

OIL SPILL PUBLIC INFO. CENTER



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EVOS
GC
1552
.P75
S42
1990
v.19

[Shoreline evaluations, 1990].

KO3-02 – KO6-34

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SHORELINE EVALUATION

SEGMENT ST/ K0302-IB-02 SUBDIVISION A (1 OF 1) DATE 4/6/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon purse seine area (1J) - 7/20 to 9/30; Herring spawning (2M) - 4/1 to 6/15. Restrict boat traffic to essential minimum. Avoid damage to unoiled intertidal and subtidal algae and seagrass.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Avoid disturbance/damage to un-oiled biota and substrate.

SHPO SIGNATURE: [Signature] DATE: April 12, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 536 m: No Oil 0 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/12/90
ADEC [Signature]
EXXON [Signature]
NOAA [Signature]
USCG [Signature]

FOSC: [Signature] DATE: 4-19-90

FIELD SHORELINE COMMENT SHEET

K3-2-IB-2

K03-02

SEGMENT ST / IB-002 SUBDIVISION: _____ DATE 3-31-90

IG
NAME D.D. Hosen Jr, GM3, USCGR SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

Found approx 10 small stains on driftwood in the storm berm. Less than 1% coverage

ADEC
NAME FRANCIS J. BENNIS SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

VL STAINS ON DRIFTWOOD OF THE STORM BERM EXIST

LAND MANAGER
NAME JOHN P. HARDISTER SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

only oil observed = insignificant stains on driftwood along extreme high tide line.

REVISION NO 03.72.99

SURFACE OIL

Frames 20-23

REVIEWED BAT DATE 6 Aug 95

OG Acson

SEGMENT ST/ K3-2-1B-2

SUBDIVISION K3-2-1B-2A

DATE 3 / 31 90

SKETCH MAP

Scale 1cm $\approx$ 10m

CHECKLIST

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

LEGEND

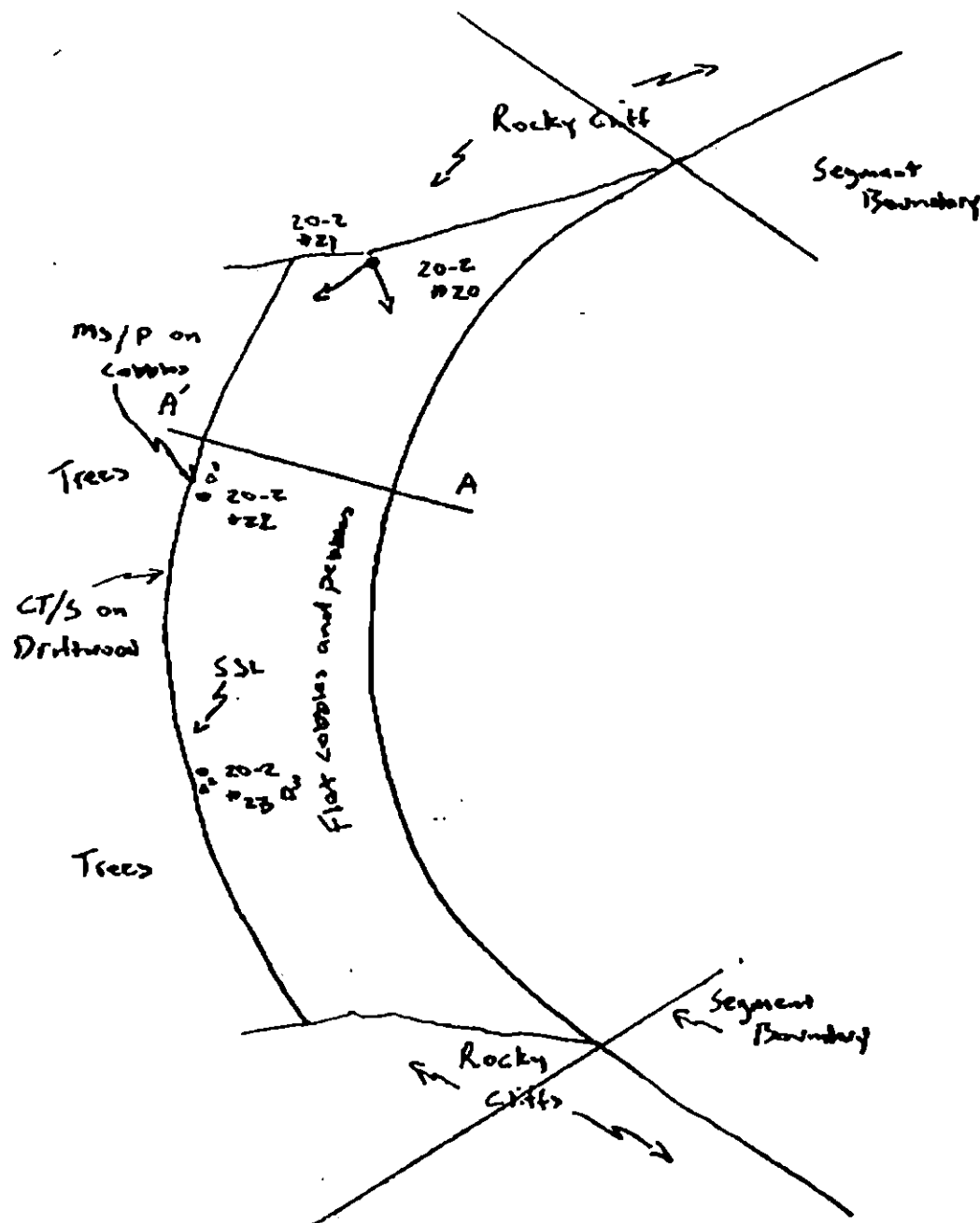
- 1 Δ
Pit - No Subsurface Oil
- 2 Δ
Pit - Subsurface Oil
- CT/C

Continuous Distribution
- CT/B

Broken Distribution
- CT/P

Patchy Distribution
- CT/S

Splashed Distribution
- $\odot$
Oiled Vegetation
- $\odot$
Photo location, direction, and number



Oil Character (m): AP 0 PO 0 CV 0 CT 586 ST 0 MS 586 TB 0 FL 0 NO 0

REVISION: 03/2000

SHORELINE ECOLOGICAL SUMMARY

REVISION 2

Segment ST / K03-02 Subdivision IB-2 Date (mo / day / yr) 3-31-90Time (24 hr) 12:10 Biologist N. Davis(A) Substrate type and % of segments:
(1) Bedrock 20 (2) Boulder 10 (3) Cobble 50 (4) Pebble 20 (5) Sand (6) Silt (B) Overall % cover of biota (% of segment): Dense 30% Moderate 40% Low 30% (25%)

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

Photographs:
Roll No. 20-2Frames 20-23

BARNACLES

Dense			Moderate			Sparse			Rare		
1M	1L		1M	1L		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	X	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
4, 5, 6

MYTILUS

Dense			Moderate			Sparse			Rare		
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	X	3	3	X	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

GASTROPODS

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

NOT PRESENT
4, 5, 6

Wildlife Observations/ General Comments: Deer and Elk scat above storm burn. Barren's Golden eye (?). Drift traps at high tide area w/ numerous amphipods. IB-2's biota was concentrated at either end of a long stingle beach.

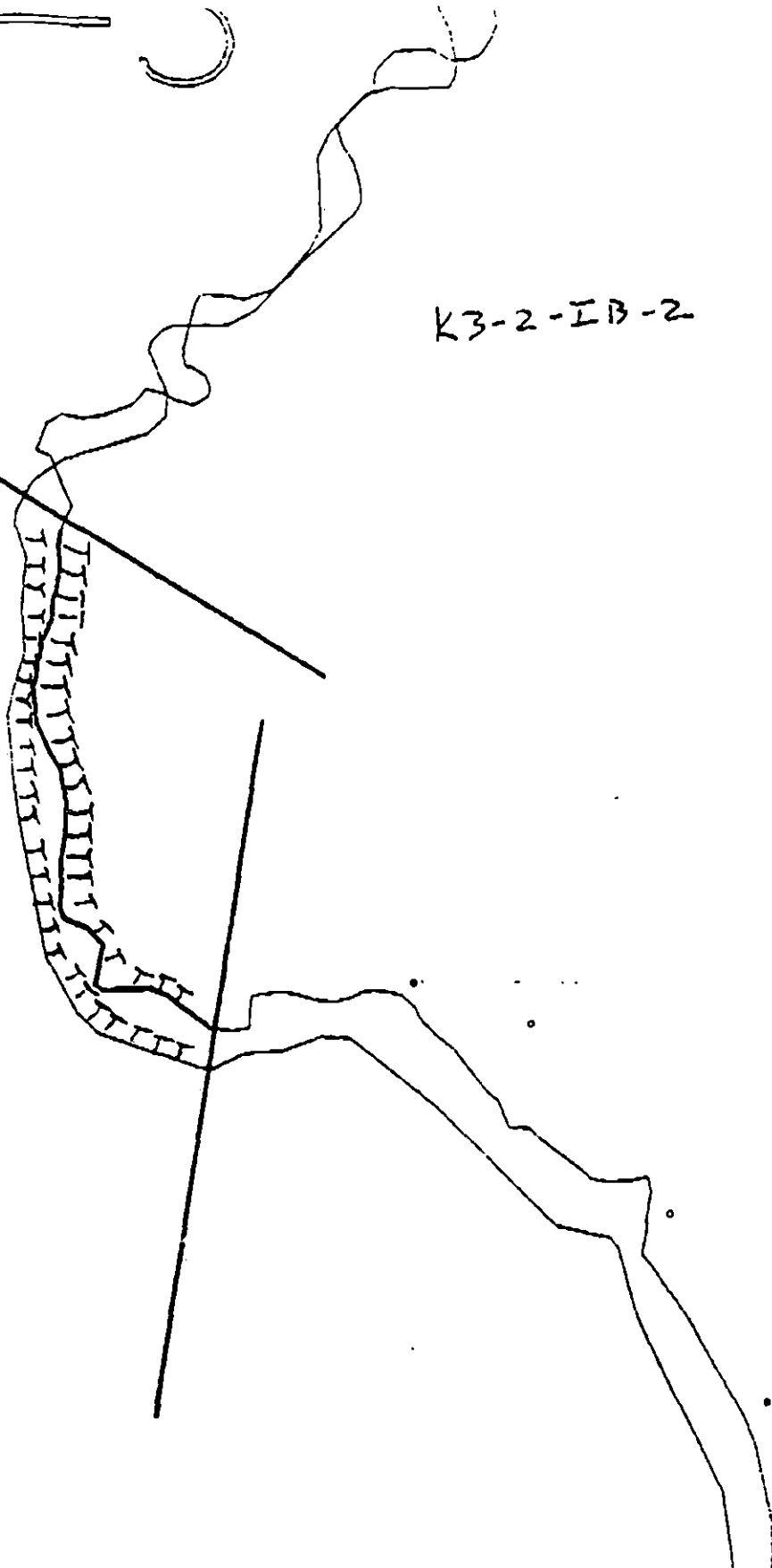
Ecological Considerations: Birds feeding in the rocky intertidal areas to either side of the beach.

2M, 1J-

IB-2

K3-2-IB-2

IB-2



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

IB-2

ADEC Segment Length: 586m



Map Key: GOA-123

Name: Acton

Date: 3-3-90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ KO302-IB-04 SUBDIVISION A (1 of 1) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Herring spawning in area (2M) - 4/1 to 6/15; Salmon purse seine
area (1J) - 7/20 to 8/30.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Clenaup should proceed using as
few people as possible and with minimal disturbance of substrate
and biota. May be eagle nest in vicinity.

SHPO SIGNATURE: Charles E. Hume DATE: April 11, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 18 m: Narrow 34 m: V.Light 0 m: No Oil 142 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Manual pickup of asphalt and mousse in the mid and upper
tidal zones. Note work exclusion periods. Treatment ASAP, weather
permitting, with small team (2-4 people).

TAG COMMENTS:

TAG APPROVAL DATE: 4/11/90.

ADEC JOHN BAUER John Bauer

EXXON ANDY TSAI Andy Tsai

NOAA Boyd Westcott Boyd Westcott

USCG G.A. REITER G.A. Reiter

FOSC: DATE: 4-20-90

K3-2-IB-4
K0302

SEGMENT ST/ IB-4 SUBDIVISION: IB-4A DATE 3-31-90

ISCG

NAMED D.D. Haven Jr. (M34568)

SIGNATURE

[Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Recommend clean up ASAP. Oil is currently in a semi-solid state and can be easily removed manually while the weather is cold. When temps. rise, the oil will liquify and spread. Even in a cold state, the oil displays a sheen on pools of water. I have visited this site on more than one occasion and on each visit, a great deal of wildlife (deer, fox, seabirds, ducks, bald eagles) is observed every time and could easily be affected by this type of oiling.

ADEC

NAME FRANKIE J. BENNIS

SIGNATURE

[Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Medium amount of oil remains here at K030204 (K1500 SITE), BRECKEN DISTRIBUTION. OIL SATURATED SEDIMENTS can be readily removed by manual methods IF retrieved before warmer temperatures make the oil more fluid. Sheen is present in standing H₂O on the oil.

Recommend manual removal in a timely manner. A small clean-up crew of 2-4 people could accomplish this in a week or less.

LAND MANAGER

NAME JOHN P. HORDISTER

SIGNATURE

[Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Concur with comments of ADEC representative - no sensitive fish and wildlife areas noted - small clean-up crew could manually remove oiled materials.

goa0403e.mem bat

MEMORANDUM

DATE: April 3, 1990

FROM: Bryan Trimm *BAT*

SUBJECT: Subdivision boundaries for K0302-IB004-A

Originally, the SSAT field team subdivided the segment into subdivisions "A" and "B". It was determined by the reviewer (me) and the field OG that it would be appropriate to combine the subdivisions "A" and "B" into one, now called "A". The OG resubmitted the revised form to the office on April 2, 1990.

The original forms are located in the "working copy" file in Rex Coulter's office in Suite 508, Calais II. Copies of the original "A" and "B" OG forms are included with the TAG data package.

SHORELINE OILING SUMMARY

REVISION NO. 03-22-90

OG Acton USCG Haven SEGMENT ST/ K3-Z-33.4
 RIO Davis LAND REP USFWS Hachler SUBDIVISION I3-4A
 KXON Avery ADEC Bennis TIME 10:45 10:12 :00
 EAM NO.: 20 TIDE LEVEL: -1 10 +1 DATE 3 / 31 / 90
 EST. SUBDIVISION LENGTH: 194 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S 10 N
 SURFACE SEDIMENTS: R 0 % B 40 % C 40 % P 20 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 40 m N 0 m VL 30 m NO 124 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	B	P	S	SP	BR	CT	SL	TL	LR	SU	UI	M	U		
ASPHALT PAVEMENT		✓				✓						✓	✓			
POOLED																
COVER																
COAT				✓		✓						✓	✓			
STAIN																
MOUSSE		✓						✓				✓	✓			
PATTIES																
TARBALLS																
FILM																
NO OIL											✓			✓		

PAVEMENT: H (P) (S) 60 sq.m by 1-6 cmPATTIES / TARBALLS N/A BAGSNEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED

☐ YES ☒ NOTYPE N/A#BAGS N/A

Photographs:

Roll No. 20-2Frames 12-19

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CH)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SUBSURFACE SEDIMENTS	
		OP	OR	OL	OF	NO		UO	UC	SO BL	DO RW	CO SL	BO TL	LO BR	SU	UI	MI	U				
1	10					✓	-								✓							S, L
2	10					✓	-									✓						S, L
							.															
							.															
							.															
							.															

COMMENTS Area approx 3m x 4m w/ approx 50% cover of soft asphalt/mousse pads. Oil thickness approx. 1-6 cm. Areas of very light splash CT/S approx 30m long and 3m wide was observed also. Soft asphalt/mousse is in between and covering some cobbles. Some mousse is leaching and forming pools of oil (approx. 10cm diameter) or sheen on pooled water. No oil penetration was observed below asphalt/mousse.

REVISION NO. 03
DRAFT

OG Acton USCG Haven SEGMENT ST/ k3-2-11-4
 BIO Davis LAND REP usfws Hardinger SUBDIVISION 13-4A
 EXXON Avery ADEC Benois TIME 10:45 10:12:00
 TEAM NO.: 20 TIDE LEVEL: -1 10 +1 DATE 3 / 31 / 90
 FST. SUBDIVISION LENGTH: 70 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S 10 N
 SURFACE SEDIMENTS: R 40 % B 40 % C 40 % P 20 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 40 m N 0 m VL 30 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	S	P	B	SB	DB	RB	GB	YB	LB	UB	UB	SU	UI	MI	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		
	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		VO	VC	SB	DB	RB	GB	YB	LB	UB	UB	SU	UI	MI	U		
1	10					✓	-																
2	10					✓	-																
							-																
							-																
							-																
							-																

COMMENTS Area approx 3m x 40m w/ approx 50% cover of soft asphalt/mousse pads. Oil thickness approx. 1-6 cm. Areas of very light splash CT/S approx 30m long and 3m wide was observed also. Soft asphalt/mousse is in between and covering some cobbles. Some mousse was leaching and forming pools of oil (approx. 10cm diameter) or sheen on pooled water. No penetration was observed below asphalt/mousse.

ORIGINAL FIELD FORMS SHORELINE OILING SUMMARY

REVISION NO. 03 23 78

OG Acton USCG Haven SEGMENT ST/ K3-2-I **DRAFT**
 BIO Davis LAND REP USEPA Hardister SUBDIVISION I3-913
 EXXON Avery ADEC Beaune TIME 10:45 10:12 :00
 M NO.: 20 TIDE LEVEL: -1 10 +1 DATE 3 / 31 / 90
 SUBDIVISION LENGTH: 130 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N 10 3
 SURFACE SEDIMENTS: R 0 % B 40 % C 40 % P 20 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 130 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	IC	IS	IP	IS	SL BR	SL RW	SL SL	SL TL	SL LR	SL	SU	UI	ME	U
ASPHALT														
PAVEMENT														
POOLED														
COVER														
COAT														
STAIN														
MOUSSE														
PATTIES														
TARBALLS														
NO OIL														

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED

☐ YES ☐ NO

TYPE _____

#BAGS _____

Photographs:

Roll No. _____

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	MC		UO	UC	SL BR	SL RW	SL SL	SL TL	SL LR	SL	SU	UI	ME	U		
1	15					✓	.														
2	10					✓	.														
							.														
							.														
							.														
							.														
							.														

COMMENTS No oil was observed in this subdivision.

OG Apton

SEGMENT ST/ K3-2-18-4

SUBDIVISION J3-4A

DATE 3/31 90

CHECKLIST

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

LEGEND

1 Δ
Pt - No Subsurface Oil

2 Δ
Pt - Subsurface Oil

$\boxed{CT/C}$
Continuous Distribution

$\boxed{CT/B}$
Broken Distribution

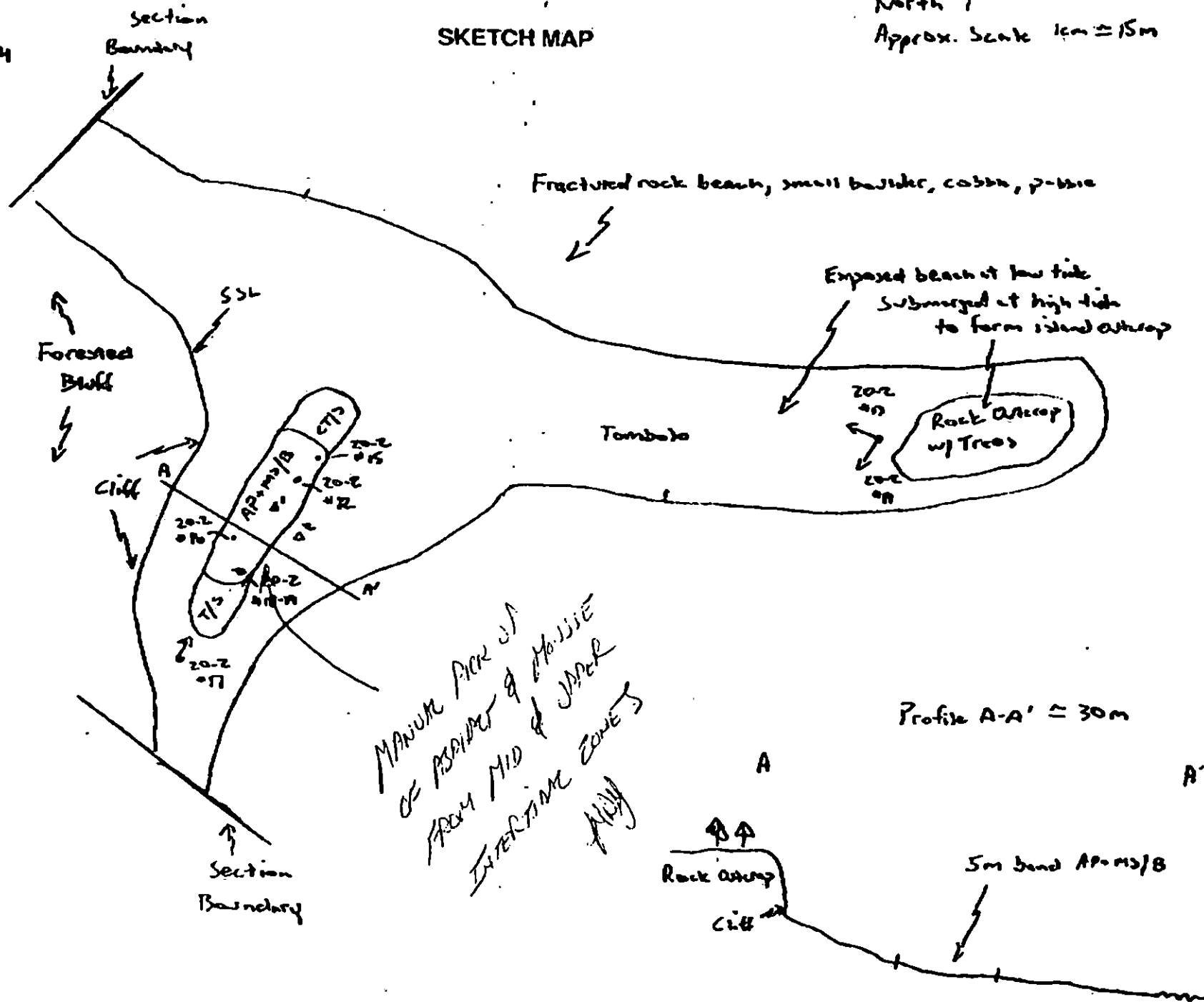
$\boxed{CT/P}$
Patchy Distribution

$\boxed{CT/S}$
Splashed Distribution

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

SKETCH MAP

North $\uparrow$
Approx. Scale 1cm $\approx$ 15m



Oil Character jth (m): AP 20 PO 0 CV 0 CT 30 ST 0 MS 25 0 TB 0 FL 0 NO 124

REVISION: 08/24/90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03-22-90

Segment ST / K03-02 Subdivision IB-04 A Date (mo / day / yr) 3-31-90Time (24 hr) 10:30 Biologist N. Davis

- (A) Substrate type and % of segments:
 (1) Bedrock 5 (2) Boulder 35 (3) Cobble 40 (4) Pebble 20 (5) Sand (6) Silt
- (B) Overall % cover of biota (% of segment): Dense 10% Moderate 30% Low 60% 30%
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (O)

Photographs:
Roll No. 20-2Frames 12-19

BARNACLES

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

MYTILUS

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

GASTROPODS

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

FUCUS

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

Wildlife Observations/ General Comments: Deer seen feeding in intertidal. *Littorina scutellata* with egg masses under small boulders (6) *Oystercatcher* (2) Common Loons, (3) Eagles (5) Glaucous Winged Gulls, (2) Grebes, Sea Otters (2), 220' Harlequin, (2) Common Loons, (6) Cormorants, Crows. Stained Barnacles 95% alive.

Ecological Considerations: (2M, 1J) Salmon purse seining in the area
 Herring spawn in the area. IB-05 has an anadromous stream and estuary area. Eagles nest in IB-06

B-5

k3-2-IB-4 A

IB-3

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

IB-4

ADEC Segment Length: 194m



Map Key: GOA-125

Name: ActonDate: 3-3-90

Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

K03-02-IG-04
SEGMENT ~~K03-02-4~~ 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

1J	Purse Seine Area	No constraint to manual pickup.
2M	Herring Spawning	No constraint to manual pickup.
5R	Seabird Colony	NO CONSTRAINT. Work site is more than 800m from seabird colony.
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. Avoid any unnecessary disturbance or damage to unrolled substrate and biota especially intertidal and subtidal algae and seagrass.

FOSC

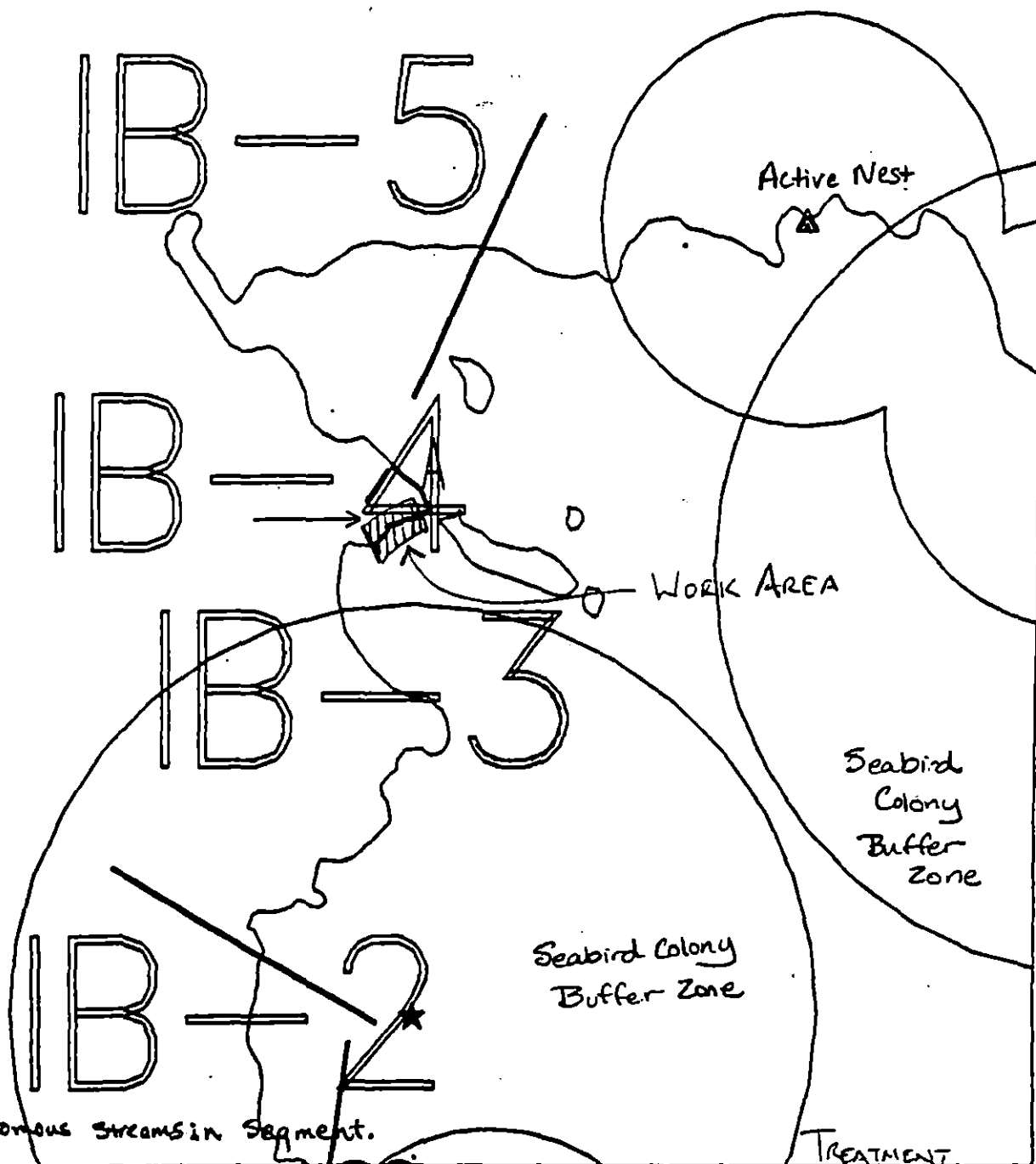
Date

6-10-90

Prepared by

Date

6/10/90



* No ADF+G Catalogued Anadromous Streams in Segment.



Exxon Company, USA

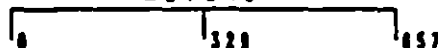
Map Key: KOD-IB-4

May 17, 1990



ECOLOGY MAP SEGMENT IB-4 SUBDIVISION A (1 of 1)

METERS



- ★ Seabird Colony
- ▲ Eagle Nest

1 inch = 1078 feet

SHORELINE EVALUATION

SEGMENT ST/ K0302-IB-5 SUBDIVISION A (1 OF 1) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Sensitive estuary (8AA); Stream mouth (Asc #252-30, #10020). Out-
migration (1A) - 3/1 to 5/15 and spawning (1B) - 7/10 to 8/31;
Possible bald eagle nest (5T) - contact ADF&G to verify eagle nest
location.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Avoid disturbance/damage to un-
oiled biota and substrate.

SHPO SIGNATURE: Charles E. Holmes DATE: April 11, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 362 m: No Oil 1172 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Manual pickup of mousse is recommended with a small
team (2-4 people) to minimize disturbance.

TAG COMMENTS:

TAG APPROVAL DATE: 4/11/90
ADEC JOHN BAUER John Bauer
EXXON ANDY WAL Andy Wal FOSC: DATE: 4-20-90
NOAA Burt Weagott Burt Weagott
USCG G.A. REITER G.A. Reiter

FIELD SHORELINE COMMENT SHEET

K3-2-IB-5

K0302

SEGMENT ST / IB 005 SUBDIVISION: IB-5A DATE 3-31-70ISCGNAME D.D. Haven Jr., GM3 USCGRSIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Concur with ADEC rep.

ADECNAME Francine J. BenoitSIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

considerable amount of wildlife is present in this area. It includes an anadromous stream. There's a small amount of mouse saturated fine sediments in the H10-21. This beach is located .25 mi. to the north of IB-004, where clean-up is definitely required. One or two people from that clean-up crew could walk to this area (crossing one small creek) at low tide, or skirt to it, and spend ~ 1/2 day removing any collectable oil here (manually). The field map from our SSAP survey should accompany the crew.

LAND MANAGERNAME JOHN P. HARDISTERSIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Concur with comments of ADEC representative as to fish and wildlife sensitivities - especially relative to anadromous stream. Scattered amounts of mouse could be removed by walk across walking beach at low tide, manually removing mouse.

goa0404b.mem bat

MEMORANDUM

DATE: April 4, 1990

FROM: Bryan Trimm

SUBJECT: Subdivision boundaries for K0302-IB005-A

Originally, the SSAT field team subdivided the segment into subdivisions "A" and "B". It was determined by the reviewer (me) and the field OG that it would be appropriate to combine the subdivisions "A" and "B" into one, now called "A". The OG resubmitted the revised form to the office on April 2, 1990.

The original forms are located in the "working copy" file in Rex Coulter's office in Suite 508, Calais II. Copies of the original "A" and "B" OG forms are included with the TAG data package.

SHORELINE OILING SUMMARY

REVISION NO. 03-22-90

OG Acton USCG Hayes SEGMENT ST/ K3-2-IB-5
 BIO Paris LAND REP USFWS Harbinger SUBDIVISION IB-5A
 XON Avery ADEC Bennis TIME 9:00 10:10 10:20
 TEAM NO.: 20 TIDE LEVEL: +3 10 0 DATE 3 / 31 / 90
 EST. SUBDIVISION LENGTH: 1510 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E 10 W
 SURFACE SEDIMENTS: R 20 % B 10 % C 20 % P 20 % G 15 % S 15 % M 0 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 300 m NO 1150 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	C	B	P	S	SO BR	BO RW	GY	SL ORR	TL LR	SU	UI	M	U	
ASPHALT PAVEMENT														
POOLED														
COVER														
COAT			✓			✓					✓			
STAIN														
MOUSSE			✓					✓			✓			
PATTIES														
TARBALLS														
FILM														
NO OIL										✓		✓	✓	

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

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

Photographs:

Roll No. 20-2Frames 7-11

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CH)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SBL OR	DBL RW	GY SL	TBL TL	LB	SU	UI	M	U					
1	15					✓	.									✓							S, C
2	15					✓	.											✓					S, C
							.																
							.																
							.																
							.																
							.																

COMMENTS In this subsection, very few sporadic mousse were observed on and among flat cobbles in the UI zone. The greatest accumulation was situated on the east bank of the stream entrance and is marked on the sketch. No oil was observed in substrate underlying the mousse pads.

CG Acton USCG Haven SEGMENT ST/ K3-2-13.5
 BIO Davis LAND REP usfw Hardwater SUBDIVISION 10-5A
 EXXON Avery ADEC Bennis TIME 9:00 10:10 10:20
 TEAM NO.: 20 TIDE LEVEL: +5 10 0 DATE 3 / 31 / 90
 EST. SUBDIVISION LENGTH: _____ m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R _____ % B 10 % C 70 % P 20 % G _____ % S _____ % M _____ % V _____ %
 SLOPE: Long 100 % Hang _____ % Vert _____ % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W _____ m M _____ m N _____ m VL _____ m NO _____ m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	S	P	S	SL	OR	OR	OR	OR	OR	OR	OR	SU	UI	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? ☒ BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NO

TYPE _____

#BAGS _____

Photographs:

Roll No. 20-2Frames 7, 9, 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		UO	UC	SBL OR	OR NW	OL SL	OF TL	LOR	SU	UI	M	U			
1	15					✓	-														
2	15					✓	-														
							.														
							.														
							.														
							.														
							.														

COMMENTS In this subsection, very few sporadic mousse were observed on and among flat cobbles in the UI zone. The greatest accumulation was situated on the east bank of the stream entrance and is marked on the sketch. No oil was observed in substrate underlying the mousse pads.

OG A-1

SEGMENT ST/ 2-18-5

SUBDIVISION K3-2-10-5A

DATE 3/31/90

SKETCH MAP

North ↑
Scale 1cm = 100m

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Bndry
- ☐ Oil Obs.
- ☐ Vision
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HML/LWL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pic 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

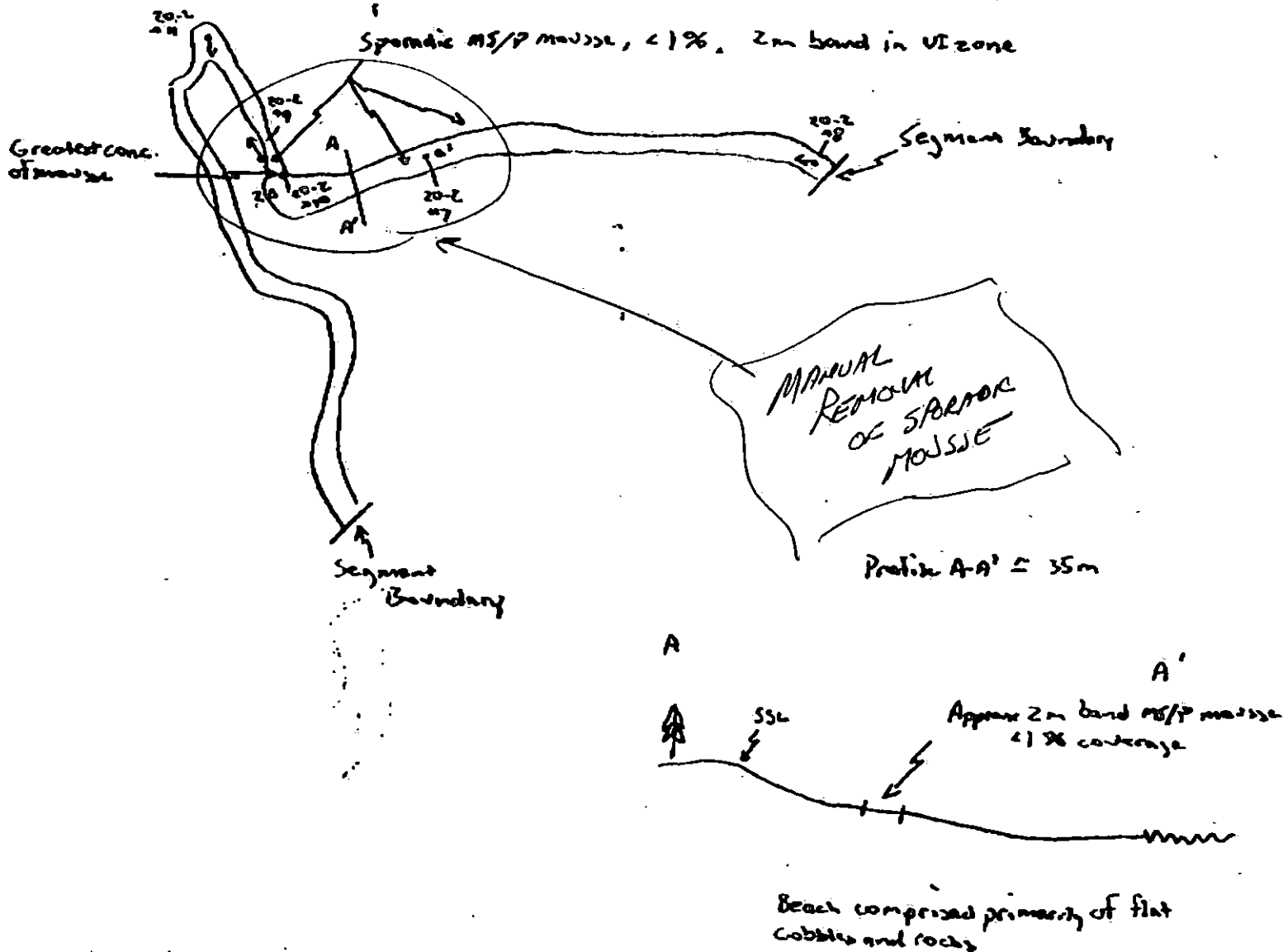
CT/S

Splashed Distribution

Other Vegetation

1 →

Photo location, direction, and number



APR-02-1990 17:01 FROM EXXON KODIAK

TO

15643771

P.25

Oil Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 360 PT 0 TB 0 FL 0 NO 1150

REVISION 03/24/90

OG. Acton USCG Havon SEGMENT ST/ K3-2-1B-S
 BIO Davis LAND REP USFWS Wardlester SUBDIVISION 1B-5B
 EXXON Avery ADEC Bennis TIME 9:00 10:10 10:30
 TAM NO.: 20 TIDE LEVEL: 93 10 1 DATE 3/31/90
 PIT. SUBDIVISION LENGTH: 1.50 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☐ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 20 % B 10 % C 60 % P 10 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 1.50 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	IC	IS	IP	IS	BR	BL	GW	SL	TL	LR	SU	U	M	U
ASPHALT PAVEMENT														
POOLED														
COVER														
COAT														
STAIN														
MOUSSE														
PATTIES														
TARBALLS														
FILM														
NO OIL											✓	✓	✓	✓

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. 20-2Frames 8, 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			BR	BL	GW	SL	TL	LR	SU	U	M	U		
1	20					✓	0													
2	10					✓	0													
							0													
							0													
							0													
							0													
							0													

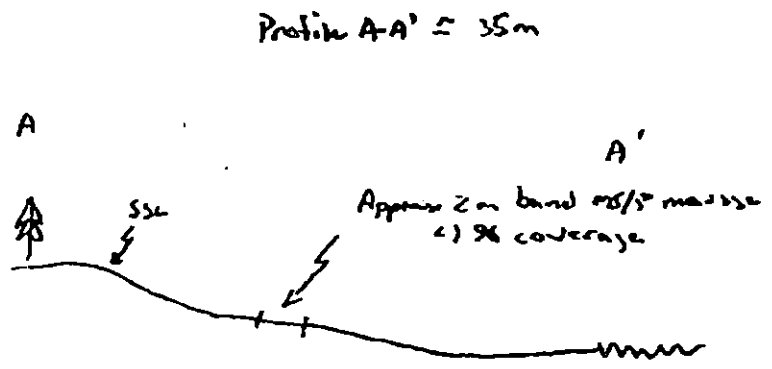
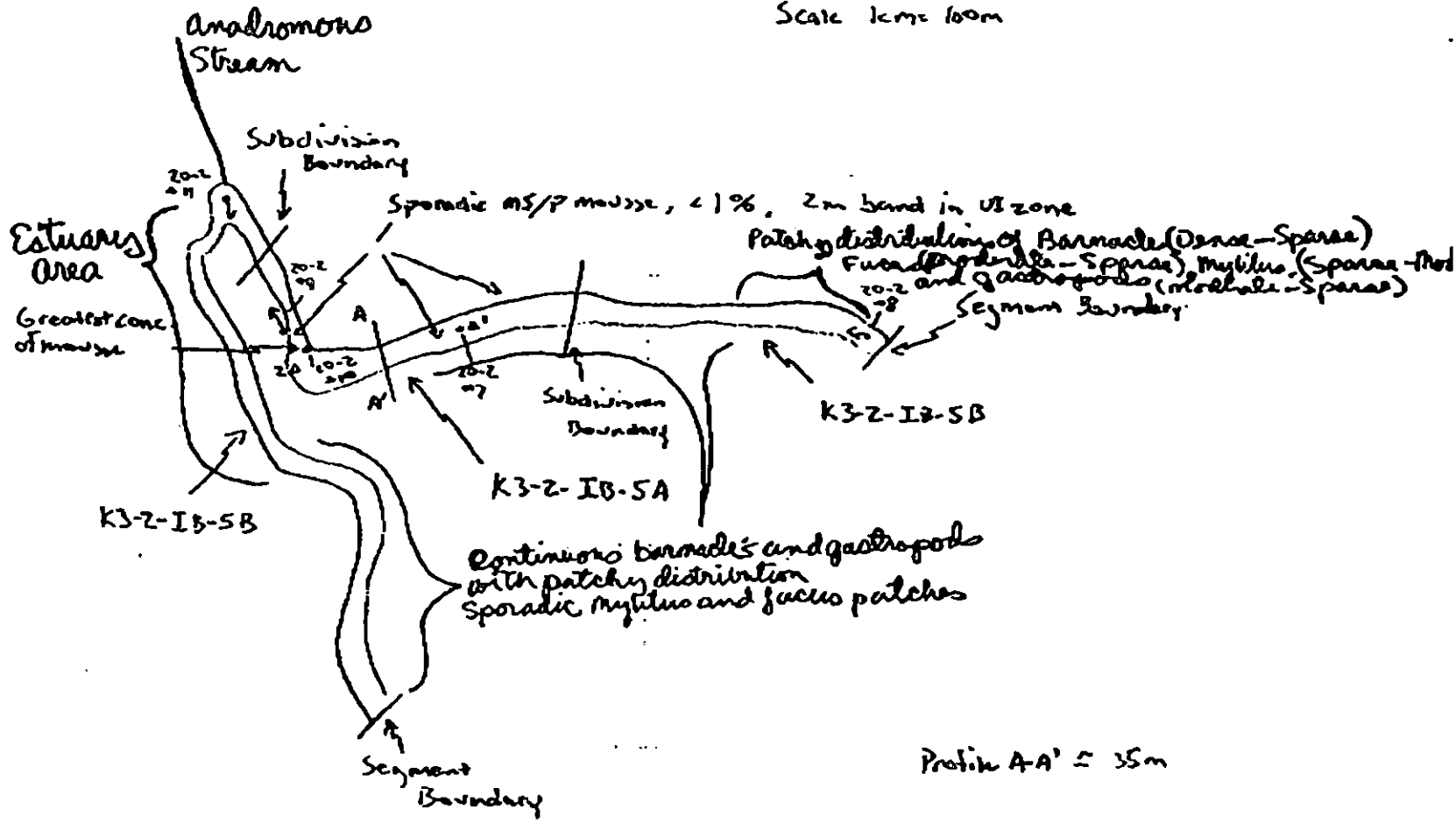
COMMENTS No oil was observed in this subdivision

15643771 P.28 TO EXXON KODIAK FROM 17:02 APR-02-1990

Bio H. Davis
Segment ST/K03-02
Subdivision IB-05A
Date 3-31-90

Bio SKETCH MAP

North ↑
Scale 1cm = 100m



Beach comprised primarily of fl. cobbles and rocks.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/22/90

Segment ST / K03-02 Subdivision IB-5 A Date (mo / day / yr) 3-31-90Time (24 hr) 09:15 Biologist N. Davis

(A) Substrate type and % of segments:

(1) Bedrock 20 (2) Boulder 10 (3) Cobble 20 (4) Pebble 20 (5) Sand 20 (6) Silt(B) Overall % cover of biota (% of segment): Dense 30% Moderate 35% Low 35% (35%)

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

Photographs: ST-Roll No. 20-2Frames 7-11

BARNACLES

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

MYTILUS

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

GASTROPODS

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

FUCUS

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

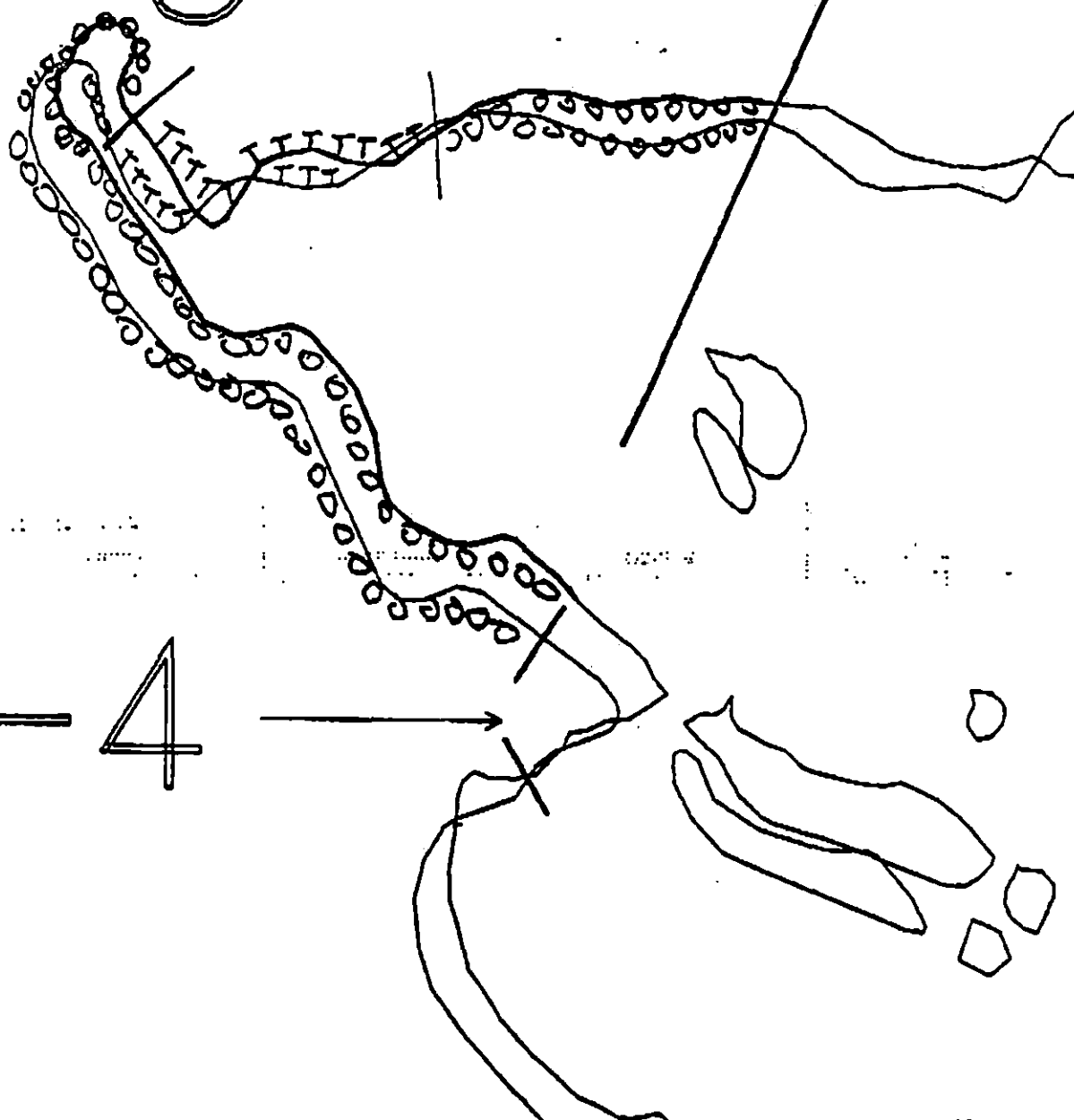
Wildlife Observations/ General Comments: freshly killed deer above storm burn. Eagles scavenging on carcass. 4 adults 2 juveniles seen. Surf Scoter (3-4) over scat and prints in the upper intertidal area. Littorina scutulata laying eggs. Ermine (mink)? scat in storm burn area. On Pilgrims (10) Buffleheads (1) Belted Kingfisher (20) Mallards (210) Kingfisher and 1 Dipper were seen.

Ecological Considerations: (1A, 1B, 8AA) Anadromous stream and estuary area in this subdivision. Eagles nest in IB-06. Shorebirds feeding in the intertidal.

ANADROMOUS STREAM No 10020 ASC # 252-30

K3-2-IB-5 A

IB-5



IB-4

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

IB-5

ADEC Segment Length: 1510m



Map Key: GOA-126

Name: Acron

Date: 3-31-90

Date Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

K03-02-1B-05

SEGMENT ~~K03-02-1B-05~~ 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 anadromous stream (252-31-10020) is in Subdivision A. No constraint to manual pickup.

5R Seabird Colony

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

5T Bald Eagle Nest

NO CONSTRAINT. USFWS map indicates no active nest within 400m of Subdivision A 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

6-10-90

Prepared by

Date

6/10/90

ANADROMOUS
STREAM
(252-31-10020)

IB-5

WORK AREA

IB-4

IB-3

IB-2

TREATMENT



Exxon Company, USA
Map Key: KOD-IB-5
May 17, 1990



ECOLOGY MAP
SEGMENT IB-5
SUBDIVISION A (1 of 1)

METERS



Seabird Colony



Eagle Nest

1 inch = 1320 feet

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/K03-02-IB-005 STREAM NO: 251-310-10020 DATE 5/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 TO 9/10; PEAK 8/15)
8AA Sensitive estuary

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

8AA Sensitive estuary.
No ecological constraints re: intertidal biota.
Ecological constraints to be revised if Inipol is recommended.

SHPO SIGNATURE: Pachel Jan Ode DATE: 6/01/90

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: _____

TAG COMMENTS: MANUAL PICKUP OF TARBALLS + PATCHES AS INDICATED
ON SKETCH

TAG APPROVAL DATE: 5/24/90.

ADEC Art Weiner Art Weiner

EXXON Art Tsal Art Tsal

NOAA Barl Wessott Barl Wessott

USCG M. J. HALL, M.D. M. J. HALL, M.D.

FOSC: [Signature] DATE: 6/4/90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1 IB 025 SUBDIVISION: 252-31-10020 DATE 5/1/90

USCG

NAME

CWO McMAHER

SIGNATURE

[Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

1. MANUAL CLEAN-UP: REMOVE TAR PATTIES
(per map)

ADFG

~~ADEC~~

NAME

JEFFREY BARNHART

SIGNATURE

[Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Type A manual cleanup of patties / Tar balls

LAND MANAGER

NAME

SIGNATURE

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY (ANDU.)

OG WILLIAM LEID USCG McMAHON 252-31-1002
BIO MICHAEL FAWCETT LAND REP STRAM 252-30-10201
EXXON CUS GARCIA ADFG JOSE BROWN HADDTIME 12:35 to 13:55
TEAM NO. 15 TIDE LEVEL +10.0 ft DATE 1 MAY 90
EST. SUBDIVISION LENGTH: 600 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☐ Rock
SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
SURFACE SEDIMENTS: R 30 % B 70 % C 20 % P 60 % G 20 % S 0 % M 0 % V
SLOPE: Long 30 % Hang 70 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ Hk
OIL CATEGORY LENGTH: W 0 m M 0 m N 570 m VL 0 m NO 30

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	10	20	30	40	50	60	70	80	90	SU	M	E	U
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT													
STAIN													
MOUSSE													
PATTIES			X				X			X			
TARBALLS			X				X			X			
FILM													
NO OIL										X	X	X	

PAVEMENT H F S 0 sq. m by 0

PATTIES / TARBALLS 0

NEAR SHORE SHEENT? NO BR RW SL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

Did you collect DEBRIS? ☐ YES ☒ NO

TYPE 0

#BAGS 0

Photographs: Roll No. A3-15-7
Frames 29-33

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEENT (Y/N)	SURF / SUBSURF SEDIMENT
		OP	OR	OL	OF	NO		UD	UC	50	60	70	80	90	SU	M	E	U			

COMMENTS

REVIEWED AW DATE 5/5/90

ADFG MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: ☒ SS ☐ OS TS AVE SEM HWS PTA2 REGION: PWS NP, CI ☒ RAPMETHOD: Aerial ☒ Ground Boat

3 DATE: 5/1/90

15 HIGH TIDE TIMES: 0731 1

21 TEAM RECORDER: JEFFREY BARNHART

4 START TIME: 1245

16 HIGH TIDE HTS: 8.2 1

22 OBSERVERS: GUS GARCIA, William Rival

5 STOP TIME: 1350

17 LOW TIDE TIMES: 1440 1 2000 20

23 AGENCY: ADFG, EMM, WWC, WWC, US

6 SEGMENT #: FB 005

18 LOW TIDE HTS: 0.2 1

24 PHOTOS TAKEN: Y ☒ N

7 STATION #:

19 TIDE HT AT SURVEY:

Roll #: Frame:

8 K-UNIT: K03-02

☒ Slack Flood Slack25 VIDEO TAKEN: Y ☒ N TAPES:

9 STAT AREA: 252-30

20 USCG QUAD:

Starts: Ends:

10 LAT: 58° 14' 54"

11 LONG: 152° 19' 33"

26 SAMPLES TAKEN Y ☒ N Number12 SOURCE: Map Loran Anad catalog

Oil

13 LOCATION: N.W. Izhut Bay, Afognak Island

Sediment

14 DESCRIPTION:

Biological

Water

EXTENT OF OIL

	SHORELINE				STREAM			
	L	V	H	S	L	V	H	S
27 SURFACE COVERAGE	400	1	400	5	0	0	0	0
28 SURFACE THICKNESS	1-2cm							
29 PENETRATION	surface				0	0	0	0

35 CATALOGED ANAD. FISH SKELET Y N

37 CATALOG # 252-30-10020

38 STREAM NAME: Grassy Lagoon

39 OIL IN STREAM BED? Y ☒ N40 OIL ON STREAM BANKS? ☒ N41 OIL ON BEACH ADJACENT TO MOUTH? ☒ N
(within 50 meters)

42 OIL WITHIN 1 MILE OF STREAM Y N

Where:

30 OVERALL OIL IMPACT: N VL L M H

31 OIL TYPE: Pools ☒ Masses ☒ Tar Asphalt Sticky Stain32 OILED DEBRIS? Y ☒ N33 SHORELINE TYPE: Hardland Low-lying Rocks Beach Cove
Lagoon Marsh43 ANADROMOUS FISH PRESENT? Y ☒ N

34 WAVE EXPOSURE: High Moderate Low

36 SUBSTRATE TYPE: Bedrock 10 Boulder Cobble 70

Gravel 20 Sand Red/silt

44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground

COMMENTS: Tar balls and Tar patties (surface) 1 meter wide band located 1-3 meters from high tide line in Lagoon. Rearing area for salmon fry, waterfowl area. Easy Type A cleanup recommended.

Jeff Barnhart

860

segment IB005

1 May 90

stream 252-36-10020

Michael Fawcett

Ecological Summary

This moderately large stream enters the northwest end of a mud-bottom lagoon that drains to the east. The lagoon is roughly oval, 150m by 250m. The bottom of the lagoon has infaunal clams, etc., and a large stand of eelgrass. The banks of the lagoon are composed of slate boulders/cobble/pebbles/gravel. Barnacles and Littorines are moderately dense through out the MTZ, mussels sparse except for a dense mussel bed in the high-current area near the lagoon mouth. Limpets (Collisella personi) are abundant on boulders and bedrock in the VTZ. Fucus and Rhodonela are abundant algae in MTZ. One stranded pink salmon fry was found on the stream bank. ~~Consists of~~ light sporadic tar balls and patties in MTZ and VTZ around the lagoon. Manual removal is recommended. No ecological constraints intertidal biota.

M Fawcett

ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 251-31-10020

SEGMENT K03-02-IB-005 SUBDIVISION A

WORK WINDOW	
Manual Pickup	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream	No constraint to manual pickup.
5R Seabird Colony	No constraint to manual pickup to in Subdivision, however, USFWS map indicates seabird colony in adjacent segments may restrict access to work site. Follow established USFWS transit route through seabird colony buffer zone as described on attached map.

OTHER ECOLOGICAL CONSIDERATIONS

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

SEE SUBDIVISION CONSTRAINT ADDENDUM K03-02-IB-005A
FOR ADDITIONAL CONSTRAINT INFORMATION.

FOSC

[Signature]

Date

6-16-90

Prepared by

J. P. Phillips

Date

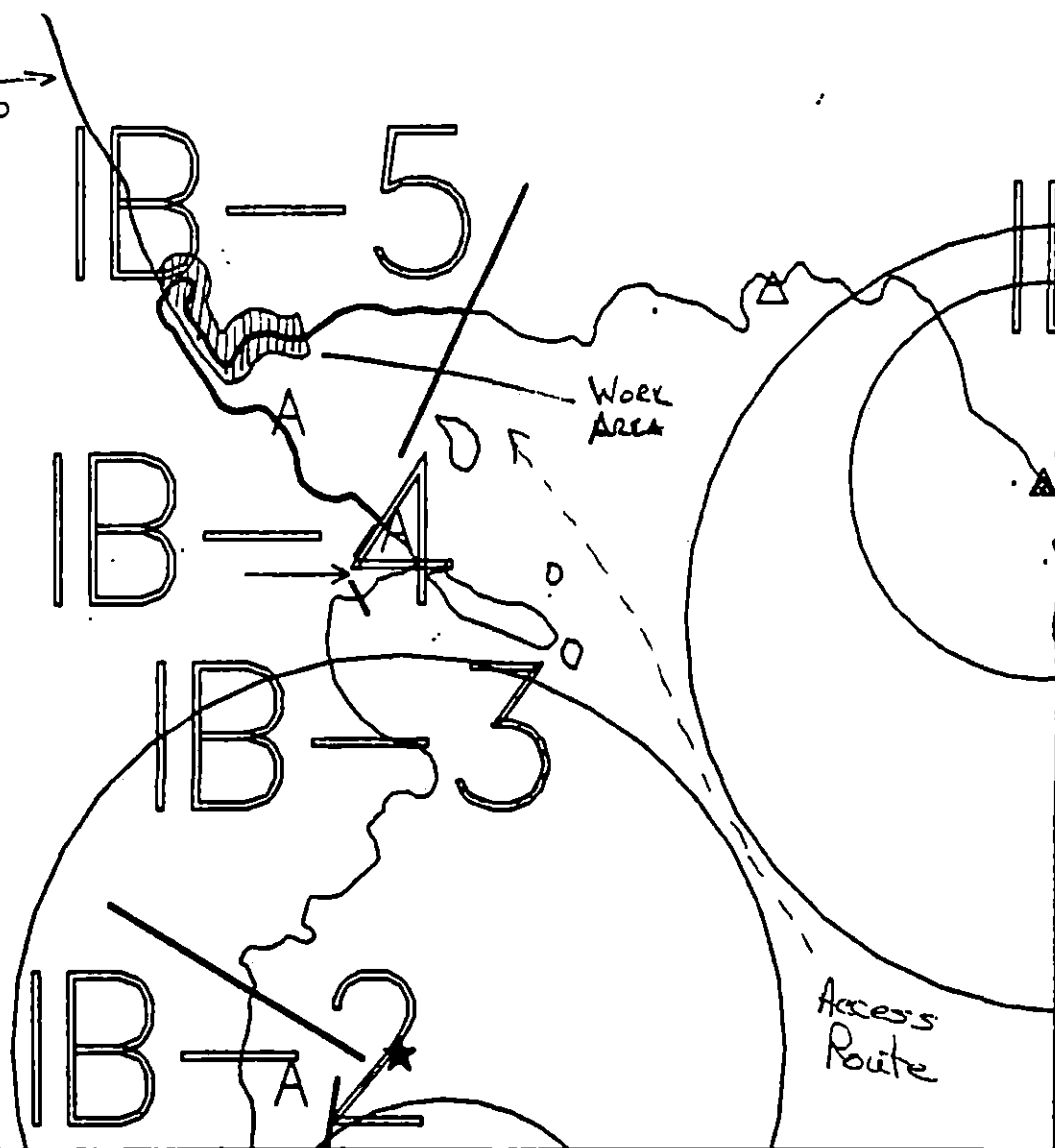
6/15/90

IB-5 site

Access route approved.

Mike Luke

STREAM #
252-31-10020



TREATMENT



Exxon Company, USA
Map Key: KOD-IB-5
June 10, 1990



ECOLOGY MAP
SEGMENT K3-2 IB-5
SUBDIVISION --- (--- of ---)
METERS
0 402 804

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

1 inch = 1320 feet

SHORELINE EVALUATION

SEGMENT ST/ K03-03-IB-008 SUBDIVISION A (1 OF 4) DATE 5/27/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-4 All Bald Eagle nests (3/1 to 6/1)

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

5R-4 Seabird colony (5/1 to 9/1)

1A Salmon stream mouth - fry outmigration (4/15 to 7/31)

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

(Stream ID # 251-31-10025, 10030, 10040, and 10080)

8AA Sensitive estuary

9DD Mariculture

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Charles J. Adams DATE: June 19, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 4123 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: 6/16/90

ADEC Roy Munn

EXXON ANDY TALL

NOAA John Talbot

USCG G.A. REED

FOSC: DATE: 7-10-90

KODIAK ECOLOGICAL CONSTRAINTS

1A
1B

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

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

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

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

1C

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

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

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

1D

Kodiak Bay Hatchery release

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

1H

Remote release site

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

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

1I

Gill net area

1J

Purse seine area

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

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

1K

Purse seine hook-off

1L

Set net sites

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

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

2M

Herring spawning (4/15 to 6/30)

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

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

30, 3Q

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

Harbor seal and sea lion molting (8/15 to 9/15)

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

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

ADF&G Don Calkins 267-2403

5R

Seabird colony (5/1 to 9/1)

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

5S

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

ADF&G Tom Roth 267-2208

5T

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

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

6U

Recreation:

Tent sites (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 (8/1 to 9/30)

7H

Finfish harvesting

7I

Deer harvesting (8/1 to 1/7)

7J

Invertebrate harvesting

7K

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

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

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1K0303-TB08 SUBDIVISION: A DATE 05/27/90

USCG

NAME C.B. NANCE BM 1 SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADEC

NAME Terry Ellsworth SIGNATURE Terry Ellsworth

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

the only oil observed in this subdivision was light staining on wood debris. No treatment recommended.

LAND MANAGER

NAME JOHN P. HENDRICKS SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

USFWS

No treatment recommended.

SHORELINE OILING SUMMARY

REVISION NO. 10-1-80

DOG Springer USCG C. Nance SEGMENT ST/ K0303/IB08
 BIO D. Lobse LAND REP J. Hardister SUBDIVISION A (1 OF 4)
 EXXON E. Byers ADEC T. Ellsworth TIME 09:00 10:30
 TEAM NO. 19 TIDE LEVEL _____ DATE 05/27/90
 EST. SUBDIVISION LENGTH: 3,900 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 LANDS DESCRIPTION: ☐ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: SW to NE
 SURFACE SEDIMENTS: R 80 % B 3 % C 5 % P 5 % G 5 % S 2 % M 0 % V 0 %
 SLOPE: Long 10 % Hang 10 % Vert 80 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 3,900 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	10	15	20	25	30	35	40	45	50	SU	U	M	U
ASPHALT													
PAVEMENT													
POOLED													
COVER													
COAT													
STAIN													
MOUSE													
PATTIES													
TARBALLS													
FILM													
NO OIL										X	X	X	X

PAVEMENT H F S 0 sq. m by 0 cm

PATTIES / TARBALLS 0 BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	X		
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒

TYPE ---

#BAGS 0

Photographs:

Roll No. 1

Frames 0

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CH)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (Y/N)	T	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	VE	30	35	40	45	50	SU	U	M	U				
1	50					X	.		X						X							CPG/PG
2	50					X	.		X						X							CS/CS
							.															
							.															
							.															
							.															

REMARKS Very high energy shoreline.

J. Spring
MENT ST/ K0303/IB08

SKETCH MAP

DIVISION A

E 05/27/90

ECKLIST

✓ Arrow
✓ Approx. Scale
✓ Seg/Sub Entry
✓ Off Dist.
✓ Altitude
✓ Length
✓ % Cover
✓ Substrate Character
✓ Est. HWM/LWL
✓ ISL
✓ Profile Location(s)
✓ Profile(s)
✓ Pt Location(s)
✓ Photo Location(s)

GEND

1 ▲

No Subsurface Oil

2 ▲

Subsurface Oil

CT/C

Areas Distribution

CT/B

on Distribution

CT/P

by Distribution

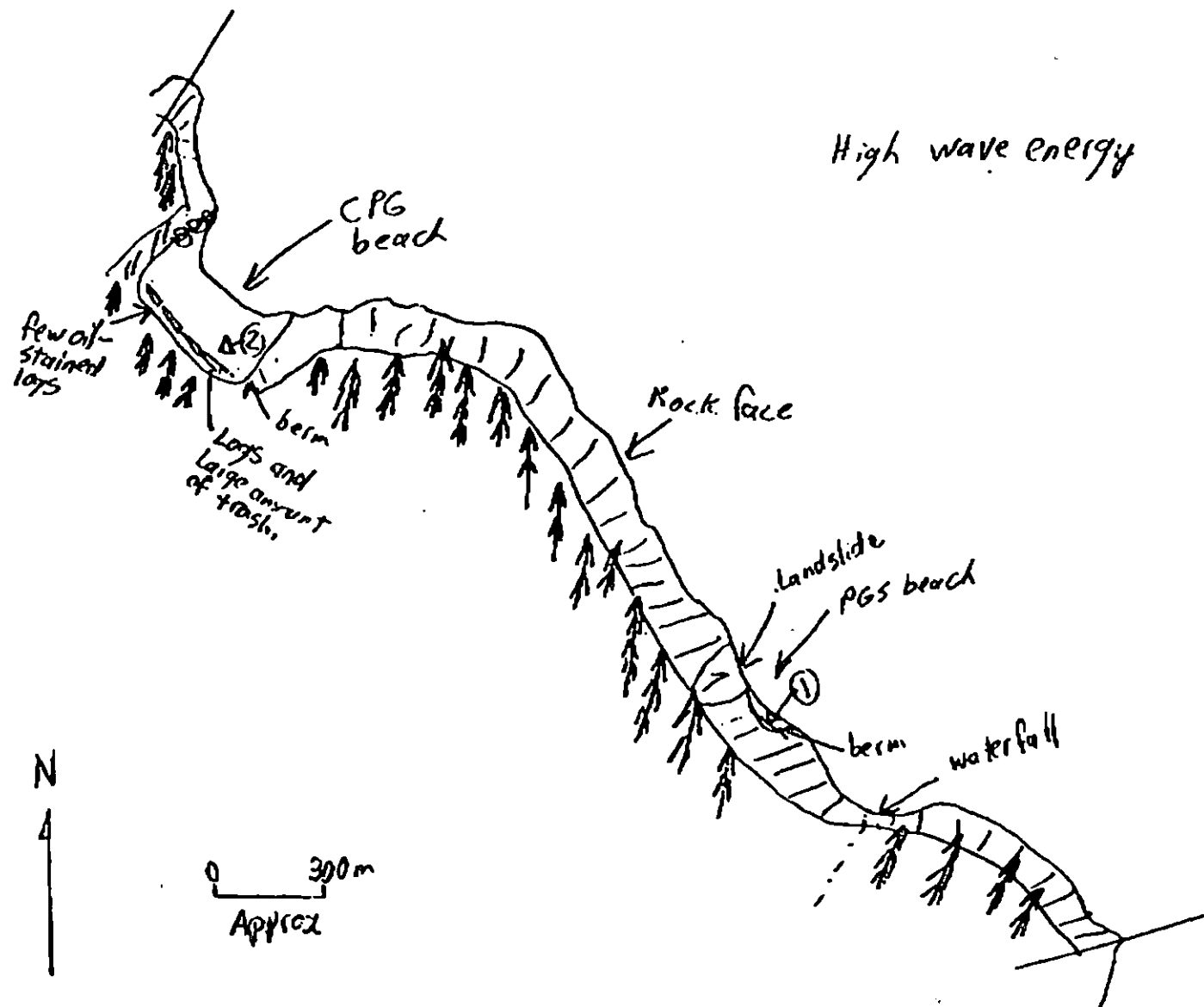
CT/S

shed Distribution

1 Vegetation

→

o location, direction,
number



High wave energy

Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 0 PT 0 TB 0 FL 0 NO 3,900

REVISION: 03/20/99

SHORELINE ECOLOGICAL SUMMARY

REVISION 11/80

Segment ST/k3-3/18-8 Subdivision A Date (mo / day / yr) 5-27-90

Time (24 hr) 9:00 Biologist David Lohse

(A) Substrate type and % of segments:
(1) Bedrock 50 (2) Boulder 3 (3) Cobble 5 (4) Pebble 5 (5) Sand 7 (6) Silt

(B) Overall % cover of biota (% of segment): Dense 50 Moderate 25 Low 25

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

Photographs:
Roll No. ST-19-100

Frames 20

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

See Page 2

Ecological Considerations:

A: Streams #252-31-10080
252-31-10010 } none located in this subdivision
252-31-10030 }

R - One gull nesting colony located in subdivision. See ecology map
T - 7 miles out in water built early settled in area however no work observed

Segment ST/K3-3/IB-8

Subdivision A

5-27-90

ist: David Lohse

Wildlife Observations/General Comments

Present in low intertidal - Iridaea, Alaria, Rhodomenia, Epineurus, Anthopleura, Orchidella, Ulva, Cladophora, coralline algae

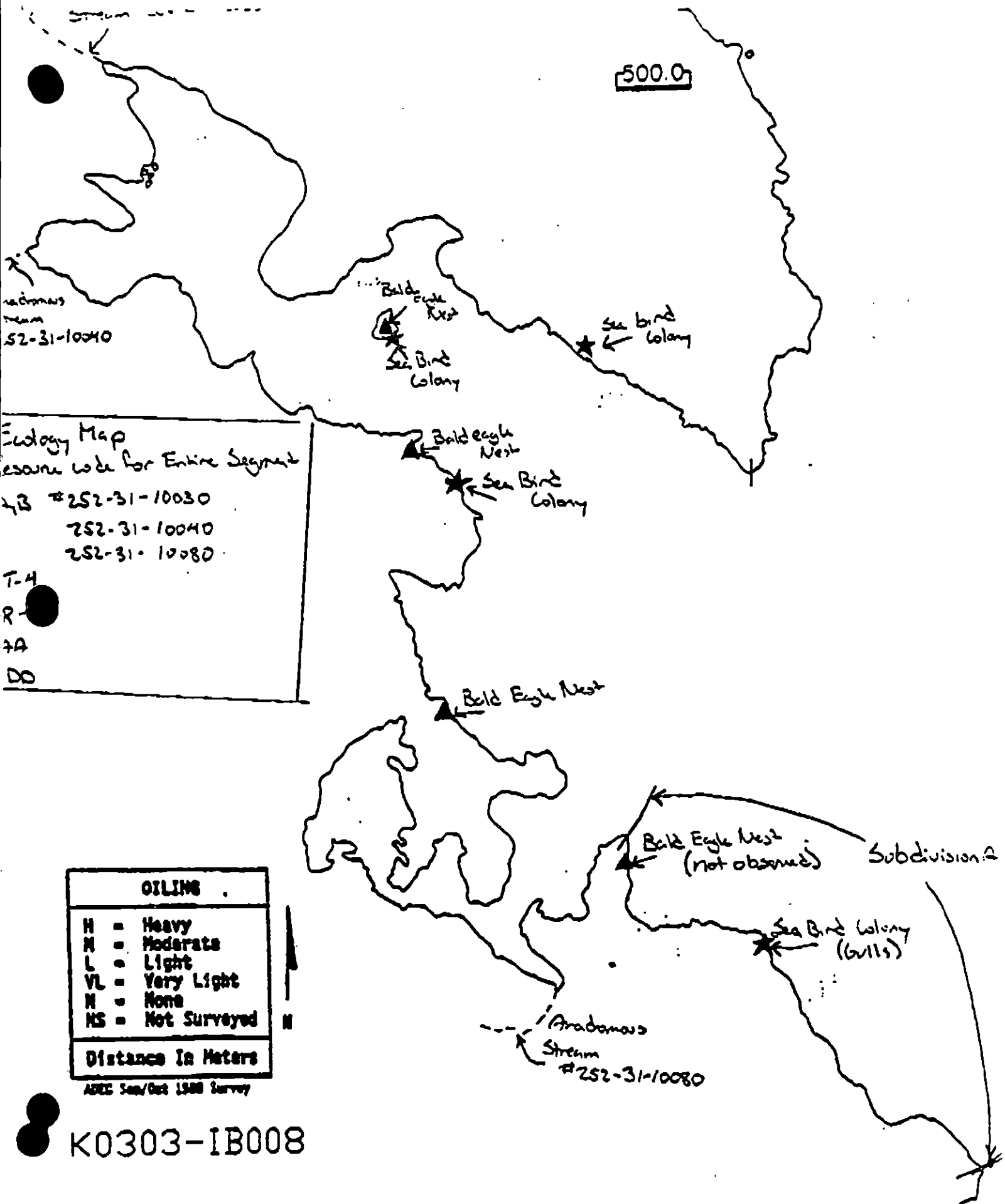
mid intertidal: Ulva, porphyra, Ralfsia, Alaria, unknown Rhizomorpha red (Dayse?), Cladophora, Endocladia, Rhodamelia, Emplectonema, Desmarestia, Orchidella

Most of subdivision was surveyed by boat due to hazardous wave conditions. Therefore abundances listed on page 1 are based on small sample sizes and should be considered rough estimates.

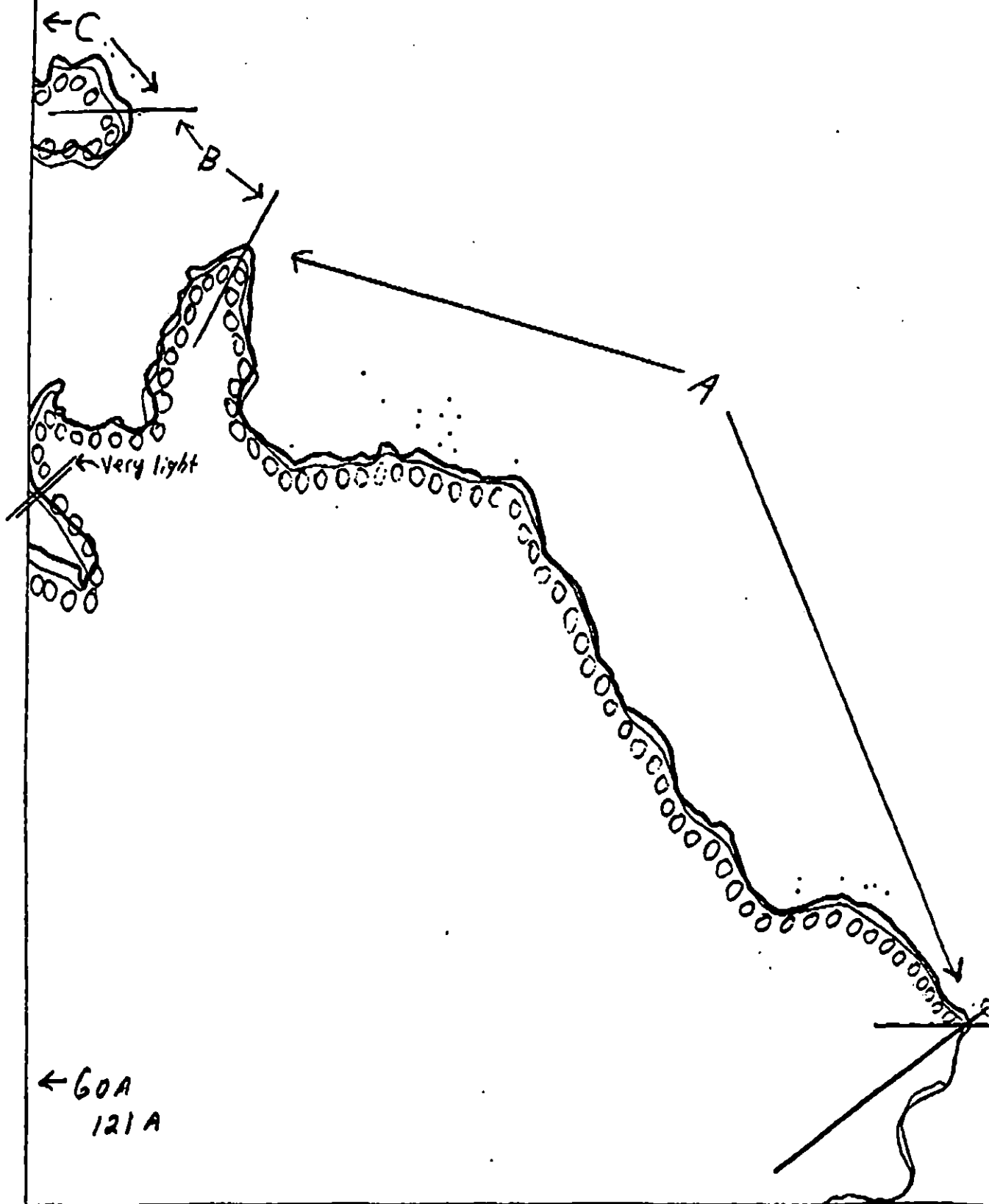
One sea otter, 3 pair Gullenots, and one deer spotted in area. ~~Approximately~~ Approximately 15 tufted and 2 hairy Puffins, 8 Cormorants, and several Harlequin ducks were spotted during the trip from the boat to the beach.

In the two pocket beaches surveyed on foot the boulders and bedrock on the southern sides were rich in species, while the northern sides were covered with Ulva/Enteromorpha and abundant recent bivalve recruits. ~~Spec~~

Algal cover on low intertidal bedrock was ~95%.



↑
60A
121D

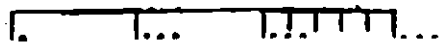


XXXX Wide
//// Medium
---- Narrow
TTTT Very Light

IB-8

31,692

ADEC Segment Length: ~~34632m~~



Map
Name: J. Spring
Date: 5/27/90

SHORELINE EVALUATION

SEGMENT ST/ K03-03-IB-008 SUBDIVISION B (2 OF 4) DATE 5/27/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-4 All Bald Eagle nests (3/1 to 6/1)

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

5R-4 Seabird colony (5/1 to 9/1)

1A Salmon stream mouth - fry outmigration (4/15 to 7/31)

1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
(Stream ID # 251-31-10025, 10030, 10040, and 10080)

8AA Sensitive estuary

9DD Mariculture

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: [Signature] DATE: June 1, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V. Light 185 m: No Oil 10928 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: 6/16/90

ADEC Ray Mearns

EXXON Andy

NOAA Joseph Talbot

USCG G.A. Butler

FOSC: [Signature]

DATE: 7-10-90

KODIAK ECOLOGICAL CONSTRAINTS

1A
1B

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

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

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

AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2290

1C

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

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

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

1D

Kotol Bay Hatchery releases

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

1H

Remote release site

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

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

1I

Gill net area

1J

Purse seine area

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

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

1K

Purse seine hook-off

1L

Set net sites

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

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

2M

Herring spawning (4/15 to 6/30)

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

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

30, 3Q

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

Harbor seal and sea lion molting (8/15 to 9/15)

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

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

ADF&G Don Calkins 267-2403

5R

Seabird colony (5/1 to 9/1)

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

5S

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

ADF&G Tom Roth 267-2206

5T

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

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

6U

Recreation:

Tent sites (8/1 to 9/15)

6V

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

7H

Deer harvesting (8/1 to 1/7)

7J

Invertebrate harvesting

7KK

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

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

AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2350

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1 K0303-IB08 SUBDIVISION: B DATE 5-27-90

USCG

NAME C. B. NANCE BM 1 SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADEC

NAME Terry Ellsworth SIGNATURE Terry Ellsworth

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

this segment subdivision contains occasional coat, tar balls and mousse patches which are more concentrated on the southern shore line than on the northern. Amounts of recoverable oil in this segment are extremely small. No treatment recommended.

LAND MANAGER

NAME JOHN P. HARDISTER SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

USFWS

Small amounts of recoverable oil contamination do not warrant cleanup effort, thus, no treatment recommended.

SHORELINE OILING SUMMARY

REVISION NO. 04-13-80

OG J. Springer USCG C. Nance SEGMENT STI K0303/IBOR
 BIC D. Lebs LAND REP J. Hardister SUBDIVISION R (2 OF 4)
 EXXON F. Byers ADEC T. Ellsworth TIME 13:00 to 15:30
 TEAM NO. 19 TIDE LEVEL -1 TO +4 1/2 DATE 05/27/90
 EST. SUBDIVISION LENGTH: 9,700 m ☐ Sun ☐ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☒ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 30 % B 20 % C 10 % P 10 % G 10 % S 5 % M 10 % V 5 %
 SLOPE: Lang 40 % Hang 40 % Vert 20 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 117 m NO 9,583 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	W	M	N	VL	SP	BR	OR	OL	OP	NO	TL	LR	SU	U	M	L
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
SPILLS																
TARBALLS																
FILM																
NO OIL																

 PAVEMENT H F S 0 sq. m by 0 cm

 PATTIES / TARBALLS 5 BAGS

 NEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

 YES ☐ NO ☒

 TYPE ---

 #BAGS 0

Photographs:

 Roll No. ---

 Frames 0

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR								PIT ZONE	A N A	SHEEN (Y/N)	T	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OP	NO		UO	UC	SP	BR	OR	OL	OP	NO	TL	LR					
1	40					X	.		X									X				S/SPC
2	40					X	.		X									X				CP/KPS
3	40					X	.		X									X				P/PG
							.															
							.															
							.															

COMMENTS * Surveyed from 12:10 to 15:00 on 5/26/90. Survey finished
 up from 13:00 to 15:30 on 5/27/90.

OG J. Sp...er

SEGMENT ST/ IB-8

SUBDIVISION B

DATE 05/27/60

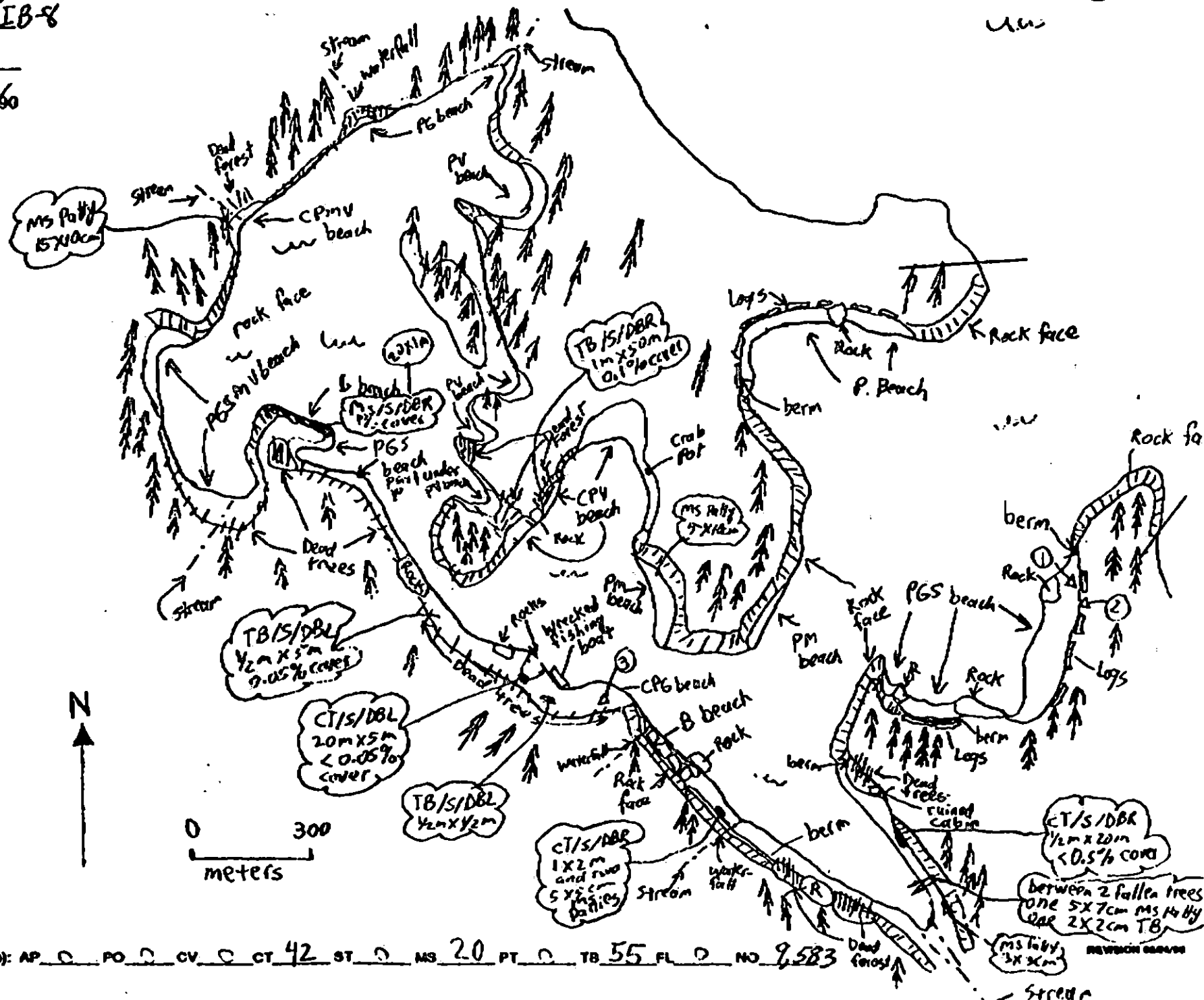
CHECKLIST

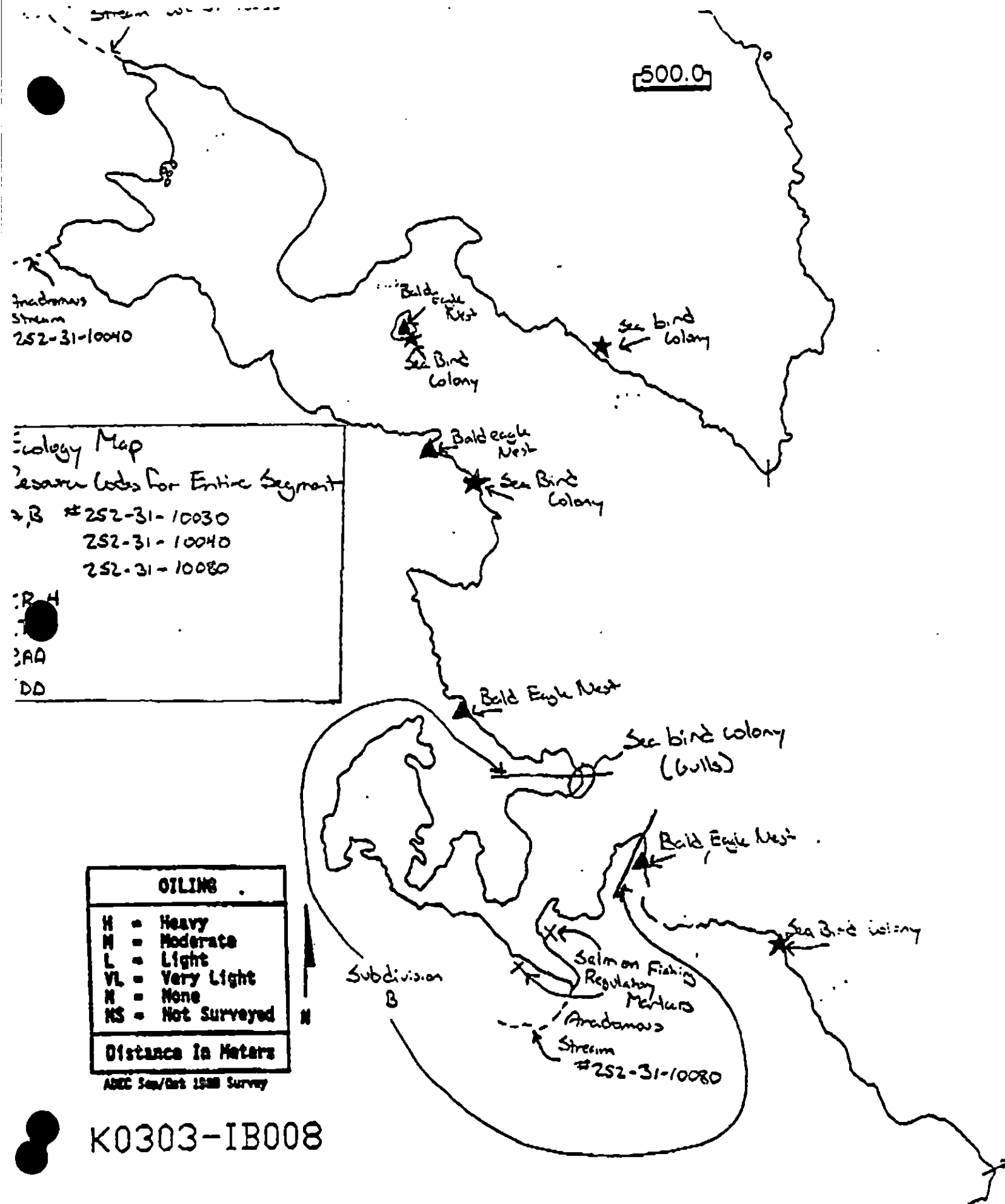
- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HML/LWL
- ☐ SSI
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pit Location(s)
- ☐ Photo Location(s)

LEGEND

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

SKETCH MAP





K0303-IB008

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / K3-3/18-8 Subdivision B Date (mo / day / yr) 5-27-90

Time (24 hr) 13:00 Biologist David Lohr

(A) Substrate type and % of segments:
(1) Bedrock 30 (2) Boulder 20 (3) Cobble 10 (4) Pebble 10 (5) Sand 15 (6) Silt 10

(B) Overall % cover of biota (% of segment): Dense 20 Moderate 55 Low 25

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

Photographs:
Roll No. 51-19-100

Frames 17-19

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

See page 2

Ecological Considerations:

- Streams #252-31-10080 - located in subdivision. No al observed
252-31-10090 } not in subdivision
252-31-10080 }

R - One gull nesting colony observed on boundary with subdivision C. See ecology map for location. This colony not ~~pre~~ marked on USFWS maps.
T - Two m. l. w. bald birds nested. No nests observed

Segment ST/K3-3/IB-8

Subdivision B

5-27-90

Observer: David Lohr

Life Observations / General Comments

Present in low intertidal: *Gloiopeltis*, *Alaria*, *Hennipia*, *Spirorbis*, *Ulva*, *Nucella*, unknown encrusting bryozoa, yellow sponge, purple sponge, *Tridacna*, *Scytosiphon*, *Cladophora*, *Porphyra*, *Halosaccus*, *Tealia*, coralline algae, *Rhodomenia*, *Pycnopodia*, *Anthopleura*, *Desmarestia*, yellow nudibranch (*Anisodoris*?), *Diadulula*, *Katharina*

mid intertidal: *Cladophora*, filamentous diatoms, *Dermasterias*, *Pagurus*, unknown filamentous red (*Daysea*?), *Ralfsia*, *Nucella*, *Scytosiphon*, *Gloiopeltis*, *Sculpin*, *Halosaccus*, *Rhodomenia*, yellow sponge, *Desmarestia*, *Anthopleura*, coralline algae, *Tealia*, *Alaria*, *Endocladia*, *Porphyra*

2. Most of the species listed above were found in the areas near the Subdivision boundaries (the mouth of the lagoon). In the more protected areas back inside the lagoon diversity was limited primarily to barnacles, mussels, *Fucus*, and gastropods.
3. 3otters, 1 cormorant, and ~10 Harlequin ducks spotted in area.
1. Several partial deer skeletons found above high tide line. No oil observed.
5. Two salmon fishing regulatory markers found in subdivision.
- . *Lacuna* eggs found on *Fucus* in low intertidal *Littorina* eggs found on low intertidal cobble, and mid intertidal boulders and vegetation.
- . *Cladophora*, *Ulva*, filamentous diatoms abundant in silty areas of lagoon. Percent cover ranged from 70-80%.
3. Many jellyfish (*Cyanea*?) found flocking in lagoon near shoreline.



GOA →
1218

K3

DU-2

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

IB-8

ADEC Segment Length: 31692
~~34832m~~



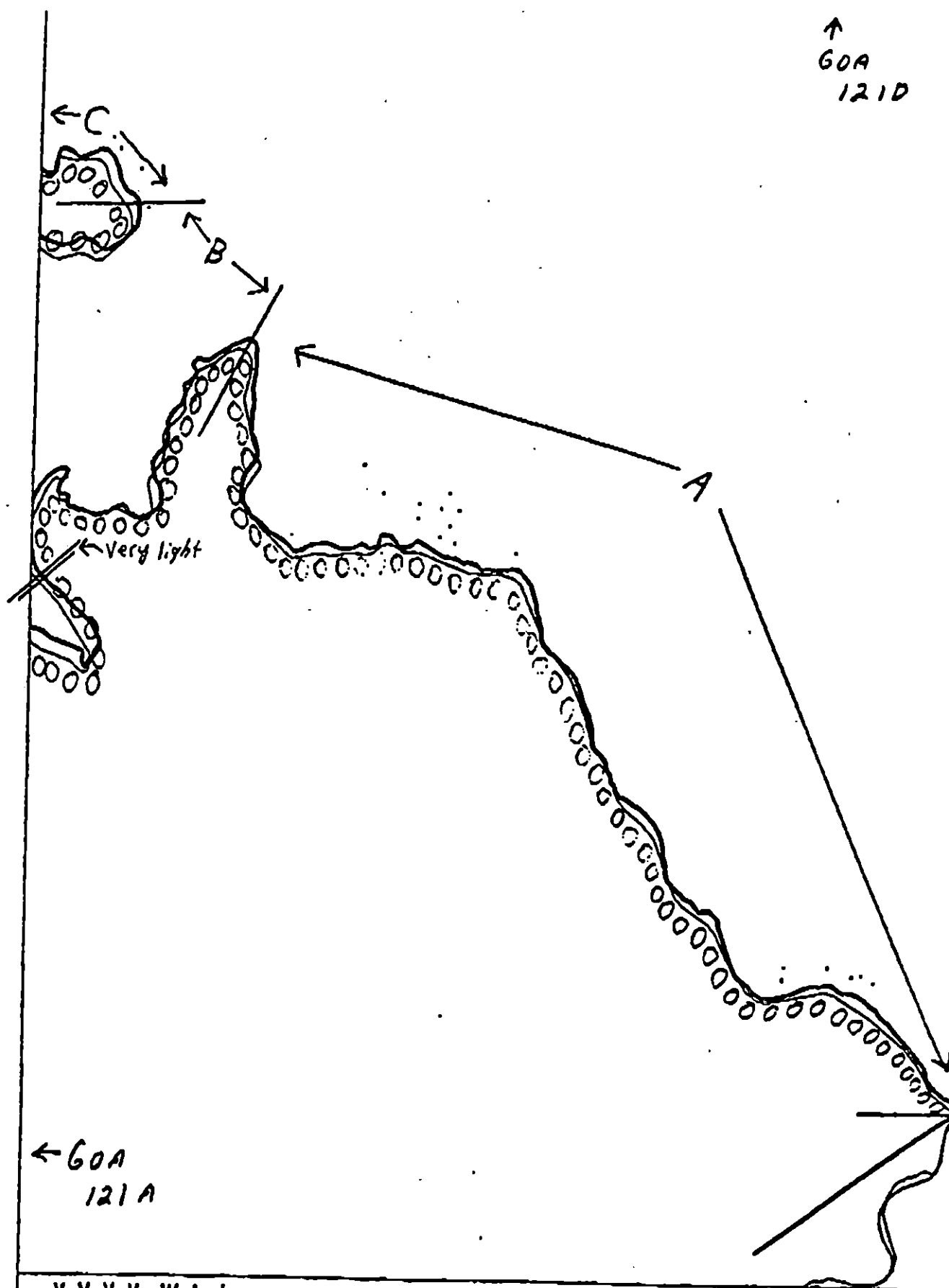
Map Key: GOA-121a

Name: J. Springer

Date: 5/27/90

Data Entered:

↑
GOA
121D



← GOA
121A

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

IB-8

ADEC Segment Length: 31,692
~~34,632m~~

0 1,000 2,000 3,000



Map
 Name: J. Spr
 Date: 5/27/

SHORELINE EVALUATION

SEGMENT ST/ K03-03-IB-008 SUBDIVISION C (3 OF 4) DATE 5/27/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-4 All Bald Eagle nests (3/1 to 6/1)

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

5R-4 Seabird colony (5/1 to 9/1)

1A Salmon stream mouth - fry outmigration (4/15 to 7/31)

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

(Stream ID # 251-31-10025, 10030, 10040, and 10080)

8AA Sensitive estuary

9DD Mariculture

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 Z. Holme DATE: June 19, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 23 m: V.Light 24 m: No Oil 6248 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

☒ 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: 6/16/90

ADEC Roy Means R. Means

EXXON Andy Talar

NOAA Sharon Taylor

USCG C.A. Reiter

FOSC: W L DATE: 7-10-90

KODIAK ECOLOGICAL CONSTRAINTS

1A
1B

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

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

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

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

1C Salmon fry nursery area (4/31 to 7/31)

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

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

1D Kotol Bay Hatchery release

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

1H Remote release site

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

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

1I Gill net area

1J Purse seine area

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

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

1K Purse seine hook-off

1L Set net sites

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

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

2M Herring spawning (4/15 to 6/30)

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

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

30, 3Q

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

Harbor seal and sea lion molting (8/15 to 9/15)

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

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

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
ADF&G Tom Roth 267-2206

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

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

6U Recreation:

Tent sites (8/1 to 9/15)

6V

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 (8/1 to 9/30)

7H

Finfish harvesting

7I

Deer harvesting (8/1 to 1/7)

7JJ

Invertebrate harvesting

7KK

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

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

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1 K0303 - I808 SUBDIVISION: C DATE 5-27-90

USCG
NAME C. B. NANCE BM1 SIGNATURE C. Nance

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADEC
NAME Terry Ellsworth SIGNATURE Terry Ellsworth

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

No treatment recommended. the small amounts of oiled wood in the segment subdivision are very lightly stained and amounts of recoverable mousse are extremely small.

LAND MANAGER
NAME JOHN P. HANDISZ SIGNATURE John P. Handisz USFWS

☒ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

cleanup is not warranted for the small amount of recoverable mousse present.

SHORELINE OILING SUMMARY

REVISION NO 04/13/90

DOG T. Springer USCG C. Nance SEGMENT ST/ K0303/IB006
 BIO Lohse LAND REP J. Hardister SUBDIVISION C (3 OF 4)
 EXXON F. Byers ADEC T. Ellsworth TIME 10:30 to 11:30
 TEAM NO. 19 TIDE LEVEL -2 TO -2 DATE 05/27/90
 EST. SUBDIVISION LENGTH: 8.717 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 55 % B 10 % C 10 % P 10 % G 10 % S 5 % M 0 % V 0 %
 SLOPE: Long 25 % Hang 20 % Vert 55 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 1 m VL 1 m NO 8.715 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	C	B	P	S	SP	BR	OT	DR	LR	SU	U	M	L
ASPHALT													
PAVEMENT													
POOLED													
COVER													
COAT			X					X				X	
STAIN													
MOUSSE													
PATIES													
TARBALLS				X	X					X			
FILM													
NO OIL												X	X

PAVEMENT H F S 0 sq. m by 0 cm
 PATTIES / TARBALLS 1 BAGS
 NEAR SHORE SHEEN? NO BR RW SL TL

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

Photographs:
 Roll No. ---
 Frames 0

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)	V	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	UC	SP	BR	OT	DR	LR	SU	U	M	L				
1	30					X	.		X						X							P/PV
2	30					X	.		X						X							P/PGS
3	30					X	.		X						X							P/PV
							.															
							.															
							.															

COMMENTS

J. Spry

MENT ST/ IB-8

DIVISION C

TE 05/27/90

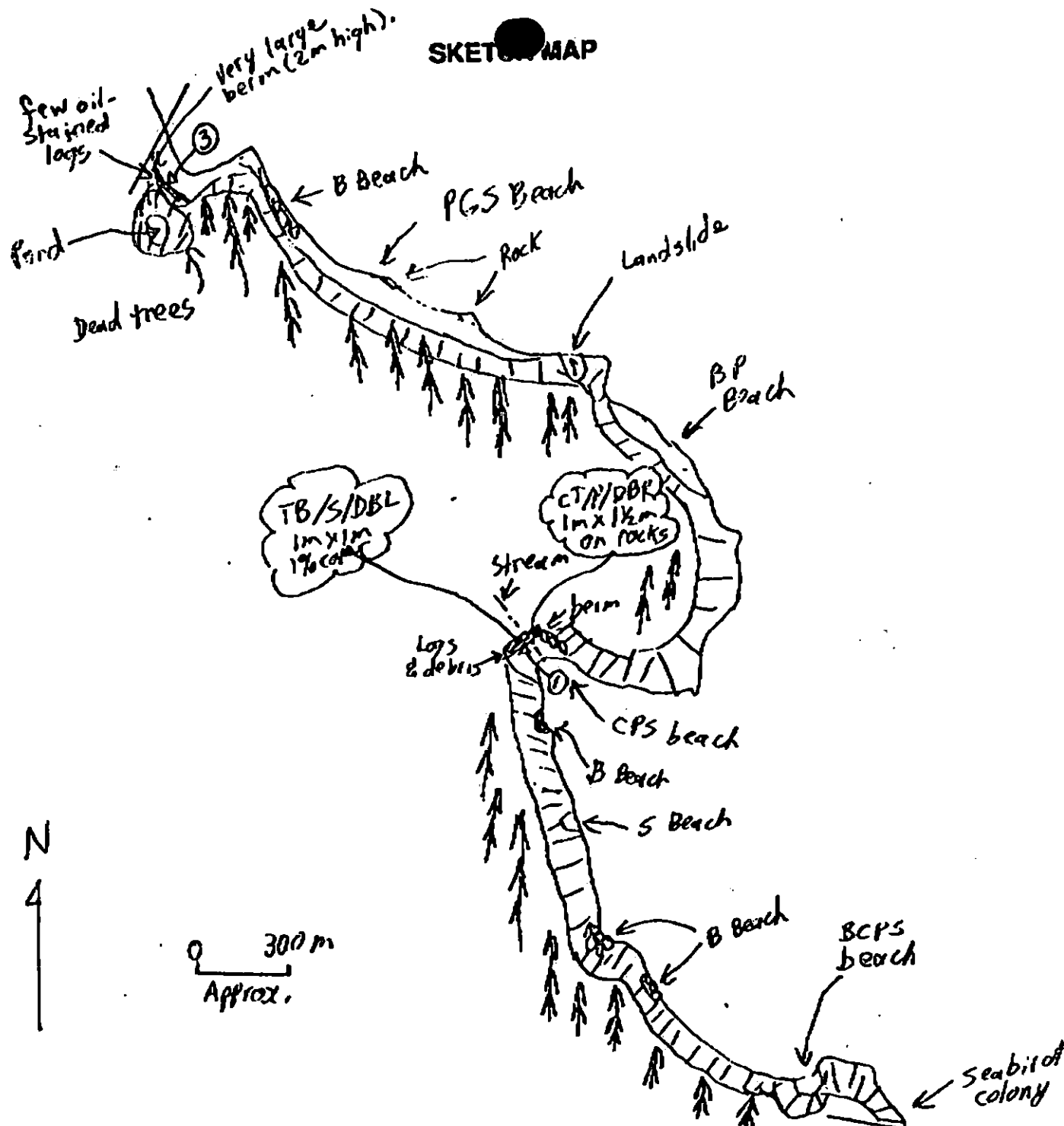
CHECKLIST

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

LEGEND

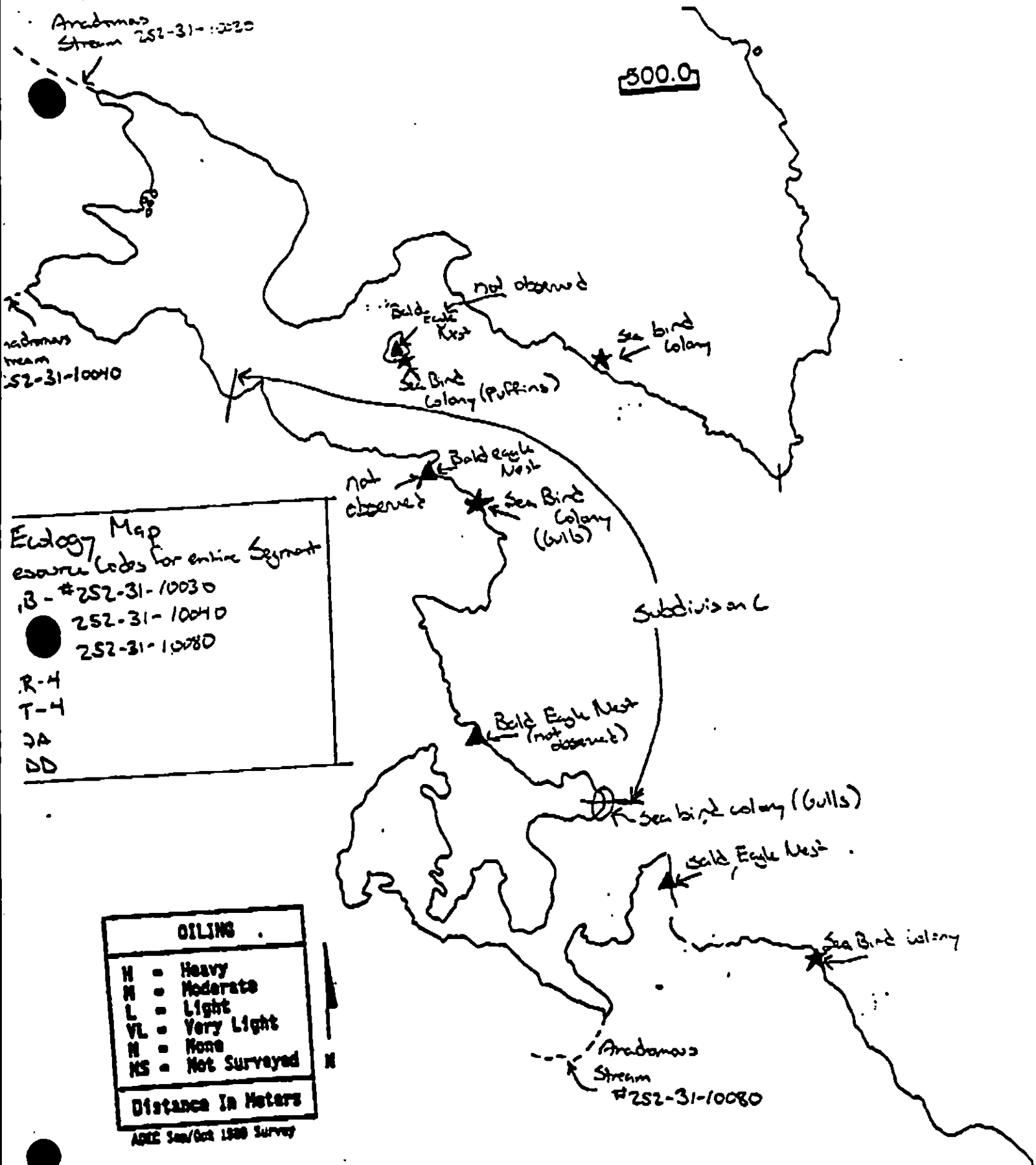
- 1 Δ
No Subsurface Oil
- 2 Δ
Subsurface Oil
- CT/C
Continuous Distribution
- CT/B
Patchy Distribution
- CT/P
Scattered Distribution
- CT/S
Isolated Distribution
- Red Vegetation
- 1 ●
Note location, direction,
and number

SKETCH MAP



Character Length (m): AP 0 PO 0 CV 0 CT 1 ST 0 MS 0 PT 0 TB 1 FL 0 NO 8,715

REVISION: 02/24/90



K0303-IB008

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST-19-100 Subdivision C Date (mo / day / yr) 5-27-90

Time (24 hr) 10:30 Biologist David Lohr

(A) Substrate type and % of segments:
(1) Bedrock 55 (2) Boulder 10 (3) Cobble 10 (4) Pebble 10 (5) Sand 15 (6) Silt

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

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

Photographs: Roll No. ST-19-100

Frames 21

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

See page 2

Ecological Considerations:

Streams 252-31-10080 } none in subdivision
252-31-10040 }
252-31-10080 }

(not marked on USFWS map)

IR - 2 gull nesting colonies in subdivision, one of which was on boundary with subdivision B.
Puffin nesting colony located on nearby offshore island.

Shoreline Ecological Summary

Segment ST/K3-3/IB-8

Subdivision C

5-27-90

Biologist: David Cohen

1.21.1c Observations/General Comments

Present in low intertidal: *Alaria*, *Anthopleura*, *Epiactus*, *Katharina tunicata*, *Iridea*, *Scytosiphon*, unknown filamentous red (Dayse?), *Henricia*, yellow sponge, *Nucella*, *Rhodomenia*, *Halosaccus*, *Ulva*, *Laminaria*, unknown encrusting bryozoan, *Porphyra*, unknown orange, colonial ascidian

mid intertidal: *Rhodemelia*, *Rhodomenia*, *Scytosiphon*, *Emplectonema*, *Ulva*, *Porphyra*, *Endouladia*, *Gloiopeltis*, *Halosaccus*, *Alaria*, unknown filamentous red (Dayse?), *Iridea*, *Cladophora*, *Katharina*, *Orchestoidea*

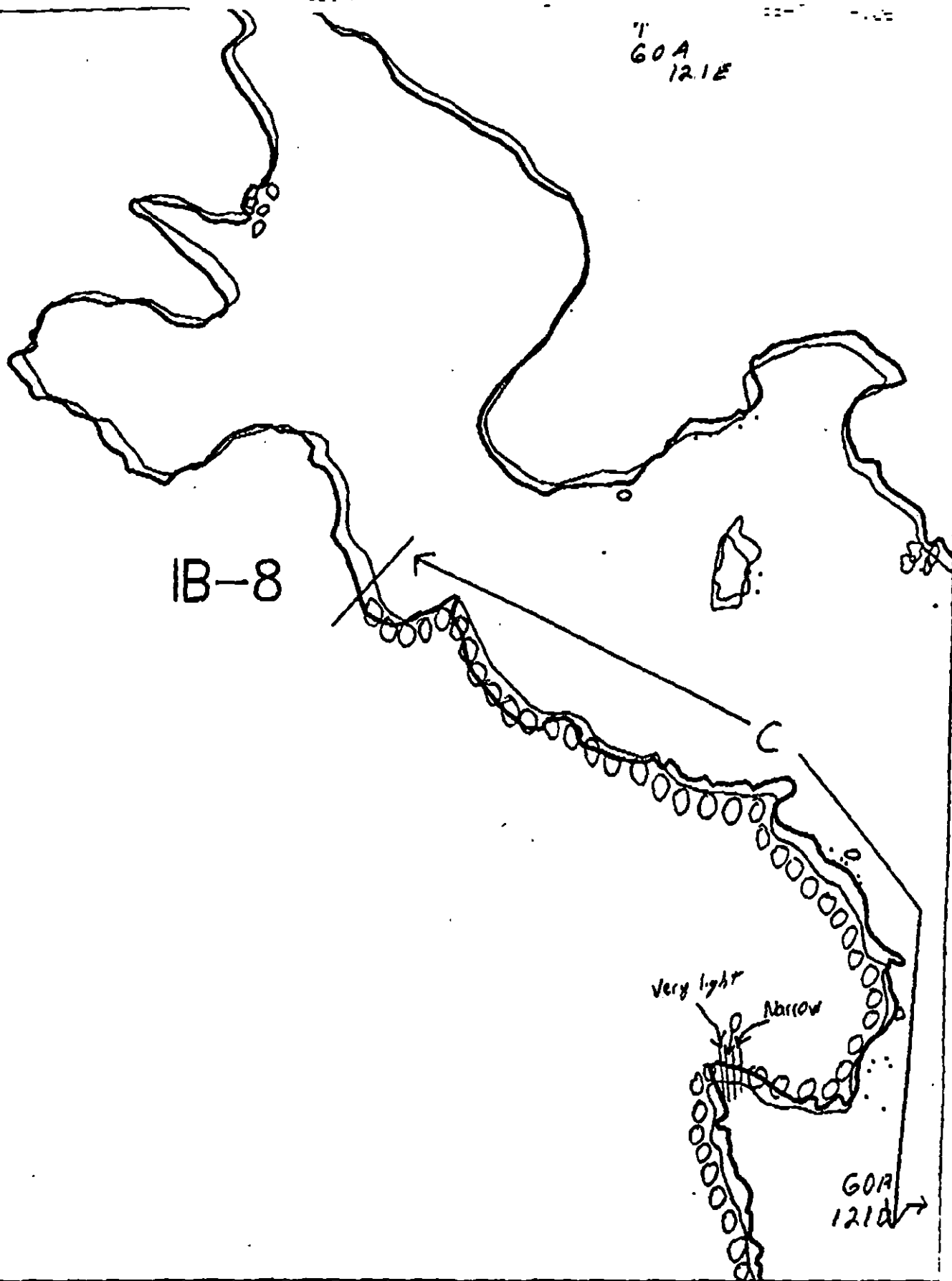
high intertidal: *Cladophora*

2. ~8 sea otters (at least one had a pup), 1 Fox, several Guillemots and Harlequin ducks, 1 raven, and 3 cormorants observed in area.

3. Algal cover in low intertidal ~~was~~ bedrock was ~90%.

4. Littorina eggs found underneath mid-intertidal cobble

GOA
121E



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

IB-8

31692

ADEC Segment Length: 34632m

0 1000 2000 3000

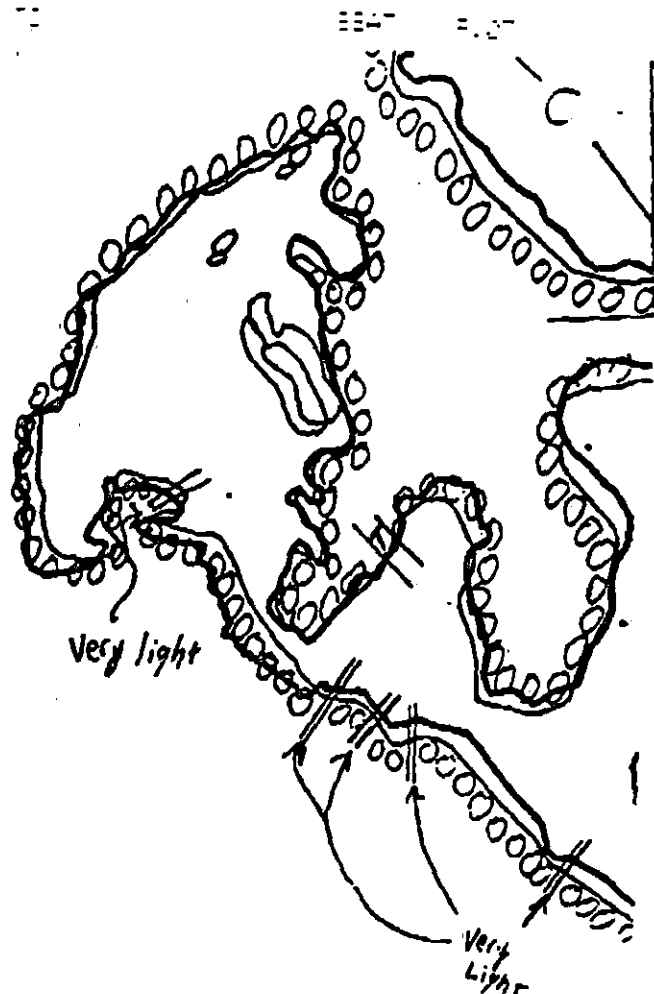


Map Key: GOA-121c

Name: J. Springer

Date: 5/27/90

Date Entered:



GOA →
1218

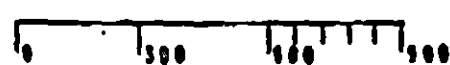
K3

DU-2

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

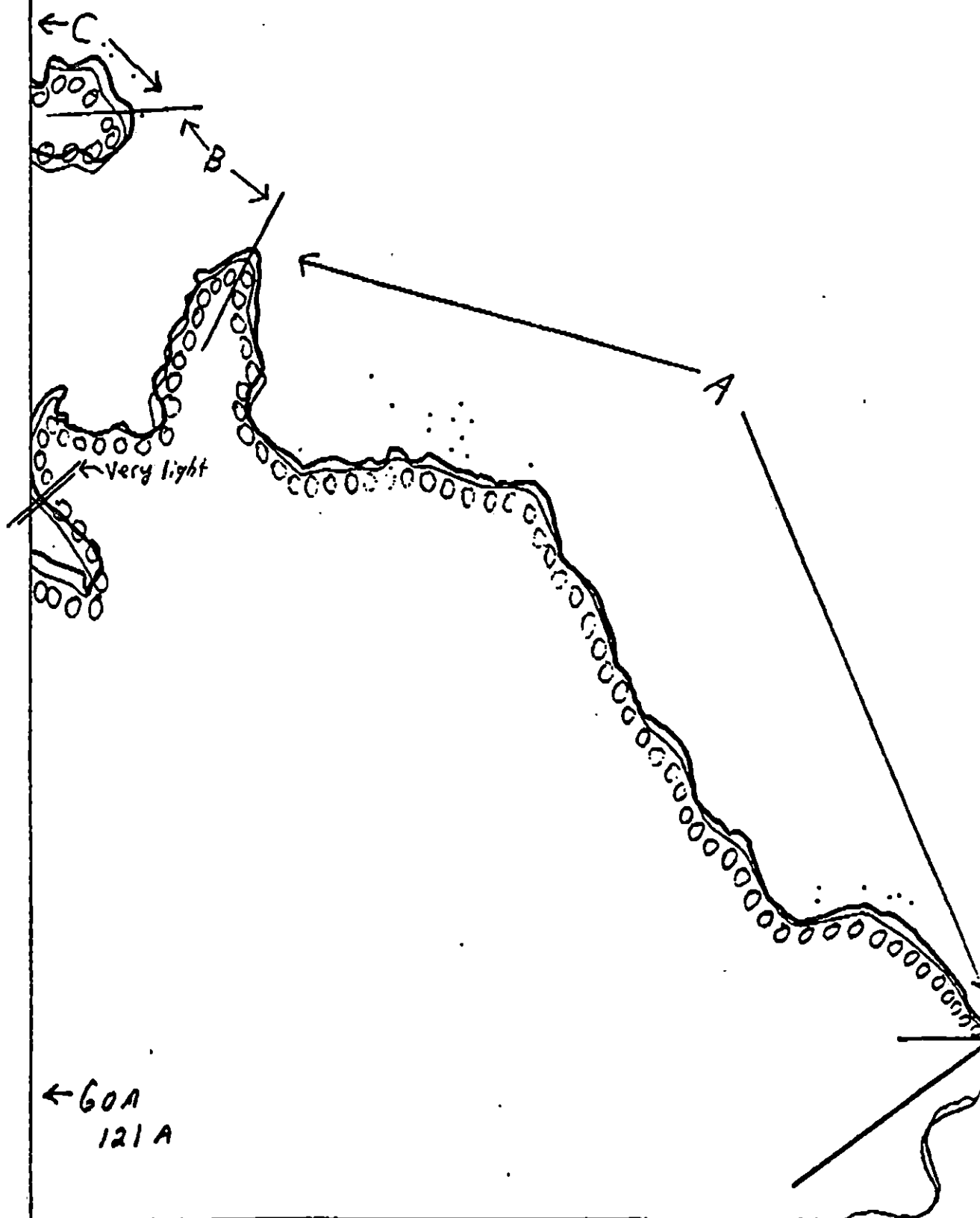
IB-8

ADEC Segment Length: 31692
~~34432m~~



Map Key: GOA-1218
 Name: J. Springer
 Date: 5/27/90
 Data Entered:

↑
GOA
121D



XXXX Wide

/// Medium

----- Narrow

TTTT Very Light

IB - 8

31,672

ADEC Segment Length: ~~34032m~~

Map 1

Name: J.S.

Date: 5/27



SHORELINE EVALUATION

SEGMENT ST/ K03-03-IB-008 SUBDIVISION D (4 OF 4) DATE 5/27/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-4 All Bald Eagle nests (3/1 to 6/1)

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

5R-4 Seabird colony (5/1 to 9/1)

1A Salmon stream mouth - fry outmigration (4/15 to 7/31)

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

(Stream ID # 251-31-10025, 10030, 10040, and 10080)

8AA Sensitive estuary

9DD Mariculture

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 11672 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 Removal	☐ Beach Cleaner
	☐ Other (see comments)

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 6/16/90

ADEC Randy Meigs R. Meigs

EXXON Andy Tera

NOAA Joseph Talbot

USCG G.A. MEYER G.A. Meyer

FOSC: ML DATE: 7-10-90

KODIAK ECOLOGICAL CONSTRAINTS

1A
1B

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

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

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

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

1C

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

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

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

1D

Kotol Bay Hatchery releases

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

1H

Remote release site

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

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

1I

Gill net area

1J

Purse seine area

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

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

1K

Purse seine hook-off

1L

Set net sites

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

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

2M

Herring spawning (4/15 to 6/30)

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

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

3P
3Q, 3Q

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

Harbor seal and sea lion molting (8/15 to 9/15)

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

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

ADF&G Don Calkins 267-2403

5R

Seabird colony (5/1 to 9/1)

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

5S

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

ADF&G Tom Roth 267-2206

5T

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

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

6U

Recreation:

Tent sites (8/1 to 9/15)

6V

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 (8/1 to 9/30)

7H

Finfish harvesting

7I

Deer harvesting (8/1 to 1/7)

7J

Invertebrate harvesting

7K

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

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

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1 I2-08 SUBDIVISION: DATE 5/27/90

NORA
USCG
NAME Tom Callahan SIGNATURE Tom Callahan

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Only 2 small patches of mousse observed along entire segment. No treatment recommended.

ADEC
NAME Francine J. Bennis SIGNATURE Francine J. Bennis

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

We observed only 2 very small patches of Mousse (4.15cm in diam.) & collected them.
We also found boom debris/pom-pom material throughout area assessed on foot. Collected 4 bags of this.

LAND MANAGER
NAME OTTO FLORSCHUTZ SIGNATURE Otto Florschutz

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

I agree with above ADEC findings and recommendations. Dead, non-oiled decomposed eagle found - see attachment #2

Attachment 2

U.S. Fish and Wildlife Service Shoreline Cleanup Disclaimer

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

SHORELINE OILING SUMMARY

REVISION NO. 04-13-90

CC Mike Foget NOAA Tom Callahan SEGMENT ST/ K0303-IB008
Heather Davis USCG Land Rep Otto Florshutz SUBDIVISION D (4 OF 4)
 EXXON ADEC Fran Bennis TIME 8:20 to 14:30
 TEAM NO. 20 TIDE LEVEL +4.0 - +2.0 DATE 5 / 27 / 90
 EST. SUBDIVISION LENGTH: 9375 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock steep rocky backshore (2m) forested
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 20 % B 25 % C 30 % P 10 % G 5 % S 5 % M 5 % V 0 %
 SLOPE: Lang 20 % Hang 60 % Vert 20 % WAVE EXPOSURE: ☒ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 9375 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	B	P	M	SP	BR	DEL	FW	GY	SL	SNR	TV	SU	U	M	L
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN				X		X							X			
MOUSSE				X								X	X			
PATTIES																
TARBALLS																
FILM																
NO OIL													X		X	X

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris	X		

DID YOU COLLECT DEBRIS?

YES ☒ NO ☐TYPE Boom; Pom Poms#BAGS 4

Photographs:

Roll No. 5Frames 7

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)	Y	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	DEL	BR	FW	GY	SL	SNR	TV	LR	SU	U	M	L						
1	20					X	-		X									X							-	-	P, R
2	30					X	-		X									X							-	-	P, S, R
3	30					X	-		X									X							-	-	C, P, S, M
4	30					X	-		X									X							-	-	P, S
5	25					X	-		X									X							-	-	P, S, P
6	35					X	-		X									X							-	-	C, P, C

COMMENTS

Shore Zone consists of high angle B/C/P beaches w/ some rocky headlands and low angle bays. No oil was observed with the exception of a few mousse balls which were manually removed (see map) also some boom material, Pom Poms and other debris were manually removed (see map).

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)	▼	SURFACE SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	UC	SW	BR	OR	OW	OT	SC	DD	TL	LR	SU	U	M	LI					
7	40					X	.		X										X						-	-	P.M.P.
8	25					X	.		X										X						-	-	C.P.S.C
9	35					X	.		X										X						-	-	P.G.S.M
10	30					X	.		X										X						-	-	P.S.C
11	40					X	.		X										X						-	-	P.G.S
12	25					X	.		X										X						-	-	C.P.S
13	35					X	.		X										X						-	-	P.G.S
							.																				
							.																				
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							.																				
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COMMENTS

REVIEWED BA7 DATE 31 MAY 92

10 Mile

SKETCH MAP

SEGMENT ST/ K0303/IB-008

SUBDIVISION 0

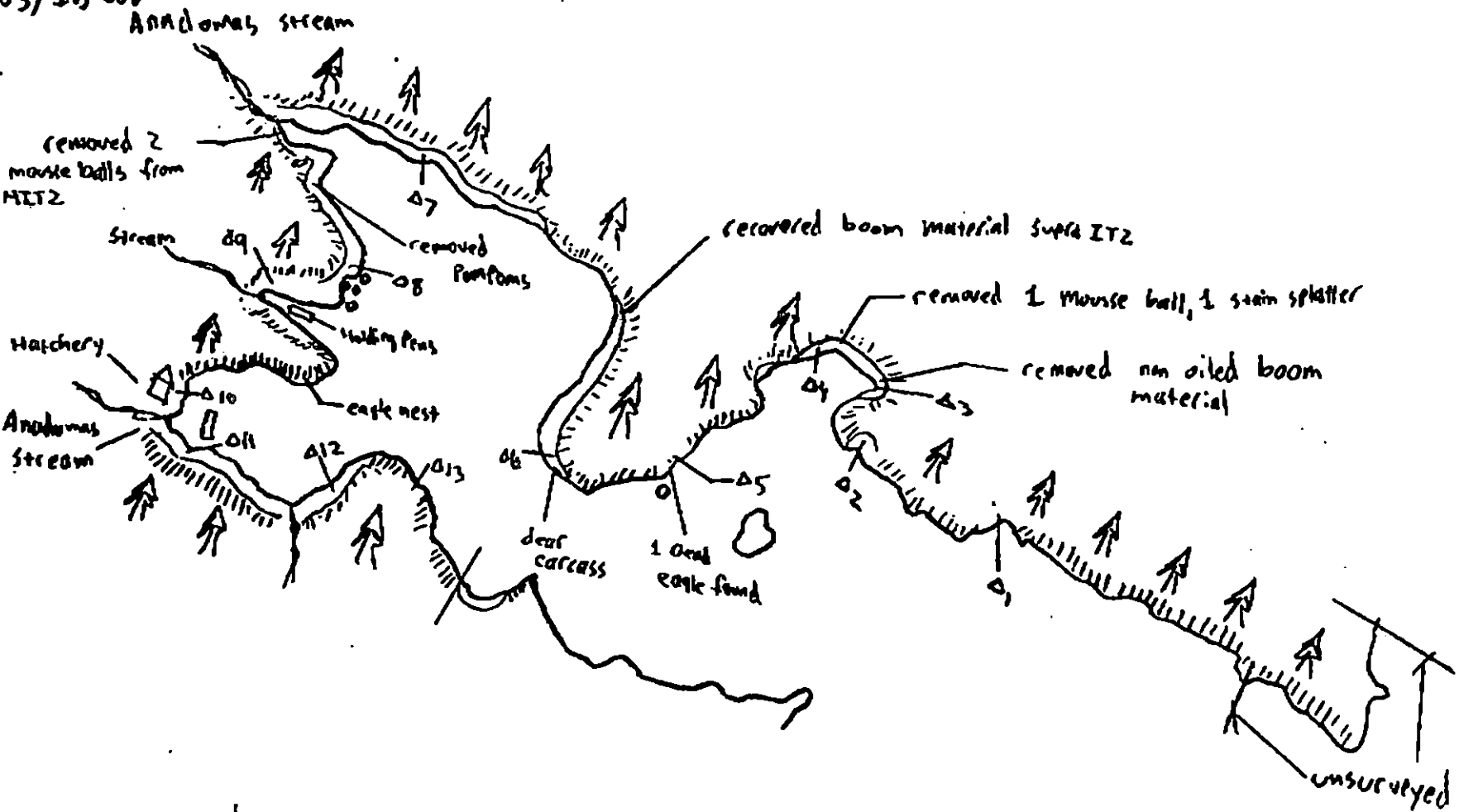
DATE 5/27/90

CHECKLIST

- ☐ M Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ OS Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HRA/LVR
- ☐ SCL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PH Location(s)
- ☐ Photo Location(s)

LEGEND

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

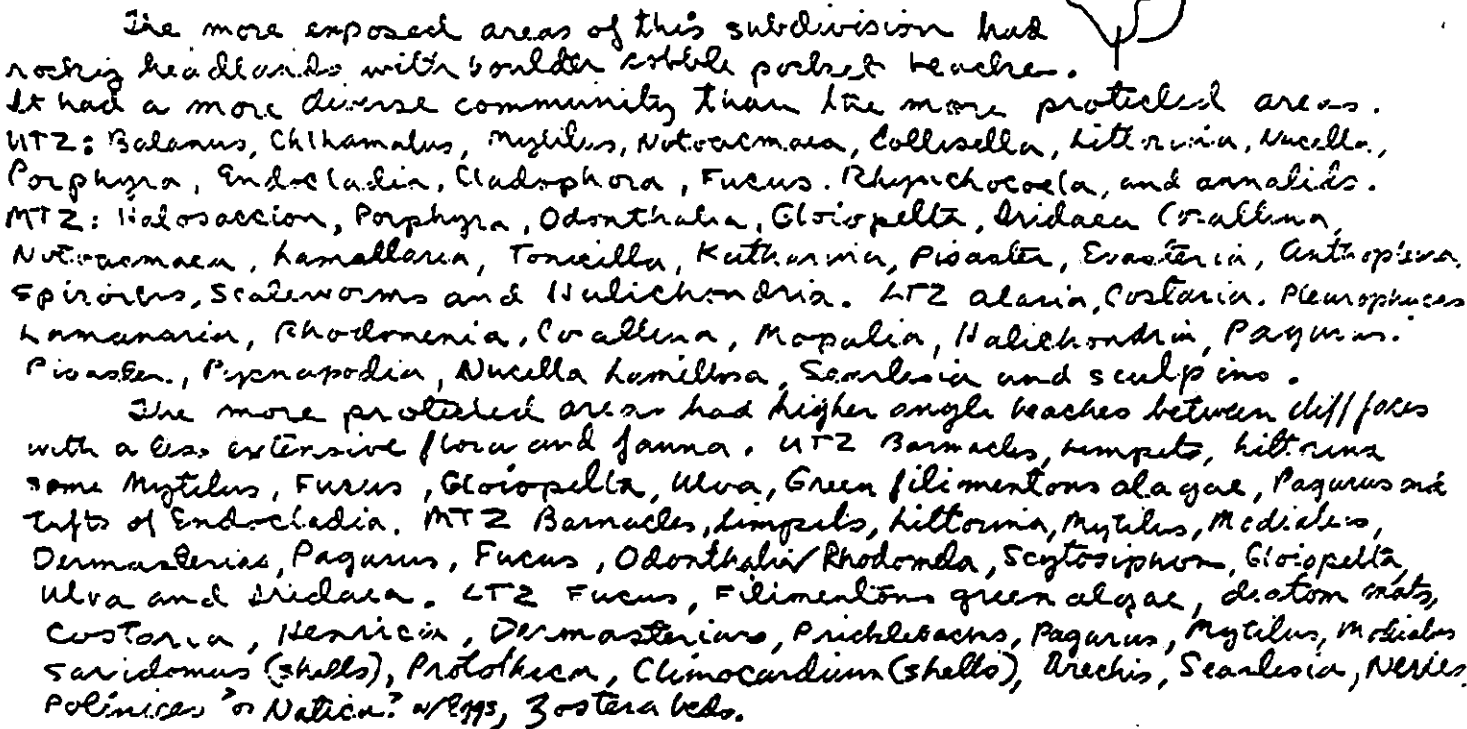


Legend

- - holding pens
- HK - steep to high angle shore zone
- ↑ - Forest

Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 0 PT 0 TB 0 FL 0 NO 9375

REVISION 02/90



SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

ment ST / K03-03 Subdivision IB-008 D Date (mo / day / yr) 5/27/90

Time (24 hr) 8:30 Biologist N. Davis

(A) Substrate type and % of segments:
(1) Bedrock 20 (2) Boulder 25 (3) Cobble 30 (4) Pebble 15 (5) Sand 5 (6) Silt 5

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

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

Photographs:
Roll No. —

Frames —

BARNACLES continuous along the segment variable in density

Dense			Moderate			Sparse			Rare			NOT PRESENT 4, 5, 6
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 Patchy

Dense			Moderate			Sparse			Rare			NOT PRESENT 4, 5, 6
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 Littorina dense - sparse, limpets Moderate - Rare, Nucella sparse

Dense			Moderate			Sparse			Rare			NOT PRESENT 4, 5, 6
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 Patchy

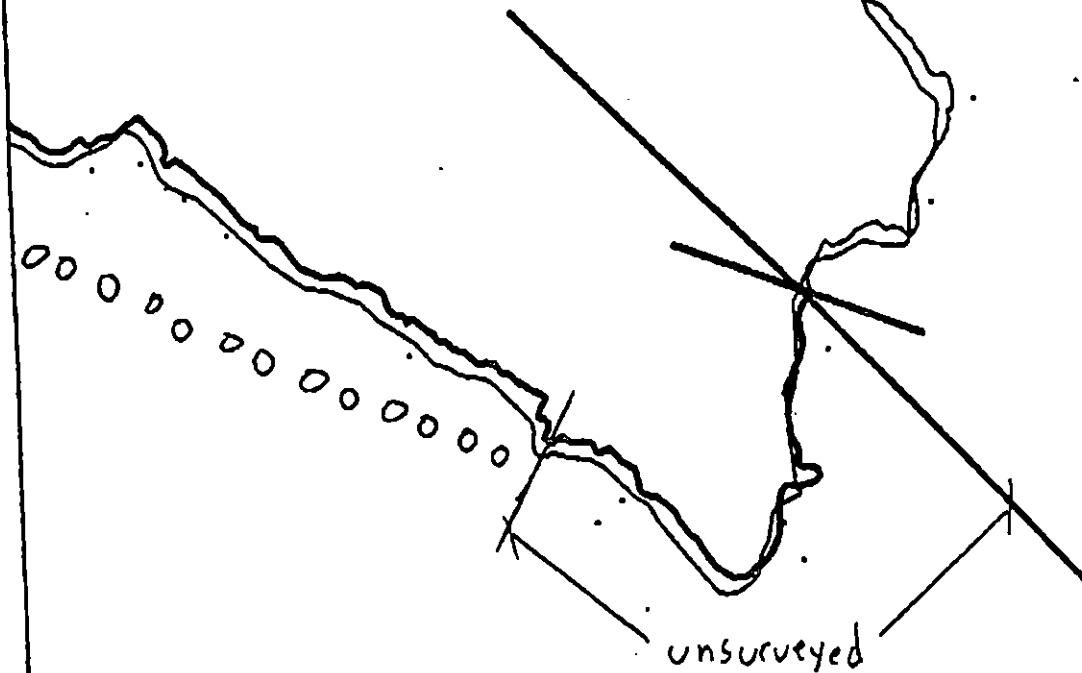
Dense			Moderate			Sparse			Rare			NOT PRESENT 4, 5, 6
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	2	2	2	2	2	
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

Wildlife Observations/ General Comments: Birds: Eagles (4 dead juveniles), Varied Tanager, White-winged Scoter, Tufted Puffins, Glaucous-winged Gulls, Herring Gulls and Goldeneye. Mammals: Bear scat, Deer scat, 6 deer antlers (Salmon, 1 pr) and Fox fragging in the intertidal.

(see Geo Map)

Ecological Considerations: ST-4, SR-4, 1A1B, 8AA, 9DD. Four Eagle Nests, Four Bird colonies on an anadromous stream, a sensitive Estuary and a mariculture area. On the portion of IB 008 surveyed for subdivision D. There was one eagle nest found, Two colony areas (Tufted Puffins and Glaucous-winged gulls), Two anadromous streams # 252-31-10040, # 252-31-10030 and a hatchery in the area surveyed.

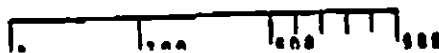
IB-10



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

IB-8D

ADEC Segment Length: 34632m



Map #
 Name Mike
 Date: 5/27



↑
GOA
121E

IB-8

GOA
121D →

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

IB-80

ADEC Segment Length: 34632m

Map Key: GOA-121c

Name: Mike Fager

5/27/80

IB-

IB-11



↓ GOA
121 C

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

IB-8

ADEC Segment Length: 34632m



Map Key: 00A-121
Name: Mike Fayer
Date: 5/27/90
Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ K06-06-NP-002 SUBDIVISION A (1 OF 1) DATE 6/17/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)

1L Set net sites

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: Rachee Jean Dore DATE: 7/2/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 16 m: No Oil 403 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: 7/02/90

ADEC Ray Morris R-12
EXXON Andy Ten Deal
NOAA Joseph Talbott JCT
USCG G.A. Reiter G.A. Reiter

FOSC: W L DATE: 7-10-90

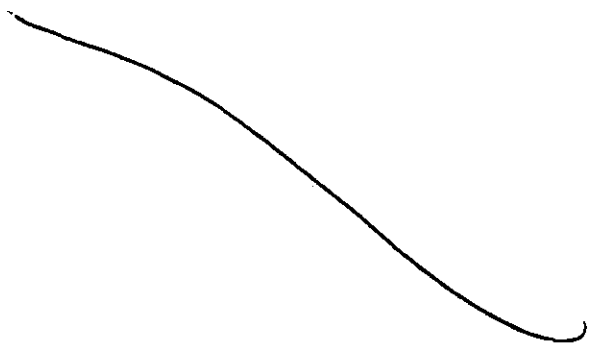
- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without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

FIELD SHORELINE COMMENT SHEET

SMENT ST / K06-06-NP2 SUBDIVISION: A DATE 17 June 1990

USCG
NAME Don Haven SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS ☐ TREATMENT SUGGESTED



ADEC
NAME Fran Bennis SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS ☐ TREATMENT SUGGESTED

No recoverable oil observed.

LAND MANAGER
NAME Sandy Tucker USF&W SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS ☐ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY

REVISION NO. 36-1290

OG Ran Party USCG Don Raven SEGMENT ST/ LDG-06-NP2
 BIO Mike Lawlett LAND REP Sandy Tucker SUBDIVISION A (A OF A)
 EXXON Tommy Tomlin ADEC Fran Bennis TIME 18:051013:00
 TEAM NO. — TIDE LEVEL +2' - +2' DATE 17 June 190
 ST. SUBDIVISION LENGTH: 400 m ☐ Sun ☐ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ¹⁰ ☒ Boat ²⁰ ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 25 % B 10 % C 15 % P 50 % G — % S — % M — % V — %
 SLOPE: Long 90 % Hang 10 % Vert — % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W — m M — m N — m VL 5 m NO 395 m

SURFACE OIL

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

PAVEMENT H F S NONE sq. m by — cmPATTIES / TARBALLS NONE BAGSNEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	NO	AMOUNT		
		SM	MD	LG
Logs	X			
Vegetation	X			
Trash	X			
Debris	X			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE —#BAGS —

Photographs:

Roll No. MF-1AFrames 1-7

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	SP	OR	OT	SL	TL	SU	U	M	U				
	NONE						.															
							.															
							.															
							.															
							.															
							.															

COMMENTS There are two substrates present in segment: well sorted sediments in pocket beaches and rocky headlands. The only oil found was cobbles with splattered coat which appeared to have been moved into the upper STZ by set netters. The cobble beaches appeared to be regularly scoured by wave action.

The survey crew talked with a set netter who reported no significant oil in the area.

REVIEWED BAT DATE 18 June 90

00 Greg Haney / Rich Marty

SEGMENT ST/ K6-06-NP2

SUBDIVISION A

DATE May 10 90

CHECKLIST

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

LEGEND

1 Δ

Fit - No Subsurface Oil

2 Δ

Fit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

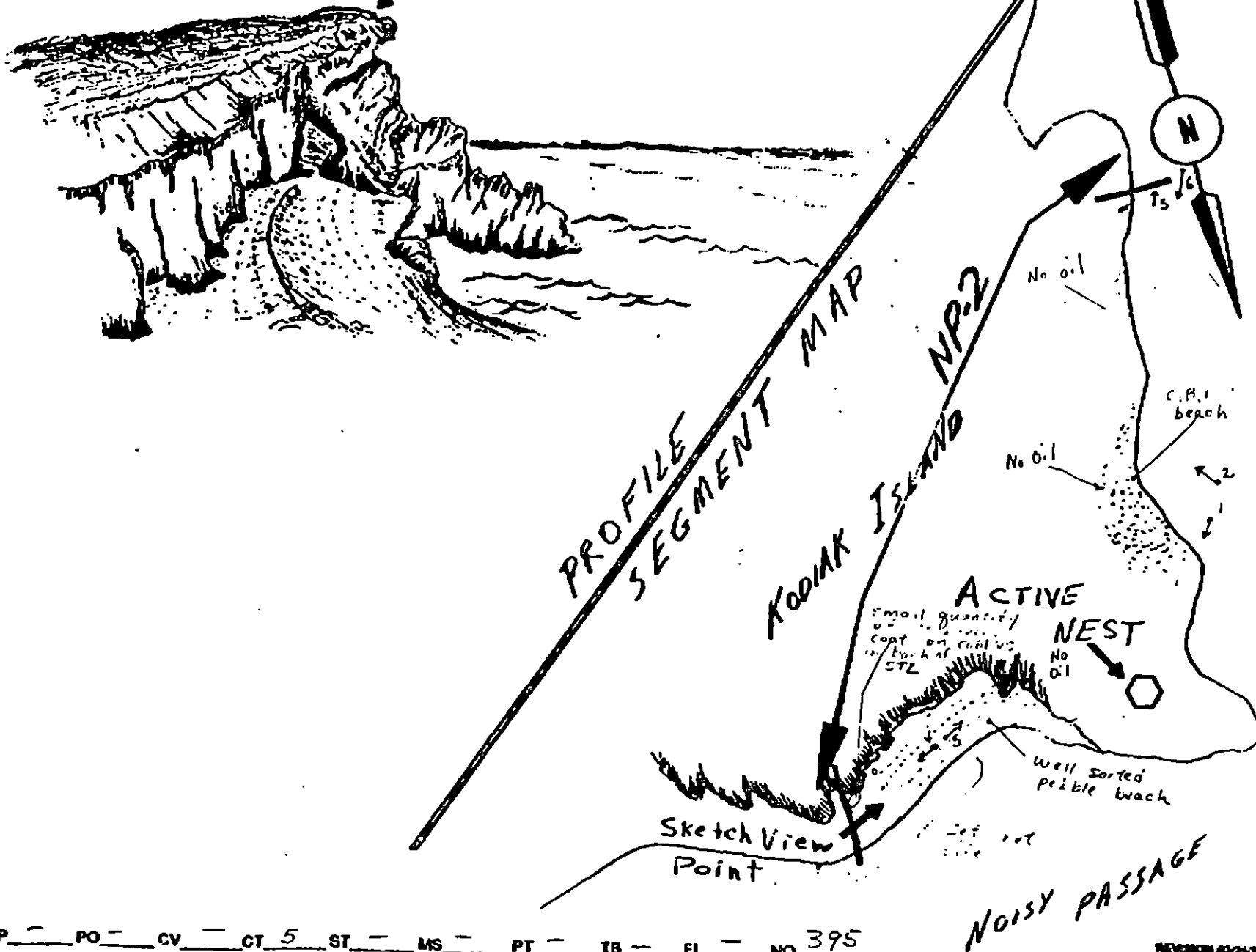
Oiled Vegetation

1 →

Photo location, direction,
and number

SKETCH MAP

ACTIVE EAGLE'S NEST



Character Length (m): AP — PO — CV — CT 5 — ST — MS — PT — TB — FL — NO 395

(4)

17 June 1990

SSAT

R. Marty

Plan to go at ~1300

USF → Sandy Tucker short short
hair south
→ meet us in Anchorage of

eagle person

USCG Tommy Tomlin - Aviation
Coast Guard 0811-872-150
vessel to -1372
2147 FAX

NP-2

North of NP2 - land in
meadow

→ Land UG-8, UG-9

10:00 Leave Anchorage on commercial
flight

11:55 Depart Kodiak on
N511 EH

For segment NP-02

Mike Juncell, Sandy Tucker
Rich Marty

17 June 1990

SSAT

R. Marty

(45)

problem with aircraft hydraulics

1730 off ground to Ugashik Bay

1300 onshore at Ten Mile Beach

Eagle met in close to landing site
Grass Ten mile beach.

1330 on board King David Head for NP-2
 Fran Remus - ADEC
 Sandy Tucker - USFW
 Mike Juncell WCC
 Tommy Tomlin EXXON
 Don Hansen USCG
 Rich Marty WCC

1405 Off segment NP-02.
MM-1A F roll #
conducted survey

1500 Return to King David

1530 Depart Ugashik Bay for Kodiak
via Sturgeon Lagoon

1730 Land Kodiak

NP-2 - 3400m

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/80

Segment ST 1K06-06-NP2 Subdivision A Date (mo / day / yr) 6/17/90

Time (24 hr) 1420-1445 Biologist Michael Fawcett

(A) Substrate type and % of segments:
(1) Bedrock 25 (2) Boulder 10 (3) Cobble 15 (4) Pebble 50 (5) Sand — (6) Silt —

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

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

Photographs:
Roll No. MF-1A

Frames 1-8

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
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
5			5	5	5	5	5	5	5	5	5
6	6		6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	⊙	2	2	X	⊙	2	2	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
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	⊙	X	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 sea otter with pup 200m offshore

1 or 2 mature eagles near point

Ecological Considerations:

No cleanup needed.

see attached sheet

segment K06-06-NP2
subdivision A
Ecological Report

6/17/80
Michael Fawcett

A diverse and healthy intertidal community typical of exposed or semi-protected coast occupies the vertical bedrock and large boulders in this segment. North of the point lies a steep, high energy cobble beach with no macro-biota. The bedrock and boulder faces show typical zonation from barnacles in the UTZ to dense mussels and Fucus with associated limpets, littorinos, etc., in the MTZ, and dense large barnacles (Balanus cariosus) in the LTZ with a dense mixture of several species of brown and red algae. Starfish (Heptasterias hexactis) are abundant beneath boulders in the MTZ. Whelks (Thais lamellosa and T. emarginata) are scattered among barnacles and mussels in MTZ and LTZ. Anemones observed include Epiactis, Tealia, and Anthopleura. Chitons (Katharina tunicata and Mopalia spp.) are common in the LTZ. No oil was observed except for some traces of weathered coat on a few rocks that had been thrown up into the supratidal area near the dwelling.

m. 6. 191 2 11/11

Fawcett

6/17/90

SSAT survey

of MP-2

depart Kodiak FRA 511 EH

1205 hrs

M. Fawcett } wec

R. Marty } wec

S. Tucker (USFWS)

John } ERA

Tom }

destination track in segment
UG 8 (Uganik passage)

to rendezvous with USCG

& ADEC reps & skiff

from Sea Trader, which
will take us to segment

MP-2 (Noisy Passage)

- Mechanical difficulty with
helicopter caused slight delay,

took off about 1230 -

- 1310, landed at beach at

Uganik pass, joined w/

USCG Rep (Don Haran) & ADEC

(Fran) rep & Tom Tomlinson,

then went by skiff to bring

David (1330 hrs), met out

out to Noisy Passage

Farewell SSAT (cont) 6/17/90
MP-2

- 1 other w/pup 200 m offshore
of segment

Landed 1425 on pocket
beach on seaward side
of point

- boulders, cobbles in
pocket beach, dense
mussels LTZ & MTZ

- equal mix of young & old
dense spat patchy MTZ

- mostly mature mussels, but
dense young as well

- patchy Littorina & algae
Ulva, Porphyra, Halimeda

- north side of point (near
fish site) - steep barren

gran/cobble beach - no birds

- st. fied south along rocky
shore - too steep to walk

- alaria, Amp. canosus
L. pascuosa under boulders

at pocket beach

- Katharina - can see dense
spat indicator LTZ

- no oil seen

Film MF 1A

1430 #12 rocky point - mussels

23 Fucus etc. - on shore

3 - MTZ-LTZ pocket beach
(downshore)

4 - view N - cobble main beach

5 - South
(Fish gear on beach)

6 - view south along rocks

7 - view north

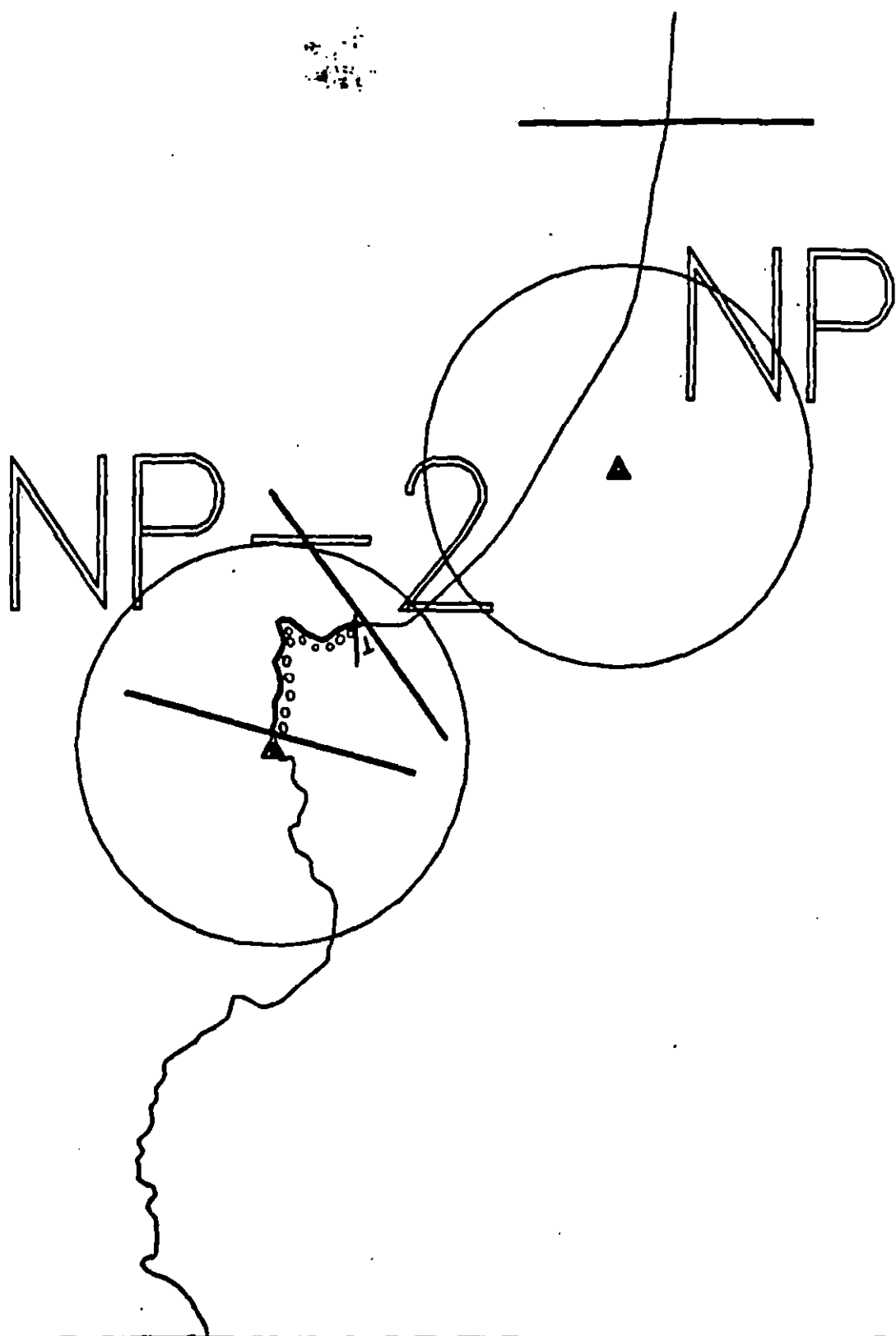
8 - toward shore from 100m
out

- no oil at all along rocky
shore some trace on a
couple of rocks thrown up
on beach by woman's house
- ~~water~~ no cleanup needed

departed 1445, got on helicopter,
went to Karluk to drop off
Tommy, Don, & Fran Bengis (HBE)
then returned to Kodiak,
arriving 0545

NP





Exxon Company, USA



ECOLOGY MAP
K0606-SEGMENT NP-2-A
400
SUBDIVISION --- (--- of ---)
METERS

★	Seabird Colony
▲	Eagle Nest

SHORELINE EVALUATION

SEGMENT ST/K0619-CK001 SUBDIVISION A* DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Sea lion pupping- 15 May to 1 July; Sea lion moulting - 15
August to 15 September. Bald eagles seen in vicinity.

SUBDIVISION ECOLOGICAL CONSTRAINTS: None identified.

SHPO SIGNATURE: Charles E. H. Jones DATE: April 5, 1990

OILING CATEGORIZATION:

 m Wide, m Medium, m Narrow, m V. Light, 753 m No Oil
Subsurface Oil Observed Yes X No Maximum Depth

RECOMMENDATIONS:

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

Comments: No oil observed by team, SSAT team recommends no
treatment.

TAG COMMENTS: Concur

TAG APPROVAL DATE: 4/5/90

ADEC JOHN BAUER John Bauer

XXON ANDY TATE Andy Tate

DAA Burl Wescott Burl Wescott

JSCG G.A. REITER G.A. Reiter

FOSC:

DATE: 4-7-90

* Subdivision covers entire segment.

SHORELINE OILING SUMMARY

REVISION NO. 03.02.90

OG Acton USCG Haven SEGMENT ST/ 16-19-CX-1
 BIO Davis LAND REP USFWS Hardister SUBDIVISION A
 EXXON Avery ADEC Bennis TIME 9:00 to 10:40
 EAM NO.: 20 TIDE LEVEL: -1.5 to -2.0 DATE 3/30/90
 EST. SUBDIVISION LENGTH: 739 m ☐ Sun ☒ Clouds ☒ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 0 % B 20 % C 40 % P 20 % G 10 % S 10 % M 0 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 739 m
 739

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	C	B	P	S	SSL BR	TSSL RW	GY	SL DBR	TL LBR	SU	UI	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		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NO

TYPE _____

#BAGS _____

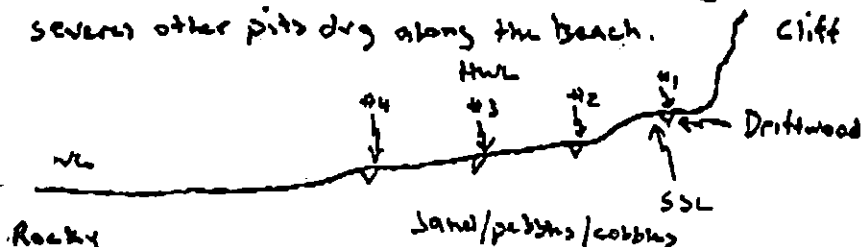
Photographs:

Roll No. 20-1Frames 16-20

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	SSL BR	DEL RW	GY BL	DRB TL	LRH	SU	UI	MI	LI					
1	40					✓	-								✓								cobbles
2	40					✓	-									✓							cobbles
3	50					✓	-											✓					cobbles
4	50					✓	-											✓					cobbles
5	40					✓	-									✓							cobbles
6	40					✓	-									✓							cobbles

COMMENTS No oil was observed in this segment. One beach transect of 4 pits was dug, with several other pits dug along the beach.



All pits approx 40-50 cm in depth
 Surveyed entire section on foot.
 Pits #2-#4 extended down to top
 of substrate, where no oil was
 observed.

REVIEWED EAT DATE 1 Apr 90

OG 12

SEGMENT 11 K6-19-CV-1

SUBDIVISION A

DATE 3 / 30 90

CHECKLIST

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

LEGEND

1 Δ

PI - No Subsurface Oil

2 Δ

PI - Subsurface Oil

CT/C

Continuous Distribution

CT/D

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

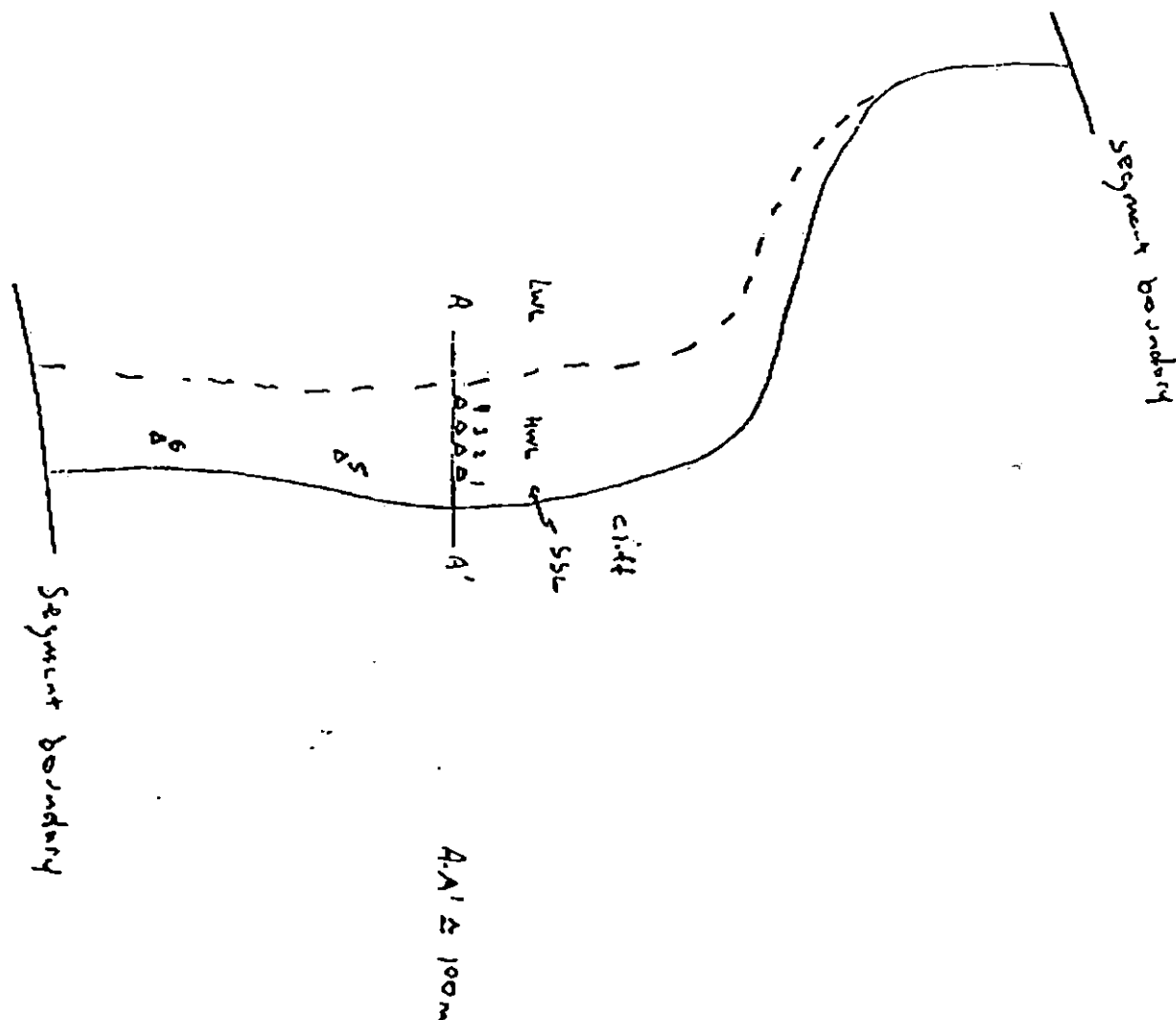
Oiled Vegetation

1 $\Rightarrow$

Photo location, direction,
and number

SKETCH MAP

North
Scale Approx. 1cm = 50m



Oil Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 0 PT 0 TB 0 FL 0 NO 750

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / K06-19 Subdivision CK 1 Date (mo / day / yr) 3-30-90

Time (24 hr) 09:15 Biologist H. Davis

- (A) Substrate type and % of segments:
 (1) Bedrock (2) Boulder 20 (3) Cobble 40 (4) Pebble 30 (5) Sand 10 (6) Silt
- (B) Overall % cover of biota (% of segment): Dense 60% Moderate 20% Low 20% (30%)
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (O)

Photographs: Roll No. 20-1

Frames 13, -21

BARNACLES

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

MYTILUS

Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	X	2	2	2	X	X	O	2	2	2	2	NOT PRESENT 1, 5, 6, 4u,
3	3	3	3	X	3	3	X	3	3	O	3	
4	4	4	4	4	4	4	4	4	4	X	4	
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	X	X	2	2	2	X	2	2	2	NOT PRESENT 1, 5, 6 4u, 4L
3	3	3	X	X	3	3	3	X	3	3	3	
4	4	4	4	4	4	4	4	4	4	X	4	
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	X	2	2	X	2	O	O	2	2	2	X	NOT PRESENT 1, 4u, 4L, 5
3	X	3	3	X	3	X	3	3	3	3	X	
4	4	4	4	4	4	4	4	4	4	X	4	
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: 5 adult Eagles in flight over Cape Kuliak.
 Deer leaving intertidal as we land. Many sets of deer tracks (8), fox tracks.
 River Otter running in intertidal. 2 Harlequin ducks feed in intertidal (10/14) 15 Gulls.
 Glaucous winged gull feeding in intertidal. Shag Seabirds. Old 3 quail. Snow shoe rabbit.

Ecological Considerations: Eagles will be nesting in the area.

3P - Sea lion pupping 15 May - 1 July

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K6-19-C6-1 SUBDIVISION: _____ DATE 3-20-90

USCG

NAME D.D. Hosen Jr, Sm3 USCG SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

No oil

ADEC

NAME Francine Beavis SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

The team walked entire segment: No oil observed

LAND MANAGER

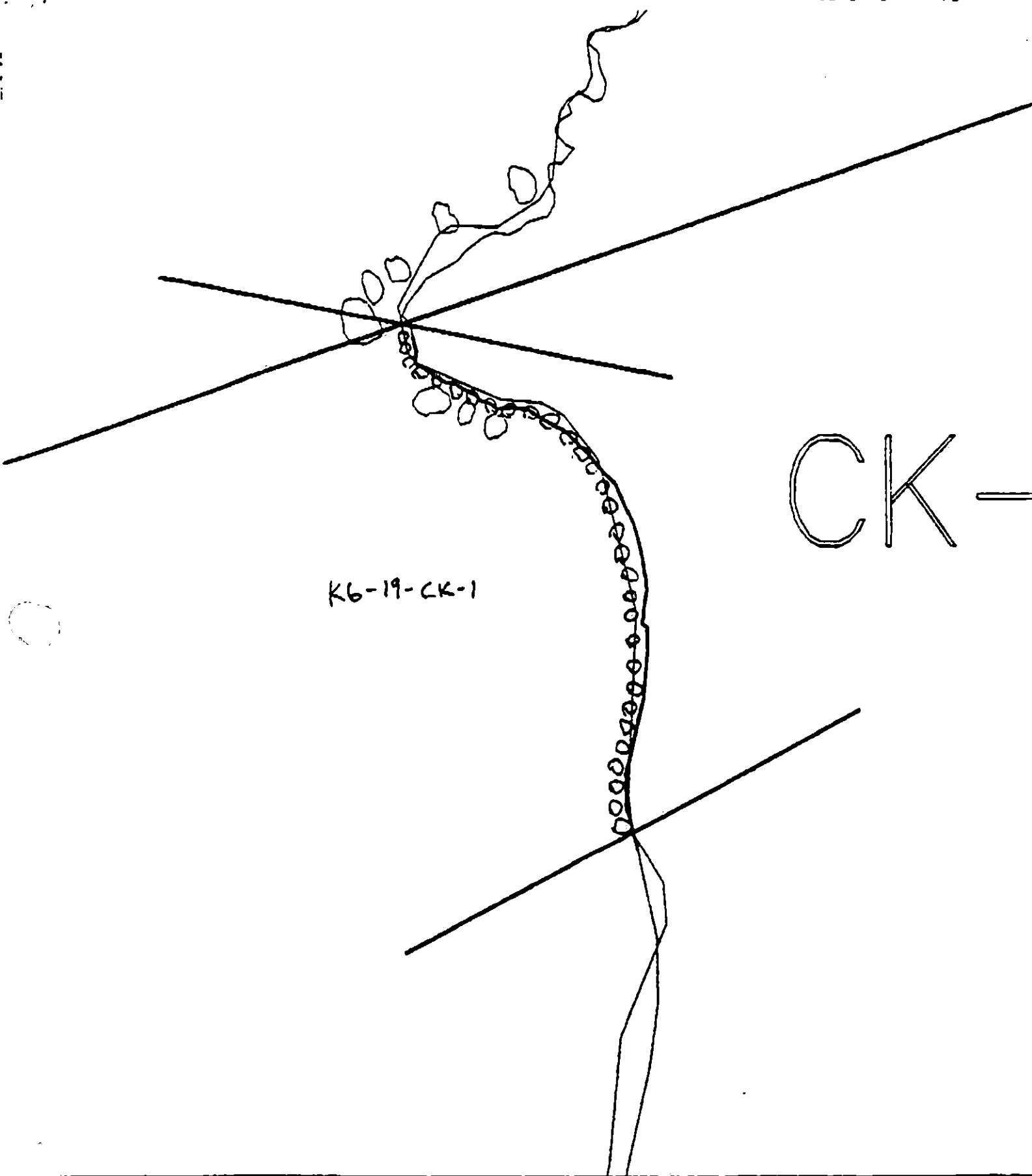
NAME JOHN P. HARDISTER SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

No oil observed



K6-19-CK-1

CK-

XXXX Wide

//// Medium

--- Narrow

TTTT Very light

CK-1

ADEC Segment Length: 753m

Map Key: GOA-54

Name: Acton

Date: 3-30-90

SHORELINE EVALUATION

SEGMENT ST/ K0619-CK03 SUBDIVISION A DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Anadromous fish stream (1A) - 3/1 to 5/15: Bald eagles
active within segment/subdivision. Anadromous fish stream
(1B) - 7/10 to 8/31.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Same as above.

SHPO SIGNATURE: Charles J. Adams DATE: April 5, 1990

OILING CATEGORIZATION:

0 m Wide, 0 m Medium, 0 m Narrow, 0 m V. Light, 4178 m No Oil
Subsurface Oil Observed Yes X No Maximum Depth

RECOMMENDATIONS:

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

Comments: Very clean; no oil observed, SSAT Team recommends no
treatment.

TAG COMMENTS: Concur

TAG APPROVAL DATE: 4/5/90

DEC JOHN BAUER
IXON ANDY TOL
NOAA Burt Wescott
USCG G.A. REITER

FOSC: W/L DATE: 5-12-90

SHORELINE OILING SUMMARY

DRAFT

Action USCG Haven SEGMENT ST/ K6-19-CK-3
 Davis LAND REP USFWS Hardwater SUBDIVISION A 0011
 EXXON Avery ADEC Bennis TIME 10:50 to 12:15
 TEAM NO: 20 TIDE LEVEL: 0 to +1 DATE 3 / 30 / 90
 EST. SUBDIVISION LENGTH: 4133 m ☐ Sun ☒ Clouds ☒ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 0 % B 10 % C 30 % P 30 % G 0 % S 30 % M 0 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 4133 m
 SAT 4133

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	U	B	P	S	SOL BR	ORL RW	CL	DEB TL	LAB	SU	UI	M	U
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT													
STAIN													
MOUSSE													
TIES													
TARBALLS													
FILM													
NO OIL										✓	✓	✓	✓

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. 20-1Frames 21-22

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-GM)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SUBSURFACE SEDIMENTS	
		OO	OR	OL	OF	NO		UO	UC	SOL BR	ORL RW	CL	DEBR TL	LAB	SU	UI	MI	LI				
1	40					✓	.									X						S/P/C
2	40					✓	.										X					S/P/C
3	40					✓	.										X					S/P/C
							.															
							.															
							.															

COMMENTS No oil was observed in this segment. One beach transect of 3 pits was dug, & several other pits dug along the beach also. Pits were approx 40cm in depth. No oil was in substrate at base of pits. Surveyed entire section on foot.

LWL 0 HWL 0 SSL 0 Grass 0

MAP-30-1990 18:45 FROM EXXON LODIAR

TO

15643771

P.08

↑
GOA
SUC

||

KG-A-CK-3

GOA
↓ SUC

XXXX Wide

//// Medium

---- Narrow

CK-3

ADEC Segment Length: 4178m

Map Key: GOA-56b

Name: Acton

↑
GOA
SLB

KG-19-CK-3

↓ GOA SLB

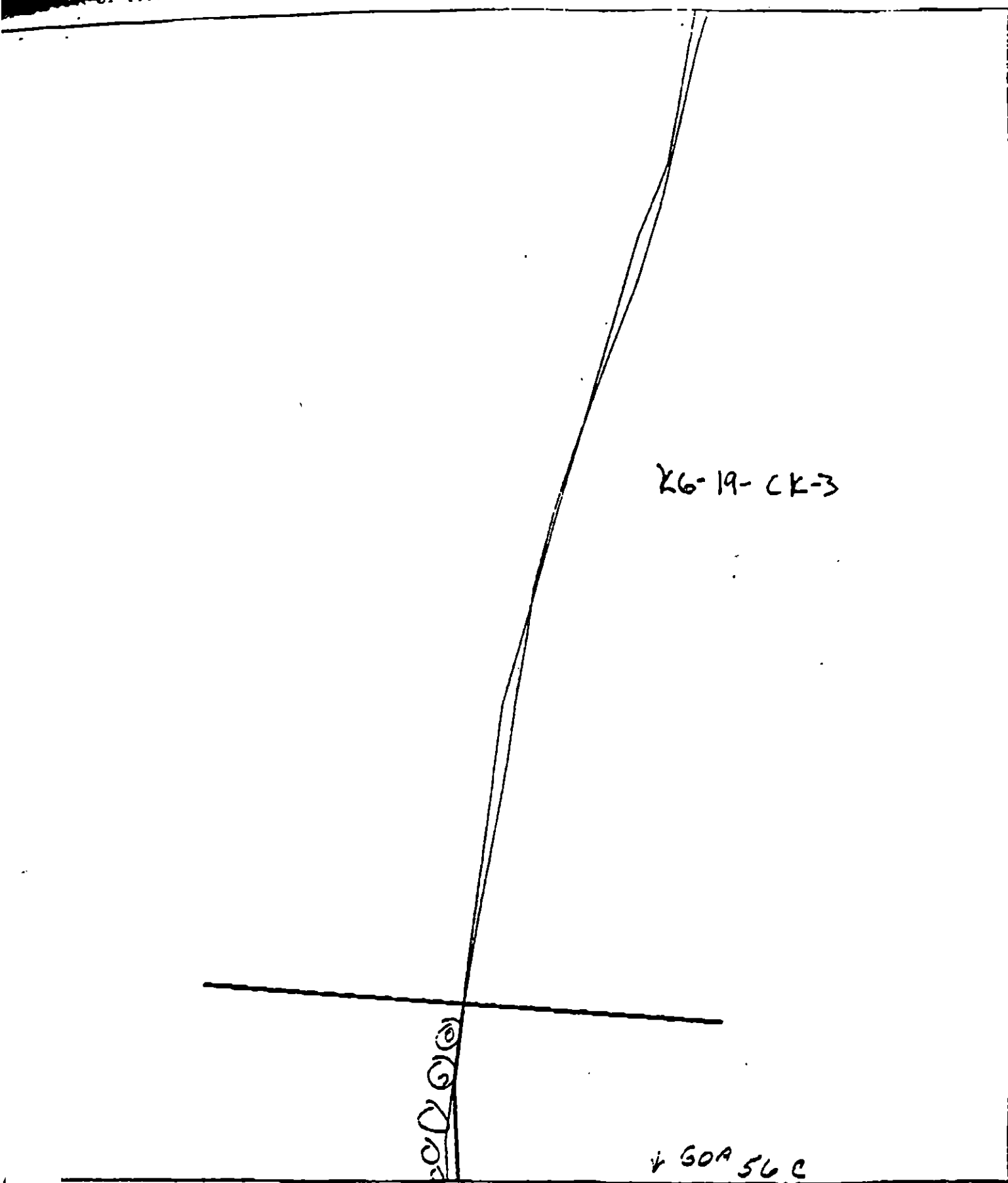
XXXX Wide
//// Medium
---- Narrow

CK-3

ADEC Segment Length: 4178m

Map Key: GOA-56c

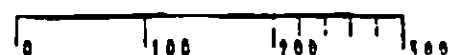
Name: Acton



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

CK-3

ADEC Segment Length: 4178m



Map Key: GOA-56d

Name: Acton

Date: 3-30-90

SHORELINE ECOLOGICAL SUMMARY

REVISION 03/22/90

Segment ST / K06-19 Subdivision CK3 Date (mo / day / yr) 3-30-90

Time (24 hr) 10:40 Biologist N. Davis

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

(B) Overall % cover of biota (% of segment): Dense 91% Moderate 40% Low 30% (25%)

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

Photographs: Roll No. 20-1

Frames 21-30

BARNACLES

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

NOT PRESENT
1, 4, 5, 6

MYTILUS

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

NOT PRESENT
1, 2, 3, 4, 5, 6

GASTROPODS

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

NOT PRESENT
1, 4, 5, 6

FUCUS

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

NOT PRESENT
1, 4, 5, 6

Wildlife Observations/ General Comments: 4 adult eagles, 1 juvenile Eagle, River Otter seen in middle intertidal. Deer tracks in upper intertidal. Harlequin ducks (3) 2♂ 1♀ 3 Surf Scoters - 2 Glaucous wing gulls.

Ecological Considerations: Anadromous stream in area, Eagles will probably be nesting in area

13 - STREAM MOUTH SPAWNING (SALMON) 16 JULY - 31 AUG

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K-6-19-CK-2 SUBDIVISION: _____ DATE 3-30-90

USCG

NAMED D.D. Hagen Jr. USCGR SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

No oil

EC

NAME Francine Benoit SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

We walked entire length of segment: NO OIL OBSERVED, except for one stained piece of driftwood in supralittoral area.

LAND MANAGER

NAME John P. Hardister SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

No oil - entire segment

SHORELINE EVALUATION

SEGMENT ST/ K06-19-CK-005 SUBDIVISION A (1 OF 1) DATE 5/9/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-3 All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
5R Seabird colony (5/1 to 9/1)
4QQ State Marine Park National Wildlife Refuge
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Rachel Jean Oden DATE: 7/16/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 1184 m: No Oil 2638 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommend manual removal of oiled debris and mousse as shown on sketch map. Work after 6/1 and/or with USFWS approval regarding seabird and eagle nest constraints and after archaeological constraint has been determined.

TAG COMMENTS:

TAG APPROVAL DATE: 5/29/90

ADEC Art Weiner Art Weiner

EXXON Andy TGA Andy TGA

NOAA Bill Wescoff Bill Wescoff

USCG G.A. REITER G.A. Reiter

FOSC: DATE: 7-18-90

KODIAK ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1 K6-19 - CK-5 SUBDIVISION: A DATE 5-9-90**USCG**NAME Kenneth M. Trable SIGNATURE K Trable☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Sporadic Cover oil on Boulders at far Southern end of Segment is recoverable. There are already work orders in nearby Segments in Spiridon Bay. Recommend manual pick up.

ADECNAME Francine J. Bennis SIGNATURE Francine J B☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Manual Pick-up Recommended

Oil is present in the form of ST, CT, CV, MS, & Mousse saturated sediments, in patchy distribution. A small clean-up crew (2-4 people) w/shovels & travel should 'police' small bights & southern 1/2 of the cone & look at area to the north of the cone to recover collectable oil, w/SSAT field map in hand.

LAND MANAGERNAME OTTO FLORSCHUTZ SIGNATURE Otto Florschutz☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

I agree with recommended manual recovery procedures. See Attachment # 2.

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

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

SHORELINE OILING SUMMARY

REVISION NO. 04.12.90

OG Greg Chaney USCG Ken Trabue SEGMENT ST/ K6-19-CK-05
 O Heather Davis LAND REP Otto Florschütz SUBDIVISION A (LOFL)
 (XON) - ADEC FRAM Bennis TIME 08:40 to 13:05
 TEAM NO. 20 TIDE LEVEL -1.5 ft 6.5 ft DATE May 19 /90
 EST. SUBDIVISION LENGTH: 3879 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 30 % C 15 % P 10 % G 5 % S 5 % M 5 % V - %
 SLOPE: Long 40 % Hang 30 % Vert 30 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 1165 m NO 2714 m

SURFACE OIL

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

PAVEMENT H F S - sq. m by - cmPATTIES / TARBALLS 4 BAGSNEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	X		
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE NONE#BAGS 0

Photographs:

Roll No. ST 20 10Frames 25 to 29

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR					PIT ZONE				A	N	SHEEN (Y/N)	T	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	VO	1	2	3	4	5	SU	U	M	L					
1	25					X	.								X						N	O	CB
2	25					X	.									X					N	O	CG
3	25					X	.								X						N	O	CPG
4	40					X	.								X						N	O	P
5	30					X	.								X						N	O	P
							.																

COMMENTS

See attached

REVIEWED BAT DATE 17 MAY 90

COMMENTS
SEGMENT ST K0619 CK05

Greg Chaney

May 9 1990

Segment ST K0619 CK05 consists primarily of the southern shore of Chief Cove on Kodiak Island. In this region splattered tar coats were scattered occasionally along the length of the segment. Also found were small patches of weathered mousse which were primarily located between boulders and "melted" into the pebble matrix down to 4 cm deep. Near pit #1 several large boulders were located which had patches of mousse cover up to half a square meter each. These patches were unusual because they were located on the tops of the boulders and not underneath. This mousse was light brown. The length of this region was about 10 meters. Mousse observed throughout the remainder of the segment was lower profile and more difficult to observe. The small island on the "tide flat" in Chief Cove had small patches of mousse distributed discontinuously along a former high tide line. These were primarily located along the island's southwest shore. Similar mousse was distributed along the mainland near the island and near photo #28. A trace of silver sheen was observed near a mousse patch which bordered a small tide pool. Near pit #5 weathered mousse was observed in bedrock cracks. The surface was dark and covered with granules and pebbles but if the surface was disturbed brown mousse was revealed. Three lightly stained logs were noted but the quantity of stain was slight. The usual uncoiled trash (plastic bottles, nets, plastic floats, etc.) were seen in the storm berm but only a small amount of oiled trash was located.

K06-19 CK- 05

5/9/90

H. Davis

SPECIES LIST

A. MARINE PLANTS

1. GREEN ALGAE - CHLOROPHYTA

Cladophora sp.

Enteromorpha sp.

Ulva sp.

Unknown filamentous green algae

2. BROWN ALGAE - PHAEOPHYTA

Alaria marginata

Agarum fimbriatum

Costaria costata

Ectocarpus sp.

Fucus distichus

Hedophyllum sessile

Laminaria dentigera?

Nereocystis leutkeana

Pleurophycus gardneri

Ralfsia sp.

Scytosiphon lomentaria

3. RED ALGAE - RHODOPHYTA

Bossiella sp.

Calliarthron sp.

Coralina sp.

Endocladia muricata

Grateloupia setchelli

Gloiopeltis furcata

Odonthalia floccosa

Petrocelis sp.

Porphyra sp.

Rhodomela larix

Unknown red algae blade

Unknown red algae filamentous

4. HIGHER PLANTS

Leymus mollis - beach rye

Zostera marina - eel grass

B. MARINE ANIMALS

1. SPONGES - PORIFERA

Halichondria panicea

Ophlitaspongia pennata

2. ANEMONES

Anthopleura artemesia

A. elegantissima

A. xanthogrammica

Epiactis prolifera?

Metridium senile

Tella crassicornis

3. HYDROIDS

Sertularidae sp?

4. FLATWORMS - PLATYHELMINTHES

Two different unknown sp.

5. NEMERTEAN WORMS

Amphiparus angulatus

Unknown sp. (bright red)

6. ANNELIS WORMS

a. Polychaetes

Nereidae

Harmothoe sp.

Nereis branti

b. Serpulidae

Crucigera sp.

Sabella sp.

Serpula sp.

c. Spirorbidae

Spirorbis sp.

7. CRUSTACEANS

a. AMPHIPODS

Orchestia sp.

b. BARNACLES

Balanus glandula

B. cariosus

Chthamalus dalli?

c. CRABS

Cancer magister

C. oregonensis

Elassochirus gilli

Pagurus sp.

Telmessus cheiragonus

Telmessus sp.

d. ISOPODS

Cirolana harfordi

Idotea wosnesenskii

Ligia sp.

8. MOLLUSCA

a. CHITONS

Katharina tunicata

Mopalia sp.

Mopalia mucosa

Tonicella lineata

b. SNAILS - GASTROPODS

Buccinum sp.

Lacuna variegata?

Littorina scutulata

L. sitkana

Neptunea sp.

N. lima, *emarginata*?

N. canaliculata

Searlesia dira

Voltharpa sp.

c. LIMPETS

Acmaea mitra
Collesella digitalis
Notoacmea scutum
N. persona
C. pelta
N. fenestrata?
Lottia sp.
Lamellaria sp.

d. NUDIBRANCHS

Lamellodoris fusca

e. BIVALVES

Clinocardium nuttalli
Macoma nasuta
Modiolus modiolus
Mytilus edulis
Pododesmus cepio
Prototheca staminea
Saxidomus giganteus
Tresus capax

9. ECHINODERMS

a. BRITTLE STARS

Evasterias truscheli
Leptasterias hexactis
Orthasterias keohleri
Pycnopodia helianthoides

b. HOLOTHURIANS

Cucumaria sp.
Eupentacta sp.
Leptosynapta inhaerens

c. URCHINS

Strongylocentrotus droebachiensis

10. BRYOZOANS

Membranipora sp.

Phidolopora pacifica

11. BIRDS

Oystercatchers (13)

Glaucous-winged Gull (20)

Mergansers (5)

Bufflehead (5)

Barrows Golden Eye (3)

Eagles (2)

Harlequin ducks (4)

Mallards (2)

Whislars Snipe

Arctic Tern (2)

12. MAMMALS

Bear (scat)

Beaver (one male, one skeleton)

Deer (tracks, scat, and skeletons)

Fox

River Otter

Sea Otter

SHORELINE ECOLOGICAL SUMMARY

REVISION 02/22

Segment ST/K06-19 Subdivision CK-05 Date (mo/day/yr) 5/9/90Time (24 hr) 08:30 Biologist H. Davis

(A) Substrate type and % of segments:

(1) Bedrock 30 (2) Boulder 30 (3) Cobble 15 (4) Pebble 15 (5) Sand 5 (6) Silt 5(B) Overall % cover of biota (% of segment): Dense 40% Moderate 30% Low 30% (60%)

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

Photographs:

Roll No. ST-20-10Frames 25-29

BARNACLES Continuous and dense to moderate

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

NOT PRESENT
4, 5, 6

MYTILUS Dense Beds along most of the segment.

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
3, 4, 5, 6

GASTROPODS Littorine sparse with some dense patches. Limpets moderate. Nucella sparse.

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

NOT PRESENT
4, 5, 6

FUCUS Moderate and dense patches continuous along segment

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

NOT PRESENT
4, 5, 6

Wildlife Observations/ General Comments: See Attached Sheet.

Ecological Considerations: ST-3, 5R. There is an Eagle nest and a pair of adult Eagles in the uplands of the segment. Glaucous-winged Gulls are nesting on the island. (Possibly Oystercatchers also). A River otter has a run and den in the bluffs. One otter nest was seen in the upland, but no other Eagles.

CHECKLIST

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

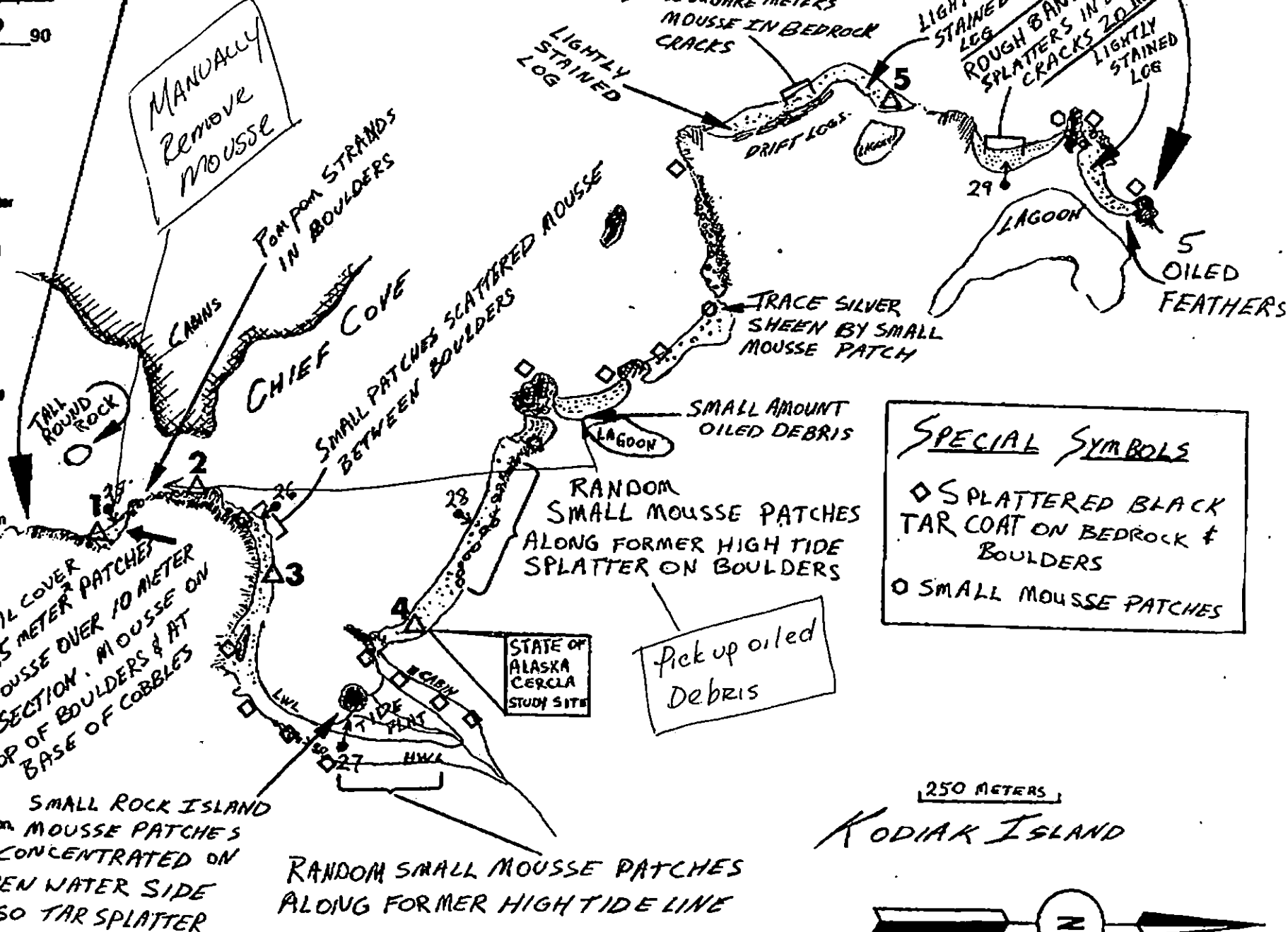
Oil Cover

Photo location, direction, and number

Oil Character Length (m): AP 0 PO 0 CV 10 CT 400 ST 0 MS 800 PT 0 TB 0 FL 0 NO 2714

SKETCH MAP

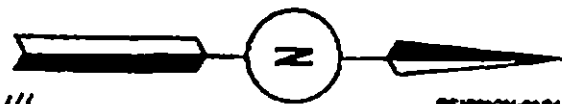
ST-K6-19-CK-05



SPECIAL SYMBOLS

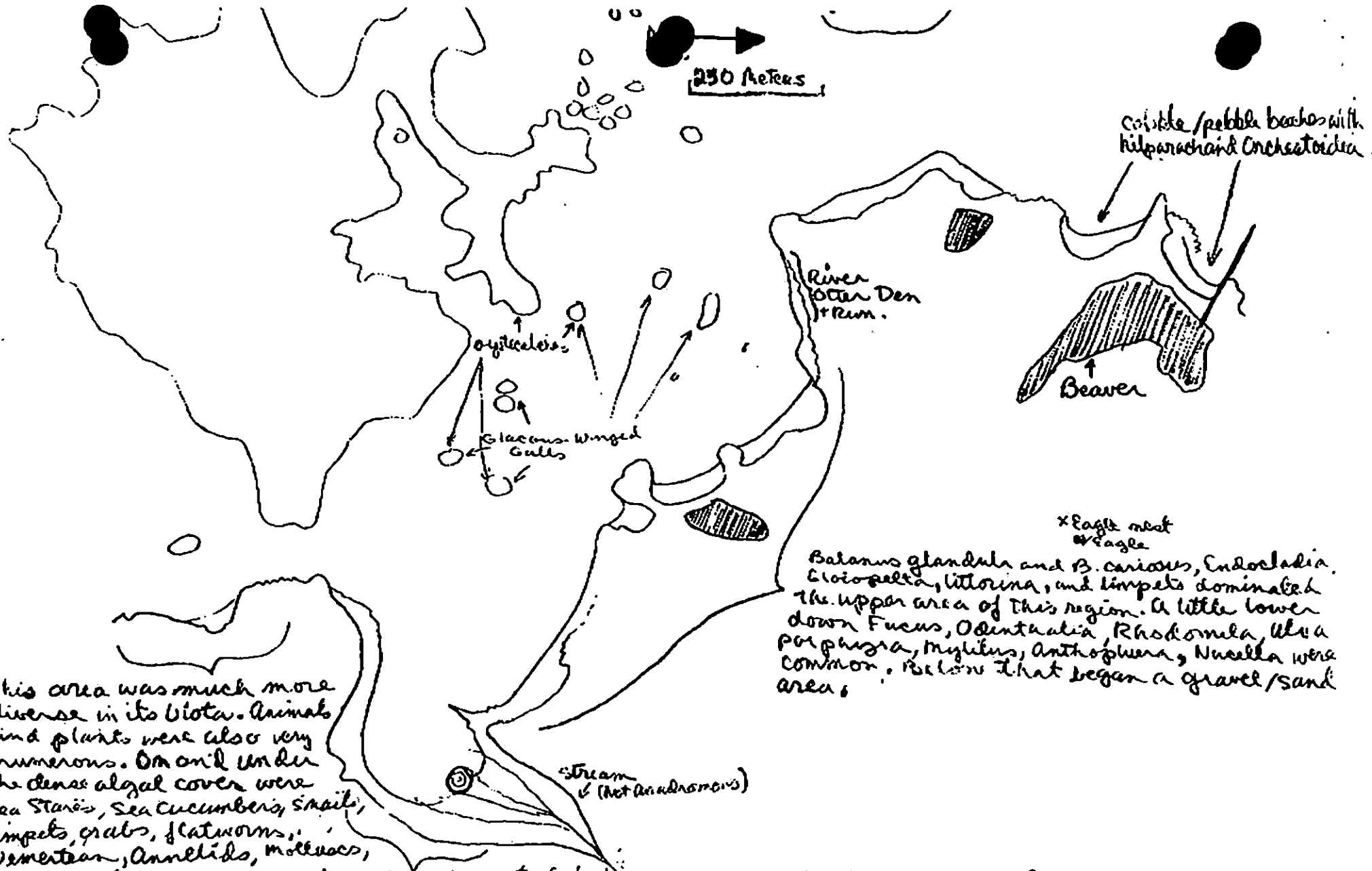
- ◊ SPLATTERED BLACK TAR COAT ON BEDROCK & BOULDERS
- SMALL MOUSSE PATCHES

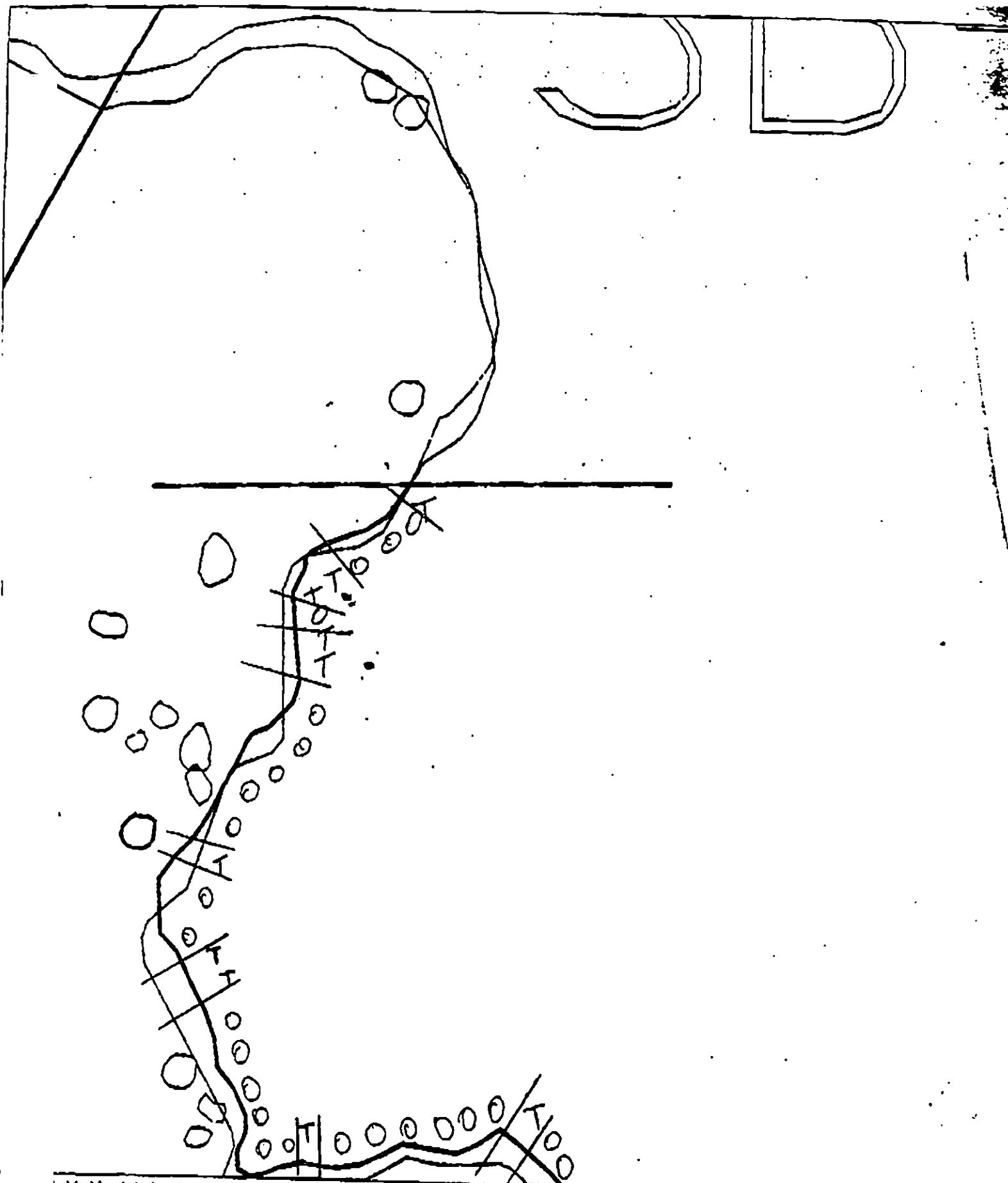
250 METERS
KODIAK ISLAND



This area was much more diverse in its biota. Animals and plants were also very numerous. On and under the dense algal cover were Sea Stars, Sea Cucumbers, snails, limpets, crabs, flatworms, Nematodes, Annelids, molluscs, Pycnogonids, Bryozoans and Tunicae. More different species more area than I have seen at any other site.

Small well protected bays. Barnacles, Littorina, limpets and Endocladia were dominant in the upper area. An extensive Mytilus bed (≈ 5 m wide) continued around the cove. Below the mussel bed was an area of Algae covering cobble. Ulva, Fucus, and an unknown red alga were the dominant algae. Prototricha, Clinocardium, and Saxidomus were present in the mud and gravel below this area. Zostera beds grew in the center of the cove.





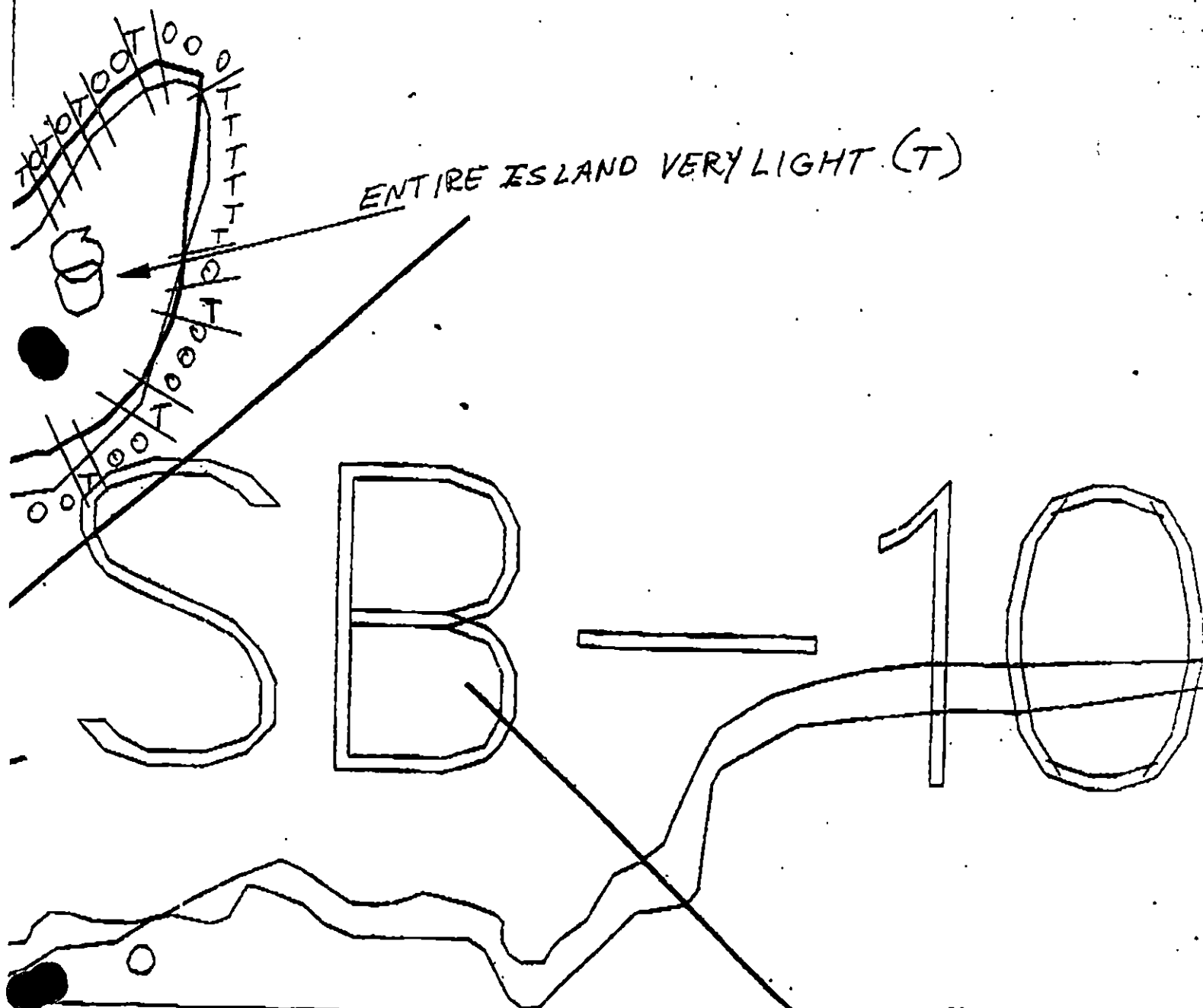
^ ^ X X Wide
 / / / / Medium
 - - - - Narrow
 T T T T

K0619 - CK-5

Approx. Segment Length: 3914m

Map Key: KOD-CK-5c

Name: Greg Chaney



ENTIRE ISLAND VERY LIGHT (T)

SB-10

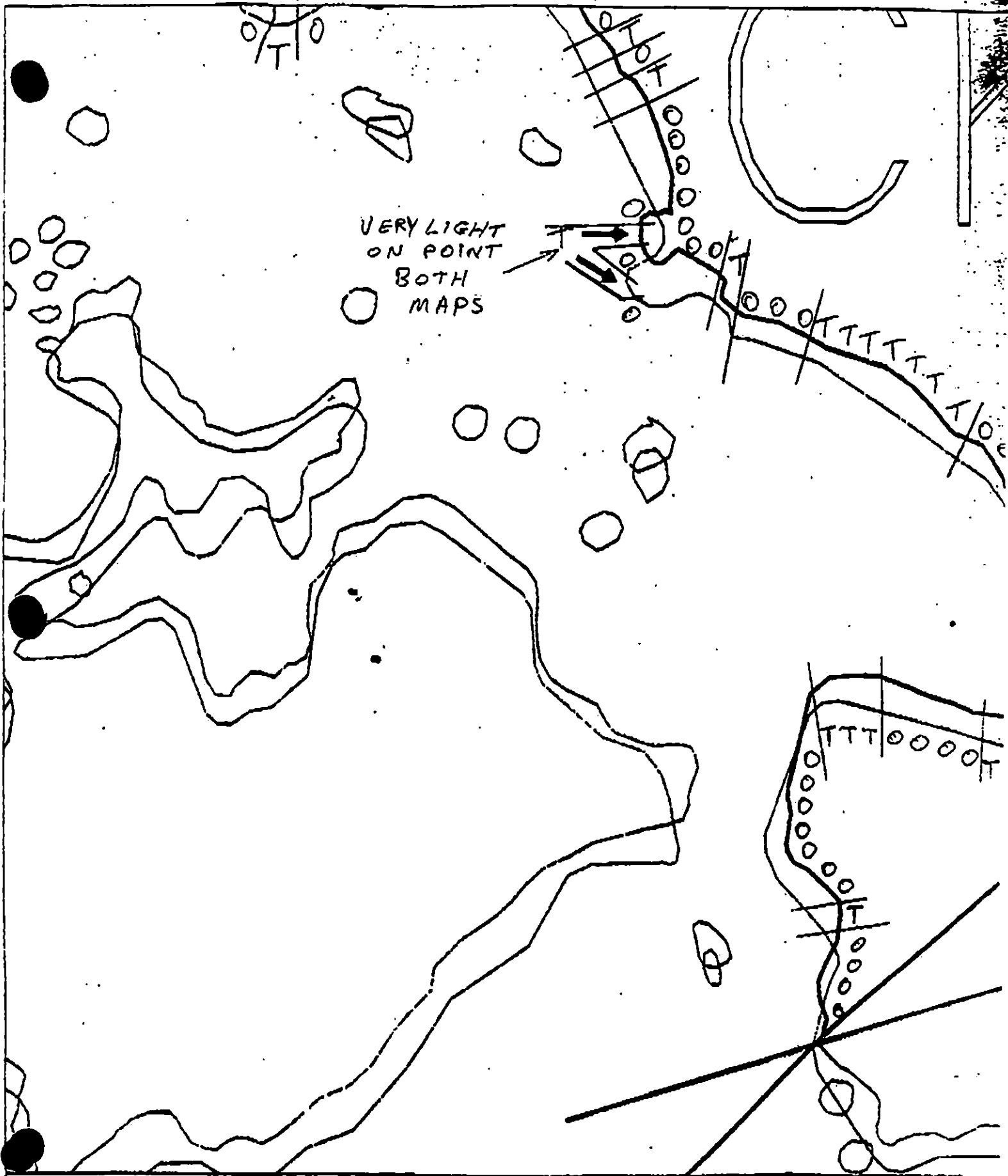
XXXX Wide
//// Medium
--- Narrow

K0619-CK-5

Approx. Segment Length: 3914m

Map Key: KOD-CK-5b

Name: Greg Chaney



XXXX Wide
/// Medium
--- Narrow

K0619-CK-5

Approx. Segment Length: 3914m

Map Key: K00-CK-5a

Name: Greg Chaney

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K06-19-CK-005 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

ARCHAEOLOGICAL CONSTRAINT: An Exxon archaeological monitor is required on-site during shoreline treatment. rmal

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

NO BEACH ACCESS PRIOR TO ARRIVAL OF ARCHAEOLOGIST

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T	Bald Eagle Nest	NO CONSTRAINT. USFWS 4/9/90 map indicates no active nest within 400m of Subdivision A work site.
5R	Seabird Colony	NO CONSTRAINT. Work site is more than 800m from seabird colony.

OTHER ECOLOGICAL CONSIDERATIONS

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

for FOSC

G.A. Reiter

Date

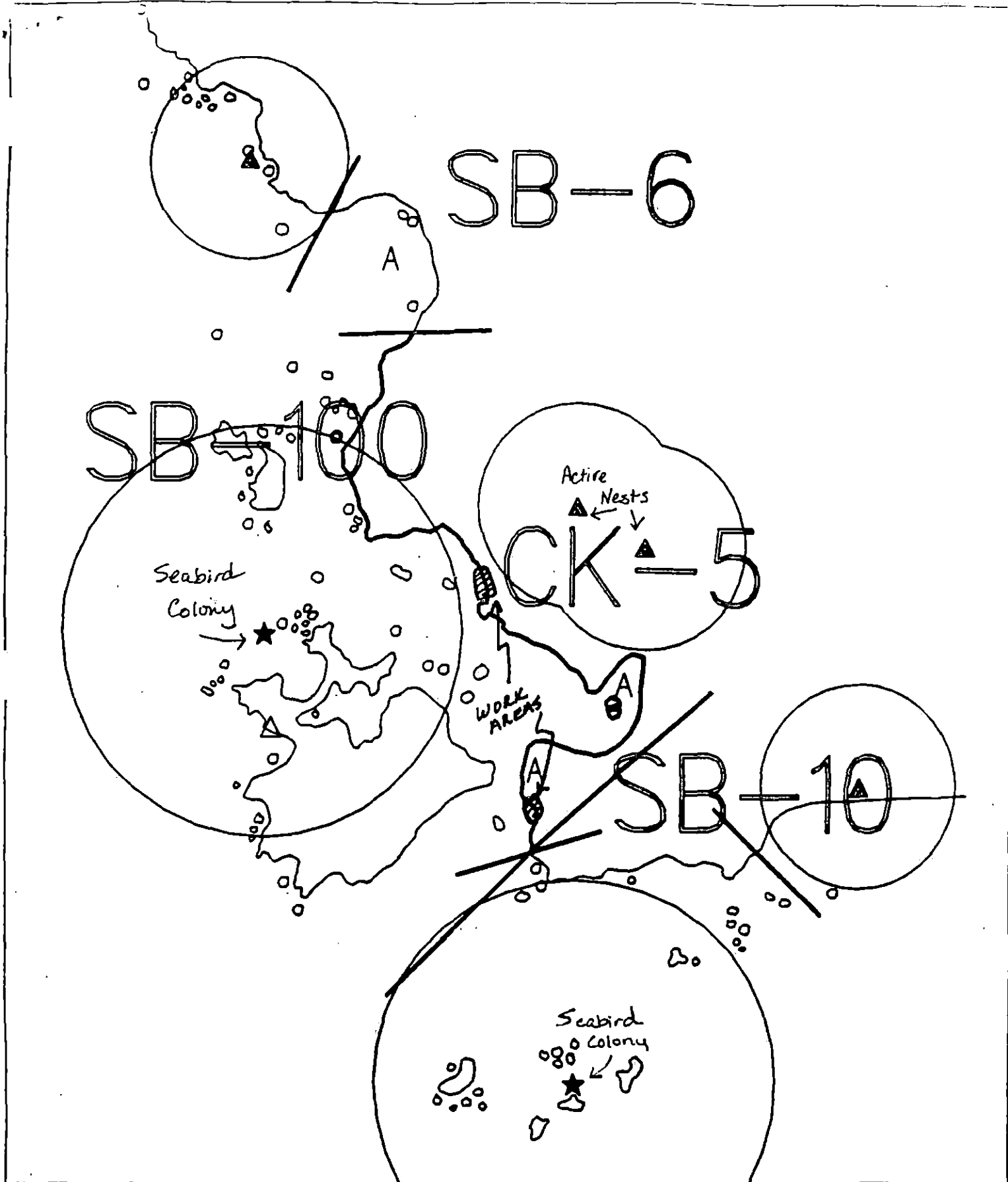
7/19/90

Prepared by

J.P. Phillips

Date

7/19/90



Exxon Company, USA
Map Key: KOD-CK-5
June 10, 1990



ECOLOGY MAP
SEGMENT K6-19 CK-5
SUBDIVISION A (1 of 1)
METERS
0 524 1048

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

1 inch = 1719 feet

SHORELINE EVALUATION

SEGMENT ST/ K0619-SB-006 SUBDIVISION A (1 OF 1) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream mouth - fry outmigration (1A) - 3/1 to 5/15; Salmon
stream mouth - spawning time sensitivity (1B) - 7/10 to 8/31;
Anadromous stream no. 254-10, ASC no. 10050.

SUBDIVISION ECOLOGICAL CONSTRAINTS: No specific subdivision con-
straints identified.

SHPO SIGNATURE: Charles E. Holmes

DATE: April 12, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 134 m: No Oil 804 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: No treatment recommended due to the very light oil class-
ification. USCG representative concurs. Remaining very light
sporadic stain/coat is weathering.

TAG COMMENTS: SPOT WASH AND BIOREMEDIATION MAY BE NECESSARY
OR MANUAL REMOVAL FMOUSE PATTIES

TAG APPROVAL DATE: 4/10/90

ADEC JOHN BAUER

EXXON ANDY KAT

NOAA Burl Wesscott

USCG G.A. REITER

FOSC: DATE: 4-26-90

No bioremediation with NW1P02

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K-6-19- S13-6 SUBDIVISION: S13-6A DATE 3-25-90NAME D.D. Huen Jr., GM3, USCGR SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

Occasional splashes ^{of} mousse. The isolated mousse is mixed with gravel and around the base of cobbles.

ADEC
NAME Francine J. Brax SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

Spontaneous mousse, mixed with sand/gravel exists in this area, as well as mousse stuck in crevices & cracks of bedrock.

A team of 2 people could remove this remaining oil in 1-2 days, or less with manual clean-up methods.

LAND MANAGER

NAME JOHN P. HARDISTER SIGNATURE _____☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

scattered patches of mousse - underside cobbles
mousse mixed with sand/gravel in cracks and
crevices.

OG Acton USCG Haven SEGMENT ST/ K6-19-38-6A
 BIO Davis LAND REP USFWS Hardister SUBDIVISION SB-6A
 EXXON Avery ADEC Bennis TIME 12:30 10:20
 EAM NO.: 20 TIDE LEVEL: +2 10 +7 DATE 3 / 30 / 90
 EST. SUBDIVISION LENGTH: 917 m ☐ Sun ☒ Clouds ☒ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S 10 N
 SURFACE SEDIMENTS: R 15 % B 15 % C 20 % P 10 % G 20 % S 20 % M 0 % V 0 %
 SLOPE: Lang 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 80 m NO 837 m

SURFACE OIL

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

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

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

Photographs:

Roll No. 20-1 20-2Frames 30-31 2-6

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	OR	OL	OF	NO	TL	SU	U	M	U		
1	15					✓	.								✓					S, G
2	15					✓	.								✓					S, G
3	15					✓	.								✓					S, G
							.													
							.													
							.													

COMMENTS Oil was observed in 2 areas of this section, at the extreme N + S ends of K6-19-SB-6. Splashes of stain, coat, and cover of very light oiling were observed in both areas, as well as sporadic mousse between some of the cobbles and boulders. Mousse was between surface cobbles and did not extend into underlying substrate. All oil observed was very light in degree of oiling (1-3 %). Pits could not be dug between boulders/cobbles in the oiled area.

DRAFT

OG Acton USCG Haven SEGMENT ST/ K6-19-SB-6A
 BIO Davis LAND REP USFWS Hardister SUBDIVISION S13-6A
 EXXON Avery ADEC Bennis TIME 12:30 10 2:00
 TEAM NO.: 20 TIDE LEVEL: +2 10 +7 DATE 3 / 30 / 1990
 EST. SUBDIVISION LENGTH: 80 m ☐ Sun ☒ Clouds ☒ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S 10 N
 SURFACE SEDIMENTS: R 30 % B 30 % C 30 % P 10 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: ~Lang 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 80 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	C	B	P	S	SL BR	DBL RW	GY	SL DBL	TL DR	SU	UI	MR	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		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NO

TYPE _____

#BAGS _____

Photographs:

Roll No. 20-1 20-2

Frames 30-31 2-6

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	SL BR	OC FW	GY SL	DR TL	LS	SU	U	M	U			
							-														
							-														
							.														
							-														
							.														
							-														

COMMENTS This subdivision is comprised of 2 sections, at the extreme N + S ends of K6-19-SB-6. Splashes of stain, coat, and cover of very light oiling were observed in both areas, as well as sporadic mousse between some of the cobbles and boulders. Mousse was between face cobbles and did not extend into underlying substrate. All oil observed was very light in color of oiling (1-3 %). Pits could not be dug between boulders/cobbles.

SHORELINE OILING SUMMARY

OG Acton USCG Haven SEGMENT ST/ K6-19-52-62
 BIO Davis LAND REP VFWs Hardister SUBDIVISION 52-62
 EXXON Avery ADEC Bennis TIME 12:30 10 2:00
 TEAM NO.: 20 TIDE LEVEL: 10 DATE 3 / 30 / 90
 EST. SUBDIVISION LENGTH: 340 m ☐ Sun ☒ Clouds ☒ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 10 % B 10 % C 10 % P 15 % G 25 % S 50 % M 0 % V 0 %
 SLOPE: Lang 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 340 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	B	P	S	SB	BR	OR	OW	GY	SL	DE	TL	SU	UI	M	U
ASPHALT																
PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL													✓	✓	✓	✓

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

PATTIES / TARBALLS 0 BAGS

NEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES. ☒ NO

TYPE 0

#BAGS 0

Photographs:

Roll No. 20-2

Frames 1

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM/IN)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SB	BR	OR	OW	GY	SL	DE	TL	SU	UI	M	U		

COMMENTS No oil was observed in this subdivision. Several pits were dug in the sand to approx 50cm in depth. Primarily low angle, low energy beach. Entire subdivision was surveyed on foot.

goa0404D.mem bat

MEMORANDUM

DATE: April 4, 1990

FROM: Bryan Trimam *BAT*

SUBJECT: Subdivision boundaries for K0619-SB006-A

Originally, the SSAT field team subdivided the segment into subdivisions "A" and "B". It was determined by the reviewer (me) and the field OG that it would be appropriate to combine the subdivisions "A" and "B" into one, now called "A". The OG resubmitted the revised form to the office on April 2, 1990.

The original forms are located in the "working copy" file in Rex Coulter's office in Suite 508, Calais II. Copies of the original "A" and "B" OG forms are included with the TAG data package.

OG ActonSEGMENT ST/ K6-H-58-6SUBDIVISION SB-6ADATE 3 / 30 90CHECKLIST

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

LEGEND1 Δ

Pit - No Subsurface Oil

2 Δ

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

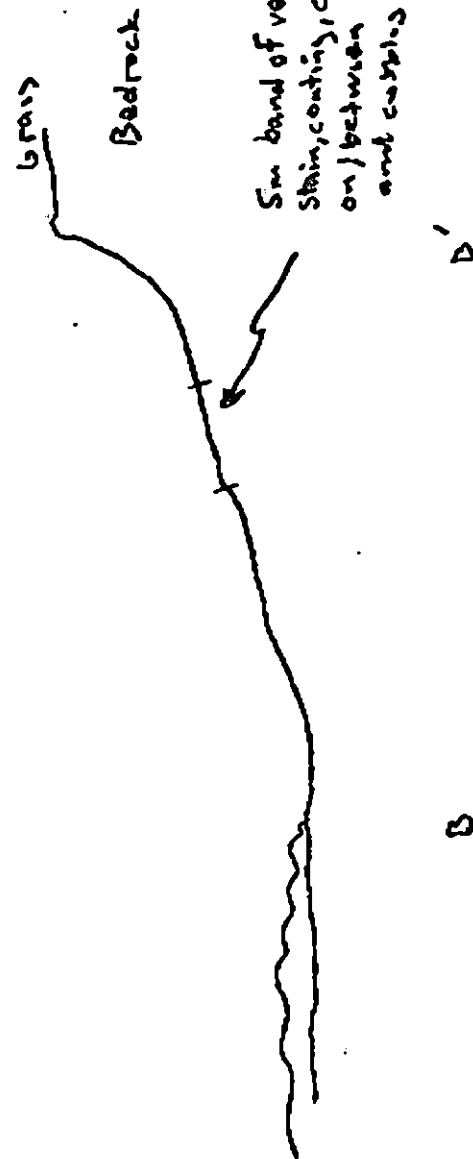
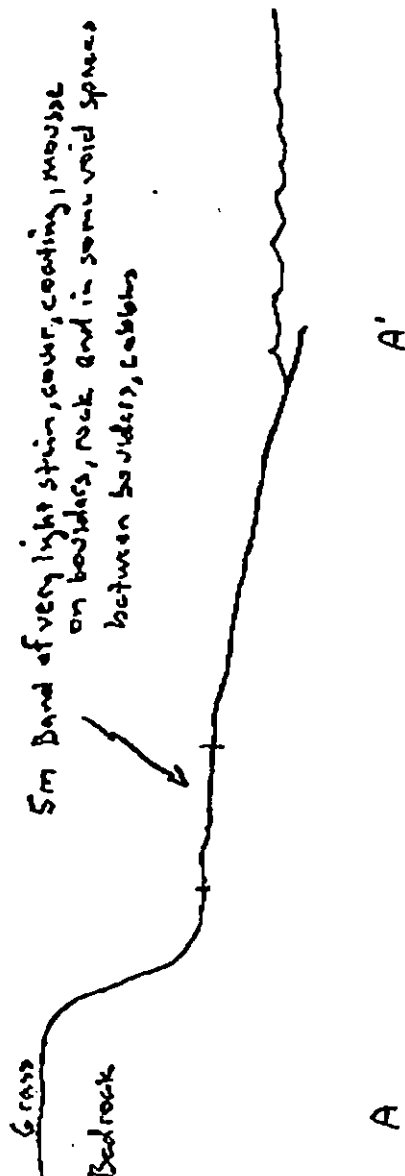
CT/S

Splashed Distribution

Oiled Vegetation

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

SKETCH MAP



OG ActonSEGMENT ST/ K6-19-50-LSUBDIVISION 50-6ADATE 3 / 30 90

CHECKLIST

☐ N Area
☐ Approx. Soils
☐ Sap/Sap Brnch
☐ Oil Det.
☐ Width
☐ Length
☐ % Cover
☐ Substrate Character
☐ Ex. HWA/MR
☐ SSL
☐ Profile Location(s)
☐ Profile(s)
☐ P/L Location(s)
☐ Photo Location(s)

LEGEND

1 ▲

P1 - Subsurface Oil

2 ▲

P1 - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

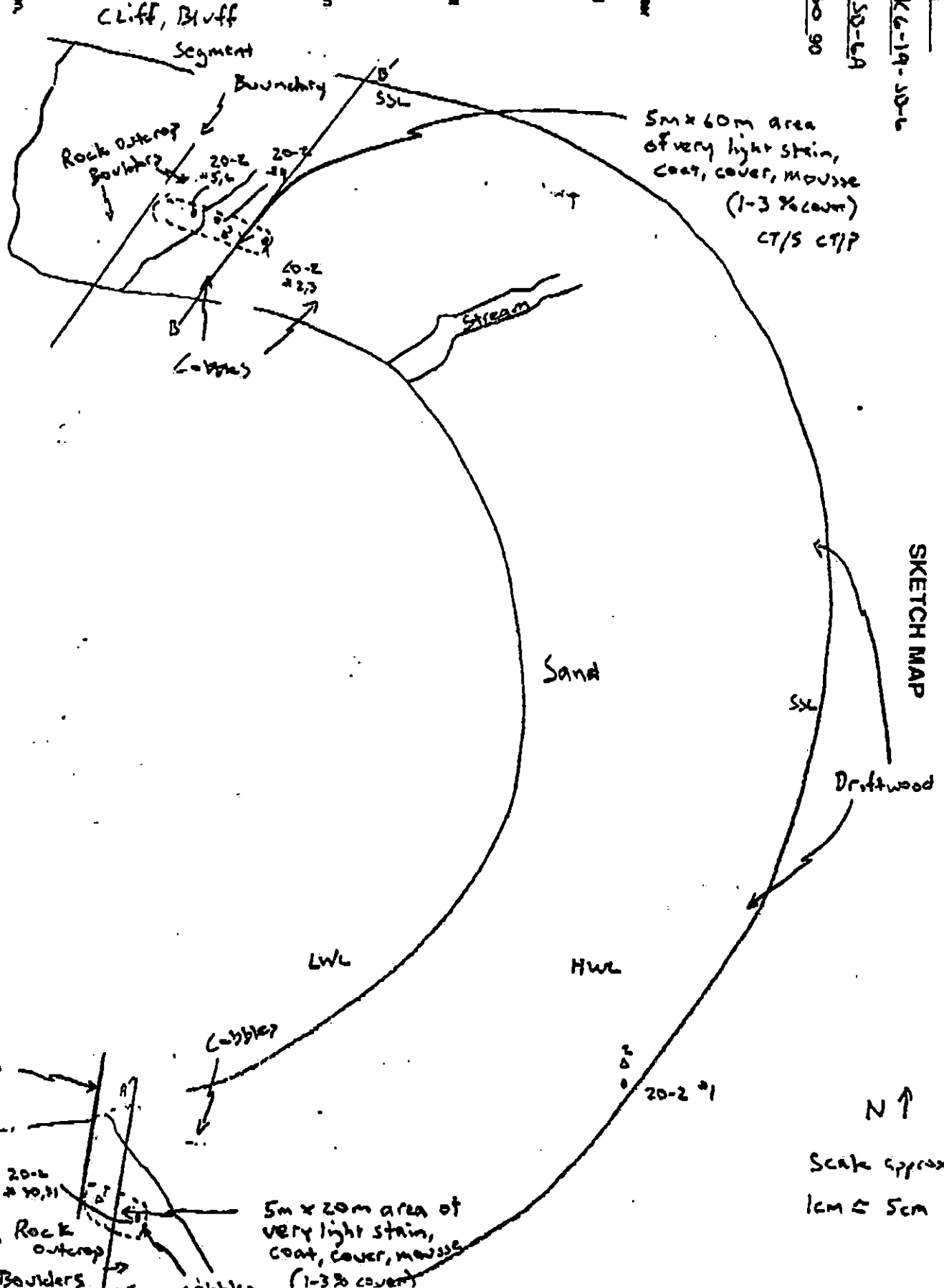
CT/S

Spaced Distribution

Old Vegetation

1

Photo location, direction, and number



Of Character: gth (m): AP PO CV 20 CT 20 ST 20 MS 20 TB FI NO 837

REVISIONS

OG ActonSEGMENT ST/ K-19-38-6SUBDIVISION S3-6ADATE 3 / 30 / 80

CHECKLIST

N Arrow
 Approx. Scale
 Sag/Side Entry
 Oil Dri.
 Width
 Length
 % Cover
 Substrate Character
 Est. HTH/LWL
 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

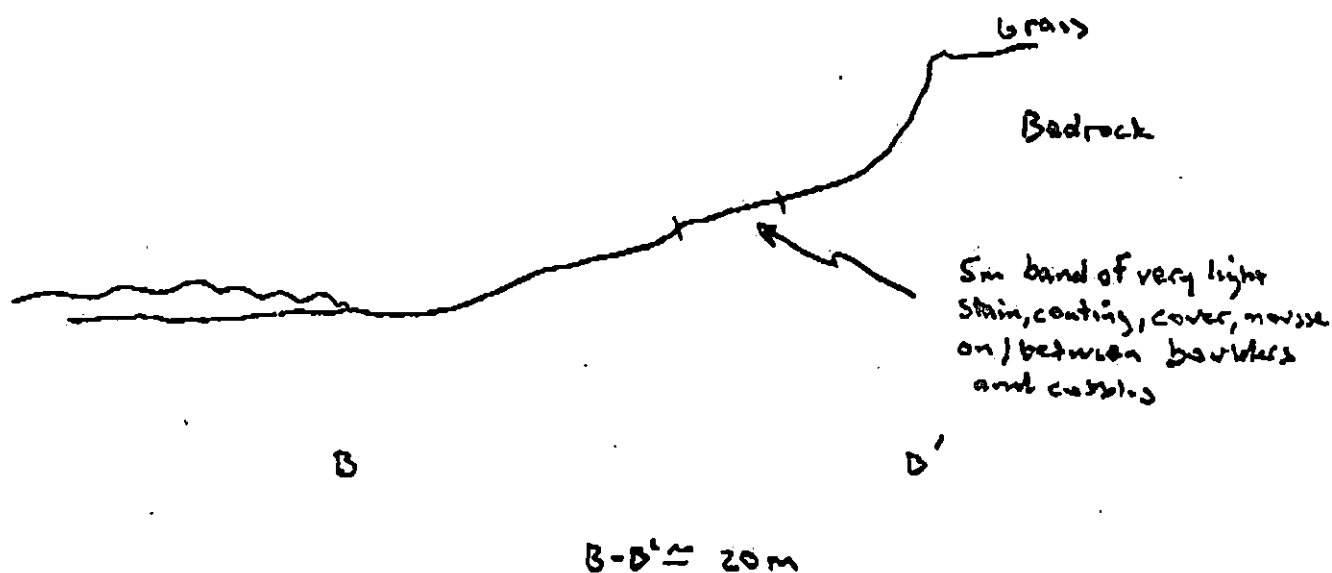
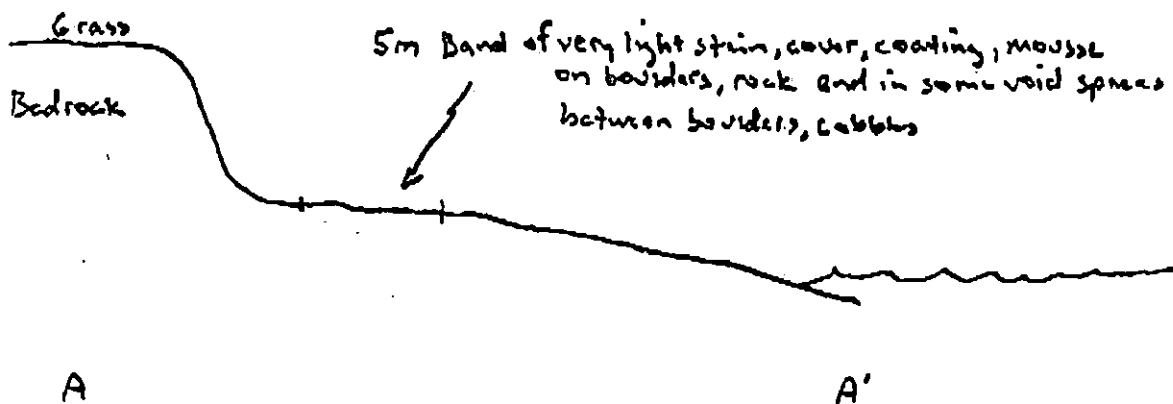
Sporadic Distribution

Obsd Vegetation

1 $\oplus$

Photo location, direction, and number

SKETCH MAP



Oil Character: Light (m): AP PO CV CT ST MS RO TB FL NO 337

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / K06-19 Subdivision SB-06A Date (mo / day / yr) 3-30-90Time (24 hr) 12:55 Biologist H. Davis(A) Substrate type and % of segments:
(1) Bedrock 15 (2) Boulder 15 (3) Cobble 30 (4) Pebble 20 (5) Sand 20 (6) Silt (B) Overall % cover of biota (% of segment): Dense 20% Moderate 30% Low 50% (20%)

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

Photographs: ST ST
Roll No. 20-1, 20-2Frames 31, 1-6

BARNACLES

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

MYTILUS

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

GASTROPODS

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

FUCUS

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

Wildlife Observations/ General Comments: Bear scat and trails on bluffs. Deer tracks and scat on beach and on the bluffs. 2 Snowshoe hares seen on bluffs.

Kelpwrack contained laminaria fucus, alaria, kelp flies and amphipods. The segment went from a rocky point to a sand beach to a rocky point.

Population of the four key species were denser on the rock areas than on the Ecological Considerations (A/B)

Set Netting is done in the area.

Anadromous stream, 254-10 ASC # 10050

Eagles nest in nearby area (CK-04-CK01)

cobble area. On the cobble sand interface area the populations were rare. The stream is anadromous, and set netting is done in the area. 2 Eagles flying over head.

K 6-19- SB-6A

SB-

SB-6

XXXX Wide

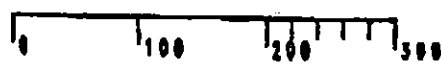
/// Medium

---- Narrow

TTTT Very Light

0000 No Oil

ADEC Segment Length: 917m


METERS

Map Key: GOA-168

Name: ActonDate: 3-30-90

Data Entered:

WORK PLAN ADDENDUM

Segment K06-19-SB-006

Subdivision A

Dated 5/16/90.

MODIFICATION

1. REASON FOR MODIFICATION

- Admirals requirement.
- Landowner recommendation.

2. ADJUSTMENT TO WORK PLAN

- Manually remove mousse.
- Neither Inipol nor Customblen may be used on this site.
- A USFWS representative must be onsite for treatment.

SHPO APPROVAL NEEDED YES _____
NO X

SHPO SIGNATURE _____

AG APPROVAL DATE

ADEC
EXXON
NOAA
USCG

ART WELING

AWAY TEAM

Gen Petros

BA-5

FOSC

DATE _____

5-18-90



ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K0619-SB-006 SUBDIVISION A (1 of 1)

ORIGINAL

WORK WINDOW	
Manual Pickup*	OPEN

*USFWS Representative must be on location during treatment.

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

ADF&G catalogued anadromous stream (254-10-10050) is more than 100m from work site. No constraint to manual pickup.

OTHER ECOLOGICAL CONSIDERATIONS

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

Post-It™ brand fax transmittal memo 7671		# of pages > 2
To: FOSC/OP/CWOODREH		From: John Phillips
Co.		Co. Exxon
Dept.		Phone # 564-3661
Fax # 263-17310		Fax # 564-3771

FOSC

Date

6/15/90

Prepared by

W. Wood

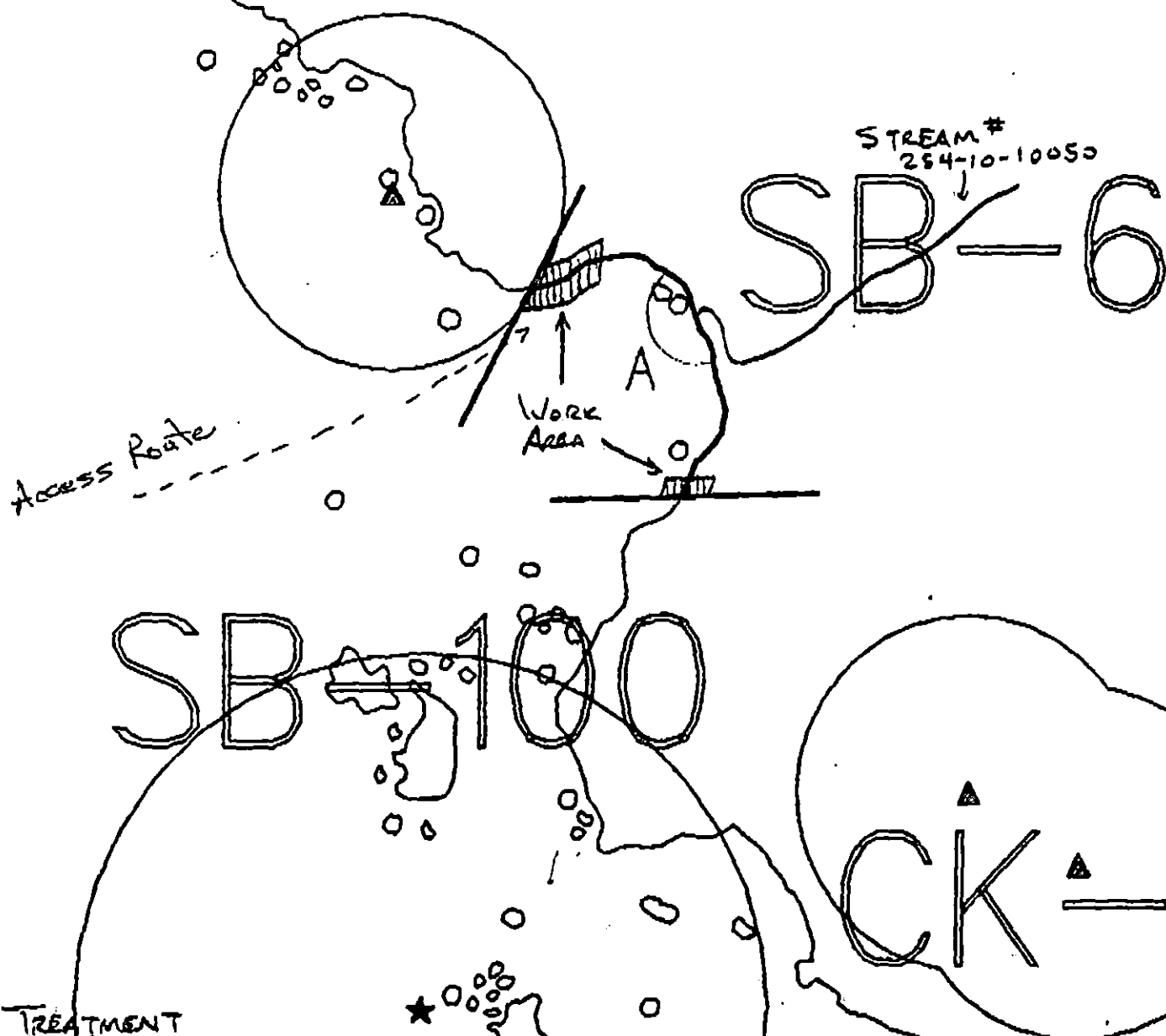
Date

6/15/90

- SB-6 site
1. Work plan Bio-remediation and spot wash.
 2. Approved to treat area outlined below.

Mike Luke 6/13/90

CK-4



EXXON

ECOLOGY MAP

SCATMENT RA-19 SB-6



Seabird Colony

SHORELINE EVALUATION

SEGMENT ST/ K06-20-SB-001 SUBDIVISION A (1 OF 1) DATE 5/8/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

7Z Subistence area: Salmon harvesting (6/1 to 9/30)
3N, 3P Harbor seal and sea lion pupping (5/15 to 7/1)
30, 3Q Harbor seal and seal lion molting (8/15 to 9/15)
4QQ State Marine Park National Wildlife Refuge
9LM Land mammals

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Rachel Jan Dan DATE: 5/20/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 56 m: V.Light 100 m: No Oil 78 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: 5/29/90
ADEC Art Wenger Art Wenger
EXXON Art Wenger Art Wenger
NOAA Burt Wascott Burt Wascott
USCG G.A. Reiter G.A. Reiter

FOSC: DATE: 6-27-90

KODIAK ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ KG-20 SB-1 SUBDIVISION: A DATE 5-8-90

USCG

NAME Kenneth M. Trabue SIGNATURE _____

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Oil is sparse throughout segment in the form of stains and splatter. and occasionally mousse is found between boulders. all nonrecoverable.

ADEC

NAME Francine J. Bennis SIGNATURE Francine J. Bennis

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Oil is present in several locations in this segment in the form of stains, coats, splatter, & mousse caught between some boulders & in rocks crevices. there is very little recoverable oil here without difficulty.

LAND MANAGER

NAME John Hardister SIGNATURE John P. Hardister

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

USFWS

Small amounts of oil non-recoverable. No treatment is in order. Disclaimer statement attached as "Attachment 2."

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

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

SHORELINE OILING SUMMARY

OG Greg Chaney USCG Ken Trabue SEGMENT ST: KC 620 SBC
 D Heather Davis LAND REP: John Hardister SUBDIVISION A (LOF)
 AXON — ADEC Fran Bennis TIME 10:40:10 11:30
 TEAM NO. 20 TIDE LEVEL 2 ft to 6 ft DATE May 1 8 1990
 EST. SUBDIVISION LENGTH: 205 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 50 % C 10 % P 5 % G 5 % S — % M — % V — %
 SLOPE: Long 30 % Hang 40 % Vert 30 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 60 m VL 90 m NO 55 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	10	15	17	18	19	20	21	22	23	SU	U	M	U
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT													
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL													

PAVEMENT H F S — sq. m by — cm

PATTIES/TARBALLS less than 1 BAGS

NEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒

TYPE —

#BAGS —

Photographs:

Roll No. ST 20 10

Frames 20, 21, 22, 23, 24

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (Y/N)	V	SURFACE-SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	19	20	21	22	23	SU	U	M	U				
1	20																					SPC
2	25																					PCR
3	30																					P

COMMENTS

See attached

REVIEWED AW

DATE 5/14/90

COMMENTS
SEGMENT K0620 SB01

Greg Cheney

May 8 1990

Segment K0620 SB01 is extremely short at 205 meters. This segment consists of low bluffs in the south east and boulders and steep cliffs in the north west. The beach was primarily composed of boulders but small pocket pebble beaches were found in the south east portion of the segment. Oil was observed in the form of black random drops, patchy stains, and splattered tar coats. In two locations (marked with circles on the sketch map), black tar was lodged between the bedding planes of the slate bedrock. In these locations it appeared that mousse had landed in the past and weathered to a black tar outer layer with a brown mousse interior. In some of these cracks, oil was just over a centimeter deep. Therefore, by definition, pooled oil was present in the segment but it was rare and limited to areas less than 10 square centimeters each. It would be difficult and tedious to recover this oil manually. A small amount of fresh brown mousse was located in the segment which produced a sheen when placed in water but sheen was not observed along the shore.

SEGMENT ST 20 SBOI

SUBDIVISION A

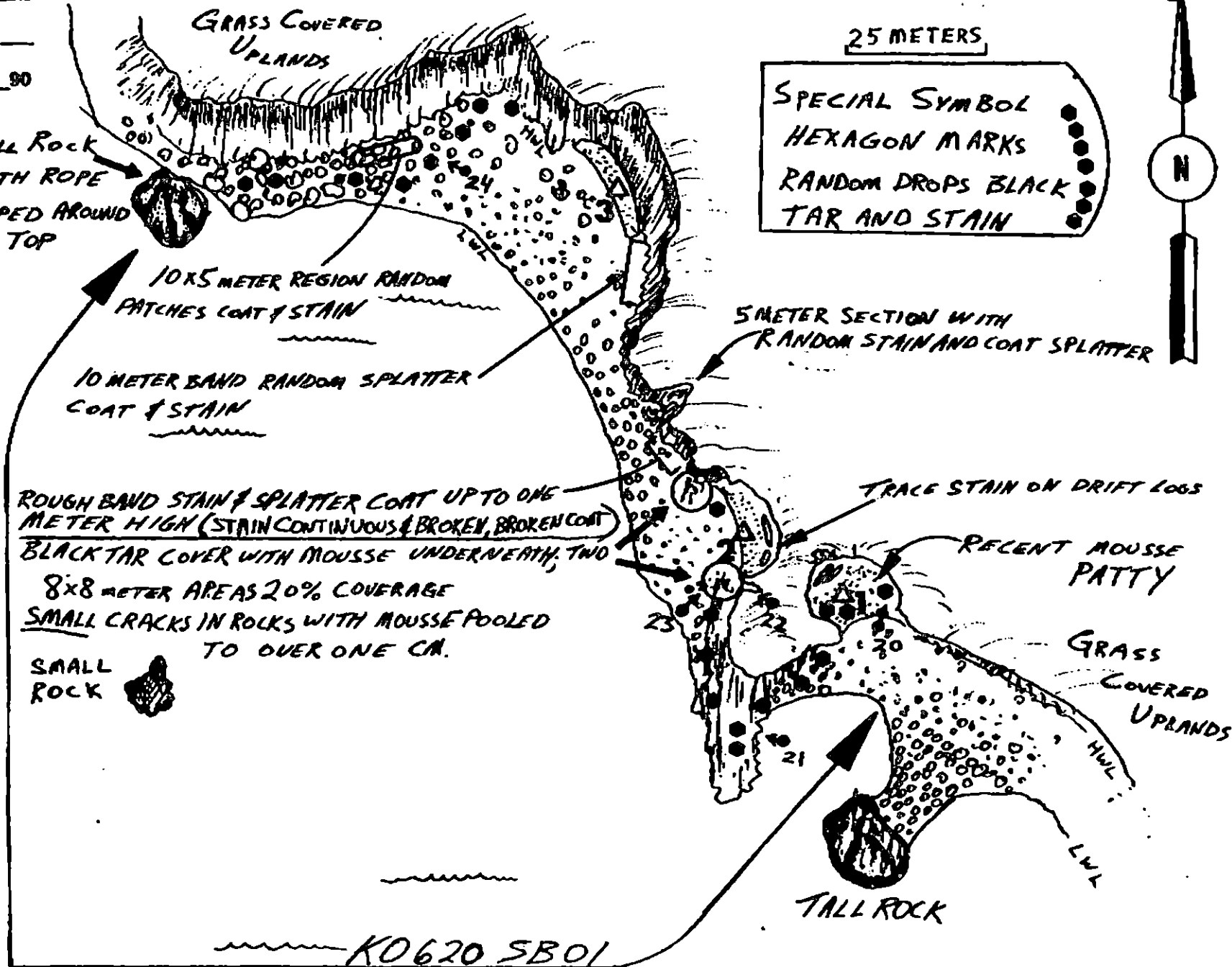
DATE May 18 90

CHECKLIST

- ☐ N Area
- ☐ Approx. Size
- ☐ Seg/Sub Entry
- ☐ Oil Desc.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. H/W/L
- ☐ SSZ
- ☐ 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/D
- Broken Distribution
- CT/P
- Patchy Distribution
- CT/S
- Splashed Distribution
- eee
- Oiled Vegetation
- 1 →
- Photo location, direction, and number



Oil Character Length (m): AP 0 PO 4 CV 16 CT 60 ST 90 MS 10 PT 71 TB 0 FL 0 NO 55

SHORELINE ECOLOGICAL SUMMARY

Segment ST/ K6-20 Subdivision SB-01 Date (mo/day/yr) 5/8/90
 Time (24 hr) 10:30 Biologist H. Davis 24-25

- (A) Substrate type and % of segments:
 (1) Bedrock 30 (2) Boulder 50 (3) Cobble 10 (4) Pebble 5 (5) Sand 5 (6) Silt —
- (B) Overall % cover of biota (% of segment): Dense 40% Moderate 30% Low 30% (50%)
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles/adults (X), new settlement (O)
- Photographs: ST-20-10
 Roll No. 20-24
 Frames 20-24

BARNACLES Continuous. Numbers varied from dense to sparse.

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

NOT PRESENT
4, 5, 6

MYTILUS Patchy but numerous. Bed extends around cobbles and boulders.

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

NOT PRESENT
4, 5, 6

GASTROPODS Littorina (dense), Limpet (moderate), Nucella (sparse)

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

NOT PRESENT
4, 5, 6

FUCUS Dense and continuous

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

NOT PRESENT
4, 5, 6

Wildlife Observations/ General Comments: See Sketch match.

Ecological Considerations: 3 NO, 72. Harbor seals molt and have pups in the segment. Salmon harvesting is done in the area. No Eagle nests could be seen in the area, but 2 adult eagles were spotted. 2 Sea otters were feeding in the area.

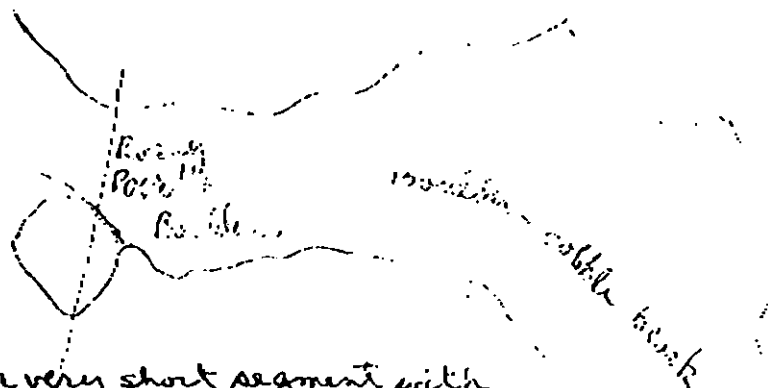
6-20 512
/8/90

Davis

1-11:30

+2 ft. to +6 ft.

Ecology Survey Map and Comments.



Birds seen:

Fox sparrow
Song Sparrow
2 adult Eagles
1 golden Eagle
Caucasian-winged Gulls
Herring Gulls

Mammals

Bear (scat)
Fox (track + scat)
Deer (track + scat)
2 Sea Otters (feeding on Clams)

This was a very short segment with rocky points at each end. The beach was boulder with some cobbles. Medium energy wave action hits this shore. Deer tracks and scat were found on the beach area. Bear and Fox were also in the area. The upper intertidal zone had: Littorina sitkana and some Scutellata, Palanus glandula, B. carinus, Chthamalus dalii, Abdoacma sp., Collisella digitalis, and lots of Gloiopeletis furcata, Odonthalia floccosa, Rhodomeia larva, Nucella canaliculata and Porphyra sp. lower down Mytilus beds were packed in between boulders and cobbles. (Some scattered Modiolus were mixed in.) Fucus and Ulva were in dense patches on the tops of boulders while underneath the boulders were: Leptasterias hexactis, Spirorbis borealis, Serpula sp., Amphiporus angulatus, Strongylocentrotus droebachiensis, Protolotha staminea, Leptodermata inhaerens, Katharina tunicata, unknown scale worm and Tonnoia lineata, Corallina, Ulva, Cladia marginata, Halosaccus glandiforme, and Chladophora were also found in the mid-low intertidal zone. One Evasterias truscelii was found eating a Tressus capax. Nucella canaliculata eggs were found on the underside of one rock.

Boulder

Rocky Point

Cliff Top

Tide at +2 ft.

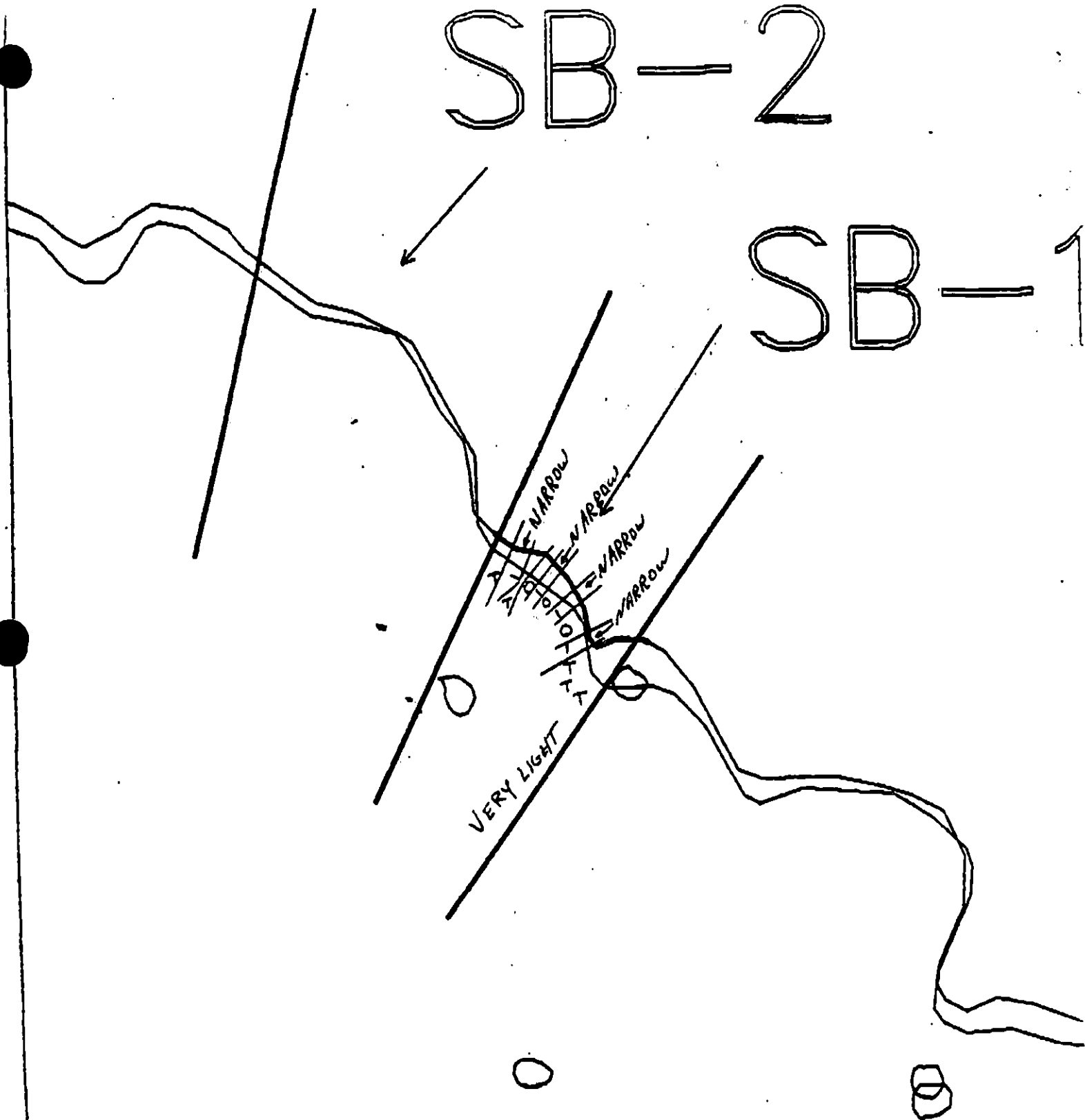
25 meters



North

SB-2

SB-1



XXXX Wide

//// Medium

---- Narrow

TTTT Very light

~~XXXX~~ SB-1

L2322

ADEC Segment Length: 1277m

EXXON SEGMENT LENGTH 205m

Map Key: GOA-239

Name: Greg Chane

Date: May 8 1990

SHORELINE EVALUATION

SEGMENT ST/ K06-20-SB-002 SUBDIVISION A (1 OF 1) DATE 5/8/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

7Z Subsitence area: Salmon harvesting (6/1 to 9/30)
5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1) - Segment SI-001
5R Seabird colony (5/1 to 9/1)
3N, 3P Harbor seal and sea lion pupping (5/15 to 7/1)
30, 3Q Harbor seal and seal lion molting (8/15 to 9/15)
4QQ State Marine Park National Wildlife Refuge
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Rachel Jean Oarr DATE: 5/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 37 m: No Oil 392 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 5/24/90
ADEC Art Wimmer
EXXON Andy Tera
NOAA Bart Wescott
USCG M. J. Hall

FOSC: [Signature] DATE: 6/8/90

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
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 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2298
- 1C Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Kotol Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
 East side Kodiak, East side Afognak (7/4 to 10/1)
 1K Purse seine hook-off
 1L Set net sites
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to uncolled intertidal and subtidal algae and 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 Larry Nicholson 488-4791
- Harbor seal and sea lion pupping (5/10 to 7/1)
 Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31).
 Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (8/1 to 9/15)
 6V Anchorages (8/1 to 9/15)
 6W Forest Service cabins (8/1 to 9/15)
 6X Lodge (8/1 to 9/15)
 6Y Special use destination
- 72 Subsistence area: Salmon harvesting (8/1 to 9/30)
 Finfish harvesting
 Deer harvesting (8/1 to 1/7)
 Invertebrate harvesting
 Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1 K0620 SB002 SUBDIVISION: A DATE 5/8/90

~~ADEC~~ STEPHEN LEHMANN NAME STEPHEN LEHMANN SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Agree with ADEC

ADEC
NAME Terry Ellsworth SIGNATURE Terry Ellsworth

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

cover, coat, and stain occur in the segment as very light splatters and drips. In one area west of the creek a very small amount of interstitial mounds was found. No treatment recommended.

LAND MANAGER
NAME OTTO FLORSCHUTZ SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Agree with ADEC - Several eagles present - nest?

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

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

OG G. HEJMAN NOAA S. LEHMAN SEGMENT ST/ K 0620 SB002
 BIO L. SHARMAN LAND REP D. FLORESCHITZ SUBDIVISION A (1 OF 1)
 EXXON E. BARR ADEC T. ELLSWORTH TIME 10:55 10/11/90
 TEAM NO. 19 TIDE LEVEL +2 +4.5 DATE 5/18/90
 EST. SUBDIVISION LENGTH: 436 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: NW to SE
 SURFACE SEDIMENTS: R 10 % B 25 % C 25 % P 40 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 80 % Hang 15 % Vert 5 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 33 m NO 403 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	0	1	2	3	4	5	6	7	8	SU	U	M	U
ASPHALT PAVEMENT													
POOLED													
COVER				X	X						X		
COAT				X	X					X	X		
STAIN				X	X					X	X		
MOUSSE				X			X				X		
PATTIES													
TARBALLS													
FILM													
NO OIL											X	X	

PAYEMENT H F S 0 sq. m by 0 cm

PATTIES / TARBALLS 0 BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	X		
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒

TYPE —

#BAGS —

Photographs:

Roll No. —

Frames —

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	S M E R (m)	V	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	4	5	6	7	8	SU	U	M	U				
1	25					X	0-0	X							X				N	-	-	P/PG
2	25					X	0-0	X							X				N	-	-	P/P

COMMENTS This segment consists of a creek draining across a broad pebble beach with bedrock cliffs and ^{a narrow} boulder-pebble-cobble shoreline to the SE and a cobble-pebble-boulder shoreline to the west. Diking in the segment is limited to the boulder-bedrock areas. The oil occurs as ST-CT-CV splatters to 5 cm in diameter & drips. Very small amounts of interstitial mousse were observed in boulder interstices with pebbles. Splatters were also observed on a few drift logs.

REVIEWED — DATE 10 MAY 90

OG G. Hey 12

SEGMENT ST/K 06-20-SB 002

SUBDIVISION A

DATE 5/8/90

GRASS SLOPE

SKETCH MAP

CHECKLIST

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

LEGEND

1 Δ
Pit - No Subsurface Oil

2 Δ
Pit - Subsurface Oil

$\square$ CT/C
Continuous Distribution

$\square$ CT/B
Broken Distribution

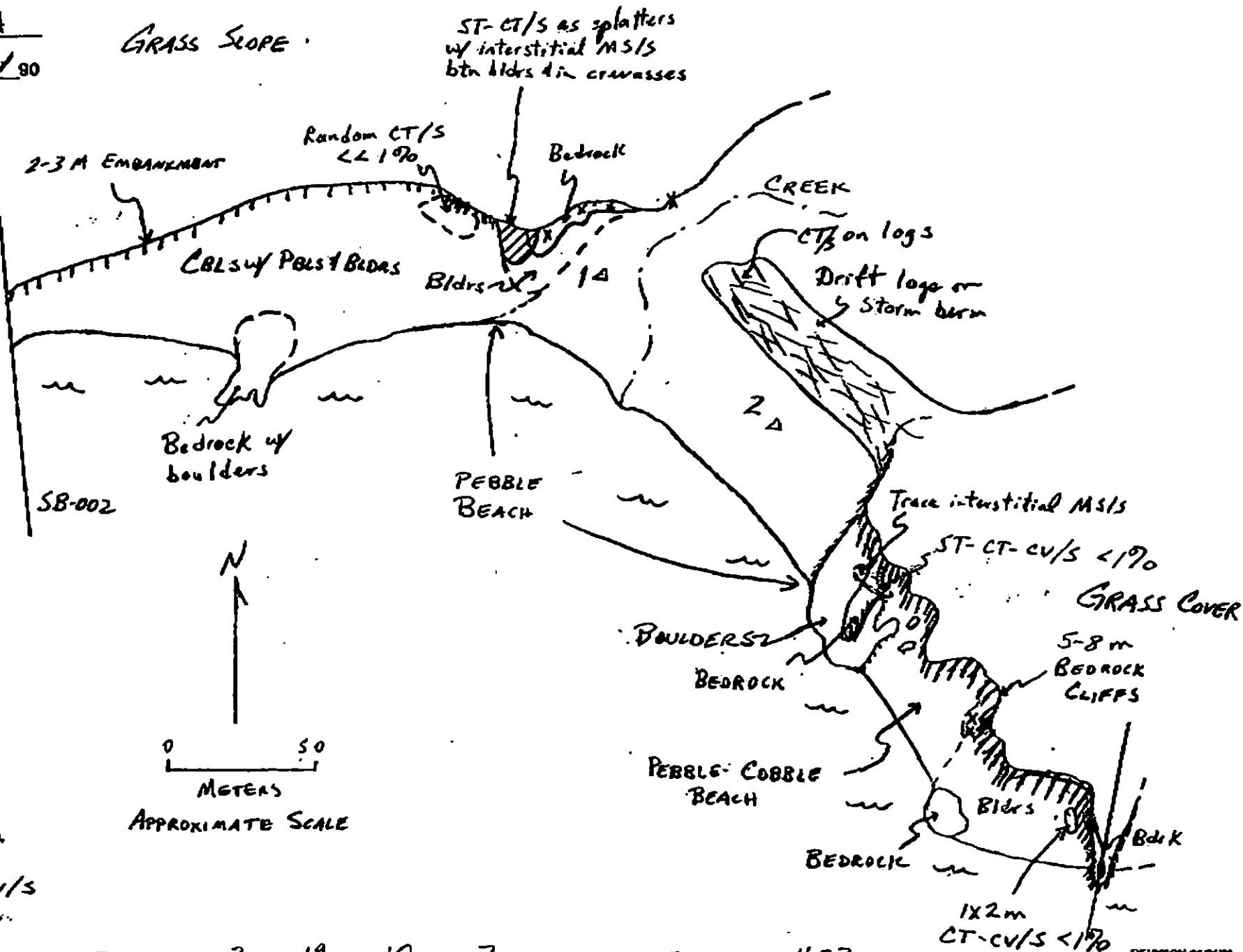
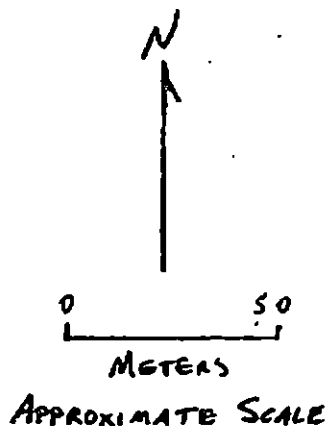
$\square$ CT/P
Patchy Distribution

$\square$ CT/S
Splashed Distribution

Oiled Vegetation

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

X Random
CT-ST-CV/S
Splatters.



Oil Character Length (m): AP — PO — CV 2 CT 19 ST 10 MS 2 PT — TB — FL — NO 403

REVISION: 02/24/90

SHORELINE ECOLOGICAL SUMMARY (Page 1 of 2)

REVISION: 03/22/9

 K6-20- Segment ST/ SB-2 Subdivision A Date (mo / day / yr) 5/8/90
Time (24 hr) 1055-1130 Biologist SHARMAN
 (A) Substrate type and % of segments: SUBDIV.
 (1) Bedrock (2) Boulder (3) Cobble (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. -
Frames -

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS (ANCELA, LITTORINA, LIMAEAE)

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments: Did not observe LTB. 4 *Leptocarpus* ducks, 1 adult eagle, 1 subadult eagle, 1 raven. Abundant deer tracks + scat in uplands; some tracks in UTE + MTE gravel. Small otter (probably river otter) abutted portion in supratidal. We smelled fox (at the rocky point at the E. end of the segment (probably up on the bluff above). Incidentally, this segment is essentially a continuation of adjoining SB-3 to the W. (cont.)

Ecological Considerations:

Please see attached Eco. Map. Numerous rocks + rocky points are probable seal (sea lion?) haulouts, although we observed no pups during this survey. Note also the identified sensitivity for subsistence salmon harvesting. It would add that the tidal pond + local stream uplands (see map) are very important to seabirds + shorebirds (resting + foraging habitat) and to terrestrial mammals (foraging), as well as a generally productive and easily perturbed system that is sensitive to human intrusion.

SB-2

Shoreline Ecological Summary (cont.)
(Page 2 of 3)

Sharman
5/8/90

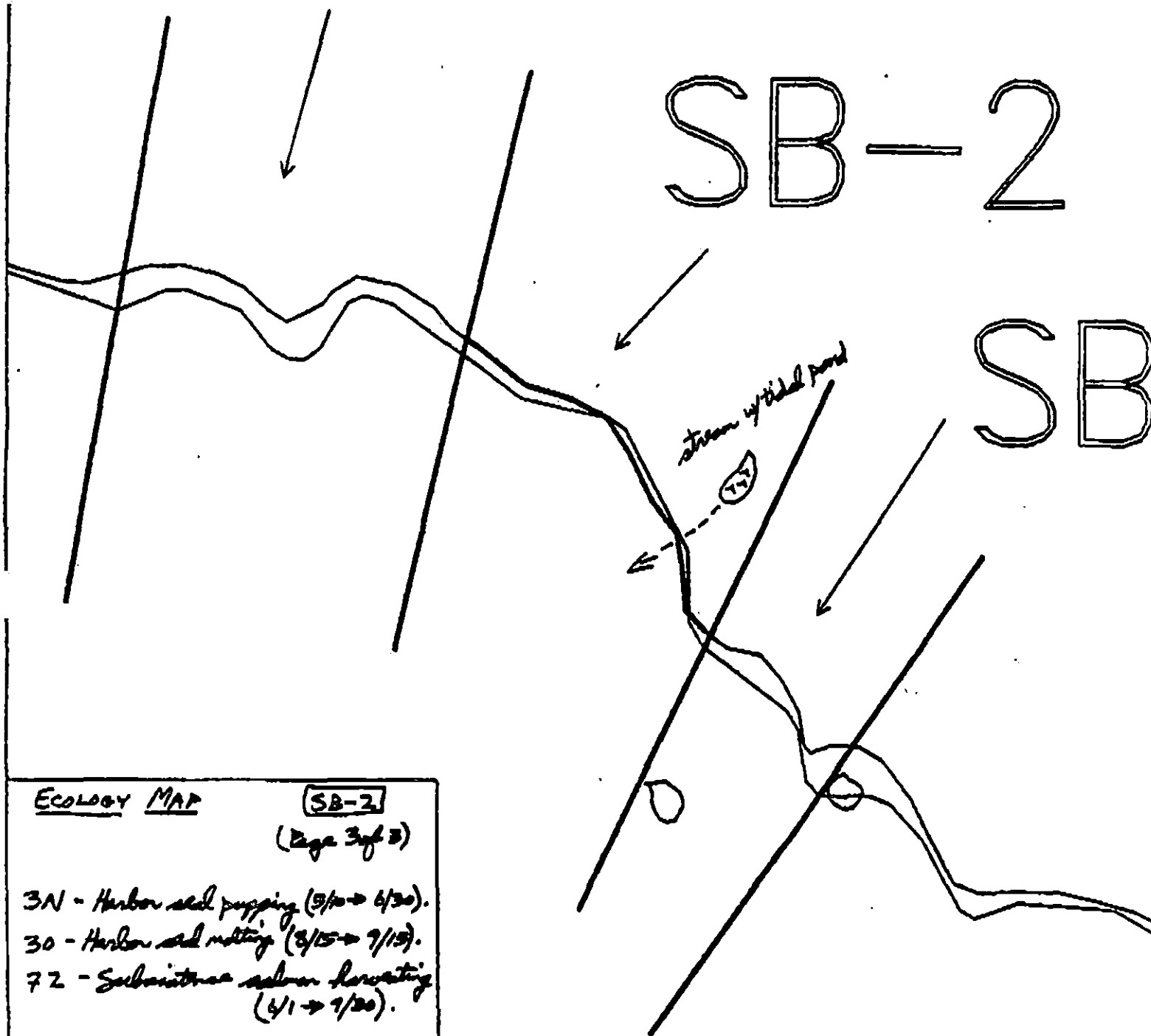
General Comments (cont.):

See also the narrative of this section for segment SB-3. Generally, a biotically typical shoreline of this type + segment. About 1/3 of the segment, centered about the stream, is a pebble beach which is macrobiotically "sterile" - very unstable + mobile substrate. Locally there is excellent recruitment of barnacles, littorines, murexids. Bivalve shells found amongst MTA boulders are primarily Saxidomus and a few Protothaca + Pachidomus. The bedrock/large boulder point at the extreme E. end of the segment is very diverse: Katharina, Leptasterias, large healthy murexids and Semibalanus cariosus, Porphyra, Alaria, limpets (large Xotomoea scutum), Anthopleura (elegantissima, artemisia, + xanthogramma), etc. This appears to be a perfectly normal and healthy intertidal assemblage.

SB-3

SB-2

SB



ECOLOGY MAP

SB-2

(Page 3 of 3)

- 3N - Harbor seal pupping (9/10 → 4/30).
- 30 - Harbor seal molting (8/15 → 9/15).
- 72 - *Salmonella* salmon harvesting (4/1 → 9/30).

Area of stream/tidal pond in a sensitive estuarine system.

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

SB-2

ADEC Segment Length: 2022m



Map Key: GOA-242

Name: _____

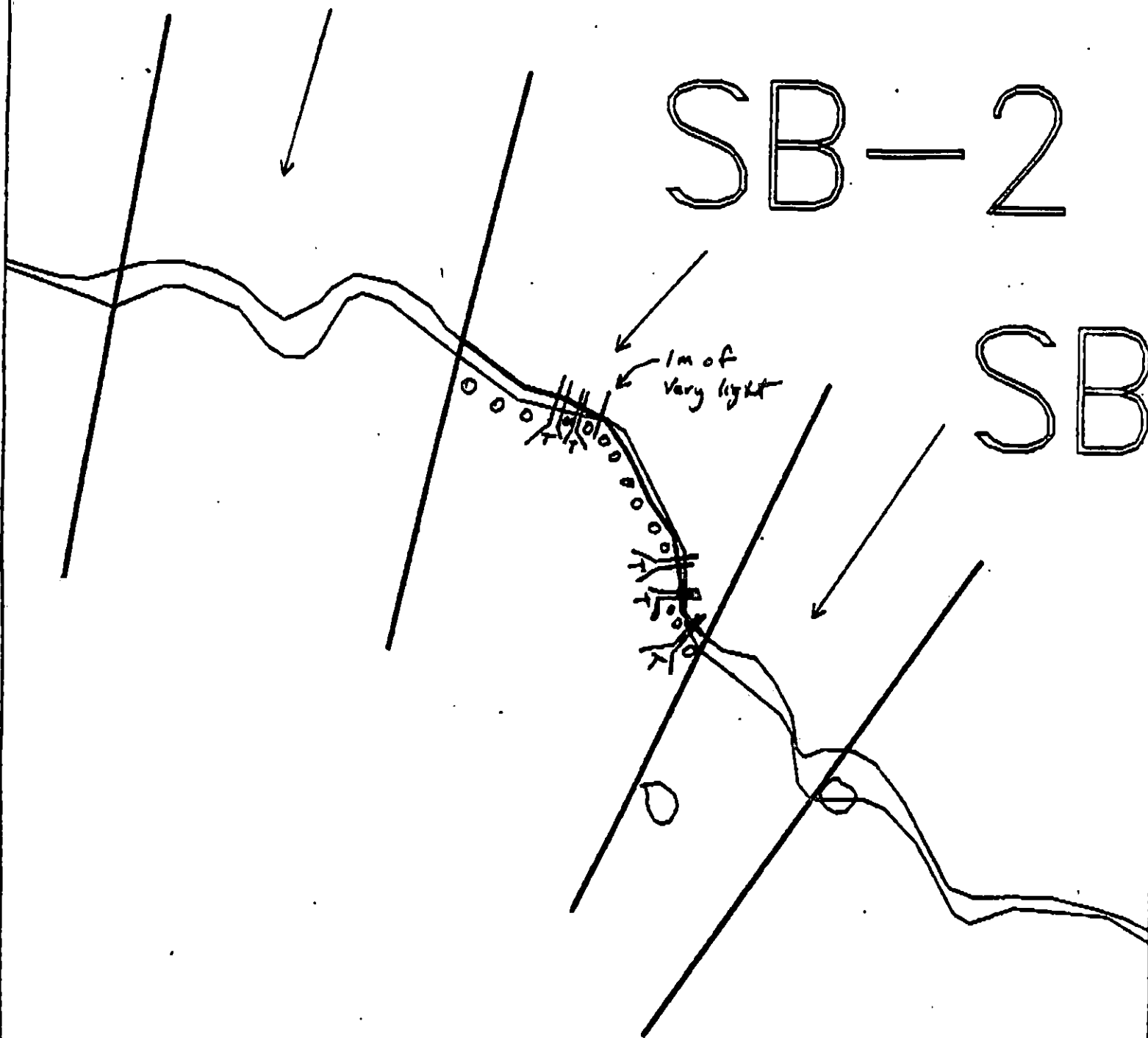
Date: _____

Data Entered: _____

SB-3

SB-2

SB



XXXX Wide

/// Medium

---- Narrow

TTTT Very Light

0000 No Oil

SB-2

ADEC Segment Length: 2022m



Map Key: GOA-242

Name: G. Hayman

Date: 5-8-90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ K06-20-SB-003 SUBDIVISION A (1 OF 1) DATE 5/8/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

7Z Subsitence area: Salmon harvesting (6/1 to 9/30)
5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1) - On next adjacent segment
3N, 3P Harbor seal and sea lion pupping (5/15 to 7/1)
3O, 3Q Harbor seal and seal lion molting (8/15 to 9/15)
4QQ State Marine Park National Wildlife Refuge
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Rachel Jean Dale DATE: 5/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 43 m: No Oil 372 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 5/24/90
ADEC AET WEAVER Det WEAVER
EXXON ANDY GAT
NOAA Burt Wescott Burt Wescott
USCG M. J. Hall

FOSC: B. Zucchi DATE: 6/4/90

KODIAK ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K06-20-S3003 SUBDIVISION: A

DATE 5/8/90

NAME STEPHEN LEHMANN

SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

*Extremely light impact. Some very limited
Coat & stain. Up to 100 eagles, of varying ages,
were spotted. Recommend no treatment.*

ADEC

NAME Terry Ellsworth

SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

*Coat and stain occur sporadically through out the segment
and interstitial mousse/sediment occurs very sporadically in one
5m x 7m area. NO treatment is recommended.*

LAND MANAGER

NAME OTTO FLORSCHUTZ

SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

In agreement with ADEC regarding degree of oil presence.

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

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OG G. HEYMAN ^{NOAA} S. LEHMANN SEGMENT ST/ K-06-20-SB-003
 BIO. S. LEHMANN LAND REP. D. FLORSCHE SUBDIVISION A (1 OF 1)
 EXXON F. BYARS ADEC T. ELLSWORTH TIME 10:10:10:55
 TEAM NO. 19 TIDE LEVEL +0.5 to +3.0 DATE 5/8/90
 EST. SUBDIVISION LENGTH: 444 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 5 % B 20 % C 40 % P 20 % G 15 % S 0 % M 0 % V 0 %
 SLOPE: Long 10 % Hang 10 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 20 m NO 424 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	R	B	C	P	SP	OR	OL	OF	NO	SU	U	M	L
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT													
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL													

 PAVEMENT H F S 0 sq. m by 0 cm

 PATTIES / TARBALLS 0 BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

 YES ☐ NO ☒

 TYPE 0

 #BAGS 0

Photographs:

 Roll No.

 Frames

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (Y/N)	↓	SURFACE-SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UD	UC	SP	OR	OL	OF	NO	SU	U	M	L				
1	20					X	0-0		X						X				N	-	-	P-G/G-P
2	25					X	0-0		X						X				N	-	-	C/P-G

COMMENTS This segment consists of rock points separating small cobble-pubblebeaches with boulders. The back-beach area consists of metamorphic bedrock forming high angle to near vertical cliffs and rubble piles. Oiling is generally limited to the rock points and splinters of ST & CT on rock outcrops and boulders. MS was observed in one area (W end of segment) in boulder interstices with pebbles and granules. The interstitial MS had a 1/3 distribution. ST & CT was observed on a very few boulders, cobbles, and logs in the remainder of the segment.

 REVIEWED BA DATE 10 MAY 90

OG G. YMAN

SEGMENT SK 06-20-SB 003

SUBDIVISION A

DATE 5/8/90

CHECKLIST

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

LEGEND

1 Δ
PH - No Subsurface Oil

2 Δ
PH - Subsurface Oil

$\square$ CT/C
Continuous Distribution

$\square$ CT/B
Broken Distribution

$\square$ CT/P
Patchy Distribution

$\square$ CT/S
Splashed Distribution

$\lll$
Other Vegetation

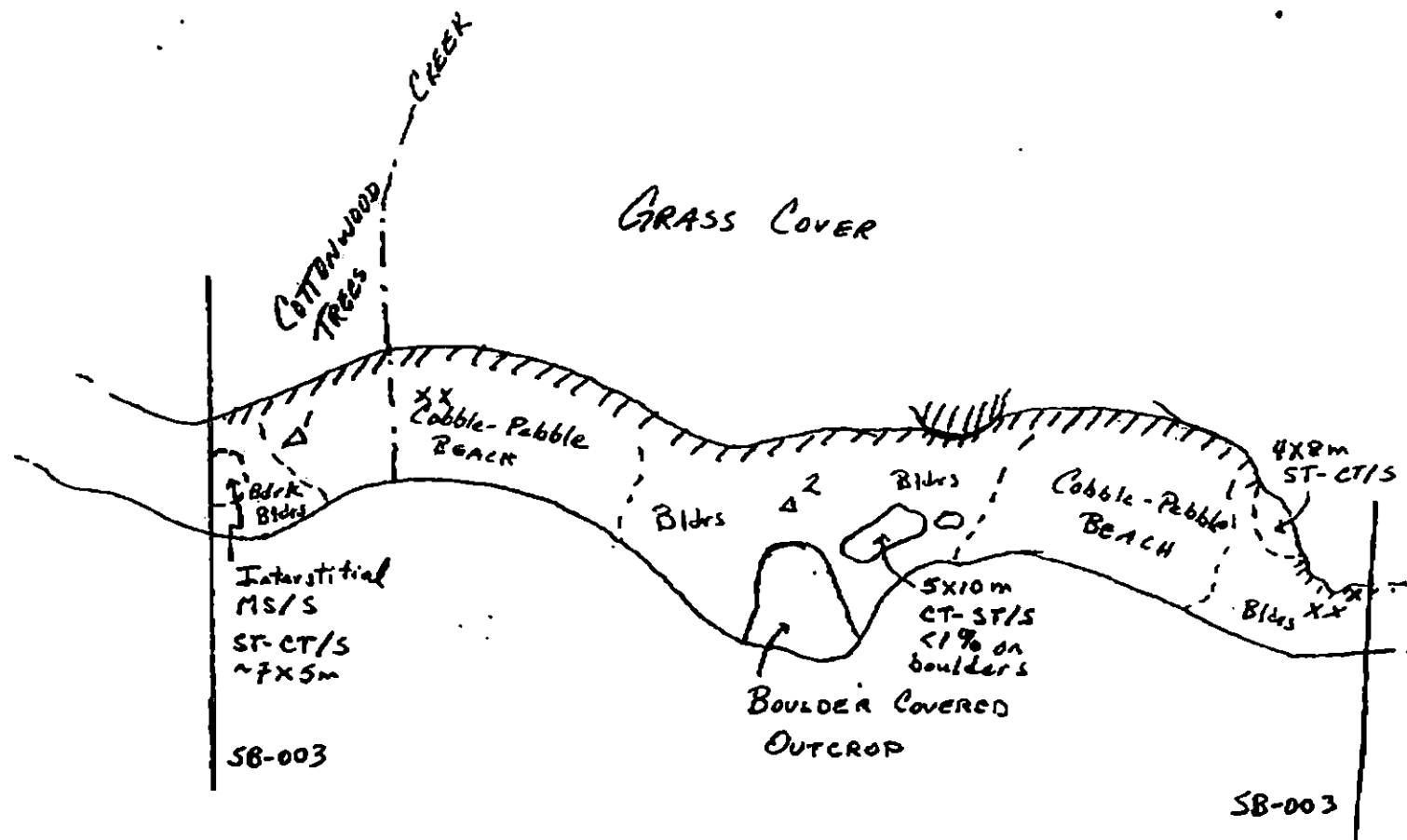
1 $\odot$
Photo location, direction, and number

X = Random Splatters
of CT-ST, <1%
Cover

0 50
METERS
APPROXIMATE
SCALE

Oil Character Length (m): AP PO CV CT 15 ST 9 MS 5 PT TB FL NO 424

SKETCH MAP



Segment ST / SB-3 Subdivision A Date (mo / day / yr) 5/8/90Time (24 hr) 1010-1055 Biologist SHARMAN(A) Substrate type and % of segments: SUBDIV.(1) Bedrock 5 (2) Boulder 20 (3) Cobble 40 (4) Pebble 20 (5) Sand 15 (6) Silt granules(B) Overall % cover of biota (% of segment): Dense SUBDIV. Moderate X Low

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

Photographs:
Roll No. Frames

BARNACLES

Dense			Moderate			Sparse			Rare			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 (ANCELLA, LITTORINA, LYMAETA)

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 adult eagle, 1 subadult eagle, 5 harlequin ducks, 1 red-bracted nanager, fox sparrows & song sparrows singing in upland brush/tree, 2 ravens, several Cowbird nests in willows/ cottonwoods. Abundant deer tracks & scat in uplands, 2 sets deer tracks in UTE/MTZ gravel. Intertidal zone is healthy & normal - moderately diverse & productive (although only limited LTE observation). MTZ (cont.)

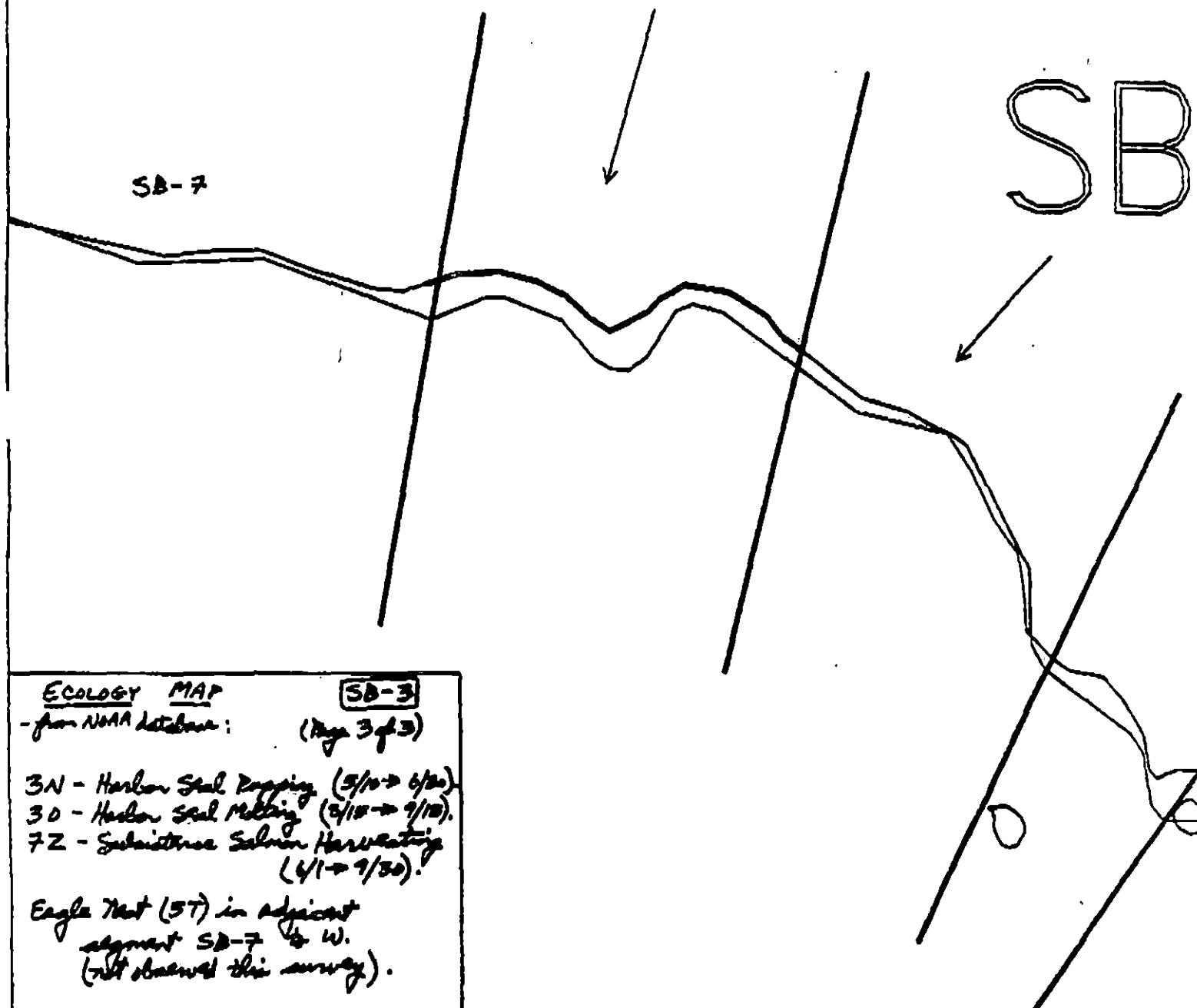
Ecological Considerations:

Please see attached Eco. Map. Offshore rocks & rocky points as potential principal haulouts. We observed no seals (or sea lions) during this survey. Note also the sensitivity for subsistence salmon harvesting, as well as a potential active eagle nest on adjacent segment SB-7 (to W). Critical times are listed on the map.

Starnan
5/8/90General Comments (cont.):

tidal pools in bedrock / large boulders include Odonthalia, Lithothamnium, Katharina, Torioda, Talia, Anthopleura (3 spp.), tidipol sculpina, limpeta, littorina, small Strongylocentrotus droebachiensis, Leptasterias hexactis (some are still breeding), Helicodonta, Spirorhiza. MTZ barnacles, mussels, + Fucus are all recruiting quite successfully. A short section of beach at the W. end has a sandy lower MTZ / LTZ with sparse Zostera, and adjoining clean hole (most of these are Saxidomus with a few Protodroma, judging from the shells present amongst MTZ boulders). Other lower MTZ species include Seytzeiglon, Alaria, Evasteria, Mucella, Porphyra, Enteromorpha, Pagurus, + barnacles (including many S. caninus in the visible lower MTZ / upper LTZ). Barnacle mortality is up to 20% in places, mostly on exposed boulders on rocky points. This is likely natural mortality due to wave wash / debris scouring. Beneath lower MTZ boulders are littorina, limpeta, amphipods, prickledolichs, Leptasteria (some still breeding), Katharina, rare Leptogomphus, remartina, abundant littorina eggs, and Gloiothalia. Gloiothalia is a dominant MTZ alga here, along with Fucus, Odonthalia, and Seytzeiglon.

SB-3



KXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

SB-3

ADEC Segment Length: 444m

0 100 200 300

Map Key: GOA-174

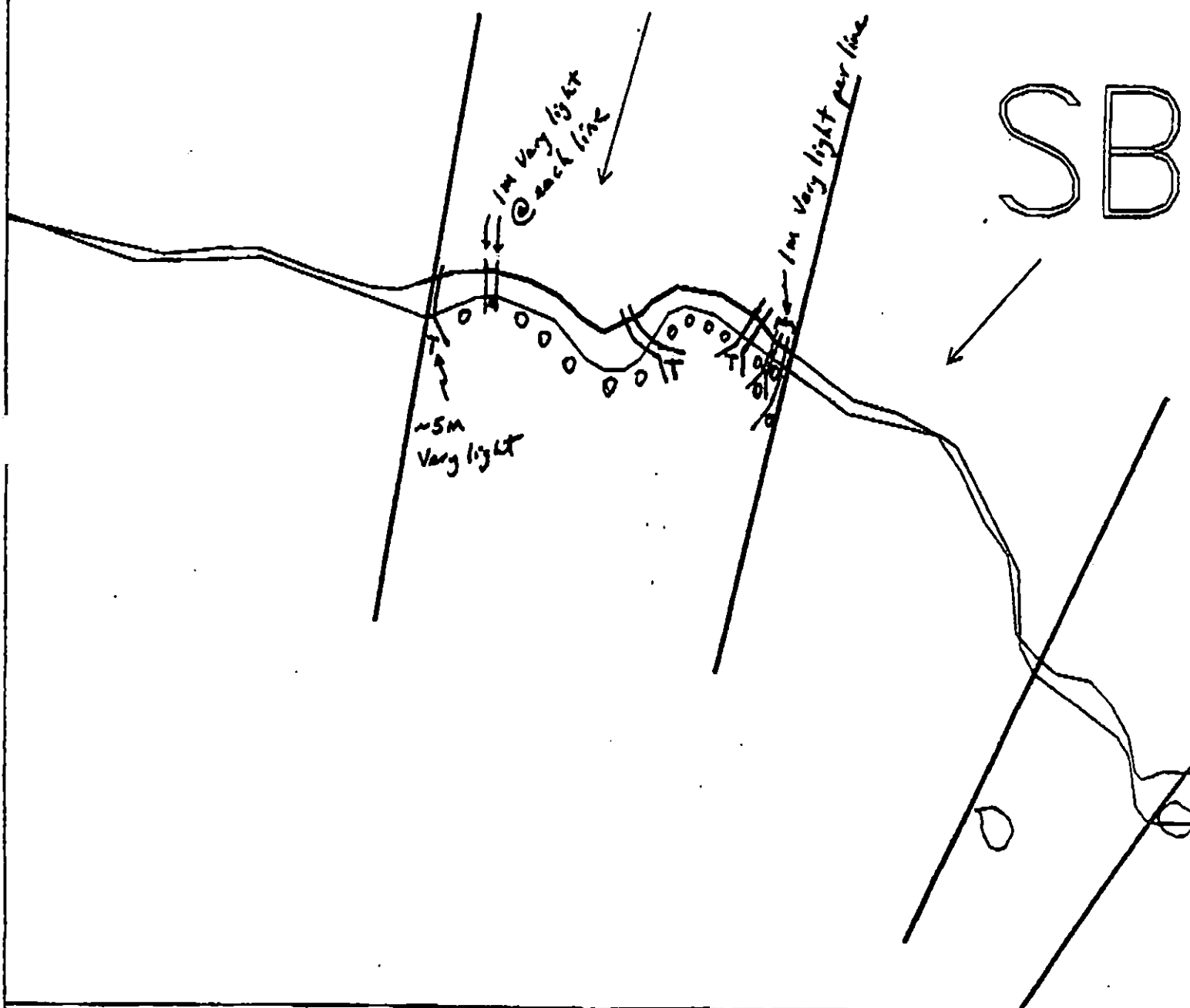
Name: _____

Date: _____

Data Entered: _____

SB-3

SB



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

SB-3

ADEC Segment Length: 444m



Map Key: GOA-174

Name: G. Herman

Date: 5-8-90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ K06-20-SB-005 SUBDIVISION A (1 OF 1) DATE 5/12/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

7Z Subsistence area: Salmon harvesting (6/1 to 9/30)
5R Seabird colony (5/1 to 9/1)
5T(2) All Bald Eagle nests (3/1 to 6/1): Active Bald Eagle nests (3/1 to 9/1)
5S Shorebird/waterfowl concentration (4/1 to 5/15)
3N, 3P Harbor seal and sea lion pupping (5/15 to 7/1)
3O, 3Q Harbor seal and seal lion molting (8/15 to 9/15)
4QQ State Marine Park National Wildlife Refuge
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Rachel Jean Dorn DATE: 5/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 1472 m: No Oil 2287 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 5/24/90
ADEC Art Weiner
EXXON Andy Ear
NOAA Bull Weir
USCG M. J. Hall

FOSC: D. Gauselli DATE: 6/4/90

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2290
- 1C Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Kotol Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
 East side Kodiak, East side Afognak (7/4 to 10/1)
 1K Purse seine hook-off
 1L Set net sites
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- Harbor seal and sea lion pupping (5/10 to 7/1)
 Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31).
 Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 8/16)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (8/1 to 9/15)
 6V Anchorages (8/1 to 9/15)
 6W Forest Service cabins (8/1 to 9/15)
 6X Lodge (8/1 to 9/15)
 6Y Special use destination
- 72 Subistence area: Salmon harvesting (8/1 to 9/30)
 H Finish harvesting
 I Deer harvesting (8/1 to 1/7)
 J Invertebrate harvesting
 70K Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2350

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ K6-20 5B-5 SUBDIVISION: A DATE May 12/90

~~NOAA~~
~~USCG~~

NAME STEPHEN LEHMANN SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Agree with ADEC

~~ADEC~~
~~ME~~

NAME Terry Ellsworth SIGNATURE Terry Ellsworth

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Coat and stain occur sporadically in the western portion of the segment. Recoverable oil occurs as interstitial mousse/sediment between boulders and cobbles in three 3m x 0.5m areas. Because of the very small amount of recoverable oil and the presence of 2 active eagle nests, no treatment is recommended.

LAND MANAGER

NAME OTTO FLORSCHEWITZ SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

In agreement with above - see Attachment No. 2

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

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

SHORELINE OILING SUMMARY

REVISION NO. 04-12-90

1. John Davis Samples USCG Stephen Lehmann SEGMENT ST/ SB-5
 2. Lewis Shannon LAND REP of the Pennsylvania Dept of Environmental Protection SUBDIVISION A (1 OF 1)
 EXXON — ADEC Tenney E. O'Connell TIME 08:13 to 10:19
 TEAM NO. 19 TIDE LEVEL +14.5' to -1.0' DATE 12/05/90
 EST. SUBDIVISION LENGTH: 3734 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 2 % B 10 % C 20 % P 40 % G 20 % S 8 % M 0 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 1000 m NO 3734 m

SURFACE OIL

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

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	X		
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE —#BAGS 0

Photographs:

Roll No. ST-19 (II) -1Frames 7-9

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	UD	1	2	3	4	SU	U	M	U				
1	30					X	0-0	X						X							ph/c
2	30					X	0-0	X						X							"
3	30					X	0-0	X						X							"
							.														
							.														
							.														

COMMENTS

REVIEWED BAT DATE 16 MAY 90

SB-5, Spiridon Bay, May 12, 1990

SB-5 is a 3.7 km long segment located on the northwestern shore of Spiridon Bay on southwestern Kodiak Island. Although this section has a relatively large fetch window, its location on the northwestern side of a large bay restricts the maximum wave energy it can receive from the west and southwest. This segment was observed on May 12, between 0813h and 1030h and corresponding +4.5' to -1.0' tidal elevations.

At its western extremity, the shore consists of a gently sloping pebble/cobble/gravel/cobble beach backed by a low (0.5 m) unconsolidated, grassy bluff. At this location, the shoreline shows a relatively well defined segregation of sediments in profile with the coarser fraction restricted to the lower and middle intertidal zones, and the pebble/gravel fraction making up the upper intertidal zone, including a well defined, low storm berm. The area between this storm berm and the backshore bluff includes many logs and pieces of driftwood of all sizes, including a few oiled stained ones. Alongshore, the beach shows several gradual changes towards the east: 1: the backshore bluff increases in height and becomes bedrock cliffs near the eastern extremity of the segment, 2: the intertidal zone itself becomes narrower and steeper, and 3: sediments become coarser to the east, although a few small poorly defined areas of finer (pebble/gravel/sand) sediments do occur. The segment ends towards the east in a very uniform westerly facing beach of well sorted pebble/gravel/sand. At this location, the beach is obviously exposed to a higher wave energy climate as it shows a well defined steep storm berm with abundant log and driftwood debris in front of a small lagoon.

Oil occurs along this segment as 1: very few small stains and coats of splatters on coarse sediments in the lower part of the upper intertidal

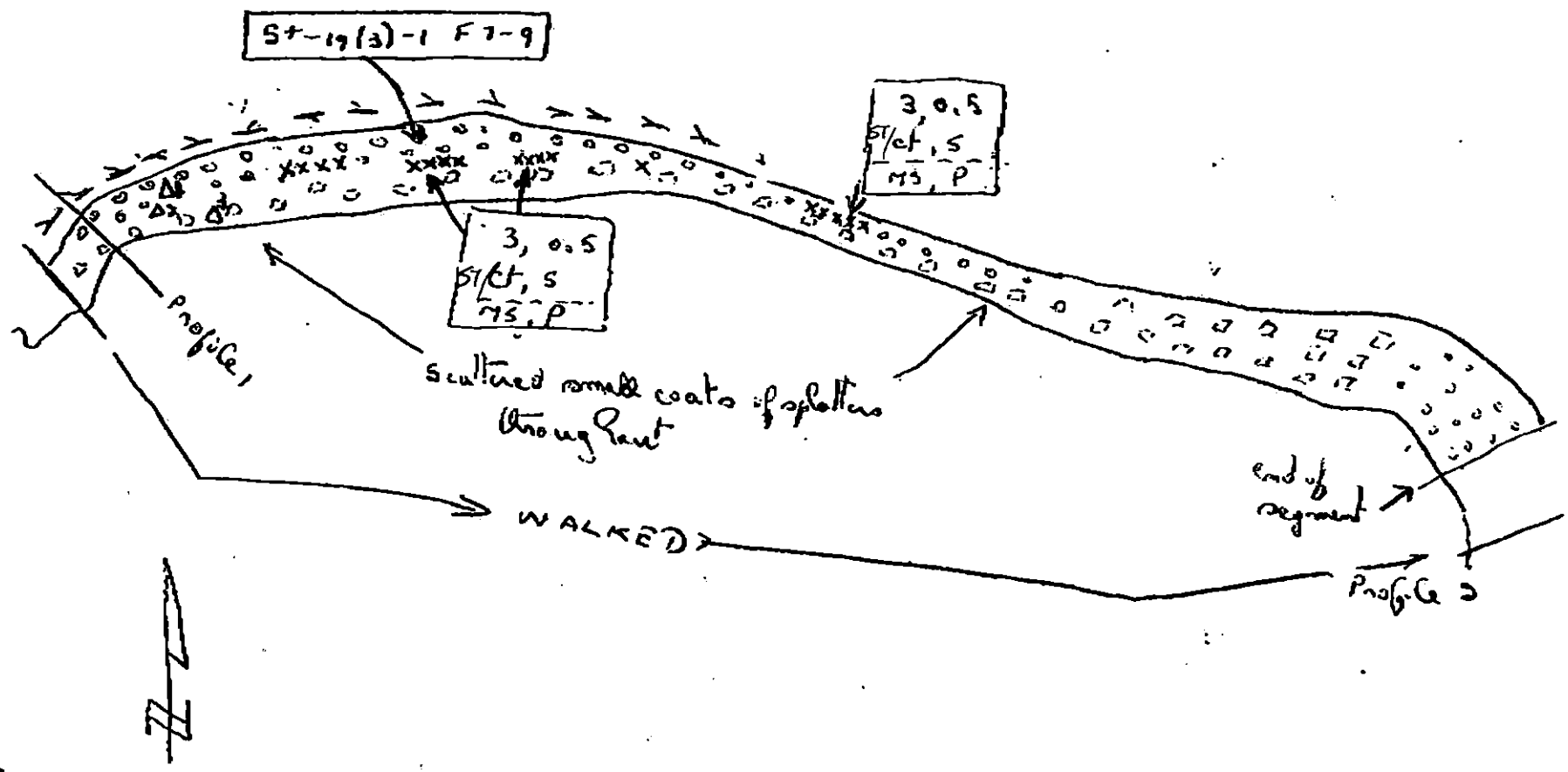
zone, 2: three small areas, 3 m long by 0.5 m wide each, of discontinuous small (15 to 20 cm maximum diameter) patches of weathered mousse/sediment mixtures at the base of and between boulders and cobbles in the western and central part of the segment, and 3: as very few stains on logs and other pieces of driftwood.

SKET MAP

1. Name: Point St Ignace
 2. Segment: ST-19(3)-1 F7-9
 3. Division: A
 4. Date: May 11, 80
 5. Checklist:
 - Arrow
 - Approx. Scale
 - Seg/Sub Entry
 - Off Dist.
 - Width
 - Length
 - % Cover
 - Substrate Character
 - Est. HML/LWL
 - SSI
 - Profile Location(s)
 - Profile(s)
 - Pit Location(s)
 - Photo Location(s)
 6. Legend:
 1. Δ No Subsurface Oil
 2. Δ Subsurface Oil
 CT/C Continuous Distribution
 CT/B Broken Distribution
 CT/P Patchy Distribution
 CT/S Isolated Distribution
 lll lll Isolated Vegetation
 1. $\rightarrow$ on location, direction, & number

Legend:
 [] PeSCL / gravel
 [] cobble / boulder
 [] log / wood drift
 [xxx] stains / coats of splotches

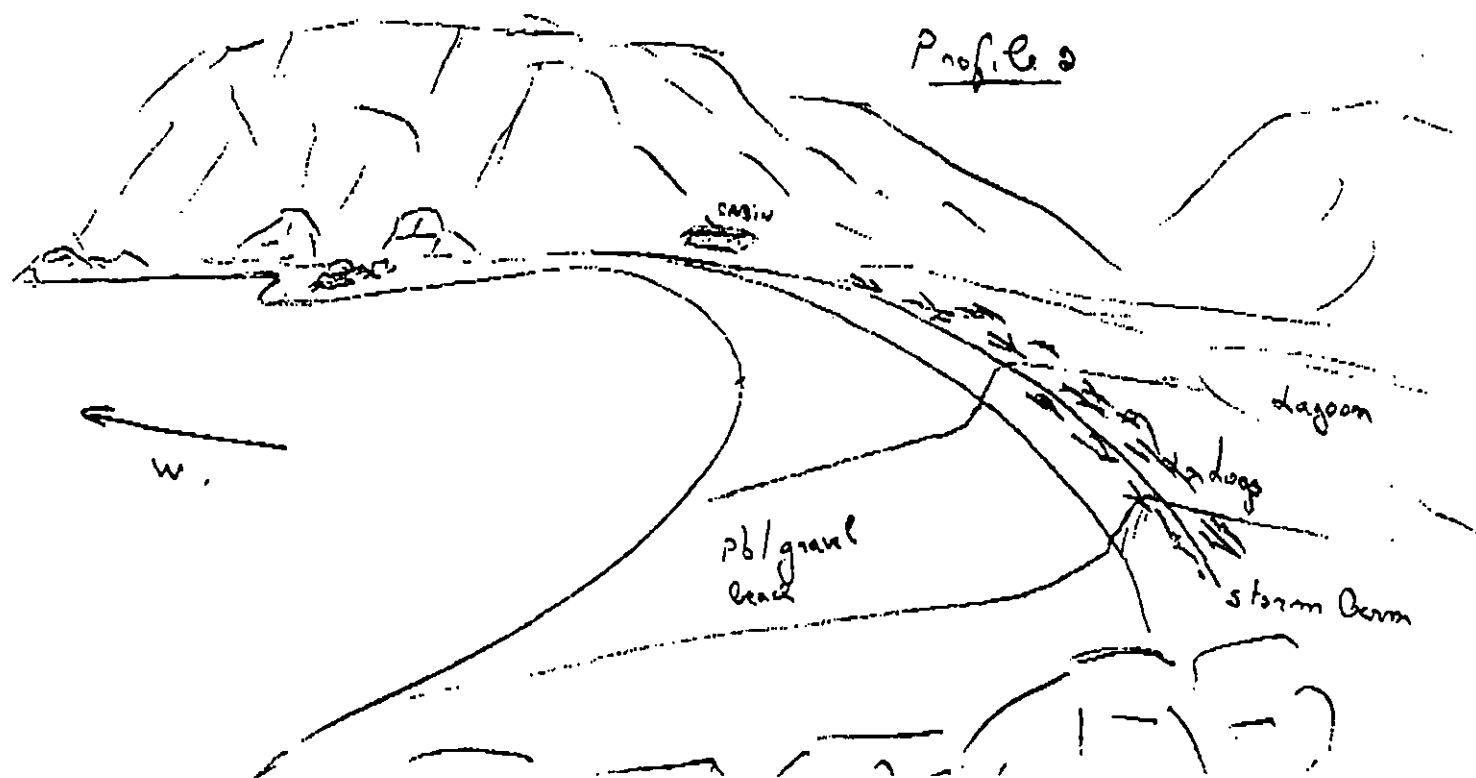
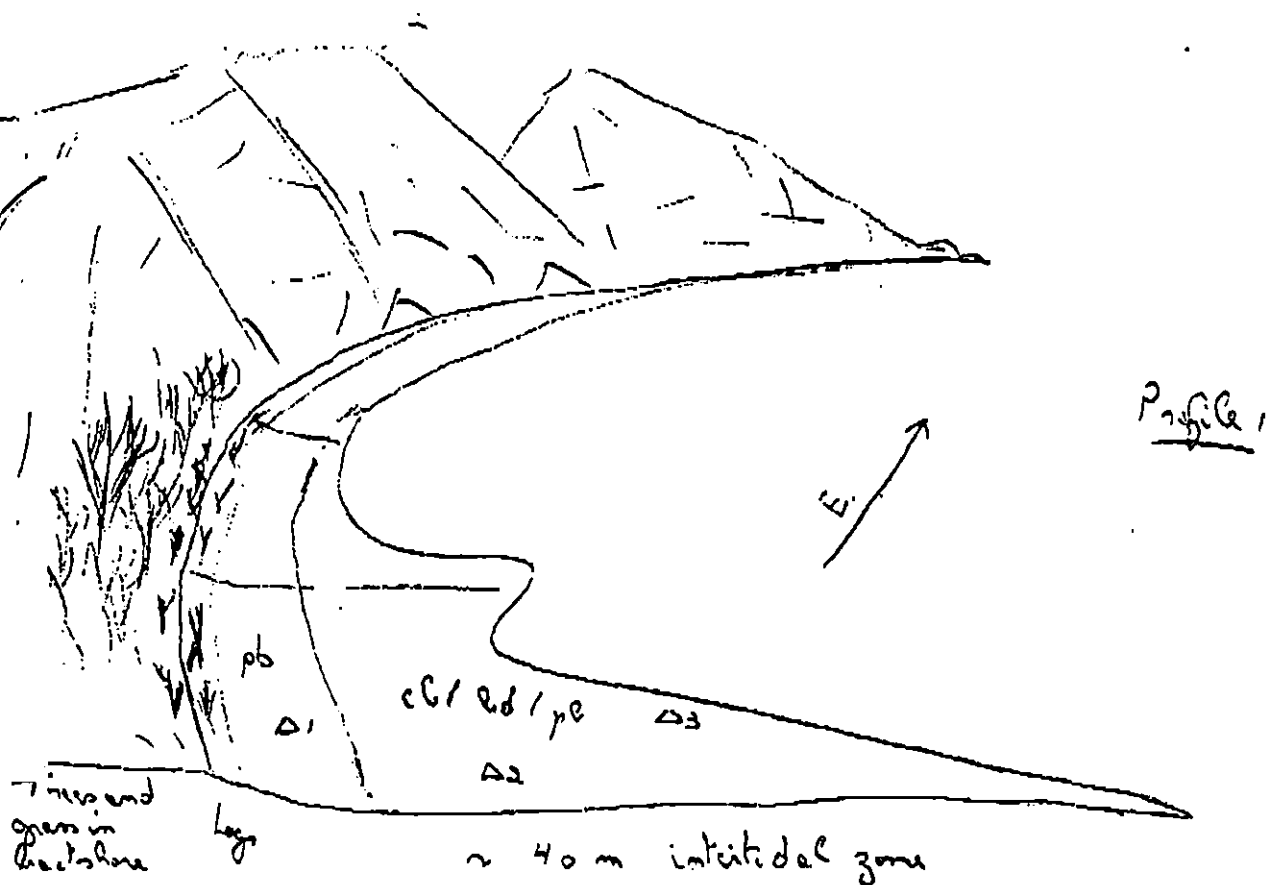
a.c.
 length width
 3, 0.5
 ST / CT, S
 MS, P
 Character and distribution of primary component
 Character and distribution of secondary component



Character Length (m): AP 0 PO 0 CV 0 CT 1000 ST 1000 MS 4 PT 0 TB 0 FL 0 NO 2730

REVISIONS

Segment SA-5 May 12, 1990.

geomorphic maps

SHORELINE ECOLOGICAL SUMMARY (Page 1 of 6)

REVISION: 08/22/90

K6-20

Segment ST / SB-5 Subdivision A Date (mo / day / yr) 9/12/90Time (24 hr) 0830-1030 Biologist SHARMAN

- (A) Substrate type and % of segments: SUBDIV.
 (1) Bedrock 2 (2) Boulder 10 (3) Cobble 20 (4) Pebble 40 (5) Sand 28 (6) Silt 0 ^{+ granules}
- (B) Overall % cover of biota (% of segment): Dense 40 Moderate 55 Low 5 ^{W. 1/2 E. 1/2 rubble/cobble pebble band 200m at E. end.}
SUBDIV.
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X) . new settlement (3)

Photographs:

Roll No. ST-19(III) - 1Frames 7, 8, 9

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 (ANCELLA, 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: 6 adult eagles, including 2 associated with each of 2 active nests (see Eco. map) - one incubating on beach nest. 3 subadult eagles. 6 pairs oystercatchers, 6 harlequin ducks (mostly paired), 6 cormorants, 1 pair white-winged scoters, 3 pairs pigeon guillemots, 1 yellowlegs, 2 unidentified sandpipers, 1 magpie, Golden-crowned and song sparrows singing in shrubs. 5 crows. Seabird (cont.)

Ecological Considerations:

Please see Eco. maps. The 2 active eagle nests were both identified during the 1989 USFWS Bald Eagle Productivity Survey; both were inactive at the time of that survey. Since they are active this year, they merit special concern. We did not have access to the 1:63,360 USFWS Eagle Nests and Seabird Colonies map. However, note from the maps and the above section that the nearshore islets support active seabird colonies. They also are probable important principal haulouts. This coastline is generally quite active biotically, particularly with eagles and seabirds, all of which are sensitive to disturbance, when

SB-5

Shoreline Ecological Summary (cont.)
(Page 2 of 6)Shorman
5/12/90General Comments (cont.):

crowd nests in upland cottonwoods. Concentration of seabirds feeding nearshore in E. portion of segment: ~100 herring gulls, ~50 glaucous-winged gulls, 30 cormorants, 10 tufted puffins, 10 guillemots, 10 red-throated loons. Offshore islets + rocks off W. end of segment (+ off adjacent segment to W., SB-10) have nesting seabirds; one grassy islet in particular is building up a considerable colony (500+) of herring gulls. Across the segment, we observed ~30 glaucous-winged gulls + 10 herring gulls not associated with either the colonies (immediately) or the local feeding concentration. *Ogystea edulis* have very definitely begun breeding at this time. There is a great deal of deer sign (tracks + tracks) in the uplands, and we saw 4 deer carcasses (no oil) in the supratidal zone. Poor longbone marrow impurities winterkill starvation. 1 live deer at pond/lagoon, E. end of segment. One sea lion scapula (old) in UTE. This is a normal and healthy intertidal community inhabiting a fairly continuous boulder/cobble beach. The MTE is characterized by the usual Fucus / barnacle / Oronothalia / Gelidium / Gelidium community (Gelidium typically lower MTE) with thin discontinuous bands of mussels. All these algae are locally dense, particularly Fucus in the lower MTE of the western 1/2 of the segment. Spring barnacle recruitment, in the MTE particularly, is excellent, and Fucus + mussel recruitment is locally satisfactory where populations are established. MTE littorins are locally dense and are recruiting well. Other MTE species include Extraneopoda, alveolar, fine red algae (Polysiphonia / Parosiphonia?), and scattered Sargassum / Protosiphonia shells. Beneath MTE boulders are littorins (also some egg masses), limpets, Pagurus, pricklybacks, amphipods, Leptochelone. Beneath LTE boulders are nemertean, Haliodendria, Haliclona, 1 Leptogaster, 1 juvenile Strongylocentrotus, Procladius, a few Leptochelone, and Leptochelone. In general, barnacle mortality is a normal 5-10% evident; mussel mortality is negligible. LTE tidepools include Littorina, alveolar, foliose red coralline algae, Katharina, Epistoma, Anthopleura strepens (also A. elegantissima + A. xanthophylla), tidepool sculpin. LTE boulder and large boulders have Katharina, Epistoma, Laminaria, alveolar, Halosaccus, Semibalanus caricatus, Littorina, etc.

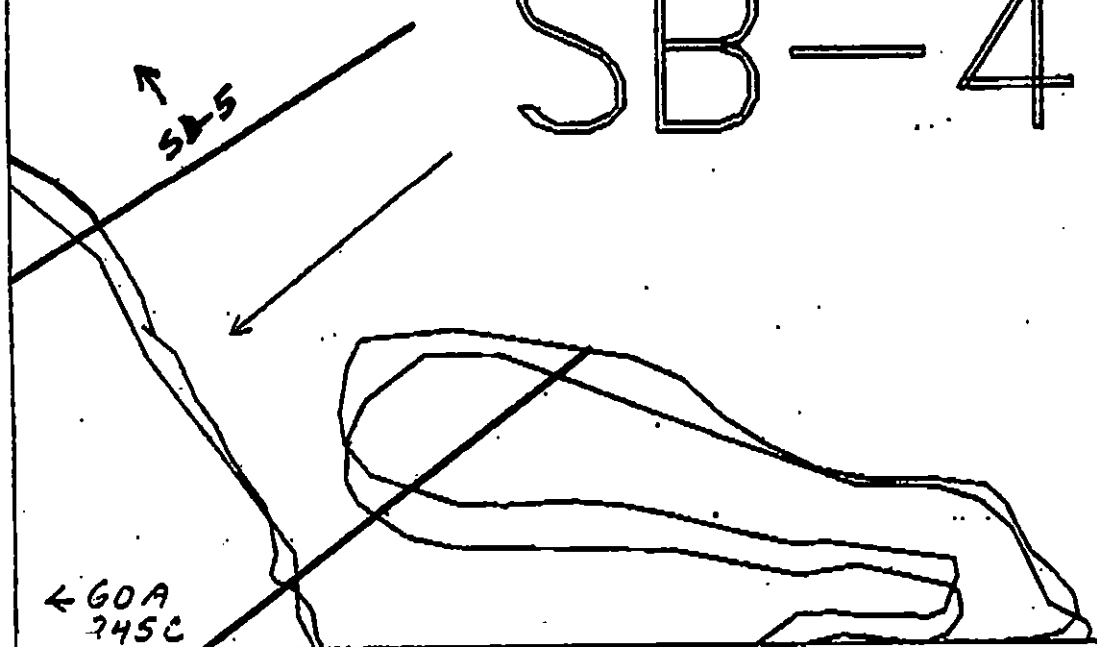
ECOLOGY MAP
(4 of 4)

SB-5
(Page 6 of 6)

See map 1.

SB-4

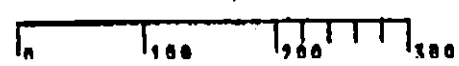
SB-



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

SB-5

ADEC Segment Length: 3759m



Map Key: GOA-245d

Name: _____

Date: _____

ECOLOGY MAP

(3 of 4)

SB-5

(Page 5 of 6)

See Map 1.

ACTIVE EAGLE NEST (INCUBATING)



GOA

2450 →

← GOA
450

XXXX Wide

SB-5

//// Medium

--- Narrow

TTTT Very light

ADEC Segment Length: 3759m



Map Key: GOA-245c

Name: _____

Date: _____

SB-5

Ecology Map
(2 of 4)

SB-5
(Page 4 of 6)

See map 1.

← GOA
245A

GOA
245C →

-XXX Wide
/// Medium
---- Narrow
TTTT Very light

SB-5

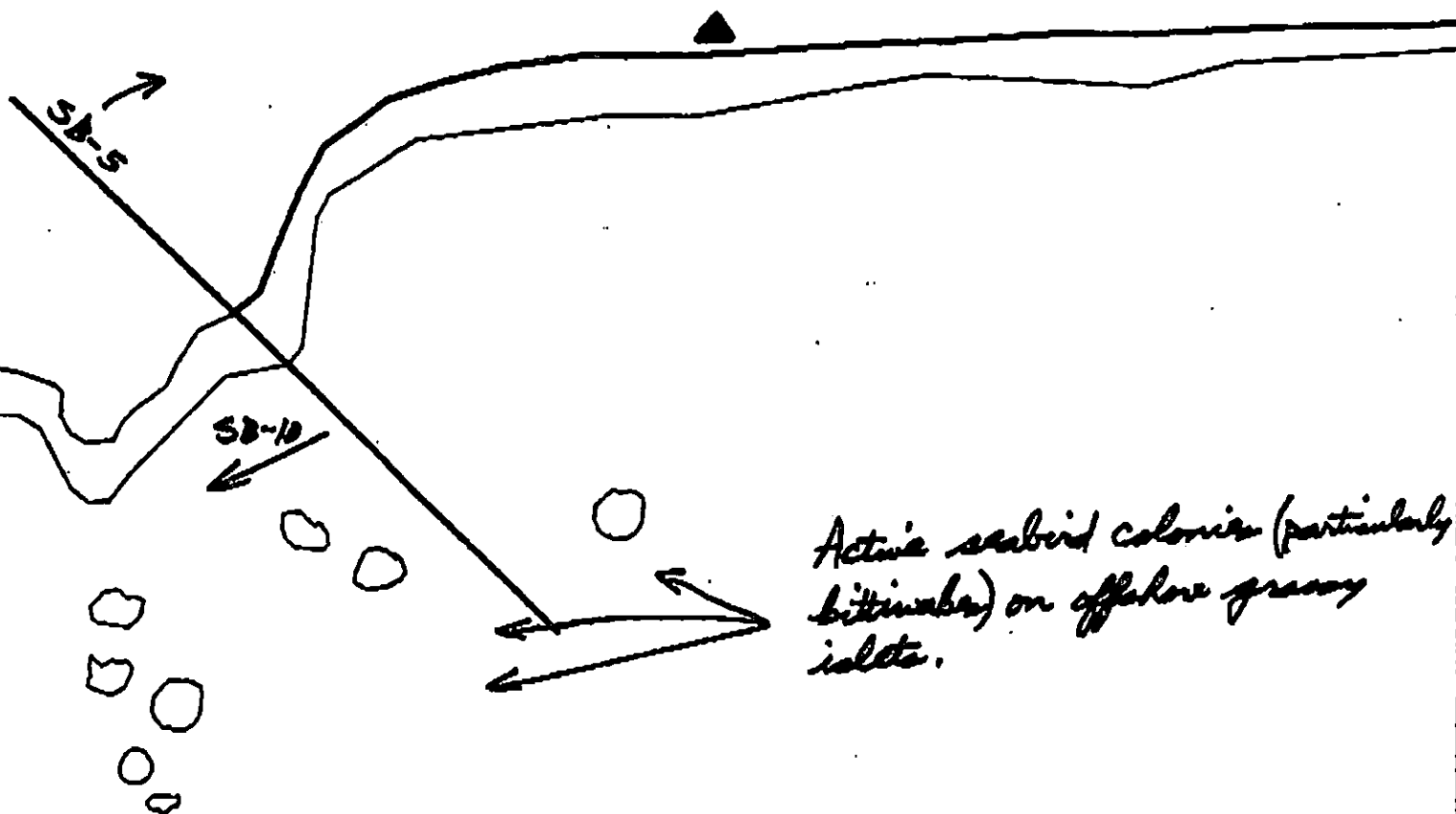
ADEC Segment Length: 3759m

Map Key: GOA-245b

Name: _____

Date: _____

ACTIVE EAGLE NEST (INCUBATING)



ECOLOGY MAP

SB-5

(1 of 4)

(Page 3 of 8)

5T - Active bald eagle nest (2)
(3/1 → 4/1).

7Z - Subarctic salmon
harvesting (June → Sept.).

GOA
245B →

XXX Wide

/// Medium

--- Narrow

TTTT Very light

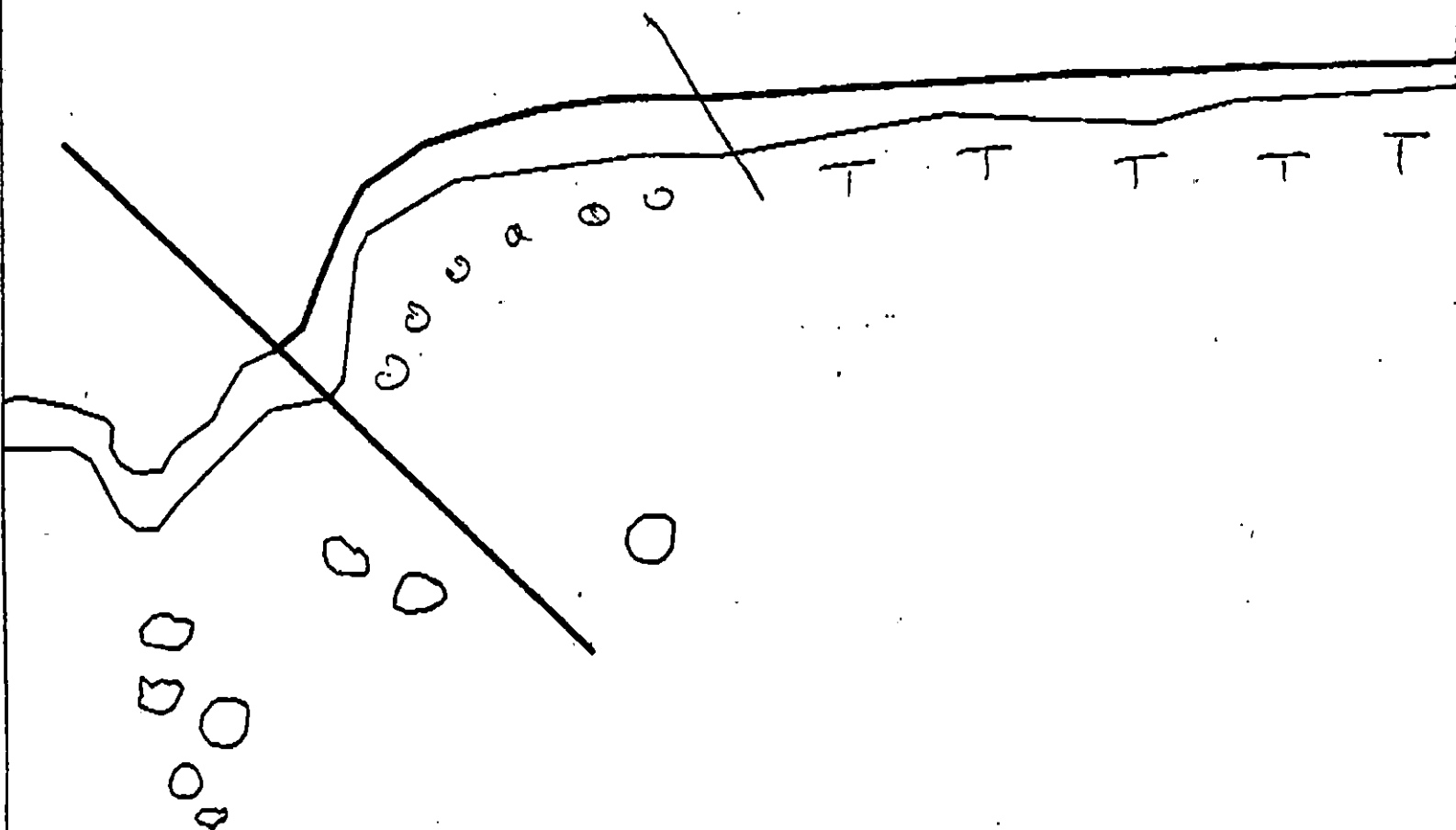
SB-5

ADEC Segment Length: 3759m

Map Key: GOA-245a

Name: _____

Date: _____



GOA
245B-7

^ XXX Wide

//// Medium

--- Narrow

TTTT Very Light

K0620 — SB-5

ADEC Segment Length: 3759m

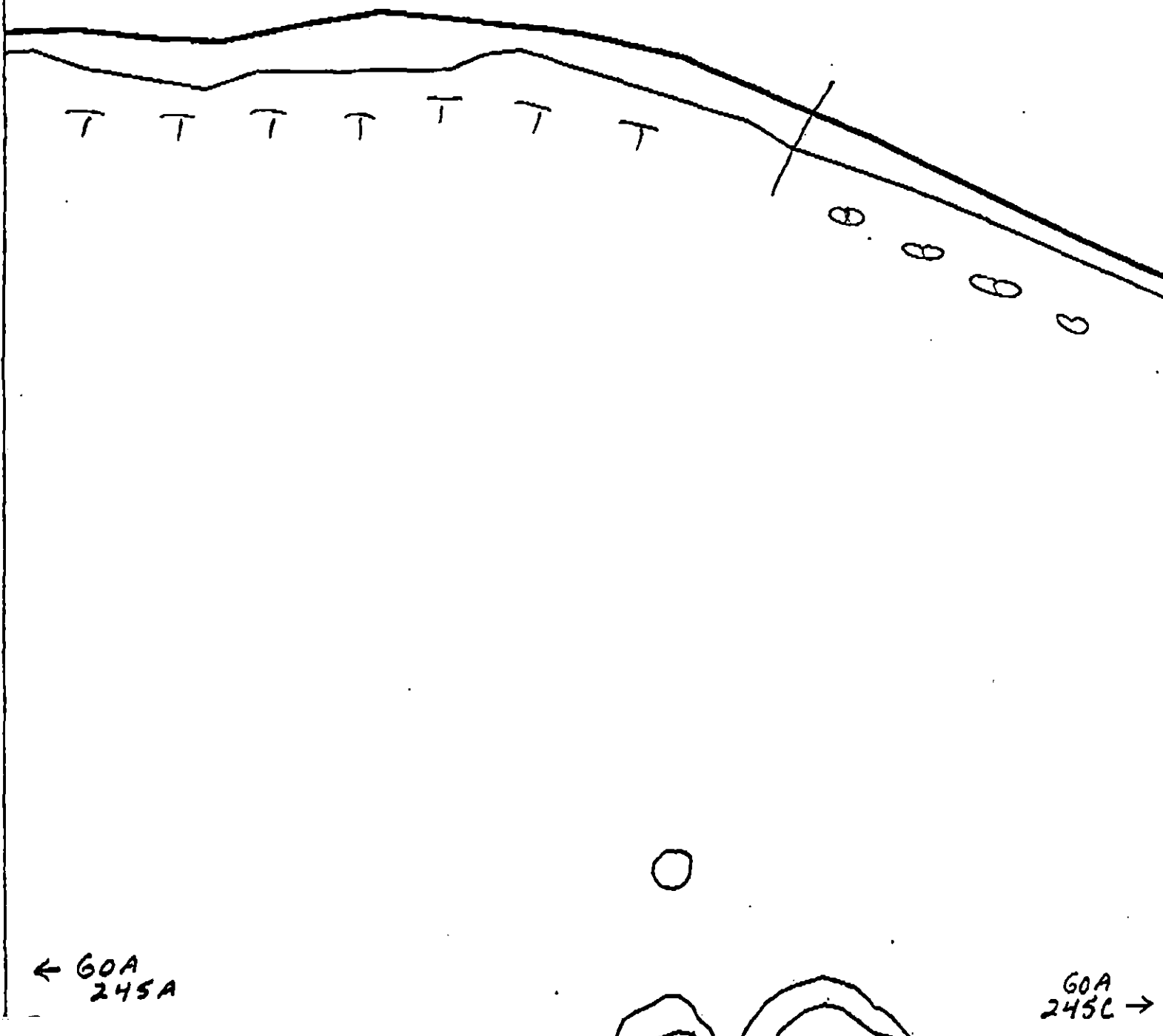
Map Key: GOA-245a

Name: John Marie Sempala

Date: May 12/90



SB-5



← GOA
245A

GOA
245C →

^ XXX Wide

//// Medium

--- Narrow

TTTT Very Light

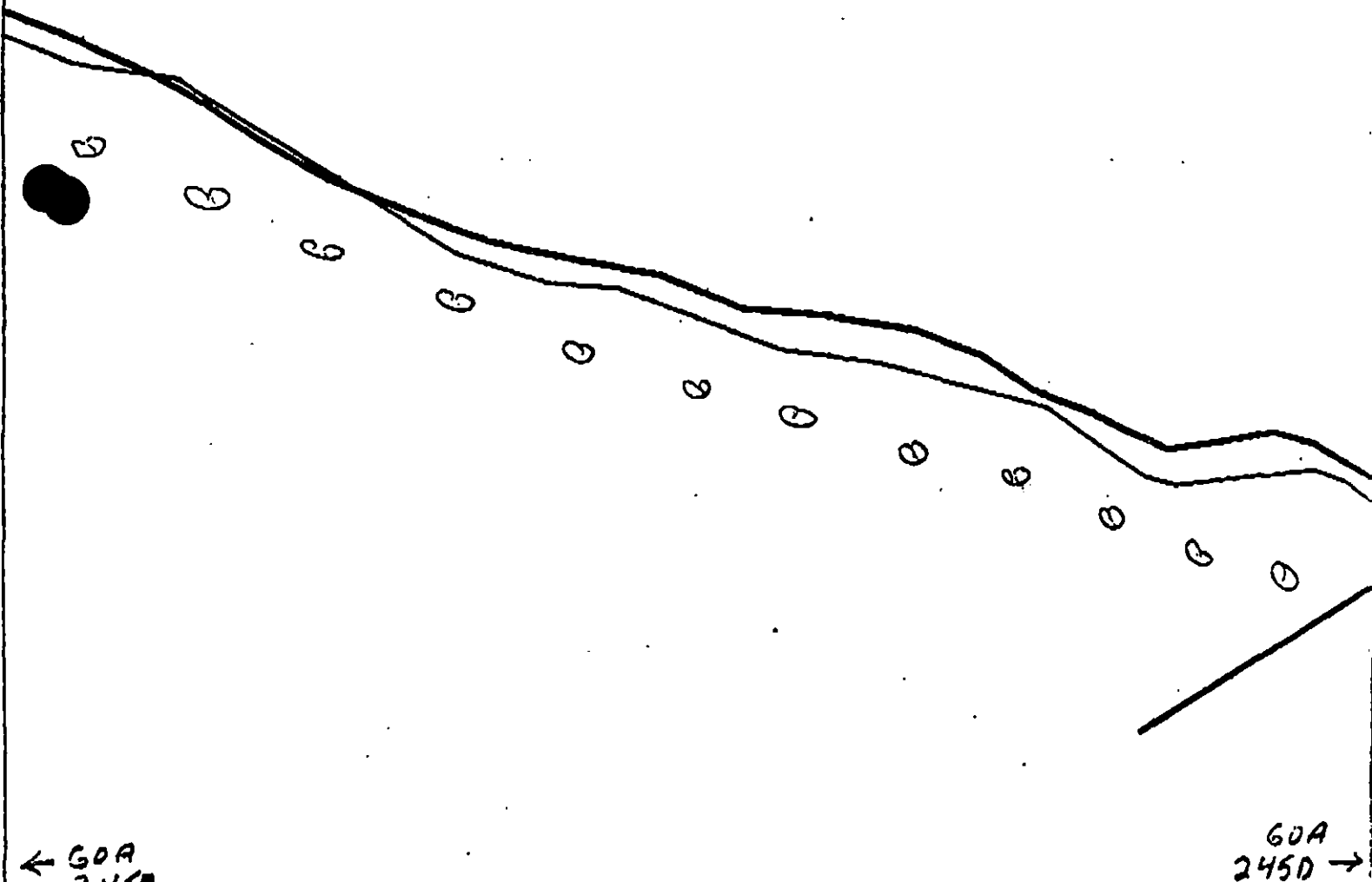
Kø62ø - SB-5

ADEC Segment Length: 3759m

Map Key: GOA-245b

Name: Sam. Tani Sem. 12

Date: May 12/90



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

K0620-SB-5

ADEC Segment Length: 3759m

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Map Key: GOA-245c

Name: Jean-Marie Seifert

Date: May 12/90

SB-4

SB-

GOA
45C

- XXX Wide

//// Medium

--- Narrow

TTTT Very Light

K0620-SB-5

ADEC Segment Length: 3759m

Map Key: GOA-245d

Name: John Meris SampleDate: May 12/90

SEGMENT ST/ K06-34-SL-01 SUBDIVISION A (1 OF 1) DATE 4/9/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (4/15 to 7/31)

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

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 97 m: No Oil 272 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Manual pick up of mousse and patties. Work restricted to before 7/10.

TAG COMMENTS:

TAG APPROVAL DATE: 4/14/90

ADEC JOHN BAKER

EXXON ANDY TER

NOAA Bart Wescott

USCG G.A. REITER

FOSC: WJL DATE: 5-1-90

KODIAK ECOLOGICAL CONSTRAINTS

SL-01-A

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage.
No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
- 1C Salmon fry nursery area (4/31 to 7/31)
1D Kotol Bay Hatchery release
Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
1H Remote release site
1I Gill net area
1J Purse seine area
Mainland, West side Kodiak, Shuyak & Moser/Olga Bay - 6/9 to 10/1.
East side Kodiak, East side Afognak - 7/4 to 10/1.
1K Purse seine hook-off
1L Set net sites
USFWS setnet uplands permit 5/15 to 9/15.

For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/15 to 6/30)
Restrict boat traffic to essential minimum. Avoid damage to unoiled intertidal and subtidal algae and seagrass.
Contact ADF&G for specific dates and locations.
- 3N, 3P Harbor seal and sea lion pupping (5/10 to 6/30)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 5R Seabird colony (5/1 to 8/31)
Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic.
- 5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
- 6U Recreation: Tent sites (8/1 to 9/15)
6V Anchorages (8/1 to 9/15)
6W Forest Service cabins (8/1 to 9/15)
6X Lodge (8/1 to 9/15)
6Y Special use destination
- 7Z Subistence area: Salmon harvesting (8/1 to 9/30)
7HH Finfish harvesting
7I Deer harvesting (8/1 to 1/7)
7JJ Invertebrate harvesting
7KK Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K6-34 SL-01 SUBDIVISION: K6-34-2L-1A DATE 4-4-90

USCG

NAME D.D. Haven Jr. 6M3 USCG SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

all areas less than 1% coverage. Cannot justify treatment

ADEC

NAME Francine J. Bennis SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

Very sporadic MS/MS PATCHES are present in this area of Sturgeon Lagoon. A small clean-up crew should also cruise this segment & pick-up the retrievable oil.

SSAT field map should accompany clean-up crew.

LAND MANAGER

NAME JOHN P. HARDISIER SIGNATURE [Signature] USFWS

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

Concur with ADEC representative.
gph

John Merrick

John Merrick Konaig Inc

Concur - if a team in the area a small effort here would be beneficial

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Acton USCG Flaver SEGMENT ST/ K6-34-SL-1
 BIO Davis LAND REP USFWS Hardinger SUBDIVISION K6-34-SL-1A
 AXON Avery ADEC Bennis TIME 5:20 to 5:45
 TEAM NO.: 20 TIDE LEVEL: +1.5 to +1.5 DATE 4/4/90
 EST. SUBDIVISION LENGTH: 410 m ☐ Sun ☐ Clouds ☐ Fog ☐ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 0 % B 0 % C 20 % P 20 % G 20 % S 10 % M 20 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 100 m NO 310 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	C	R	P	S	SP OR	OR PW	OL P	OR TL	OR	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 N/A#BAGS 0

Photographs:

Roll No. 20-3Frames 16-18

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SP OR	OR OR	OL OR	OF OR	NO OR	EU	U	M	U			
1	30					✓	-									✓					MGC
2	40					✓	-									✓					MGC
3	30					✓	-									✓					MGC
4	40					✓	-									✓					MGC
							-														
							-														

COMMENTS A 2m band of very sporadic CT/S + MS/P extended ^{approx. 100m} into this section from K6-34-SL-2A. Band is < 1% coverage. Additionally, 2 mousse patties approx 12cm in diameter and 2cm in thickness, were observed at the south end of the section.
 skirted entire section.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST/106-34 Subdivision SL01A Date (mo / day / yr) 4-4-90

Time (24 hr) 17:00 Biologist J. Davis

- (A) Substrate type and % of segments:
 (1) Bedrock (2) Boulder (3) Cobble 20 (4) Pebble 30 (5) Sand 20 (6) Silt 30
- (B) Overall % cover of biota (% of segment): Dense Moderate 30% Low 70% (25%)
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
 Roll No. ST-20-3

Frames 16-18

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	X	3	X	X	3	X	X	X	NOT PRESENT
4	4	4	4	X	4	X	X	4	X	X	X	1, 2, 5, 6
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	X	2	
3	3	X	3	3	X	3	3	X	X	X	X	NOT PRESENT
4	4	X	4	4	X	4	4	X	X	X	X	1, 5, 6
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	
3	3	3	3	X	3	3	X	3	X	3	3	NOT PRESENT
4	4	4	4	X	4	4	X	4	X	4	4	1, 2, 5, 6
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	X	3	3	X	3	X	3	3	NOT PRESENT
4	4	4	4	X	4	4	X	4	X	4	4	1, 2, 5, 6
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: Fewer mussel beds and they are further out. Glaucous winged Gulls are on the beds. 2 adult eagles seen. (1 flying (standing on mud flat area) 10-15 Pintails, 10-15 Glaucous winged Gulls.

Ecological Considerations: (1A, 1B, 8AA) This section is part of an estuary area that provides food shelter and breeding habitats to many species of birds, mammals and fish.

ASC # 256-40 10010

SL-1

SL-

SL - 1

Map Key: GOA-274

Name: Acton

Date: 4-4-68

Data Entered:

/// Medium

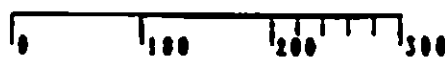
----- Narrow

ADEC Segment Length: 369m

TTTT Very Light

0000 No Oil

METERS



ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K06-34-SL-01 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	WORK BEFORE 7/10

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

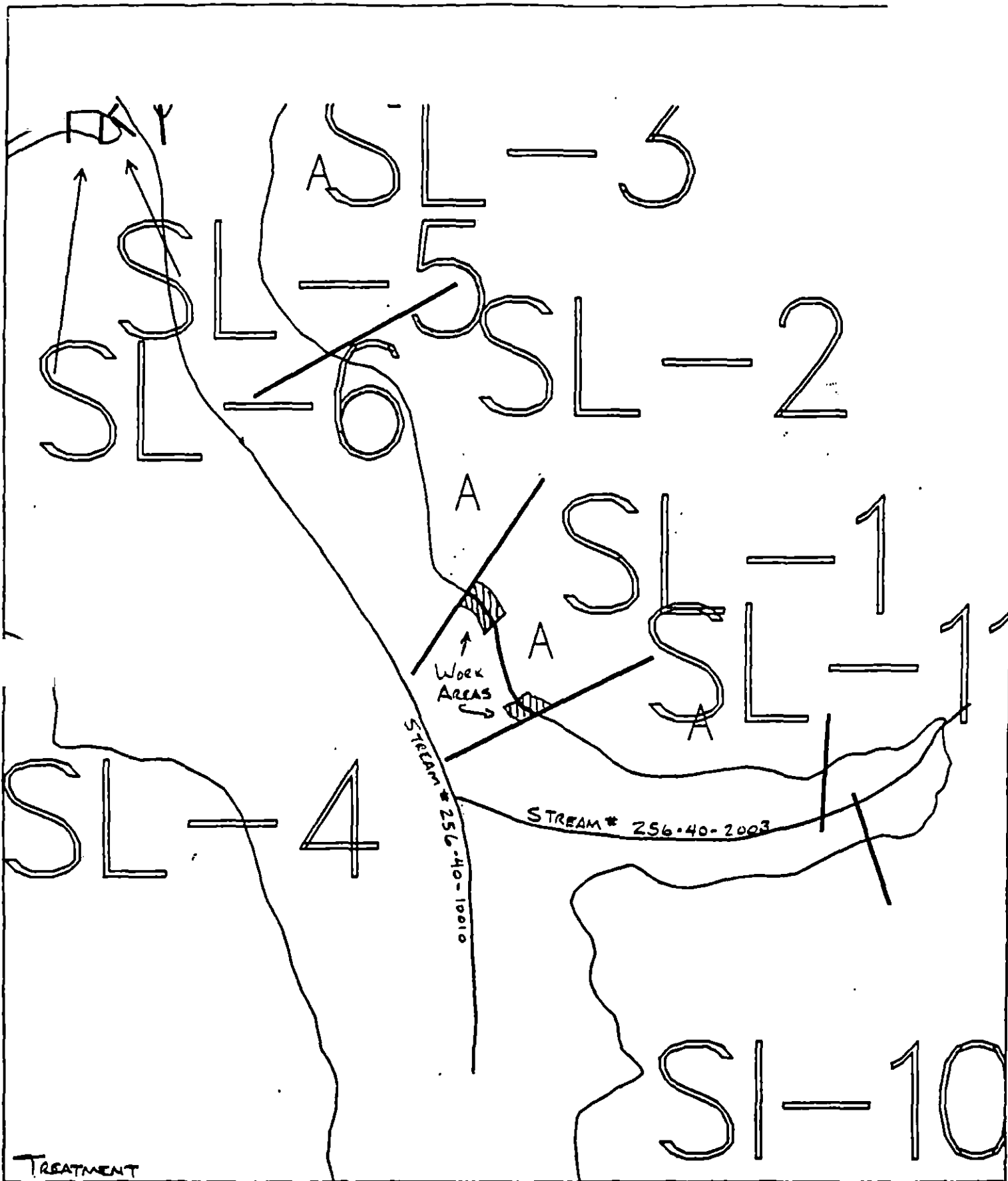
1A,1B Salmon Stream

ADF&G catalogued anadromous streams (256-40-10010 and 256-40-2003) are more than 100m from work site. No constraint to manual pickup.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC *R. J. Janssen* Date 6-15-90
Prepared by *P. Phillips* Date 6/15/90



TREATMENT



Exxon Company, USA
Map Keys KOD-SL-1



ECOLOGY MAP
SEGMENT K6-34 SL-1
SUBDIVISION --- (--- of ---)
METERS

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

1 1006 - 1198 1001

SHORELINE EVALUATION

SEGMENT ST/ K06-34-SL-02 SUBDIVISION A (1 OF 1) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
- 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V. Light 428 m: No Oil 348 m
Subsurface Oil Observed: Yes No X Maximum Depth

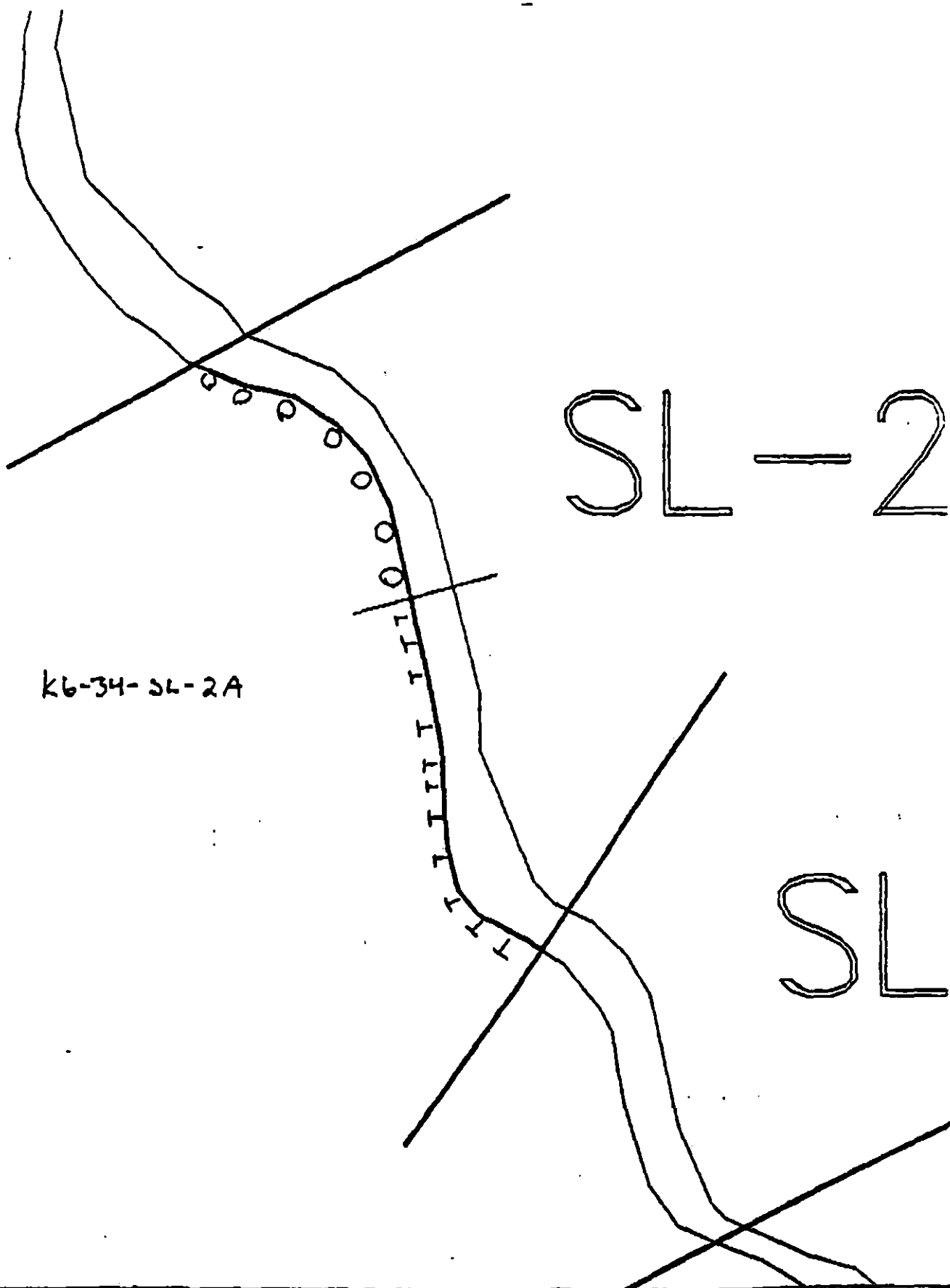
RECOMMENDATIONS:

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

COMMENTS: Manual pick up of mousse and oiled debris. Work to be conducted before 7/10.

TAG COMMENTS:

TAG APPROVAL DATE: 4/14/90
ADEC AL KIZGUR
EXXON ANDY TELL
NOAA Bar/Whitcomb
USCG G.A. REITER
FOSC: DATE: 5-1-90



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

SL-2

ADEC Segment Length: 742m



KG-34-SL-2A

Map Key: GOA-191

Name: Acton

Date: 4-4-90

Data Entered:

KODIAK ECOLOGICAL CONSTRAINTS

SL-02-A

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K6-34 - SL-2 SUBDIVISION: K6-34-2L-2A DATE 4-4-90

USCG

NAME D.D. Haven Jr., GMS, USCGR SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

The amount of oil present does not justify the dedication of personnel for clean-up. The only reason I suggest treatment is due to the presence of clean up debris (pom-poms) that needs to be picked up. While there are workers out there, they may as well try to get some of the oil.

ADEC

NAME Francine J. Berra SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

A small band of mousse patches/mousse saturated sediments (5m x 10m) exists. Comments remain the same as those for SL-03:

A small-scale manual clean-up is recommended.
SSAT field map should accompany clean-up crew.
Some pom-poms are present in UTR, & should be removed.

LAND MANAGER

NAME John P. Hardister SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

USFWS

Concur with comments of both USCG and ADEC representatives.

John Merrick

John Merrick Koniag, Inc

Concur with above recommendations

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Acton USCG Harker SEGMENT ST/ K6-34-4-2
 BIO Davis LAND REP USEWS Harbiter SUBDIVISION K6-34-4-2A
 IXTON Avery ADEC Bennis TIME 5:00 to 5:20
 IXTAM NO.: 20 TIDE LEVEL: +1.5 to +1.3 DATE 4/4/90
 EST. SUBDIVISION LENGTH: 742 m ☐ Sun ☐ Clouds ☐ Fog ☐ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo 16 WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 0 % B 0 % C 20 % P 20 % G 20 % S 20 % M 20 % V 20 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 400 m NO 342 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	10	15	20	25	30	35	40	45	50	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 1/A-0#BAGS 0

Photographs:

Roll No. 0Frames 0

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	UC	30	35	40	45	50	SU	U	M	L		
1	30					✓	.										✓			MGP
2	30					✓	.										✓			MGP
3	30					✓	.										✓			MGP
4	40					✓	.										✓			MGP
5	30					✓	.										✓			MGP
							.													

COMMENTS A 2m band of very sporadic CT/S + MS/P (< 1% coverage) was observed for approx. 400 m in the upper MITE. An area approx 2m x 10m w/in this band had a slightly higher CT/S + MS/P concentration (< 5% coverage).
 Vasked entire segment.

Acton

SKETCH MAP

Approx Scale
1cm = 50m

N ↑

SEGMENT ST/ KL-34-SL-2

BOMVISION KL-34-SL-2A

TE 4 / 4 90

CHECKLIST

- N Arrow
- Approx. Scale
- Seg/Sub Grid
- O: Dist
- Width
- Length
- % Cover
- Substrate Character
- E. M. H. M. A. M.
- SSL
- Profile Location(s)
- Profile(s)
- Pt Location(s)
- Photo Location(s)

GENERAL

1 Δ
No Subsurface Oil

2 Δ
Subsurface Oil

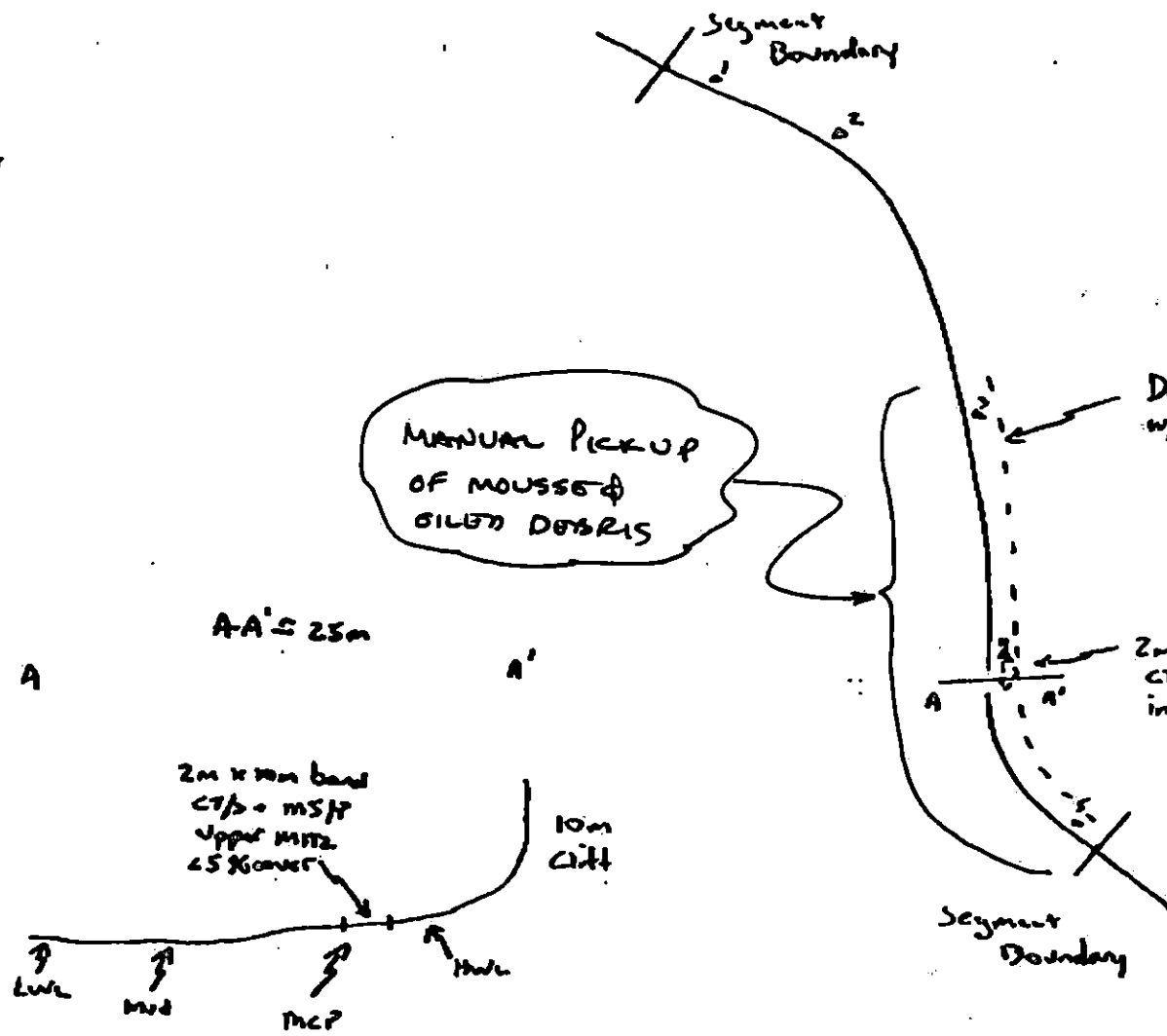
CT/C
No. of Distribution

CT/B
in Distribution

CT/P
y Distribution

CT/S
red Distribution

Vegetation
location, direction, number



Dashed line represents 2m band in upper MIZ w/ very sporadic CT/S + MS/P, much less than 1% coverage

2m x 10m band CT/S + MS/P in upper MIZ 45% coverage

Tracer Length (m): AP 0 PO 0 CV 0 CT 400 ST 0 MS 400 PT 0 TB 0 FL 0 NO 342

SHORELINE ECOLOGICAL SUMMARY

REVISION: 00/227

Segment ST / K06-34 Subdivision SL-02A Date (mo / day / yr) 4-4-90Time (24 hr) 16:30 Biologist H. Davis

(A) Substrate type and % of segments:

(1) Bedrock (2) Boulder (3) Cobble 30 (4) Pebble 30 (5) Sand 30 (6) Silt 30(B) Overall % cover of biota (% of segment): Dense 10% Moderate 50% Low 40% (30%)

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

Photographs:

Roll No. ST-20 - 3Frames

BARNACLES

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

NOT PRESENT
1, 3, 5, 6

MYTILUS

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

NOT PRESENT
1, 5, 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
3	3	3	3	X	X	X	X	X	3	3	3
4	4	4	4	X	X	X	X	X	4	4	4
5	5	5	5	5	X	5	5	X	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
1, 2, 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	X	3	X	3	X	X	X	X	3	3
4	4	X	4	X	4	X	X	X	X	4	4
5	5	X	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
1, 2, 5, 6

Wildlife Observations/ General Comments: Soft cliffs above the intertidal look to have slumped often sediment is very soft. Eelgrass beds visible in deeper water. Dense mussel patches with some Fucus cover in low intertidal area. (?) Oyster catches seen on mussel beds. Parts of the Mytilus beds are on fine sediments held up by the mussel nests to them.

Ecological Considerations: (1A, 1B, 3AA) This is an Estuary area that provides food, shelter and breeding habitats to many species of birds, mammals and fish. In front of this section are patches of dense Mytilus.

ASC# 256-40, #10010

KODIAK ECOLOGICAL CONSTRAINTS

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

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K06-34-SL-02 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	OPEN

ARCHAEOLOGICAL INSPECTION/CONSULTATION REQUIRED.

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

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

ADF&G catalogued anadromous stream (256-40-10010) is
in Subdivision A. No constraint to manual pickup.

OTHER ECOLOGICAL CONSIDERATIONS

Sensitive estuary. No disturbance to stream bed or banks. Avoid any unnecessary disturbance or damage to uncollected biota and substrate.

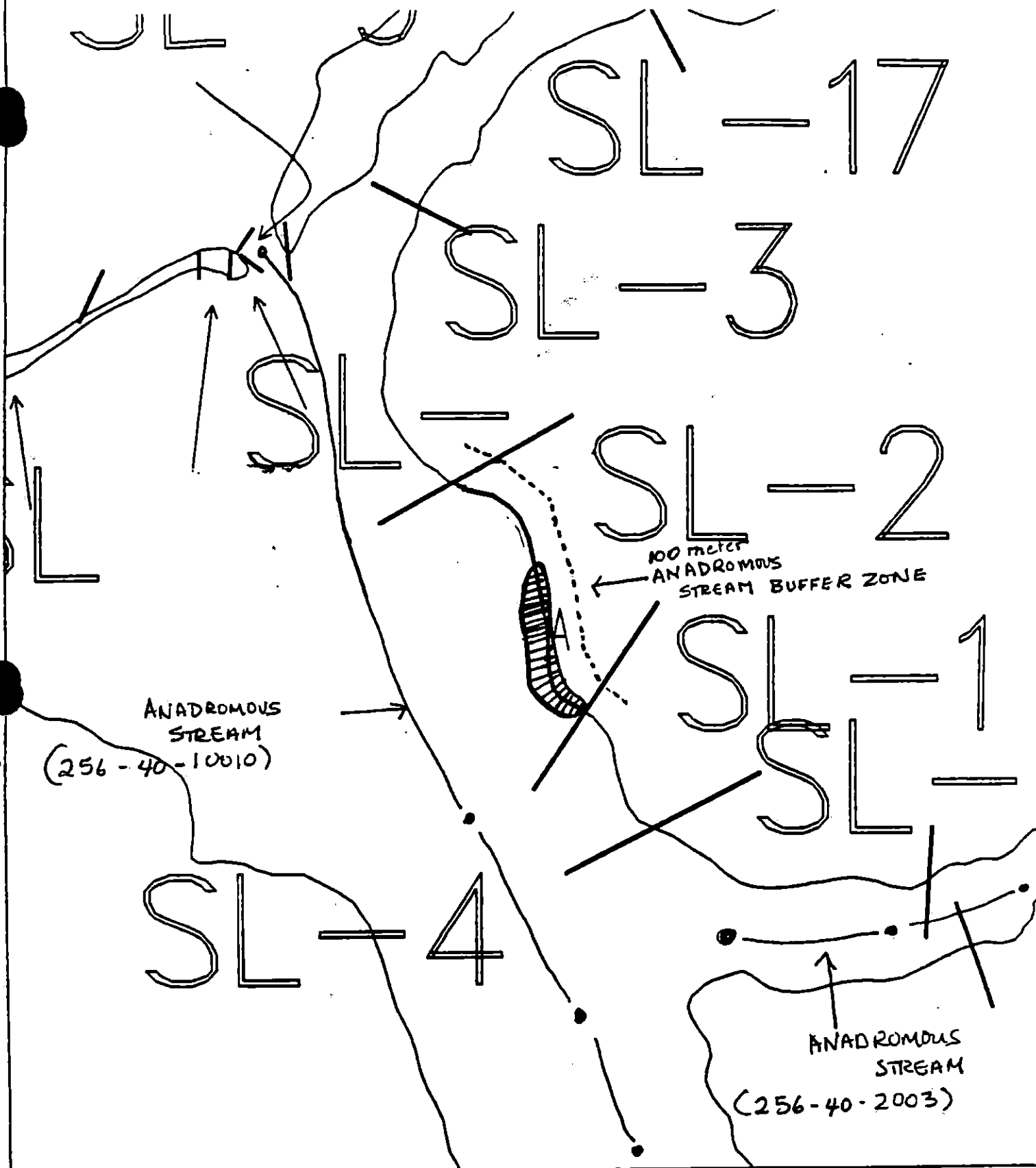
TAG APPROVAL DATE _____
ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC

DATE

Prepared By: Rev. R. Conter

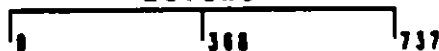
Date 06/09/90



Exxon Company, USA
Map Key: KOD-SL-2
May 17, 1990



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



- ★ Seabird Colony
- ▲ Eagle Nest

1 inch = 1209 feet

SHORELINE EVALUATION

SEGMENT ST/K06-34-SL-03 SUBDIVISION A (1 OF 1) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream mouth no. ASC #256-40, #10010

1A Salmon stream outmigration (4/15 to 7/31)

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

8AA Sensitive Estuary

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

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 21 m: No Oil 839 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommend manual pick up of mousse and oiled trash. Work should be conducted before 7/10, per above constraints.

TAG COMMENTS:

TAG APPROVAL DATE: 4/16/90
ADEC PA. HEDLER
EXXON ANDY TOL FOSC: DATE: 4-20-90
NOAA Burt Wescott
USCG G.A. BEITER

KODIAK ECOLOGICAL CONSTRAINTS

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- 1D** Kotof Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H** Remote release site
- 1I** Gill net area
- 1J** Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay - 6/9 to 10/1.
 East side Kodiak, East side Afognak - 7/4 to 10/1.
- 1K** Purse seine hook-off
- 1L** Set net sites
 USFWS setnet uplands permit 5/15 to 9/15.
- For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M** Herring spawning (4/15 to 6/30)
 Restrict boat traffic to essential minimum. Avoid damage to unholed intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
- 3N, 3P** Harbor seal and sea lion pupping (5/10 to 6/30)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 3O, 3Q** Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 5R** Seabird colony (5/1 to 8/31)
 Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
- 5S** Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic.
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- 6U** Recreation: Tent sites (6/1 to 9/15)
- 6V** Anchorages (6/1 to 9/15)
- 6W** Forest Service cabins (6/1 to 9/15)
- 6X** Lodge (6/1 to 9/15)
- 6Y** Special use destination
- 7Z** Subsistence area: Salmon harvesting (6/1 to 9/30)
- 7HH** Finfish harvesting
- 7II** Deer harvesting (8/1 to 1/7)
- 7JJ** Invertebrate harvesting
- 7KK** Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST K6-34 - 52.3 SUBDIVISION: K6-34-52-3A DATE 4-4-90

USCG

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

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS
Mousse is not present in quantities that warrant treatment, but mousse is now weathering in this low energy very rapidly; so I recommend treatment (low priority small scale) due to the lack of weathering of the oil.

ADEC

NAME Francine T. Bennis SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS
Walked entire segment. A small band of mousse patches/MS-saturated sediments are present in northern portion of segment, just below cabin. A small-scale manual pick-up of is recommended. This oil has remained static over the winter & is likely to persist for some time if not removed. SSAT Field maps should accompany clean-up crew.

LAND MANAGER

NAME JOHN P. HARDISTER SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED USFWS

COMMENTS
Concur with comments of ADEC representative. Observation of mousse patches disclosed a weathered condition that indicates their placement over-winter. Consideration for removal is warranted.

John Merrick John Merrick Kongs, Inc.
If a clean up effort is made this summer this area should be

REVISION NO. 03/22/90

SURFACE OIL

Frames 13-15

REVIEWED BAT DATE 7 Dec 90

OG Action

SEGMENT ST/ KL-34-36-3

SUBDIVISION KL-34-2-2A

DATE 4 / 4 90

CHECKLIST

- ☐ K Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Bndry
- ☐ Off Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HAV/LA/WL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pt. Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

Pt - No Subsurface Ob

2 Δ

Pt - Subsurface Ob

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

Dead Vegetation

1 →

Photo location, direction,
and number

SKETCH MAP

N ↑

Approx Scale

1cm ≈ 50m

MSP - 3 cobbles

w/ mousse

mousse approx 0.5cm x 2.5cm

on each cobble

- in upper MITZ

MANUAL PICKUP
OF MOUSSE (MS)
AND CILED TRASH

Segment Boundary

20-3

13

Pon-Pons at base of cliff in upper MITZ.

A-A' ≈ 25m

A

A'

2m x 10m band CT/S, MSP
45 % coverage
in upper MIT zone

20-3
14, 15

2m x 10m band
CT/S, MSP,
upper MITZ

10m
cliff

Segment Boundary

LWL
MSP
M, C, P
LWL

Of Character I

(m): AP

PO

CV

CT 25

ST

MS 25

TB

FL

NO 779

RECEIVED 2/2/98

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST/K06-34 Subdivision SL-03A Date (mo / day / yr) 4-4-90

Time (24 hr) 16:00 Biologist H. Davis

- (A) Substrate type and % of segments:
 (1) Bedrock (2) Boulder (3) Cobble 25 (4) Pebble 35 (5) Sand 20 (6) Silt 20
- (B) Overall % cover of biota (% of segment): Dense Moderate 25% Low 75% (25%)
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
 Roll No. ST-20-3

Frames 13, 14, 15

BARNACLES

Dense			Moderate			Sparse			Rare			NOT PRESENT 1, 2, 5, 6
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	X	3	3	X	X	X	X	3	
4	4	4	4	X	4	4	X	X	X	X	4	
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 1, 2, 5, 6
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	X	3	3	X	3	3	3	3	X	3	
4	4	X	4	4	X	4	4	4	4	X	4	
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 1, 2, 5, 6
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	X	X	3	3	X	X	
4	4	4	4	4	4	X	X	4	4	X	X	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

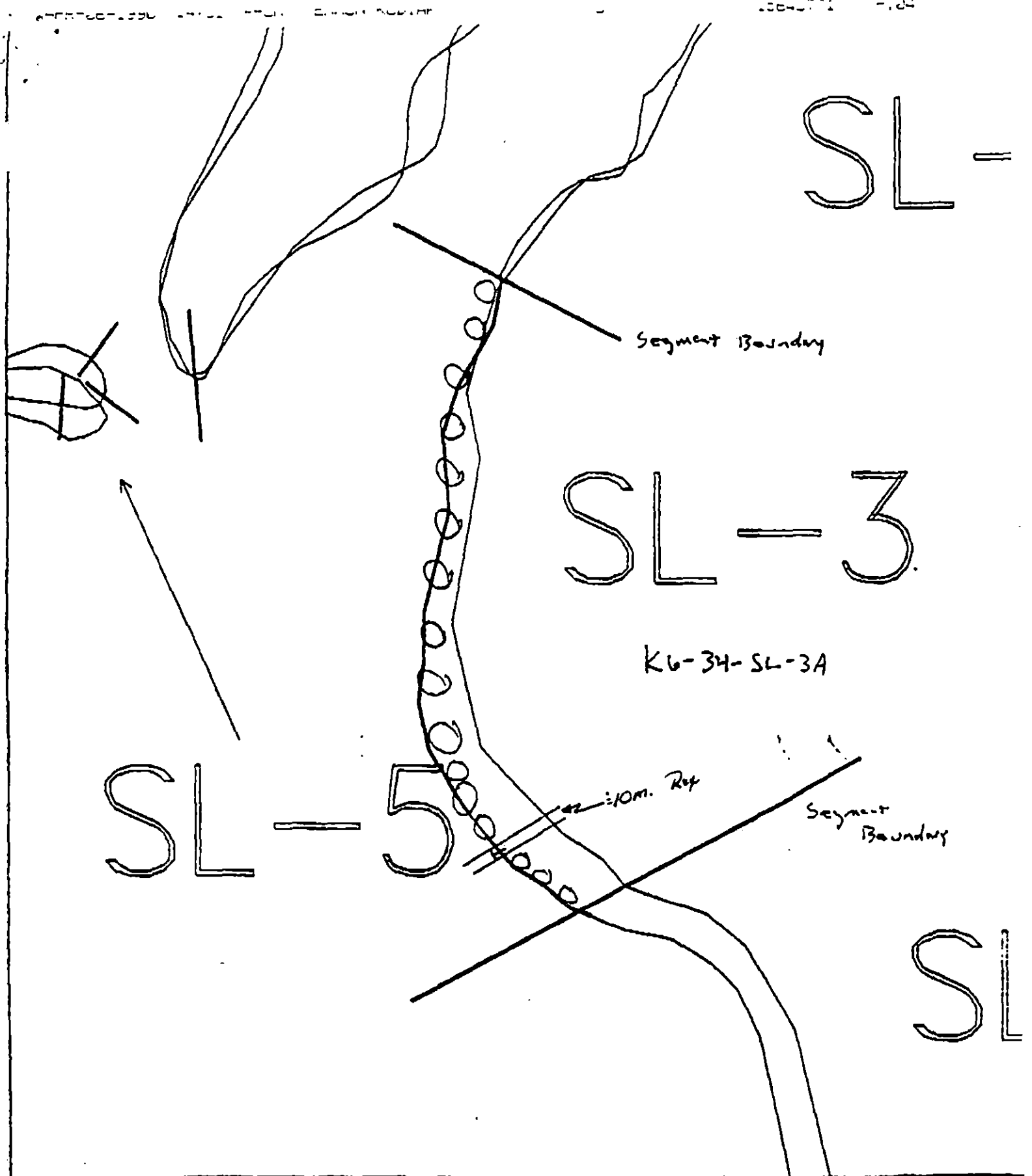
FUCUS

Dense			Moderate			Sparse			Rare			NOT PRESENT 1, 2, 5, 6
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	X	X	3	3	X	3	X	3	3	X	3	
4	4	X	4	4	X	4	X	4	4	X	4	
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: Deer tracks were seen in the upper intertidal. Mytilus was found rarely in the mid-intertidal. On the lower intertidal there were very dense patches of Mytilus. Littorines were the most numerous but limpets were found often. Fucus was also patchy in its distribution (sporadic, fairly dense patches) as small cobbles completely covered but scattered.

Ecological Considerations: (IA, IB, 3AA) The estuary and river areas are food sources for many species of: Birds (Eagles, ducks, gulls and other waterfowl), mammals (Deer, bear, Fox, and river otter), and fish (Pink, Chum, Coho, Steelhead, and Rainbow)

ASC# 256-40, #10010



XXXX Wide

/// Medium

---- Narrow

TTTT Very Light

0000 No Oil

SL-3

ADEC Segment Length: 804m



METERS

KG-34-SL-3A

Map Key: GOA-192

Name: Acton

Date: 4-4-90

Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K06-34-SL- 03 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 anadromous stream (256-40-10010) is in Subdivision A. No constraint to manual pickup.

OTHER ECOLOGICAL CONSIDERATIONS

Sensitive estuary. No disturbance to stream bed or banks. Avoid any unnecessary disturbance or damage to unloiled biota and substrate.

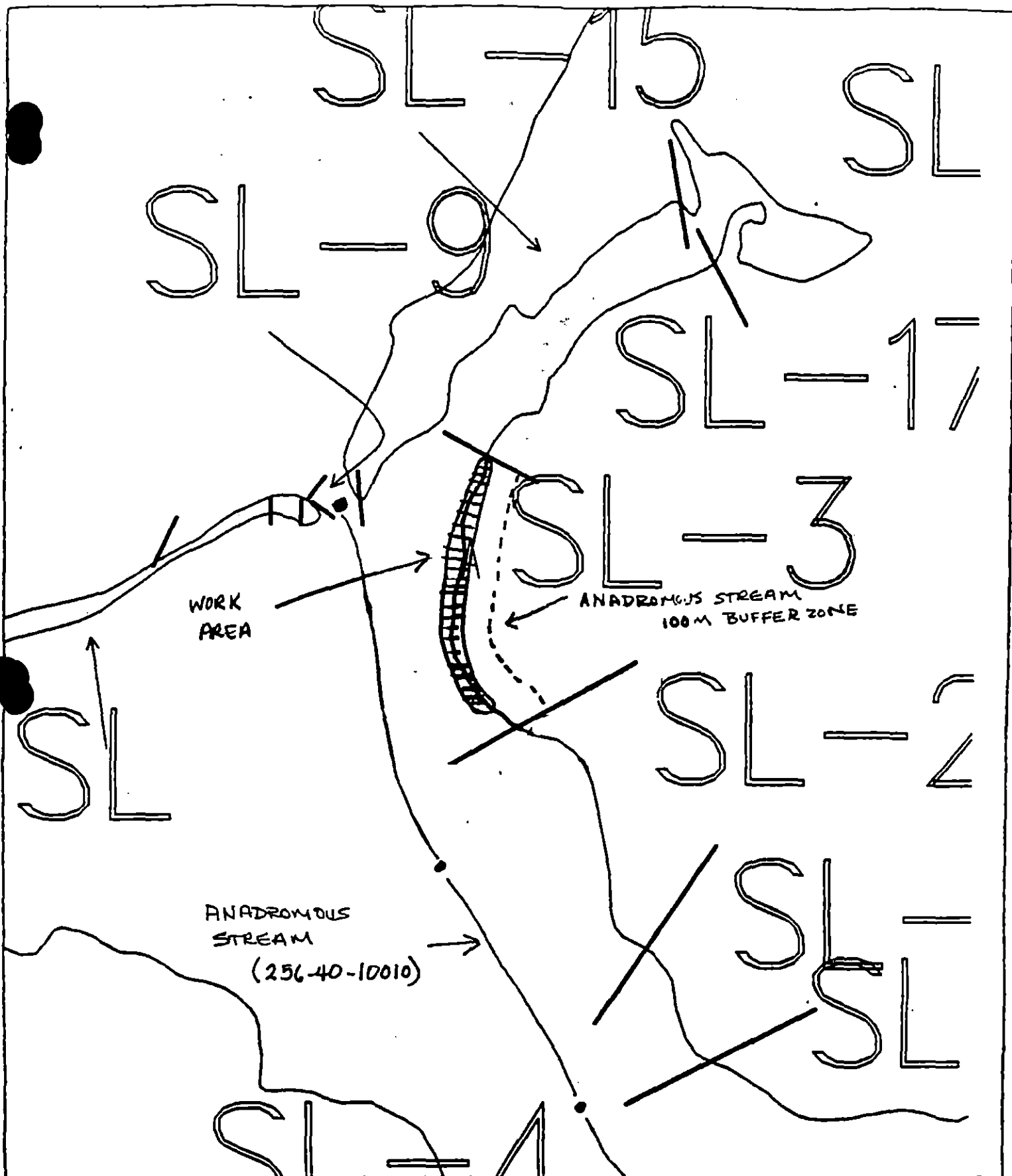
TAG APPROVAL DATE _____
ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC _____

DATE 6-10-90

Prepared By: Rev. D. Carlton

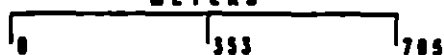
Date 06/19/90



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



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



- ★ Seabird Colony
- ▲ Eagle Nest

1 inch = 1157 feet

SHORELINE EVALUATION

SEGMENT ST/ K0634-SL-05 SUBDIVISION A (1 OF 1) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream mouth no. 256-40-10010

1A Salmon stream mouth - fry outmigration (4/15 to 7/31)

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

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: *Shirley G. H. H. H.* DATE: 4/17/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V. Light 12 m: No Oil 41 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 *D. K. K.*

EXXON *ANDY TEAL*

NOAA *Burt W. W.*

USCG *G.A. REITER*

FOSC: *L*

DATE: 4-20-90

KODIAK ECOLOGICAL CONSTRAINTS

SL-005-A

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ K0634/SLOOS SUBDIVISION: A DATE 4-4-90

~~NAME~~
~~USCG~~

NAME John Naughton SIGNATURE John J. Naughton

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Approximately 30m by 3m zone of stained cobble.
Recommend allow to weather (clean) naturally.

ADEC

NAME Scott Shelton SIGNATURE Scott Shelton

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS K0634/SLOOS Sub. A:

No sub surface oil observed 4 pits to 20 cm
in cobble bench. 3m x 30m area very light staining,
oil coats sporadic and patchy in distribution.
oil is weathered on cobble no mousse patches or oiled
sediment observed in this area of Subdivision A.
SLOOS 57 meters walked.

LAND MANAGER

NAME John Merrick SIGNATURE John Merrick Konag Inc

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Concur

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Penland NAAA U000 Naughton SEGMENT ST/ K0634/56005
O Spight LAND REP Merrick KONAG SUBDIVISION A
XXON Byers ADEC Shelton TIME 16:55 10:17:05
TEAM NO.: 19 TIDE LEVEL: 2.0 ft to 2.0 P DATE 4/4/90
EST. SUBDIVISION LENGTH: 57 m ☐ Sun ☐ Clouds ☐ Fog ☐ Rain ☒ Snow
UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock Land debris
SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
SURFACE SEDIMENTS: R 0 % B 10 % C 70 % P 10 % G 10 % S 0 % M 0 % V 0 %
SLOPE: Lang 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 30 m NO 27 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	10	15	17	18	20	25	30	35	40	SU	U	MS	U
ASPHALT													
PAVEMENT													
POOLED													
COVER													
COAT													
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL													

PAVEMENT: H F S C sq.m by C cr

PATTIES / TARBALLS C BAGS

NEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NO

TYPE C

#BAGS C

Photographs:

Roll No. 19-4

Frames 36-37

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR							PIT ZONE				A N A	SUBSURFACE SEDIMENTS	
		OP	OR	OL	OF	NO		UD	UG	BR	OR	BL	BY	BL	TL	LR	SU	U	MS	U			
1	20					X	-										X						Cobbles
2	20					X	-											X					Cobbles
3	20					X	-										X						Cobbles
4	20					X	-											X					Cobbles
							-																
							-																

COMMENTS

- Zone of stained cobble and gravel, zone of stain is 30m x 2m
- no oil observed at depth

RAV

7/1/90

OU Kobayashi

SKETCH MAP

SEGMENT ST/ Kobayashi / SL005

SUBDIVISION A

DATE 4 / 4 / 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Sea/Sub Bdry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. H_{WL}/L_{WL}
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ P/L Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

PR - No Subsurface Oil

2 Δ

PR - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

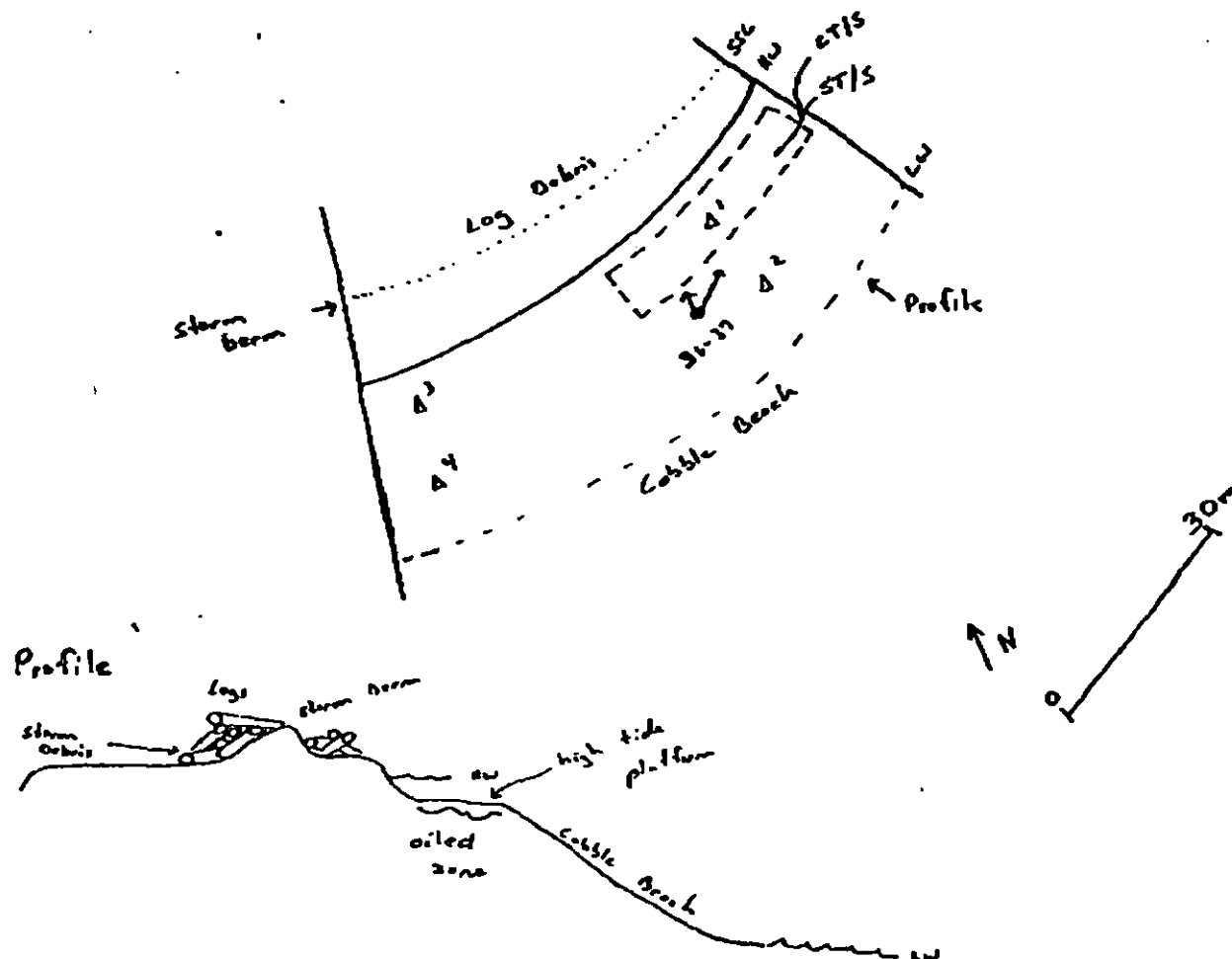
CT/S

Splashed Distribution

Oiled Vegetation

1 $\rightarrow$

Photo location, direction, and number



Oil Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 30 MS 0 PT 0 TB 0 FL 0 NO 27

REVISION 23841

30m x 2m

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST/ SL-5 Subdivision _____ Date (mo / day / yr) 4/4/90
 ne (24 hr) 16:55 Biologist SP16H

- (A) Substrate type and % of segments:
 (1) Bedrock _____ (2) Boulder _____ (3) Cobble 70 (4) Pebble 30 (5) Sand _____ (6) Silt _____
- (B) Overall % cover of biota (% of segment): Dense _____ Moderate 50 Low 50
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
 Roll No. _____
 Frames _____

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

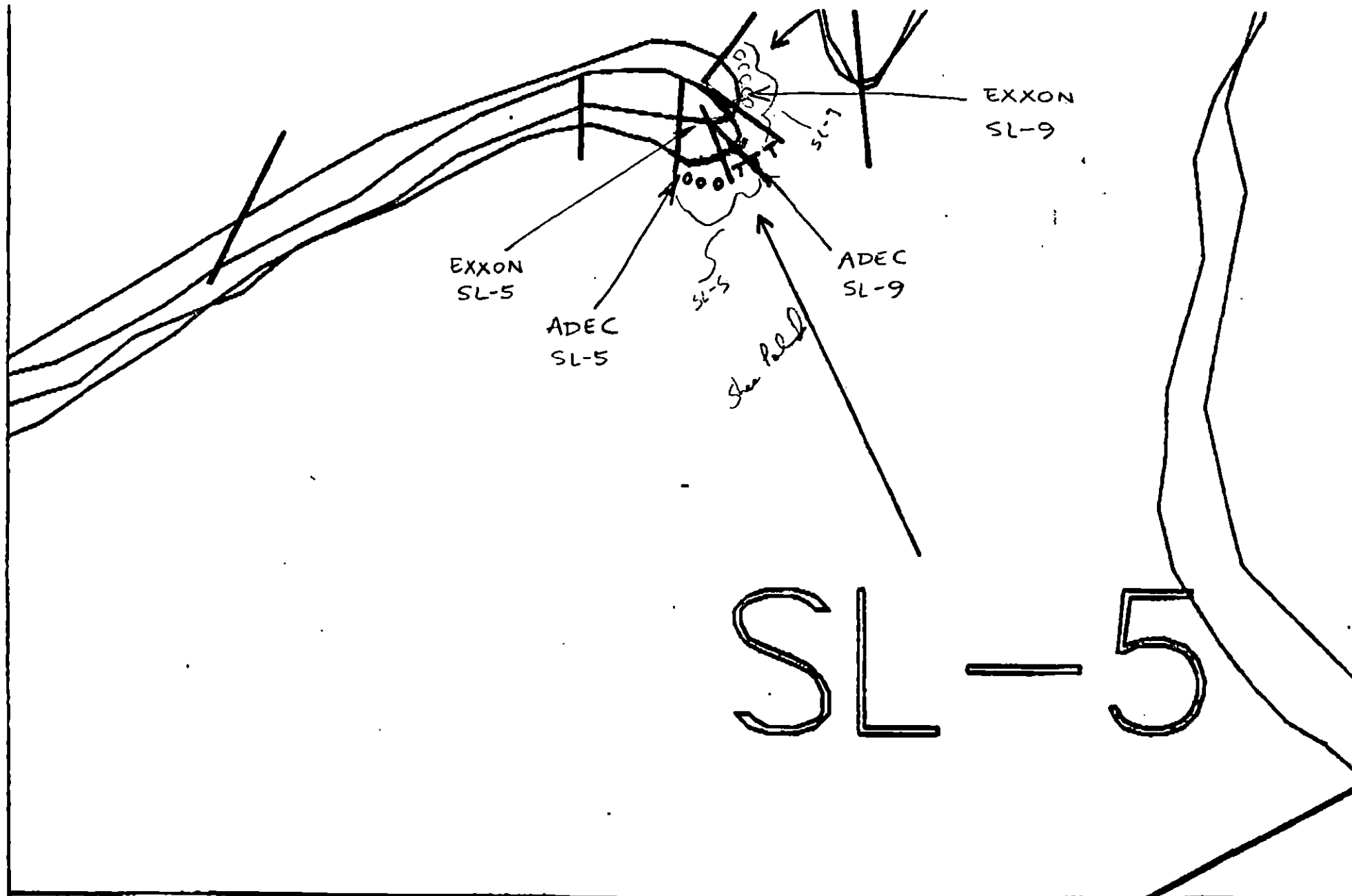
Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments:

Ecological Considerations:

1A, 1B, EAA



XXXX Wide

//// Medium

--- Narrow

TTT Very Light

SL-5

ADEC Segment Length: 57m

Map Key: GOA-194

Name: Peel-and

Date: 4- 92

SL-9

SL-5

XXX Wide

/// Medium

--- Narrow

TTTT Very Light

SL-5

ADEC Segment Length: 57m

0 100 200 300

Map Key: GOA-194

Name: Perland

Date: 4-4-90

SHORELINE EVALUATION

SEGMENT ST/ K06-34-SL-06 SUBDIVISION A (1 OF 1) DATE 4/9/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream mouth no. ASC #256-40, #10010

1A Salmon stream mouth - fry outmigration (4/15 to 7/31)

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

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Charles E. Hansen DATE: 4/12/90

OILING CATEGORIZATION:

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

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/16/90

ADEC Al Brown

EXXON Andy Teds

NOAA Burl Wescott

USCG G.A. REITER

FOSC: W L DATE: 4-20-90

KODIAK ECOLOGICAL CONSTRAINTS

SL-06 A

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
- 1C Salmon fry nursery area (4/31 to 7/31)
- 1D Kotol Bay Hatchery release
Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
- 1I Gill net area
- 1J Purse seine area
Mainland, West side Kodiak, Shuyak & Moser/Olga Bay - 6/9 to 10/1.
East side Kodiak, East side Afognak - 7/4 to 10/1.
- 1K Purse seine hook-off
- 1L Set net sites
USFWS setnet uplands permit 5/15 to 9/15.

For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/15 to 6/30)
Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
- 3N, 3P Harbor seal and sea lion pupping (5/10 to 6/30)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 5R Seabird colony (5/1 to 8/31)
Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic.
- 5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
- 6U Recreation: Tent sites (6/1 to 9/15)
- 6V Anchorages (6/1 to 9/15)
- 6W Forest Service cabins (6/1 to 9/15)
- 6X Lodge (6/1 to 9/15)
- 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (6/1 to 9/30)
- 7HH Finfish harvesting
- 7H Deer harvesting (8/1 to 1/7)
- 7JJ Invertebrate harvesting
- 7KK Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K0634 / SLOO6 SUBDIVISION: A DATE 4-4-90~~NOAA~~
~~USCG~~

NAME

John Naughton

SIGNATURE

John J. Naughton☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

No oil observed. Lagoon facing cobbles beach. Fairly low energy.

ADEC
NAMEScott Shelton

SIGNATURE

Scott Shelton☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

K0634 / SLOO6

No oil observed - 4 pits to 20 cm NO sub-surface oil observed. 86 meters walked

LAND MANAGER

NAME John Merrick

SIGNATURE

John Merrick Komag, Inc☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 02/22/90

OG Pea land NAAA USCG Naughton SEGMENT ST/ K0634/SL006
 IO Epight LAND REP Merrick Kont/AG SUBDIVISION A
 XXON Oyers ADEC Sheldon TIME 17:05 10:17 15
 TEAM NO.: 19 TIDE LEVEL: +2 ft. to +1.75 ft. DATE 4/1/90
 EST. SUBDIVISION LENGTH: 86 m ☐ Sun ☐ Clouds ☐ Fog ☐ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock Log Debris
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 0 % B 10 % C 70 % P 10 % G 10 % S 0 % M 0 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 86 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	10	15	20	25	30	35	40	45	50	55	60	65	SU	U	M	U
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL																

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

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

Photographs:

Roll No. ST-14-5Frames 1-4

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OP	NO		UO	UO	30	35	40	45	50	55	60	65	SU	U	M	U		
1	20					X	.											X					cables
2	20					X	.											X					cables
3	20					X	.											X					cables
4	20					X	.											X					cables
							.																
							.																

COMMENTS

. no oil observed on surface or subsurface

OG Perland

SKETCH MAP

SEGMENT 0634/SL006

SUBDIVISION A

DATE 4 / 4 90

CHECKLIST

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

LEGEND

1 Δ

Flt - No Subsurface Oil

2 Δ

Flt - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

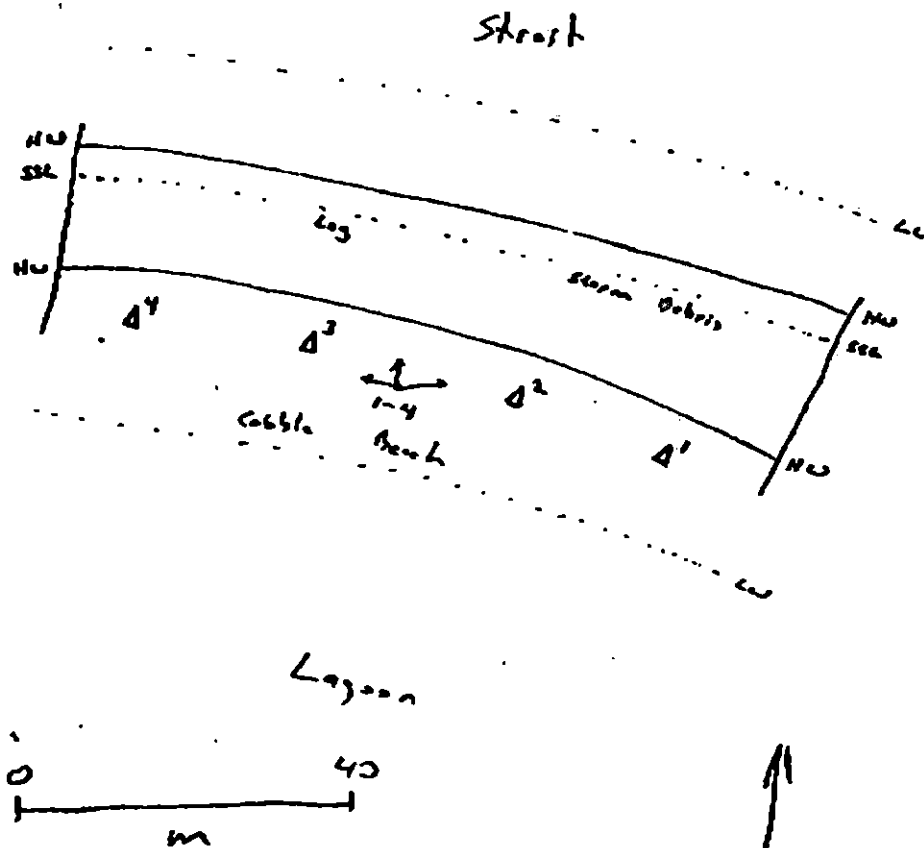
CT/S

Splashed Distribution

Clad Vegetation

1 →

Photo location, direction,
and number



Oil Character Length (m): AP ☐ PO ☐ CV ☐ CT ☐ ST ☐ MS ☐ PT ☐ TB ☐ FL ☐ NO 36

REVISION: 03/04/90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/88

Segment ST/ SL-6 Subdivision A Date (mo / day / yr) 4/4/90

e (24 hr) 16:10 Biologist SP16HT

(A) Substrate type and % of segments:
(1) Bedrock _____ (2) Boulder _____ (3) Cobble 40 (4) Pebble 60 (5) Sand _____ (6) Silt _____

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

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

Photographs:
Roll No. _____

Frames _____

BARNACLES

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

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

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

NOT PRESENT

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

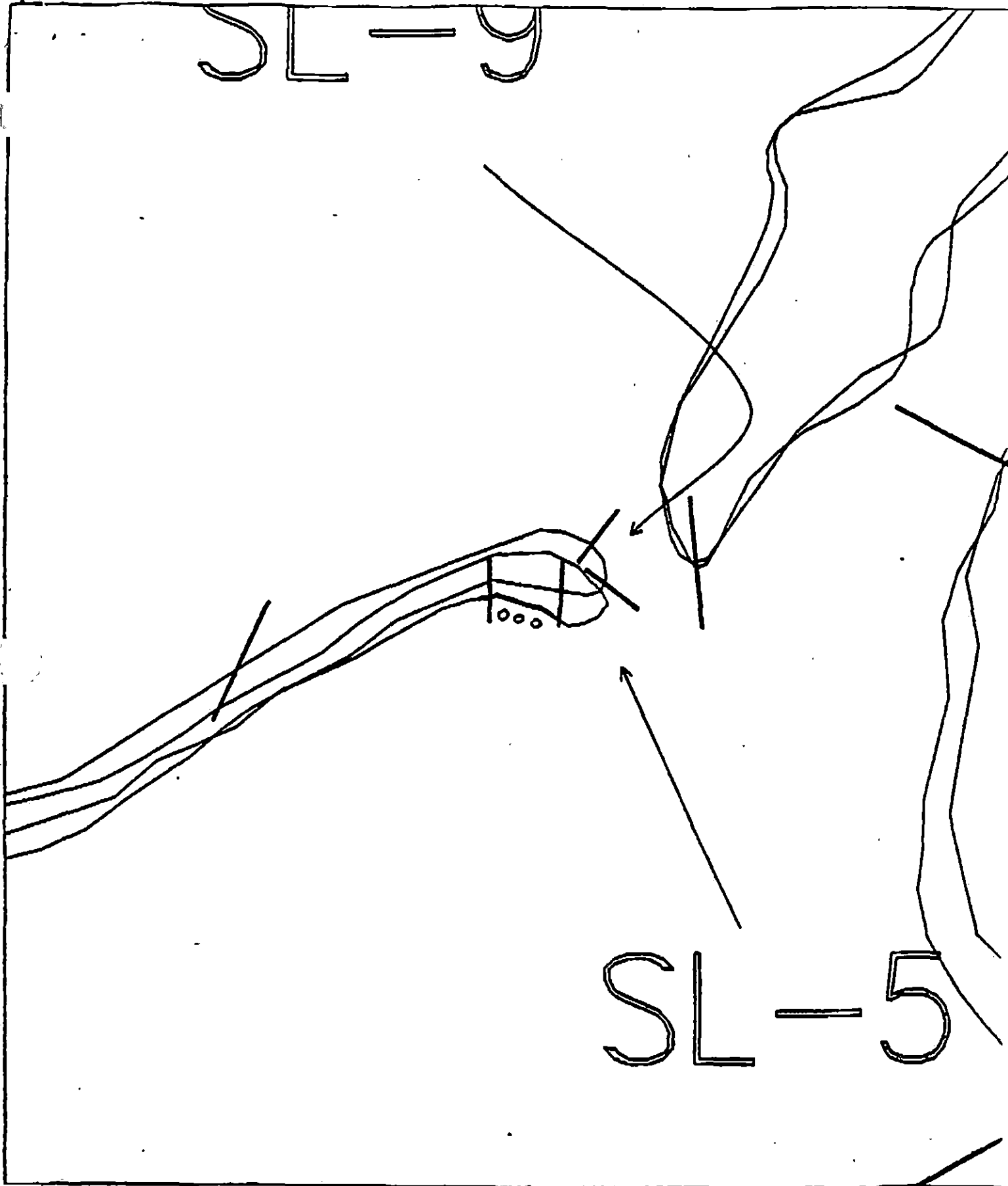
NOT PRESENT

Wildlife Observations/ General Comments:

Ecological Considerations: UL Generally bare. LL B. glandula cobble with mussels mixed in. Mussel beds n delta behind berm; also largish Fucus patches Littorina sitkana dense on gravel/mud between cobbles No LL in this area

1A, 1B, 8AA
ASC# 256-40 #10010

SL-9



SL-5

XXXX Wide

//// Medium

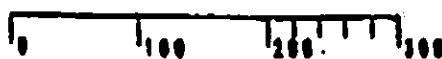
---- Narrow

TTTT Very Light

OOOO

SL-6

ADEC Segment Length: 86m



Map Key: GOA-195

Name: Penland

Date: 4-4-90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ K06-34-SL-07 SUBDIVISION A (1 OF 1) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream mouth no. 256-40-10010.

Salmon stream outmigration (1A) - 3/1 to 3/15 and spawning (1B) - 7/10 to 8/31. No disturbance of stream bed or banks unless authorized by ADF&G. Contact ADF&G Habitat Division prior to treatment for permits. Sensitive estuary (8AA).

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid disturbance/damage to uncoiled biota and substrate.

SHPO SIGNATURE: Charles J. Hume DATE: 4/17/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V. Light 112³ m: No Oil 0 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

DUE TO THE ENVIRONMENTAL SENSITIVITIES AND RESOURCE USE
MANUAL PICKUP OF MOUSSE PATTIES REQUIRED.

TAG APPROVAL DATE: 4/14/90

ADEC Art Weiner D. Weiner

EXXON Andy Ter

NOAA By L. Wiscott

USCG G.A. REITER G.A. Reiter

FOSC: [Signature] DATE: 5-1-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K0634 / SLOO7 SUBDIVISION: A DATE 4-4-90~~IAA~~
~~UCCO~~NAME John Naughton SIGNATURE John J. Naughton☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

Oil stains and some mousse were observed in an almost continuous band of 1 to 2 meters wide along this entire segment. However did not appear to be subsurface. Because this segment is low energy the mousse should be removed manually. The stained cobbles should not be treated and no cobbles should be removed from the beach during treatment.

ADEC
NAMENAME Scott Shelton SIGNATURE Scott Shelton☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTEDCOMMENTS K0634 / SLOO71164 meters. Assessment.

Band of oil observed in splashes 2 meters wide, rather sporadic along this segment. Mousse in sediment observed in this band as well. Impact can be found in the mid to upper tidal levels. 6 pits in cobbles to 20 cm NO subsurface oil observed. Impact can be observed along the entire 1164 meters. Type A clean up could greatly improve surface conditions. Low energy beach.

LAND MANAGER

NAME John Merrick SIGNATURE John Merrick Koniag, Inc☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

If treating other segments a once over picking up the mousse patches is recommended

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Deer Island USCGC Navigation SEGMENT ST/ K0634/54007
 BIO Sight LAND REP Merrick LONIAG SUBDIVISION A
 XON Green ADEC Shelton TIME 17:15 to 17:30
 AM NO.: 19 TIDE LEVEL: +1.75 to +1.75 DATE 4 / 4 / 90
 EST. SUBDIVISION LENGTH: 1164 m ☐ Sun ☐ Clouds ☐ Fog ☐ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock Log debris
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 0 % B 10 % C 70 % P 10 % G 10 % S 0 % M 0 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 1164 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	1C	1B	1P	1S	2	3	4	5	6	7	8	9	10	11	12	13
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 N/A#BAGS 0

Photographs:

Roll No. 19-5Frames 5-12

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR								PIT ZONE	A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UD	1	2	3	4	5	6	7	8	9	10	
1	20					X	.													Cobbles
2	20					X	.													Cobbles
3	20					X	.													Cobbles
4	20					X	.													Cobbles
5	20					X	.													Cobbles
6	20					X	.													Cobbles

COMMENTS

• oil in narrow 2m bands, along the entire length of the shoreline.
 • oil in the upper-intertidal zone.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/22/88

Segment ST/ SL-7 Subdivision _____ Date (mo / day / yr) 4/4/90

Time (24 hr) 7:16:10 Biologist SPLIGHT

(A) Substrate type and % of segments:
(1) Bedrock _____ (2) Boulder _____ (3) Cobble 40 (4) Pebbles 60 (5) Sand _____ (6) Silt _____

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

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

Photographs:
Roll No. _____

Frames _____

BARNACLES

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

NOT PRESENT

MYTILUS

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

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

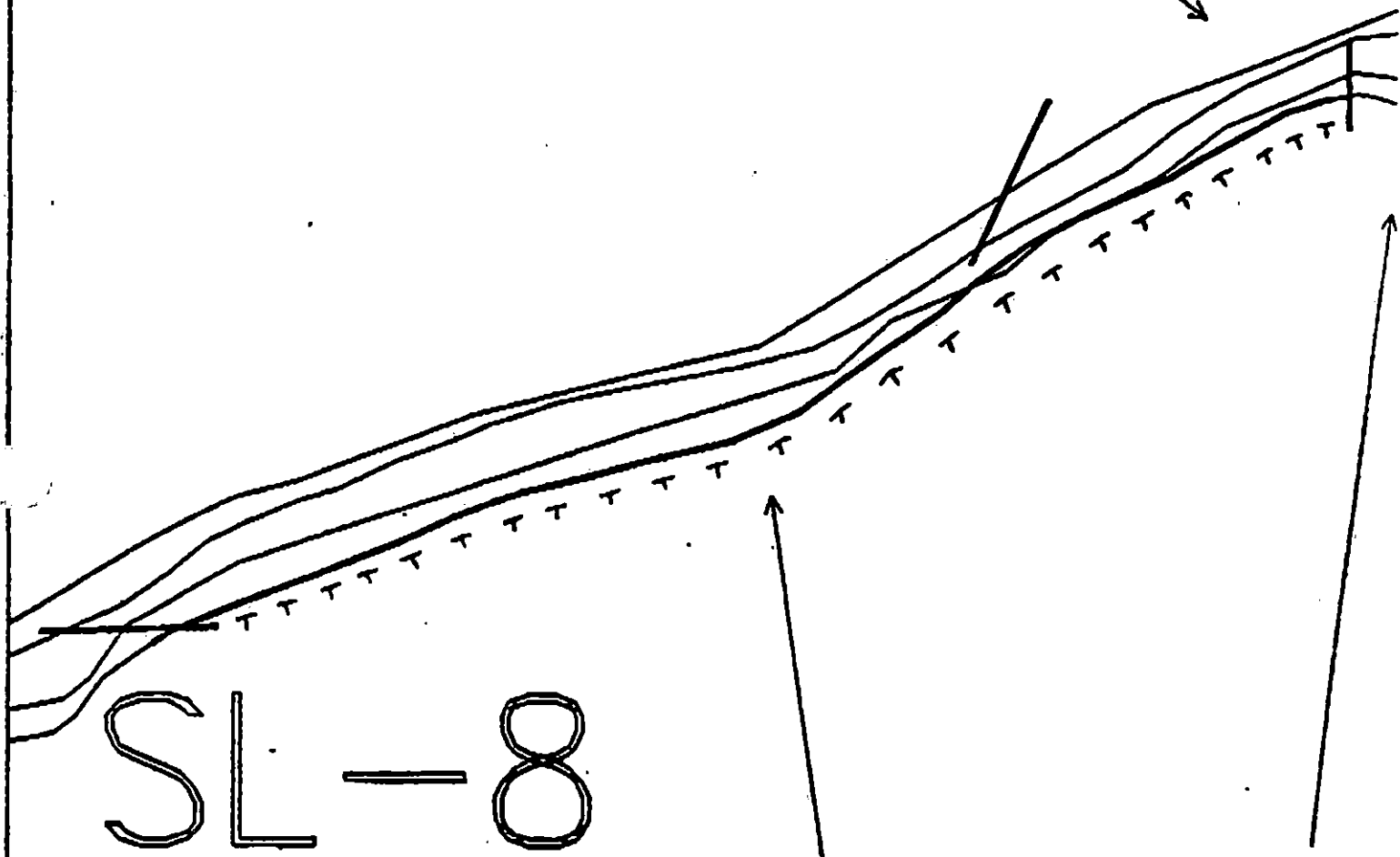
NOT PRESENT

Wildlife Observations/ General Comments:

Ecological Considerations: Big glandular cobble
Fucus common in a couple of places
No LL
Eelgrass in lagoon

1A, 1B, BAA
ASC # 256-40, #10010

SL-13



SL-8

SL-7

S

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

SL-7

ADEC Segment Length: 1184m



Map Key: GOA-196a

Name: Shes Peiland

Date: 4-4-90

Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT KO6-34-SL-07 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 anadromous stream (256-40-10010) is in Subdivision A. No constraint to manual pickup.

OTHER ECOLOGICAL CONSIDERATIONS

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

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

FOSC

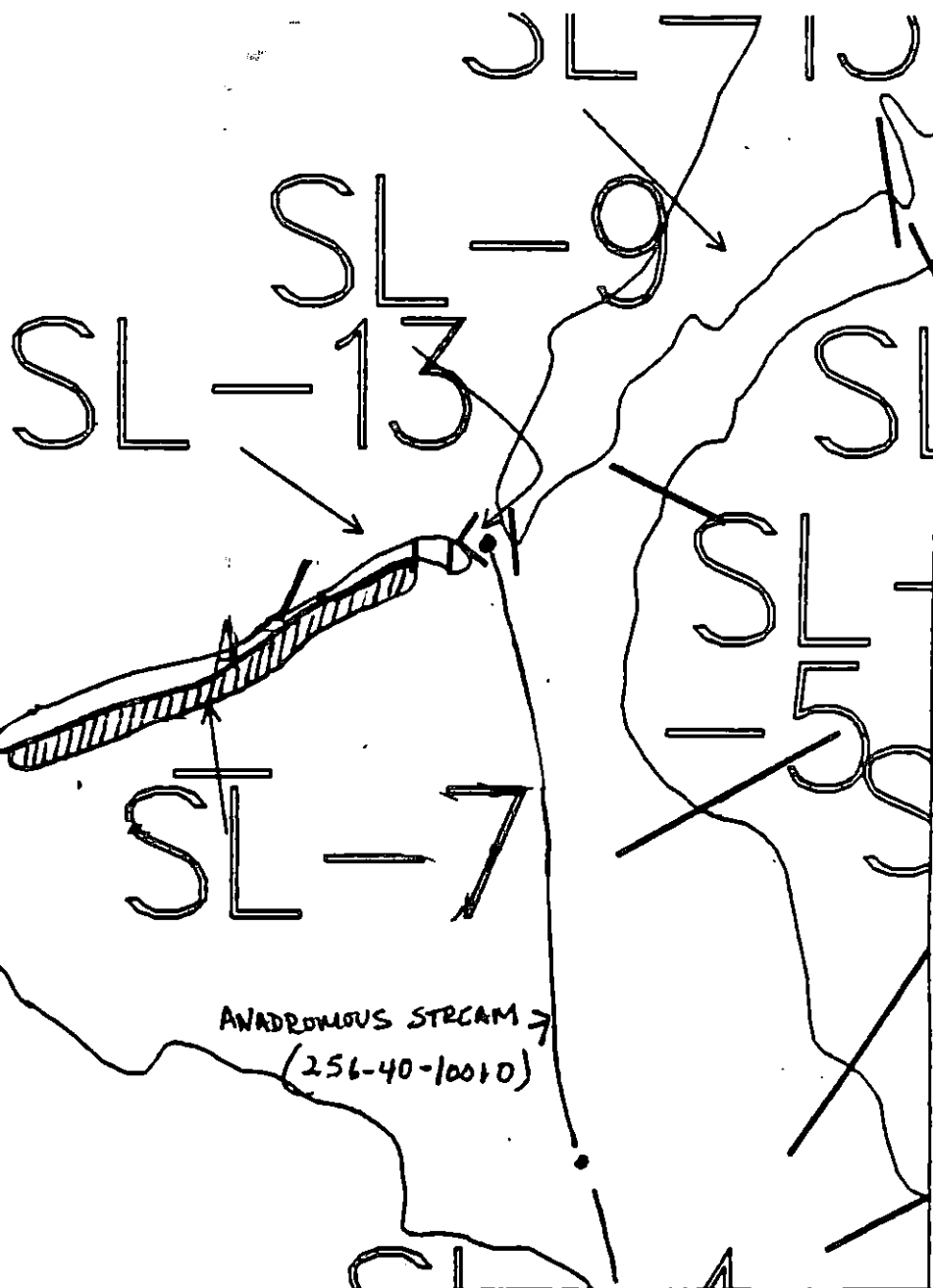
DATE

6-10-90

Prepared By: Rex R. Coulter

Date

06/10/90



Exxon Company, USA

Map Key: KOD-SL-7

May 17, 1990

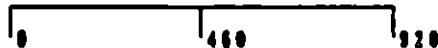


ECOLOGY MAP

SEGMENT SL-7

SUBDIVISION A (1 of 1)

METERS



Seabird Colony



Eagle Nest

1 inch = 1509 feet

SEGMENT ST/ K06-34-SL-08 SUBDIVISION A (1 OF 1) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream mouth (ASC #256-40, #10010)
 1A Salmon - fry outmigration (4/15 to 7/31)
 1B Salmon - spawning (7/15 to 9/10; PEAK 8/15)

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid disturbance/damage to unoiled biota and substrate.

SHPO SIGNATURE: Charles E. Hume DATE: April 14, 1990 *CEH 4/25/90*

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 61 m: V.Light 304m: No Oil 0 m
 Subsurface Oil Observed: Yes X No Maximum Depth 10 cm

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: Bioremediate subsurface oil.

TAG COMMENTS:

TAG APPROVAL DATE: 4/14/90
 ADEC JOHN BANGER John Banger
 EXXON ANDY TATE Andy Tate FOSC: My L DATE: 4-22-90 (TAKEN)
 NOAA Burt Wescott Burt Wescott
 VSCG G.A. Reiter G.A. REITER include limited pickup of mouse

KODIAK ECOLOGICAL CONSTRAINTS

SL-08-A

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K0634/SLOO8 SUBDIVISION: A DATE 4-4-90
10AA
3600

NAME John Naughton SIGNATURE John J. Naughton
☐ NO TREATMENT RECOMMENDED
 COMMENTS

☒ TREATMENT SUGGESTED

Suggest clean up (manual removal) of only pooled murrex which is "melting" subsurface in cobbles. Stained and coated cobbles should not be treated - only way to clean these would be to physically remove the cobbles, which I recommend against.

ADEC

NAME Scott Shelton SIGNATURE Scott Shelton
☐ NO TREATMENT RECOMMENDED
 COMMENTS K0634/SLOO8
☒ TREATMENT SUGGESTED

Sturgeon River lagoon
 Oil can be observed along the entire Segment. With surface coats found on Segment borders. 330 meters length of K0634/SLOO8. Murrex, occasional along segment between cobble and gravel sediment. 6 pits dug to 30cms - pits 4 & 5 observed oil in subsurface sediment. Weathered oil down to 10cm on cobble. Pools on surface can be manual clean type. Subsurface oil may need Bio-tech bag washing treatment. Low energy area.

LAND MANAGER

NAME John Merrick SIGNATURE John Merrick Konias Inc
☐ NO TREATMENT RECOMMENDED
 COMMENTS

☒ TREATMENT SUGGESTED

Limited manual removal of thickest suggested.

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Penland NAAA Naughton SEGMENT ST/ K0634/54008
 ID Spight LAND REP Merrick KONGAG SUBDIVISION A (1/1)
 XON Byars ADEC Shelton TIME 17:30 10:18 :00
 TEAM NO.: 19 TIDE LEVEL: 4.78 10-1.5 ft DATE 4/4/90
 EST. SUBDIVISION LENGTH: 330 m ☐ Sun ☐ Clouds ☐ Fog ☐ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☐ Forest ☐ Rock Log Debris
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 0 % B 10 % C 70 % P 10 % G 10 % S 0 % M 0 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 70 m VL 260 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	10	15	20	25	30	35	40	45	50	55	60	65	SU	U	M	U
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL																

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

PATTIES/TARBALLS 0 BAGS

NEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED

☐ YES ☒ NO

TYPE N/A

#BAGS 0

Photographs:

Roll No. ST-19-5

Frames 14-24

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	30	35	40	45	50	55	60	65	SU	U	M	U		
1	20					X	.												X				Cobbles
2	20					X	.												X				Cobbles
3	20					X	.												X				Cobbles
4	30		X				0-10		X				X						X				Cobbles
5	30		X				0-10		X				X						X				Cobbles
6	30					X	.												X				Cobbles

COMMENTS

- entire zone oiled, at the segment ends it is a surface coat,
- oil can be seen melting into the top 10cm of cobbles in the MS/P and PO/S area.
- The low energy in this area will promote the persistence of oil here.

SEGMENT ST/ K0634/SLOOY

SKETCH MAP

SUBDIVISION A

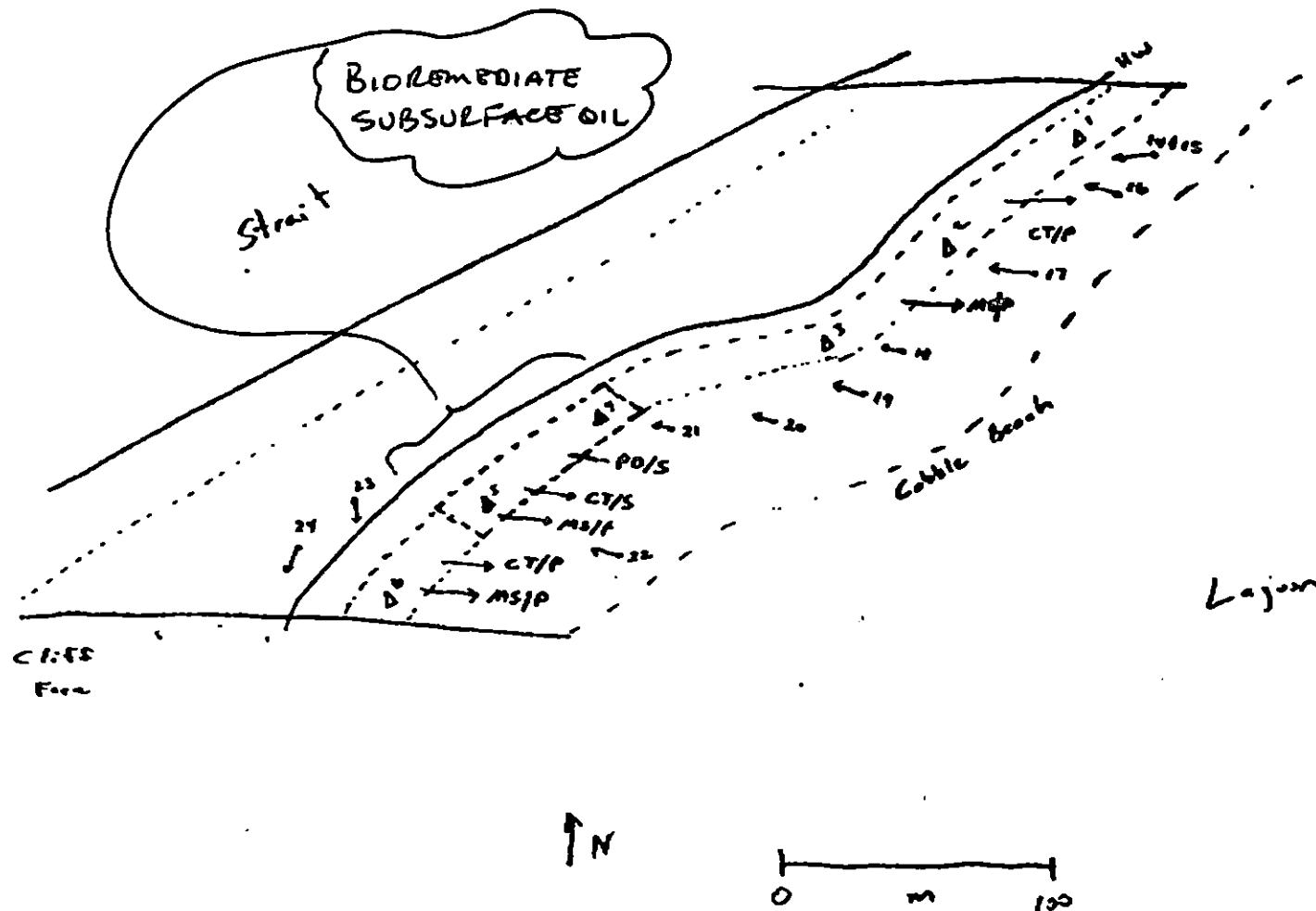
DATE 4 / 4 / 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Bdry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HWA/LWL
- ☐ BSL
- ☐ Profile Location(s)
- ☐ Photo(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
- Oiled Vegetation
- Photo location, direction, and number



Oil Character Length (m): AP 0 PO 70m CV 0 CT 330 ST 0 MS 33 T 0 TB 0 FL 0 NO 0

REVISION 01/0000

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST/ SL-8 Subdivision A Date (mo / day / yr) 4/4/90
 Time (24 hr) > 16:00 Biologist DP16HT (prob. 17:10 - 17:30)

(A) Substrate type and % of segments:
 (1) Bedrock (2) Boulder (3) Cobble 100 (4) Pebble (5) Sand (6) Silt

(B) Overall % cover of biota (% of segment): Dense 10 Moderate Low 90

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (O)
 Photographs: Roll No.
 Frames

BARNACLES

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

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

NOT PRESENT

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

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

NOT PRESENT

Wildlife Observations/ General Comments:

Ecological Considerations: Generally a steep and barren gravel pile with a small mm of B. glandula rubble, this broader toward the end. Lots of eelgrass debris. Limpets may be common on UL under bare cobble. A band of abundant eelgrass.

1A, 1B, 8AA
 ASC #256-40 #10010

SL-14

SL-8

S

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

SL-8

ADEC Segment Length: 330m

0 100 200 300
METERS

Map Key: 60A-197

Name: Shan Parker

Date: 4-7-90

Date Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K06-34-SL-08 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	OPEN
Bioremediation	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

ADF&G catalogued anadromous stream (256-40-10010) is more than 100m from work site. No constraint to manual pickup and bioremediation.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

[Signature]

Date

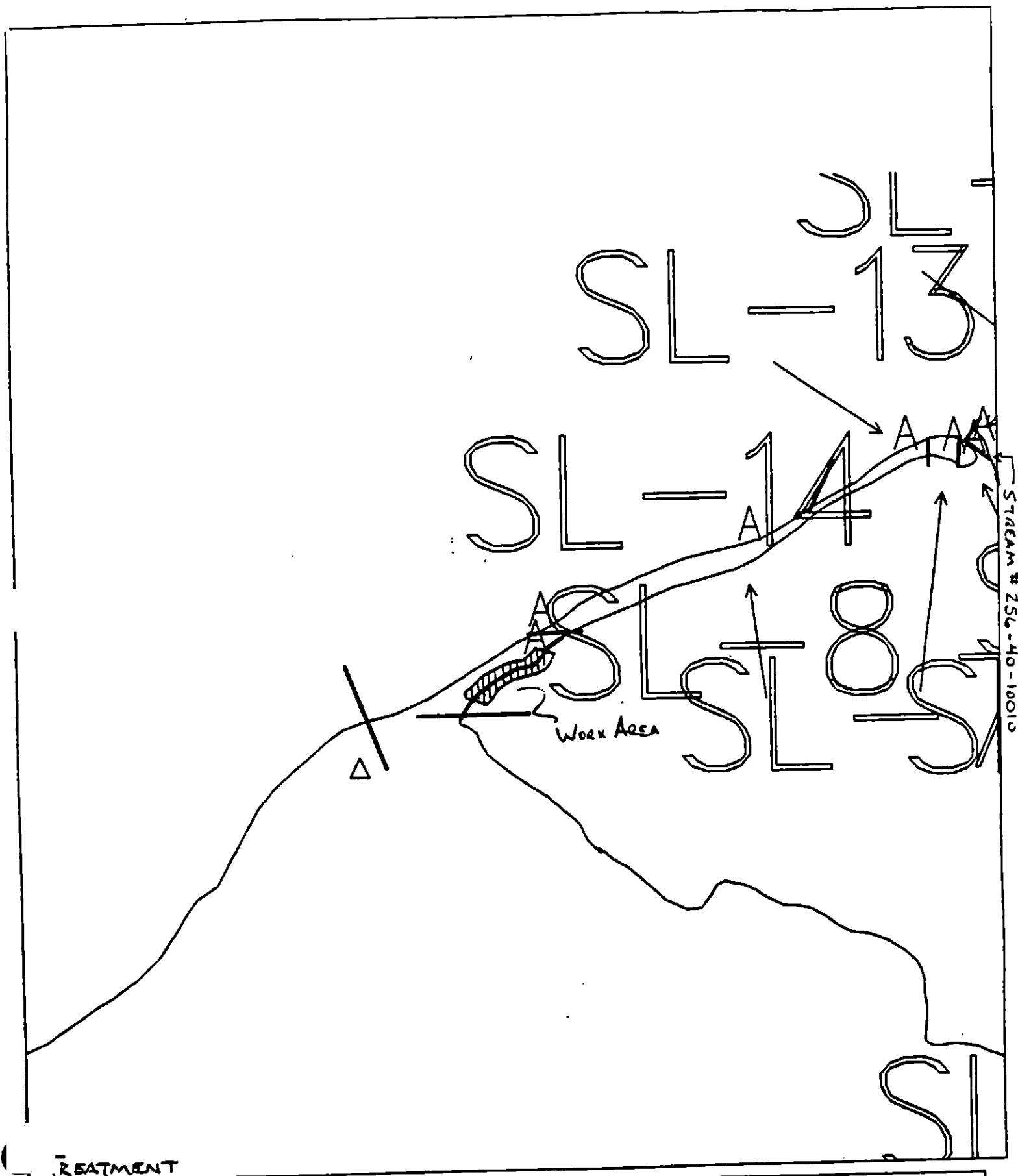
6-16-90

Prepared by

[Signature]

Date

6/15/90



Exxon Company. USA

ECOLOGY MAP
SEGMENT K6-34 SL-8
SUBDIVISION A (1 of 1)
 WFTDC

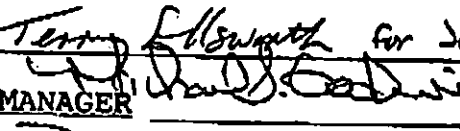
- ★ Seabird Colony
- ▲ Active Eagle Nest
- △ Inactive Eagle Nest

WORK PLAN MODIFICATION RECOMMENDATIONSEGMENT K6-34-SL-008ASUBDIVISION ADATE 07-05-90MODIFICATION1. REASON FOR MODIFICATION:

Joint Field Survey by Land Manager Rep. Mike Goodwin, ADNR, (for John Merrick, Koniag, Inc.), ADEC, USCG and ADF&G representatives revealed the oil present in Subdivision (A) was naturally degrading at a rapid rate and was in a state that would be difficult to remove. It was determined the removal of oil present either by manual or by bioremediation technique would do more harm than good. This lagoon is an environmentally sensitive area and represents an anadromous salmon spawning area. Total excavation of the beach gravels and cobbles would be required to treat this area.

2. SUGGESTED ADJUSTMENT TO WORK PLAN:

Demobilize this Subdivision (A), with no further treatment recommended.

3. TIMING ISSUES:USCG ADEC Terry Ellsworth for John R. ReedLAND MANAGER  (If field representative is on site)EXXON: Dan H. WilsonADF&G: Jeffrey P. Barnhart

SHORELINE EVALUATION

SEGMENT ST/ K06-34-SL-09 SUBDIVISION A (1 OF 1) DATE 4/9/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: *Mark Z. Olson* DATE: April 14, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V. Light 23 m: No Oil 55 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: 4/14/90
ADEC JOHN BAKER
EXXON ANDY TEAR FOSC: *[Signature]* DATE: 5-1-90
NOAA Burt Wright
USCG G.A. REITER

KG034 - SLO9
KODIAK ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K0634 / SLOO9 SUBDIVISION: A DATE 4-4-90

~~USCG~~
NAME John Naughton SIGNATURE John J. Naughton

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

No oil observed. This segment is made up of
cobble berm forming south side of stream bank mouth
(Sturgeon River). Appears to be quite dynamic, shifting
with strong flows of river.

ADEC
NAME Scott Shelton SIGNATURE Scott Shelton

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS K06/34 SLOO9

Channel bank inner tidal flow and river currents
up to 8 knots in this area. No oil observed 49 meters
walked 3 pits no subsurface observed.

LAND MANAGER

NAME John Merrick SIGNATURE John Merrick Konias Inc

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 03/22/98

OG Pealand ~~NOAA~~ Naughton SEGMENT ST/ K0634/56009
 BIO Spight LAND REP Merrick KONIAG SUBDIVISION A
 TXON Byrne ADEC Shelton TIME 16:45 to 16:55
 EAM NO.: 19 TIDE LEVEL: 2.5 ft to 2.0 ft DATE 9/1/90
 EST. SUBDIVISION LENGTH: 49 m ☐ Sun ☐ Clouds ☐ Fog ☐ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock log debris
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 0 % B 10 % C 70 % P 10 % G 10 % S 0 % M 0 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 49 m

SURFACE OIL

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

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

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

Photographs:

Roll No. 19-4Frames 34-35

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	UC	1	2	3	4	5	SU	U	M	U		
1	20					X	-									X				Cobble
2	20					X	-									X				Cobble
3	20					X	-									X				Cobble
							-													
							-													
							-													
							-													

COMMENTS

- This segment represents the channel bank of Sturgeon Bay.
- no oil observed on beach and in pits
- Three major pits dug and several random pits were dug, no oil was observed.

OG Penland

SKETCH MAP

SEGMENT ST/ K0634/SL009

SUBDIVISION A

DATE 4 / 4 90

CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Seg/Sub Entry
- ☒ D: Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HWA/LWA
- ☒ SSL
- ☒ Profile Location(s)
- ☒ Profile(s)
- ☒ Pt Location(s)
- ☒ Photo Location(s)

LEGEND

1 Δ

Pt - No Subsurface Oil

2 Δ

Pt1 - Subsurface Oil

CT/C

Conc. nodule Distribution

CT/B

Broken Distribution

CT/P

Pebble Distribution

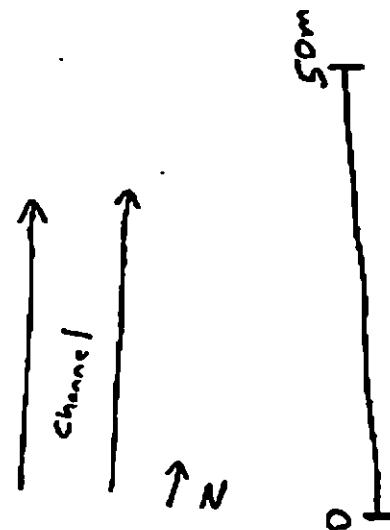
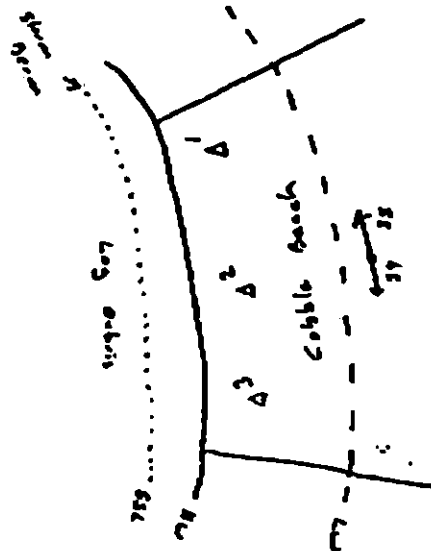
CT/S

Spherical Distribution

Older Vegetation

1 →

Photo location, direction,
and number



Oil Character Legend (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 0 F 0 TB 0 FL 0 NO 49

030606/0490

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST/ SL-9 Subdivision _____ Date (mo / day / yr) 4/4/90

Time (24 hr) 16:45 Biologist SP/64PT

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

(B) Overall % cover of biota (% of segment): Dense 70 Moderate 30 Low _____

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

Photographs: _____
Roll No. _____

Frames _____

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

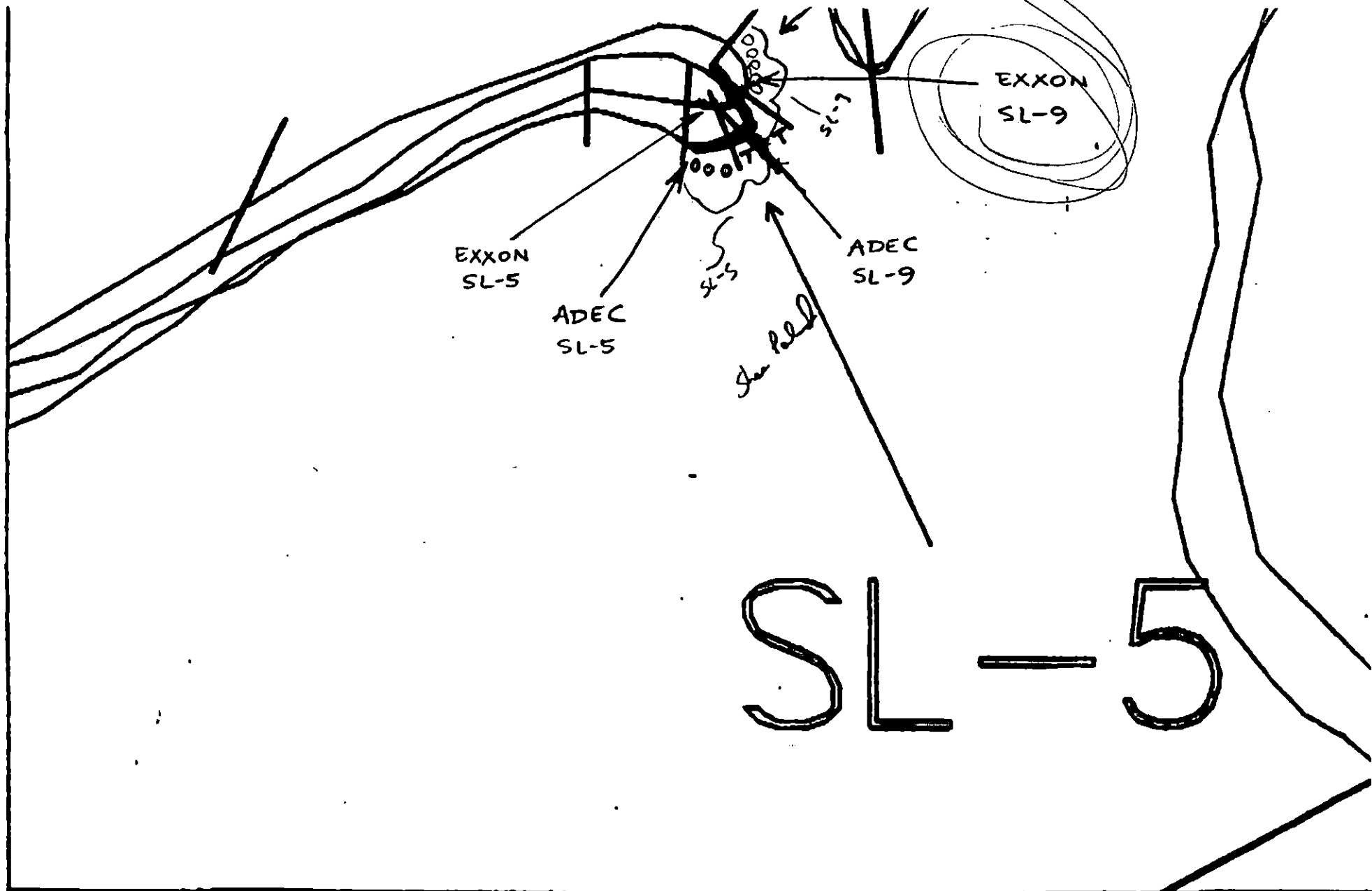
NOT PRESENT

Wildlife Observations/ General Comments:

Ecological Considerations:

lower bank is almost entirely a mussel bed

1A, 1B, 8AA

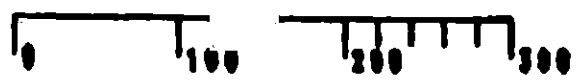


XXXX Wide
 / / / Medium
 - - - Narrow

SL-5

ADEC Segment Length: 57m

TTT Very Light



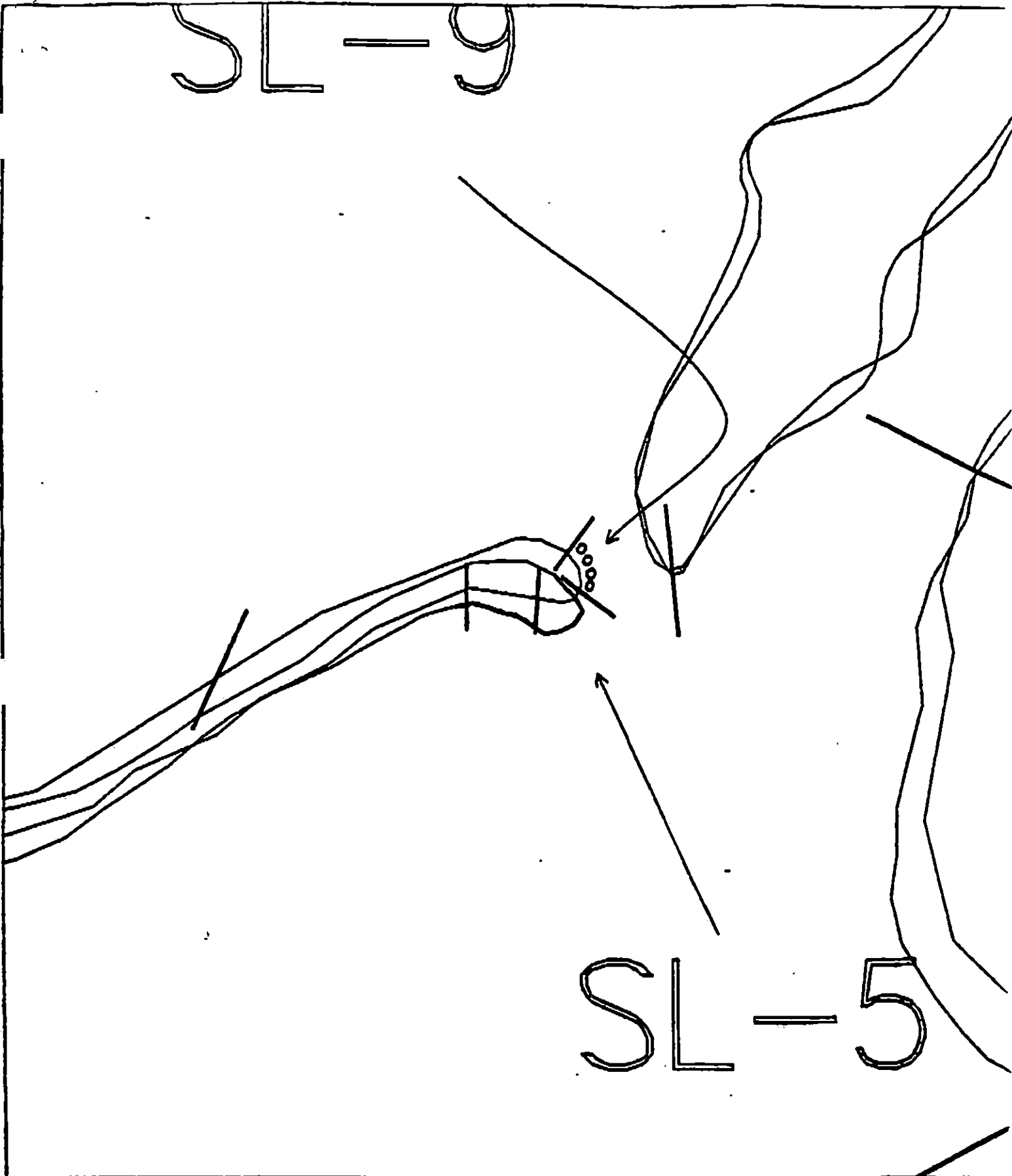
Map Key: GOA-194

Name: Peeland

Date: 4-4 2

Note: Followed.

SL-9



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

SL-9

ADEC Segment Length: 49m



Map Key: 60A-198

Name: Shan Point

Date: 4-4-93

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ K06-34-SL-011 SUBDIVISION A (1 OF 1) DATE 4/9/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream mouth no. ASC #256-40, #10010

1A Salmon stream mouth - fry outmigration (4/15 to 7/31)

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

8AA Sensitive Estuary

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 847 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

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

KODIAK ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1K6-34, SL-11 SUBDIVISION: K6-34-SL-11A DATE 4-4-90

USCG

NAMED D. Haven Jr. 6m3, USCGR SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

No oil sighted

ADEC

NAME Francine J. Bennis SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Walked entire segment, 792 m. No oil observed.

LAND MANAGER

NAME John P. Hardister SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

no oil observed.

John Merrick

no oil - no clean up

John Merrick Konag Inc

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/9

Segment ST/K06-34 Subdivision SL-11A Date (mo/day/yr) 4-4-90Time (24 hr) 17:30 Biologist H. Davis

- (A) Substrate type and % of segments:
 (1) Bedrock _____ (2) Boulder _____ (3) Cobble _____ (4) Pebble 25% (5) Sand 25% (6) Silt 50%
- (B) Overall % cover of biota (% of segment): Dense _____ Moderate 50% Low 50% (25%)
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles/adults (X), new settlement (⊙)

Photographs:
Roll No. ST-20-3Frames 19, 20, 21

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	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 1, 2, 3, 4, 5, 6
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 1, 2, 4, 5, 6
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	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	

FUCUS

Dense			Moderate			Sparse			Rare			NOT PRESENT 1, 2, 5, 6
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	X	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	

Wildlife Observations/ General Comments: This area bordered the east fork of the Sturgeon River. Several eagles were seen over head (3 adult, 1 juvenile). River otter tracks were found in the mud. Deer tracks were numerous. There were patches of Fucus at the mouth of the fork and scattered blades of Ulva (monostroma?) and some filamentous Rhodophyta.

Ecological Considerations: (1A, 1B, 8AA) The Sturgeon Lagoon is an estuary area that provides feeding and breeding habitats for birds (Eagles, ducks, gulls and other waterfowl), mammals (Red Fox, Bear, Deer, and River Otter) and fish (Pike, Chum, Coho, Steelhead and Rainbow).

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Acton USCG Haven SEGMENT ST/ K6-34-34-11
 BIO Davis LAND REP USPWS Hamlet SUBDIVISION K6-34-34-11A
 XON Avery ADEC Bannis TIME 5:45 10:15
 TEAM NO.: 20 TIDE LEVEL: +1.5 10 +2.0 DATE 4/4 / 90
 EST. SUBDIVISION LENGTH: 792 m ☐ Sun ☐ Clouds ☐ Fog ☐ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: W 10 E
 SURFACE SEDIMENTS: R 0 % B 0 % C 0 % P 0 % G 25 % S 25 % M 50 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 792 m

SURFACE OIL

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

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

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

Photographs:

Roll No. 20-3Frames 19

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	SW	BR	FW	GY	SL	DR	TL	LR	SU	U	M	U		
1	30					✓	-													✓			M S
2	30					✓	-													✓			M S
3	30					✓	-													✓			M S
4	30					✓	-												✓				M S
5	30					✓	-													✓			M S
							-																M S

COMMENTS No oil was observed in this section. Entire section was surveyed on foot

Acton

SKETCH AP

MENT ST/ Kv-34-3L-11

DIVISION Kv-34-3L-11 A

TE 4 / 4 90

CHECKLIST

N Arrow
Approx. Scale
Seg/Sub Brdy
OI/O-11
Wch
Length
% Cover
Substrate Character
Est. HNT/LWL
SSL
Profile Location(s)
Probe(s)
Pt Location(s)
Photo Location(s)

Approx. Scale
1 cm = 2 m

North

South

A

A'

GENERAL

1 Δ

No Subsurface OI

10 m Cliff

2 Δ

Subsurface OI

CT/C

Substrate Distribution

CT/B

Substrate Distribution

CT/P

Substrate Distribution

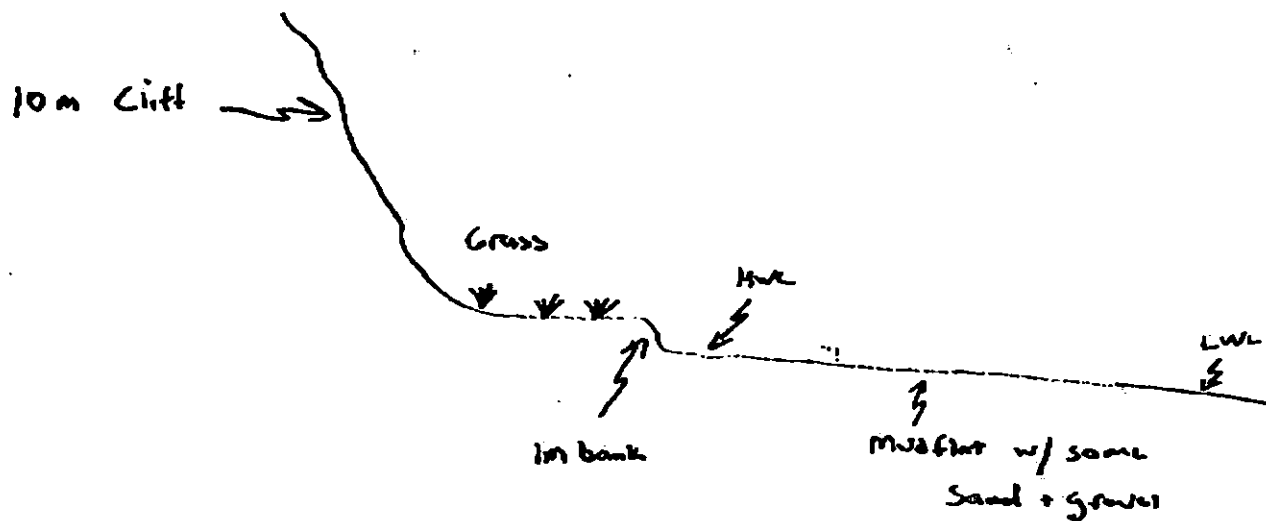
CT/S

Substrate Distribution

3 Vegetation

••

to location, direction,
number



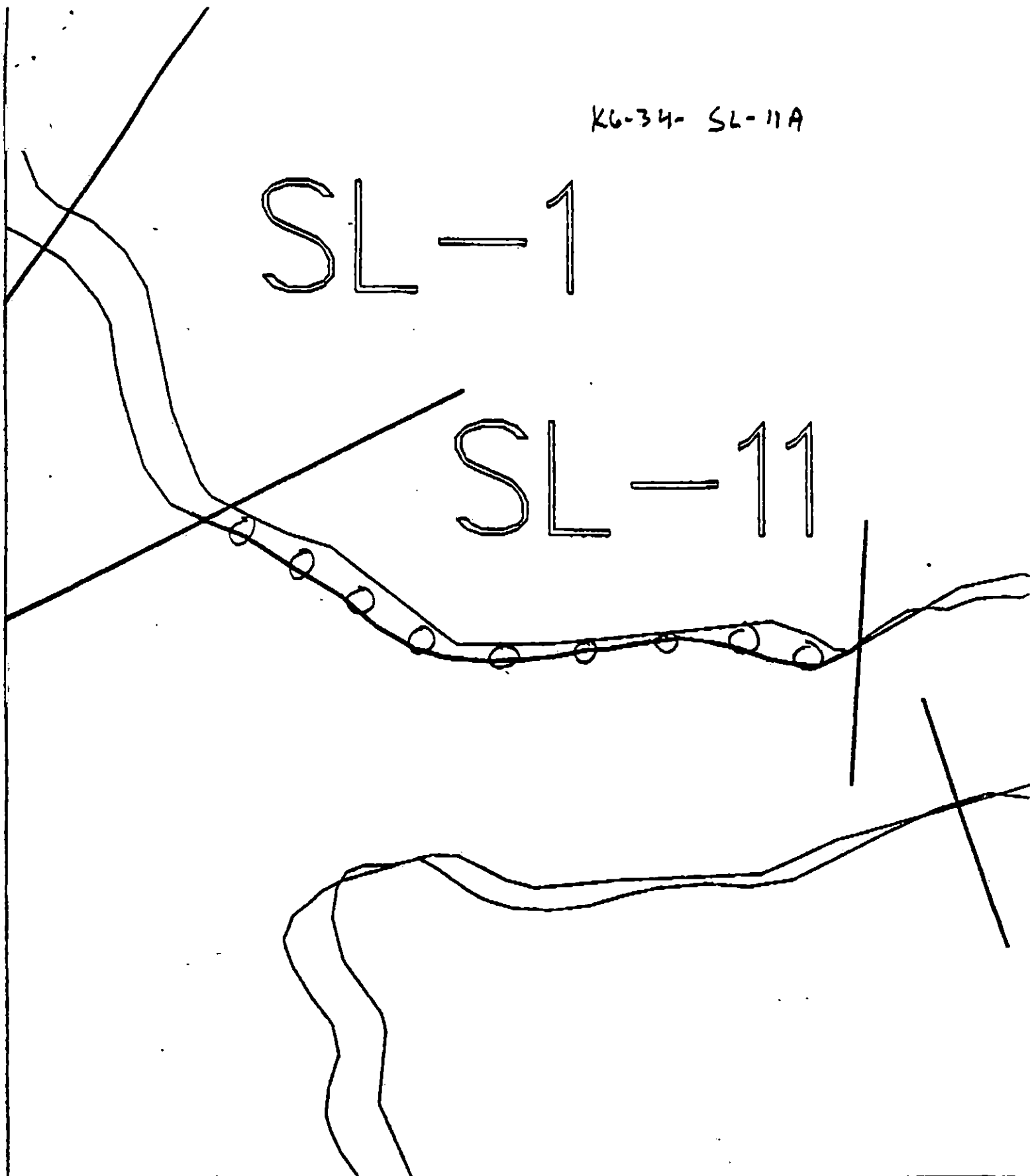
Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 0 PT 0 TB 0 FL 0 NO 792

REVISION: 03/24/90

K6-34- SL-11A

SL-1

SL-11



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

SL-11

ADEC Segment Length: 792m



K6-34- SL-11A

Map Key: GOA-184

Name: Acton

Date: 4-4-90

Date Entered:

K6-34-SL-11A

SL-1

Segment
Boundary

SL-11

Segment
Boundary20-3
#19A
A'

XXXX Wide

/// Medium

---- Narrow

TTTT Very Light

0000 No Oil

SL-11

ADEC Segment Length: 792m



METERS



K6-34-SL-11A

Map Key: GOA-184

Name: ActonDate: 4-4-90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ K06-34-SL-013 SUBDIVISION A (1 OF 1) DATE 4/4/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (4/15 to 7/31)

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

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: *Charles Z. [Signature]*

DATE: 4/12/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 22 m: No Oil 446 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 *[Signature]*

EXXON *[Signature]*

NOAA *[Signature]*

USCG *[Signature]*

FOSC: *[Signature]*

DATE: 5-12-90

If cultural resources are uncovered during shoreline treatment, stop work

KODIAK ECOLOGICAL CONSTRAINTS

SL-013 'A'

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K0634/SLO13 SUBDIVISION: A DATE 4-4-92

~~NOAA~~
~~USCG~~

NAME John Naughton SIGNATURE John J. Naughton

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

a few oil stains observed on wood debris. No treatment recommended. Very high energy beach.

ADEC
NAME

Scott Shetter SIGNATURE Scott Shetter

☒ NO TREATMENT RECOMMENDED
COMMENTS K0634/SLO13

☐ TREATMENT SUGGESTED

TEAM WALKED 400 meters High energy beach
Stains observed on Bern drift logs - NO oil
observed at Pit locations or at subsurface levels
to 15 cm at the 4 pit locations. NO oil observed
on the cobble beach / High energy wave action with
inertial current energy from tidal drainage of
Sturgeon Lagoon in the Northern section of SLO13.

LAND MANAGER

NAME John Merrick SIGNATURE John Merrick KONIAG, INC

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY

REVISION NO. 63/22/90

G Denland Naughton SEGMENT ST/ K0634/SL013
 IO Spight LAND REP Merrick KONIAC SUBDIVISION A
 EXXON 8 years ADEC Shelton TIME 16:15 to 16:45
 TEAM NO.: 19 TIDE LEVEL: +3 ft. to +2.5 ft. DATE 4/4/90
 EST. SUBDIVISION LENGTH: 460 m ☐ Sun ☐ Clouds ☐ Fog ☐ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock driftwood
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 0 % B 10 % C 80 % P 10 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 10 m NO 430 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	N	E	S	W	SP	OR	OL	OP	NO	TL	BL	SL	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 crPATTIES / TARBALLS 0 BAGSNEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

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

Photographs:

Roll No. 19-5Frames 33-34

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM/IN)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OP	NO		VO	UC	SP	OR	OL	OP	NO	TL	BL	SL	SU	U	M	L		
1	15																						Cobble
2	15																						Cobble
3	15																						Cobble
4	15																						Cobble

COMMENTS

- stains observed on exposed log (the distribution is very scattered).
- no oil observed on beach
- four pits were dug and cobbles encountered in random areas.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/

Segment ST/ SL-13 Subdivision _____ Date (mo / day / yr) 4/4/90

Time (24 hr) 15:53 Biologist SPIGHT

(A) Substrate type and % of segments:
(1) Bedrock _____ (2) Boulder _____ (3) Cobble 100 (4) Pebble _____ (5) Sand _____ (6) Silt _____

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

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

Photographs:
Roll No. _____

Frames _____

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

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

NOT PRESENT

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

NOT PRESENT

Wildlife Observations/ General Comments:

Ecological Considerations: Left area ~ 16' est W = < 3 ft. Thus all obs refer to ML. UL sedentary spp occasional.
At ML: Area of B. cariosus cobble: above it dense bed of Mytilus attached in hooks betw cobbles or in some areas (near river) forming primary habitat. Appreciable bare cobble in area so overall density is not high here.

SKETCH MAP

EGMENT ST/ K1 / SL013

UBDIVISION A

ATE 4 / 4 90

CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Seg/Sub Entry
- ☒ Oil Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HRA/LR
- ☒ SSI
- ☒ Profile Location(s)
- ☒ Profile(s)
- ☒ Photo Location(s)
- ☒ Photo Location(s)

LEGEND

1 Δ
It - No Subsurface Oil

2 Δ
It - Subsurface Oil

CT/C
contaminant Distribution

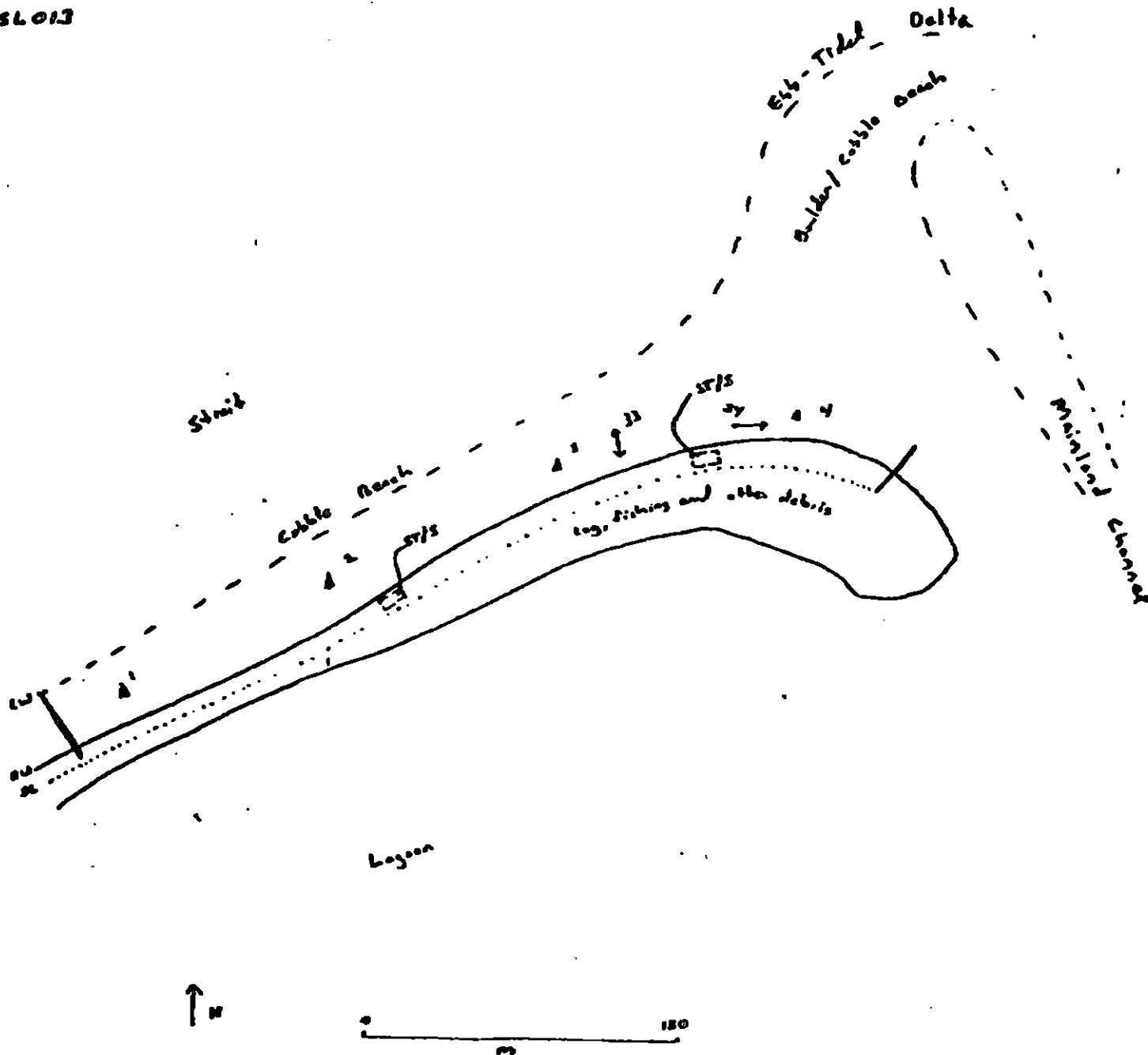
CT/S
refined Distribution

CT/P
muddy Distribution

CT/S
plashed Distribution

Red Vegetation

1 ●
note location, direction,
and number



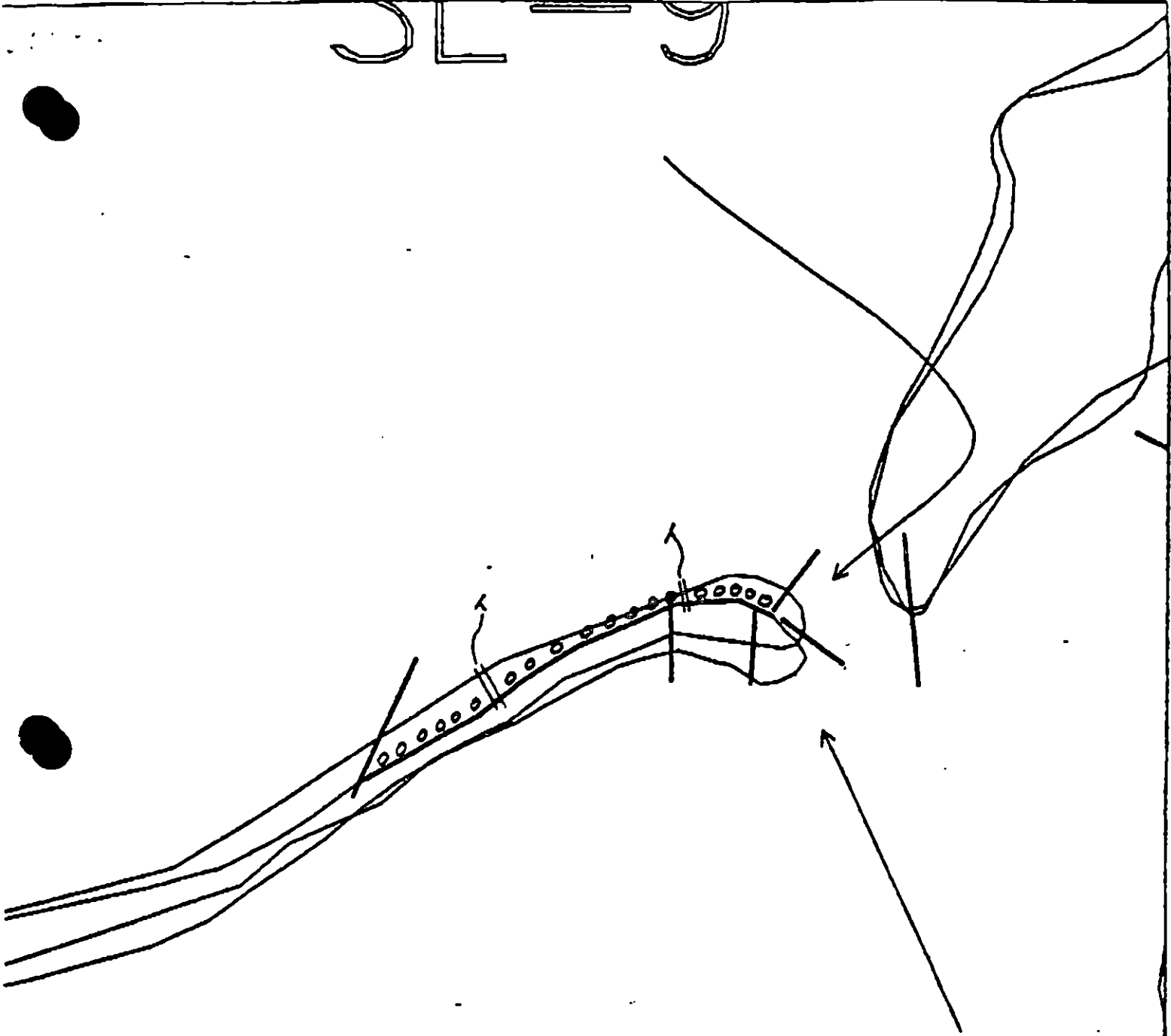
Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 10 MS 0 PT 0 TB 0 FL 0 NO 450

REVISION 000100

HR-06-1550 14:55 From EMAN NUBIN

10/10/2010 11:10

SL-9



SL-5

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

SL-13

ADEC Segment Length: 468m



Map Key: GOA-277

Name: Shree Perland

Date: 4-4-93

SHORELINE EVALUATION

SEGMENT ST/ K06-34-SL-014 SUBDIVISION A (1 OF 1) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream mouth no. ASC #256-40, #10010

1A Salmon stream mouth - fry outmigration (4/15 to 7/31)

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

8AA Sensitive estuary.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 39 m: No Oil 1347 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 Mr. [Signature]
EXXON ANDY TGA FOSC: My L DATE: 5-12-90
NOAA Bull. Wersgitt
USCG G.A. REITER

KODIAK ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K0634/SLD14 SUBDIVISION: A DATE 4-4-99

~~NOIA~~

~~1000~~

NAME John Naughton SIGNATURE John J. Naughton

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Only a few splatters of oil seen on several logs in the massive debris berm. This coastline facing the Shelikof Strait is very high energy.

ADEC

NAME Scott Shelton SIGNATURE Scott Shelton

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

K0634/SLD14 Sub. A

TEAM 19 walked 1406 meters. Oil splatters observed on storm berm drift. NO other oil observed to subsurface pits. NO oil observed in subsurface. Shelikof exposure High energy cobble beach.

LAND MANAGER

NAME John Merrick SIGNATURE John Merrick Konigs, Inc

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY

REVISION NO. 03/23/88

NG Penland USCGC Naughton SEGMENT ST/ K0634/360/4
 IO Spight LAND REP Marriott KONIAG SUBDIVISION 9
 EXXON Byers ADEC Sheldon TIME 15:30 to 16:15
 TEAM NO.: 19 TIDE LEVEL: +4.4 to +3.4 DATE 9/4/90
 EST. SUBDIVISION LENGTH: 1406 m ☐ Sun ☐ Clouds ☐ Fog ☐ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock Log Debris
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 0 % B 10 % C 80 % P 10 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 15 m NO 1391 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	10	15	20	25	30	35	40	45	50	SU	U	ME	U
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT													
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL													

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

PATTIES / TARBALLS 0 BAGS

NEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NO

TYPE N/A

#BAGS 0

Photographs:

Roll No. ST-19-4

Frames 29-31

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		LO	UC	30	35	40	45	50	SU	U	ME	U		
1	15																			cobbles
2	15																			cobbles
3	15																			cobbles
4	15																			cobbles
5	15																			cobbles
6	15																			cobbles

COMMENTS

- Three areas of 1m x 5m stain on log debris.
- No oil observed in shallow pits on the intertidal beachface.
- Six pits were dug and in many other areas cobbles were randomly examined.

TAT

SUBDIVISION 1

DATE 4 / 4 90

CHECKLIST

- ☒ **N Arrow**
- ☐ **Approx. Scale**
- ☐ **Seg/Sub Entry**
- ☐ **Off Dist.**
- ☐ **Width**
- ☐ **Length**
- ☐ **% Cover**
- ☐ **Substrate Character**
- ☐ **Est. HMT/LA/VL**
- ☐ **SSL**
- ☐ **Profile Location(s)**
- ☐ **Profile(s)**
- ☐ **PR Location(s)**
- ☐ **Photo Location(s)**

LEGEND

Fig. 14. Subsurface Oil

PH - Subsurface Oil

CT/C
Computer Unit

CT/B
System Distribution

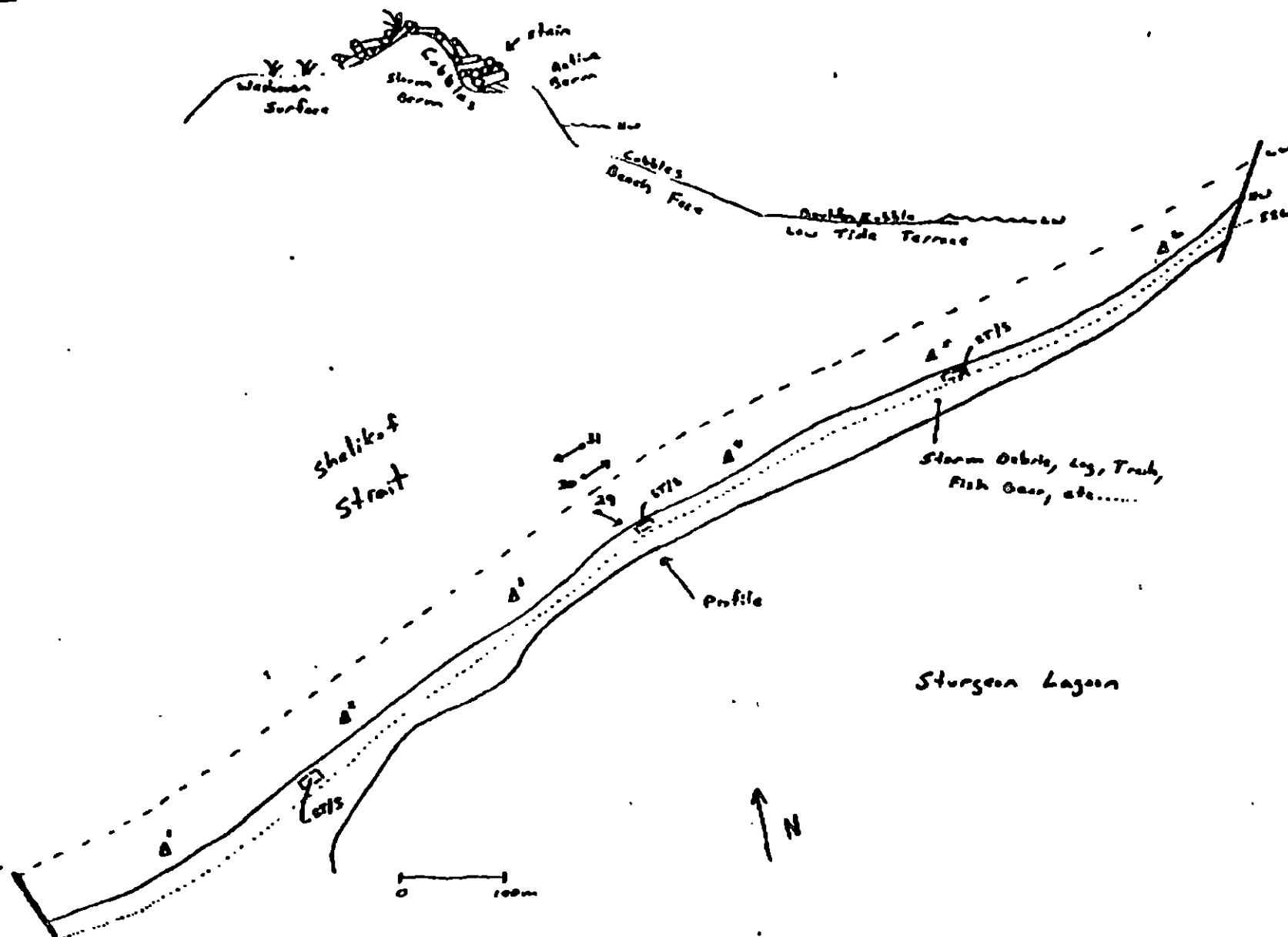
CT/P

Patchy Distribution

Springfield Distributors

Cited Vegetation

1 
Photo location, direction,
and number



II Character Length (in): AP 0 PO 0 OV 0 CT 0 ST 15 MS 0 PT 0 TB 0 FL 0 NO 1391

501-700-2254

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/28/98

Segment ST/ SL-14 Subdivision _____ Date (mo / day / yr) 4/4/90
 ne (24 hr) 15:32 Biologist SPIGHT

(A) Substrate type and % of segments:
 (1) Bedrock _____ (2) Boulder _____ (3) Cobble 100 (4) Pebble _____ (5) Sand _____ (6) Silt _____

(B) Overall % cover of biota (% of segment): Dense _____ Moderate _____ Low 100

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

Photographs:
 Roll No. _____

Frames _____

BARNACLES

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

NOT PRESENT

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

NOT PRESENT

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

NOT PRESENT

Wildlife Observations/ General Comments:

Deer, Bear signs

Ecological Considerations: Left area 15:53 est W = +3 ft (tide falling) thus all obs refer to ML.

Generally sparse fauna on cobbles. Individual cobbles at ML may have moderate fauna; neighbors typically bare. Smooth, large littorine very abundant

1A, 1B, 8AA

ASC #256-40, #10010

SL-14

SL-8

SL-

GOA
1876 →

XXXX Wide

//// Medium

--- Narrow

TTTT Very light

SL-14

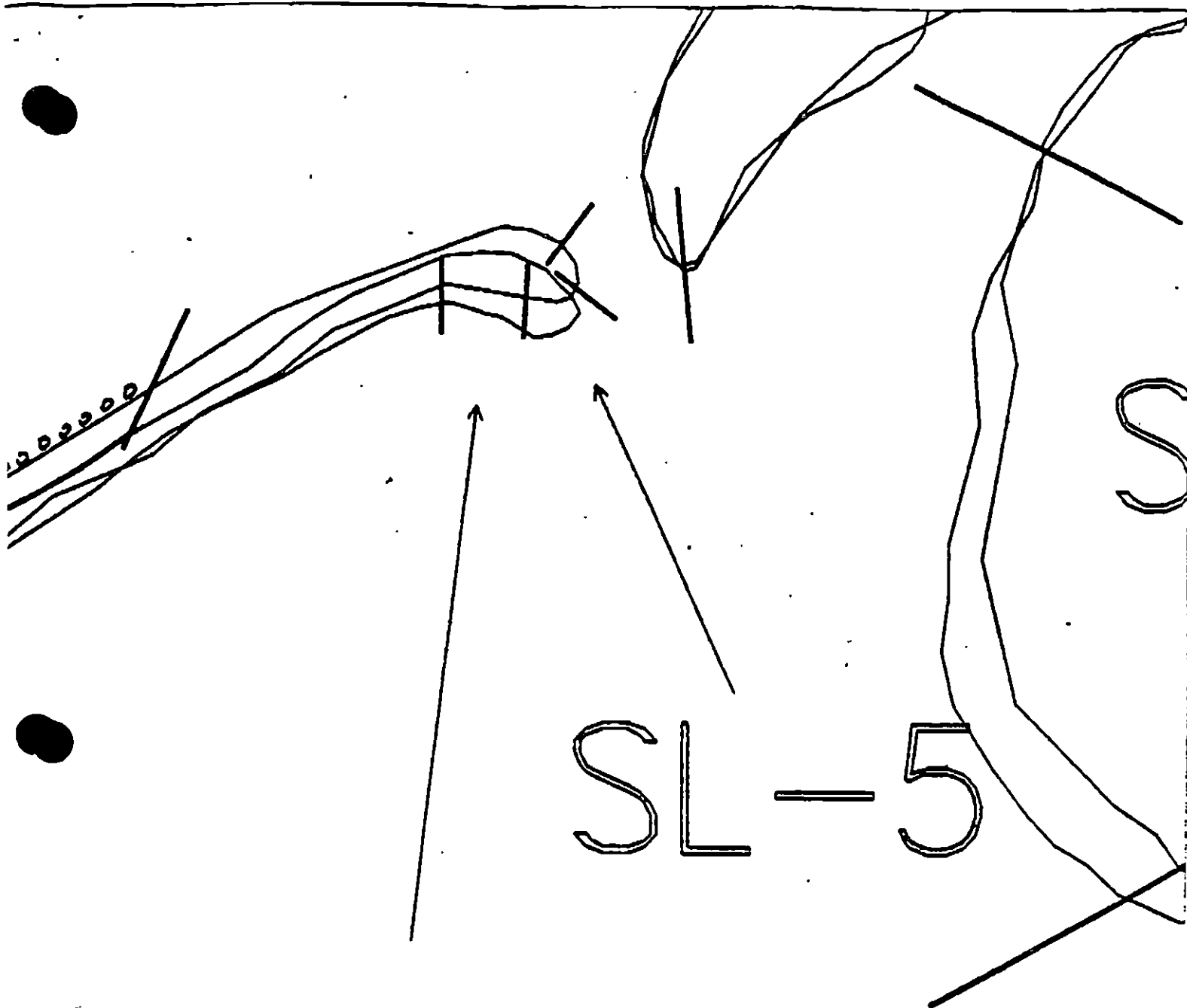
ADEC Segment Length: 1406m

Map Key: GOA-187a

Name: Shea Penland

Date: 4-4-90





← GOA
187A

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

SL-14

ADEC Segment Length: 1406m

Map Key: GOA-187b

Name: Shan Penland

Date: 4-4-90

SHORELINE EVALUATION

SEGMENT ST/ K06-34-SL-15 SUBDIVISION A (1 OF 1) DATE 4/4/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream mouth no. ASC#256-40, #10010

Salmon stream outmigration (1A) - 3/1 to 5/15 and spawning (1B) - 7/10 to 8/31. No disturbance of stream bed or banks unless authorized by ADF&G. Contact ADF&G Habitat Division prior to treatment for permits. Sensitive estuary (8AA).

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid disturbance/damage to uncoiled substrate and biota.

SHPO SIGNATURE: Rachel Jean Davis DATE: 6/20/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 25 m: No Oil 1276 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Manual pick up of mousse and oil spill related debris. Work before 7/10.

TAG COMMENTS:

TAG APPROVAL DATE: 4/16/90

ADEC M. Hennen

EXXON ANDY TGA

NOAA Burl Wescott

USCG G.A. TRITEL

FOSC:

DATE: 6-27-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K6-34-SL-15 SUBDIVISION: K6-34-SL-15A DATE 4/4/90USCGNAME D. Haven Jr., GM3, USCGR SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

This area is ~~is~~ very lightly impacted according to OG. I was inspecting a separate area at the time. Normally, I would not recommend clean up for this degree of impact, but there is leftover clean up debris in nearby segments and while there are workers in the area, they may as well pick-up any removable oil/mousse.

ADECNAME Francine J. Bennis SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Treatment for other segments in Sturgeon Lagoon is recommended. It'd be a good idea for the clean-up crew to attend to this area to manually collect any retrievable oil. SAT Field maps should accompany clean-up crews.

LAND MANAGERNAME JOHN P. HARDISTER SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

USFWS

Impact by oil is light. Considered cleanup by crew in adjacent areas is warranted.

John Merrick

Concur with above

John Merrick Koniag, Inc.

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Acton USCG Haven SEGMENT ST/ K 6-34-24-15
 BIO Davis LAND REP USFWS Hardister SUBDIVISION K 6-34-24-15A
 EXXON Avery ADEC Bennis TIME 2:30 10 3:15
 TEAM NO.: 20 TIDE LEVEL: +6 10 +4.5 DATE 4 / 4 / 90
 EST. SUBDIVISION LENGTH: 1330 m ☐ Sun ☐ Clouds ☐ Fog ☐ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 0 % B 0 % C 25 % P 25 % G 15 % S 30 % M 25 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 30 m NO 1300 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	R	P	A	SP	OR	OL	OP	NO	TL	LR	LR	SU	U	M	U
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT				✓		✓										✓
STAIN																
MOUSSE			✓							✓						✓
PATTIES																
TARBALLS																
FILM																
NO OIL													✓	✓		✓

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE 6/10#BAGS 0

Photographs:

Roll No. 20-3Frames 7-10

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	OP	NO		VO	UC	SP	OR	OL	OP	NO	TL	LR	LR	SU	U	M	U		
1	40					✓	-												✓				MGP
2	40					✓	-													✓			MGP
3	30					✓	-												✓				MGP
4	30					✓	-													✓			MGP
5	30					✓	-												✓				MGP
							-																

COMMENTS 3m x 30m band of MGP and CT/S_n on and around surface cobbles/pobbles.
 No subsurface or other oil was observed. Walked entire segment

↓
 Band is in upper MITZ.

Acton

SKETCH MAP

Approx Scale
1cm $\approx$ 100m
N $\uparrow$

MENT ST/ KL-34-2-15

DIVISION KL-34-2-15

1 90

SKETCH

Arrow
approx. Scale
eg Sub Bdry
of Dist.
with
length
Corner
substrate Character
st. MINERAL
St
profile Location(s)
note(s)
Location(s)
note Location(s)

END

Δ
Subsurface Oil

2Δ
Subsurface Oil

CT/C
Jous Distribution

CT/B
Distribution

CT/P
Distribution

CT/S
Distribution

Vegetation

$\rightarrow$
location, direction,
note

Shelikof Strait

Sturgeon Bay

Segment
Boundary

3m x 30m area
MS/P and CT/S

MANUAL
REMOVAL OF
MOVABLE
DEBRIS

Driftwood
Bin

A-A'

3m Band of MS/P
and CT/S in upper METZ

mud/grass

SOL

angular pebbles
and cobbles

mud

lwr

Segment
Boundary

Factor Length (m): AP ☐ PO ☐ CV ☐ CT 30 ☐ ST ☐ MS 30 ☐ PT ☐ TB ☐ FL ☐ NO 1300

REVISION: 03/24/90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / K06-34 Subdivision SL-15A Date (mo / day / yr) 4-4-90Time (24 hr) 14:30 Biologist H. Davis

(A) Substrate type and % of segments:

(1) Bedrock (2) Boulder (3) Cobble 25 (4) Pebble 50 (5) Sand 10 (6) Silt 25(B) Overall % cover of biota (% of segment): Dense Moderate 50% Low 50% (25%)

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

Photographs:

Roll No. ST-20-3Frames 7-12

BARNACLES

Dense		
1U	1M	1L
2	2	2
3	X	3
4	4	4
5	5	5
6	6	6

Moderate		
1U	1M	1L
2	X	2
3	X	3
4	4	4
5	5	5
6	6	6

Sparse		
1U	1M	1L
2	X	2
3	X	X
4	X	X
5	5	5
6	6	6

Rare		
1U	1M	1L
2	2	2
3	X	X
4	X	X
5	5	5
6	6	6

NOT PRESENT
1, 5, 6

MYTILUS

Dense		
1U	1M	1L
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6

Moderate		
1U	1M	1L
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6

Sparse		
1U	1M	1L
2	2	2
3	3	X
4	4	X
5	5	5
6	6	6

Rare		
1U	1M	1L
2	2	2
3	X	X
4	X	X
5	5	5
6	6	6

NOT PRESENT
1, 5, 6

GASTROPODS

Dense		
1U	1M	1L
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6

Moderate		
1U	1M	1L
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6

Sparse		
1U	1M	1L
2	X	2
3	X	3
4	X	4
5	5	5
6	6	6

Rare		
1U	1M	1L
2	2	2
3	X	X
4	X	X
5	5	5
6	6	6

NOT PRESENT
1, 5, 6

FUCUS

Dense		
1U	1M	1L
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6

Moderate		
1U	1M	1L
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6

Sparse		
1U	1M	1L
2	X	2
3	X	X
4	X	X
5	5	5
6	6	6

Rare		
1U	1M	1L
2	2	2
3	X	X
4	X	X
5	5	5
6	6	6

NOT PRESENT
1, 2, 5, 6

Wildlife Observations/ General Comments: On the center of the channel zostra beds were visible. Mallards (5-6), Pintails (20-30) and glaucous winged gulls were feeding in the area. At the western end of section SL-15 the Barnacle population is sparse but continuous. As the number of cobbles and pebbles decreases to the east so does the numbers of barnacles. Fucus appears sporadically in moderate to sparse patches. Gastropods were sparse. Eosies both adults and juveniles were observed in the area.

Ecological Considerations: (A, B, 3A) The estuary and river areas are food sources for many species of birds, mammals and fish. It is a spawning area for Pink, Chin, Coho, Steelhead and Rainbow.

K6-34-SL-15A

Segment Boundary

SL-

SL-3

Segment Boundary

SL-15

XXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

ADEC Segment Length: 1331m



K6-34-SL-15A

Map Key: GOA-188

Name: Acton

Date: 4-4-90

Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K06-34-SL-15 SUBDIVISION A (1 of 1)

WORK WINDOW

Manual Pickup

WORK PRIOR TO 7/10

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

ADF&G catalogued anadromous stream (256-40-10010) is in Subdivision A. Closed to manual pickup after 7/10.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

Date

Prepared by

Date

6/5/90

6-28-90

SHORELINE EVALUATION

SEGMENT ST/ K06-34-SL-016 SUBDIVISION A (1 OF 1) DATE 4/4/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream mouth no. ASC #256-40, #10010

1A Salmon stream mouth - fry outmigration (4/15 to 7/31)

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

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Moller 2/4/90 DATE: 4/17/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 1921 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 H. Hagan

EXXON ANDY TATE

NOAA Bill Wescott

USCG G.A. REITER

FOSC: S. L.

DATE: 4-20-90

KODIAK ECOLOGICAL CONSTRAINTS

SL-016-A

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
- 1C Salmon fry nursery area (4/31 to 7/31)
- 1D Kotot Bay Hatchery release
Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
- 1I Gill net area
- 1J Purse seine area
Mainland, West side Kodiak, Shuyak & Moser/Olga Bay - 6/9 to 10/1.
East side Kodiak, East side Afognak - 7/4 to 10/1.
- 1K Purse seine hook-off
- 1L Set net sites
USFWS setnet uplands permit 5/15 to 9/15.

For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/15 to 6/30)
Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
- 3N, 3P Harbor seal and sea lion pupping (5/10 to 6/30)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 5R Seabird colony (5/1 to 8/31)
Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic.
- 5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
- 6U Recreation: Tent sites (6/1 to 9/15)
- 6V Anchorages (6/1 to 9/15)
- 6W Forest Service cabins (6/1 to 9/15)
- 6X Lodge (6/1 to 9/15)
- 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (6/1 to 9/30)
- 7HH Finfish harvesting
- 7II Deer harvesting (8/1 to 1/7)
- 7JJ Invertebrate harvesting
- 7KK Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K6-34-SL-16 SUBDIVISION: K6-34-SL-16 A DATE 4/4/90

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

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

No oil sighted.

ADEC
NAME Francine J. Bennie SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

Walked entire segment. NO OIL OBSERVED.

LAND MANAGER
NAME John P. HEDISTER SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

No oil observed

John Merrick

John Merrick Konag. Inc

No oil - no clean up

SHORELINE OILING SUMMARY

REVISION NO. 03-22-90

OG Aston USCG Haven SEGMENT ST/ X6-24-SL-16
 BIO Davis LAND REP USFWS Harbortree SUBDIVISION K6-34-SL-16A
 AXON Avery ADEC Dennis TIME 3:15 to 4:00
 TEAM NO.: 20 TIDE LEVEL: +4.5 to +3.5 DATE 4/4 /90
 EST. SUBDIVISION LENGTH: 2011 m ☐ Sun ☐ Clouds ☐ Fog ☐ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 0 % B 0 % C 0 % P 15 % G 15 % S 20 % M 50 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 2011 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	IC	IR	IP	IS	SB	DB	GB	SB	DB	GB	SU	U	M	U
ASPHALT PAVEMENT														
POOLED														
COVER														
COAT														
STAIN														
MOUSSE														
PATTIES														
TARBALLS														
FILM														
NO OIL											✓	✓	✓	✓

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. 0Frames 0

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SB	DB	GB	SB	DB	GB	SU	U	M	U		
1	30					✓	-											✓			msc
2	30					✓	-										✓				msc
3	30					✓	-											✓			mscP
4	30					✓	-										✓				msc
5	30					✓	-											✓			mscP
6	30					✓	-										✓				msc

COMMENTS No oil observed in this segment, which is comprised of an estuarine marsh with many small arms/tributaries. Walked entire segment.

SKETCH MAP

SEGMENT S1 34-2L-10

SUBDIVISION K-31-2L-70A

DATE 4 / 4 90

Typical Profile w/in segment

CHECKLIST

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

LEGEND

1 Δ

Plt - No Subsurface Oil

2 Δ

PR - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

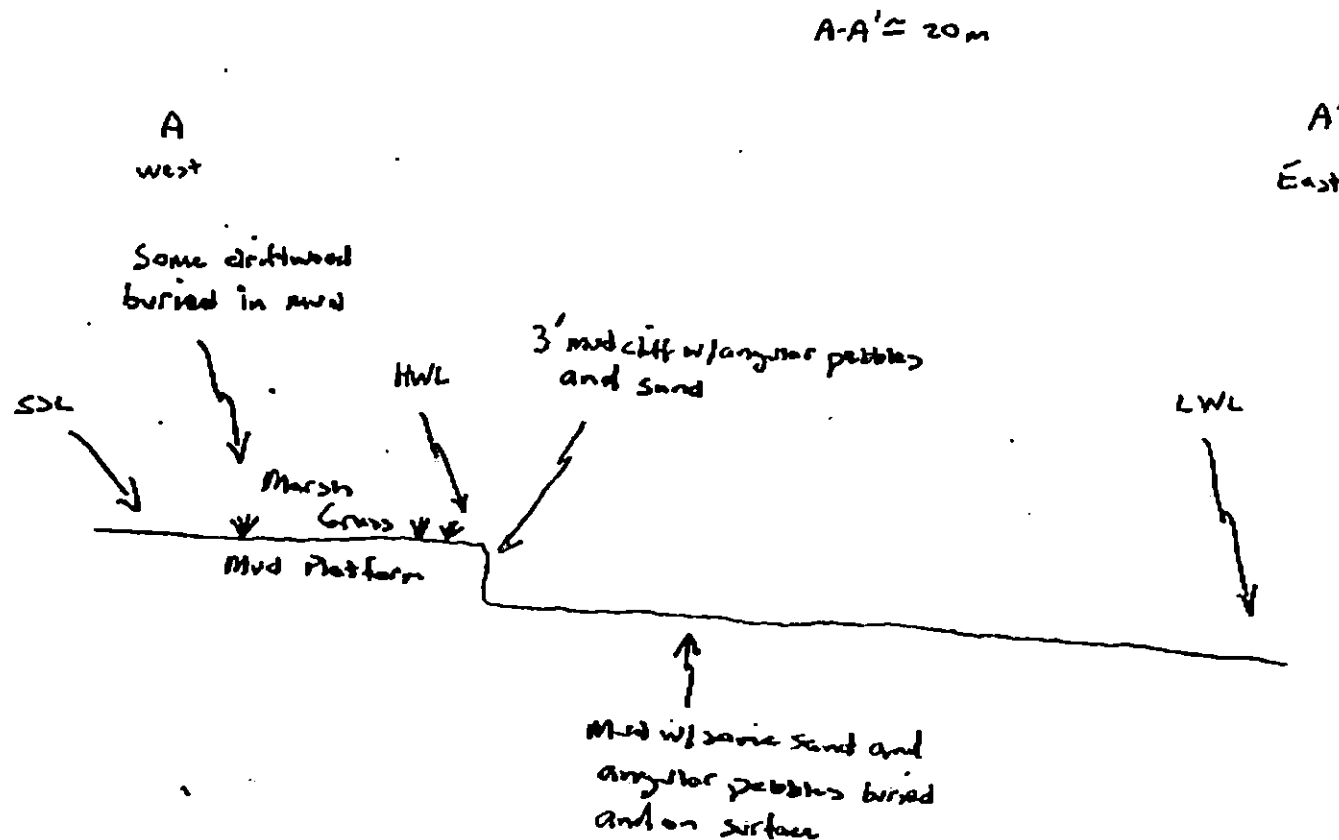
CT/S

Splashed Distribution

Oiled Vegetation

1 ➡

Photo location, direction, and number



Oil Character Length (m): AP ☐ PO ☐ CV ☐ CT ☐ ST ☐ MS ☐ PT ☐ TB ☐ FL ☐ NO 2011

OG Acton

SKETCH MAP

SEGMENT ST/ 4-SL-10

SUBDIVISION K6-34-SL-10-A

DATE 4 / 4 90

Approx Scale
1cm = 100m
N ↑

CHECKLIST

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

LEGEND

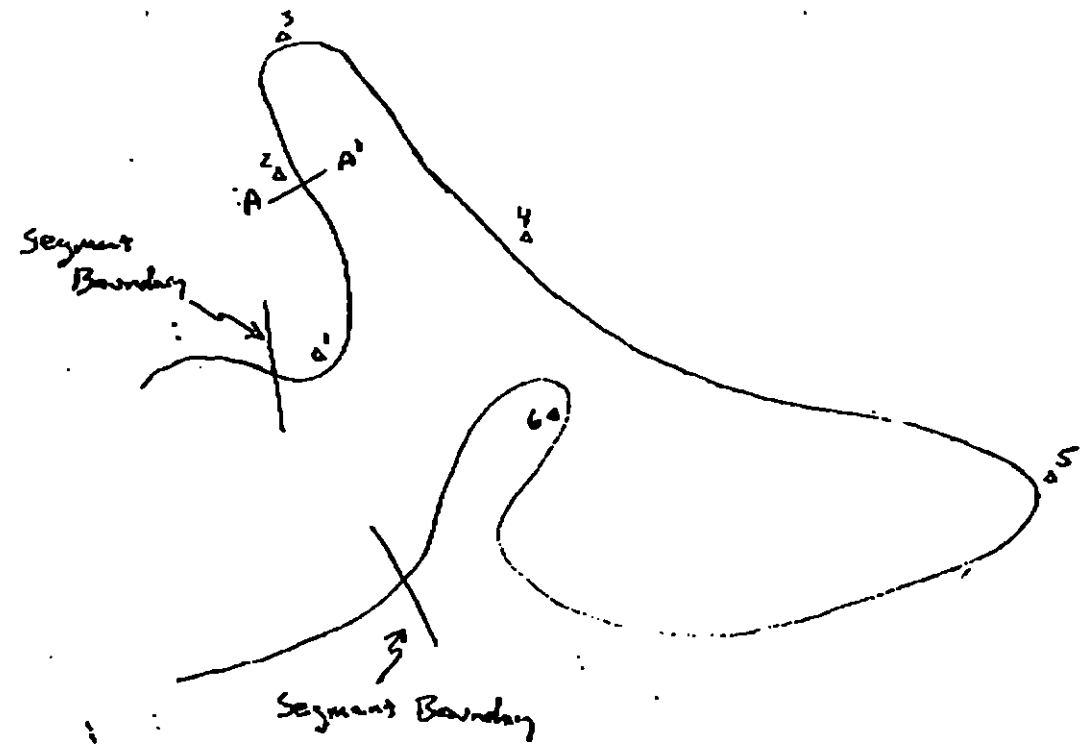
- 1 Δ
Pl - No Subsurface Oil
- 2 Δ
Pl - Subsurface Oil
- CT/C

Continuous Distribution
- CT/B

Broken Distribution
- CT/P

Patchy Distribution
- CT/S

Splashed Distribution
- Oiled Vegetation
- 1 $\Rightarrow$
Photo location, direction, and number



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

11-00-1350 11:55 FROM ENON KODIHA 10 15045771 P.20

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST/k06-34 Subdivision SL-16A Date (mo / day / yr) 4-4-90

ne (24 hr) 1430 Biologist H. Davis

- (A) Substrate type and % of segments
 (1) Bedrock _____ (2) Boulder _____ (3) Cobble 5 (4) Pebble 25 (5) Sand 20 (6) Silt 50
- (B) Overall % cover of biota (% of segment) Dense _____ Moderate _____ Low 100% (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 _____
 Frames _____

BARNACLES

Dense			Moderate			Sparse			Rare			NOT PRESENT 1, 2, 5, 6
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	X	3	X	3	X	
4	4	4	4	4	4	4	X	4	X	4	X	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

MYTILUS

Dense			Moderate			Sparse			Rare			NOT PRESENT 1, 2, 5, 6
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	X	3	
4	4	4	4	4	4	4	4	4	4	X	4	
5	5	5	5	5	5	5	5	5	5	5	X	
6	6	6	6	6	6	6	6	6	6	6	6	

GASTROPODS

Dense			Moderate			Sparse			Rare			NOT PRESENT 1, 2, 5, 6
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	X	X	X	3	3	
4	4	4	4	4	4	4	X	4	X	4	X	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

FUCUS

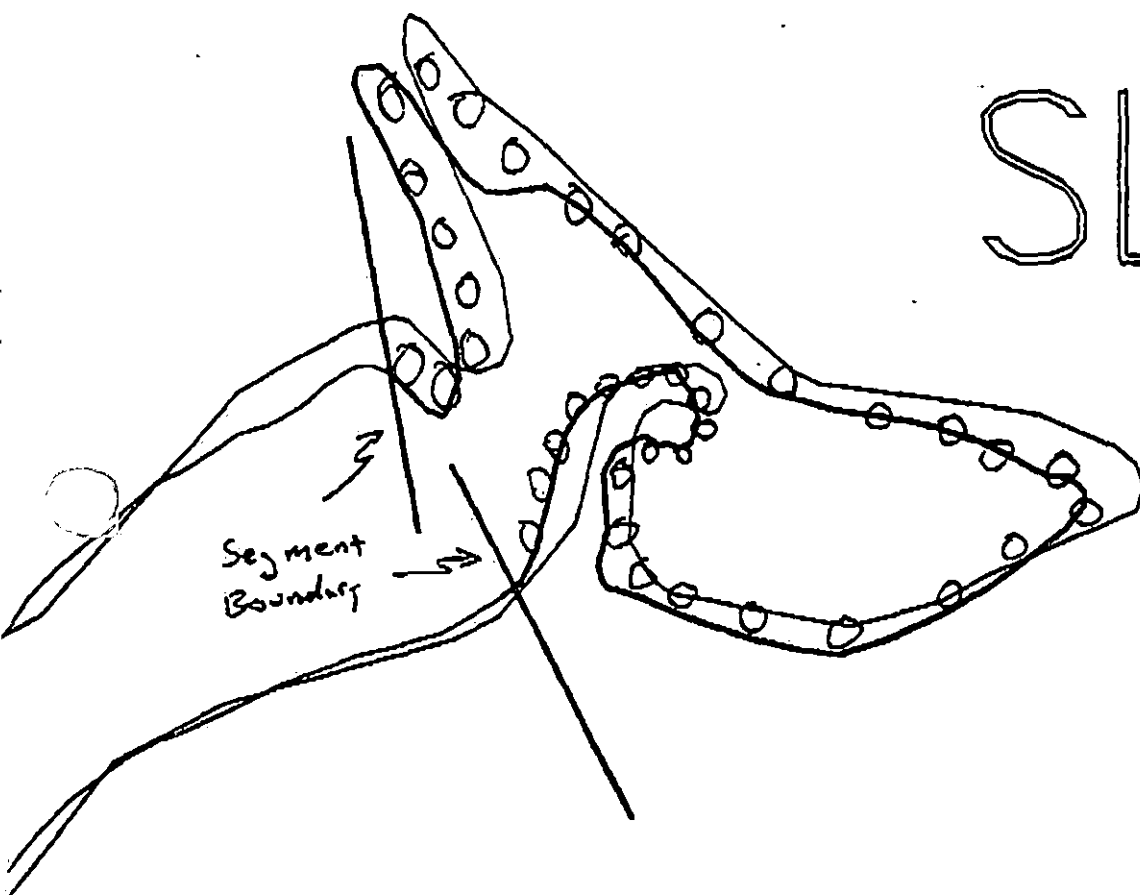
Dense			Moderate			Sparse			Rare			NOT PRESENT 1, 2, 5, 6
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	2	2	2	2	2	
3	3	3	3	3	3	3	3	3	X	X	X	
4	4	4	4	4	4	4	4	4	X	X	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

Wildlife Observations/ General Comments: This area is an estuarine marsh (30-40) outcrops (30-40) Glaucous winged Gulls, (20) mallards, (4) adult eagles, (2) juvenile eagles and 3-4 Harlequin ducks. Deer tracks, River Otter tracks, and fox tracks were seen on the shore line. One Red Fox observed. Barnacles, Mytilus, gastropods and Fucus were found sporadically on cobbles. Diatom mats and filamentous algae covered the bottom of rivulets and small arms of the intertidal area.

Ecological Considerations (1A, 1B, 3AA) The estuary and river areas are used by birds and several species of trout and salmon. Pink Chum Coho, Steelhead and Rainbow all spawn in the Sturgeon river.

K6-34-SL-16A

SL-16



SL-17

XXXX Wide	SL-16	K6-34-SL-16A
/ / Medium		Map Key: GOA-189
---- Narrow	ADEC Segment Length: 2011m	Name: <u>Acton</u>
TTTT Very Light		Date: <u>4-4-90</u>
0000 No Oil	 METERS	Data Entered:

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