
Gravel 50 Sand Med/silt

36 CATALOGED ANAD. FISH BREAK: Y (N)
 37 CATALOG #: 226-20-16397
 38 STREAM NAME: _____
 39 OIL IN STREAM BED: Y (N)
 40 OIL ON STREAM BANKS: Y (N)
 41 OIL ON BEACH ADJACENT TO MOUTH (within 50 meters): Y (N)
 42 OIL WITHIN 1 MILE OF STREAM: Y (N)
 Where: _____
 43 ANADROMOUS FISH PRESENT? Y (N)
ALEVINS PRESUMED
 44 ANADROMOUS FISH OBSERVATION
 Species: _____ Aerial: _____ Ground: _____

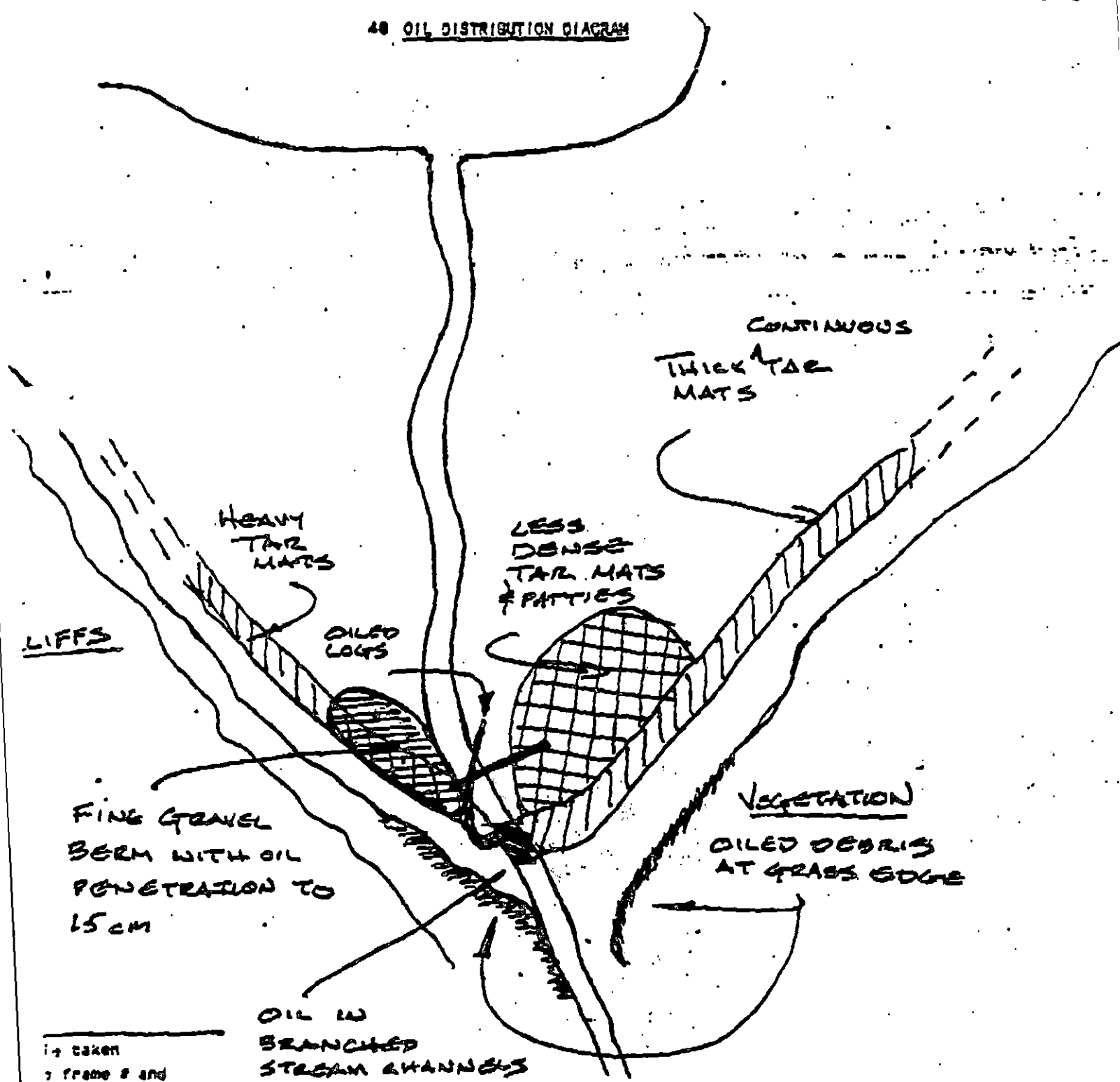
| | | |
|--|--|--|
| | | |
| | | |
| | | |
| | | |

COMMENTS: VERY HEAVY BAND OF THICK TAR RINGING THE HIGH TIDE
LINE ON BOTH SIDES OF CHANNEL & THROUGH CHANNEL. OILED
LOGS IN CHANNEL. OILED DEBRIS IN GRASS AT STREAM EDGE.
FINE GRAVELLED BERM ON W. BANK OF STREAM W/ S LIGHT TO MODERATE
OIL PENETRATION TO MINIMUM OF 10 CM.

43 PHOTOLOG

| FRAME(S) | DESCRIPTION |
|----------|--|
| | RECOMMENDATIONS: MANUAL REMOVAL OF ALL SURFACE TAR MATS. REMOVAL OF OILED DEBRIS FROM GRASS AT EDGE OF STREAM - BOTH BANKS - SUPRATIDAL. REMOVAL OF OILED LOGS IN STREAM CHANNEL - UPPER INTERTIDAL. REMOVAL OF OILED SUBSTRATE WITHIN STREAM CHANNEL. |
| | I agree with recommendations, but suggest adding bioremediation. M. L. Fawcett |

48 OIL DISTRIBUTION DIAGRAM



is taken
in frame 8 and
direction.

Segment BP004

4/23/90

Stream 226-20-16397

Michael Fawcett

Ecological Summary

This stream crosses a shallow shale cobble/pebble/gravel beach at the end of a sheltered cove. Buried oil was found in the stream bank in UTZ area, along with surface tar mats, some still partially under snow. The beach is fairly long (about 80m from waterline to snowbank) and consists mostly of stable gravel sediments. A mature, healthy mudflat-sandflat type community exists in the MTZ-LTZ, 60-80m away from the oiled area. In addition to patchy Fucus, barnacles, and mussels, other observations include abundant littorines (including this year's young), limpets, breeding Thais emarginata, juvenile green urchins, breeding dorid nudibranchs, gunnels, chitons, hermit crabs, and infaunal clams, worms, etc. One harbor seal was seen, and one mature bald eagle. The LTZ community would be sensitive to trampling and disturbance, but is far enough away from the oiled areas that cleanup procedures should not cause any problems.

M F Fawcett

ECOLOGICAL FACTORS

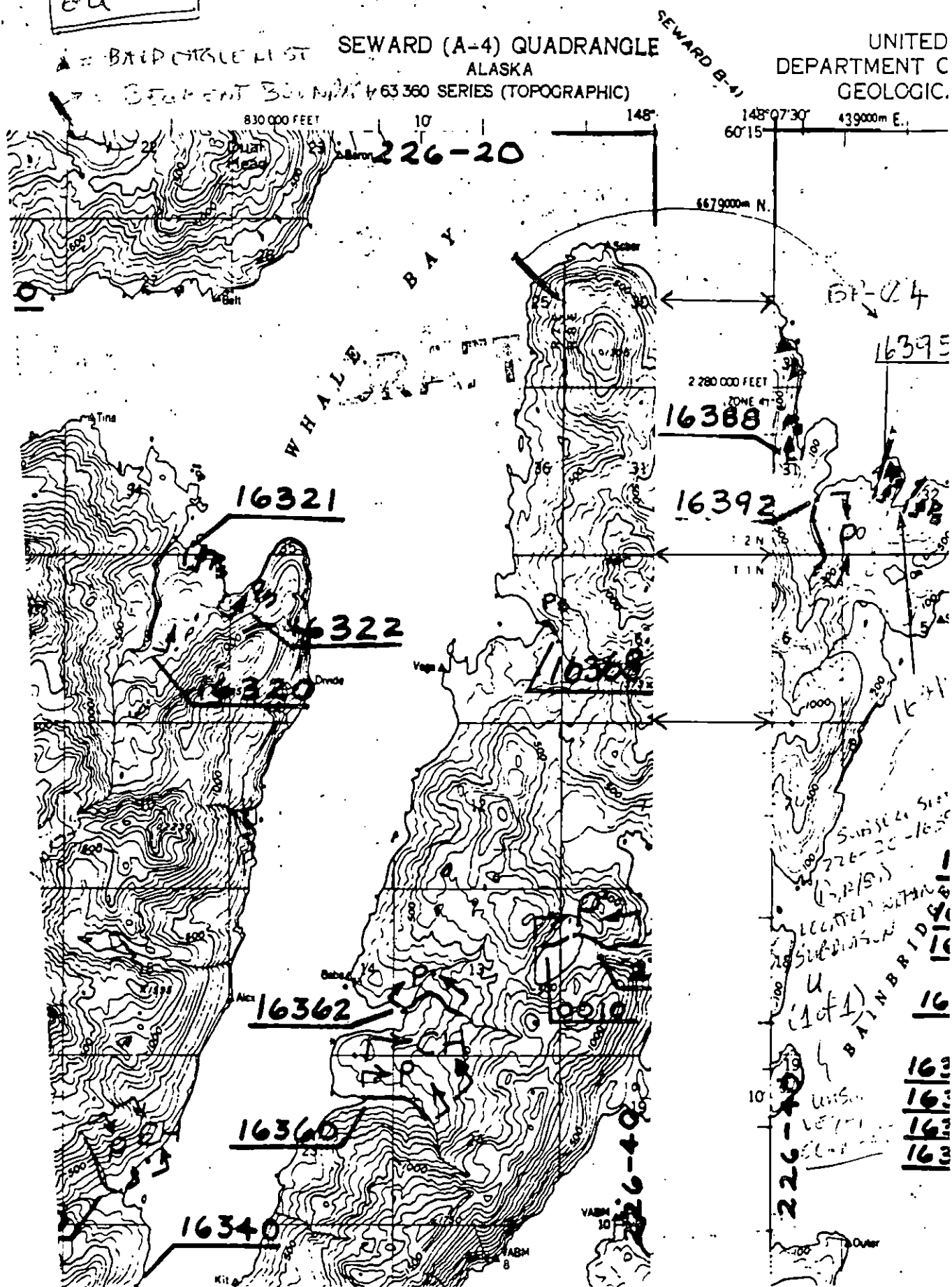
1A, 1B
5T-4
6U

1. BAPTIST CHURCH

SEWARD (A-4) QUADRANGLE
ALASKA

UNITED
DEPARTMENT C
GEOLOGIC.

7. Topographic Series 63 360 SERIES (TOPOGRAPHIC)



ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 226-20-16397

SEGMENT BP-004 SUBDIVISION A

| WORK WINDOW | |
|---|--------|
| Manual Pickup and Tarmat Removal
Less Than 400m From Active Nest | CLOSED |
| Bioremediation Less Than 400m From Active Nest | CLOSED |

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

- | | |
|---------------------|---|
| 1A,1B Salmon Stream | ADF&G catalogued anadromous stream (226-20-16397) is in Subdivision A. This subdivision is closed to bioremediation less than 100m from stream 7/10 to 8/31. Before 7/10, bioremediation is permitted less than 100m from stream with on-site ADF&G monitor or ADEC alternate present. No constraint to bioremediation more than 100m from stream. No constraint to manual pickup and tarmat removal. |
| 5T Bald Eagle Nest | USFWS 6/1/90 map indicates an active nest in Subdivision A. Closed to manual pickup, tarmat removal, and bioremediation within 400m of active nest. |

OTHER ECOLOGICAL CONSIDERATIONS

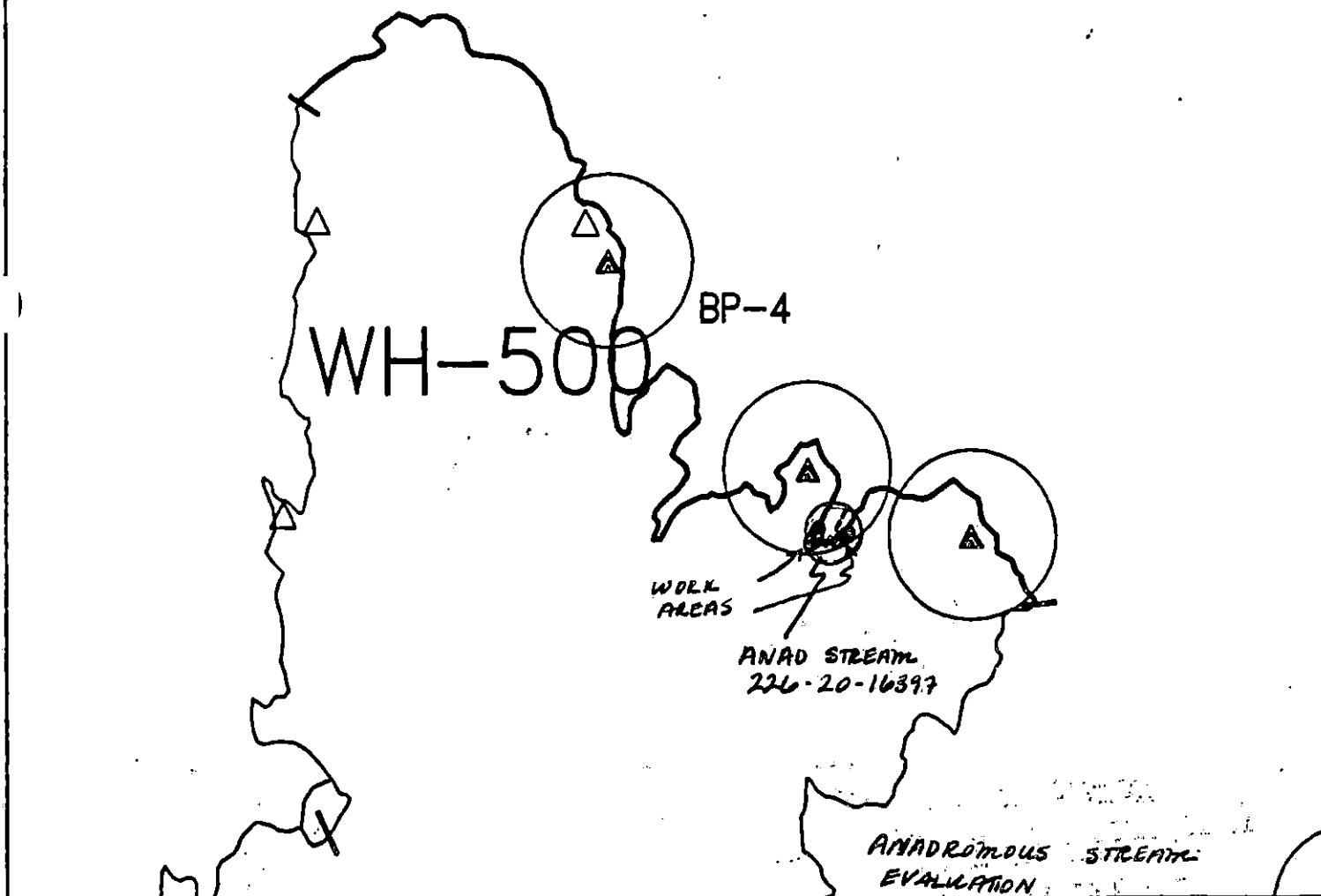
If eagle nest constraint is removed, other ecological considerations will apply.

SEE SUBDIVISION CONSTRAINT ADDENDUM BP-004A
FOR ADDITIONAL CONSTRAINT INFORMATION.

FOSC

Date

6-14-90



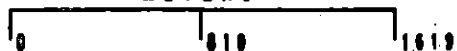
Exxon Company, USA

Map Key: PWS-BP-4

June 12, 1990

ECOLOGY MAP
SEGMENT BP-4
SUBDIVISION A (1 of 1)

METERS



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

1 inch = 2656 feet