

OIL SPILL PUBLIC INFO. CENTER



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EVOS
GC
1552
.P75
S42
1990
v.17

[Shoreline evaluations, 1990].

KN-600 – KO1-01

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SHORELINE EVALUATION

SEGMENT ST/ KN-600 SUBDIVISION A (1 OF 3) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Three active eagle nests (5T) - 3/1 to 6/1; Anchorages (6V) - 6/1 to 9/15; Invertebrate subsistence harvest area (7JJ). Consult ADF&G and Chenega Bay for appropriate dates; Subsistence deer harvest area (7II) - 8/15 to 2/28. Restrict air traffic to essential minimum, with approach from seaward only. Contact F&WS re: eagle nests prior to any treatment.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Avoid disturbance/damage of un-oiled biota or substrate.

SHPO SIGNATURE: Charles 3Holler DATE: April 12, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 5824 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/12/90

ADEC JOHN BAUER
EXXON ANDY TATZ
NOAA Burt Wernett
USCG M. J. HALL

FOSC: DATE: 4-9-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / KN-600 SUBDIVISION: ST-KN-600-A DATE 3/3/90~~NATL~~
~~USFS~~NAME Jeffrey Dehlin SIGNATURE Jeffrey Dehlin☒ NO TREATMENT RECOMMENDED
COMMENTS No oil seen☐ TREATMENT SUGGESTEDADEC
NAMELori Stratton SIGNATURE Lori Stratton☒ NO TREATMENT RECOMMENDED
COMMENTSNo oil observed.☐ TREATMENT SUGGESTEDLAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDNAT'L FOREST SERVICE REP NOT AVAIL

SHORELINE OILING SUMMARY

REVISION NO. 08/28/88

OG K. DERUSSCHERE 1000 10/10/89 SEGMENT ST/ KH 600
 BIO D. REED LAND REP ST KH 600 SUBDIVISION ST KH 600 (1 of 3)
 EXXON Tony Diaz ADEC Lori Stratton TIME 10 40 to 13 10
 TEAM NO 19 TIDE LEVEL -1 to 3 FT DATE 3/31/90
 EST SUBDIVISION LENGTH 3600 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION S to N
 SURFACE SEDIMENTS R 45 % B 30 % C 15 % P 10 % G <1 % S - % M - % V <1 %
 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 0 m NO 3600 m

SURFACE OIL

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

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE -#BAGS -

Photographs

Roll No. ST-9-1Frames 11/12/13/14

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
		OF	OR	OL	OP	NO		UO	UC	1	2	3	4	5	SU	U	M	U		
1	20					X	.								X					P
2	20					X	.									X				P/G
3	60					X	.								X					P
							.													
							.													
							.													

COMMENTS

SHORELINE IS DOMINATED BY HIGH ANGLE & VERTICAL SHORELINE
 - NO OILING OBSERVED

DASH IN "SU" MEANS MAINLY NO OIL; IN SOME AREAS NO
 OBSERVATION WAS MADE BECAUSE OF SNOW

SHORELINE ECOLOGICAL SUMMARY

REVISION 03/25/90

Segment ST / KN 600 Subdivision A Date (mo / day / yr) 03/31/90Time (24 hr) 10:45 - 11:00 Biologist D. REED

- (A) Substrate type and % of segments
 (1) Bedrock 45 (2) Boulder 30 (3) Cobble 15 (4) Pebble 10 (5) Sand <1 (6) Silt
- (B) Overall % cover of biota (% of segment) Dense 40 Moderate 35 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 (Σ), new settlement ($\odot$)

Photographs
Roll No ST-9-1Frames 11, 12, 13, 14

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	$\odot$	2	2	$\odot$	2	$\times$	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	$\times$	$\times$	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	$\times$	$\times$	2	2	2	2
3	3	3	3	3	3	$\times$	$\times$	3	3	3	3
4	4	4	4	4	4	$\times$	$\times$	4	4	4	4
5	5	5	5	5	5	$\times$	$\times$	5	5	5	5
6	6	6	6	6	6	$\times$	$\times$	6	6	6	6

NOT PRESENT

FUCUS

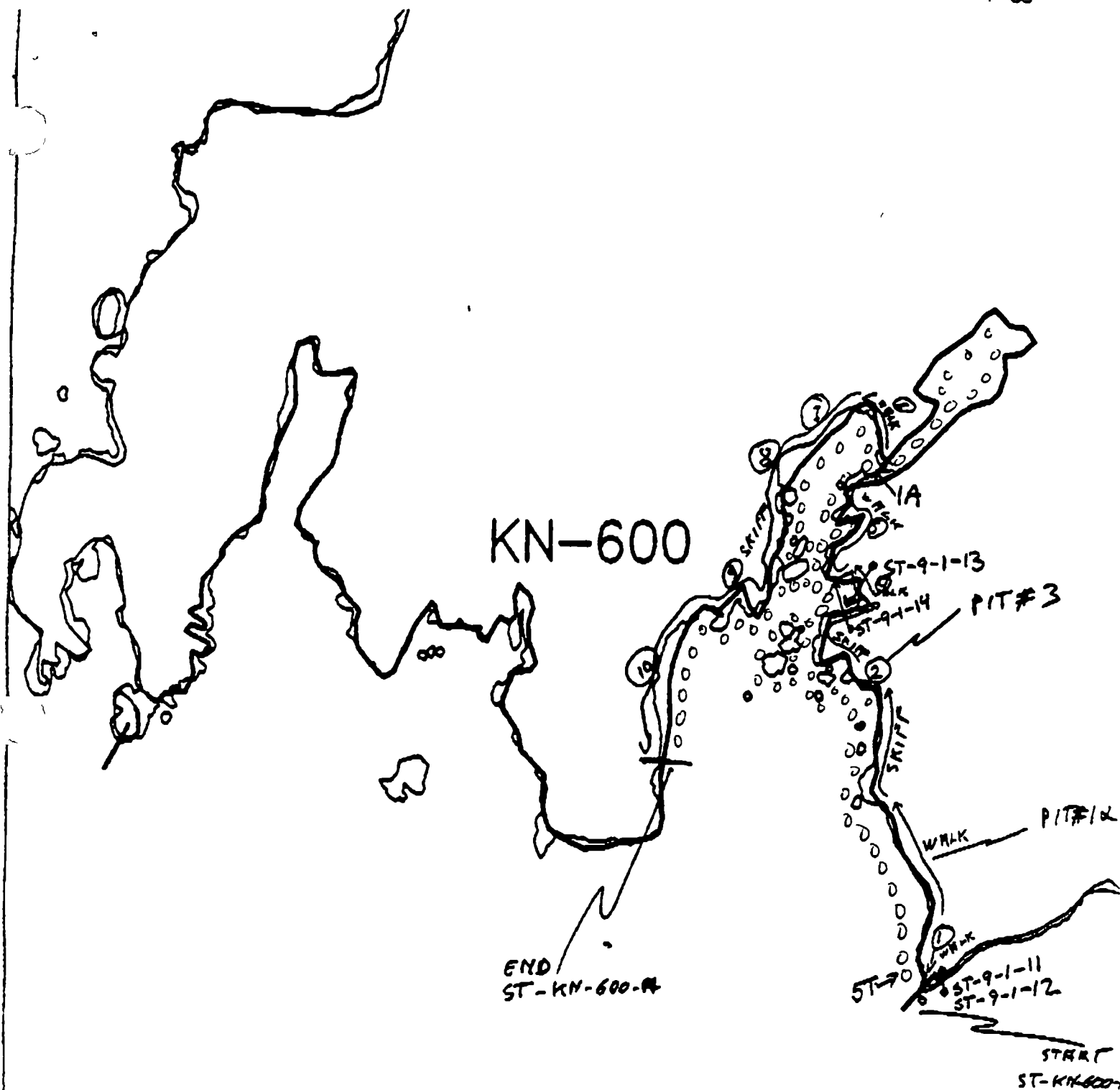
Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	$\times$	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments:

3 EAGLES, 1 EAGLE NEST, DEER TRACKS (2 DEER), FOX TRACKS
 2 HARBOR SEALS, SEVERAL DUCKS AND CORMORANTS, 1 SEA OTTER hauled out on point
 DARK CRUSTACEAN ALGAL BAND IN UPPER INTERTIDAL might be confused WITH OIL.
 Ecological Considerations.

ROCKY HEADLAND AT EASTERN BOUNDARY OF SEGMENT BIOLOGICALLY RICH.
 EAGLE NEST, SEA OTTER Haul OUT, DENSE MUSSELS, BARNACLES & FUCUS
 Lots of mussel spat.



KXXX Wide

//// Medium

--- Narrow

TTTT Very Light

OOOO No Data

ST-KN-600-A

ADEC Segment Length: 10886m

0 500 1000

Map Key PWS-477

Name: K DEBUSSCHEREDate: 3/31/90

Data Entered

SEGMENT ST/ KN-600 SUBDIVISION B (2 OF 3) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Three active eagle nests (5T) - 3/1 to 6/1; Anchorages (6V) - 6/1 to 9/15; Invertebrate subsistence harvest area (7JJ). Consult ADF&G; and Chenega Bay for appropriate dates; Subsistence deer harvest area (7II) - 8/15 to 2/28. Restrict air traffic to essential minimum, with approach from seaward only. Contact F&WS re: eagle nests prior to any treatment.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Avoid disturbance/damage of un-oiled biota or substrate.

SHPO SIGNATURE: Mark E. Holmes DATE: April 12, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 33 m: Narrow 441 m: V.Light 43 m: No Oil 92 m
Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE:

ADEC JOHN BAKER John
EXXON ANDY TATE Andy
NOAA Burk Warratt Burk
USCG M. J. HALL M. J.

FOSC:

DATE: 4-22-90

SHORELINE OILING SUMMARY

REVISION NO. 00-0000

OG K. DEBUSSCHERE ^{MNH} WOOD Jeffrey P. H. H. SEGMENT ST/ H N - 600
 BIO D. R. D. LAND REP LAND REP SUBDIVISION ST KH - 600 - 3 (2 of 3)
 EXXON TOY DIZZ ADEC Lori Stratton TIME 13:10 TO 9:20 TO 10:00
 TEAM NO.: 4 TIDE LEVEL: 3-5 FT AND 6-4 FT DATE 3/31 AND 4/1/90
 EST. SUBDIVISION LENGTH: 540 m ☒ Sun ☐ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 60 % B 35 % C 2 % P 3 % G - % S - % M - % V - %
 SLOPE: Long 5 % Hang 45 % Vert 50 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 50 m N 250 m VL 25 m NO 115 m

SURFACE OIL

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

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED

☐ YES ☒ NOTYPE -#BAGS -

Photographs:

Roll No. ST-9-1Frames 15 & 16

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW	OIL / FILM COLOR					PIT ZONE	A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO			1	2	3	4	5			
1	45					X	-							X		P / S & G & P
2	40					X	-							X		P & G / P & C & G
3	20					X	-							X		P / P & G
							-									
							-									
							-									

COMMENTS

- SUBDIVISION CONSISTS MAINLY OF CLIFF AND STEEP BOULDER BEACHES
- OILING:
 - A RING OF CONTINUOUS STAIN OVER THE MAJORITY OF THE SEGMENT
 - CONCENTRATION OF OIL IN LOCATION ③ (SEE SEGMENT MAP AND SKETCH MAP) WHERE OILING IS CONCENTRATED ON EAST WALL OF COVE: OIL COVER, TAR BALLS AND SOME POOLING → TOTAL OIL IMPACT IS MEDIUM BECAUSE OILING OCCURED IN SEVERAL PHASES IMPACTING MORE THAN 6M.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / KN-600 SUBDIVISION: KN-600-B DATE 4/1/90~~NOVA~~
~~HOOS~~NAME Jeffrey Dahlin SIGNATURE Jeffrey Dahlin☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

~~Band~~ Bands of oil on Bedrock and some splashes on boulders ~~will not be removed~~
by natural ~~weathering~~ process, and are not a Threat to any resource

ADEC

NAME Lori Stratton SIGNATURE Lori J. Stratton☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

Oil is not refloatable and will not bleed off beach.
The ring^{and} of oil is fairly inaccessible. Although it is
a medium oil impact, no treatment is recommended.
Bands of black algae at HI accompany areas
where band of oil is.

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

NAT'L FOREST REP. NOT AVAILABLE

C/K

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / KN 600 Subdivision B Date (mo / day / yr) 03 / 31 / 90
 Time (24 hr) 1310-1350 0920-1000 Biologist D. REED 04/01/90

- (A) Substrate type and % of segments:
 (1) Bedrock 60 (2) Boulder 35 (3) Cobble 2 (4) Pebble 3 (5) Sand 4 (6) Silt —
- (B) Overall % cover of biota (% of segment): Dense 60 Moderate 15 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. ST-9-1

Frames 15, 16

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

3 SEA LIONS, 3 MATURE BALD EAGLES, 3 KILLER WHALES (2 ADULTS + 1 calf)
 1 EAGLE NEST,

NO NEW BARNACLE SPAT IN OILED AREAS

Ecological Considerations:

CONTINUOUS TO BROKEN NARROW OIL STAIN/COVER IN UPPER INTERTIDAL ZONE OF THE SUBDIVISION. LITTLE BIOTA IN THIS ZONE. EAGLE NEST AT WEST END OF SUBDIVISION LOCATED IN A RELATIVELY SHORT TREE (< 40') EASILY DISTURBED BY HUMAN PRESENCE ON BEACH.

OG K. DE WISCHERE

SEGMENT 1-600

SUBDIVISION 8

DATE 4/2/90

TCH MAP

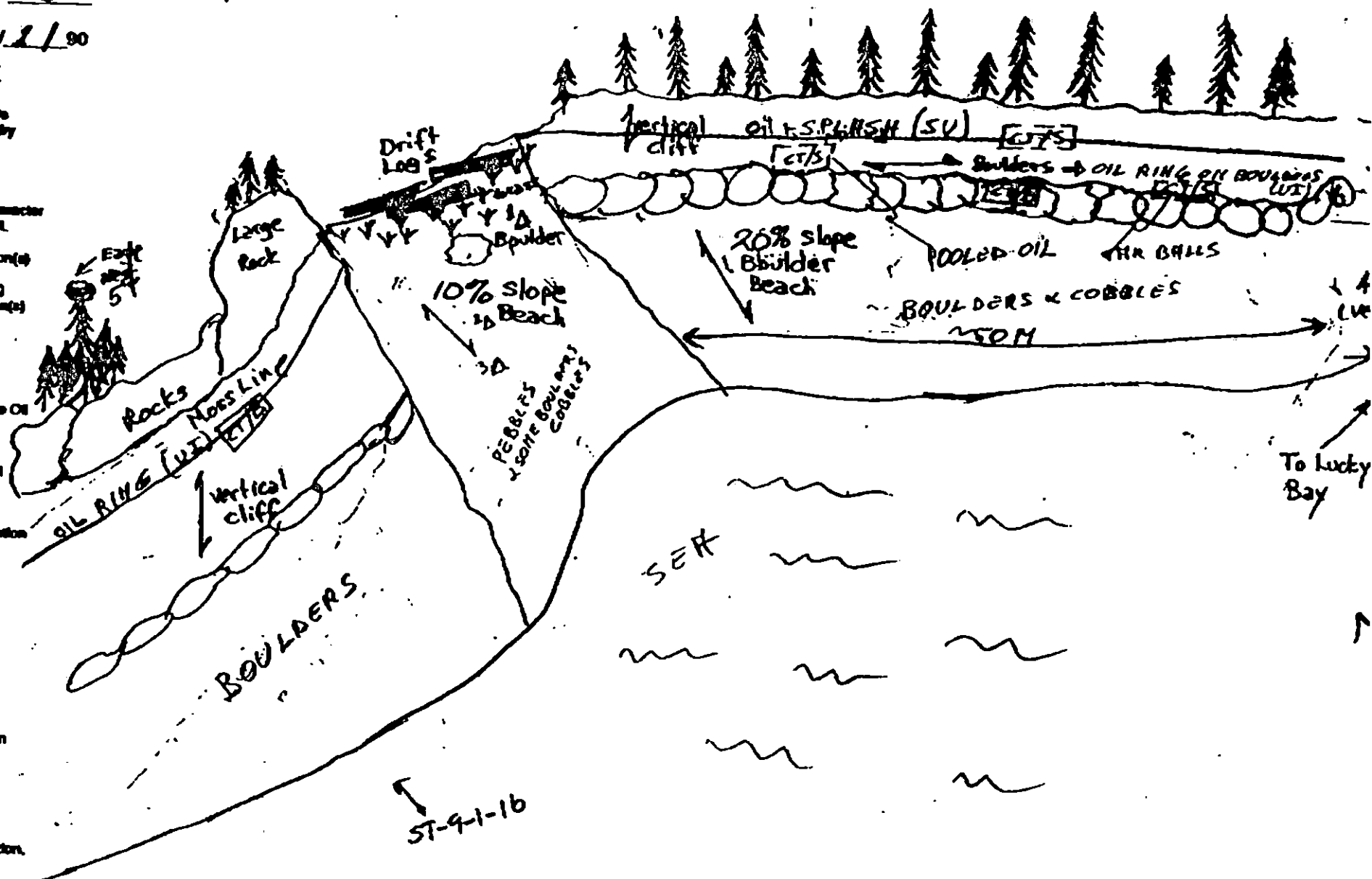
LOC (3) 1 SEGMENT MA 6

CHECKLIST

- N Arrow
- Approx. Scale
- Seg/Sub Bdry
- Oil Dist.
- Width
- Length
- % Cover
- Substrate Character
- Est. HWA/LWA
- SOL
- Profile Location(s)
- Profile(s)
- PH Location(s)
- Photo Location(s)

LEGEND

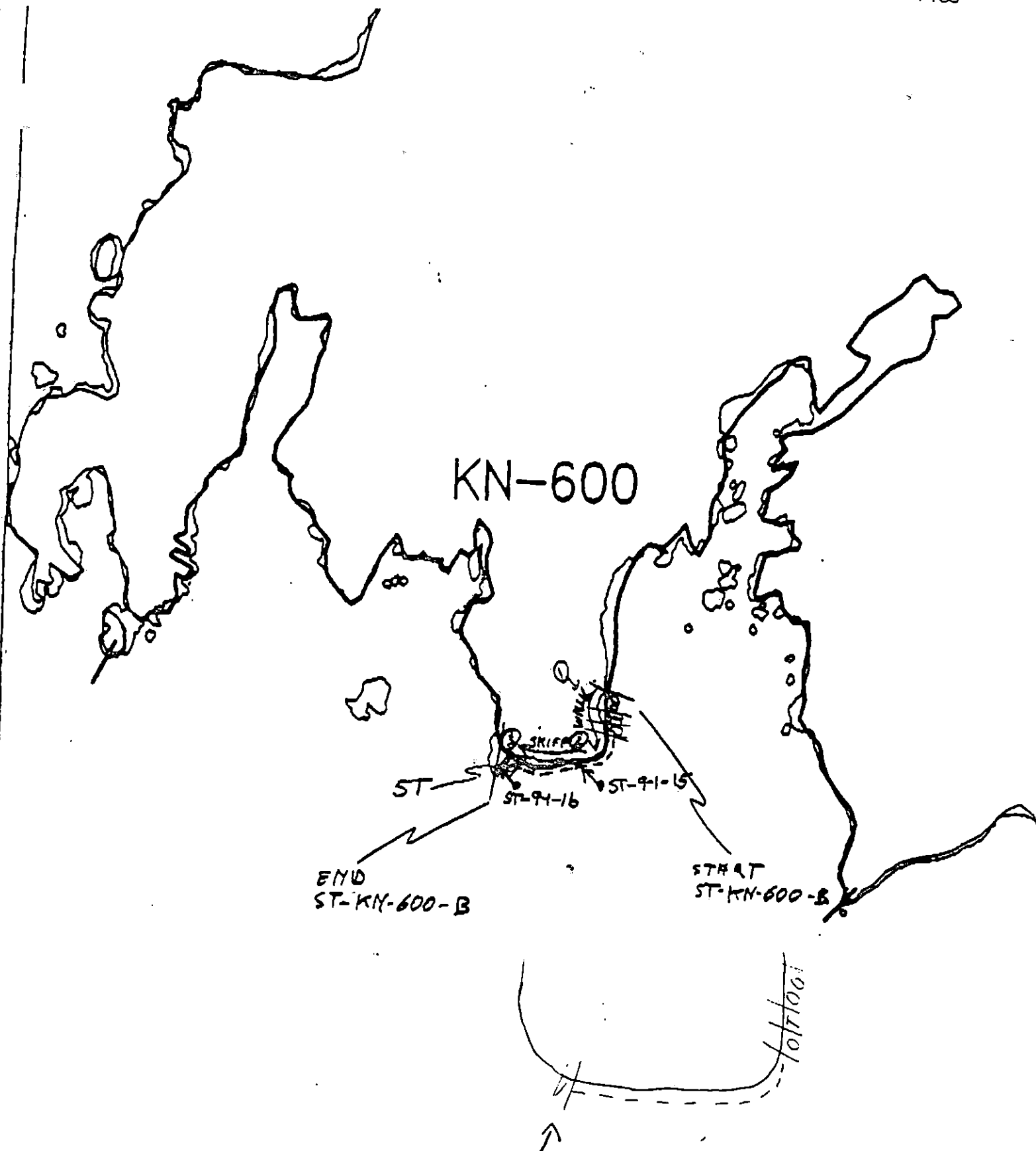
- 1 Δ
PH - No Subsurface Oil
- 2 Δ₁
PH - Subsurface Oil
- CT/C
Continuous Distribution
- CT/B
Broken Distribution
- CT/P
Pecchy Distribution
- CT/S
Splashed Distribution
- Oil Vegetation
- 1 ●
Photo location, direction, and number



Point Between Lucky Bay & Italian Bay

Oil Character Length (m): AP 0 PO 25 CV 100 CT 0 ST 250 MS 0 PT 0 TB 50 FL 0 NO 115

REVISION 03/04/90



XXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

ST-KN-600-B

ADEC Segment Length: 10866m

Map Key: PWS-477

Name: K. DERUSSCHER

Date: 3/31-4/1 '90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ KN-600 SUBDIVISION C (3 OF 3) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Three active eagle nests (5T) - 3/1 to 6/1; Anchorages (6V) - 6/1 to 9/15; Invertebrate subsistence harvest area (7JJ). Consult ADF&G and Chenega Bay for appropriate dates; Subsistence deer harvest area (7II) - 8/15 to 2/28. Restrict air traffic to essential minimum, with approach from seaward only. Contact F&WS re: eagle nests prior to any treatment.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Avoid disturbance/damage of un-oiled biota or substrate.

SHPO SIGNATURE: Charles E. Adams DATE: April 12, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 1032m: No Oil 3805 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/12/90
ADEC JOHN BAUER
EXXON Andy Tetz
NOAA Burt Wierhoff
USCG M. J. HALL
FOSC: DATE: 4-22-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / KN-600 SUBDIVISION: KN-600-C DATE 4/1/90104A
006NAME Jeffrey Dahlia SIGNATURE Jeffrey Dahlia☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

Some hardened patties around an oil bend much like ^{segment} ~~section~~ KN-600-B.
No possibility of oil being ~~released~~ released by natural means. Cleanup would require
intense high pressure hot wash for removal of residual oil.

ADEC
NAME Lori Stratten SIGNATURE Lori Stratten☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

Hardened patty was not enough to warrant treatment.
Band of oil coat at ~~MI~~ is fairly inaccessible for
cleanup and is very light impact, ∴ no treatment
recommended. Hot water wash would damage (biological)
intertidal organisms and would be the only method
to remove oil in this stage.

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

NAT'L FOREST REP NOT AVAILABLE

SHORELINE OILING SUMMARY

REVISION NO. 06/28/88

OG K. DEBUSSCHERE ^{MOA} Jeffrey Dohlin SEGMENT ST/ KN-600
 BIO D. REED LAND REP ST KN-600-C (3 of 3)
 EXXON TONY DIAZ ADEC Lori Stratton TIME 10:00 to 13:30
 TEAM NO.: 18 TIDE LEVEL: 4 to 0 DATE 4/1/90
 EST. SUBDIVISION LENGTH: 6726 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☐ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 55% B 35% C 7% P 2% G 1% S —% M —% V —%
 SLOPE: Long 20% Hang 40% Vert 40% WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 900 m NO 5826 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	C	R	P	S	SP	GP	GL	GR	TR	SU	U	M	L
ASPHALT PAVEMENT													
POOLED													
COVER				X	X							X	
COAT				X	X							X	
STAIN	X				X							X	
MOUSSE													
PATTIES				X	X							X	
TARBALLS													
FILM													
NO OIL										X	X	X	

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE —#BAGS —

Photographs:

Roll No. ST-9-1Frames 16, 17, 18, 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	SP WH	OR WH	GY BL	BRN TL	BLK	SU	U	M	L			
1	50					X	.								X					P/G/S	
2	60					X	.								X					P/G/S	
							.														
							.														
							.														
							.														
							.														

COMMENTS

SUBDIVISION CONSISTS OF HIGH ANGLE TO VERTICAL SHORE ZONE WITH SOME POCKET BEACHES.
 THE ONLY EXTENSIVE (LIKEH) OILING OCCURS IN THE FORM OF OIL STAIN AT THE WEST-END OF THE SUBDIVISION

SHORELINE ECOLOGICAL SUMMARY

REVISION: 037290

Segment ST / KN600 Subdivision C Date (mo / day / yr) 04/01/90Time (24 hr) 1000-13:25 Biologist D. REED

- (A) Substrate type and % of segments:
 (1) Bedrock 55 (2) Boulder 35 (3) Cobble 7 (4) Pebble 3 (5) Sand — (6) Silt —
- (B) Overall % cover of biota (% of segment): Dense 45 Moderate 30 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: ST-9-1
Roll No. —Frames 16, 17, 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	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

2 sea OTTERS, 1 HARBOUR SEAL, a couple small fcy at stream mouth.
 DEER TRACKS, 1 MATURE EAGLE, RELATIVELY FEW BIRDS COMPARED TO
 YESTERDAY AT ADJACENT LUCKY BAY

Ecological Considerations:

11/5

OG K-DE CREA.

SEGMENT N-600

SUBDIVISION C

DATE 4/1/90

CHECKLIST

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

LEGEND

1 Δ
Pt - No Subsurface Oil

2 Δ
Pt - Subsurface Oil

CT/C
Continuous Distribution

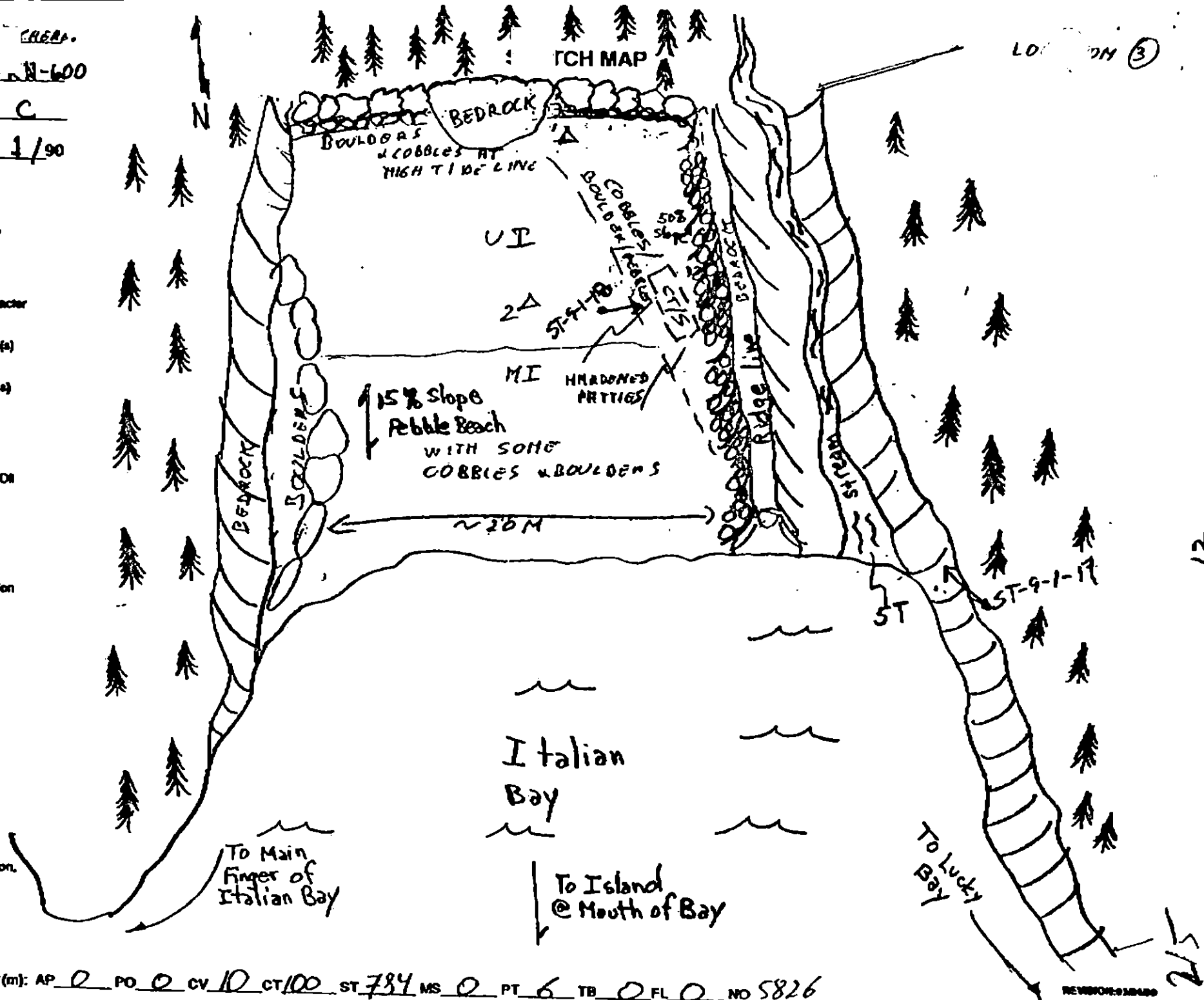
CT/B
Broken Distribution

CT/P
Patchy Distribution

CT/S
Splashed Distribution

Oil Vegetation

1 ●
Photo location, direction, and number



Oil Character Length (m): AP 0 PO 0 CV 10 CT 100 ST 784 MS 0 PT 6 TB 0 FL 0 NO 5826



SHORELINE EVALUATION

SEGMENT ST/ KN-602 SUBDIVISION A (1 OF 3) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream mouth (#16820) - 3/1 to 5/15 and spawning (1B) - 7/10 to 8/31; Anchorages (6V) - 6/1 to 9/15; Special use designation (6Y). Contact ADF&G habitat division prior to treatment for permit. Do not disturb stream bed or banks unless authorized by ADF&G.

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

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

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 860 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/12/90

ADEC JOHN BAUER

EXXON ANDY TEAL

NOAA Burt Wescott

USCG M. J. HALL

FOSC: DATE: 4-12-90

FIELD SHORELINE COMMENT SHEET

MENT ST / KN-602 SUBDIVISION: ST-KN-602-A DATE 3/31/90

~~AA~~
~~USCG~~

NAME Jeffrey A. Dahlin

SIGNATURE Jeffrey Dahlin

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

No oil observed

ADEC

NAME

Lori J. Stratton

SIGNATURE

Lori J. Stratton

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

No oil observed.

LAND MANAGER

NAME

SIGNATURE

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY

REVISION NO. 02/28/98

OG K. DEBUSSCHERIE KN-602 Jeffrey Dahlia SEGMENT STI KN-602
 RIO D. REED LAND REP SUBDIVISION ST-KN 602 - R (1 of 2)
 XXON Tony Diaz ADEC Lori Stratton TIME 7:40 to 8:10
 EAM NO.: 8 TIDE LEVEL: 5 to 4 FT DATE 3/31/90
 EST. SUBDIVISION LENGTH: 850 m ☐ Sun ☐ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 80 % B 15 % C 3 % P 1 % G 1 % S 0 % M 0 % V 0 %
 SLOPE: Long 10 % Hang 60 % Vert 30 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 850 m

SURFACE OIL

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

PAVEMENT: H F S sq. m by cm

PATTIES / TARBALLS BAGS

NEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED ☐ YES ☒ NO

TYPE

#BAGS

Photographs:

Roll No. ST-9-1

Frames 3

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SUBSURFACE SEDIMENTS	
		OP	OR	OL	OF	NO		UO	VO	SO SP	SO RP	SO RP	SO RP	SO RP	SO RP	SO RP	SO RP	SO RP	SO RP			SO RP
1	6					X	.												X			P, (H ₂ O), G
2	8					X	.											X				P, (H ₂ O), G
							.															
							.															
							.															
							.															
							.															

COMMENTS

SUBDIVISION CONSISTS MAINLY OF HIGH ANGLE ROCK OUTCROPS
 → MAINLY OBSERVED FROM SKIFF
 → NO OIL OBSERVED

* DRSH IN SU ZONE STANDS FOR: MAINLY NO OIL; SOME SU COVERED WITH SNOW

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / KN 602 Subdivision A Date (mo / day / yr) 03 / 31 / 90Time (24 hr) 0740-0810 Biologist D. Reed(A) Substrate type and % of segments:
(1) Bedrock 80 (2) Boulder 15 (3) Cobble 5 (4) Pebble <1 (5) Sand <1 (6) Silt(B) Overall % cover of biota (% of segment): Dense 25% Moderate 50% 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. ST-9-1Frames 3

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

?

FUCUS

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

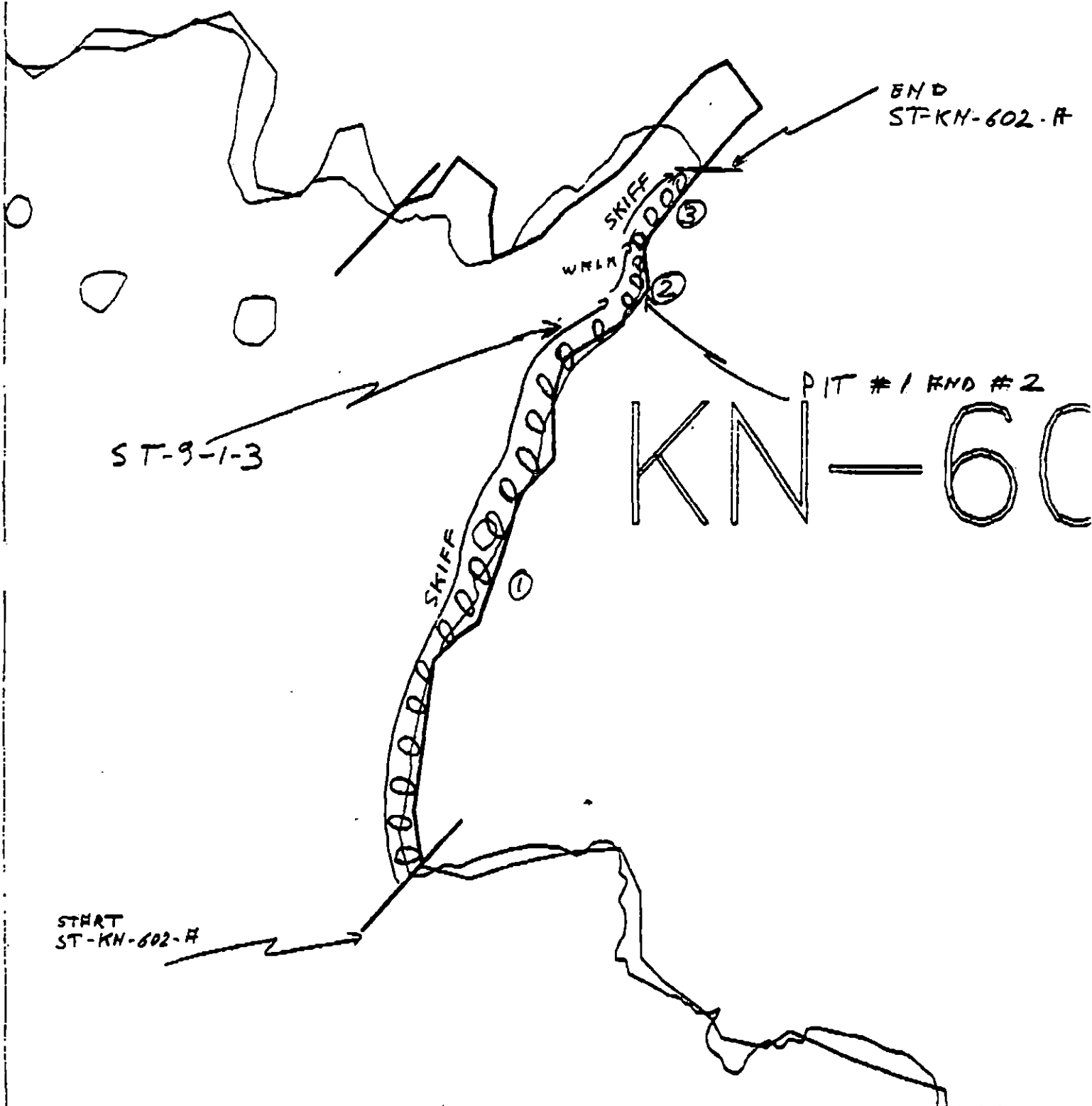
NOT PRESENT

Wildlife Observations/ General Comments:

2 SEA OTTERS, 1 HARBOR SEAL, A FEW DUCKS & CORMORANTS.
MID & UPPER INTERTIDAL IS STEEP BEDROCK WITH SHARP ZONATION
LOWER ZONE FLATTER, BOULDER AND COBBLE.

Ecological Considerations:

PHOTOGRAPHS INDICATED WITH ARROW AND ROLL AND
FRAME #, IE, ST-9-1-1



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

ST-KN-602-H

ADEC Segment Length: 1329m



Map Key: PWS-670

Name: K. DERUSSCHER

Date: 3/31/90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ KN-602 SUBDIVISION B (2 OF 3) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream mouth (#16820) - 3/1 to 5/15 and spawning (1B) - 7/10 to 8/31; Anchorages (6V) - 6/1 to 9/15; Special use designation (6Y). Contact ADF&G habitat division prior to treatment for permit. Do not disturb streambed or banks unless authorized by ADF&G.

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

SHPO SIGNATURE: Charles E. Hansen DATE: April 12, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 3 m: V.Light 0 m: No Oil 254 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/12/90

ADEC JOHN BAUER

EXXON ANDY TGA

NOAA Burt Woodruff

USCG M. J. HALL

FOSC: DATE: 4-22-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ KN-602 SUBDIVISION: ST-KN-602-B DATE 3/31/90

NAME Jeffrey Dahlin SIGNATURE Jeffrey Dahlin

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

~~There are small areas with oil cover.~~ There are small areas with oil cover. We found one area with broken oilcover. It is near a salmon stream and the oil is only on surface. Bioremediation would be a good remediation method.

ADEC
NAME Lori Stratton SIGNATURE Lori Stratton

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

Treatment is recommended since oil is removable; suggest team of 3-4 if available, to manually remove oiled substrate with shovels, being careful of disturbing stream mouths.

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG K. DEBUSSCHERE ^{FOAM} 1000 Jeffrey Dablik SEGMENT ST/ KN-602
 BIO D. REED LAND REP ST-KN-602-B
 EXXON Tony Diaz ADEC Lori Stratton TIME 8:10 to 9:20
 TEAM NO.: 9 TIDE LEVEL: 4 to 0 FT DATE 3/31/90
 EST. SUBDIVISION LENGTH: 90 m ☐ Sun ☐ Clouds ☐ Fog ☒ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 4 % B 10 % C 20 % P 60 % G 1 % S - % M - % V 5 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 4 m VL 0 m NO 86 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	IC	IS	IP	IR	BR	BL	FW	GT	EL	DR	TL	LR	SU	UI	M	U
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT		X										X	X			
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL													S		X	X

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE -#BAGS -

Photographs:

Roll No. ST-9-1Frames 1/2/4/5/6

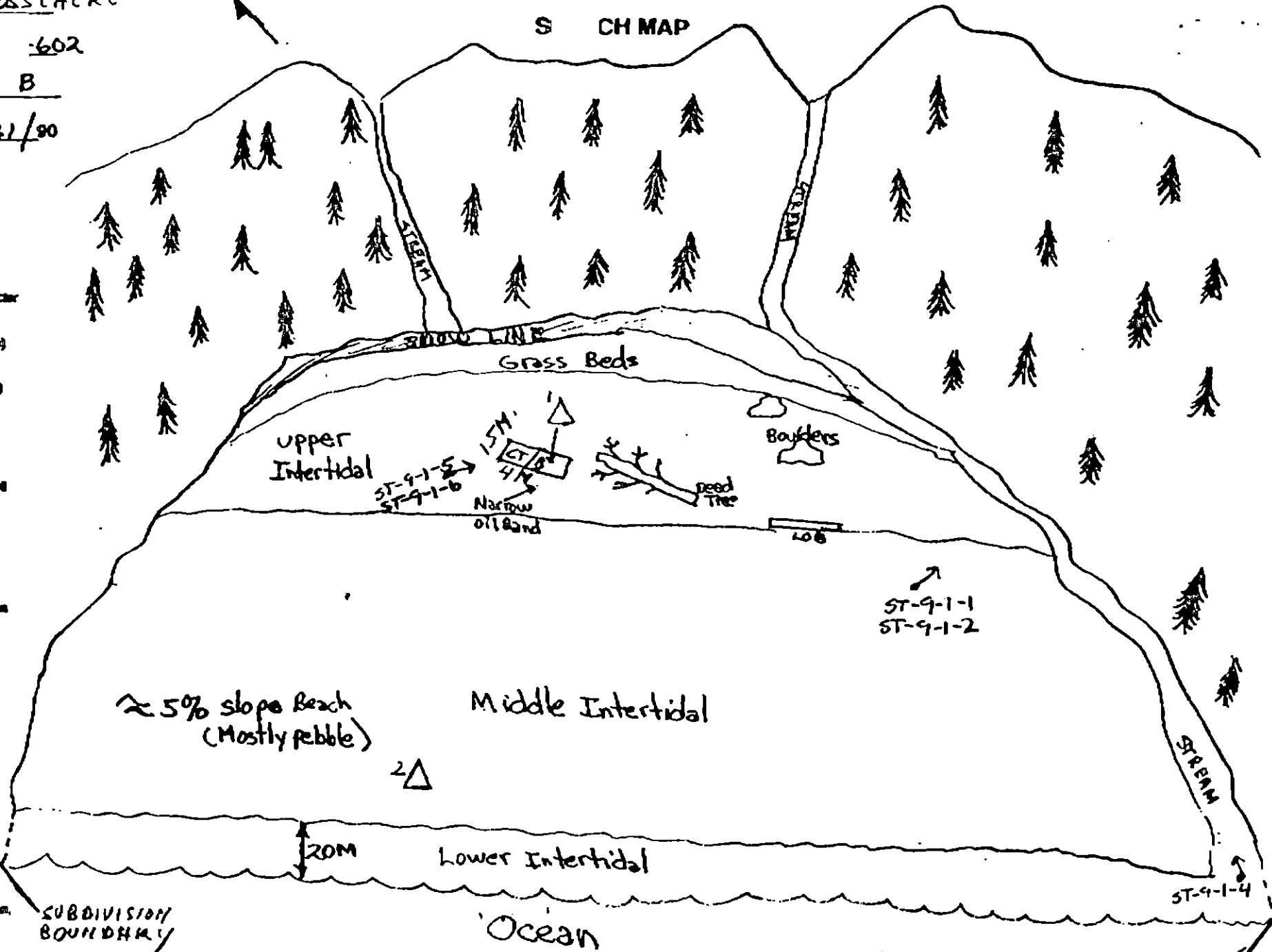
SUBSURFACE OIL

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		UO	UC	BR	BL	FW	GT	EL	DR	TL	LR	SU	UR	ML	LU			
1	20					X	.											X						G, S
2	15					X	.												X					G, S
							.																	
							.																	
							.																	
							.																	

COMMENTS

SUBDIVISION CONSISTS OF LOW ANGLE BEACH DOMINATED BY PEBBLES - STREAM
 OILING EXTENDS OVER A 4X1.5 M AREA IN UPPER INTER-TIDAL. PENETRATION DOES NOT EXCEED 5 CM.
 OILING IS CORRELATED WITH BROKEN DISTRIBUTION

! DANGER FOR AVALANCHE IS PROMINENT RIGHT NOW!!



SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / KN 02 Subdivision B Date (mo / day / yr) 03/31/90Time (24 hr) 0810-0920 Biologist D. REED(A) Substrate type and % of segments:
(1) Bedrock 4 (2) Boulder 10 (3) Cobble 20 (4) Pebble 60 (5) Sand 1 (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 (O)

Photographs:
Roll No. ST-9-1
Frames 1, 2, 4, 5, 6

BARNACLES

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

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	X	3	3	3	3	X	3
4	4	4	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

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	X	X	2
3	3	3	3	3	3	3	3	3	X	X	3
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

NOT PRESENT

FUCUS

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

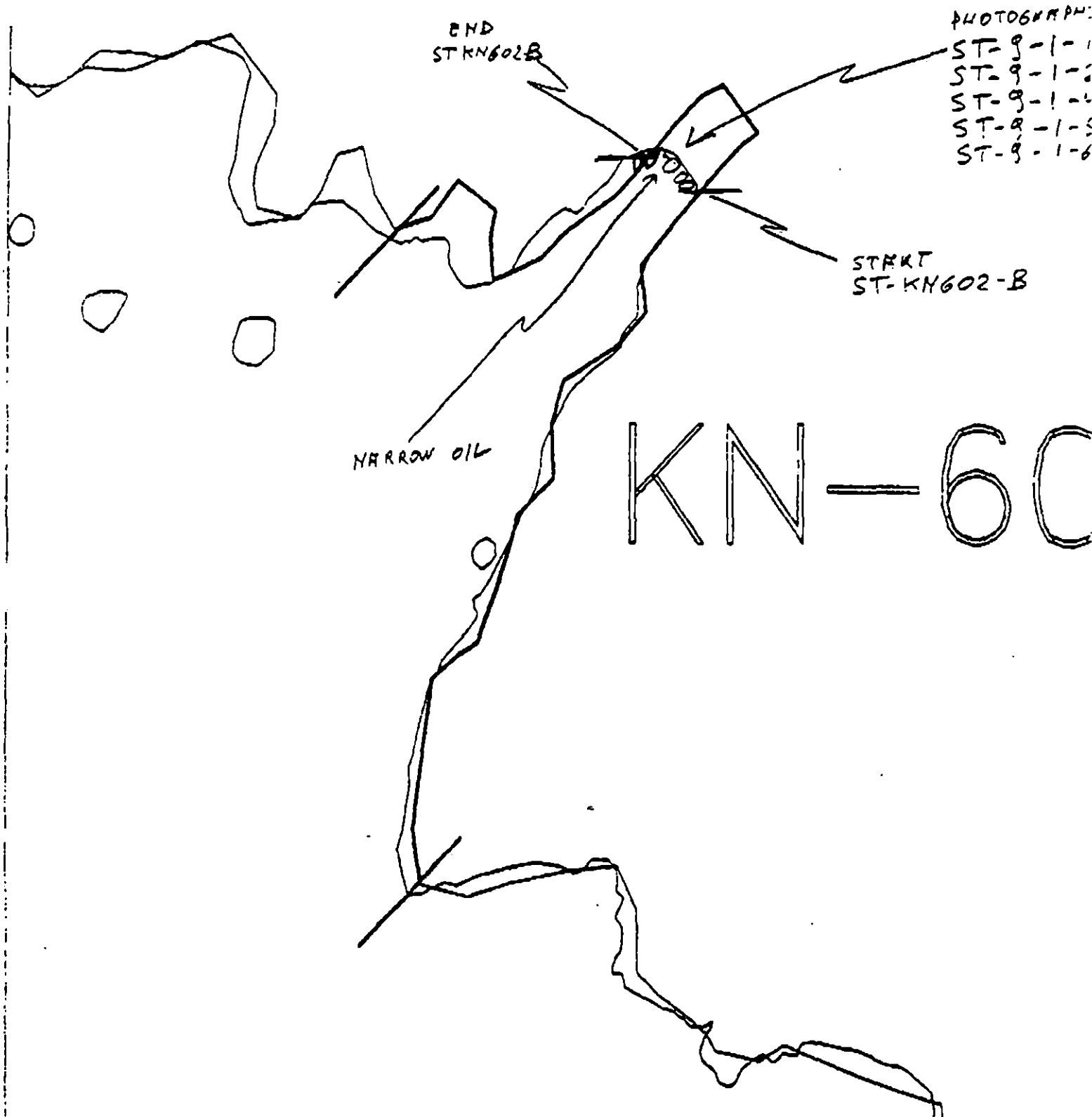
NOT PRESENT

Wildlife Observations/ General Comments:

many empty mussel shells on beach.
RIVER OYSTER SCAT. SIGHTED.

Ecological Considerations:

EASY BEACH ACCESS TO STREAM MOUTH. IN EVENT OF
RE-OILING, STREAM MOUTH SENSITIVE TO HEAVY FOOT TRAFFIC.
NO FRY OBSERVED IN STREAM



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

ST-KN-602-B

ADEC Segment Length: 1329m



Map Key: PWS-470

Name: K. DEBUSSCHER

Date: 3/31/90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ KN-602 SUBDIVISION C (3 OF 3) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream mouth (#16820) - 3/1 to 5/15 and spawning (1B) - 7/10 to 8/31; Anchorages (6V) - 6/1 to 9/15; Special use designation (6Y). Contact ADF&G habitat division prior to treatment for permit. Do not disturb streambed or banks unless authorized by ADF&G.

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

SHPO SIGNATURE: Charles E. Adams

DATE: April 12, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 6 m: No Oil 430 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: 4/12/90

ADEC JOHN BAUER

EXXON ANDY TELL

NOAA Burt Warcott

USCG M. J. HALL

FOSC: W L

DATE: 4-20-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / KN-602 SUBDIVISION: ST-KN-602-C DATE 3/31/90

~~NAME~~

NAME Jetty Rahlin SIGNATURE Jetty Rahlin

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Only 1 mouse patty

ADEC

NAME Lori Stratton SIGNATURE Lori Stratton

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Only one mouse patty observed.

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

NAT'L FOREST REP NOT AVAILABLE

SHORELINE OILING SUMMARY

REVISION NO. 02/22/90

OG K. DERUSSCHER ^{UCCS} Jeffrey Dahlin SEGMENT ST/ KN-602
 IO D. REED LAND REP ST KN 602 - C (3 of 3)
 XXON Tony Diaz ADEC Lori Stratton TIME 9:20 to 10:00
 TEAM NO.: 9 TIDE LEVEL: 0 to -1 FT. DATE 3/31/90
 EST. SUBDIVISION LENGTH: 389 m ☐ Sun ☐ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 35 % B 25 % C 30 % P 5 % G 4 % S - % M - % V 1 %
 SLOPE: Long 15 % Hang 65 % Vert 20 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0.06 m NO 388.94 m

SURFACE OIL

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

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE -#BAGS -

Photographs:

Roll No. ST-9-1Frames 7/8/9/10

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	1	2	3	4	5	6	7	8	SU	U	M	U		
1	20					X	-											X					P/G/S
2	20					X	-												X				P/G/S
3	10					X	-												X				P/C
4	15					X	-												X				P/C
							-																
							-																

COMMENTS

SUBDIVISION CONSISTS MAINLY OF HIGH ANGLE BERCHES -
 ROCK - BOULDER COBBLE. LARGE SECTIONS ARE INACCESSIBLE
 OILING CONSISTS OF ONE OBSERVED MOUSSE PATCH (-16CM
 IN DIAMETER) IN UPPER INTERTIDAL AT LOCATION 7 ON
 SEGMENT MAP

* DASH IN SU ZONE STAKES FOR: MAINLY NO OIL; SOME SU COVERED

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / KN602 Subdivision C Date (mo / day / yr) 03/31/90
 Time (24 hr) 0920-1000 Biologist D. REED

- (A) Substrate type and % of segments:
 (1) Bedrock 35 (2) Boulder 25 (3) Cobble 30 (4) Pebble 5 (5) Sand 4 (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. ST-9-1
 Frames 7, 8, 9, 10

BARNACLES

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

MYTILUS

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

GASTROPODS

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

FUCUS

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

Wildlife Observations/ General Comments:

1 Harbor Seal. LOTS OF DEAD entire clam shells in shallow subtidal.
 numerous snail shells in area of clam shells
 MANY MOON SNAIL EGG CASES BUT NO MOON SNAIL ADULTS.

Ecological Considerations:

Dense eelgrass bed in shallow subtidal at mouth of stream. NO FRY OBSERVED. Sensitive to skiff traffic.

OGK DEBUSSCHER

SE IT ST/KN-602

SUBDIVISION C

DATE 3/31/90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Basin
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HW/LW/L
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PW Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ
Pk - No Subsurface Oil

2 Δ
Pk - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

CT/P
Patchy Distribution

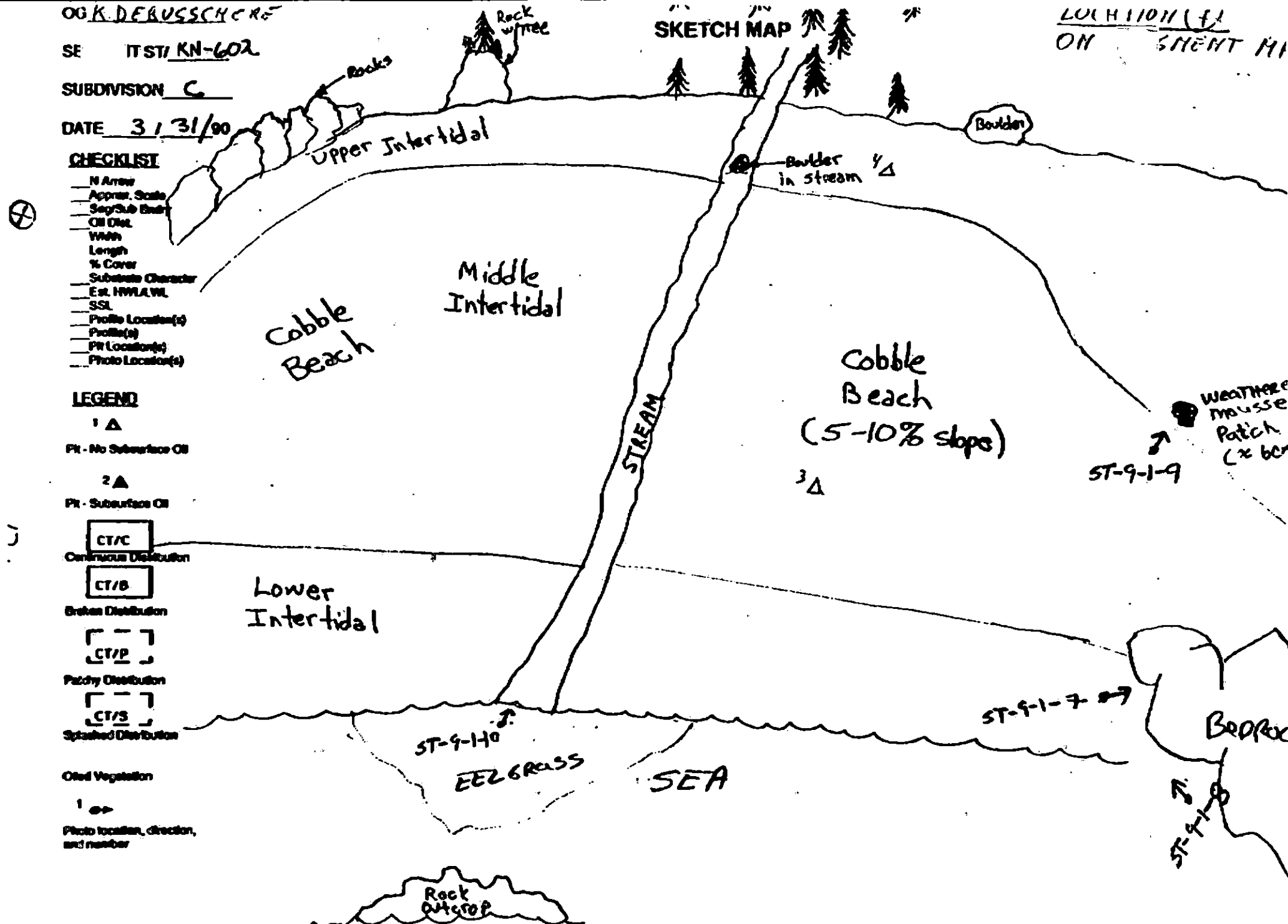
CT/S
Splashed Distribution

Oil Vegetation

1 →
Photo location, direction,
and number

SKETCH MAP

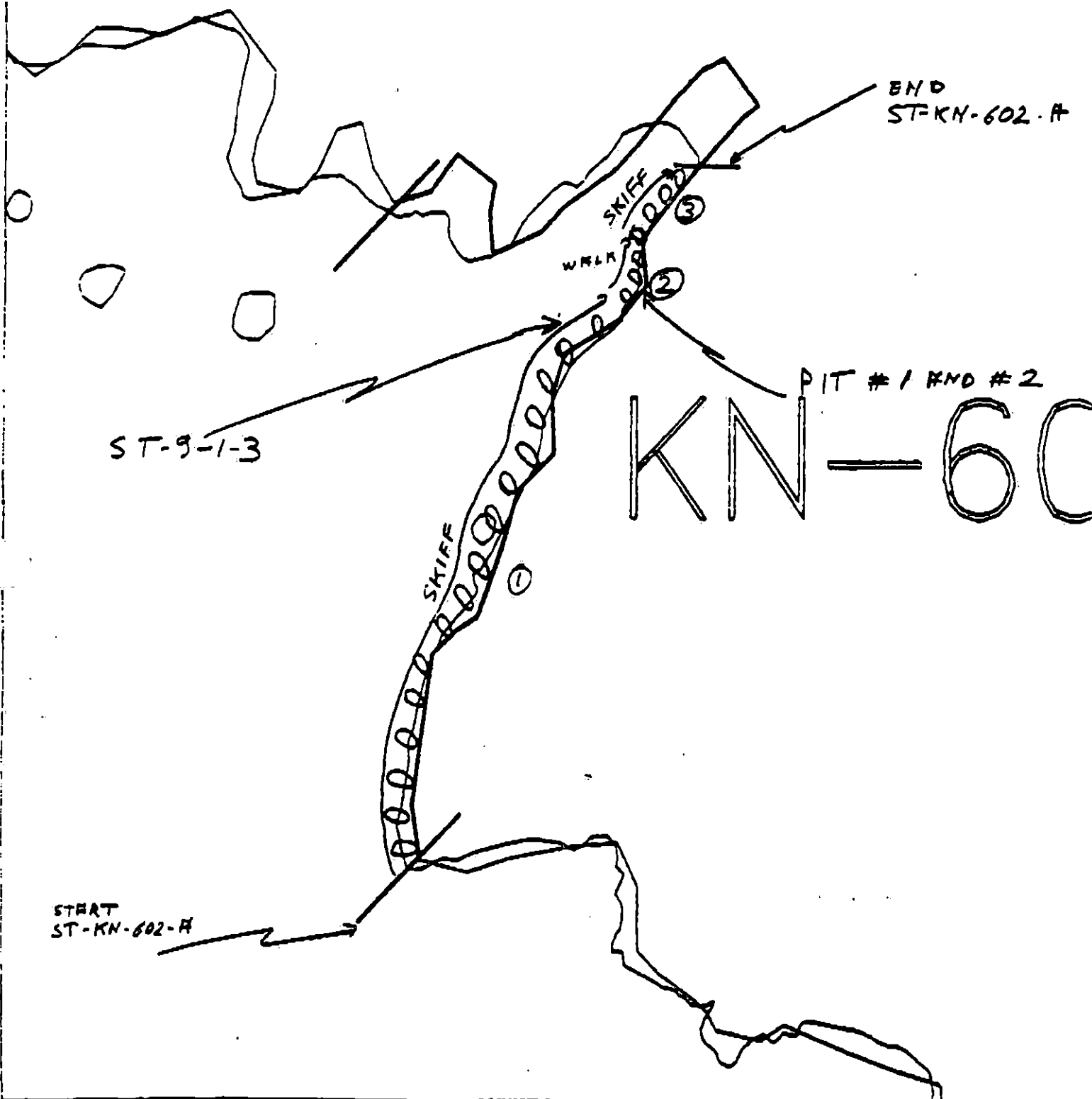
LOCATION (F)
ON SHEET M1



Oil Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 0 PT 0 TB 0 FL 0 NO 388.94

REVISION 000000

PHOTOGRAPHS INDICATED WITH ARROW AND ROLL AND
FRAME #, IE, ST-9-1-1



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

ST-KN-602-H

ADEC Segment Length: 1329m

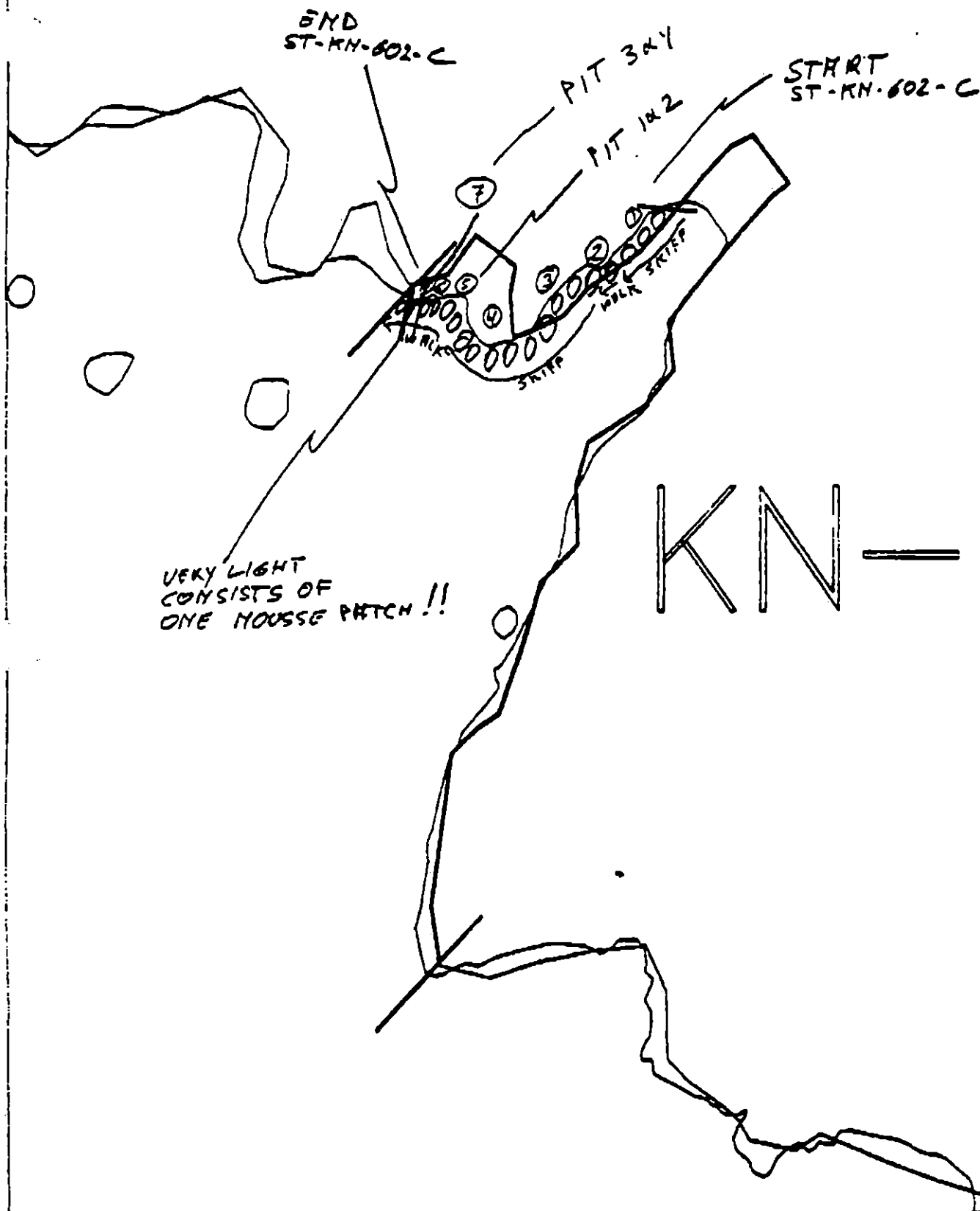


Map Key: PWS-470

Name: K. DEBUSCHERE

Date: 3/31/90

Data Entered:



Map Key: PWS-470

Name: K. DERUSSCHER

Date: 3/31/90

Data Entered:

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ KN-602 STREAM NO: 226-40-16851 DATE 4/27/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31) Subject stream and
226-30-16853
5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1) Nest within 400m of
segment.
6V Recreation: Anchorages (6/1 to 9/15)
6Y Recreation: Special use destination
See attached Ecological Constraint sheet for specific constraints and
contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Subject stream exists within subdivision A (1 of 1). No additional ecological constraints.

SHPO SIGNATURE: Rachel Don Darr DATE: 5/22/20

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: 5/18/90

ADEC ART WEINER Art Weiner

EXXON Andy TGR2 Deal

NOAA Gary Petrac Gary Petrac

USCG G.A. REITER G.A. Reiter

FOSC: [Signature]

DATE: MAY 25 1990

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- ✓ 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 ✓ 1B Salmon stream mouth - spawning (7/10 to 8/31)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G Habitat Division prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G John Morison 267-2324
- 1C Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to July 31 unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Esther Hatchery release (4/15 to 6/15)
 1E Main Bay Hatchery release (4/20 to 6/15)
 1F Sawmill Bay Hatchery release (4/15 to 6/1)
 1G Cannery Creek Hatchery release (4/21 to 6/1)
 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G or PWS Aquaculture Association for confirmation and authorization.
 AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
 1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I Gill net area (6/7 to 8/31)
 1J Purse seine area (7/20 to 9/30)
 1K Purse seine hook-off (7/20 to 9/30)
 1L Set net sites (6/11 to 7/25)
 Contact ADF&G for specific dates, locations and constraints. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G James Brady 424-3212
- 2M Herring spawning (4/1 to 6/15)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Evelyn Biggs 424-3235
- 3N, 3P Harbor seal and sea lion pupping (5/15 to 7/1)
 3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2206
- ✓ 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- ✓ 6U Recreation: Tent sites (6/1 to 9/15)
 ✓ 6V Anchorages (6/1 to 9/15)
 6W Forest Service cabins (6/1 to 9/15)
 ✓ 6X Lodge (6/1 to 9/15)
 ✓ 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
 H Finfish harvesting
 R Deer harvesting (8/15 to 2/28)
 JJ Invertebrate harvesting
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

828/6

SEGMENT ST 1 KN 602 SUBDIVISION: 16851 DATE 4/27/90

USCG

NAME

CWO MC MAHON

SIGNATURE

[Signature]☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

ADFL

ADEC

NAME

TOM CROWE

SIGNATURE

[Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

MANUAL REMOVAL OF TARNAT IN MID INTERTIDAL ZONE
ADJACENT TO THIS CREEK. (SEE MAPS)

LAND MANAGER

NAME

SIGNATURE

☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY (ANAD.)

REVISION NO.

OG William Reid USCG McMAHON SEGMENT ST/ 502 31
 BIO MICHAEL FAWCETT LAND REP TON CROW ADEC 5 STRAH 2-42-168511 OF
 EXXON Gus Garcia ADFG Mike Wigner TIME 10:25 to
 TEAM NO. 15 TIDE LEVEL 3 ft DATE 27 APR 1990
 EST. SUBDIVISION LENGTH: 50 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 25 % B 60 % C 15 % G 0 % S 0 % M 0 % V
 SLOPE: Long 90 % Hang 10 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ H
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 10 m NO 40

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	N	E	S	W	1	2	3	4	SW	SE	NE	NW
ASPHALT PAVEMENT												
POOLED												
COVER												
COAT												
STAIN												
MOUSSE												
PATTIES												
TARBALLS												
FILM												
NO OIL												

PAVEMENT H F S 0 sq. m by 0PATTIES / TARBALLS 2NEAR SHORE SHEEN? ☒ NO BR RW SL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

Did you see
DEBRIS
☐ YES ☒ NO

TYPE 0
#BAGS 0

Photographs:

Roll No. AS-15-7Frames 1-3

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	SHEEN (Y/N)	T	SURF SUBSU SEDIM
		OF	OR	OL	OF	NO		NO	NO	1	2	3	4	SW	SE	NE	NW				
1	40					X	.							X					N		P/B
2	30					X	.							X					N		G/P
							.														
							.														
							.														
							.														

COMMENTS

REVIEWED AW DATE 4-30-90

35/63

Segment KN 602

4/27/90

Stream 226-40-16851

Michael Fawcett

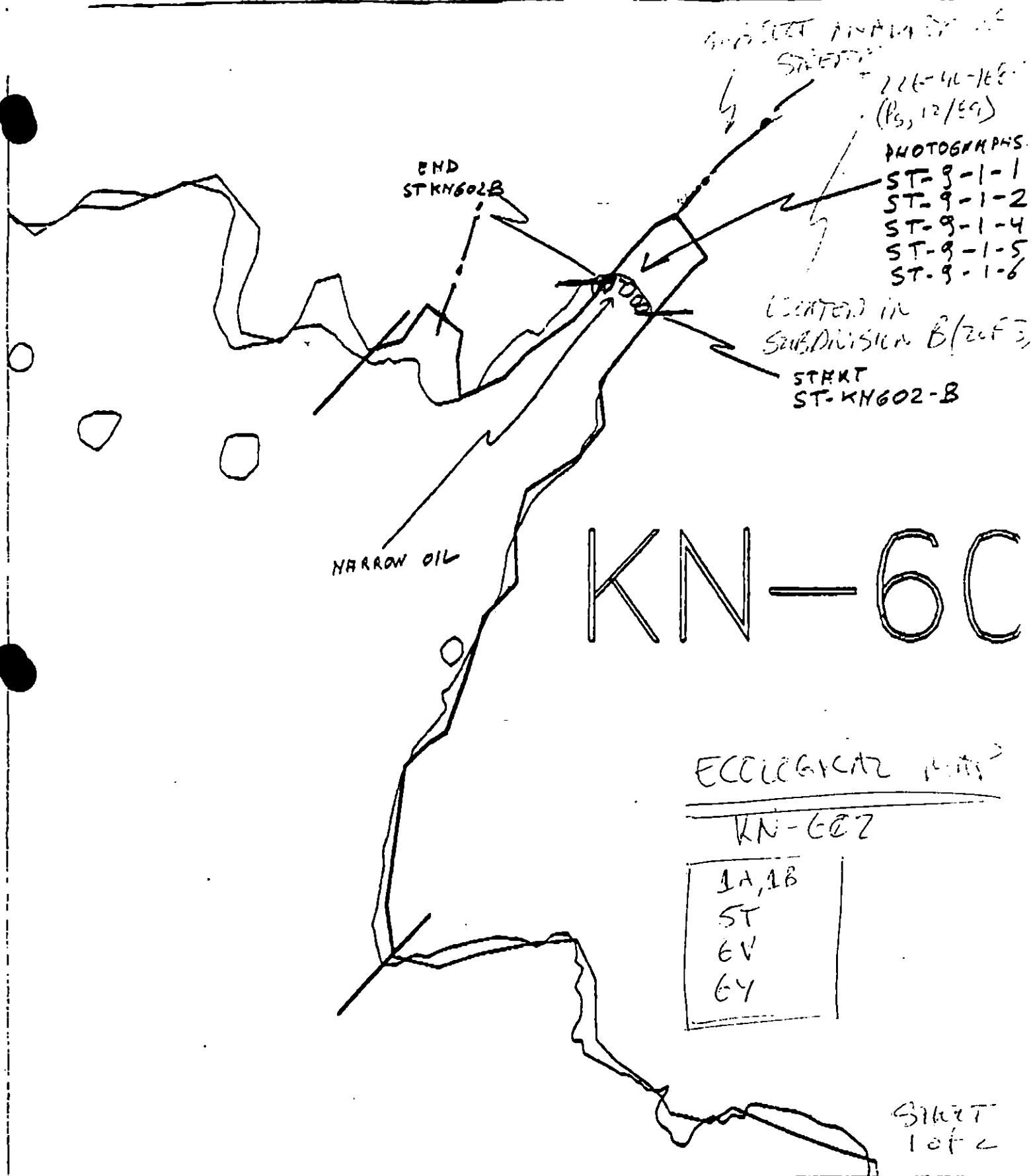
Ecological Summary

This stream has an approximately 100m wide intertidal delta of boulders/cobble/pebbles/gravel. Fucus, barnacles, and littorines are abundant in the MTZ.

Barnacle spat have settled in great numbers throughout the MTZ. The LTZ has some eelgrass, and infaunal clams, crustaceans, echinoids, worms, etc. Many holes from sea otter clam-digging were observed. A few light traces of oil were found in UTZ.

No cleanup recommended.

M. Fawcett



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

ST-KN-602-B

ADEC Segment Length: 1329m

0 100 200 300



Map Key: PWS-470

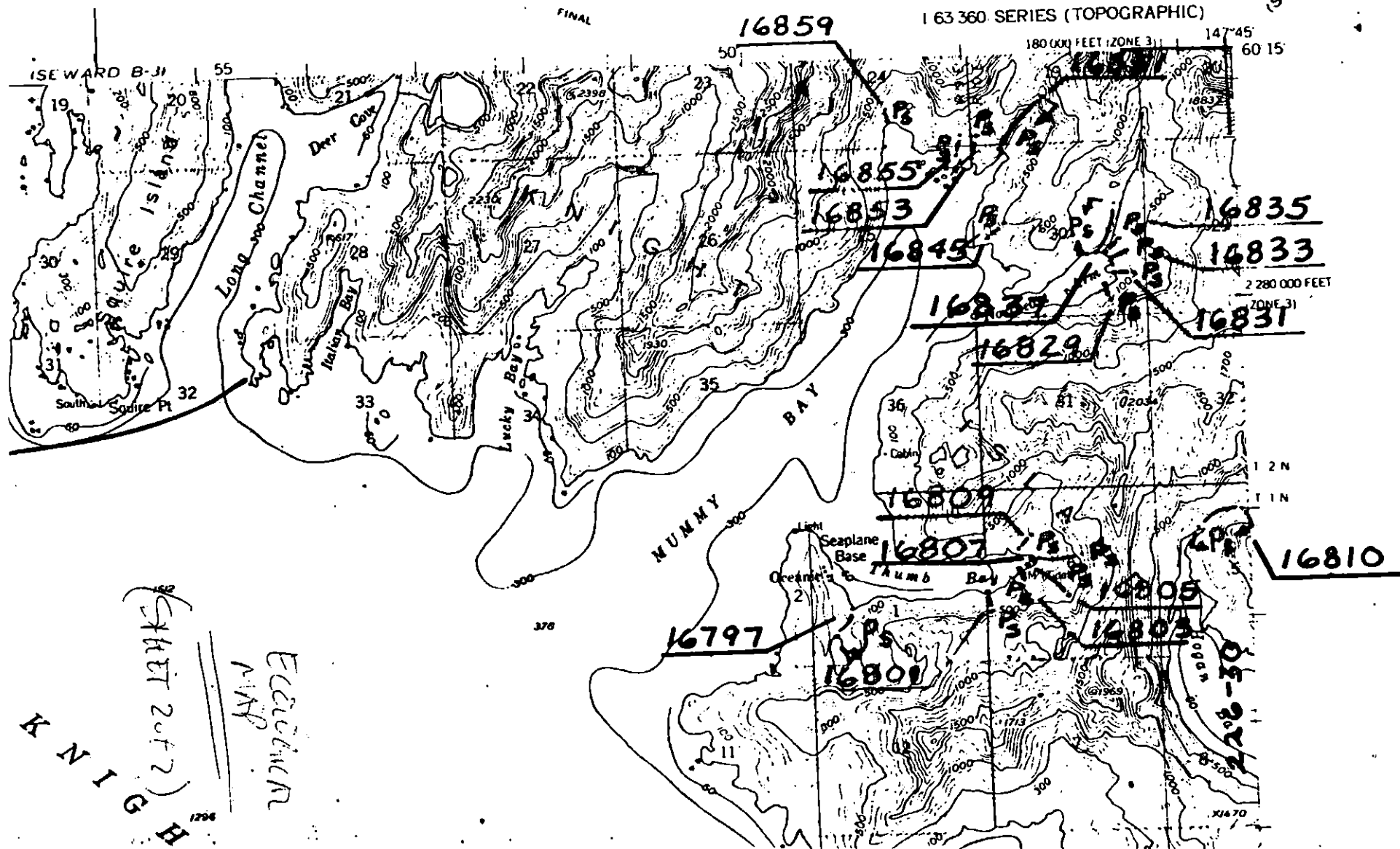
Name: K. DEBUSSCHER

Date: 3/31/90

Data Entered:

SEWARD (A-3) QUADRANGLE
ALASKA
1 63 360 SERIES (TOPOGRAPHIC)

(SEWARD B-2)



KNIGHT
1794
ECCLICH
1794
(Sheet 2 of 2)

=
29/63

ADFG MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS ES DS TS AVS SCH MMS PTA 2 REGION: PES KP, CI KAP
METHOD: Aerial Ground Boat TENT
3 DATE: 4/27/90 16 HIGH TIDE TIMES: 1 21 TEAM RECORDER: TOM CROWE
4 START TIME: 1010 16 HIGH TIDE HTS: 1 22 OBSERVERS: MIKE WIDOMER
5 STOP TIME: 1030 17 LOW TIDE TIMES: 1 23 AGENCY: ADFTG ANAOSCAT
6 SEGMENT #: KN 602 18 LOW TIDE HTS: 1 24 PHOTOS TAKEN: Y (N)
7 STATION #: _____ 19 TIDE HT AT SURVEY: _____ Roll #: _____ Frames: _____
8 K-UNIT: _____ Ebb Slack Flood Slack 25 VIDEO TAKEN: Y (N) TAPES: _____
9 STAT AREA: _____ 20 USGS QUAD: SEW A-3 Starts: _____ Ends: _____
10 LAT: _____ 11 LONG: _____ 26 SAMPLES TAKEN Y (N) Number
12 SOURCE: Map Loren
13 LOCATION: MUMMY BAY
14 DESCRIPTION: SMALL BAY
Oil
Sediment
Biological
Water

EXTENT OF OIL

27 SURFACE COVERAGE
28 SURFACE THICKNESS
29 PENETRATION
30 OVERALL OIL IMPACT: N VL L N H
31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain
32 OILED DEBRIS: Y N
33 SHORELINE TYPE: Mudflat Low-lying Rocks Beach Cove
Lagoon Marsh
34 WAVE EXPOSURE: High Moderate Low
35 SUBSTRATE TYPE: Bedrock Boulder ✓ Cobble ✓
Gravel ✓ Sand ✓ Mud/silt ✓
36 CATALOGED ANAD. FISH STREAM (Y) N
37 CATALOG #: 226-40-16851
38 STREAM NAME: _____
39 OIL IN STREAM BED: Y N
40 OIL ON STREAM BANKS: Y N
41 OIL ON BEACH ADJACENT TO MOUTH Y N
(within 50 meters)
42 OIL WITHIN 1 MILE OF STREAM: Y N
Where: _____
43 ANADROMOUS FISH PRESENT? Y N
44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground

COMMENTS: RECOMMENDATION: REMOVE TAR MAT IN CENTER
OF MID INTERTIDAL AREA (SEE MAP)

I agree with recommendation. M. J. Fawcett

FRAME(S)

DESCRIPTION

RECOMMEND: MANUAL REMOVAL OF TAR MAT
IN MIDDLE OF COVE

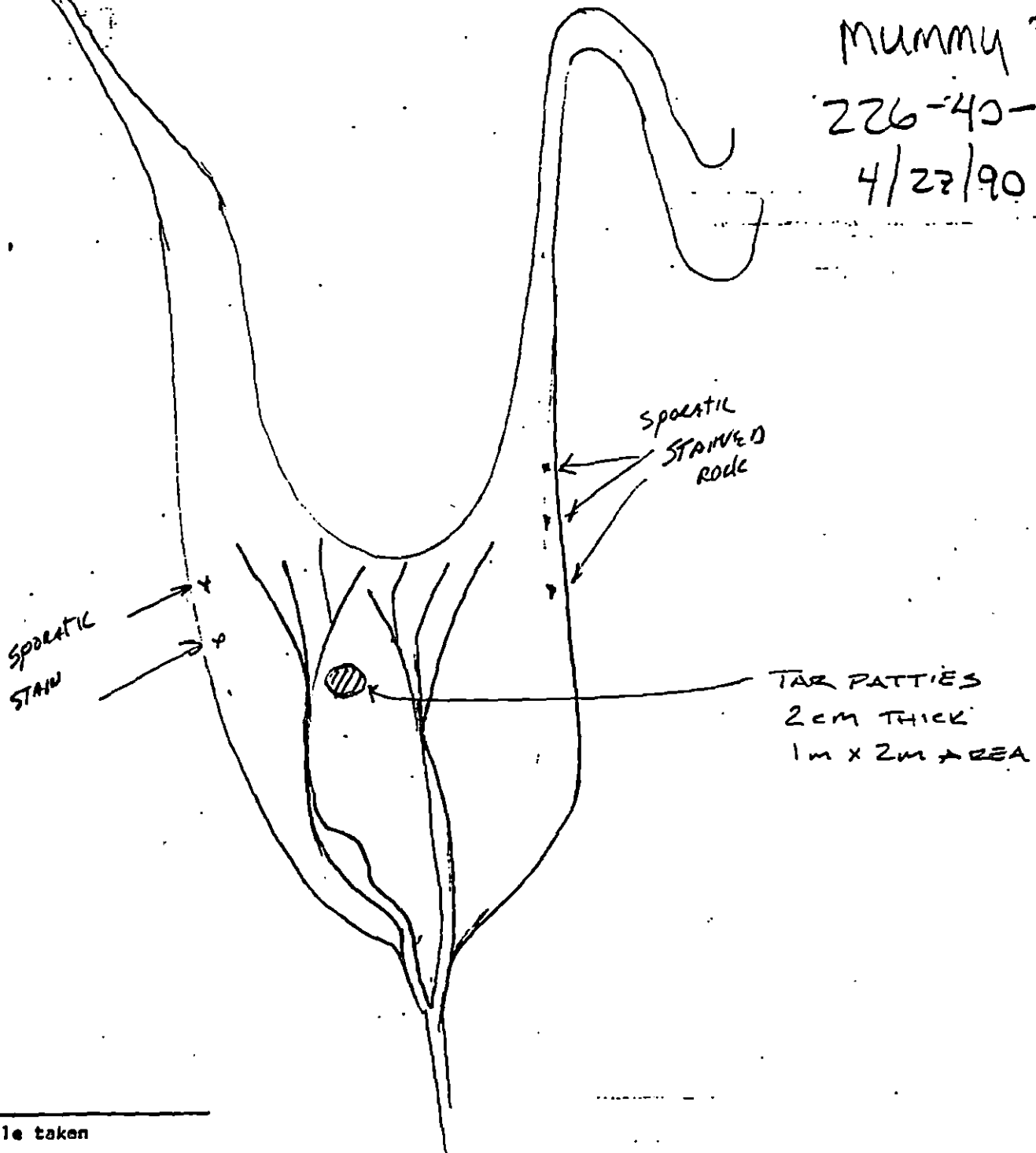
48 OIL DISTRIBUTION DIAGRAM

KN602

MUMMY BAY

226-40-16851

4/22/90



Sample taken

Photo frame # and

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ KN-602 STREAM NO: 226-40-16853 DATE 4/27/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31) Subject stream plus additional salmon stream 226-40-16851
5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1) within 400m
6V Recreation: Anchorages (6/1 to 9/15)
6Y Recreation: Special use destination
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Subject stream is located within subdivision A (1 of 3). No additional ecological constraints.

SHPO SIGNATURE: Rachel Jean Oser DATE: 5/22/90

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: 5/18/90
ADEC Art Weiner Art Weiner
EXXON Andy Galt Andy Galt
NOAA Gary Petros Gary Petros
USCG G.A. REITER G.A. Reiter

FOSC: [Signature] DATE: MAY 25 1990

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G Habitat Division prior to treatment for consultation and/or permit application.
AGENCY CONTACT PERSON: ADF&G John Morison 267-2324
- 1C Salmon fry nursery area (4/31 to 7/31)
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to July 31 unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Esther Hatchery release (4/15 to 6/15)
1E Main Bay Hatchery release (4/20 to 6/15)
1F Sawmill Bay Hatchery release (4/15 to 6/1)
1G Cannery Creek Hatchery release (4/21 to 6/1)
1H Remote release site
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G or PWS Aquaculture Association for confirmation and authorization.
AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I Gill net area (6/7 to 8/31)
1J Purse seine area (7/20 to 9/30)
1K Purse seine hook-off (7/20 to 9/30)
1L Set net sites (6/11 to 7/25)
Contact ADF&G for specific dates, locations and constraints. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G James Brady 424-3212
- 2M Herring spawning (4/1 to 6/15)
Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Evelyn Biggs 424-3235
- 3N, 3P Harbor seal and sea lion pupping (5/15 to 7/1)
3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31).
Contact ADF&G and USFWS prior to treatment for confirmation.
AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
ADF&G Tom Roth 267-2206
- ✓ 5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- ✓ 6U Recreation: Tent sites (6/1 to 9/15)
✓ 6V Anchorage (6/1 to 9/15)
6W Forest Service cabins (6/1 to 9/15)
✓ 6X Lodge (6/1 to 9/15)
✓ 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
IH Finfish harvesting
7I Deer harvesting (8/15 to 2/28)
J Invertebrate harvesting
Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

37/63

FIELD SHORELINE COMMENT SHEET

40-

SEGMENT ST 1 KN 602 SUBDIVISION: 16 853 DATE 9/27/90

USCG
NAME CWO MC MAHON SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

~~ADFG~~
~~ADEG~~
NAME Tom Crowe SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

LAND MANAGER
NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

OG WILLIAM LEID USCG McMAHON SEGMENT ST/ KN 602 40
 BIO MICHAEL FAWCETT LAND REP TOM CROVE AD FG-5 STRAHM 226-68531
 EXXON Gus GARCIA ADPG MIKE WIDNER TIME 10:35:10
 TEAM NO. 15 TIDE LEVEL -2.5m DATE 27 APR 1990
 EST. SUBDIVISION LENGTH: 40 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 5 % B 55 % C 45 % P 15 % G 5 % M 5 % V
 SLOPE: Long 90 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ H
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 10 m NO 30

SURFACE OIL

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

PAYEMENT H F S 0 sq. m by 0

PATTIES / TARBALLS 0

NEAR SHORE SHEEN? ☒ NO BR RW SL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

Did You Co
 DEBRIS
☐ YES ☒ N
 TYPE 0
 #BAGS 0

Photographs:

Roll No. AS-15-7

Frames 4-5

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	SHEEN (Y/N)	T	SURF/ SUBSURF SEDIME
		OP	OR	OL	OF	NO		LO	UC	1	2	3	4	SU	M	W	U				
1	35					X	.							X					N		G/P1
							.														
							.														
							.														
							.														
							.														

COMMENTS

REVIEWED JW DATE 5-1-90

4/16/80 00 WILLIAM KEID
SEGMENT ST/ KN602

STREAM 226-40-16853

DATE 27 APR 80

CHECKLIST

- ☐ M Area
- ☐ Approx. Scale
- ☐ Day/Star Study
- ☐ CI (Dist)
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. INWALVE
- ☐ SSI
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pt Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ
PI - No Substrate CI

2 Δ
PI - Substrate CI

CT/C
Continuous Distribution

CT/D
Discrete Distribution

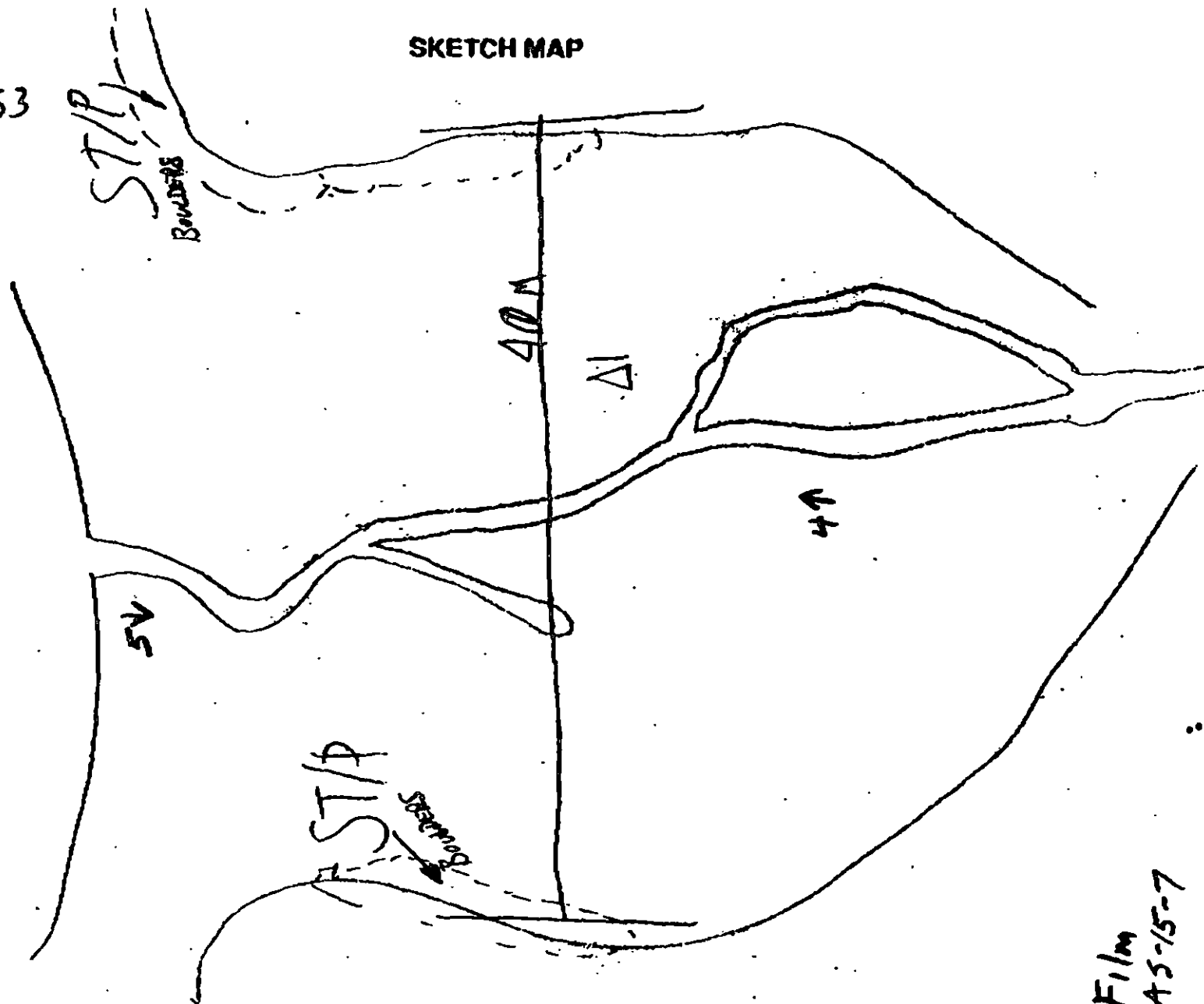
CT/P
Patchy Distribution

CT/S
Splashed Distribution

eee
Other Vegetation

1 ●→
Photo location, direction,
and number

SKETCH MAP



Film
A5-15-7

CI Character h(m): AP PO CV CT ST MS TB FL NO

NOV 1980

88/63

ADFLC MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: SS SS DS TS AVS SCM MMS PTA2 REGION: PIB NP CI KAPMETHOD: Aerial Ground Boat3 DATE: 4/27/9018 HIGH TIDE TIMES: 121 TEAM RECORDER: TOM CROWE4 START TIME: 103519 HIGH TIDE HTS: 122 OBSERVERS: MIKE WIEDMER5 STOP TIME: 105017 LOW TIDE TIMES: 123 AGENCY: ADF466 SEGMENT #: KN60216 LOW TIDE HTS: 124 PHOTOS TAKEN: Y (N)

7 STATION #:

10 TIDE HT AT SURVEY:

Roll #: _____ Frames: _____

8 K-UNIT:

Ebb Slack Flood Slack

25 VIDEO TAKEN: Y (N) TAPES: _____

9 STAT AREA:

20 USCG QUAD: SEA A-3

Starts: _____ Ends: _____

10 LAT:

11 LONG:

26 SAMPLES TAKEN Y (N) Number _____

12 SOURCE: Map Loran

011 _____

13 LOCATION: Mummy Bay

Sediment: _____

14 DESCRIPTION: _____

Biological: _____

Water: _____

EXTENT OF OIL

	SHORELINE				STREAM			
	L	V	H ²	Q	L	V	H ²	Q
27 SURFACE COVERAGE								
28 SURFACE THICKNESS								
29 PENETRATION								

30 OVERALL OIL IMPACT: N (YL) L N N36 CATALOGED AKAD. FISH SKEWT (Y) N37 CATALOG #: 226-40-16853

38 STREAM NAME: _____

39 OIL IN STREAM BED? Y (N)40 OIL ON STREAM BANKS? Y (N)41 OIL ON BEACH ADJACENT TO MOUTH? Y (N)
(within 50 meters)

42 OIL WITHIN 1 MILE OF STREAM? Y N

31 OIL TYPE: Pooled Messes Tar Asphalt Sticky Seal

32 OILED DEBRIS? Y N

Where: _____

33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cave
Lagoon Marsh

43 ANOMALOUS FISH PRESENT? Y N

34 WAVE EXPOSURE: High Moderate Low

44 ANOMALOUS FISH OBSERVATION

35 SUBSTRATE TYPE: Bedrock _____ Boulder _____ Cobble ✓

Species Aerial Ground

Gravel ✓ Sand _____ Mud/silt ✓

COMMENTS: NO TREATMENTAgreed. MBL Fawcett

44/6

Segment: KN 602

4/27/90

Stream 226-40-16853

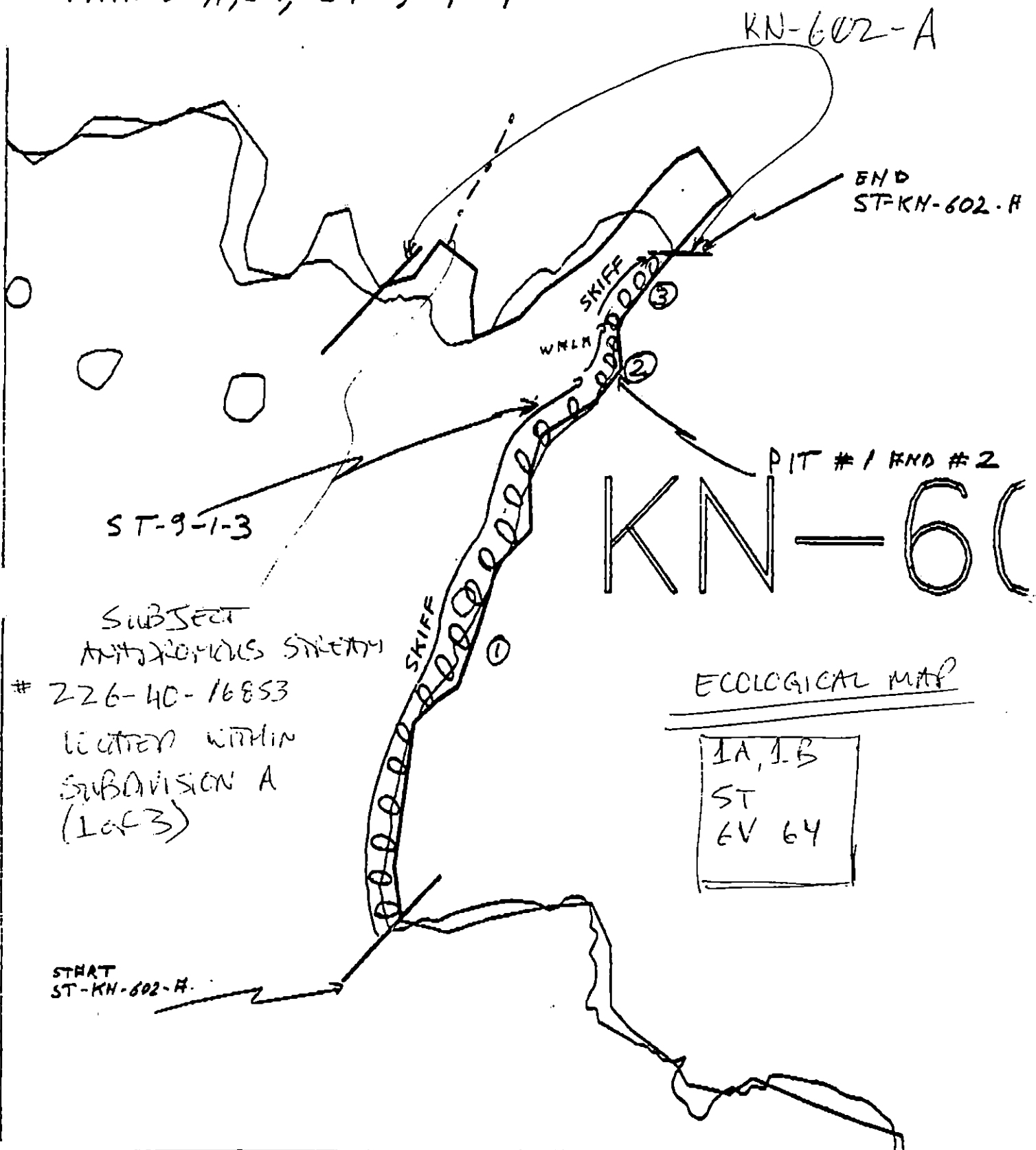
Michael Fawcett

Ecological Summary

This very small stream trickles through some grassy flats, then into a cobble/pebbles gravel beach with boulders ^{at either} side of the mouth. A bed of mussels and infaunal clams exists at the mouth, with sparse Fucus. Many sea otter clam-digging craters were seen. Oil light or non-existent. No cleanup needed.

M Fawcett

PHOTOGRAPHS INDICATED WITH ARROW AND ROLL AN
FRAME #, I.E., ST-9-1-1



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

ST-KN-602-H

AOEC Segment Length: 1329m

Map Key: PWS-470

Name: K. DEBUSSCHEK

Date: 3/31/90

SHORELINE EVALUATION

SEGMENT ST/ KN-603 SUBDIVISION A (1 OF 1) DATE 4/10/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G streams #226-40-16845, 16835, 16837, 16829, 16831, 16833

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

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

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Mark E. Hume DATE: 4/20/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 41 m: No Oil 7599 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: 4/19/90.
ADEC ART WEINER Art Weiner
EXXON ANDY KATZ Andy Katz
NOAA PERL WESSOFF Perl Wessoff
USCG KENNETH KOTANE Kenneth Kotane

FOSC: DATE: 4-25-90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

1A
1B

~~Salmon stream mouth~~ fry collection (5/1 to 5/15)
Salmon stream mouth spawning (7/10 to 8/31)

No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.

1C

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

1D

Esther Hatchery release (4/15 to 6/1)

1E

Main Bay Hatchery release (4/20 to 5/10)

1F

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

1G

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

1H

Remote release site

1I

Gill net area (6/7 to 8/31)

1J

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

1K

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

1L

Set net sites (6/11 to 7/25)

For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.

2M

Herring spawning (4/1 to 6/15)

Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.

3N, 3P
3O, 3Q

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

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

Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.

5R

Seabird colony (5/1 to 9/1)

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

5S

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

Restrict all activity to essential minimum, especially air traffic.

5T

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

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

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

6U

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

6V

Anchorage (6/1 to 9/15)

6W

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

6X

Lodge (6/1 to 9/15)

6Y

Special use destination

7Z

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

7HH

Finfish harvesting

7II

Deer harvesting (8/15 to 2/28)

7JJ

Invertebrate harvesting

For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / KN-603 SUBDIVISION: A DATE 7/10/90

~~NAME~~
~~U.S. ARMY~~

NAME Jeffrey Dahlin SIGNATURE Jeffrey Dahlin

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS as the head of the bays were pebble cobble shoreline. Most of the remainder of the shoreline was boulder and bedrock. The only oil found was at the head at northwest corner. This was only a few tarballs and splashes.

ADEC

NAME Lori Stratton SIGNATURE Lori Stratton

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS Most of the segment consisted of broken slate/shale ^{low angle} beaches. A wide delta covered the head of the bay. In one area with high angle boulder and bedrock, very light tarball splashes were observed. A salmon stream and archeological building remains were sighted around the delta region. No treatment was recommended due to insignificant oiling.

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 03/23/98

OG H. DEBUSSCHERE ^{NANA} Jeffrey Ahlin SEGMENT ST/ KN-603
 NO O. REED LAND REP NONE SUBDIVISION R 10P1
 EXON Long Diaz ADEC Long Station TIME 7:50 to 10:15
 TEAM NO.: 5 TIDE LEVEL: -1 to 1.5 DATE 4/1/90
 EST. SUBDIVISION LENGTH: 7849 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 35 % B 35 % C 15 % P 15 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 30 % Hang 40 % Vert 30 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 40 m NO 7809 m

SURFACE OIL

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

PAVEMENT: H F S 0 sq. m by 0 cmPATTIES / TARBALLS 0 BAGSNEAR SHORE SHEENT (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. _____

Frames NONE

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-DM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UC	UC	UC	UC	UC	UC	UC	UC	UC	UC	SU	U	M	U		
1	25					X	-											X					P/G & S

COMMENTS

- SEGMENT IS A LOW ENERGY ENVIRONMENT - LARGE DELTA
 MARE AT HEAD OF THUMB BAY
 - NO OIL WAS OBSERVED EXCEPT FOR LOCATION ①: TARBALLS
 → VERY LIGHT.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/22/90

Segment ST / KN603 Subdivision A Date (mo / day / yr) 04 / 10 / 90
Time (24 hr) 0750-1015 Biologist D. Reed

- (A) Substrate type and % of segments:
(1) Bedrock 35 (2) Boulder 35 (3) Cobble 15 (4) Pebble 15 (5) Sand — (6) Silt —
- (B) Overall % cover of biota (% of segment): Dense 25 Moderate 35 Low 40
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
Roll No. —
Frames NONE

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

1 eagle, 2 OTTERS, 2 MARTENS, ≈ 20 DUCKS (mergansers, Eiders, Goldeneyes)

Ecological Considerations:

Salmon stream in large embayment. No oil was found in this area.



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

ST-KN-603-17

ADEC Segment Length: 7849m



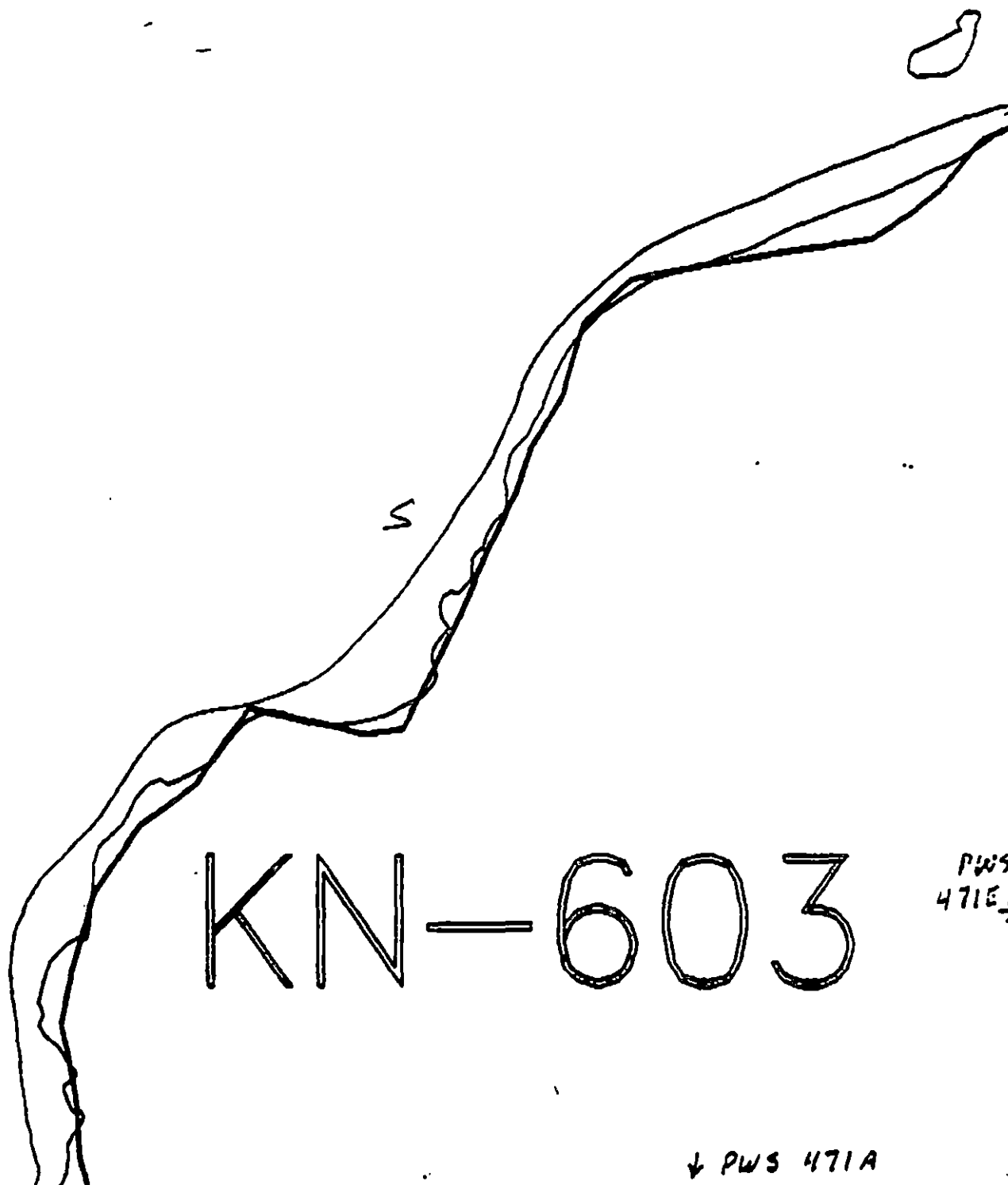
Map Key: PWS-4710

Name: K. DERUSSCHAE

Date: 4/10/90

Date Entered:

↑ PWS
4716



KN-603

PWS
471E →

↓ PWS 471A

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

SF KN-603-A

ADEC Segment Length: 7849m

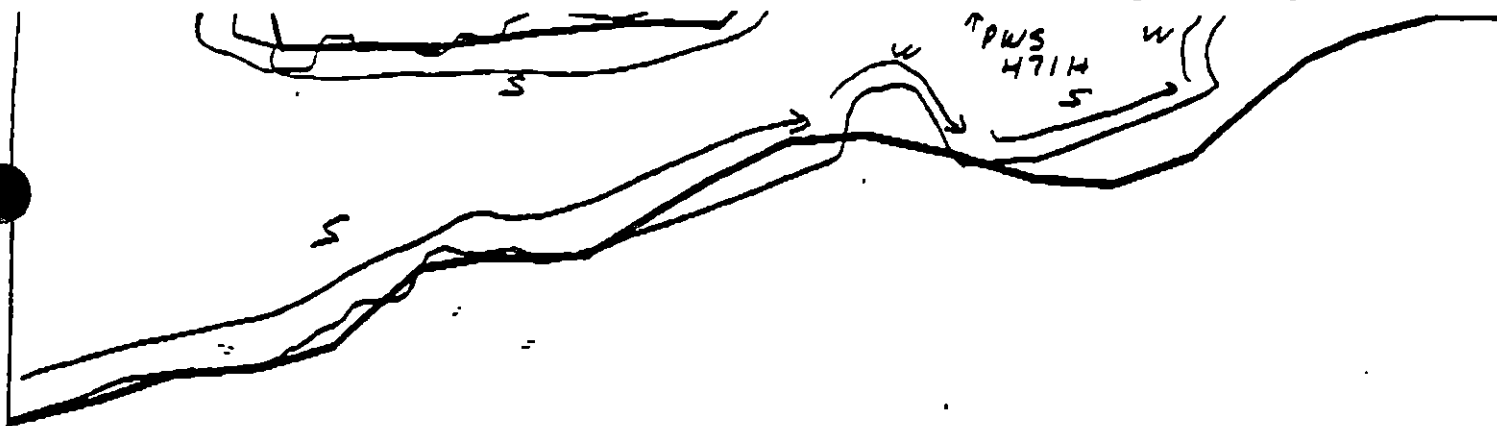


Map Key: PWS-471d

Name: K. DIERUSCHER

Date: 4/10/90

Date Entered:



← PWS
471D

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

ST-KN-603-A

ADEC Segment Length: 7849m

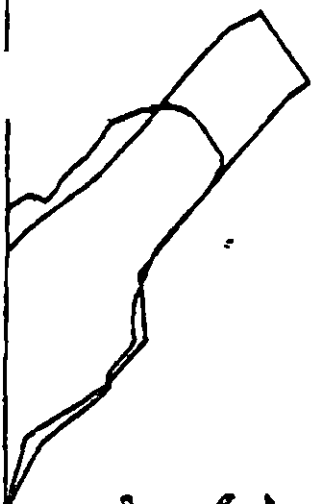


Map Key: PWS-471a

Name: K. DEBUSSCHER

Date: 4/10/90

Date Entered:



KN-602

PWS
471G

PWS
471i



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

ST-KN-603-A

ADEC Segment Length: 7849m



Map Key: PWS-471h

Name: K. DERUCCSCHER

Date: 4/10/90

Data Entered:

← PWS
471H

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

ST-KN-603-A

ADEC Segment Length: 7849m

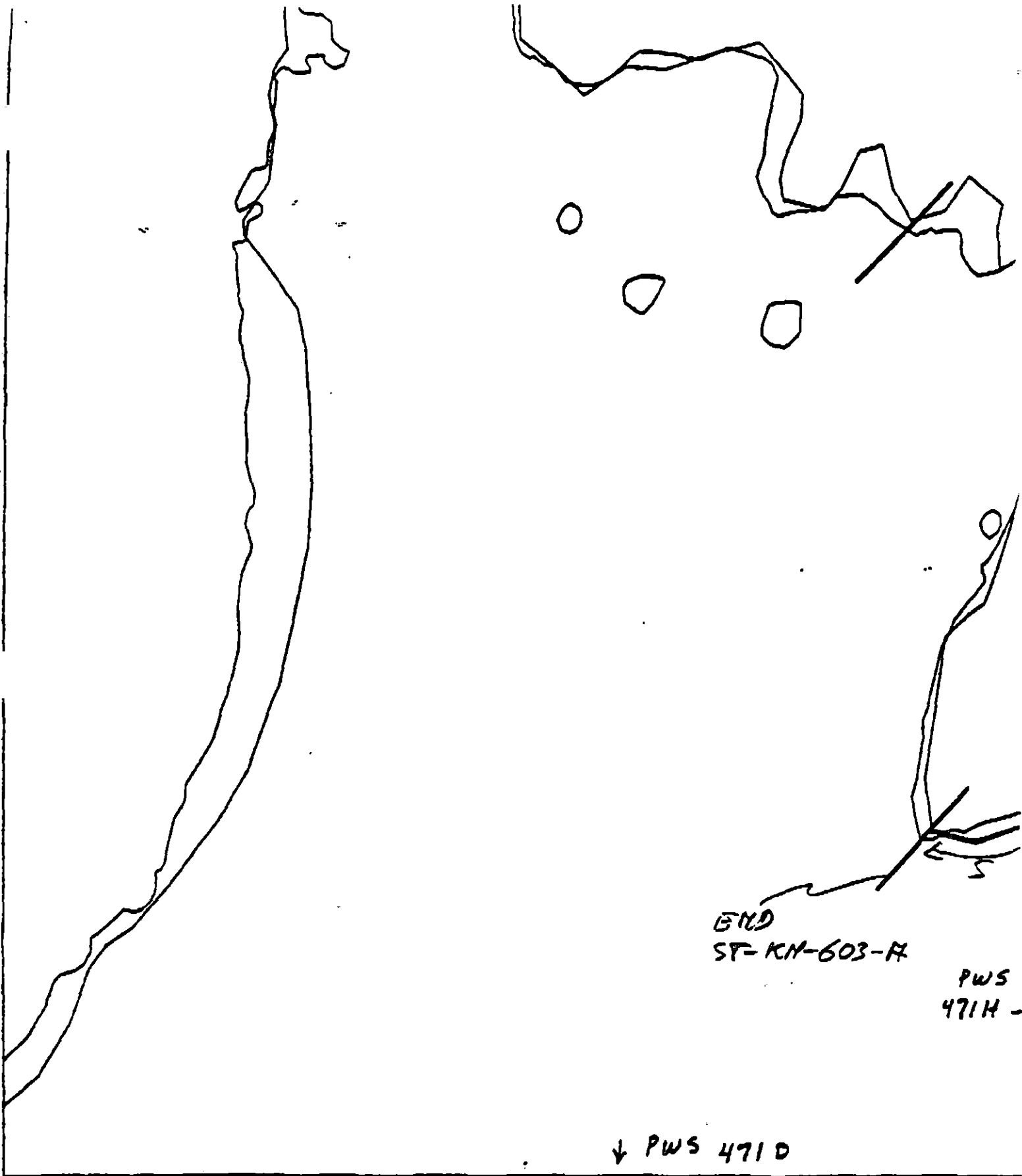
0 7 100 200 300
METERS

Map Key: PWS-4711

Name: K. DEBUSSCHERE

Date: 4/10/90

Data Entered:



END
ST-KN-603-R

PWS
471H -

↓ PWS 471D

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

KN-603

ADEC Segment Length: 7849m



Map Key: PWS-471g

Name: K. DEBUSSCHERE

Date: 4/10/90

Date Entered:

↑ PWS
471 D

OIL MAP



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

ST-KN-603-A

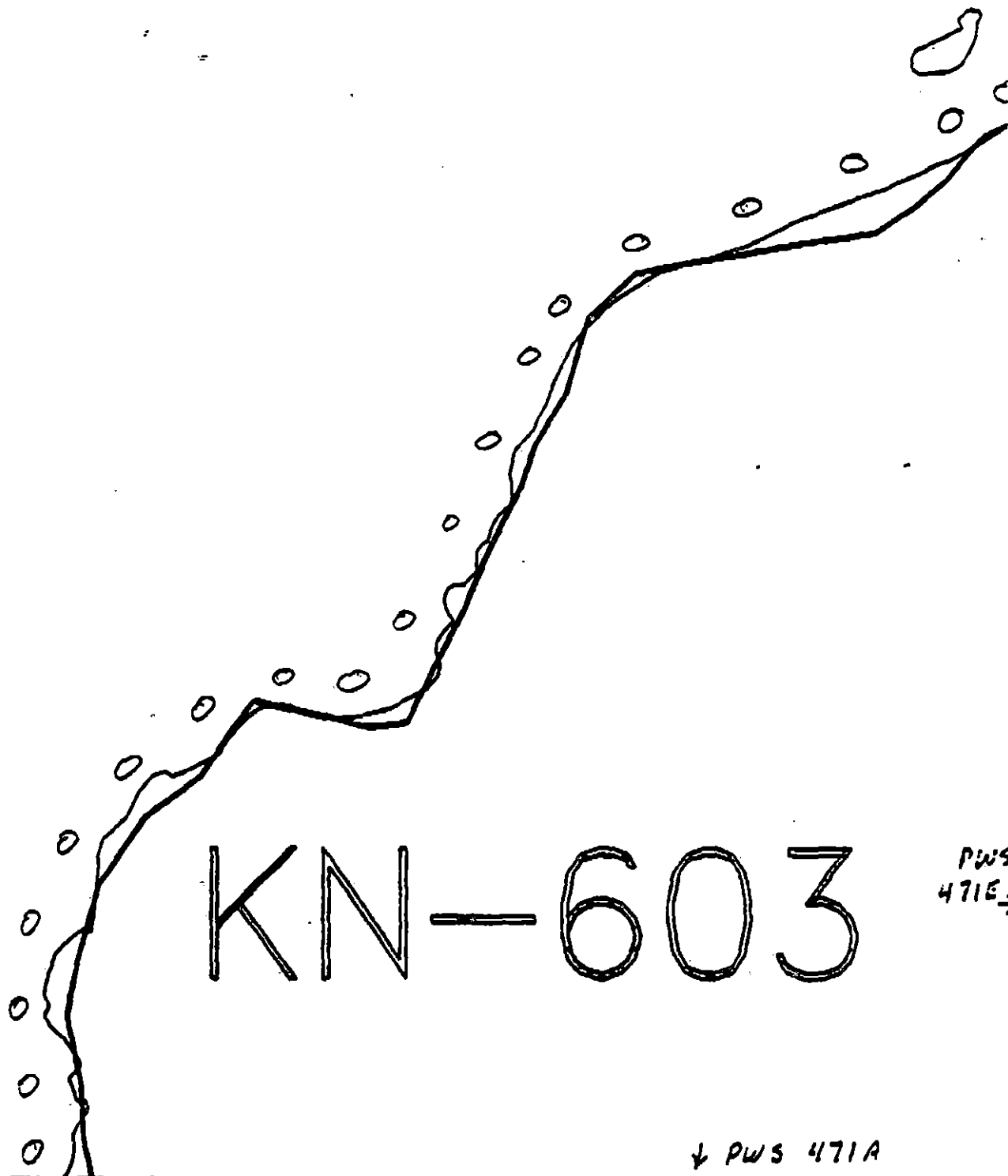
ADEC Segment Length: 7849m



Map Key: PWS-471a
Name: K. DEBUSSCHER
Date: 4/10/90
Data Entered:

OIL MAP

PWS
471G



PWS
471E

↓ PWS 471A

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

ST-KN-603-A

ADEC Segment Length: 7849m

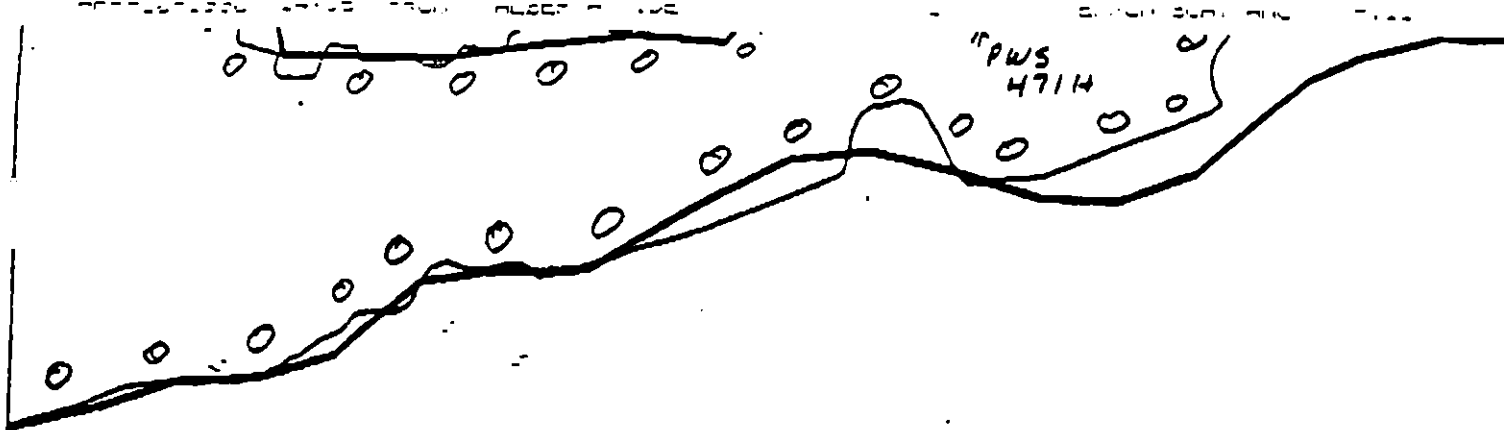


Map Key: PWS-471d

Name: K. DEBUSSCHE

Date: 4/10/90

Date Entered:



OIL MAP

← PWS
4710

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

ST-KN-603-A

ADEC Segment Length: 7849m



Map Key: PWS-4710
Name: K. D. & B. USS CH-87
Date: 4/10/90
Date Entered:

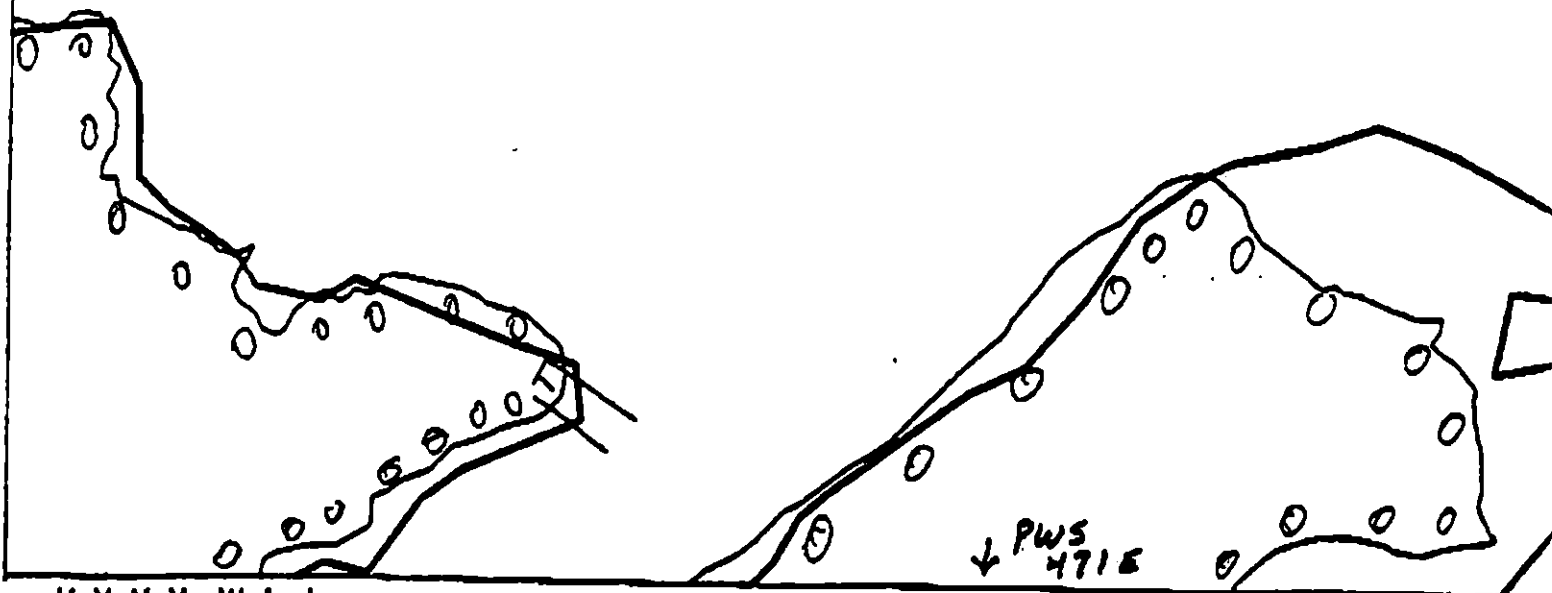
OIL MAP

KN-602

PWS

← 471G

PWS
471i -



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

ST-KN-603-A

ADEC Segment Length: 7849m



Map Key: PWS-471b

Name: K. DEBUSS CHENE

Date: 4/10/90

Date Entered:

OIL MAP

← PWS
471H

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

ST-KN-603-A

ADEC Segment Length: 7849m

0 100 200 300
METERS

Map Key: PWS-4711

Name: K. DEBUSSCHERE

Date: 4/10/90

Date Entered:

OIL MAP

END
ST-KN-603-A

PWS
471H -

↓ PWS 471D

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

ST-KN-603-A

ADEC Segment Length: 7849m

0 100 200 300
/4 METERS

Map Key: PWS-471g

Name: K. DEBUSCHERE

Date: 4/10/90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ KN-606 SUBDIVISION A (1 OF 1) DATE 4/6/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All bald eagle nest (3/1 to 6/1)-Active eagle nest (3/1 to 9/1)
6V Recreation: Anchorages (6/1 to 9/15)
7JJ Subsistence area: Invertebrate harvesting
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 4555 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: 4/19/90.
ADEC ART WEINER [Signature]
EXXON ANDY TELL [Signature] FOSC: [Signature] DATE: 5-9-90
NOAA Bull Wescott [Signature]
USCG G.A. REITER [Signature]

PWS ECOLOGICAL CONSTRAINTS

1A	Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B	Salmon stream mouth - spawning (7/10 to 8/31) No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
1C	Salmon fry nursery area (4/31 to 7/31)
1D	Esther Hatchery release (4/15 to 6/1)
1E	Main Bay Hatchery release (4/20 to 5/10)
1F	Sawmill Bay Hatchery release (4/20 to 5/10)
1G	Cannery Creek Hatchery release (4/21 to 6/1)
1H	Remote release site
1I	Gill net area (6/7 to 8/31)
1J	Purse seine area (7/21 to 9/30)
1K	Purse seine hook-off (7/20 to 9/30)
1L	Set net sites (6/11 to 7/25) For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
2M	Herring spawning (4/1 to 6/15) Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
3N, 3P 3O, 3Q	Harbor seal and sea lion pupping (5/15 to 7/1) Harbor seal and sea lion molting (8/15 to 9/15) Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
5R	Seabird colony (5/1 to 9/1) Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
5S	Shorebird/waterfowl concentration (4/1 to 5/15) Restrict all activity to essential minimum, especially air traffic.
5T	All Bald Eagle nests (3/1 to 6/1) Active Bald Eagle nests (3/1 to 9/1) Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
6U	Recreation: Tent sites (6/1 to 9/15)
6V	Anchorage (6/1 to 9/15)
6W	Forest Service cabins (6/1 to 9/15)
6X	Lodge (6/1 to 9/15)
6Y	Special use destination
7Z	Subsistence area: Salmon harvesting (5/1 to 9/30)
7HH	Finfish harvesting
7II	Deer harvesting (8/15 to 2/28)
7JJ	Invertebrate harvesting For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1 KN-606 SUBDIVISION: A DATE 4/6/90

CG

NAME MAURICE J. SHARRIZ SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADEC

NAME S. FERGUSON SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

LAND MANAGER

NAME ALEX Kempt SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY

REVISION NO. 02/28/88

OG K Ramsey USCG R. Sharpe SEGMENT ST/ KN-606
 BIO G. Penn LAND REP R. Komp SUBDIVISION H (10-11)
 EXXON S. Reid ADEC S. Ferguson TIME 7:15:00 to 3:00:34
 AM NO.: 4 TIDE LEVEL: 5-6 to 6-5.5 DATE 4/6/90
 T. SUBDIVISION LENGTH: 5261 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 40 % B 30 % C 20 % P 10 % G — % S — % M — % V — %
 SLOPE: Long 30 % Hang 30 % Vert 40 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W — m M — m N — m VL 5261 m NO — m

SURFACE OIL

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

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED

☒ YES ☐ NOTYPE Clean Snare boom + Boom Pong#BAGS 1

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	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	1	2	3	4	5	6	7	8	SU	U	SE	U		
1	20					X	.		X													N	C, P. bedrock
2	30					X	.		X													N	C, P. bedrock
3	20					Y	.		X													N	C, P. bedrock
							.																
							.																
							.																

COMMENTS

This segment was mostly vertical bedrock with pocket beaches. A thin coat + stain line @ WL was found on vertical Rock face + lg. boulders: about 2-3 cm in width.

00 K Ramsey
SEGME... 11 KN-600

KETCH MAP

SUBDIVISION A

DATE 4/6/90

CHECKLIST

- ☒ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. NW/SE/WL
- ☐ SSZ
- ☐ 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/D

Broken Distribution

CT/P

Patchy Distribution

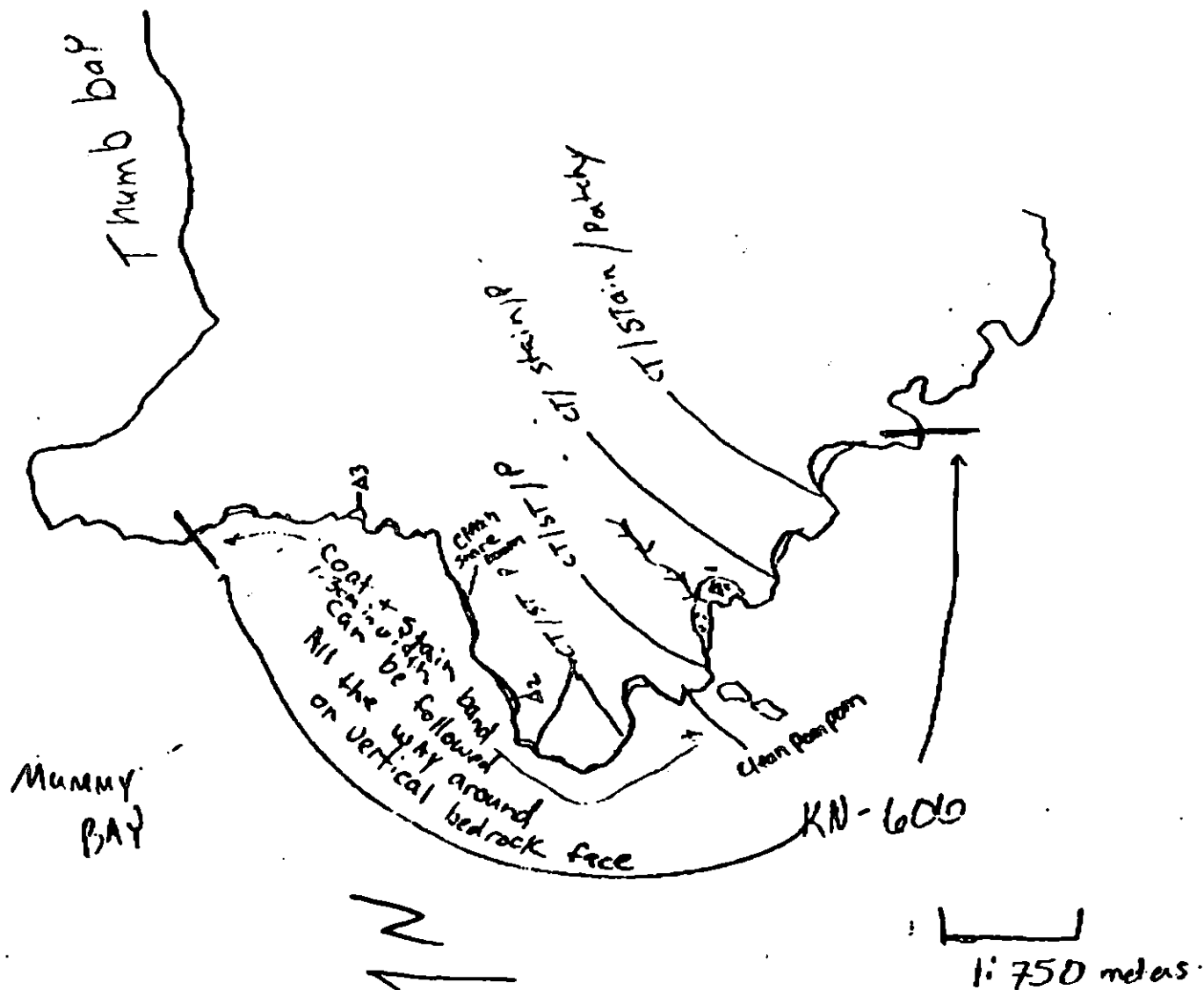
CT/S

Spotted Distribution

Oil & Vegetation

1 →

Photo location, direction,
and number



Oil Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 526 MS 0 PT 0 TB 0 FL 0 NO 0

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST KN-6067 Subdivision A Date (mo / day / yr) 04/06/90
 Time (24 hr) 0715 Biologist PENN

- (A) Substrate type and % of segments:
 (1) Bedrock 45 (2) Boulder 30 (3) Cobble 20 (4) Pebble 10 (5) Sand — (6) Silt —
- (B) Overall % cover of biota (% of segment): Dense 1 Moderate 10 Low 30
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
 Roll No. —
 Frames —

BARNACLES

Dense			Moderate			Sparse			Rare			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	

ASTROPODS

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 Dead otter - no vis. oiling
 3 megaraptors

3 eagles

1 Gull

1 Cormorant

8 Hairywoods (6 ♂ 2 ♀)

3 Golden eye

1 hawk

31 Crows

Ecological Considerations:



KN-606

KN-60

KN-607

XXXX Wide

KN-606

--- / Medium

----- Narrow

ADEC Segment Length: 5261m

TTTT Very Light

0000 No Oil



Map Key: PWS-KN-606

Name: K. RAMSEY

Date: 4/6/90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ KN-607 SUBDIVISION A (1 OF 1) DATE 4/5/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
None identified.

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

SHPO SIGNATURE: Charles J. H. [Signature] DATE: 4/18/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 22 m: No Oil 1216 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: 4/18/90
ADEC Act Wenzel Det Wenzel
EXXON Andy TGAZ [Signature] FOSC: [Signature] DATE: 5-9-90
NOAA Bur Wenzel [Signature]
USCG G.A. HEITER G.A. Heiter

If cultural resources are uncovered during shoreline treatment, stop work

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / KN-607 SUBDIVISION: A DATE 4/5/90

USCG

NAME MAURICE J. SHARP SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADEC

NAME S. FERGUSON SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

OILING IN THIS AREA [TRACE]

LAND MANAGER

NAME ALEX KOMPLOFF SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY

REVISION NO. 03/20/90

OG K. Ramsey USCG R. Sharpe SEGMENT ST/ KN-607
 BIO G. Penn LAND REP A. Komokoff SUBDIVISION A
 CYON S. Reid ADEC S. Ferguson TIME 6:45 to 8:00
 M NO.: 4 TIDE LEVEL: 1 to 4' DATE 4.1.5 /90
 SUBDIVISION LENGTH: 1184 m ☐ Sun ☐ Clouds ☐ Fog ☐ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 50 % B 40 % C 8 % P 1 % G — % S — % M — % V — %
 SLOPE: Long 40 % Hang 50 % Vert 10 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W — m M — m N — m VL 1 m NO 1183 m

SURFACE OIL

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

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE —#BAGS —

Photographs:

Roll No. —Frames —

SUBSURFACE OIL NO Dits - slate + boulder beaches

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	DO	1	2	3	4	5	SW	U	M	V		
							.													
							.													
							.													
							.													
							.													
							.													
							.													

COMMENTS

This segment was all uplifted slate + granite.
 There are 3 stain lines at the MWL, HWL + storm line on the vertical face at the KN607-KN608 border. No oil was observed again until a cave area which had some stain again on the bedrock. (Shown on diagram)

00 K. Imsey
 SEGMENT KN-607
 SUBDIVISION A
 DATE 4.5 90

ETCH MAP

CHECKLIST

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

LEGEND

1 Δ
 Pk - No Subsurface Oil

2 Δ
 Pk - Subsurface Oil

CT/C
 Continuous Distribution

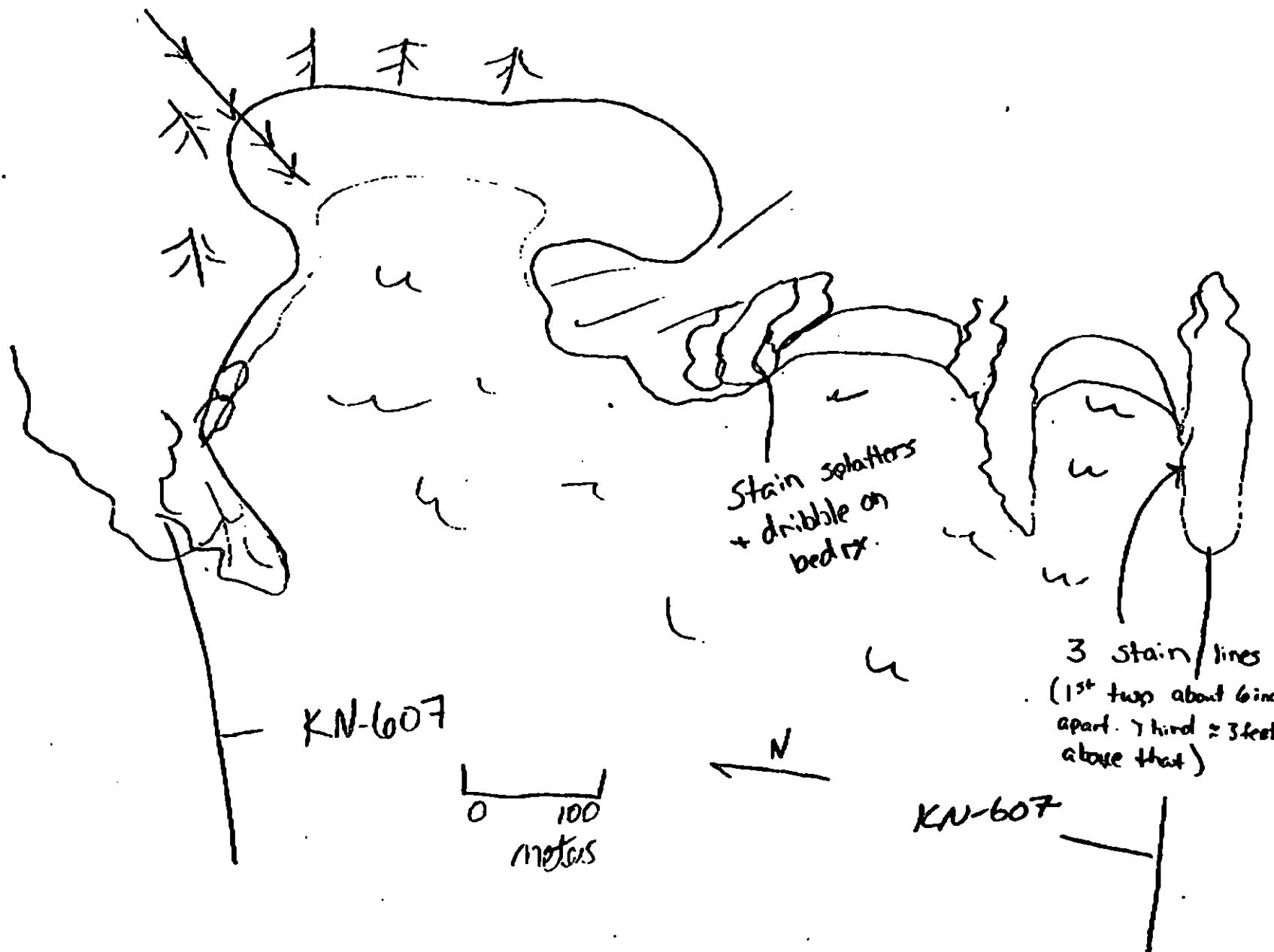
CT/B
 Broken Distribution

CT/P
 Patchy Distribution

CT/S
 Splashed Distribution

Oil on Vegetation

1 ●→
 Photo location, direction,
 and number



Oil Character Length (m): AP ✓ PO ✓ CV ✓ CT ✓ ST ✓ MS ✓ PT ✓ TB ✓ FL ✓ NO 1183

SHORELINE ECOLOGICAL SUMMARY

Revised 01/88

Segment ST KN-607 Subdivision A Date (mo / day / yr) 04/06/90
 Time (24 hr) 0715 Biologist PENN

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

Photographs: —
 Roll No. —
 Frames —

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

1 Dead otter - no vis. oiling
 3 megaraptors

3 eagles

1 Gull

1 Cormorant

8 Harlequin (6 ♂ 2 ♀)

3 Golden eye

1 Mink

31 Crows

Ecological Considerations:

KN-606

KN-6

KN-607

← 1/2 m Very Light
(T)
Total = 1m

XXXX Wide

// Medium

--- Narrow

TTTT Very Light

0000 No Oil

KN-~~606~~607

ADEC Segment Length: 5261m



Map Key: PWS-KN-606

Name: K. RAMSEY

Date: 4/6/90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ KN-608 SUBDIVISION A (1 OF 2) DATE 4/5/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-3 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
6Y Recreation: Special use destination
6U Recreation: Tent sites (6/1 to 9/15)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
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. Hines DATE: 4/23/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 33 m: No Oil 6001 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 boom shown on sketch map. USFWS should be contacted to obtain permit as a result of eagle nesting constraint. Work should be conducted after 6/1 with approval of ADF&G and USFWS regarding eagle nest constraint.

TAG COMMENTS:

TAG APPROVAL DATE: 4/21/90
ADEC ART WEINER
EXXON ANDY TEAL
NOAA Burt (Weirath)
USCG KENNETH KEANE

FOSC: W L DATE: 5-9-90

PWS ECOLOGICAL CONSTRAINTS

1A	Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B	Salmon stream mouth - spawning (7/10 to 8/31) No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
1C	Salmon fry nursery area (4/31 to 7/31)
1D	Esther Hatchery release (4/15 to 6/1)
1E	Main Bay Hatchery release (4/20 to 5/10)
1F	Sawmill Bay Hatchery release (4/20 to 5/10)
1G	Cannery Creek Hatchery release (4/21 to 6/1)
1H	Remote release site
1I	Gill net area (5/7 to 8/31)
1J	Purse seine area (7/21 to 9/30)
1K	Purse seine hook-off (7/20 to 9/30)
1L	Set net sites (5/11 to 7/25) For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
2M	Herring spawning (4/1 to 6/15) Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
3N, 3P 3O, 3Q	Harbor seal and sea lion pupping (5/15 to 7/1) Harbor seal and sea lion molting (8/15 to 9/15) Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
5R	Seabird colony (5/1 to 9/1) Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
5S	Shorebird/waterfowl concentration (4/1 to 5/15) Restrict all activity to essential minimum, especially air traffic.
5T	All Bald Eagle nests (3/1 to 6/1) Active Bald Eagle nests (3/1 to 9/1) Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
6U	Recreation: Tent sites (8/1 to 9/15)
6V	Anchorage (8/1 to 9/15)
6W	Forest Service cabins (8/1 to 9/15)
6X	Lodge (8/1 to 9/15)
6Y	Special use destination
7Z	Subsistence area: Salmon harvesting (5/1 to 9/30)
7HH	Finfish harvesting
7I	Deer harvesting (8/15 to 2/28)
7JJ	Invertebrate harvesting For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ KN - 608 SUBDIVISION: A + B DATE 4/5/90

SCG

NAME SCOTT RAINSFORD SIGNATURE Scott Rainford MSTI

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

CONCUR WITH ADEC.

ADEC

NAME Wesley Ghormley SIGNATURE Wesley Ghormley

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

- Manually Remove section of big black boom from cove around the corner from gravel spit.-

- No treatment recommended on subdivision "B".-

LAND MANAGER

NAME DONALD P. Kampke Jr. SIGNATURE Donald P. Kampke Jr.

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY

REVISED 10-1-80

OG G. MACDONALD USCG 3. RAINSFORD SEGMENT ST/ KN - 608
 BIO MA. SCOTT LAND REP D. KAMKOFF SUBDIVISION A
 EXXON J. BUTLER ADEC W. GORMLEY TIME 18:20 to 20:00
 TEAM NO.: 3 TIDE LEVEL: +1 to +4 DATE 4 / 5 / 90
 EST. SUBDIVISION LENGTH: 4.50 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 PLANTS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☐ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 5 % B 10 % C 30 % P 25 % G 20 % S 10 % M - % V - %
 SLOPE: Long 75 % Hang 25 % Vert - % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 20 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	R	B	P	C	W	Y	OR	GR	BL	PK	SL	TR	BU	U	M	L
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT				X		X							X			
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL													X	X	X	

PAVEMENT: H P 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	X		

DEBRIS COLLECTED

☐ YES ☒ NO

TYPE 0

#BAGS 0

Photographs:

Roll No. 2T-3-2

Frames -

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		UO	UD	W	Y	OR	GR	BL	PK	SL	TR	BU	U	M	L		
1	20					X	.											X				N	CP
2	20					X	.												X			N	BC
3	20					X	.											X				N	PC
4	20					X	.												X			N	CP
5	20					X	.											X				N	CPS
6	20					X	.											X				N	CPS

COMMENTS High energy "scalped" coast w/ well rounded CPGS beaches between rock outcrops. No oil.

OG G. DONALD

SEGMENT ST/ KN-608

SUBDIVISION A

DATE 4 / 5 90

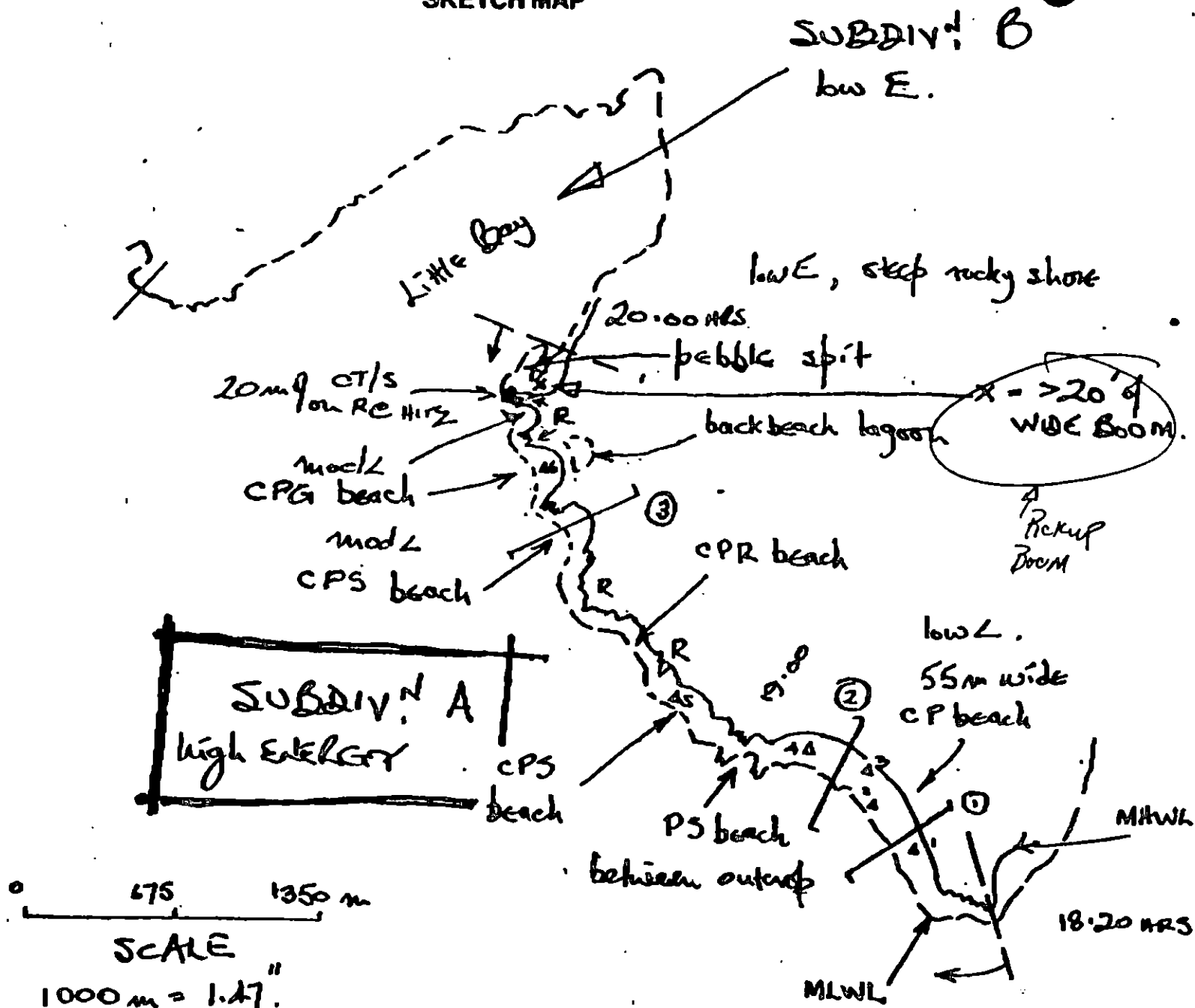
CHECKLIST

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

LEGEND

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

SKETCH MAP



Oil Character Length (m): AP - PO - CV - CT 20 ST - MS - PT - TB - FL - NO 4130

REVISION 23/2400

OG CH. DONARD

SEGMENT ST/ KN-608

SUBDIVISION A

DATE 4 / 5 90

CHECKLIST

☐ M Arrow
☐ Approx. Scale
☐ Seg/Sub Body
☐ Oil Dist.
☐ Width
☐ Length
☐ % Cover
☐ Substrate Character
☐ Est. HWA/LWA
☐ SSL
☐ Profile Location(s)
☐ Profile(s)
☐ P/L Location(s)
☐ Photo Location(s)

LEGEND

1 Δ
 P/L - No Subsurface Oil

2 Δ
 P/L - Subsurface Oil

CT/C
 Continuous Distribution

CT/B
 Broken Distribution

CT/P
 Patchy Distribution

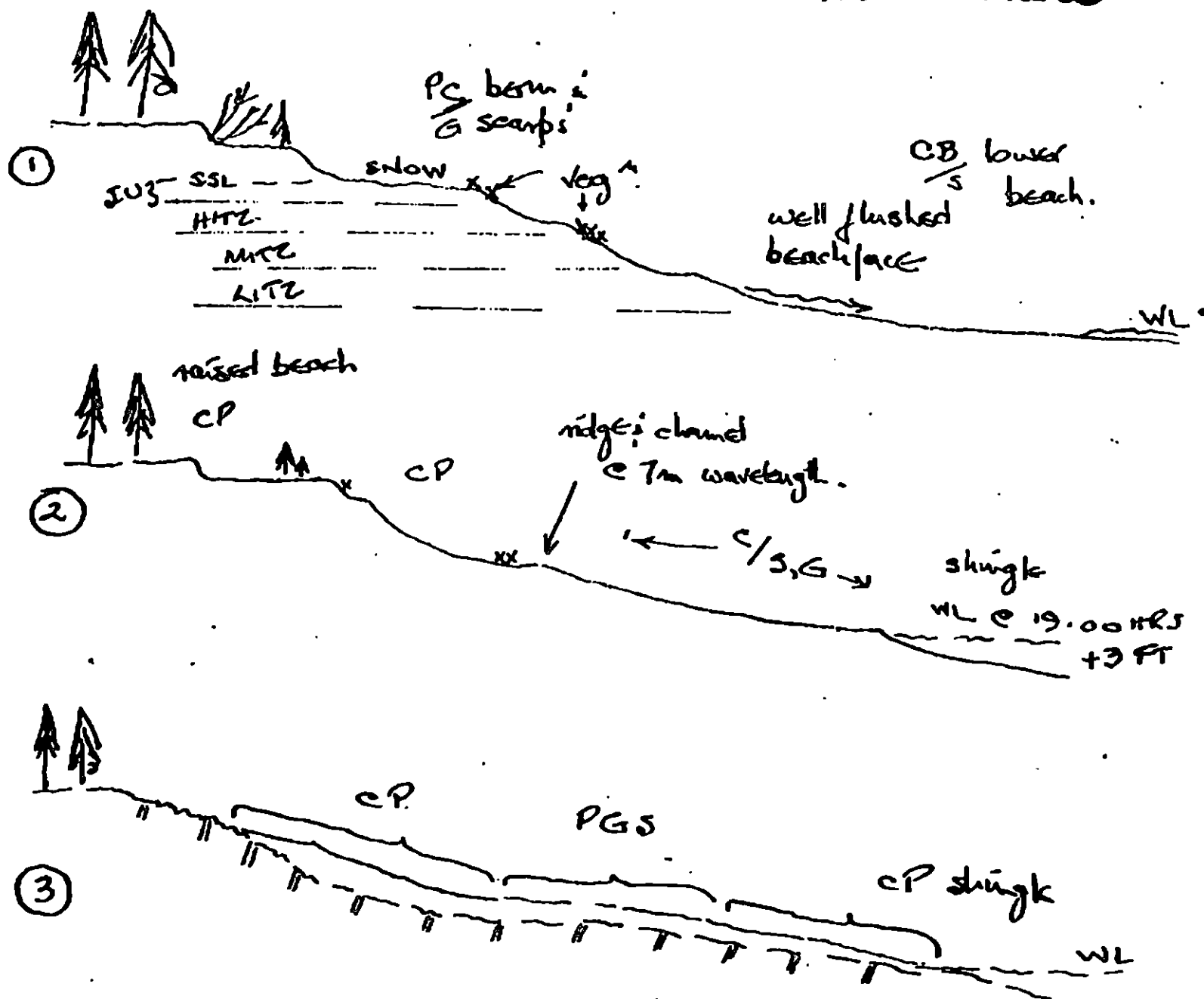
CT/S
 Splashed Distribution

Oil Vegetation

1 →
 Photo location, direction,
 and number

ETCH MAP

GENERAL PROFILES



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

REVISION 000490

SHORELINE ECOLOGICAL SUMMARY

REVISION: 08/23/90

Segment ST/ KN/608 Subdivision A Date (mo / day / yr) 4/5/90

Time (24 hr) 1725 Biologist MASCOY

(A) Substrate type and % of segments:
(1) Bedrock 5 (2) Boulder 10 (3) Cobble 30 (4) Pebble 45 (5) Sand 10 (6) Silt

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

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

Photographs:
Roll No.

Frames

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

2 deer
2 sea otter
1 cormorant
5 eagles

Ecological Considerations:

- Saxidomus shells common - may be clam beds in intertidal
- areas of stabilized boulder field have mussel beds (moderate density) between boulders (in cobble/pebble matrix) (locations shown on map); overall densities are higher here than adjacent boulder/cobble areas

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT KN-608 SUBDIVISION A (1 of 2)

WORK WINDOW

Manual Pickup

OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T **Bald Eagle Nest**

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

7II **Subsistence: Deer Harvesting**

No constraint to manual pickup.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict boat and air traffic and beach disturbance to essential minimum after 8/15. Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

FOSC

Date

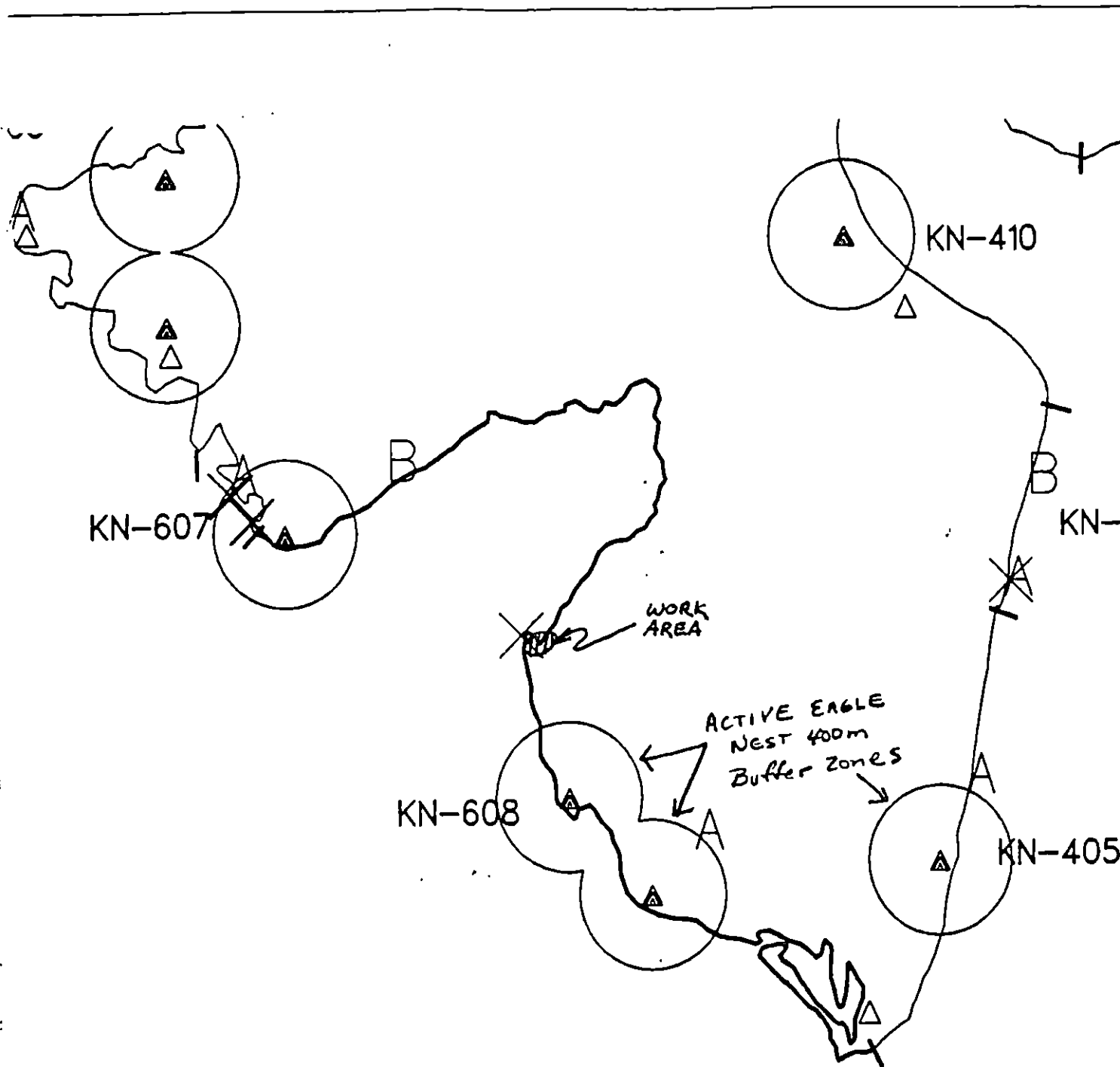
6-10-90

Prepared by

J. P. Phillips

Date

6-10-90
6/10/90



Exxon Company, USA
Map Key: PWS-KN-608
June 05, 1990



ECOLOGY MAP SEGMENT KN-608 SUBDIVISION A (1 of 2)

METERS



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

1 inch = 2540 feet

SHORELINE EVALUATION

SEGMENT ST/ KN-608 SUBDIVISION B (2 OF 2) DATE 4/6/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-3 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
6Y Recreation: Special use destination
6U Recreation: Tent sites (6/1 to 9/15)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
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: 4/23/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 38 m: No Oil 4443 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/21/90
ADEC [Signature]
EXXON [Signature]
NOAA [Signature]
USCG [Signature]

FOSC: [Signature] DATE: 5-9-90

PWS ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
- 1C Salmon fry nursery area (4/31 to 7/31)
 1D Esther Hatchery release (4/15 to 6/1)
 1E Main Bay Hatchery release (4/20 to 5/10)
 1F Sawmill Bay Hatchery release (4/20 to 5/10)
 1G Cannery Creek Hatchery release (4/21 to 6/1)
 1H Remote release site
 1I Gill net area (6/7 to 8/31)
 1J Purse seine area (7/21 to 9/30)
 1K Purse seine hook-off (7/20 to 9/30)
 1L Set net sites (6/11 to 7/25)
 For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/1 to 6/15)
 Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
- 3N, 3P Harbor seal and sea lion pupping (5/15 to 7/1)
 3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 5R Seabird colony (5/1 to 9/1)
 Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic.
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
- 6U Recreation: Tent sites (5/1 to 9/15)
 6V Anchorages (5/1 to 9/15)
 6W Forest Service cabins (5/1 to 9/15)
 6X Lodge (5/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
 7HH Finfish harvesting
 7I Deer harvesting (8/15 to 2/28)
 7JJ Invertebrate harvesting
 For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ KN - 608 SUBDIVISION: A + B DATE 4/9/90

USCG

NAME SCOTT RAINSFORD SIGNATURE Scott Rainford MST1

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

CONCUR WITH ADEC

ADEC

NAME Wesley Ghormley SIGNATURE Wesley Ghormley

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

- Manually Remove section of big black boom from cove around the corner from gravel spit.-

- No treatment recommended on subdivision "B".-

LAND MANAGER

NAME DONALD P. Kempf Jr. SIGNATURE Donald P. Kempf Jr.

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY

REVISED 10/1/80

DG G. MACDONALD USCG 2. RA-1250 SEGMENT ST/ KN-608
 BIO M.A. SCOTT LAND REP D. KONKOFF (CAC) SUBDIVISION B 2052
 EXXON J. BUTLER ADEC W. GORMLEY TIME 07:20 to 08:20
 TEAM NO.: 3 TIDE LEVEL: +4 to +6 DATE 4/16/80
 EST. SUBDIVISION LENGTH: 2070 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 PLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 20 % B 20 % C 25 % P 20 % G 10 % S 5 % M 0 % V 0 %
 SLOPE: Long 80 % Hang 20 % Vert - % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 4064 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	N	S	E	W	1	2	3	4	5	6	7	8	SW	SE	NE	NW
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT				X					X				X			
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL													X		X	X

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. ST-3-2Frames 1

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		UD	UC	1	2	3	4	5	6	7	8			
1	20					X	.											X	N	GP
2	20					X	.											X	N	PG
							.													
							.													
							.													
							.													

COMMENTS Little Bay: low E bay; east shore is low-mud L BC
 veneer over GP or GS; west shore is mud L steep C, B
 over bedrock w/ outcrops common. Rare trace amount of
 oil as 3cm ash CT/s @ HRTZ on bldg face. Very clean.

OG G. McDONALD

SEGMENT ST/ KN-608

SUBDIVISION B

DATE 4/6/90

CHECKLIST

- ☐ N/A row
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HML/LML
- ☐ SST
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PB Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ
PB - No Subsurface Oil

2 Δ
PB - Subsurface Oil

CT/C
Continuous Distribution

CT/D
Broken Distribution

CT/P
Patchy Distribution

CT/S
Splashed Distribution

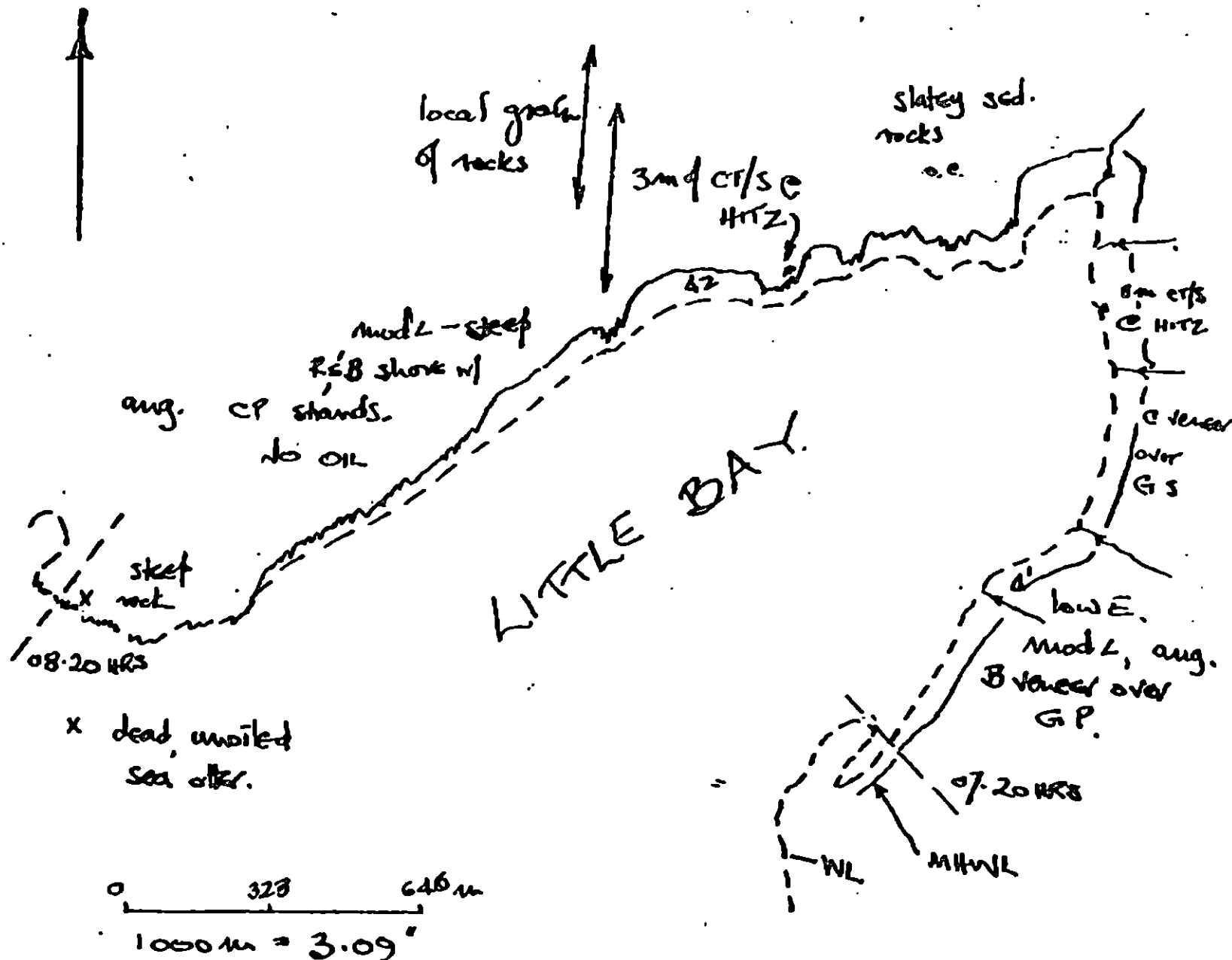
CT/S
Splashed Distribution

Oil Vegetation

1 ●
Photo location, direction,
and number

3

ETCH MAP



Oil Character Length (m): AP 0 PO 0 CV 0 CT 6 ST 0 MS 0 PT 0 TB 0 FL 0 NO 4064!

REVISION 12/24/90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 08/23/90

Segment ST/ KN608 Subdivision B Date (mo / day / yr) 4/6/90

Time (24 hr) 12:00-1:00 Biologist MASOTT

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

Photographs:
 Roll No.

Frames

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

ASTROPODS

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

NOT PRESENT

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:

6 seals
 3 eagles
 gulls

6 crows
 2 cormorants
 2 harlequins

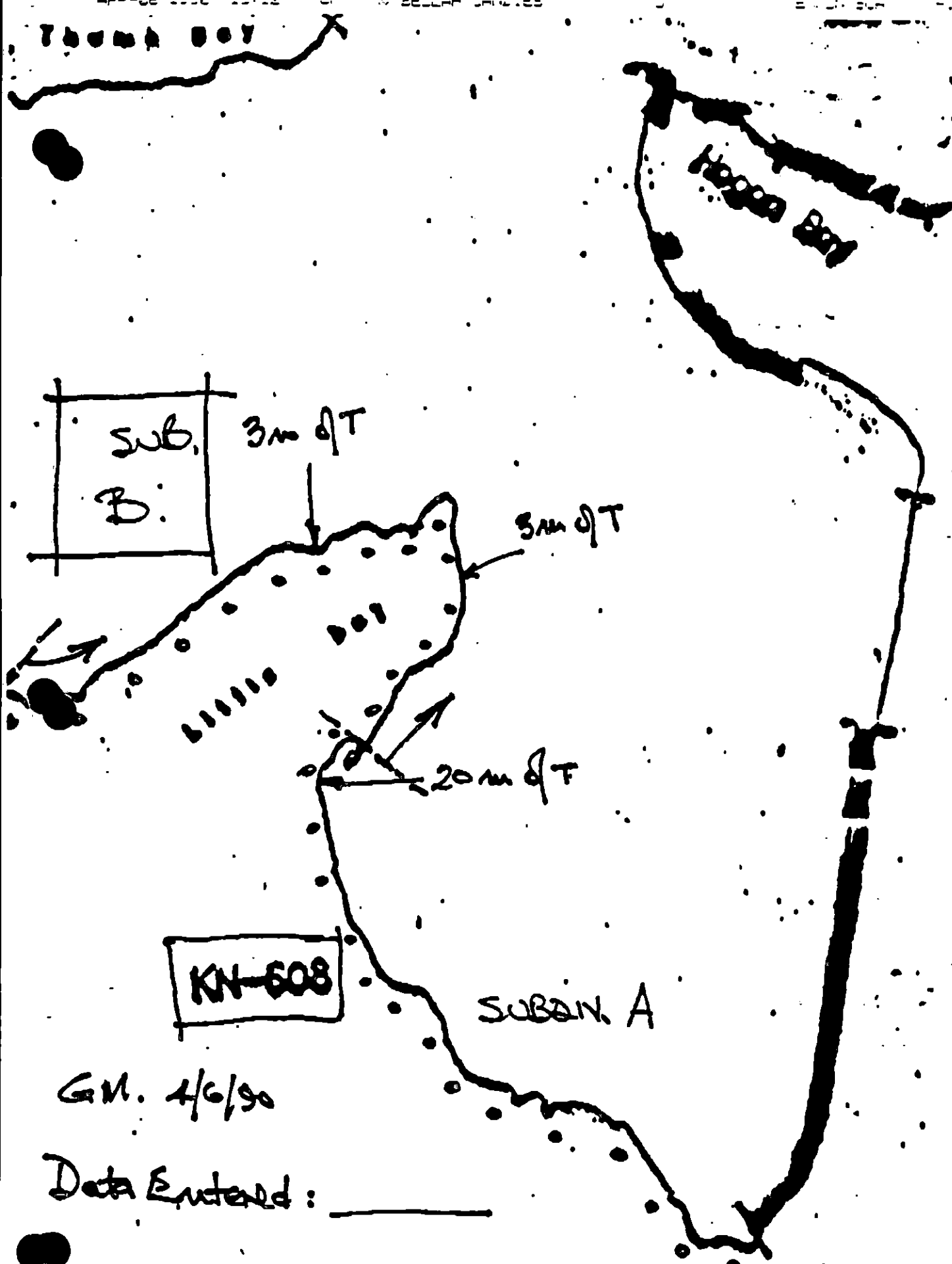
1 dead otter (no visible oil)
 3 canadian geese
 2 goldeneyes

- NO HTZ observations

Ecological Considerations:

- Numerous (5+) small streams feed into back of Little Bay (north, north east); largest one at head of the bay (northernmost point), most likely circadian (other streams possible but unlikely)

Thumb Boy



GM. 4/6/90

Data Entered: _____

SHORELINE EVALUATION

SEGMENT ST/ KN-700 SUBDIVISION A (1 OF 1) DATE 4/22/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
6V Recreation: Special use destination
6V Recreation: Anchorages (6/1 to 9/15)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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

OILING CATEGORIZATION:

Wide 0 m: Medium 32 m: Narrow 0 m: V.Light 661 m: No Oil 538 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: MANUAL PICKUP OF TARMAT AS INDICATED ON SKETCH

TAG COMMENTS:

TAG APPROVAL DATE: 5/1/90

ADEC ART WEINER Art Weiner

EXXON ANDY GALT Andy Galt

NOAA GARY PETROW Gary Petrow

USCG KENNETH KEANE Kenneth Keane

FOSC: DATE: 5-12-90

PWS, SEWARD and HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G Habitat Division prior to treatment for consultation and/or permit application.
AGENCY CONTACT PERSON: ADF&G John Morison 267-2324
- 1C Salmon fry nursery area (4/31 to 7/31)
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to July 31 unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Esther Hatchery release (4/15 to 6/1)
1E Main Bay Hatchery release (4/20 to 6/10)
1F Sawmill Bay Hatchery release (4/15 to 6/1)
1G Cannery Creek Hatchery release (4/21 to 6/1)
1H Remote release site
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G or PWS Aquaculture Association for confirmation and authorization.
AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I Gill net area (5/7 to 8/31)
1J Purse seine area (7/20 to 9/30)
1K Purse seine hook-off (7/20 to 9/30)
1L Set net sites (5/11 to 7/25)
Contact ADF&G for specific dates, locations and constraints. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G James Brady 424-3212
- 2M Herring spawning (4/1 to 6/15)
Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Evelyn Biggs 424-3235
- 3 Harbor seal and sea lion pupping (5/15 to 7/1)
3 Harbor seal and sea lion molting (8/15 to 9/15)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
ADF&G Tom Roth 267-2206
- 6E 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)
6W Anchorages (5/1 to 9/15)
6X Forest Service cabins (5/1 to 9/15)
6Y Lodge (5/1 to 9/15)
Special use destination
- 7Z Subistence area: Salmon harvesting (5/1 to 9/30)
7H Finfish harvesting
7I Deer harvesting (8/15 to 2/28)
7J Invertebrate harvesting
Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2250

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / KN-700 SUBDIVISION: A-10f1 DATE 04/22/90

USCG

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

ADEC

NAME Clara J. Crosby SIGNATURE Clara J. Crosby☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

1) Removal of AP/s.

2) area designated moderate - is in lg. Boulder field
oiling is concentrated on underside of lg. Bk's in del.
underneath. Difficult recovery. Possible Bio site.

LAND MANAGER

NAME Peter Zellers SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Manual removal is suggested for surficial oil/asphalt.

SHORELINE OILING SUMMARY

REVISION NO. 04-12-90

OG RICK GILLIE USCG DAVE THOMAS SEGMENT ST/ KN-700
 BIO DAVE LOHSE LAND REP PETER ZOLLAR (CA) SUBDIVISION A (1 OF 1)
 EXXON FRANK BOY ADEC CLARA CROSBY TIME 08:15:00 01:40
 TEAM NO. 13 TIDE LEVEL +4 to +7 DATE 04/22/90
 EST. SUBDIVISION LENGTH: 1265 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 40 % B 20 % C 25 % P 10 % G 5 % S 0 % M 0 % V 0 %
 SLOPE: Long 60 % Hang 15 % Vert 25 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 30 m N 0 m VL 680 m NO 555 m

SURFACE OIL

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

PAVEMENT H F (S) 3 sq. m by 5 crPATTIES / TARBALLS 0 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 _____

Photographs:

Roll No. ST-13-4Frames 36

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	SHEEN (Y/N)	↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OP	NO		UO	UC	30	35	40	45	BU	U	M	U				
1	30					X	.		X					X							C/P - PS
2	35					X	.		X						X						C - P, S
3	25					X	.		X						X					20	C - G, S
4	30					X	.		X					X							C - P, S
5	25					X	.		X						X						G - P, S
6	20					X	.		X						X						P - P, S

COMMENTS

① GEOMORPHOLOGY: Predominantly Medium Exposure Beach with High Exposure Headland

② OILING: Predominantly Very Light to No Oil, except for 6m wide band of Patchy Coating in Mid-Segment.

REVIEWED JWDATE 4-23-90

SUBSURFACE OIL (CONTINUED)

[illegible]

COMMENTS

COMMENTS

③ ~~INSURFACE~~ - AL PITS SHOW NO ~~INSURFACE~~ OIL.

REVIEWED JW DATE 4-23-90

00

GILLIE

SEGMENT ST/

KN-700

SUBDIVISION

A-10f1

DATE

04/22/90

CHECKLIST

- ☒ N Area
- ☒ Approx. Scale
- ☒ Sep/Sub Entry
- ☒ Oil Obs.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HWA/LWA
- ☒ SSL
- ☒ Profile Location(s)
- ☒ Profile(s)
- ☒ Photo Location(s)
- ☒ Photo Location(s)

LEGEND

1 Δ
Pt - No Subsurface Oil2 Δ
Pt - Subsurface OilCT/C
Continuous DistributionCT/B
Broken DistributionCT/P
Patchy DistributionCT/S
Speckled Distribution

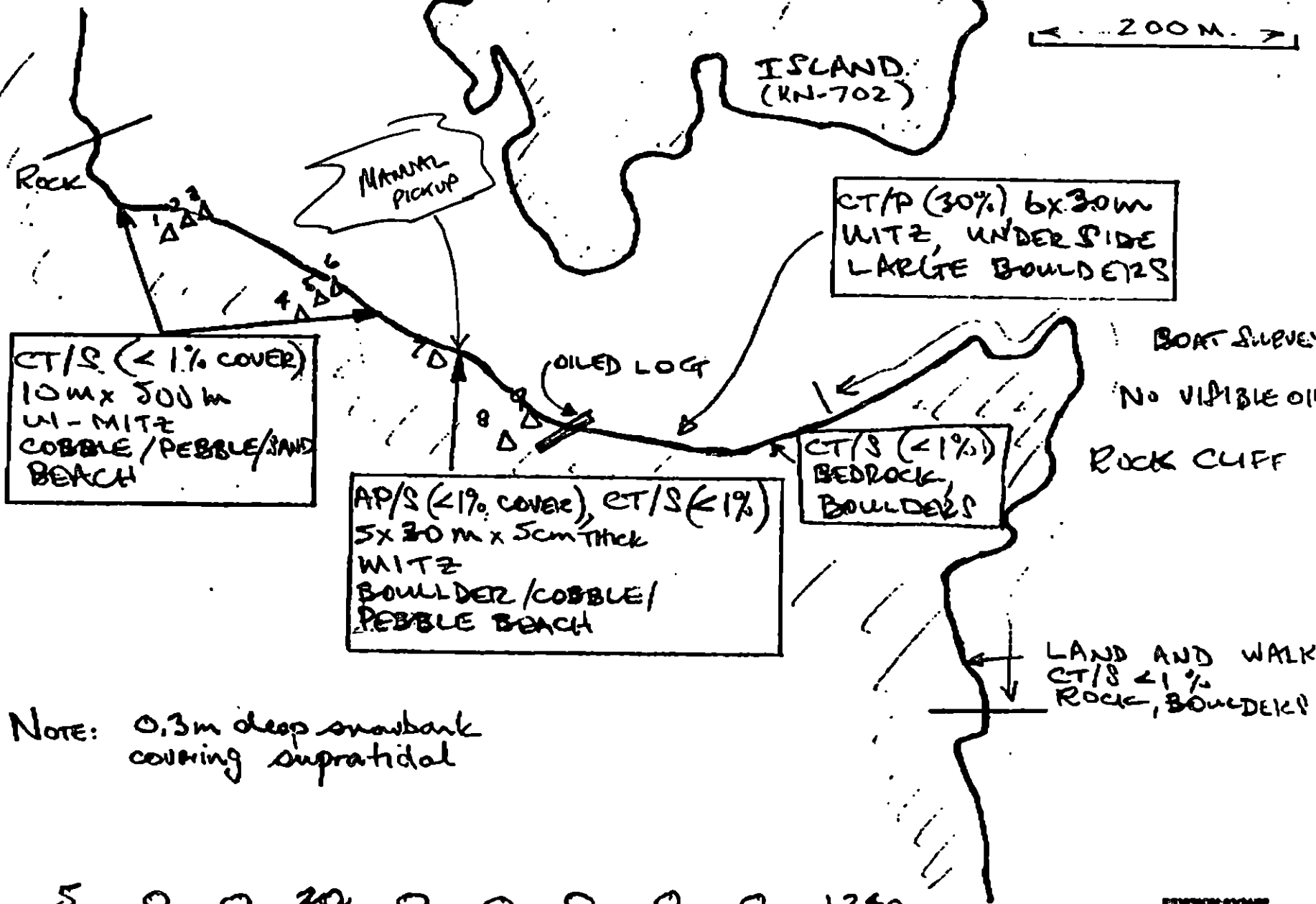
Oil Vegetation

1 ●
Photo location, direction,
and number

SKETCH MAP

ISLAND
(KN-702)

200 M.



NOTE: 0.3m deep snowbank
covering supratidal

Oil Character Length (m): AP 5 PO 0 CV 0 CT 20 ST 0 MS 0 PT 0 TB 0 FL 0 NO 1,240

REVISION: 03/90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22

Segment ST / KN700 Subdivision A Date (mo / day / yr) 4-22-90

Time (24 hr) 8:15 Biologist David Lohr

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

(B) Overall % cover of biota (% of segment): Dense 10 Moderate 40 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 (O)

Photographs:
Roll No. ST-13-4

Frames 36

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	X	2	2	X	X	2	X	O	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

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	X	2
3	3	3	3	3	3	3	3	3	3	X	3
4	4	4	4	4	4	4	X	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

GASTROPODS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	X	X	2	2	X	2	2	O	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

NOT PRESENT

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	X	2	X	O	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

NOT PRESENT

Wildlife Observations/ General Comments:

See page 2

Ecological Considerations:

ST-2 mature bald eagles sited circling over segment. However, no nest was observed

6V,4- no comment

Segment ST-KN700

Subdivision A

4-22-90

Biologist: David Lohse

B.I.P. Observations/General Comments

1. Low intertidal not sampled

2. present in mid intertidal: Enteromorpha, Cladophora, Anthopleura, Endocladia,
Ulva, Halosaccion, Leptasterias

high intertidal: Enteromorpha, Cladophora

3. Enteromorpha/Cladophora was common in some areas. Together they
reached ~25% cover on mid intertidal boulders, and 50% cover on
mid-intertidal cobble.

KN

ECOLGY MAP (1 of 1)

RESOURCE CODES FOR
ENTIRE SEGMENT:

ST-1
2.5

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

OOOO No Oil

KN-700

ADEC Segment Length: 1265m



Map Key: PWS-478

Name: _____

Date: _____

Date Entered: _____

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT KN-700 SUBDIVISION A (1 of 1)

WORK WINDOW	
Tarmat Removal	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1K	Purse Seine Hook-off	No constraint to tarmat removal.
5T	Bald Eagle Nest	NO CONSTRAINT. USFWS 6/1/90 map indicates no active nest within 400m of Subdivision A work site.

OTHER ECOLOGICAL CONSIDERATIONS

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

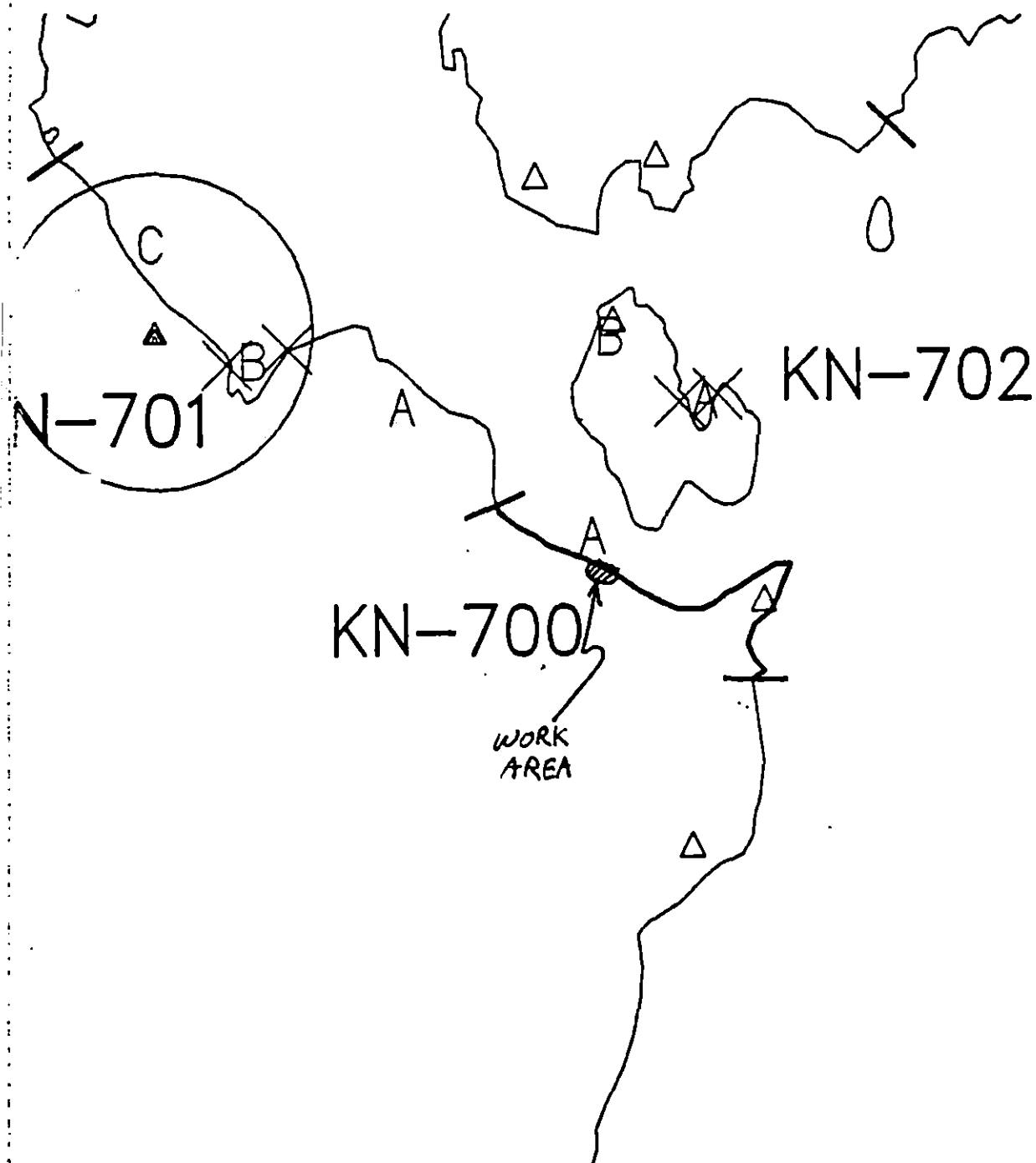
FOSC

DATE 6-10-90

Prepared By:

Date

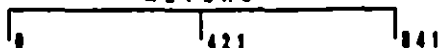
6/9/90



Exxon Company, USA
Map Key: PMS-KN-700
June 05, 1990



ECOLOGY MAP
SEGMENT KN-700
SUBDIVISION A (1 of 1)
METERS



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

1 Inch = 1380 feet

SHORELINE EVALUATION

SEGMENT ST/ KN-701 SUBDIVISION A (1 OF 3) DATE 4/4/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

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

6V Recreation: Anchorages (6/1 to 9/15)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: J. David Miller DATE: 4/23/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 857 m: No Oil 0 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u> </u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u>X</u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u>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 debris pick up. Work should be conducted after 5/1.

TAG COMMENTS:

TAG APPROVAL DATE: 4/23/90
ADEC ART WENGER
EXXON ANDY GELZ
NOAA Joseph Tebbott
USCG KENNETH KEANE

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

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A ~~Salmon stream mouth - fry emigration (3/1 to 5/15)~~
 1B ~~Salmon stream mouth - spawning (7/10 to 8/31)~~
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
- 1C Salmon fry nursery area (4/31 to 7/31)
- 1D Esther Hatchery release (4/15 to 6/1)
- 1E Main Bay Hatchery release (4/20 to 5/10)
- 1F Sawmill Bay Hatchery release (4/15 to 6/1)
- 1G Cannery Creek Hatchery release (4/21 to 6/1)
- 1H Remote release site
- 1I Gill net area (8/7 to 8/31)
- 1J Purse seine area (7/20 to 9/30)
- 1K Purse seine hook-off (7/20 to 9/30)
- 1L Set net sites (6/11 to 7/25)
 For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/1 to 6/15)
 Restrict boat traffic to essential minimum. Avoid damage to unrolled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
- 3N, 3P Harbor seal and sea lion pupping (5/15 to 7/1)
 3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 5R Seabird colony (5/1 to 9/1)
 Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic.
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
- 6U Recreation: Tent sites (6/1 to 9/15)
- 6V ~~Recreation: Boat ramps (5/1 to 9/15)~~
- 6W Forest Service cabins (6/1 to 9/15)
- 6X Lodge (6/1 to 9/15)
- 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
- 7HH Finfish harvesting
- 7H Deer harvesting (8/15 to 2/28)
- 7JJ Invertebrate harvesting
 For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / KN-701 SUBDIVISION: 7 DATE 4/4/90

ISCG
NAME MAURICA SHARP SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

ADEC
NAME S. FERGUSON SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

* SUGGEST MANUAL CLEAN-UP OF SPORADIC MOOSSE PADDIES
* DEBRIS Pick-up (oiled pom-pom shown on sketch)

LAND MANAGER
NAME M. C. T. SMITH SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY

REVISION NO. 000000

OG K. RAUSEY USCG R. Sharpe SEGMENT ST/ KN-701
 BIO G. PENN LAND REP M. Smith SUBDIVISION A 1.3
 EXXON S. REID ADEC S. Ferguson TIME 6:30 to 7:40
 TEAM NO.: 4 TIDE LEVEL: 3.5 to 4.0 DATE 4/4 190
 EST. SUBDIVISION LENGTH: 214.5 m 785 ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☒ Snow
 LANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 95 % B 5 % C — % P — % G — % S — % M — % V — %
 SLOPE: Long — % Hang 5 % Vert 95 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 214.5 m NO 0 m
785 M^H

SURFACE OIL

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

PAVEMENT: H F S — sq. m by — cmPATTIES / TARBALLS 1 BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☒ YES ☐ NOTYPE Pom Pom#BAGS 1

Photographs:

Roll No. —Frames —

SUBSURFACE OIL - No Pits due to All BEDROCK

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	1	2	3	4	5	6	7	8	SU	U	M	U		

COMMENTS

This was a vertical bedrock segment. we landed
 where we were able (on ^{high angle} boulder areas) + scouted around.
 Sporadic mousse patties + tar balls were found indicating this was
 Probably indicative of the whole area. Occasional splatters + coat
 stain lines could be found on HWH of bedrock.
 REVIEWED MH DATE 4-9-2012

SHORELINE ECOLOGICAL SUMMARY

STATION NO. 00000

Segment ST KN-701 Subdivision A Date (mo / day / yr) 04/04/70Time (24 hr) 1830 Biologist PENN(A) Substrate type and % of segments:
(1) Bedrock 95 (2) Boulder 5 (3) Cobble — (4) Pebble — (5) Sand — (6) Silt —(B) Overall % cover of biota (% of segment): Dense 25 Moderate 5 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 (S)

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:

RAMSEY
SECT ST/KN701

SUBDIVISION A

DATE 4, 4 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Body
- ☐ Oil Out
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HYDRA
- ☐ SS
- ☐ Profile Location(s)
- ☐ Photo(s)
- ☐ Pit Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

Ph - No Subsurface Oil

2 Δ

Ph - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

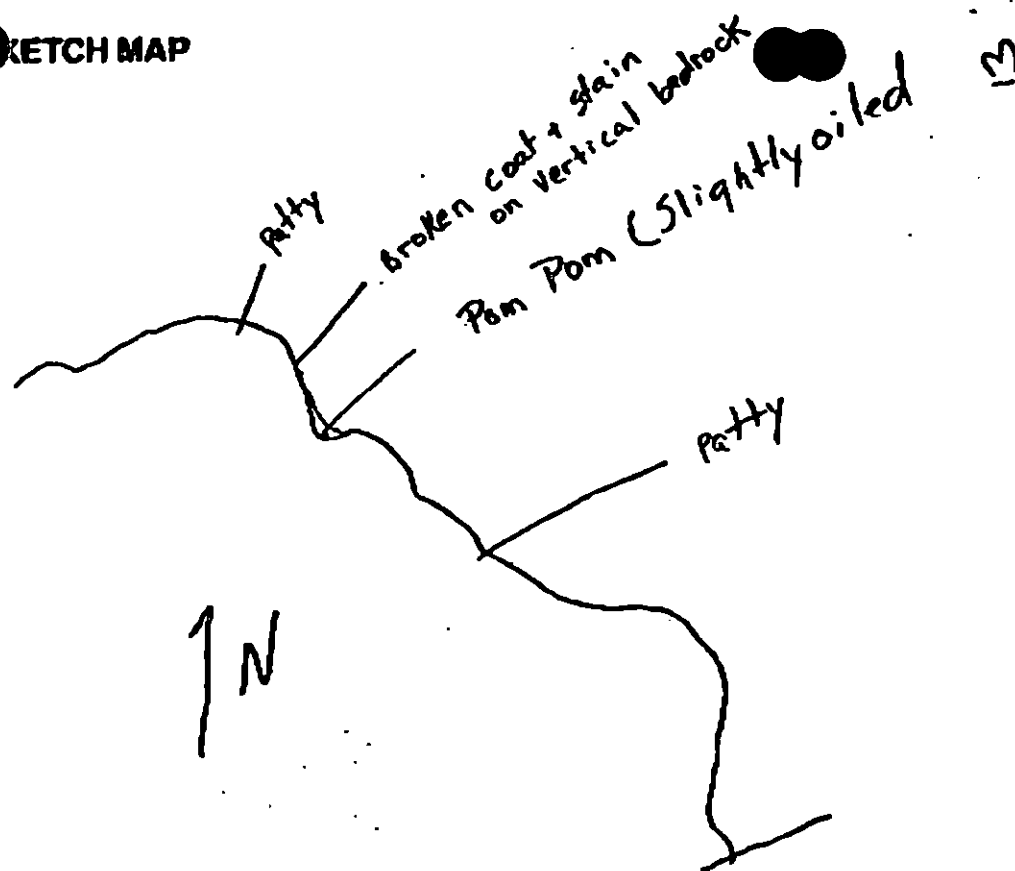
Splashed Distribution

Oiled Vegetation

1 @>

Photo location, direction,
and number

SKETCH MAP



0 100 meters

Oil Character Length (m): AP 0 PO 0 CV 0 CT 1 ST 1 MS 0 PT 2 TB 2 FL 0 NO 0



XXXX Wide

//// Medium

---- Narrow

TTT Very Light

000 No Oil

KN-701A

ADEC Segment Length: 1807m

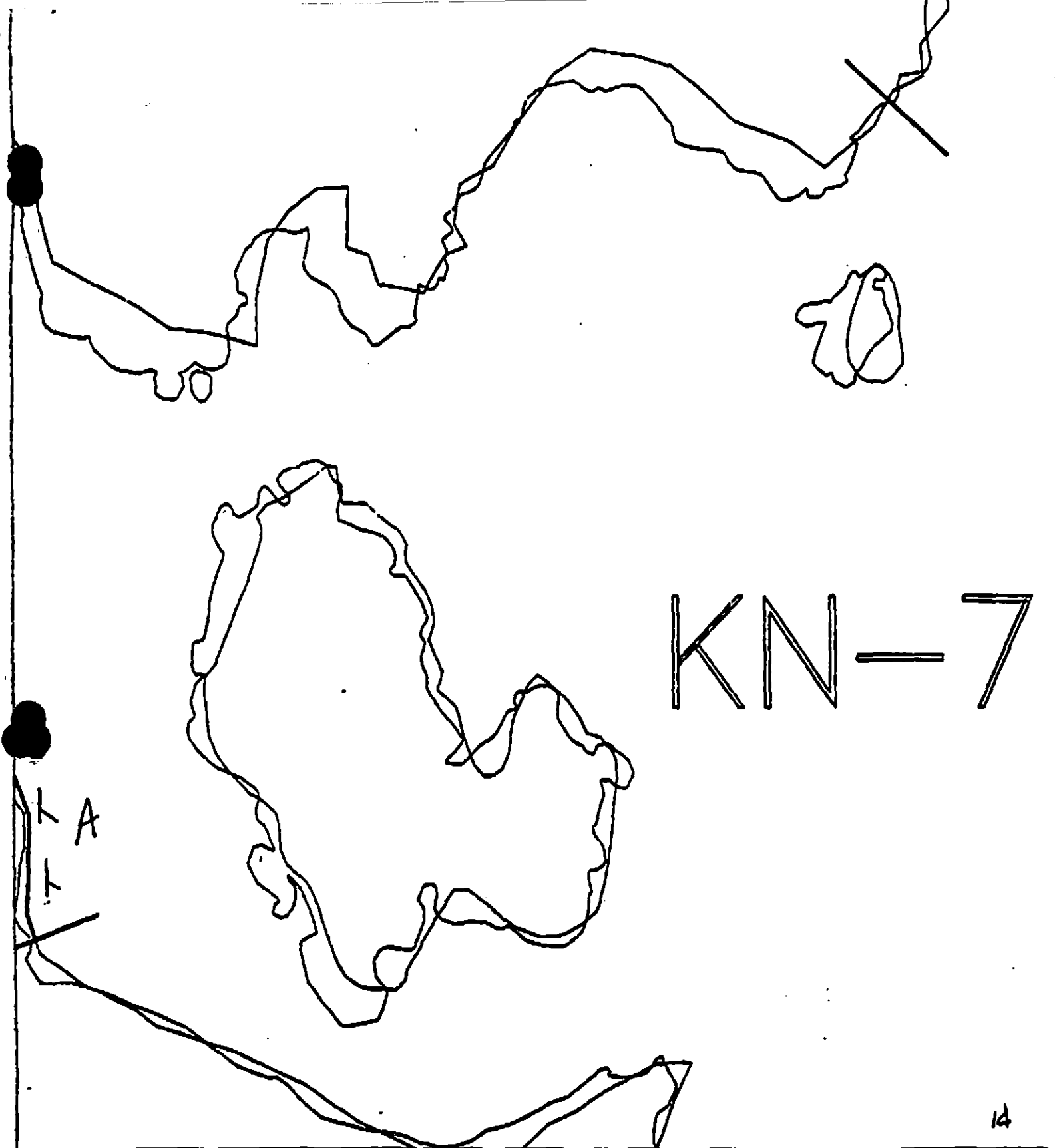


Map Key: PWS-479a

Name: K. Ramsey

Date: 4/4/90

Data Entered:



KN-7

14

XXXX Wide

//// Medium

---- Narrow

TTT Very Light

000 No Oil

KN-701A

ADEC Segment Length: 1807m



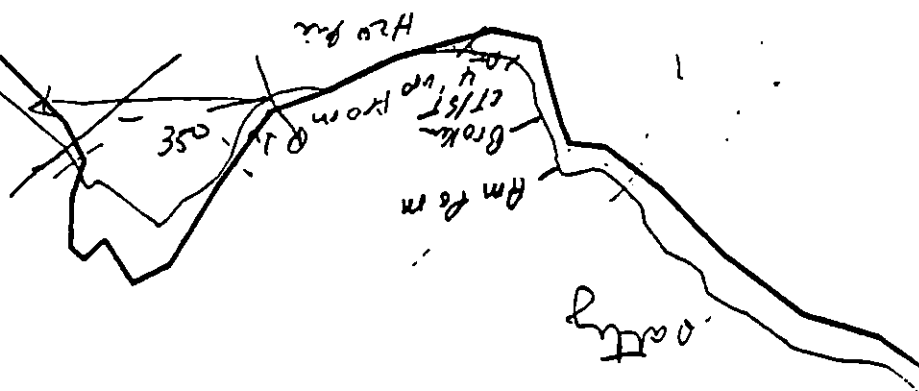
Map Key: PWS-479b

Name: K. RAMSEY

Date: 4/4/90

Data Entered:

N-701



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

KN-701

ADEC Segment Length: 1807m



Map Key: PWS-479a

Name: _____

Date: _____

Data Entered: _____

SHORELINE EVALUATION

SEGMENT ST/ KN-701 SUBDIVISION B (2 OF 3) DATE 4/4/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

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

6V Recreation: Anchorages (6/1 to 9/15)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: J. Vail McMan DATE: 4/23/90

OILING CATEGORIZATION:

Wide 47 m: Medium 49 m: Narrow 64 m: V.Light 77 m: No Oil 86 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommend manual removal of pavement and mousse patties and bioremediation of areas shown on sketch map. Work should be conducted after 5/1. NOTE: No bioremediation within 100m of stream.

RAISE IN AREA OF TEST PIT 6. SNARE + ABSORBENT BOOM STREAM MOUTH DURING TREATMENT.

TAG COMMENTS: MONITORS TO CHECK SUITZ - SNOW COVERED AT TIME OF SURVEY

TAG APPROVAL DATE: 4/23/90

ADEC ART WEINER
EXXON ANDY TOL
NOAA Joseph Talbot
USCG KENNETH KERNIC

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

CAC Rep to be on scene.

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

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

No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.

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

1D Esther Hatchery release (4/15 to 6/1)

1E Main Bay Hatchery release (4/20 to 5/10)

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

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

1H Remote release site

1I Gill net area (5/7 to 8/31)

1J Purse seine area (7/20 to 9/30)

1K Purse seine hook-off (7/20 to 9/30)

1L Set net sites (8/11 to 7/25)

For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.

2M Herring spawning (4/1 to 6/15)

Restrict boat traffic to essential minimum. Avoid damage to unrolled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.

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

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

Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.

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

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

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

Restrict all activity to essential minimum, especially air traffic.

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

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

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

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

6V ~ Anchorages (5/1 to 9/15)

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

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

6Y Special use destination

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

7HH ~ Finfish harvesting

7I Deer harvesting (2/15 to 2/28)

7JJ ? Invertebrate harvesting

For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / KN-701 SUBDIVISION: B DATE 4/4/90

USCG

NAME SCOTT RAINSFORD SIGNATURE Scott Rainsford MST

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

ADEC

NAME Wesley Ghormley SIGNATURE Wesley Ghormley

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

This subdivision which is located at the mouth of a anadromous stream definitely needs more manual work. There is enough oil to justify mechanical clean-up but due to the presence of the anadromous stream & the possibility of Contamination of the stream by mechanical forces I only recommend manual removal & the use of spare boom strung across the mouth of the stream to catch free floating oil & sheen. A section of the stream was already cleaned by manual removal & looks very good. Asphalt/Pavement is very obvious up to 5cm thick. It could be easily peeled away using shovels. The problem with this pavement is it needs to be removed while it is still cold so it sticks together. I recommend this area be one of the first to be worked due to being a sensitive area also due to the amount of oil present.

LAND MANAGER

NAME LORA JOHNSON SIGNATURE Lora L. Johnson

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

SNOW IN SITZ & HITZ INHIBITED SURVEY.

22
E

SHORELINE OILING SUMMARY

REVISION NO. 000000

OG G. Macdonald USCG J. Rainford SEGMENT ST/ KJ-701
 BIO M.A. Scott LAND REP L. Johnson SUBDIVISION 3 (2013)
 EXXON J. Butler ADEC W. Stormley TIME 17:20 to 19:00
 TEAM NO.: 3 TIDE LEVEL: +2 to +4 DATE 4/4/90
 EST. SUBDIVISION LENGTH: 360 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 40 % P 20 % G 10 % S 1 % M 10 % V 1 %
 SLOPE: Long 40 % Hang 60 % Vert 1 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 40 m M 60 m N 70 m VL 90 m NO 90 m

SURFACE OIL

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

PAVEMENT: H F (S) 450 sq. m by 5 cmPATTIES / TARBALLS 1 BAGSNEAR SHORE SHEEN? NO BR RW (SL) TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☒ YES ☐ NOTYPE Shore.#BAGS < 1

Photographs:

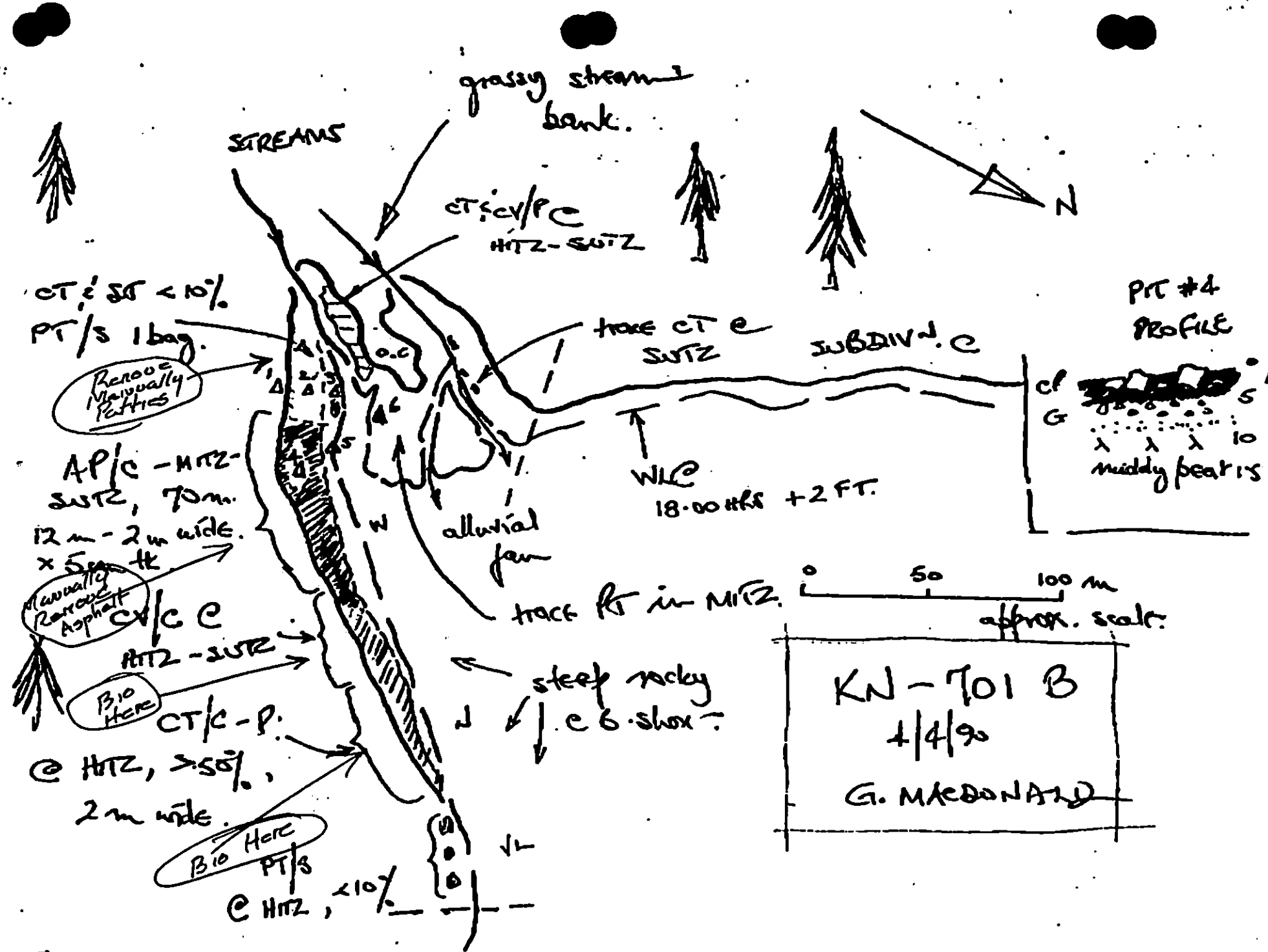
Roll No. JT-3-2Frames 18-20

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	UO	W	M	N	VL	NO	U	M	V		
1	20					X	.							X				N	G.S
2	20					X	.								X			N	PGS
3	25					X	.									X		N	PGS
4	15					X	.								X			N	PG
5	20					X	.									X		N	PGS
6	30	X	X				7.9	X			X				X			N	PG

COMMENTS Steep rocky shore broken by a small alluvial fan.AP/C as a tapering 12x70 m band @ MRZ - SZRZ.Trace of subsurface oil as buried secondary deposit by stream @ pit #1 - v. localized and thin - will prob. be flushed by spring meltwaters.

2/23



AP 70 PO - cv 40 CT 30 ST -
MS - PT 10 TA - G - 10 20

SHORELINE ECOLOGICAL SUMMARY

REVISED 10/1/80

Segment ST 11701 Subdivision B Date (mo / day / yr) 4/4/90Time (24 hr) 1855 Biologist MASCOIT

(A) Substrate type and % of segments:

(1) Bedrock 10 (2) Boulder 10 (3) Cobble 40 (4) Pebble 30 (5) Sand 5 (6) Silt 5(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. 57-3-2Frames 18-20

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

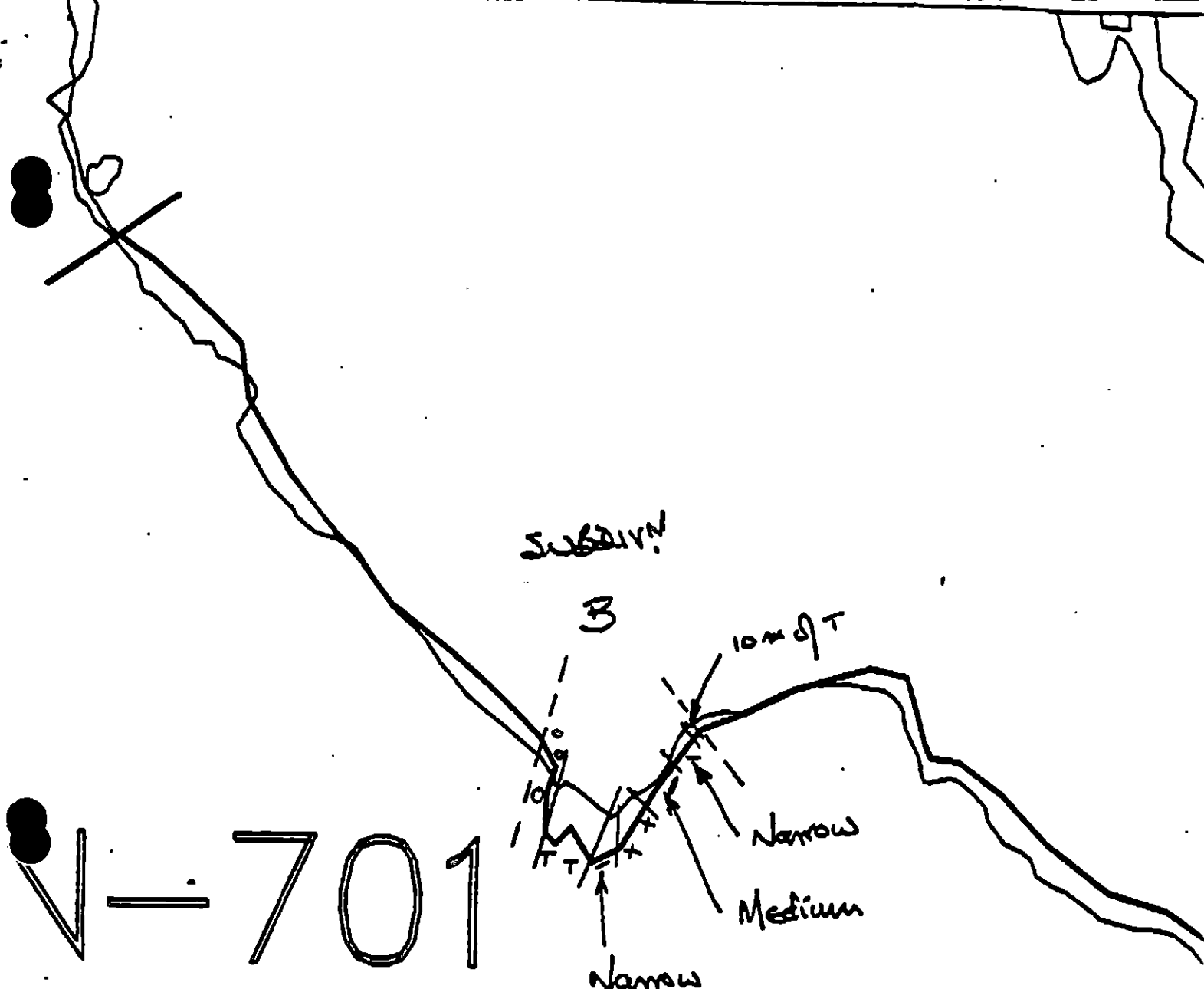
NOT PRESENT

Wildlife Observations/ General Comments:

Ecological Considerations:

probably spawning - 2 stream months

21



383

47

XXXX Wide

//// Medium

--- Narrow

TTT Very Light

0000 No Oil

KN-701 B

ADEC Segment Length: 1807m



Map Key: PWS-478a

Name: G. MACDONALD

Date: 4/4/90

Data Entered:

KN-

ST/KN-700
SUBDIVISION: A-1 of 1

XXXX Wide

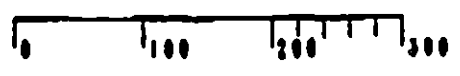
/// Medium

--- Narrow

TTTT Very Light

KN-700

ADEC Segment Length: 1265m



Map Key: PWS-478

Name: Rick Gillie

Date: 04/22/90

Data Entered:

WORK PLAN ADDENDUM

Segment KN-701

Subdivision B

Dated 7/5/90

MODIFICATION

1. REASON FOR MODIFICATION

Supra Resurvey Team indicated that additional treatment was warranted

2. ADJUSTMENT TO WORK PLAN

Bioremediate surface oil on West side of East stream as indicated on attached sketch map

SHPO APPROVAL NEEDED YES X
NO

SHPO SIGNATURE Richard D. W. 7/5/90

TAG APPROVAL DATE 7/5/90.

ADEC Ray Maurice L. M...

EXXON ANDY TALL

NOAA Joseph Talbot

USCG G.A. REITER

FOSC DATE 7-10-90

Remove oil/tar/mat/asphalt from vegetation in accordance with land manager's desires.

PROJECT: CEMENT ST/ LN-701

SUBDIVISION 6

DATE 1/90

CHECKLIST

- N Areas
- Approx. Scale
- Seepage Entry
- On Date
- When
- Length
- % Cover
- Substrate Character
- E at 1M/L/1M
- SSL
- Profile (Location)
- Profile(s)
- PI Location(s)
- Photo Location(s)

LEGEND

1 Δ

PI - No Substrate Oil

2 Δ

PI - Substrate Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Priority Distribution

CT/S

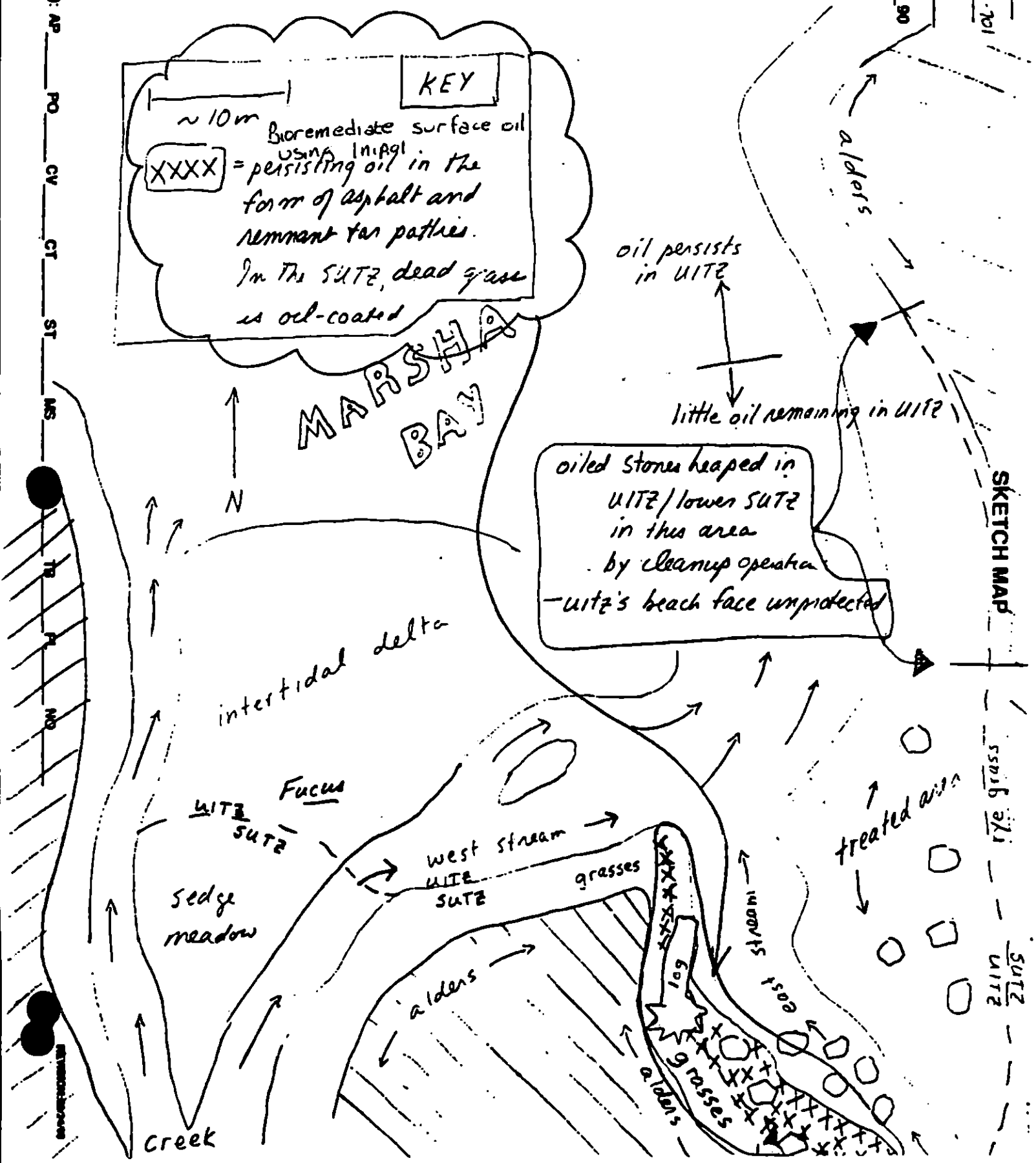
Splashed Distribution

CC/ADL

Dead Vegetation

Photo location, direction, and number

SKETCH MAP



Oil Character (m): AP PO CV CT ST MS TR A NO

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ KN-701 B STREAM NO: 226-30-16840 DATE 4/27/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

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

6V Recreation: Anchorages (6/1 to 9/15)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Subject stream is located within Subdivision B (2 of 3). No additional ecological constraints, other than minimizing foot traffic and re-oiling of the stream channel.

SHPO SIGNATURE: Rachel da Silva DATE: 5/25/90

Subsurface Oil Observed: Yes X No Maximum Depth 10 cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual removal of tarmats,
2) manual pickup of mousse, tar patties, tarballs, and oiled vegetation,
3) manual tilling and 4) bioremediation of areas shown on attached
sketch map. Work should be conducted between 5/15 and 7/10 with appro-
val of ADF&G regarding bioremediation of anadromous stream bank.

TAG COMMENTS: DURING TREATMENT PAY PARTICULAR ATTENTION TO PROTECTION
OF THE STREAM BED AND AVOID OILED MATERIAL SLOUGHING INTO
THE STREAM.

TAG APPROVAL DATE: 5/23/90.

ADEC Art Weiner Art Weiner

EXXON Arny Teal Arny Teal

NOAA Burl Wescott Burl Wescott

USCG G.A. Heiter G.A. Heiter

FOSC: B. Zavadli

DATE: 5/31/90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

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

No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G Habitat Division prior to treatment for consultation and/or permit application.

AGENCY CONTACT PERSON: ADF&G John Morison 267-2324

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

No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to July 31 unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.

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

1D Esther Hatchery release (4/15 to 6/15)

1E Main Bay Hatchery release (4/20 to 6/15)

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

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

1H Ramots release site

No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G or PWS Aquaculture Association for confirmation and authorization.

AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214

1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511

1I Gill net area (6/7 to 8/31)

1J Purse seine area (7/20 to 9/30)

1K Purse seine hook-off (7/20 to 9/30)

1L Set net sites (6/11 to 7/25)

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

AGENCY CONTACT PERSON: ADF&G James Brady 424-3212

2M Herring spawning (4/1 to 6/15)

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

AGENCY CONTACT PERSON: ADF&G Evelyn Biggs 424-3235

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

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

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

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

ADF&G Don Calkins 267-2403

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

ADF&G Tom Roth 267-2208

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

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

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

6V Anchorages (8/1 to 9/15)

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

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

6Y Special use destination

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

7HH Finfish harvesting

Deer harvesting (8/15 to 2/28)

Invertebrate harvesting

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

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

47 1/2

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / KN-701 SUBDIVISION: ^{ASC#} 226-30-16840 DATE 27 MAR 90

USCG

NAME Kerwin L. Drzhan SIGNATURE CWO K. L. Drzhan

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

~~ADEC~~ → **ADFG**

NAME Aimee Weseman SIGNATURE Aimee Weseman

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

see attached sheet for specifics
manually remove oiled material

~~LAND MANAGER~~ → **NONE**

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Treatment Recommendations

Though a great deal of work was done on this stream last summer treatment is only about halfway completed.

Before beginning treatment run lengths of sorbent boom along the edge of the stream bank & secure in order to catch oiled material that may fall into stream.

Wipe larger oiled rock & cobble & toss into Supra ITZ.

Manually remove oil contaminated material (indicated on map) from east and west banks of stream (the easternmost channel).

Rakes, shovels, garden trowels & 1 or 2 4-wheelers with trailers would facilitate this removal.

Areas in need of treatment include:

- East Bank: starting from the furthest reach of the oil, upstream
 - small patch of oiled grass
 - 1m x 2.5m length immediately adjacent to stream bed, was worked last year, may need further removal - adjacent to cleaned area
 - 3.5m x 4m x 5m continuous asphalt pavement in U.M. & Part of LIT.
 - 0.0m x 2m - section of broken pavement

- West Bank - starting from the furthest reach of the oil, upstream
 - 1.0m x 1m section of oiled grass/sod. - remove sod layer
 - 1.5m x 1.5m section of broken asphalt pavement/tar patties

226-30-16840

49/

After this work is accomplished.

Starting at the farthest reach of the oil upstream, systematically agitate or lightly till the streambed gravels at low tide & let self f

Other considerations—

- Near stream work should be accomplished at lower tide in order to access the oiled LITZ portions

- A foot bridge across the stream should be used to avoid unnecessary compaction & contamination of streambed gravels

- Any crew working in stream should be free of contamination

- Use of garden trowels could prove very effective for removing oiled material from narrow spots—i.e. between rocks & boulders.

STRUCTURE OILING SUMMARY (ANAD)

REVISION NO. 1

OG GAL LARSON USCG DEPTER, CNE SEGMENT ST/ KN 701
 BIO KEN CLUTCHER LAND REP STREAM 1694
 EXXON 2 ADFG 24 K. GUSTIN - ALICE WISEMAN TIME 07:35 to 08:15
 TEAM NO. 19 TIDE LEVEL -3 FT DATE 4/27/90
 EST. SUBDIVISION LENGTH: 74 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☐ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 5 % B 5 % C 40 % P 40 % G 15 % S 0 % M 0 % V 0
 SLOPE: Long 70 % Hang 30 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ Hg
 OIL CATEGORY LENGTH: W 35 m M 37 m N 0 m VL 0 m NO 0

SURFACE OIL

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

PAVEMENT (H) F S 225 sq. m by 5

PATTIES / TARBALLS 0 B/

NEAR SHORE SHEEN? NO BR RW (S)

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation		✓	
Trash			
Debris			

Did You Collect DEBRIS
☐ YES ☒ NO

TYPE 0
 #BAGS 0

Photographs:

Roll No. 8
 Frames 33-37 & 1-14

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				AN A	SHEEN	NOV	↓	SURF SUBSURF. SEDIMENT
		OF	OR	OL	OP	NO		GO	NO	1	2	3	4	5	SU	U	M	L					
1	10					✓	0-10											✓	✓				CB 04 5.1 CB 04 5.2
2	22					✓	0-10											✓					CB 04 30 CB 04 30 CB 04 30 CB 04 30
3	15	✓					5-6	✓		✓							✓						CB 04 32 CB 04 32 CB 04 32
4	18	✓					5-6	✓		✓							✓				N		CB 04 32 CB 04 32 CB 04 32
5	16					✓	0-10										✓						CB 04 32 CB 04 32 CB 04 32
6	23					✓	0-10								✓						N		CB 04 32 CB 04 32 CB 04 32

7 22
 COMMENTS

SALMON SMOLT GETTING CAUGHT IN GREEN ALGAE.

AT TIME OF SURVEY OIL APPEARED HARD AND TO REMOVAL.

REVIEWED AW

DATE 4-29-90

50/5
SEGMENT ST/ K-701
STREAM 16840
DATE 4 127 90

CHECKLIST

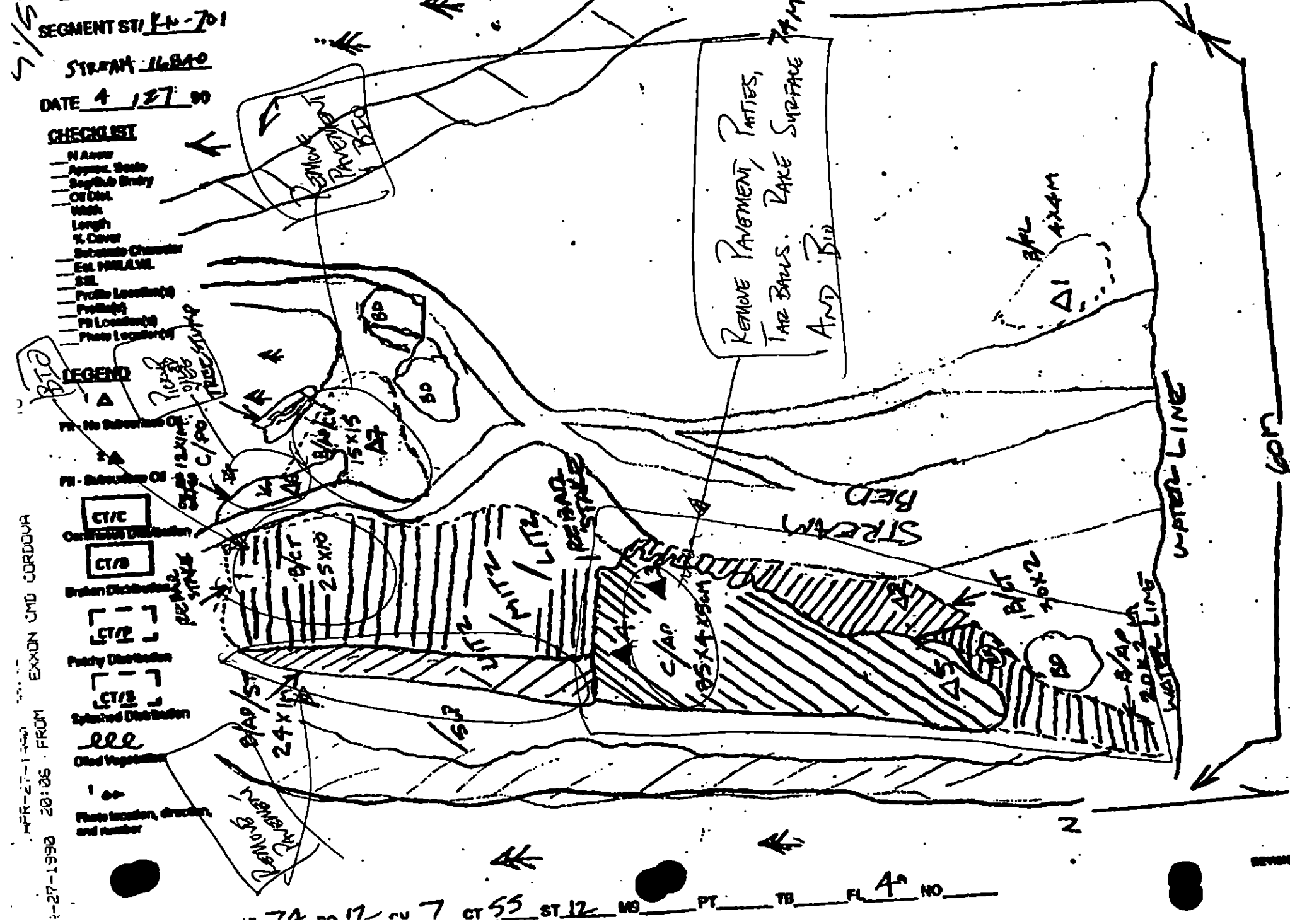
- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Sample Grid
- ☐ C/Dist
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HULLAGE
- ☐ S/L
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PH Location(s)
- ☐ Photo Location(s)

LEGEND

- ☐ PH - No Substrate C/D
- ☐ PH - Substrate C/D
- ☐ C/T/C
- ☐ C/T/B
- ☐ Broken Distribution
- ☐ Patchy Distribution
- ☐ S/L/B
- ☐ Splashed Distribution
- ☐ Old Vegetation

Place location, direction, and number

SKETCH MAP



ADPAC MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS DS TS AVS SQA HNS PTA

2 REGION: PN3 KP,CI K,AP

METHOD: Aerial Ground Boat

3 DATE: 4-27-90

15 HIGH TIDE TIMES: 1

21 TEAM RECORDER: Aimee Wesema

4 START TIME: 0700

16 HIGH TIDE HTS: 1

22 OBSERVERS: Rick Gustin

5 STOP TIME: 0815

17 LOW TIDE TIMES: 0930-1045

23 AGENCY: ADFTC

6 SEGMENT #: KN701

18 LOW TIDE HTS: 1

24 PHOTOS TAKEN: Y (N)

7 STATION #: _____

19 TIDE HT AT SURVEY: _____

Roll #: _____ Frames: _____

8 K-UNIT: _____

Ebb Slack Flood Slack

25 VIDEO TAKEN: Y N TAPES: 90-ADW-002

9 STAT AREA: _____

20 USCG QUAD: S-B2

Start 0854 End 983

10 LAT: _____

11 LONG: _____

26 SAMPLES TAKEN: Y (N) Number

12 SOURCE: Map Loran

13 LOCATION: Knight I - south Marsha Bay

14 DESCRIPTION: _____

Oil _____

Sediment _____

Biological _____

Water _____

EXTENT OF OIL

27 SURFACE COVERAGE

SHORELINE				STREAM			
L	V	N	S	L	V	N	S

see map

28 SURFACE THICKNESS

1cm							
-----	--	--	--	--	--	--	--

29 PENETRATION

6cm	10-16cm	10-19cm	6cm				
-----	---------	---------	-----	--	--	--	--

30 OVERALL OIL IMPACT: H VL L M (H)

31 OIL TYPE: Peeled Mousse Tar Asphalt Sticky Stain

32 OILED DEBRIS: (Y) N

33 SHORELINE TYPE: Headland Low-lying Rocks etch Love
Lagoon Marsh

34 WAVE EXPOSURE: High Moderate Low

35 SUBSTRATE TYPE: Bedrock _____ Boulder _____ Cobble _____
Gravel _____ Sand _____ Mud/silt _____

36 CATALOGED ANAD. FISH SKEWT H

37 CATALOG #: 226-30-160

38 STREAM NAME: _____

39 OIL IN STREAM BED: (Y) N

40 OIL ON STREAM BANKS: (Y) N

41 OIL ON BEACH ADJACENT TO MOUTH: (Y) N
(within 50 meters)

42 OIL WITHIN 1 MILE OF STREAM: (Y) N

Where: _____

43 ANADROMOUS FISH PRESENT: (Y) N

44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground

COMMENTS: The stream banks appeared in much the same condition as they were last fall after treatment. See map & recommendations for oiling conditions.

52
1:
OFF BY ON.
CALL

free agents
stream 40 OIL DISTRIBUTION DIAGRAM



Seg ID: KN-701 Subdiv: 226-30-16840

Survey Date: 4/27/90

Comments by: Ken Critchlow

This stream site is very heavily oiled, particular along the left bank in the entire intertidal. So natural cleaning has occurred during winter in the LITZ adjacent to the stream. The asphalt pavement on the left bank is thick and showed signs of being mobile even at near freezing temperatures. I expect that with increasing temperature the oil at this site will become much more mobile, and would probably contaminate the stream further.

The intertidal biota of the MITZ and LITZ on the right side of this channel and to the left of the right channel is healthy and productive. Care should be taken to minimize foot traffic through this area.

Much of the left channel streambed supported luxuriant growths of filamentous green and red algae. Numerous pink salmon fry were dead and trapped in the algae. I believe that this mortality was probably due to natural causes because the dead fish were observed mainly upstream of heavily oiled areas.

P20K29
KN-701'

226-30-1684

I recommend significant effort be further expended to clean this stream. Most of the oil can be removed by shovel. The underlying oiled sediments should be tilted to the extent possible, followed by bioremediation. It is conceivable that tilting and bioremediation may need to be repeated to enhance oil degradation.

Particular care should be taken to minimize the amount of oil that enters the stream due to foot traffic and cleanup, and mobile oil. Snare booms should be deployed along stream banks and absorbent booms across the stream mouth. These booms should be replaced periodically as they become loaded with oil.

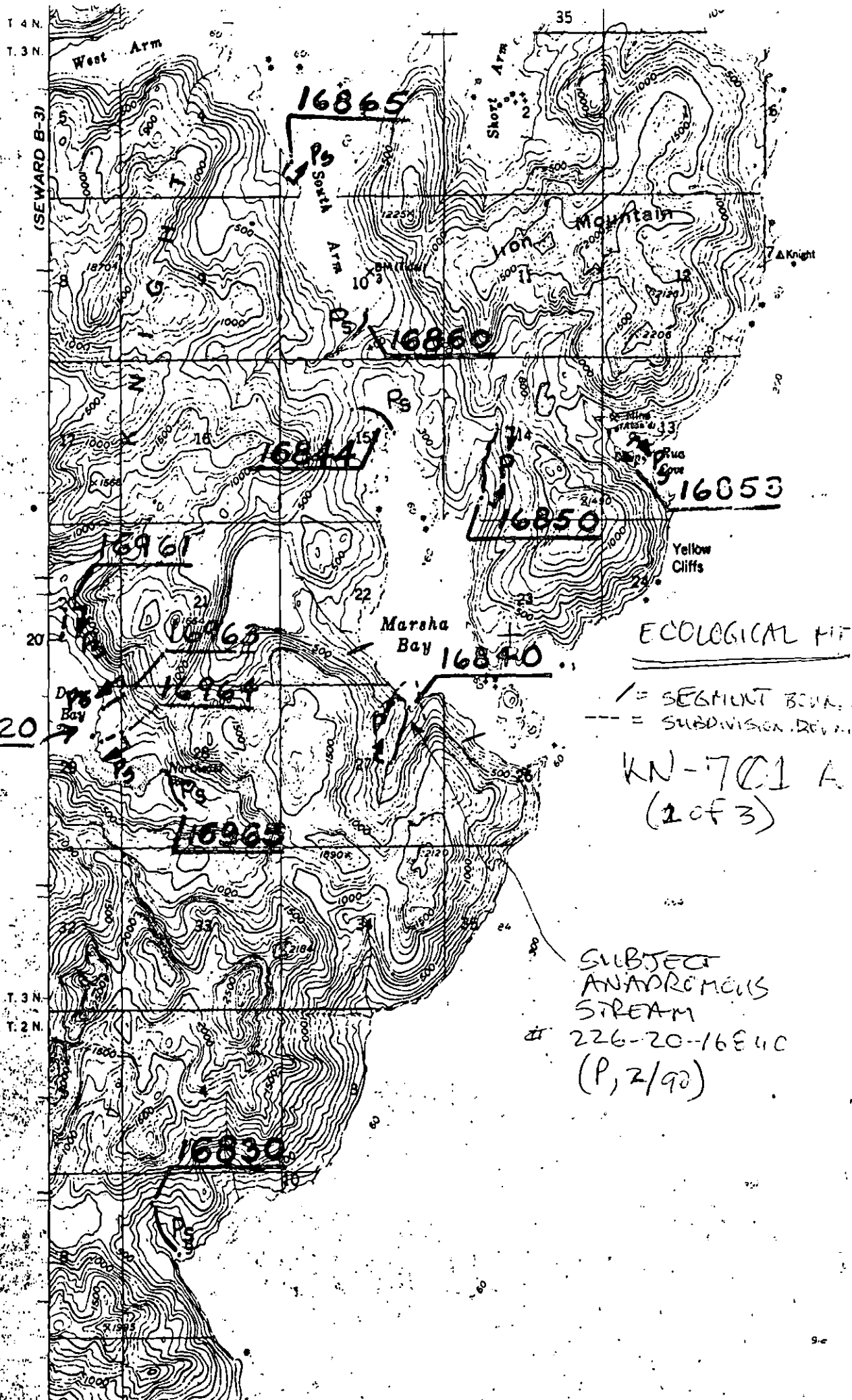
R R Cuthlow

KN-701

226-20

ANC-H/C-03

38-2



ECOLOGICAL FIF

/ = SEGMENT BOUNDARY
--- = SUBDIVISION BOUNDARY

KN-701 A
(2 of 3)

SUBJECT
ANADROMOUS
STREAM
226-20-16840
(P, 2/90)

ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 226-30-16840

SEGMENT KN-701 SUBDIVISION B

WORK WINDOW	
Manual Pickup Tarmat Removal	CLOSED
Bioremediation Manual Tilling	CLOSED

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

ADF&G catalogued anadromous stream (226-30-16840) is in Subdivision B. This subdivision is closed to bioremediation and manual tilling less than 100m from stream 7/10 to 8/31. Before 7/10, bioremediation and manual tilling are permitted less than 100m from stream with on-site ADF&G monitor or ADEC alternate present. No constraint to bioremediation and manual tilling more than 100m from stream. No constraint to manual pickup and tarmat removal.

5T Bald Eagle Nest

USFWS 6/1/90 map indicates an active nest in Subdivision B. Closed to manual pickup, tarmat removal, bioremediation and manual tilling within 400m of active nest.

OTHER ECOLOGICAL CONSIDERATIONS

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

SEE SUBDIVISION CONSTRAINT ADDENDUM KN-701B
FOR ADDITIONAL CONSTRAINT INFORMATION.

FOSC

Date

6-12-90

Prepared by

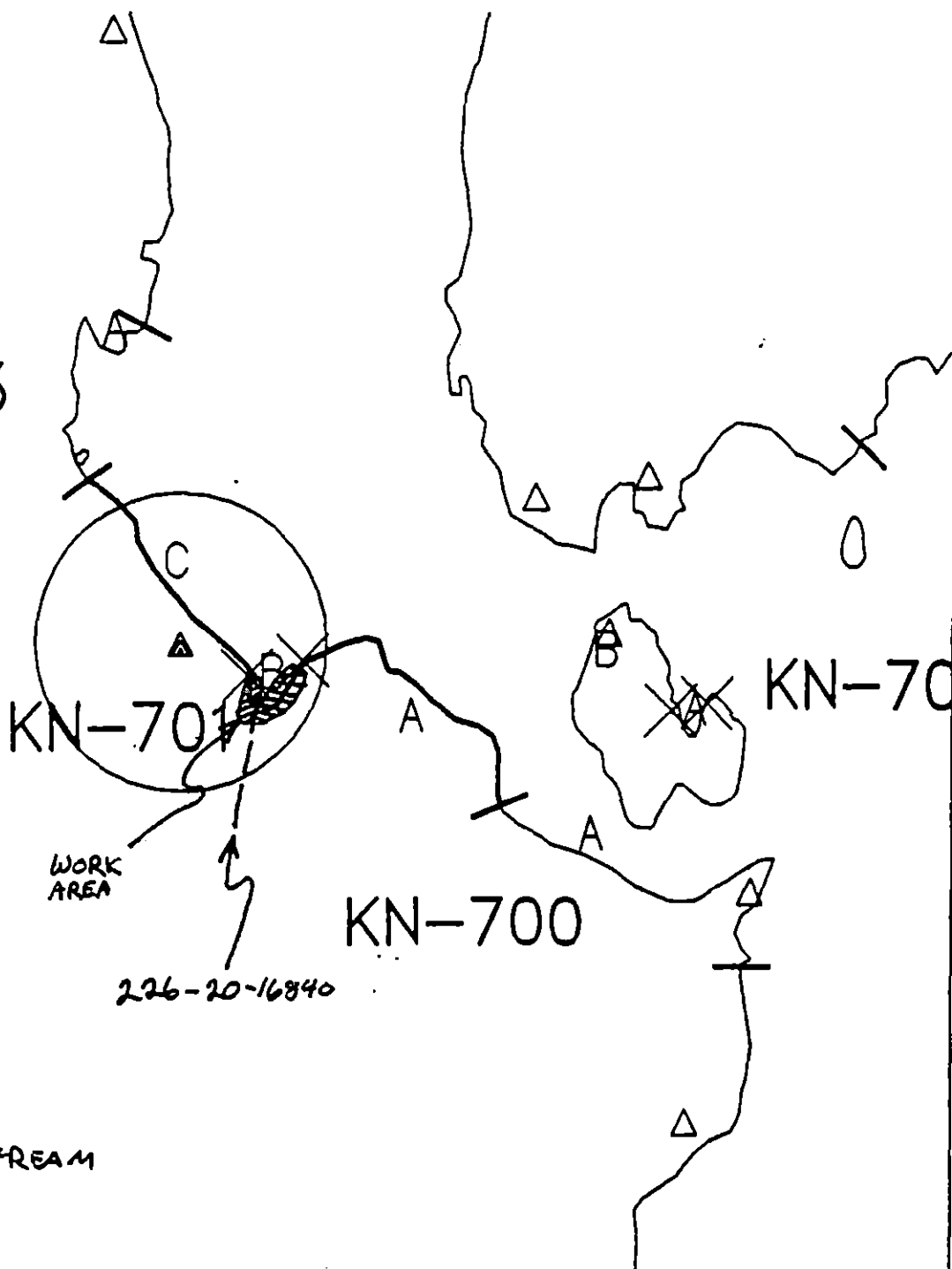
PP Phillips

6-10-90

Date

6/11/90

KN-703



WORK
AREA

226-20-16840

KN-700

KN-70

ANADROMOUS STREAM
EVALUATION



Exxon Company, USA
Map Key: PWS-KN-701
June 05, 1990



ECOLOGY MAP
SEGMENT KN-701
SUBDIVISION B (2 of 3)
METERS
0 100 200

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

1:25,000

SEGMENT ST/ KN-701 SUBDIVISION C (3 OF 3) DATE 4/4/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

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

6V Recreation: Anchorages (6/1 to 9/15)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: J. David McNamee DATE: 4/23/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 689 m: No Oil 0 m

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u> </u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u>X</u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u>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 patties. Work should be conducted after 5/1.

TAG COMMENTS: MONITORS TO ASSESS SUITZ - SNOW COVERED AT TIME OF SURVEY

TAG APPROVAL DATE: 4/23/90

ADEC ART WENZEL Art Wenzel

EXXON ANDY GER Andy Ger

NOAA Joseph Bilbott Joseph Bilbott

USCG KENNETH KEANO Kenneth Keano

FOSC: W L DATE: 5-12-90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

1A	Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B	Salmon stream mouth - spawning (7/10 to 8/31) No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
1C	Salmon fry nursery area (4/31 to 7/31)
1D	Esther Hatchery release (4/15 to 6/1)
1E	Main Bay Hatchery release (4/20 to 5/10)
1F	Sawmill Bay Hatchery release (4/15 to 6/1)
1G	Cannery Creek Hatchery release (4/21 to 6/1)
1H	Remote release site
1I	Gill net area (6/7 to 8/31)
1J	Purse seine area (7/20 to 9/30)
1K	Purse seine hook-off (7/20 to 9/30)
1L	Set net sites (6/11 to 7/25) For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
2M	Herring spawning (4/1 to 6/15) Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
3N, 3P 3O, 3Q	Harbor seal and sea lion pupping (5/15 to 7/1) Harbor seal and sea lion molting (8/15 to 9/15) Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
5R	Seabird colony (5/1 to 9/1) Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
5S	Shorebird/waterfowl concentration (4/1 to 5/15) Restrict all activity to essential minimum, especially air traffic.
5T	All Bald Eagle nests (3/1 to 6/1) Active Bald Eagle nests (3/1 to 9/1) Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
6U	Recreation: Tent sites (6/1 to 9/15)
6V	Anchorage (6/1 to 9/15)
6W	Forest Service cabins (6/1 to 9/15)
6X	Lodge (6/1 to 9/15)
6Y	Special use destination
7Z	Subsistence area: Salmon harvesting (5/1 to 9/30)
7HH	Finfish harvesting
7H	Deer harvesting (8/15 to 2/28)
7JJ	Invertebrate harvesting For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

SEGMENT ST KN-701 SUBDIVISION: C DATE 4/4/90

USCG

NAME MARICIA SHARP SIGNATURE M. Sharp☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

ADEC

NAME S. FERGUSON SIGNATURE Stephen Ferguson☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

* NEAR SUB-DIV B LINE CONCENTRATION OF MOUSSE PADDIES IS
GREATER / → SUGGEST THIS AREA NEEDS MANUAL REMOVAL/WHILE
SUB-DIV B IS BEING WORKED

MANUAL CLEAN-UP OF MOUSSE PADDIES (COVRAGE) FOR
REST OF SUB-DIV. IS 1% OR LESS.

LAND MANAGER

NAME M. C. T. SMITH SIGNATURE Michael C. T. Smith☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY

REVISION NO. 000000

OG K. Ramsey USCG R. Shorpe SEGMENT ST/ KN-701
 BIO G. Penn LAND REP M. Smith SUBDIVISION C 3.3
 EXXON S. Reid ADEC S. Ferguson TIME 7:40 to 8:00
 TEAM NO.: 4 TIDE LEVEL: 5' to 6' DATE 4/9/90
 EST. SUBDIVISION LENGTH: 673 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 85 % C 5 % P — % G — % S — % M — % V — %
 SLOPE: Long — % Hang 90 % Vert 10 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W — m M — m N — m VL 673 m NO — m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	R	B	C	P	SW	SP	ST	SL	SN	SC	SS	SE	SU	SM	SE	U
ASPHALT PAVEMENT POOLED																
COVER																
COAT				X	X	X	X	X	X	X	X	X	X	X	X	X
STAIN				X	X	X	X	X	X	X	X	X	X	X	X	X
MOUSSE																
PATTIES				X									X	X	X	X
TARBALLS																
FILM																
NO OIL															X	X

PAVEMENT: H F S — sq. m by — cmPATTIES / TARBALLS 2 BAGSNEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE —#BAGS —

Photographs:

Roll No. —Frames —

SUBSURFACE OIL

No Pits due to Boulders + Bedrock

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OF	OR	OL	OP	NO		UC	UC	SW	SP	ST	SL	SN	SC	SS	SE	SU	SM	SE	U		

COMMENTS

This was high angle boulder + vertical bedrock beaches. Walked most of segment + found sporadic mousse patties throughout + occasional splatters of coat + stain on lg. boulders + bedrock.

SHORELINE ECOLOGICAL SUMMARY

REVISION 02/20/90

Segment ST/KN-701 Subdivision C Date (mo/day/yr) 04/04/90

Time (24 hr) 1940 Biologist PENN

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

(B) Overall % cover of biota (% of segment): Dense 25 Moderate 5 Low 20

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

Photographs:
Roll No. -

Frames -

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

River Otter

Ecological Considerations:

RAUSEY
SEGMENT ST/ KN-701

SUBDIVISION C
DATE 4, Y 90

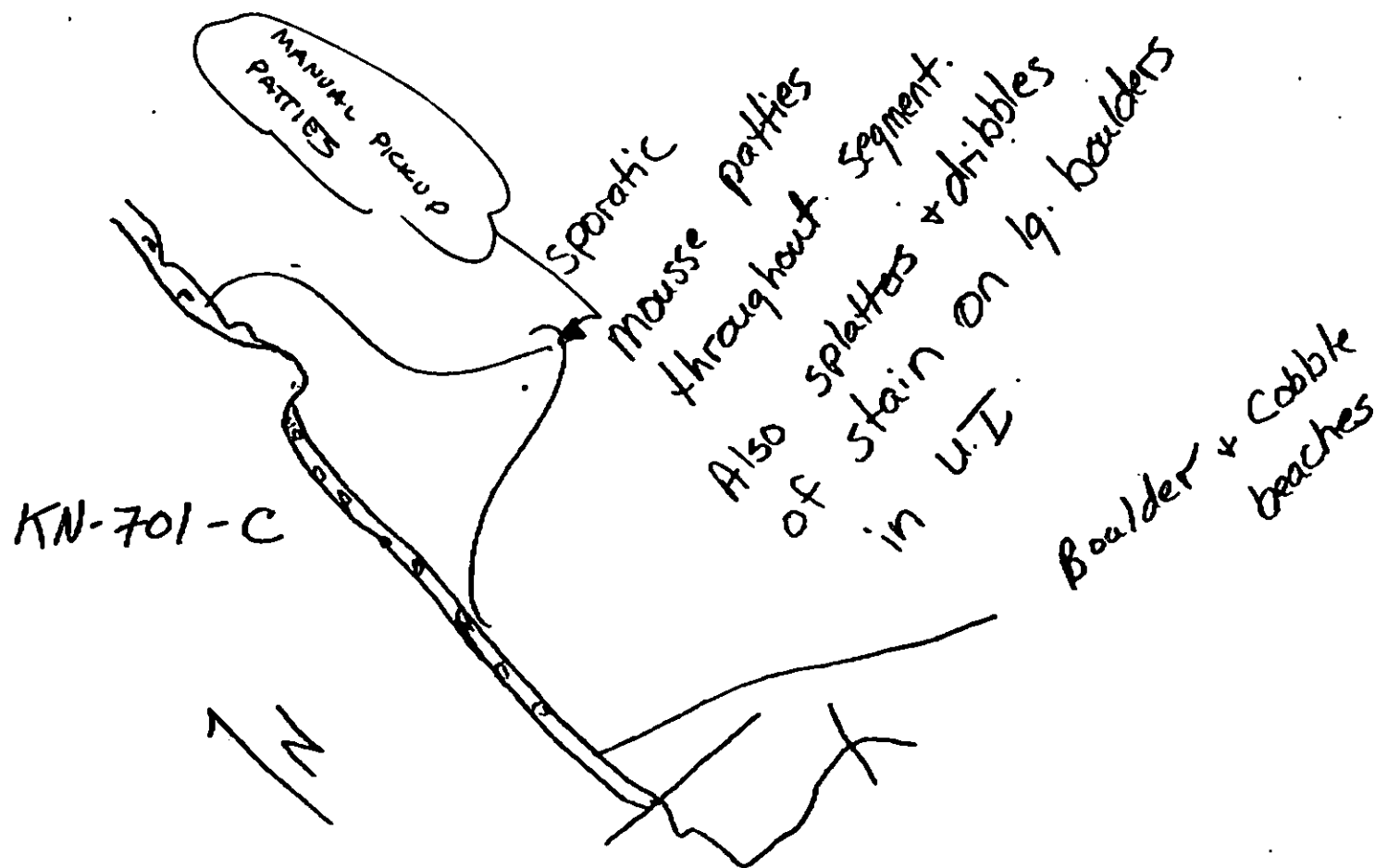
CHECKLIST

- ☒ M Arrow
- ☒ Approx. Scale
- ☒ Sp/Seb Only
- ☒ Oil Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HML/LWR
- ☒ SBL
- ☒ Profile Location(s)
- ☒ Profile(s)
- ☒ PH Location(s)
- ☒ Photo Location(s)

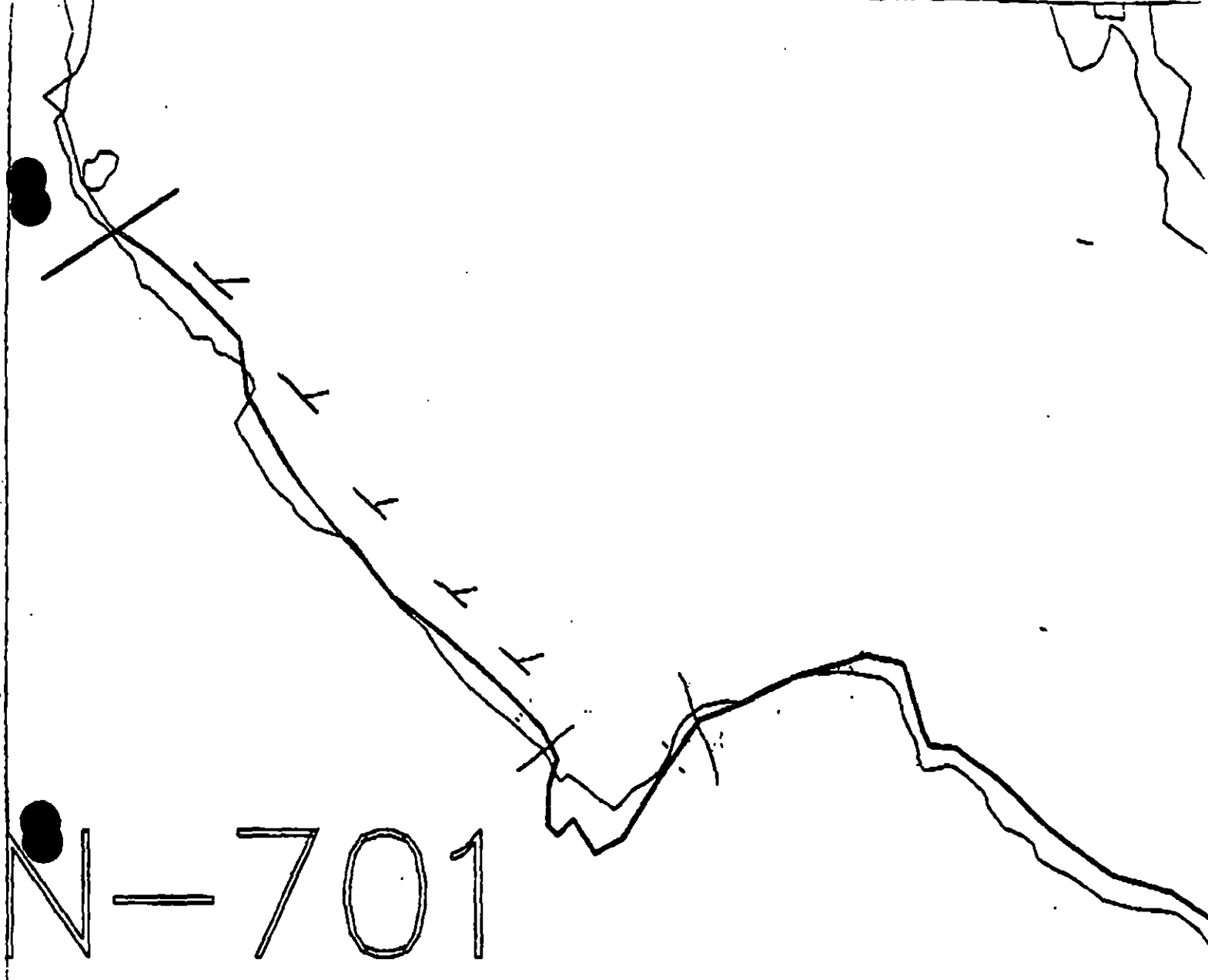
LEGEND

- 1 Δ
PR - No Subsurface Oil
- 2 Δ₁
PR - Subsurface Oil
- CT/C
Continuous Distribution
- CT/B
Broken Distribution
- CT/P
Patchy Distribution
- CT/S
Splashed Distribution
- Oil Vegetation
- 1 ←
Photo location, direction, and number

SKETCH MAP



Oil Character Length (m): AP 0 PO 0 CV 0 CT 5 ST 5 MS 0 PT 67.5 TB 0 FL 0 NO 0



N-701

25

XXXX Wide

//// Medium

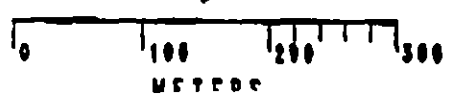
--- Narrow

TTT Very Light

0000 No Oil

KN-701

ADEC Segment Length: 1807m



Map Key: PWS-4790

Name: K. RAMSEY

Date: 4/4/90

Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT KN-701 SUBDIVISION C (3 of 3)

WORK WINDOW	
Manual Pickup	CLOSED

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream	No constraint. ADF&G catalogued anadromous stream (226-30-16840) is in adjacent Subdivision B and more than 100m from work site; no constraint to Manual Pickup.
5T Bald Eagle Nest	USFWS 6/1/90 map indicates an active nest in Subdivision C. Closed to manual pickup within 400m of active nest.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

Date

6-10-90

Prepared by

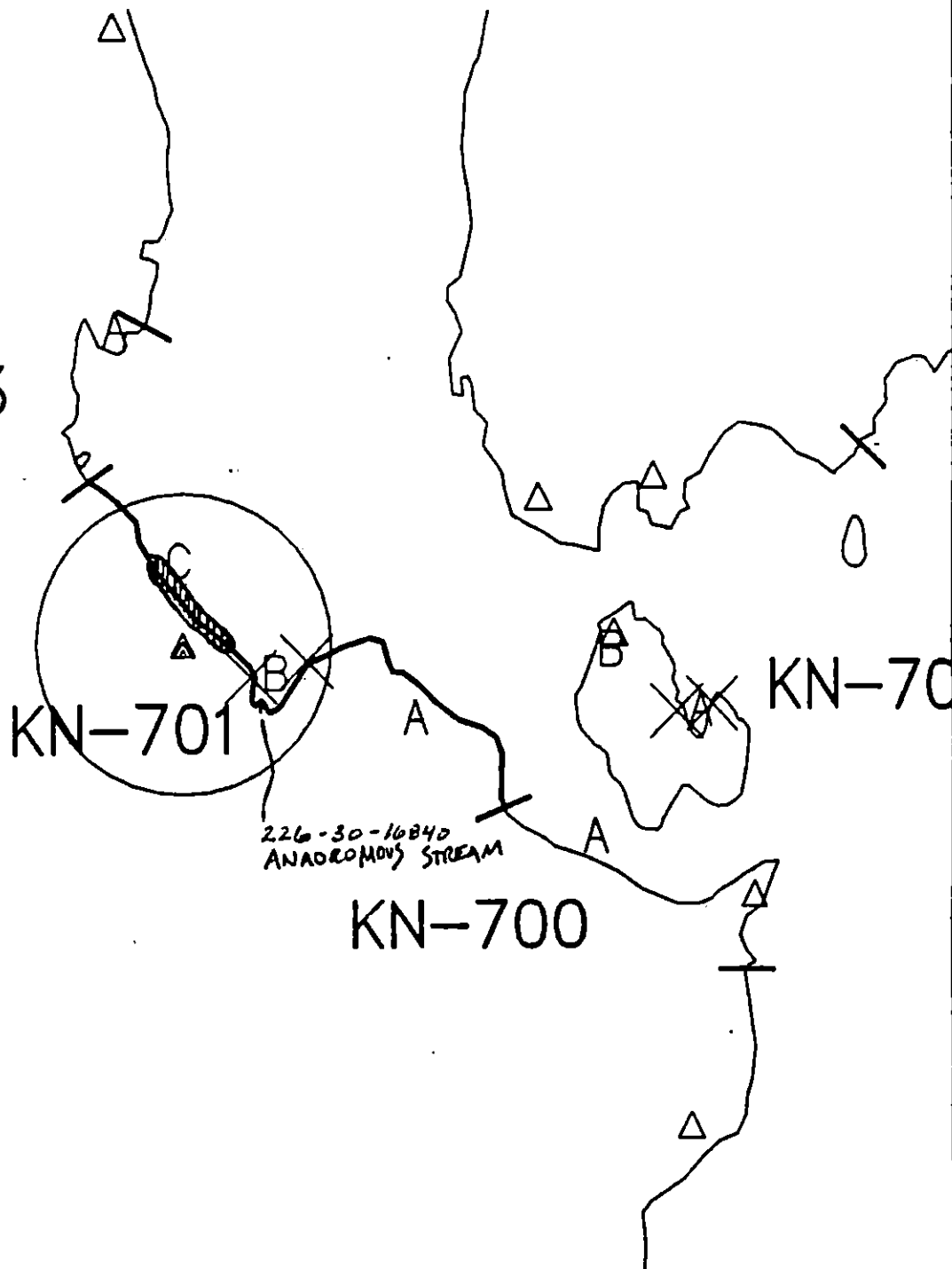
J.P. Phillips

6-10-90
mm

Date

6/10/90

KN-703



Exxon Company, USA
Map Key: PWS-KN-701
June 05, 1990



ECOLOGY MAP
SEGMENT KN-701
SUBDIVISION C (3 of 3)
METERS
0 100 200

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

Ar. Mamm. = 1981 VAMN

SHORELINE EVALUATION

SEGMENT ST/ KN-702 SUBDIVISION A (1 OF 2) DATE 4/21/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. 5T (1) bald eagle nest in adjacent segment B.

SHPO SIGNATURE: P. David McMillan DATE: 5/1/90

OILING CATEGORIZATION:

Wide 33 m: Medium 128 m: Narrow 57 m: V.Light 0 m: No Oil 0 m
Subsurface Oil Observed: Yes X No Maximum Depth 10 cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) removal of pavement, 2)
manual pickup of oiled debris and vegetation, 3) spot wash area of
mousse and use absorbents during wash, and 4) bioremediation of areas
shown on sketch map. Work should be conducted after 6/1 and with USFWS
approval regarding eagle nest constraint.

TAG COMMENTS: _____

TAG APPROVAL DATE: 5/1/90
ADEC ART WENGER
EXXON ANDY GIL
NOAA GARY PETERSON
USCG KENNETH KERR

FOSC: WJL DATE: 5-12-90
CAC Rept to be on scene.

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

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

No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G Habitat Division prior to treatment for consultation and/or permit application.

AGENCY CONTACT PERSON: ADF&G John Morison 267-2324

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

No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to July 31 unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.

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

1D Esther Hatchery release (4/15 to 6/1)

1E Main Bay Hatchery release (4/20 to 6/10)

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

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

1H Remote release site

No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G or PWS Aquaculture Association for confirmation and authorization.

AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214

1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511

1I Gill net area (6/7 to 8/31)

1J Purse seine area (7/20 to 9/30)

1K Purse seine hook-off (7/20 to 9/30)

1L Set net sites (6/11 to 7/25)

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

AGENCY CONTACT PERSON: ADF&G James Brady 424-3212

2M Herring spawning (4/1 to 6/15)

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

AGENCY CONTACT PERSON: ADF&G Evelyn Biggs 424-3235

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

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

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

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

ADF&G Don Calkins 267-2403

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

ADF&G Tom Roth 267-2208

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

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

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

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

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

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

6Y Special use destination

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

7-H Finfish harvesting

7I Deer harvesting (8/15 to 2/28)

7-L Invertebrate harvesting

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

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ KN-702 SUBDIVISION: A-1 of 1 DATE 04/21/90NAME David S. Thomas SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

oil sheen observed in Lagoon

NAME Clara J. Crosby SIGNATURE Clara J. Crosby☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

- ①. Spot wash/steam. of CT/CU on vertical rock -
- ②. Manual removal of asphalt around Lagoon - It should be noted that this area receives little flushing when considering Bioremediation.
- ③. Warm/Hot water flush. of Boulder/Cobble area to east - sheens noted in this areas runoff/pools - MS/CU/CT - Continuous coverage under sediments -
- ④. Manual removal of Asphalt throughout Beach & oiled vegetation.
- ⑤. Bioremediation
- ⑥. Also - AP/C around lagoon in finer sediments -

LAND MANAGER
NAME Peter Zellers SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

ADEC recommendations are appropriate. In the interest of a thorough cleanup, the number of man-days suggested should be increased.

SHORELINE OILING SUMMARY

REVISION NO. 04-13-90

OG RICK GILLIE USCG DAVE THOMAS SEGMENT ST/ KN-702
 BIO DAVE LOHJE LAND REP PETER ZOLLARS (CAC) SUBDIVISION A (1 OF 2)
 EXXON FRANK BOY ADEC CLARA CROSBY TIME 15:40 to 17:00
 TEAM NO. 13 TIDE LEVEL +2 to +1 DATE 04/21/90
 IT. SUBDIVISION LENGTH: 350 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 LANDS DESCRIPTION: ☒ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 20 % B 20 % C 40 % P 10 % G 10 % S 0 % M 0 % V 0 %
 SLOPE: Lang 60 % Hang 30 % Vert 10 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 30 m M 220 m N 100 m VL 0 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION					OIL / FILM COLOR					IMPACTED ZONES				
	C	S	P	B	W	Y	OR	GR	BL	OT	SU	U	M	U	
ASPHALT PAVEMENT			X			X					X	X			
POOLED															
COVER	✓		X	*		X					*	*	X		
COAT	X					X					X	X			
STAIN															
MOUSSE			X								X	X			
PATTIES															
TARBALLS															
FILM				X		X					X	X			
Oil															X

PAVEMENT H F (S) 50 sq. m by 5 cmPATTIES / TARBALLS 0 BAGSNEAR SHORE SHEEN? (NO) BR RW SL TL

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

DID YOU COLLECT DEBRIS?

YES ☒ NO ☐TYPE Pom-Pom#BAGS 1

Photographs:

Roll No. 8T-13-4Frames 26-28

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	S H EEN (Y/N)	↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	W	Y	OR	GR	BL	SU	U	M	U				
1	25					X	.		X						X							P-P, V
2	20					X	.		X						X					Y	S	V-V, S
3	30		X				5-10		X	X					X							C-S, C
4	25					X	.		X						X							C-P, S
							.															
							.															

COMMENTS

REVIEWED JWDATE 4-23-90

00 F GILLIE
 SEGMENT KN-702
 SUBDIVISION A-1 of 2
 DATE 04/21/90

ETCH MAP

CHECKLIST

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

LEGEND

1 Δ
 PH - No Subsurface Oil

2 Δ
 PH - Subsurface Oil

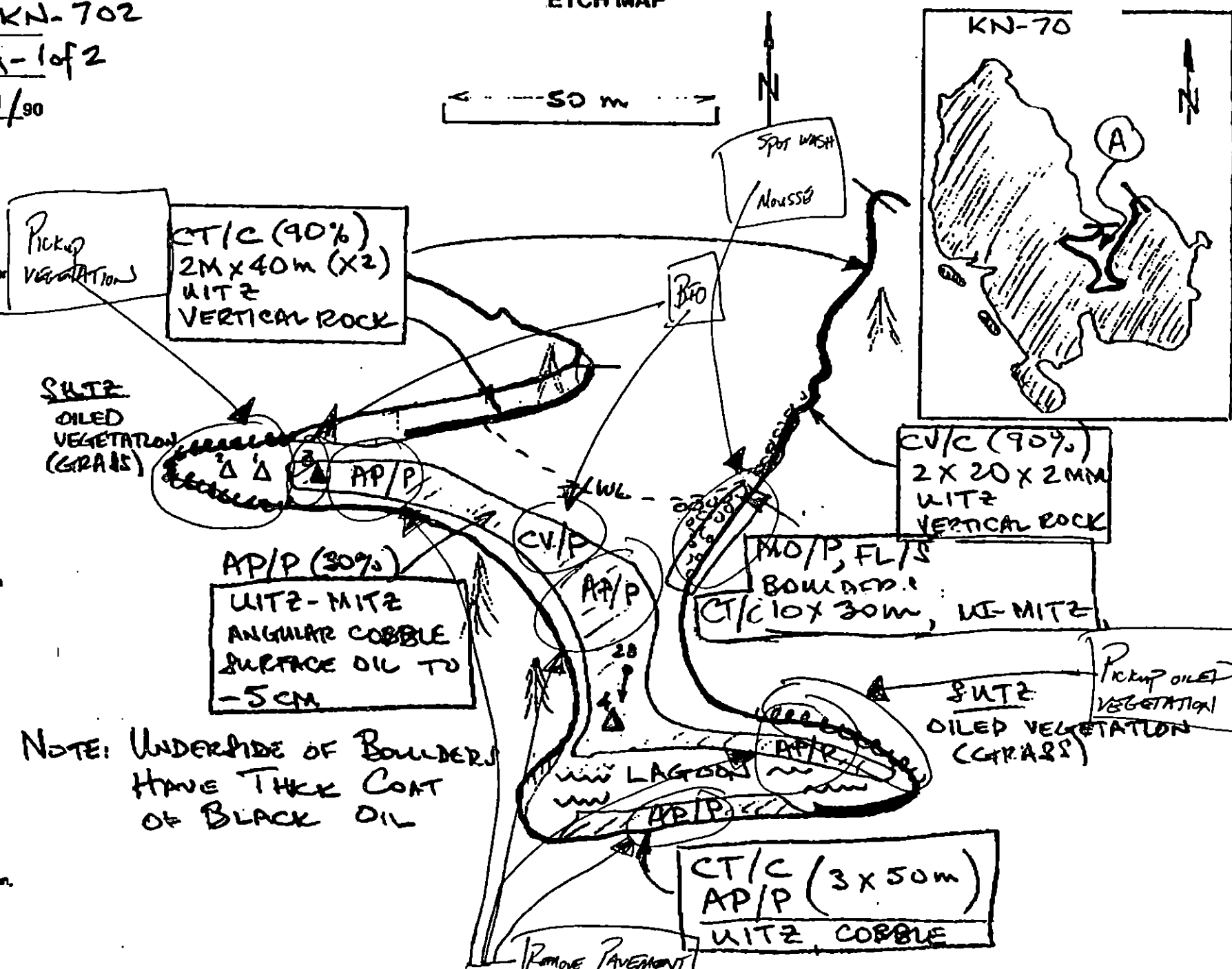
$\square$ CT/C
 Continuous Distribution

$\square$ CT/B
 Broken Distribution

$\square$ CT/P
 Patchy Distribution

$\square$ CT/S
 Splashed Distribution
 Oiled Vegetation

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



Oil Character Length (m): AP 100 PO 0 CV 100 CT 130 ST 0 MS 10 PT 0 TB 0 FL 10 NO 0

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03-22-90

Segment ST / KN 702 Subdivision A Date (mo / day / yr) 4-21-90

Time (24 hr) 15:45 Biologist David Lohr

- A) Substrate type and % of segments:
 (1) Bedrock 20 (2) Boulder 20 (3) Cobble 40 (4) Pebble 10 (5) Sand 10 (6) Silt _____
- (B) Overall % cover of biota (% of segment): Dense 70 Moderate 15 Low 15
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
 Roll No. ST-13-4

Frames 26-28

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

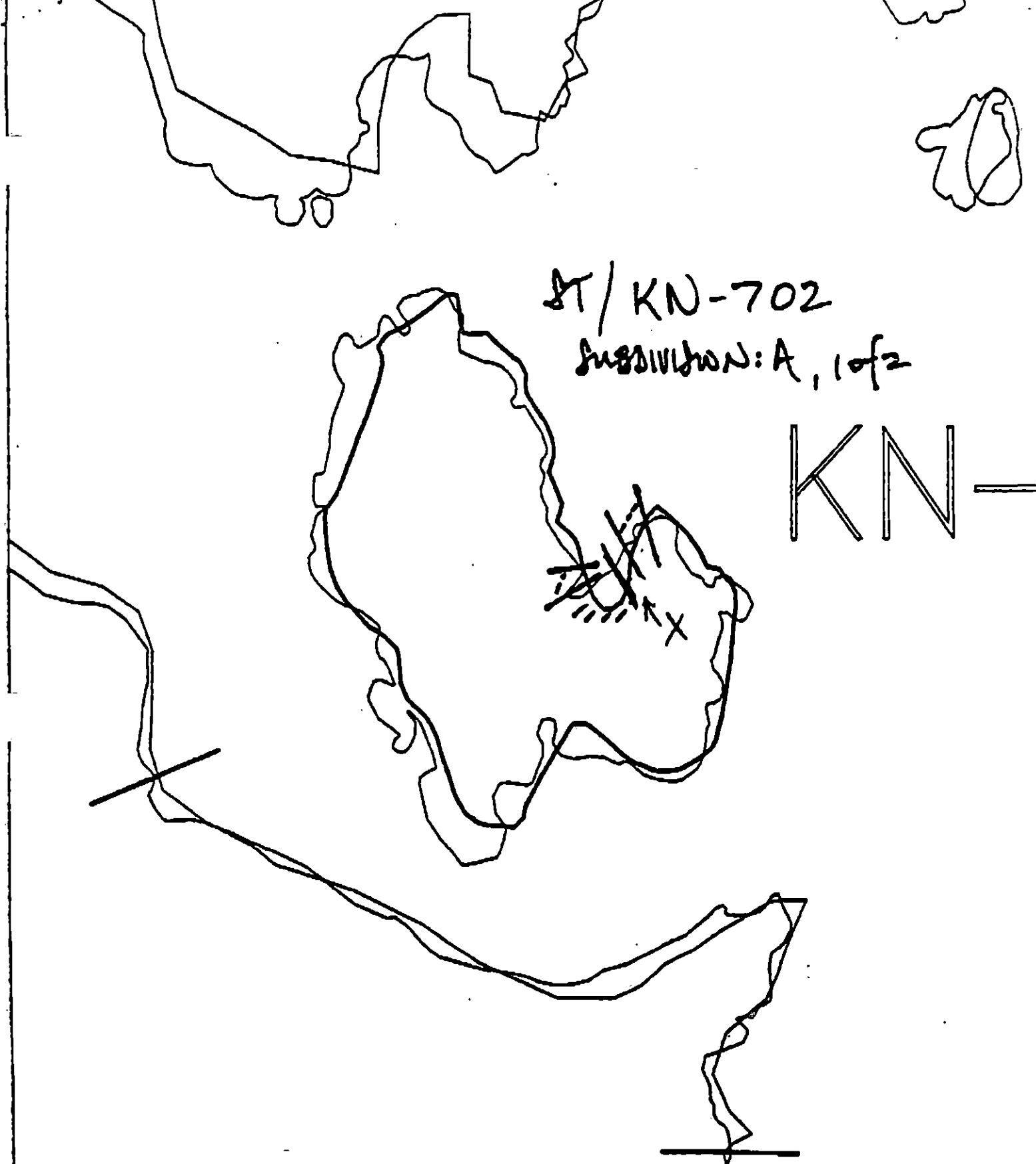
Wildlife Observations/ General Comments:

See page 2

Ecological Considerations:

ST - One mature bald eagle spotted flying in area. No nests observed in this subdivision. Ecological map shows nest to be in another portion of segment

- 04 - no comment



ST/KN-702

Subdivision: A, 1 of 2

KN-

XXXX Wide

//// Medium

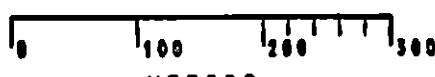
--- Narrow

TTTT Very Light

OOOO No Oil

KN-702

ADEC Segment Length: 2637m



Map Key: PWS-480

Name: R. Gilie

Date: 04/28/90

Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT KN-702 SUBDIVISION A (1 of 2)

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

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T Bald Eagle Nest

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

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

Date

6-10-90

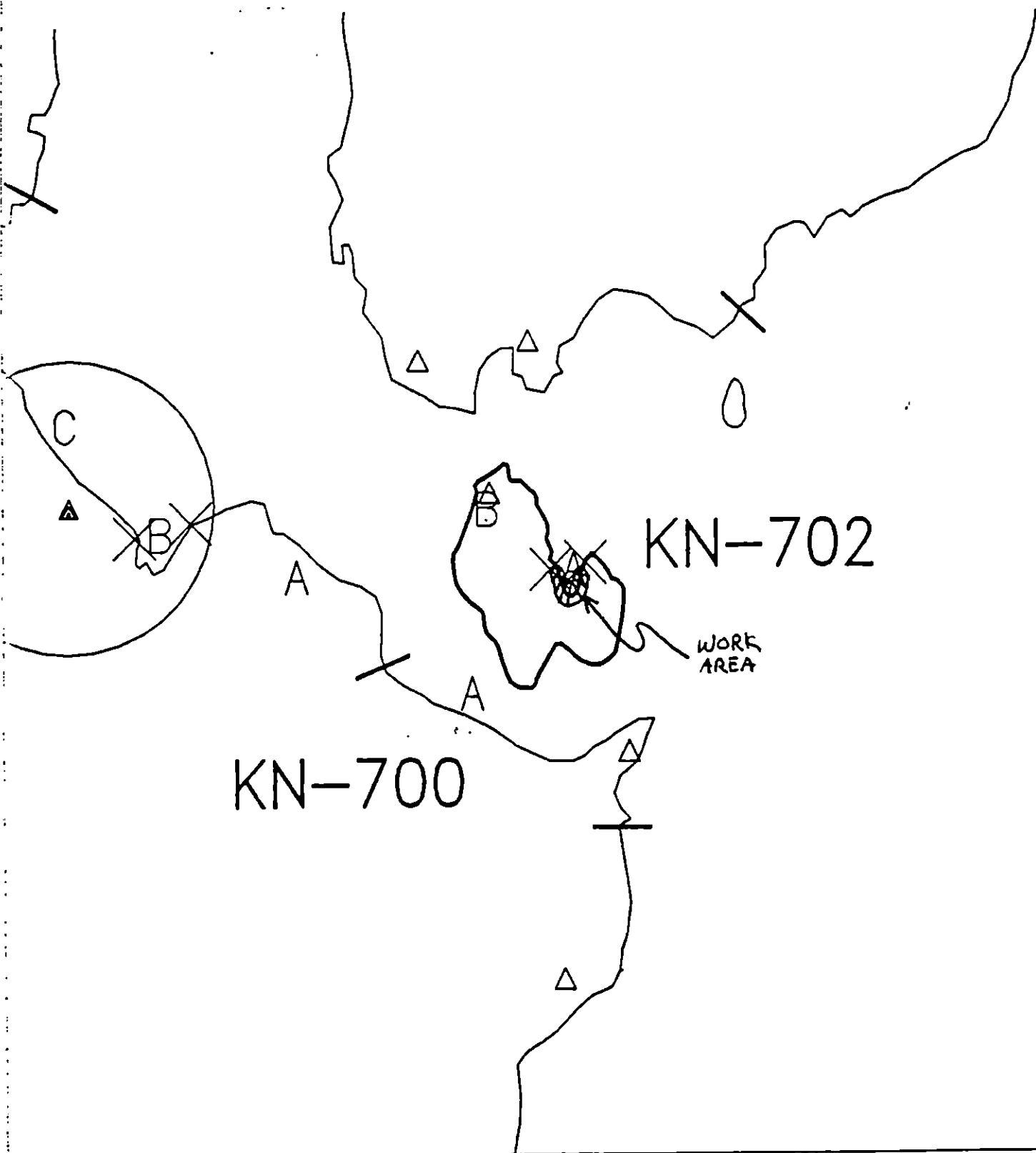
Prepared by

J Phillips

6-10-90
ann

Date

6/10/90

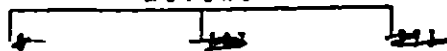


Exxon Company, USA
Map Key: PWS-KN-702
June 05, 1990



ECOLOGY MAP
SEGMENT KN-702
SUBDIVISION A (1 of 2)

METERS



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

1 inch = 1250 feet

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: J. David McMan DATE: 5/1/90

OILING CATEGORIZATION:

Wide 61 m: Medium 115 m: Narrow 299 m: V.Light 877 m: No Oil 441 m
 Subsurface Oil Observed: Yes X No Maximum Depth 20 cm

RECOMMENDATIONS:

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

COMMENTS: Recommend removal of tarmats as shown on sketch map and bio-
remediation of areas also shown on sketch map. Work should be conduc-
ted after 6/1 and with USFWS approval regarding eagle nest constraint.

TAG COMMENTS: MANUAL PICKUP OF OILED DEBRIS, MANUAL TILLING
IN AREAS OF PITS 2+4 AS INDICATED ON SKETCH

TAG APPROVAL DATE: 5/1/90

ADEC ART WENNER
 EXXON JOHN TEAR
 NOAA GARY PETERSON
 USCG KENNETH KERRY

FOSC: W L DATE: 5-12-90
 CAC Rep to be on scene.

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G Habitat Division prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G John Morison 267-2324
- Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to July 31 unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Esther Hatchery release (4/15 to 6/1)
 1E Main Bay Hatchery release (4/20 to 6/10)
 1F Sawmill Bay Hatchery release (4/15 to 6/1)
 1G Cannery Creek Hatchery release (4/21 to 6/1)
 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G or PWS Aquaculture Association for confirmation and authorization.
 AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
 1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I Gill net area (5/7 to 8/31)
 1J Purse seine area (7/20 to 9/30)
 1K Purse seine hook-off (7/20 to 9/30)
 1L Set net sites (5/11 to 7/25)
 Contact ADF&G for specific dates, locations and constraints. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G James Brady 424-3212
- 2M Herring spawning (4/1 to 6/15)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Evelyn Biggs 424-3235
- 3N, 3P Harbor seal and sea lion pupping (5/15 to 7/1)
 Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- SR Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- SS Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (5/1 to 9/15)
 6V Anchorages (5/1 to 9/15)
 6W Forest Service cabins (5/1 to 9/15)
 6X Lodge (5/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
 7H Finfish harvesting
 7I Deer harvesting (5/15 to 2/28)
 7J Invertebrate harvesting
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2350

SEGMENT ST/ KN-702 SUBDIVISION: B-1 of 2 DATE 04/21/90

USCG

NAME David S. Thomas SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

ADEC

NAME Clara J. Crosby SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

1) Removal of AP @ Pit site #2 & #1, #4 - Removal of clean-up debris AT Pit site #3 & AT N. END OF ISLAND -
2) Spot wash around island (steam).
3) Please note nearshore sheens @ Pit sites #4-7 - fine sed. Biosi
4) Recommend flush at pit site #2 & 1 - steam of oiled drift.
5) Oiled vegetation at pit site #4.

LAND MANAGER

NAME Peter Collins SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

I concur with the above recommendations. KN-702 has a fairly large quantity of oiled debris scattered along it's convoluted shoreline which should be addressed.

SHORELINE OILING SUMMARY

REVISION NO 34 12.85

OG RICK GILLIE USCG DAVE THOMAS SEGMENT ST/ KN-702
 BIO DAVE LOHJE LAND REP PETER ZOLLAR (CAP) SUBDIVISION B (1 OF 2)
 EXXON FRANK BOY ADEC CLARA CONNOR TIME 16:50 to 18:45
 TEAM NO. 13 TIDE LEVEL +1 to +1 DATE 04/21/90
 EST. SUBDIVISION LENGTH: 2.287 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 40 % B 40 % C 20 % P 0 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 10 % Hang 60 % Vert 30 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 60 m M 100 m N 400 m VL 1327 m NO 400 m

SURFACE OIL

CHARACTER	DISTRIBUTION					OIL / FILM COLOR					IMPACTED ZONES			
	C	S	P	A	W	SW	W	W	W	W	SW	U	M	U
ASPHALT PAVEMENT	0	V		X										
POOLED														
COVER		X												
COAT	✓	0	✓	X										
STAIN														
MOUSSE														
PATTIES														
TARBALLS														
FILM	X													X
NO OIL											X		X	

PAVEMENT H F 50 sq. m by 4 crPATTIES / TARBALLS 0 BAGSNEAR SHORE SHEEN? NO BR HW SL TL

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

DID YOU COLLECT DEBRIS?

YES ☒ NO ☐TYPE POM-POM#BAGS 2

Photographs:

Roll No. ST-13-4Frames 29-35

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (Y/N)	Y	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		US	UC	SW	W	W	W	W	SW	U	M	U				
1	28		X				5-10		X		X				X							P-P, G, S
2	15	X					5-10		X		X				X							B-C, G, M
3	20				X		14-15		X		X					X				Y	15	G-G, S
4	30	X					5-15		X		X				X							C-V, M
5	25					X	.		X								X			Y		C-M, S
6	30					X	.		X						X							C-P, S

COMMENTS

- ① GEOMORPHOLOGY: PREDOMINANTLY ROCK CLIFF AND HIGH ANGLE BOWLE / COBBLE SHORLINE. SOME COBBLE BARRE
- ② OILING: OIL BAND AROUND MAST OF ISLAND. AP / IN TWO SHELTERED COVES.

REVIEWED FWDATE 4-23-90

SHORELINE OILING SUMMARY (PAGE 2)
 SEGMENT ST/ KN-702 SUBDIVISION B (1 OF 2)

REVISION 06 12 90

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	SL	SP	GP	GL	GR	LR	BU	U	M	U						
7	25				X		10-20		X			X				X							Y	23	C-P, d, M
8	15		X				5-10		X		X					X									B-P, G, S
							.																		
							.																		
							.																		
							.																		
							.																		
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							.																		
							.																		
							.																		
							.																		
							.																		
							.																		
							.																		

COMMENTS

③ Subdivision STARTED 04/21/90: 16:50 - 19:45
 AND COMPLETED 04/22/90: 07:15 - 08:10

④ RE PIT # 3

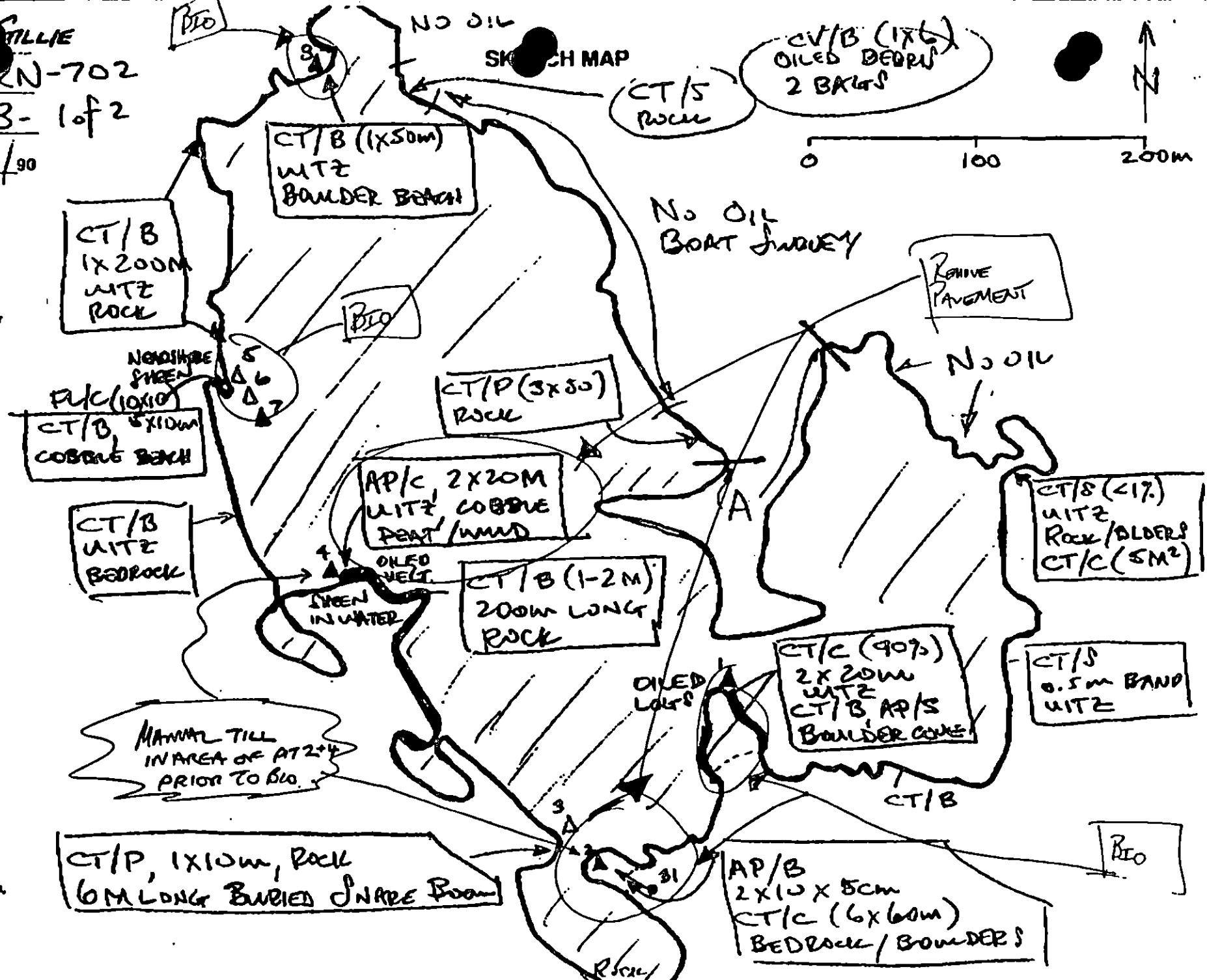
- "OF" SUBSURFACE OIL CHARACTER INFERRED FROM SHEEN OBSERVED ON WATER IN PIT.
- "OILED INTERVAL" NOT OBSERVABLE IN PIT
 14-15 cm was used

REVIEWED JW DATE 4-23-90

OG RICK MILLIE
 SEGMENT ST/ KN-702
 SUBDIVISION B- 1 of 2
 DATE 04, 21/90

- CHECKLIST**
- ☒ N Arrow
 - ☒ Approx. Scale
 - ☒ Seg/Sub Entry
 - ☒ Oil Dist.
 - ☒ Width
 - ☒ Length
 - ☒ % Cover
 - ☒ Substrate Character
 - ☒ Est. HMT/LMR
 - ☒ SSL
 - ☒ Profile Location(s)
 - ☒ Profile(s)
 - ☒ PH Location(s)
 - ☒ Photo Location(s)

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



Oil Character Length (m): AP 30 PO 0 CV 6 CT 184 ST 0 MS 0 PT 0 TB 0 FL 10 NO 400

1 of 2

REVISION: 07/21

SHORELINE ECOLOGICAL SUMMARY

Segment ST / KN702 Subdivision B Date (mo / day / yr) 4-22-90

Time (24 hr) 7:00 Biologist David Lohr

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

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

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

Photographs:
Roll No. ST-13-4

Frames 29-35

BARNACLES

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

ST- One nest found in subdivision. Position gives an ecology map. Unable to determine if nest is presently active or not.

64- no comment

ECOLOGY MAP (1 OF 1)

RESOURCE CODES FOR
ENTIRE SEGMENT:

5T-1

6Y

BALD EAGLE
NEST

Nest
actually
located
here

KN=

Subdivision
A

Subdivision B

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

KN-702

ADEC Segment Length: 2637m

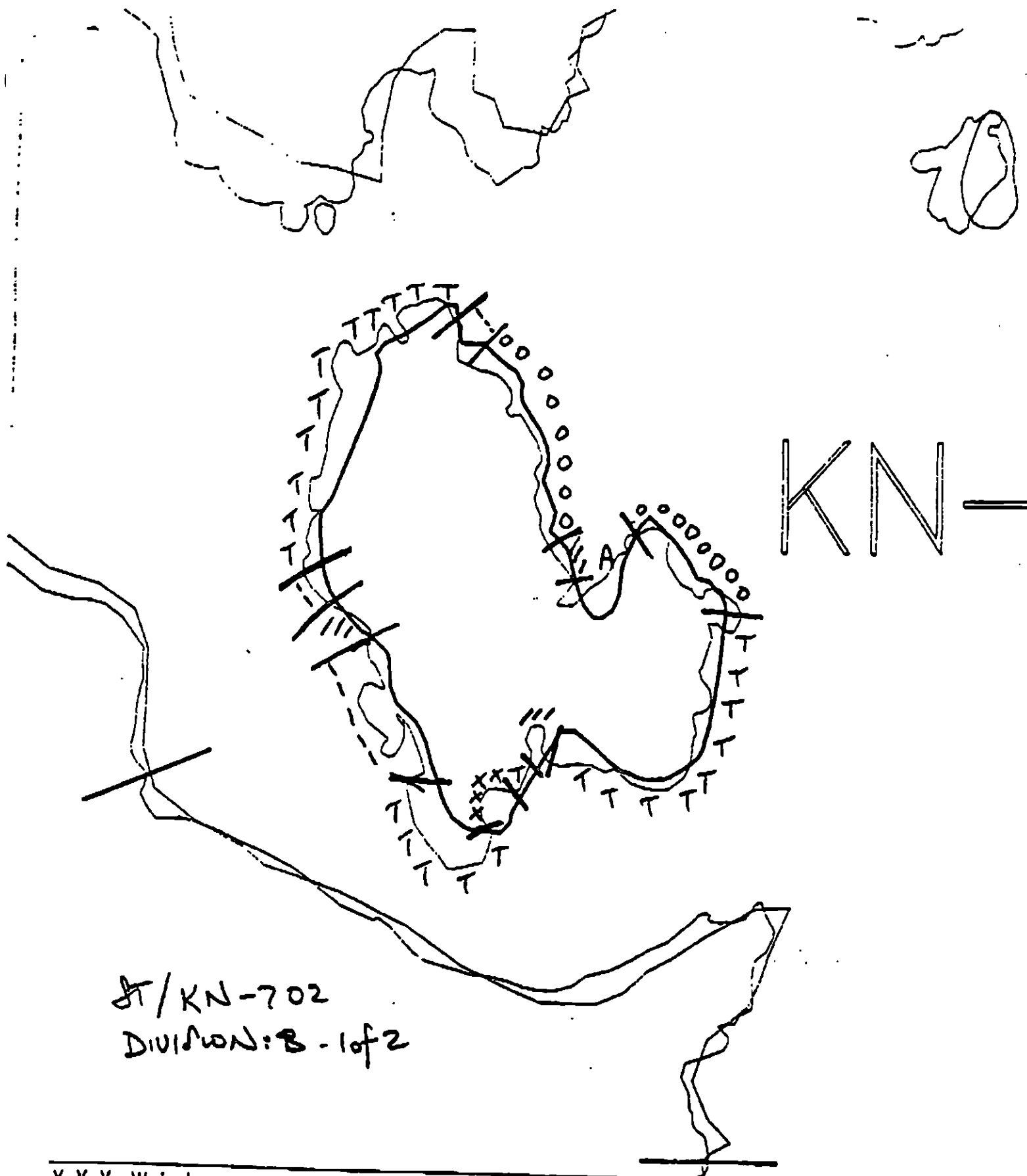


Map Key: PWS-480

Name: _____

Date: _____

Date Entered: _____



KN-

ST/KN-702
DIVISION: B - 1 of 2

XXX Wide
 /// Medium
 --- Narrow
 TTTT Very Light
 ADEC Segment Length: 2637m

KN-702

Map Key: PWS-480
 Name: _____
 Date: _____

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT KN-702 SUBDIVISION B (2 of 2)

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN
Bioremediation Manual Tilling	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T Bald Eagle Nest

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

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

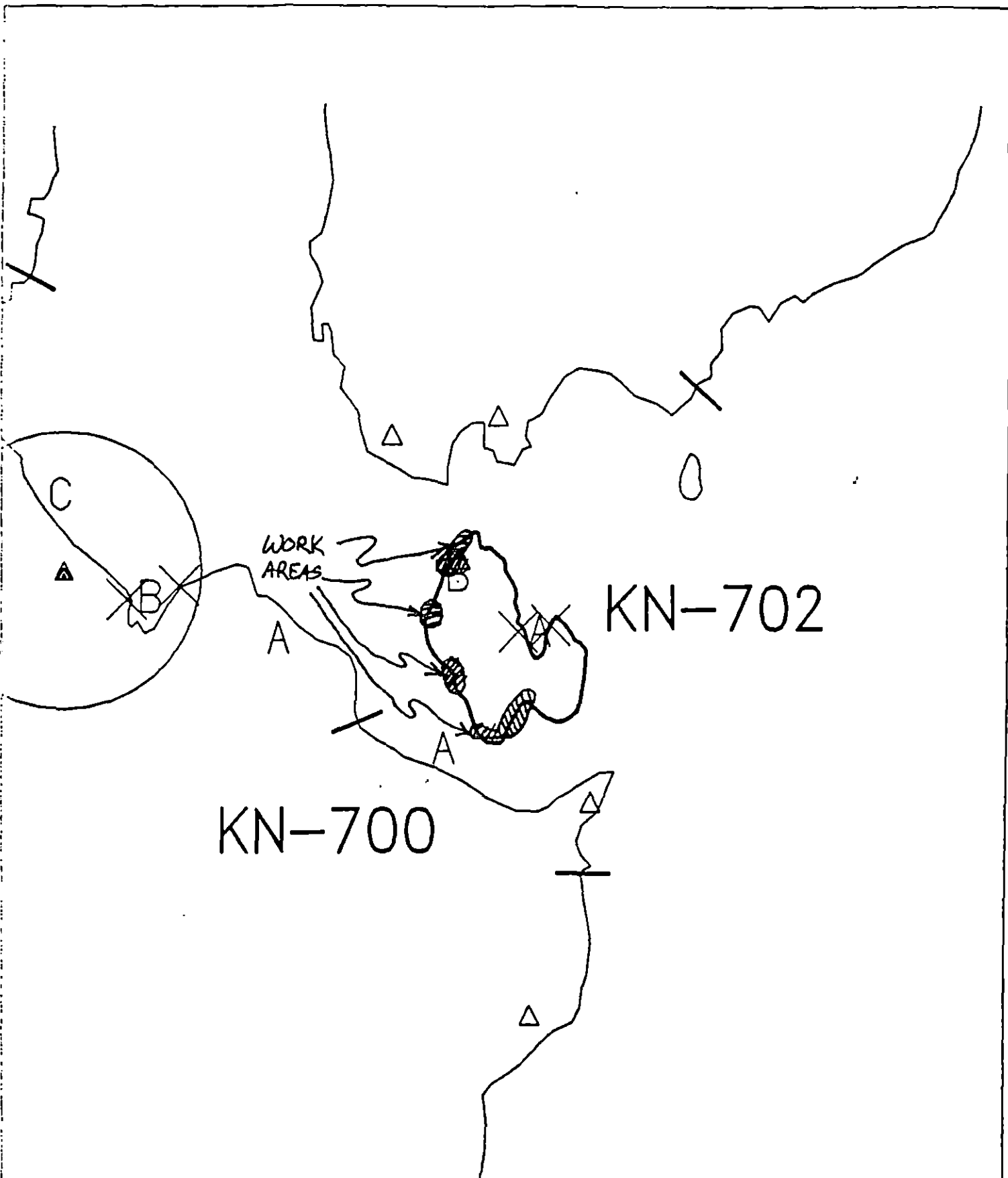
DATE 6-10-90

Prepared By:

J.P. Phillips

Date

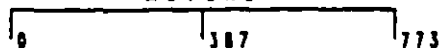
6/10/90



Exxon Company, USA
Map Key: PWS-KN-702
June 05, 1990



ECOLOGY MAP
SEGMENT KN-702
SUBDIVISION B (2 of 2)
METERS



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

1 inch = 1269 feet

SHORELINE EVALUATION

SEGMENT ST/ KN-703 SUBDIVISION A (1 OF 1) DATE 4/23/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

6V Recreation: Anchorages (6/1 to 9/15)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: J. David McWhorter

DATE: 5/11/90

OILING CATEGORIZATION:

Wide 213 m: Medium 219 m: Narrow 264 m: V.Light 180 m: No Oil 0 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual pickup of oiled debris/vegetation and mousse, 2) manual removal of tarmats where indicated, and 3) bioremediation of areas shown on attached sketch map. No specific working time constraints.

TAG COMMENTS: SPOT WASH AS REQUIRED PRIOR TO BIO IN THE AREA INDICATED ON THE SKETCH.

TAG APPROVAL DATE: 5/11/90

ADEC Art W. Wainwright

EXXON Andy E. Rasmussen

NOAA Joseph J. Talbot

USCG P.D. Rome

FOSC: [Signature]

DATE: 5-18-90

"NOTIFY CAC 24 HRS. IN ADVANCE of work"

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G Habitat Division prior to treatment for consultation and/or permit application.
AGENCY CONTACT PERSON: ADF&G John Morison 267-2324
- 1C Salmon fry nursery area (4/31 to 7/31)
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to July 31 unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Esther Hatchery release (4/15 to 6/15)
1E Main Bay Hatchery release (4/20 to 6/15)
1F Sawmill Bay Hatchery release (4/15 to 6/1)
1G Cannery Creek Hatchery release (4/21 to 6/1)
1H Remote release site
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G or PWS Aquaculture Association for confirmation and authorization.
AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I Gill net area (8/7 to 8/31)
1J Purse seine area (7/20 to 9/30)
1K Purse seine hook-off (7/20 to 9/30)
1L Set net sites (8/11 to 7/25)
Contact ADF&G for specific dates, locations and constraints. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G James Brady 424-3212
- 2M Herring spawning (4/1 to 6/15)
Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Evelyn Biggs 424-3235
- 30, 3Q Harbor seal and sea lion pupping (5/15 to 7/1)
Harbor seal and sea lion molting (8/15 to 9/15)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
ADF&G Tom 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)
6W Anchorages (5/1 to 9/15)
6X Forest Service cabins (5/1 to 9/15)
6Y Lodge (5/1 to 9/15)
Special use destination
- 7Z Subistence area: Salmon harvesting (5/1 to 9/30)
7-H Finfish harvesting
7I Deer harvesting (8/15 to 2/25)
7J Invertebrate harvesting
Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / KN-703 SUBDIVISION: A - 1 of 1 DATE 09/23/90

USCG

NAME David S. Thomas SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

ADEC

NAME Clara S. Crosby SIGNATURE Clara S. Crosby

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS 1) Removal of oiled Debris - 2) Manual Removal of MO, AP, 3) ^{Soot} Wash throughout segment - 4) Heavily oiled pom-pom is located on top of High angle Bedrock near base of uplands 5) Possible bio sites near pit #1 & 2 - subject to removal of gross contamination especially AP/O near stream as prep - 6) - See photo #10. Type A clean up - with wash to South

LAND MANAGER

NAME Peter Zellars SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

I Concur with the above recommendations. Cleanup crews are restricted from upland areas at all times, except for collecting the above mentioned oiled pom-pom, which has been placed in an easily accessed area of the segment (see O.G. map).

SHORELINE OILING SUMMARY

REVISION NO. 04.12

OG RICK GILLIE USCG DAVE THOMAS SEGMENT ST/ KN-703
 BIO DAVE LOHJE LAND REP PETER ZOLLAR (CA) SUBDIVISION A (1 OF 1)
 EXXON FRANK BOY ADEC CLARA CROSBY TIME 16:30 10/18/90
 TEAM NO. 13 TIDE LEVEL +4 to +1 DATE 04/23/90
 EST. SUBDIVISION LENGTH: 776 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 30 % B 40 % C 20 % P 10 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Lang 20 % Hang 60 % Vert 20 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 200 m M 190 m N 246 m VL 140 m NO 0 m

SURFACE OIL

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

PAVEMENT H F (S) 100 sq. m by 5 cmPATTIES / TARBALLS 0 BAGSNEAR SHORE SHEEN? NO BR RW (SL) TL

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

DID YOU COLLECT DEBRIS?

YES ☒ NO ☐TYPE T.#BAGS 0

Photographs:

Roll No. ST-13-5Frames 6-11

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	SHEEN (Y/N)	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OP	NO		UO	UC	SW	U	M	L	SW	U	M	L			
1	35					X	.		X							X				P-PS M
2	20					X	.		X							X				C-PS
							.													
							.													
							.													
							.													

COMMENTS

① GEOMORPHOLOGY: HIGH ANGLE BEDROCK / BOUNDED SHORELINE WITH THREE LOW ANGLE BEACH / COVES.

② OILING: - WIDE-MEDIUM OIL CATEGORY IN AREAS OF LOW ANGLE BEACH / COVES.
 - NO SUBSURFACE OILING

REVIEWED 7WDATE 4/27/90

OG KICK-ILLIE

SEGMENT ST/ KN-703

SUBDIVISION A-1 of 1

DATE 04/23/90

CHECKLIST

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

LEGEND

1 Δ
Pli - No Subsurface Oil

2 Δ
Pli - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

CT/P
Patchy Distribution

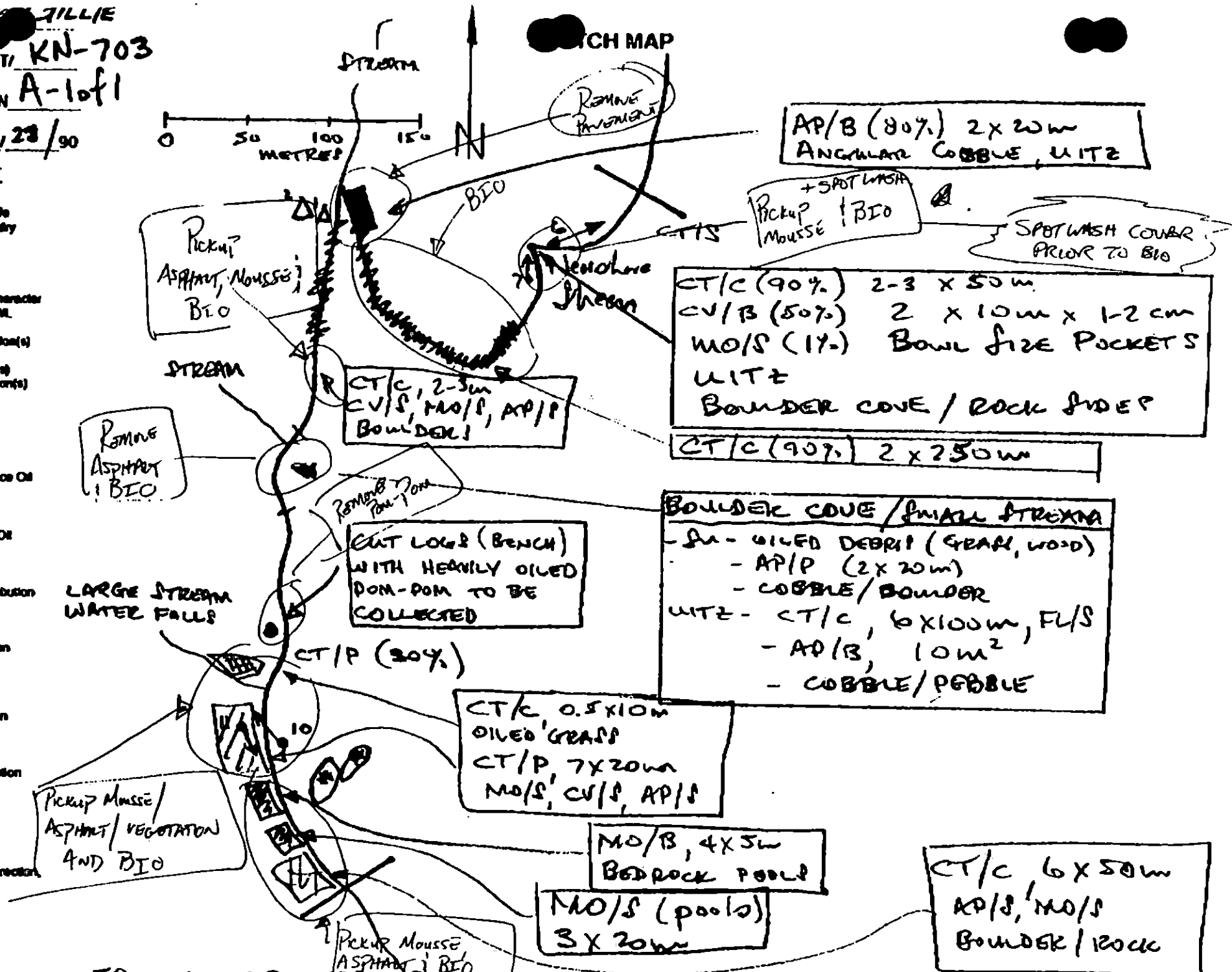
CT/S
Splashed Distribution

Oil Vegetation

1 $\rightarrow$

Photo location, direction, and number

Oil Character Length (m): AP 50 PO 0 CV 20 CT 0 ST 0 MS 20 PT 0 TB 0 FL 5 NO 181



SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/2

Segment ST / KN703 Subdivision A Date (mo / day / yr) 4-23-90

Time (24 hr) 16:30 Biologist David Cohen

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

(B) Overall % cover of biota (% of segment): Dense 45 Moderate 30 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 (⊙)

Photographs: Roll No. ST-13-5

Frames 6-11

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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:

GV - no comment

Shoreline Ecological Summary

2 of 2

Segment ST-KN703

Subdivision A

4-23-90

Biologist: David Lohse

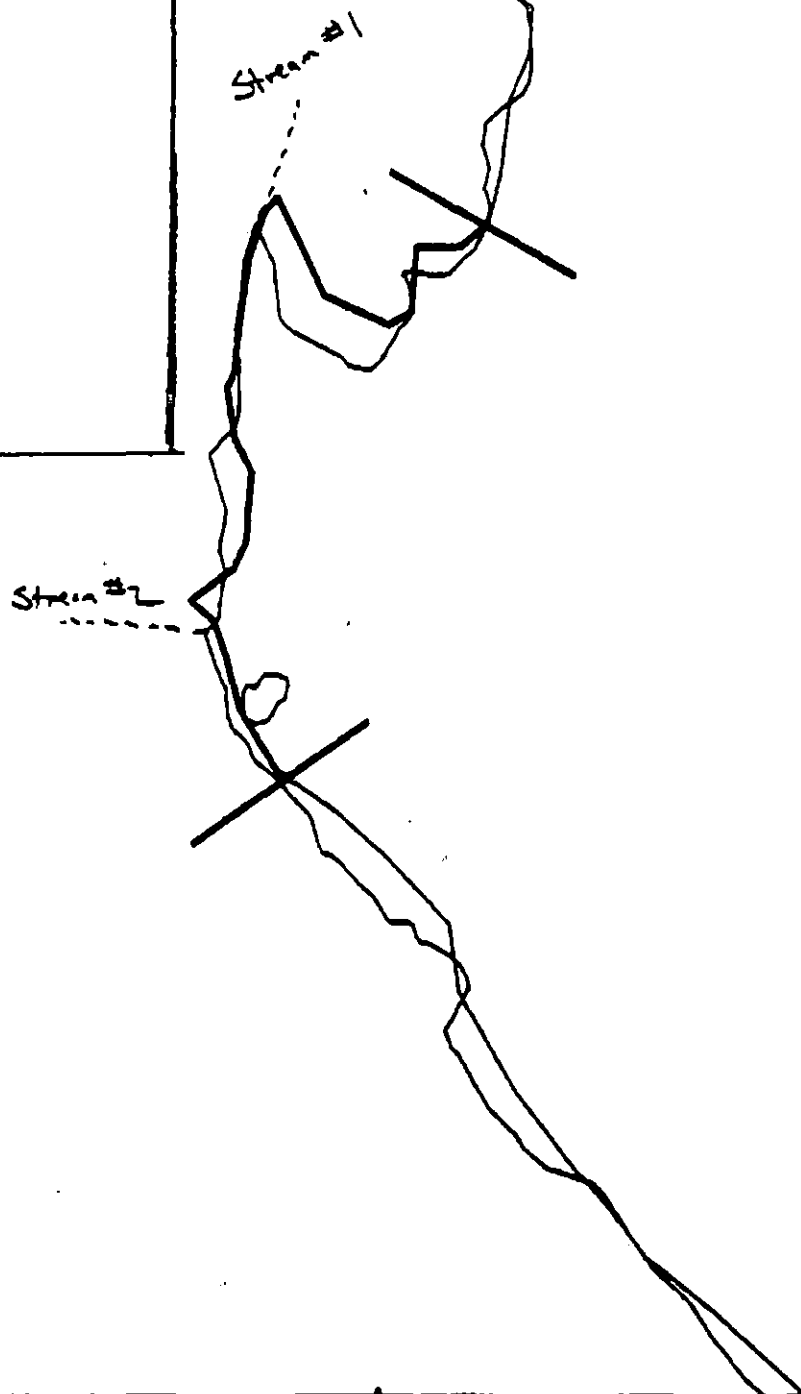
Wildlife observations/General Comments

1. Present in low intertidal: Enteromorpha, Ectocarpus, Scytosiphon, Cladophora, Nuxella
mid intertidal: Enteromorpha, Ulva, Scytosiphon, Nuxella, Cladophora,
Ectocarpus, unidentified red "branching" alga (Rhodomenia?)
high intertidal: Enteromorpha
2. Two streams found in this segment. No information was given on the presence or absence of anadromous streams in this segment.
3. Except for the portion of the segment south of and including the stream #2 (see ecology map), most of the mid and some of the high intertidal was occupied by ephemeral algae such as Enteromorpha, Ectocarpus, Ulva, Scytosiphon. Percent algal cover reached 90% on mid intertidal boulders and 50% on high intertidal boulders.
4. Algal cover in the low intertidal ~~reached~~ reached 80% in the portion of the segment south of and including the stream. The low intertidal portion of this area was not sampled due to tidal level.
5. Oil covered barnacles were found in mid and high intertidal throughout this segment. On mid intertidal bedrock mortality of these barnacles ranged from 40-70%, and on high intertidal bedrock from 50-75% (estimated at 2 sites for each tidal zone).
6. Barnacle mortality at one site in low intertidal was 80%.
7. Bare Fuus holdfasts ~~and~~ or stipes were quite common on mid intertidal bedrock and boulders.
8. Nuxella was present in large numbers in mid intertidal in area south of stream #2. Densities reached as high as ~75 per 0.25 sq m. This is a very rough estimate on my part.

ECOLOGY MAP (1 OF 1)

RESOURCE CODES FOR
ENTIRE SEGMENT:

6V



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

KN-703

ADEC Segment Length: 776m



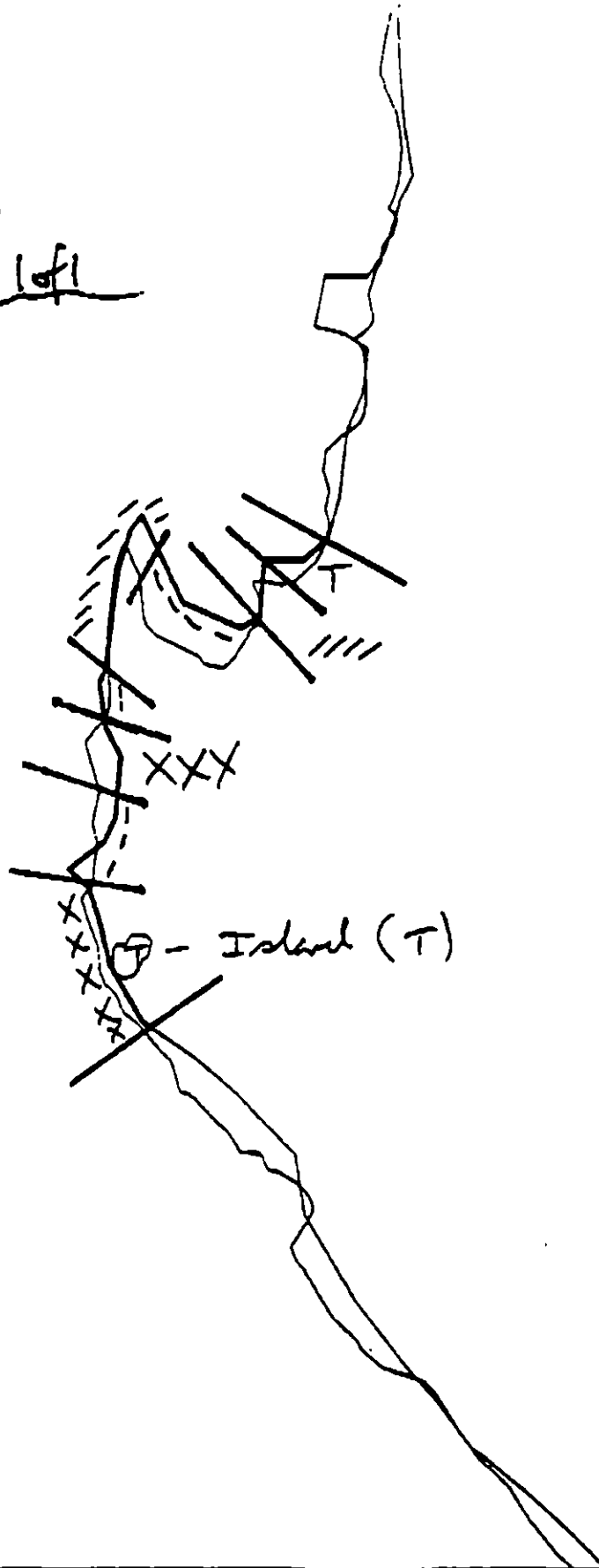
Map Key: PWS-481

Name: _____

Date: _____

Date Entered: _____

ST/KN-703
SUBWIDION A-1 of 1



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

KN-703

ADEC Segment Length: 776m



Map Key: PWS-481

Name: Rick Gilue

Date: 09/23/90

Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT KN-703 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN
Bioremediation	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

No ecological time constraints.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

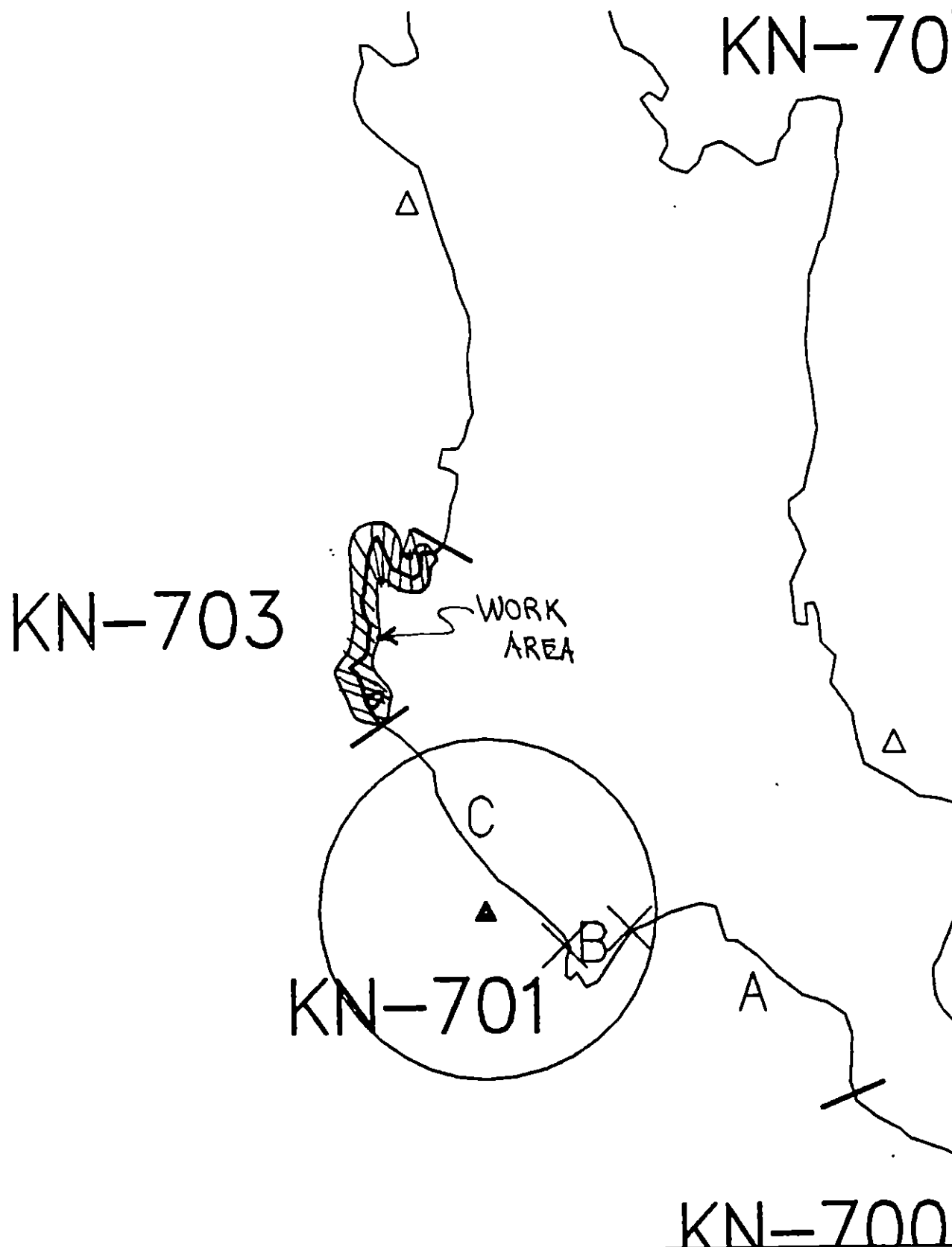
Date

6-10-90

Prepared by

Date

J. P. Phillips
6/10/90



Exxon Company, USA
M. K. P. C. KN-703



ECOLOGY MAP
SEGMENT KN-703
SUBDIVISION A (1 of 1)
METERS

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

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT KN-704 SUBDIVISION A (1 of 1)

WORK WINDOW

Manual Pickup
Tarmat Removal

OPEN

Bioremediation
Spot Washing

OPEN

ARCHAEOLOGICAL INSPECTION/CONSULTATION REQUIRED.

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

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

ADF&G cataloged anadromous streams (226-30-16844 and 226-30-16850) are in Subdivision A. Streams are more than 100m from bioremediation and spot washing treatment areas. No constraint to manual pickup and tarmat removal.

5T Bald Eagle Nest

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

OTHER ECOLOGICAL CONSIDERATIONS

No disturbance to stream bed or banks. No flushing of pollutants or sediments into stream drainage. Avoid any unnecessary disturbance or damage to uncollected biota and substrate.

SEE ANADROMOUS FISH STREAM EVALUATION ADDENDA
(STREAM NOS. 226-30-16844 & 226-30-16850)
FOR ADDITIONAL CONSTRAINT INFORMATION

FOSC

Date

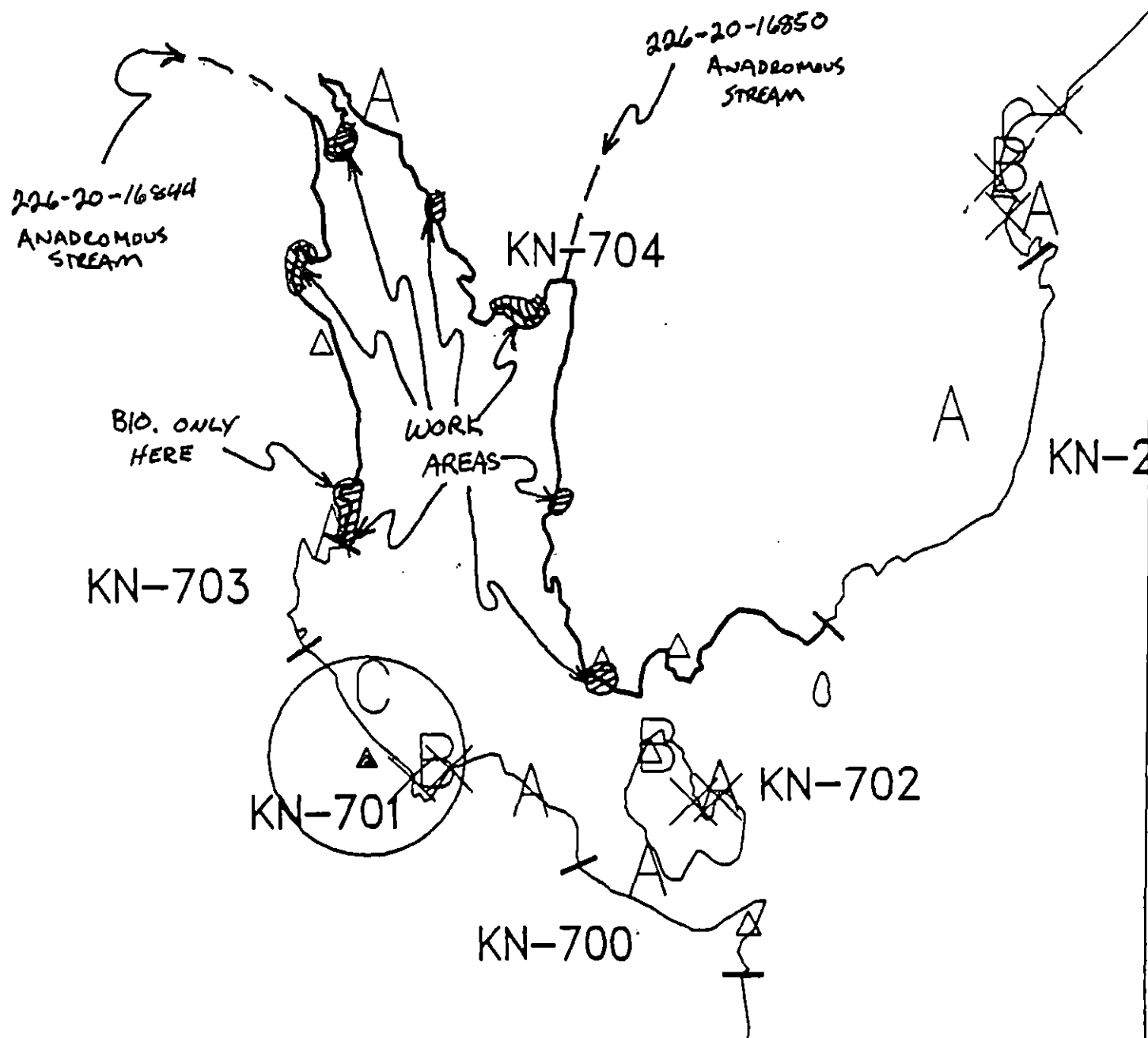
6-12-90

Prepared by

Date

6/11/90

IN-204
KN-14



Exxon Company, USA
Map Key: PMS-KN-704
June 05, 1990



ECOLOGY MAP
SEGMENT KN-704
SUBDIVISION A (1 of 1):
METERS



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

1 inch = 100 feet

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ KN-704 STREAM NO: 226-30-16844 DATE 4/27/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Subject stream and 226-30-16850

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
- 1B Salmon stream mouth - spawning (7/10 to 8/31)
- 5T-3 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
- 6Y Recreation: Special use destination
- 6V Recreation: Anchorages (6/1 to 9/15)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate. Subject stream is located within Subdivision A (1 of 1).

SHPO SIGNATURE: *J. David McMillan* DATE: 5/9/90

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: 5/9/90.

ADEC Art Wilson
EXXON Andy Ten
NOAA Burt Wainwright
USCG D.D. Rome

FOSC: 7 L DATE: 5-18-90

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G Habitat Division prior to treatment for consultation and/or permit application.
AGENCY CONTACT PERSON: ADF&G John Morison 267-2324
- 1C Salmon fry nursery area (4/31 to 7/31)
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to July 31 unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Esther Hatchery release (4/15 to 6/15)
1E Main Bay Hatchery release (4/20 to 6/15)
1F Sawmill Bay Hatchery release (4/15 to 6/1)
1G Cannery Creek Hatchery release (4/21 to 6/1)
1H Remote release site
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G or PWS Aquaculture Association for confirmation and authorization.
AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I Gill net area (6/7 to 8/31)
1J Purse seine area (7/20 to 9/30)
1K Purse seine hook-off (7/20 to 9/30)
1L Set net sites (8/11 to 7/25)
Contact ADF&G for specific dates, locations and constraints. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G James Brady 424-3212
- 2M Herring spawning (4/1 to 6/15)
Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Evelyn Biggs 424-3235
- 3 Harbor seal and sea lion pupping (5/15 to 7/1)
3C 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
- 5F All Bald Eagle nests (3/1 to 8/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (8/1 to 9/15)
6V Anchorages (8/1 to 9/15)
6W Forest Service cabins (8/1 to 9/15)
6X Lodge (8/1 to 9/15)
6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
7HH Finfish harvesting
7I Deer harvesting (8/15 to 2/28)
7J Invertebrate harvesting
Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ KN-704 SUBDIVISION: ASC# 226-30-16R44 DATE 27 APR 91

USCG

NAME Kerwin L. Dreher SIGNATURE GWO K. L. Dreher

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

~~ADEC~~ → ADCEG

NAME Aimee Weseman SIGNATURE Aimee Weseman

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

~~LAND MANAGER~~ NAME

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ON-SCENE OILING SUMMARY (ANAO)

REVISED

OG CAL LARSON USCG DEKEL, CME SEGMENT STI LN 704
 BIO KEN CATCHLOW LAND REP STREAM 1624
 EXXON AL SNOW ADP 26 KAYAK ALPINE WESTMAN TIME 08:30 to 09:35
 TEAM NO. 14 TIDE LEVEL -2 FT DATE 4/27/90
 EST. SUBDIVISION LENGTH: 45 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 0 % B 10 % C 20 % P 20 % G 30 % S 30 % M 0 % V 0
 SLOPE: Long 70 % Hang 30 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ H
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 25 m NO 44

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	A	B	C	D	1	2	3	4	M	U	S	U
ASPHALT												
PAVEMENT												
POOLED												
COVER												
COAT												
STAIN												
MOUSSE												
PATTIES												
TARBALLS												
FILM												
NO OIL												

PAVEMENT H F S 0 sq. m by 0

PATTIES/TARBALLS 1

NEAR SHORE SHEEN? ☒ NO BR RW SL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

Did You Col
DEBRIS
☐ YES ☒ NO

TYPE 0

BAGS 0

Photographs:

Roll No. 9

Frames 15-18

* TARBALLS REMOVED

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	S E D I M E N T	V ↓	SURFAC SUBSURF. SEDIMEN
		CP	CM	CL	CF	NO		NO	NO	1	2	3	4	M	U	S	U				

COMMENTS NO PITS DUG DUE TO LIGHT OILING.

REVIEWED IN DATE 4-24-90

SEGMENT 2A 70A
 STRAIN 16844

SKETCH MAP

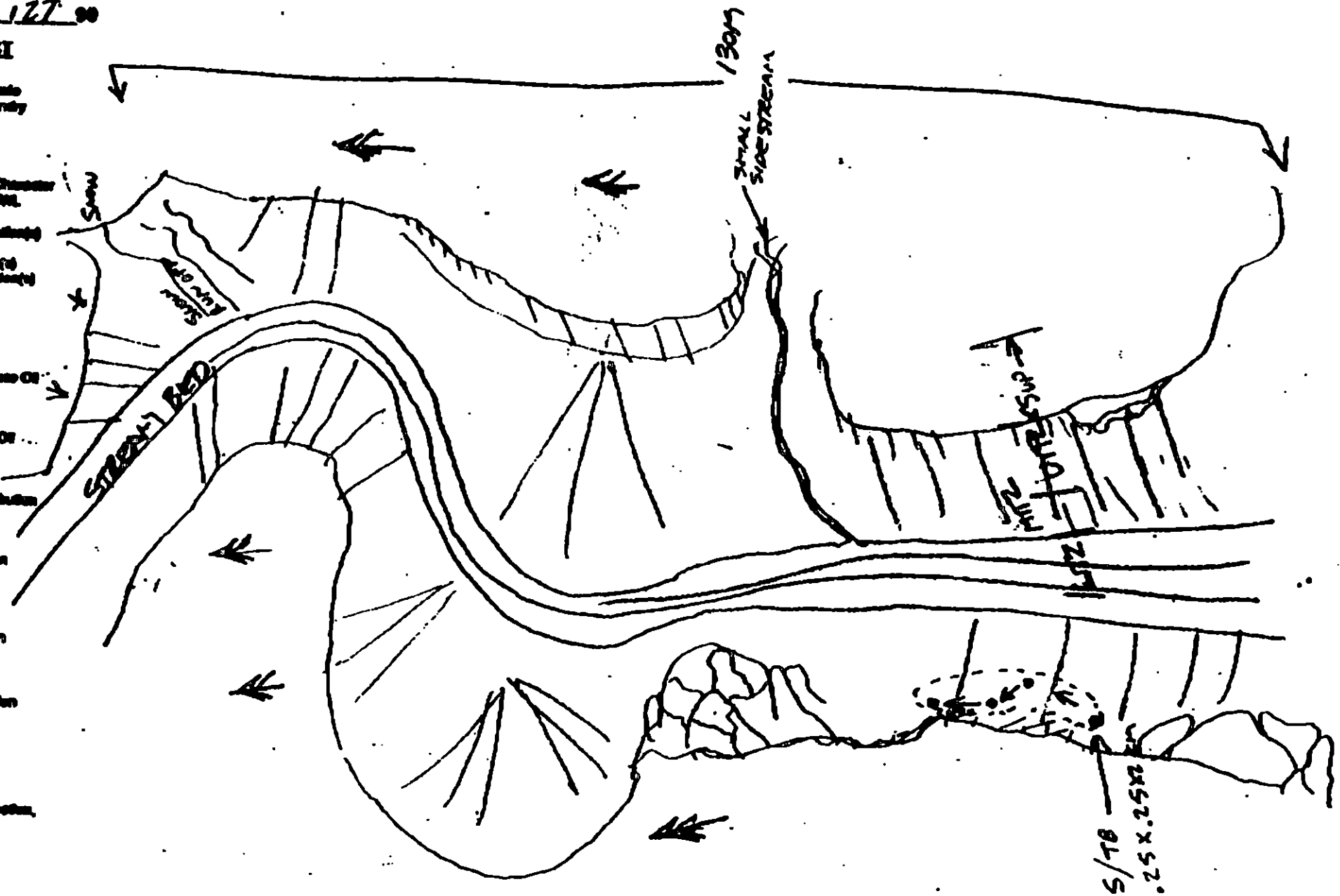
DATE 1 127 90

CHECKLIST

- ☐ M Area
- ☐ Approx. Size
- ☐ Top/Sub Study
- ☐ Ch. Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HORIZ. LVL
- ☐ Silt
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ P/L Location(s)
- ☐ Photo Location(s)

LEGEND

- 1 Δ
- PH - No Substrate Ch
- 2 Δ
- PH - Substrate Ch
- CT/C
- Continuous Distribution
- CT/B
- Broken Distribution
- CT/P
- Patchy Distribution
- CT/S
- Spotted Distribution
- eee
- Old Vegetation
- 1 <-
- Photo location, direction, and number



Character Length (m): AP _____ PO _____ CV _____ OT _____ ST _____ MB _____ PT _____ TB .25 FL _____ NO 44.75

4/
Seg ID: KN-704 Subdiv: 226-30-16844

Survey Date: 4/27/90

Comments by: Ken Critchlow

This stream site had a few tarballs in the S7
along a short segment of stream on the left
side.

There is no clear need to remove these tar
since they aren't readily observed and are
unlikely to contaminate the intertidal or stream.

KR Critchlow

7/5

ADFC MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: ☒ **AS** ☐ **DS** ☐ **TS** ☐ **AVS** ☐ **SCM** ☐ **MMB** ☐ **PTA**

2 REGION: ☒ **PR** ☐ **NP** ☐ **CI** ☐ **K** ☐ **AP**

METHOD: Aerial ☒ **Ground** ☐ **Boat**

3 DATE: 4-27-90 15 HIGH TIDE TIMES: 1 21 TEAM RECORDER: Aimee Weser

4 START TIME: 0830 16 HIGH TIDE HTS: 1 22 OBSERVERS: Rick Gustin

5 STOP TIME: 0845 17 LOW TIDE TIMES: 1 23 AGENCY: ADFG

6 SECHIT #1: KN-704 18 LOW TIDE HTS: 1 24 PHOTOS TAKEN: ☐ **Y** ☒ **N**

7 STATION #1: _____ 19 TIDE HT AT SURVEY: _____ Roll #: _____ Frame: _____

8 K-UNIT: _____ ☐ **Ed** ☐ **Stack** ☐ **Flood** ☐ **Stack** 25 VIDEO TAKEN: ☐ **Y** ☒ **N** TAPES: 90-ASW

9 STAT AREA: _____ 20 USGS QUAD: S-82 Starts: _____ Ends: _____

10 LAT: _____ 11 LONG: _____ 26 SAMPLES TAKEN: ☐ **Y** ☒ **N** SEBAC

12 SOURCE: ☒ **Map** ☐ **Loran** 011 _____

13 LOCATION: Knight I - north Marsh Bay Sediment _____

14 DESCRIPTION: _____ Biological _____

Water _____

EXTENT OF OIL

	SHORELINE				STREAM				
	L	V	H	S	L	V	H	S	
27 SURFACE COVERAGE									
28 SURFACE THICKNESS	<u>0</u>								
29 PENETRATION									
30 OVERALL OIL IMPACT:	☐ N	☒ VS	☐ L	☐ R	☐ H				
31 OIL TYPE:	☐ Pooled	☐ Masses	☒ Tx	☐ Asphalt	☐ Sludge	☐ Shale			
32 OILED BEIRIST	☐ Y	☒ N							
33 SHORELINE TYPE:	☐ Hardland	☐ Low-lying Rocks	☐ Beach	☒ Grass					
		☐ Lagoon		☐ Marsh					
34 WAVE EXPOSURE:	☐ High	☐ Medium	☐ Low						
35 SUBSTRATE TYPE:	☐ Bedrock	<u>5</u>	☐ Gravel	<u>1</u>	☐ Cobble	<u>10</u>			
	☐ Gravel	<u>24</u>	☐ Sand	<u>10</u>	☐ Red/white				

36 CATALOGED ANAD. FISH SPECIES? ☒ **Y** ☐ **N**

37 CATALOG #1: 226-30-16844

38 STREAM NAME: _____

39 OIL IN STREAM BED? ☐ **Y** ☒ **N**

40 OIL ON STREAM BANKS? ☐ **Y** ☒ **N**

41 OIL ON BEACH ADJACENT TO MOUTH? ☐ **Y** ☒ **N**
(within 30 meters)

42 OIL WITHIN 1 MILE OF STREAM? ☐ **Y** ☒ **N**

Where: _____

43 ANADROMOUS FISH PRESENT? ☐ **Y** ☒ **N**

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

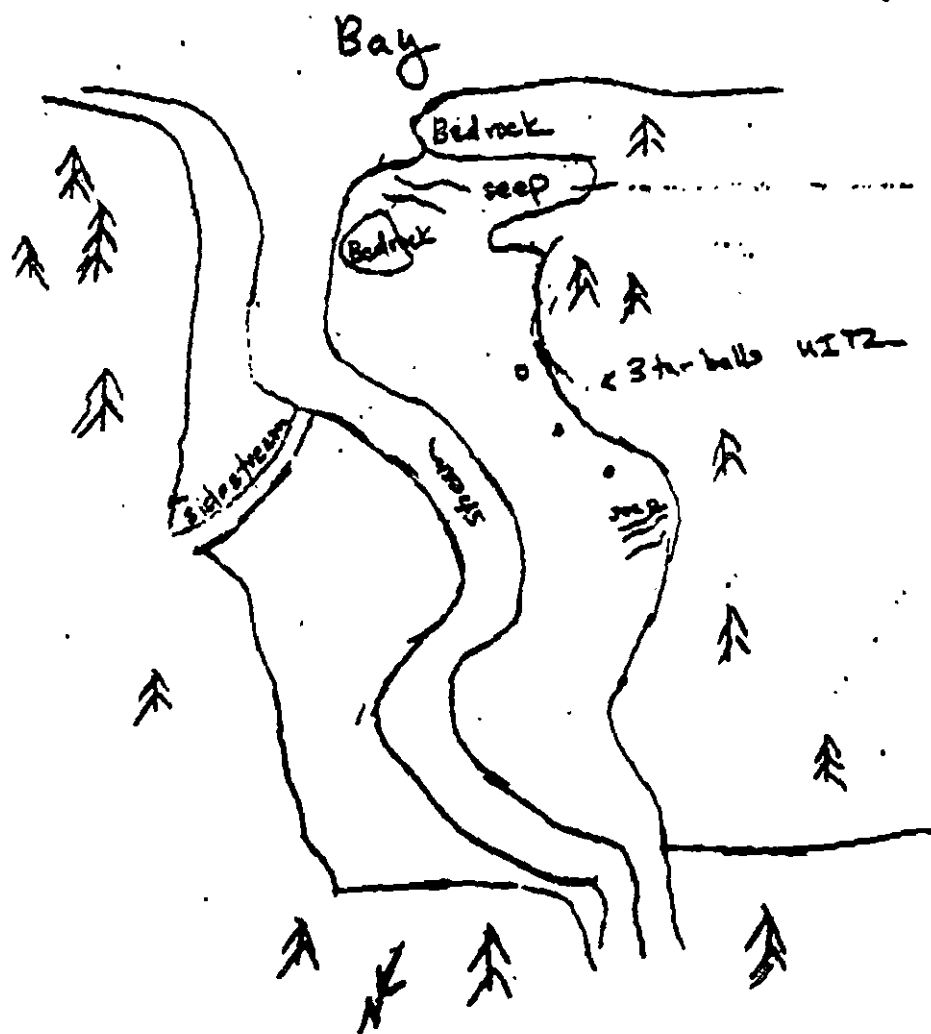
COMMENTS: 3 tar balls found in WITZ on west side of stream

FRAME(S)

DESCRIPTION

no pits dug

48 OIL DISTRIBUTION DIAGRAM



No treatment recommended

SHORELINE EVALUATION

SEGMENT ST/ KN-705 SUBDIVISION A (1 OF 1) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Active bald eagle nests (5T) - 3/1 to 6/1; Recreation area -
anchorages (6V) - 6/1 to 9/15. Limit air traffic to essential
minimum.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Restrict disturbance of moder-
ate fucus and barnacles in the M and UITZ.

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

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 74 m: No Oil 8134 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/12/90
ADEC JOHN BAUER
EXXON ANDY GEL
NOAA Bruce Wesscott
USCG M. J. HALL

FOSC: DATE: 4-26-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / KV-70.5 SUBDIVISION: A DATE 4-1-90

USCG

NAME SCOTT RAMSFORD SIGNATURE Scott Ramsford

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADEC

NAME Wesley Ghormley SIGNATURE Wesley Ghormley

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

LAND MANAGER

NAME LORA JOHNSON (CMC) SIGNATURE Lora L. Johnson

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

THIS IS USFS LAND. THERE IS STILL SNOW IN
THE UPLANDS IN THE BEACH AREAS.

SHORELINE OILING SUMMARY

REVISION NO. 02/28/90

OG G. MACDONALD USCG S. RANFORD SEGMENT ST/ KL-705
M. SCOTT LAND REP L. JOHNSON SUBDIVISION A
J. BUTLER ADEC W. GORMLEY TIME 09:00 to 11:20
 TEAM NO.: 3 TIDE LEVEL: +7 to +1 DATE 4/1 / 90
 EST. SUBDIVISION LENGTH: 8565 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 35 % B 30 % C 20 % P 10 % G 5 % S - % M - % V - %
 SLOPE: Long 30 % Hang 50 % Vert 20 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W - m M - m N - m VL 50 m NO 8515 m

SURFACE OIL

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

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☒ YES ☐ NO

TYPE TRASH

#BAGS 1

Photographs:

Roll No. ST-3-2Frames -

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	BU	U	M	U		
1	20					X	-									X			N	PG
2	25					X	-								X				N	CPG
3	30					X	-								X				N	CPG
4	20					X	-									X			N	CPG
5	30					X	-									X			N	CPG
6	25					X	-										X		N	P.S.

COMMENTS steep rocky shore w/ boulder jumble & some
cob-peb-granule beaches; Surface oil only as OT/S
and CV/P in boulder interstices. High wave exposure.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/28/90

Segment ST/ 2.05 Subdivision A Date (mo / day / yr) 7 / 1 / 90Time (24 hr) 9-11:20 Biologist MAScot

(A) Substrate type and % of segments:

(1) Bedrock 35 (2) Boulder 30 (3) Cobble 20 (4) Pebble 15 (5) Sand (6) Silt (B) Overall % cover of biota (% of segment): Dense Moderate 4 Low 1

(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. 1Frames 8

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:

4-sea otter

14 seal

3-bald eagle (1 juvenile)

Ecological Considerations:

bald eagle nest

3-deer

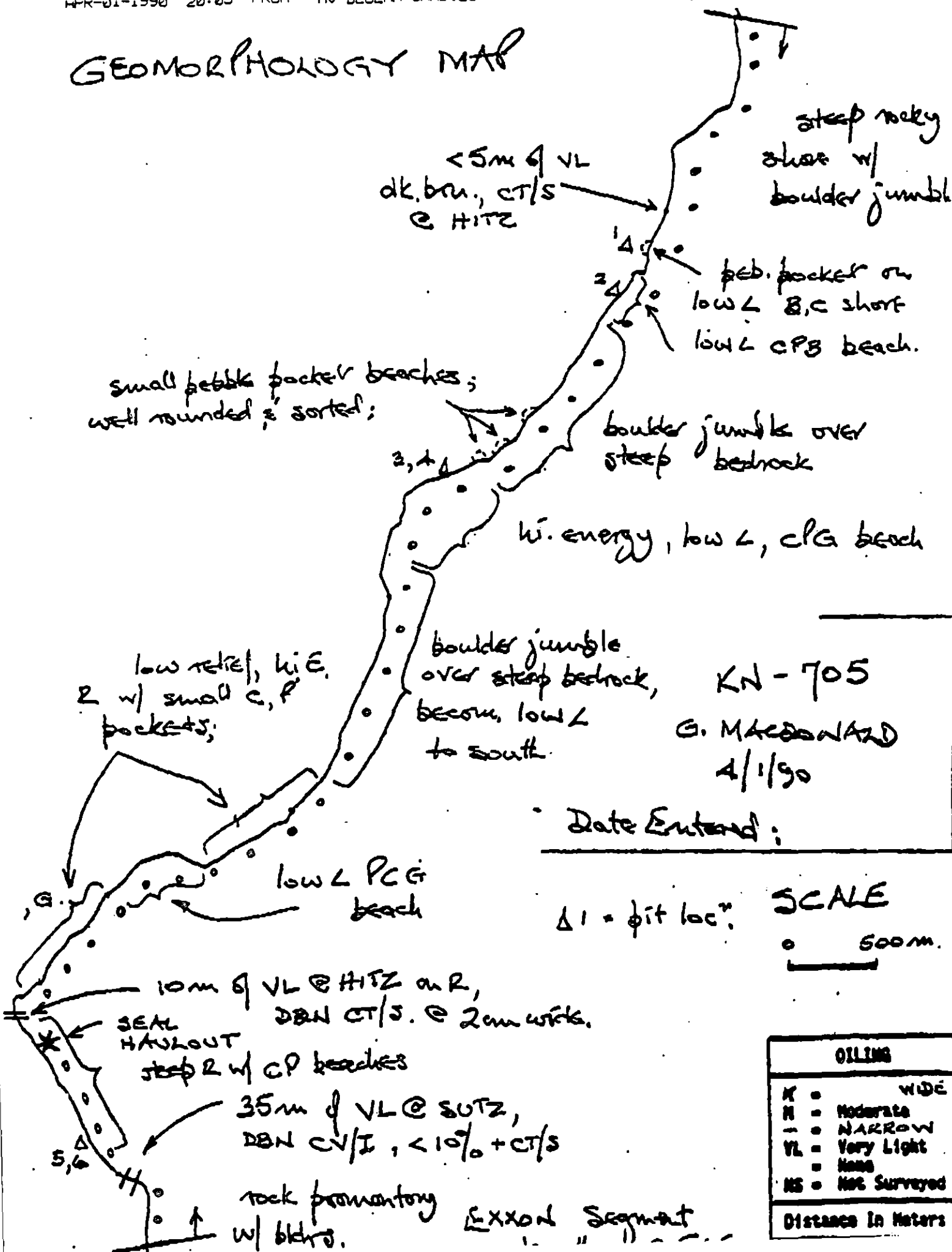
2 harlequin ducks

no unidentified ducks

no gulls

(Observations limited - most from boat at high tide; some from bird band sent in 377)

GEOMORPHOLOGY MAP



KN - 705

G. MACDONALD

4/1/90

Date Entered:

Δ1 = pit loc.

SCALE

500m.

OILING	
K	WIDE
M	Moderate
N	NARROW
VL	Very Light
	None
NS	Not Surveyed
Distances in Meters	

COMPUTER OIL MAP
- ADEC base.

<5m of VL

KN-705

G. MACDONALD

4/1/90

Date Entered:

SCALE

500m.

10m of VL

35m of VL

OILING	
K	WIDE
M	Moderate
-	NARROW
VL	Very Light
.	None
NS	Not Surveyed
Distance In Meters	

Exxon Segment
length = 8.565m

ADEC Survey 1980 Survey

KN-705

10 m of very light oil

35 m of very light oil

XXX Wide

/// Medium

---- Narrow

TTTT Very Light

0000 No Oil

KN-705A

ADEC Segment Length: 8564m

0 300 600 900
METERS

Map Key: PWS-492a

Name: _____

Date: _____

Data Entered: _____

KN-705

KN-701

KN-700

5 m of ^{Very} light oil

705

XXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

KN-705A

ADEC Segment Length: 8564m

0 300 600 900

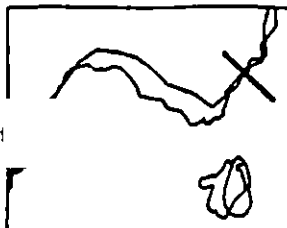
METERS

Map Key: PWS-492c

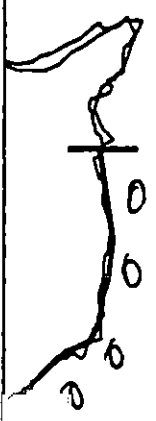
Name: _____

Date: _____

Data Entered: _____



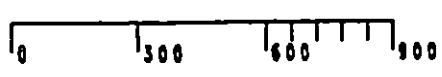
KN-702



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

KN-705A

ADEC Segment Length: 8564m



Map Key: PWS-492d

Name: _____

Date: _____

Note Entered:

SHORELINE EVALUATION

SEGMENT ST/ KN-706 SUBDIVISION A (1 OF 1) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

6V Recreation: Anchorages (6/1 to 9/15)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Charles A. Moore

DATE: 4/20/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 1084 m: No Oil 1084 m

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

X No Treatment Recommended

 Treatment Recommended

 Manual Pickup

 Bioremediation

 Tarmat: Breakup

 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: 4/20/90

ADEC ART WELAND

EXXON ANDY LESTER

NOAA BILL WESCOTT

USCG KENNETH KEENE

FOSC:

DATE: 4-26-90

PWS ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
- 1C Salmon fry nursery area (4/31 to 7/31)
 1D Esther Hatchery release (4/15 to 6/1)
 1E Main Bay Hatchery release (4/20 to 5/10)
 1F Sawmill Bay Hatchery release (4/20 to 5/10)
 1G Cannery Creek Hatchery release (4/21 to 6/1)
 1H Remote release site
 1I Gill net area (6/7 to 8/31)
 1J Purse seine area (7/21 to 9/30)
 1K Purse seine hook-off (7/20 to 9/30)
 1L Set net sites (6/11 to 7/25)
 For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/1 to 6/15)
 Restrict boat traffic to essential minimum. Avoid damage to unholed intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
- 3N, 3P Harbor seal and sea lion pupping (5/15 to 7/1)
 3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 5R Seabird colony (5/1 to 9/1)
 Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic.
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
- 6U Recreation: Tent sites (6/1 to 9/15)
 6V Anchorages (6/1 to 9/15)
 6W Forest Service cabins (6/1 to 9/15)
 6X Lodge (6/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
 7HH Finfish harvesting
 7II Deer harvesting (8/15 to 2/28)
 7JJ Invertebrate harvesting
 For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

MENT ST/ KN-706 SUBDIVISION: A DATE 4/7/90

USCG

NAME SCOTT RAINFORD SIGNATURE Scott Rainford MST1

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADEC

NAME Wesley Ghormley SIGNATURE Wesley Ghormley

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY

REVISION NO. 03/27/88

OG G. MACDONALD USCG S. RAINSFORD SEGMENT ST/ K4-706
 IO MA SCOTT LAND REP NFS SUBDIVISION A (1 of 1)
 XXON J. BUTLER ADEC W. GORMLEY TIME 07:18 to 08:55
 TEAM NO.: 3 TIDE LEVEL: +2 to +4 DATE 4/7/90
 EST. SUBDIVISION LENGTH: 2204 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☐ Foot ☐ Boat ☐ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 15 % B 25 % C 30 % P 15 % G 10 % S 5 % M 0 % V 0 %
 SLOPE: Long % Hang % Vert % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 1180 m NO 1024 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	10	15	20	25	30	35	40	45	50	55	60	65	70
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT				X		X					X		
STAIN				X			X				X		
MOUSSE													
PATTIES													
TARBALLS													
FILM				X			X				X		
NO OIL										X		X	X

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. ST-3-2Frames 1

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	VO	30	35	40	45	50	55	60	65	70		
1	25					X	.									X			N	GPS
2	30					X	.										X		N	PGS
3	20					X	.									X			N	PSG
4	30					X	.								X				N	PS
5	30					X	.								X				N	CS
6	25					X	.								X				N	PCG

COMMENTS: Steep rocky shore w/ abundant B & some c beaches. Surface oil only, as ST, CT/S @ up. H/TZ — [typically very dry and powdery when rubbed.]

OG G. Macdonald

SEGMENT KN-706

SUBDIVISION A

DATE 4/7/90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Beg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. 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

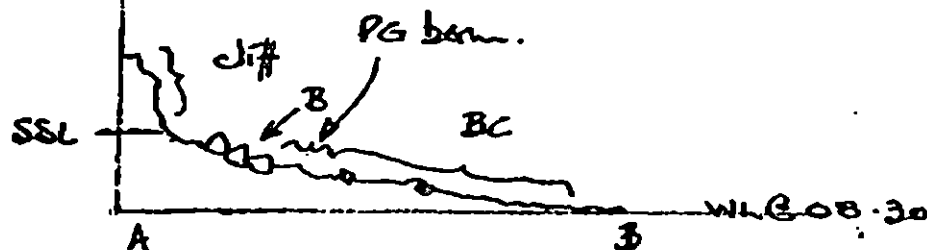
$\boxed{CT/S}$
Splashed Distribution

Oil Vegetation

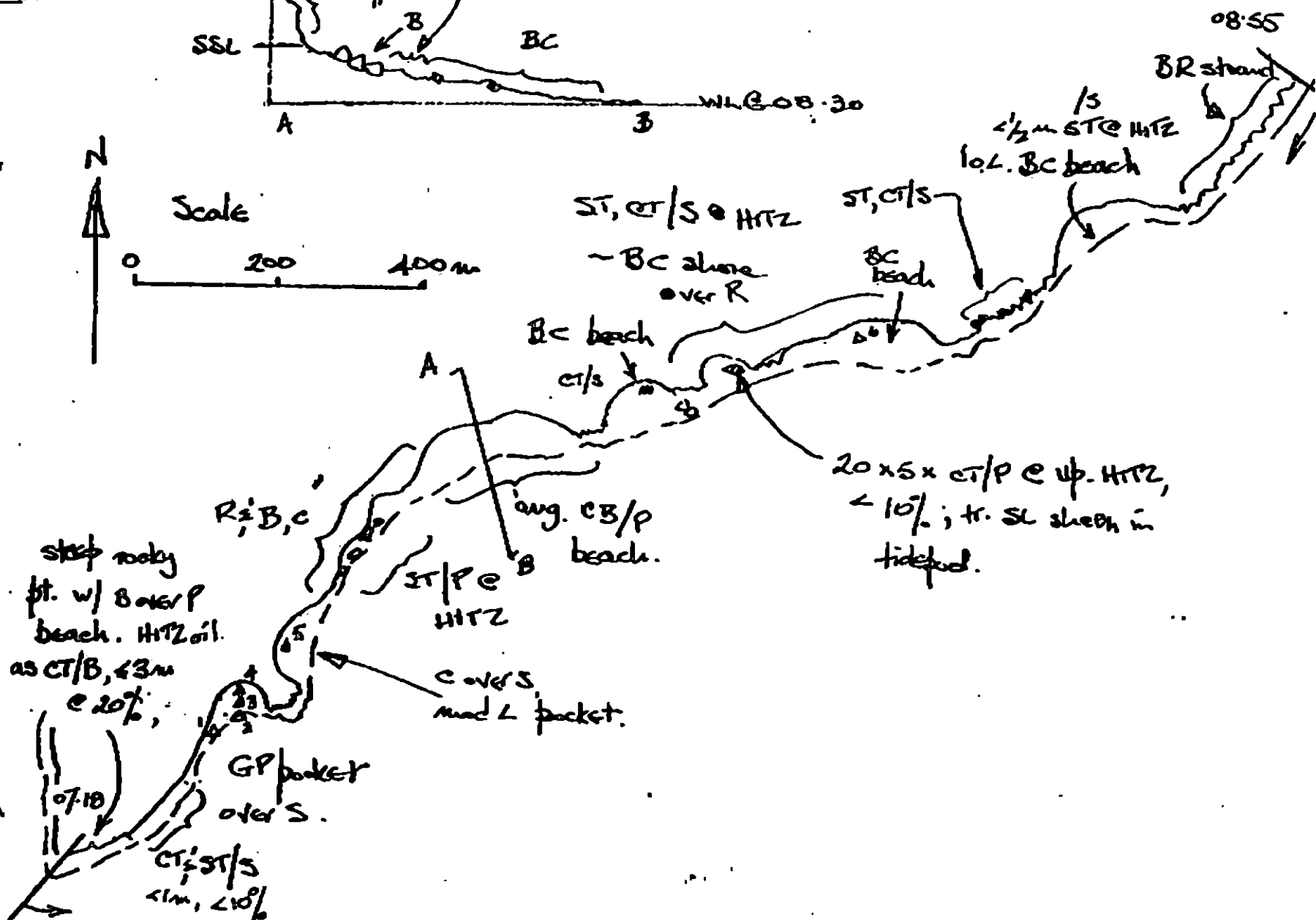
1 $\Rightarrow$
Photo location, direction, and number

TCH MAP

PROFILE



Scale



Oil Character Length (m): AP $\bigcirc$ PO $\bigcirc$ CV $\bigcirc$ CT 900 ST 900 MS $\bigcirc$ PT $\bigcirc$ TB $\bigcirc$ FL 50 NO 1025

REV 3004-007000

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/28/90

Segment ST / 706 Subdivision A Date (mo / day / yr) 7/7/90# (24 hr) 720-850 Biologist MA Seery

(A) Substrate type and % of segments:

(1) Bedrock 15 (2) Boulder 25 (3) Cobble 30 (4) Pebble 25 (5) Sand 5 (6) Silt —(B) Overall % cover of biota (% of segment): Dense — Moderate 20 Low 80

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

Photographs:

Roll No. —Frames —

BARNACLES

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

MYTILUS

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

GASTROPODS

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

FUCUS

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

Wildlife Observations/ General Comments:

1 eagle
crows

3 sea otter

1 river otter

- filamentous green algae mat/dense in M + HTB

Ecological Considerations:

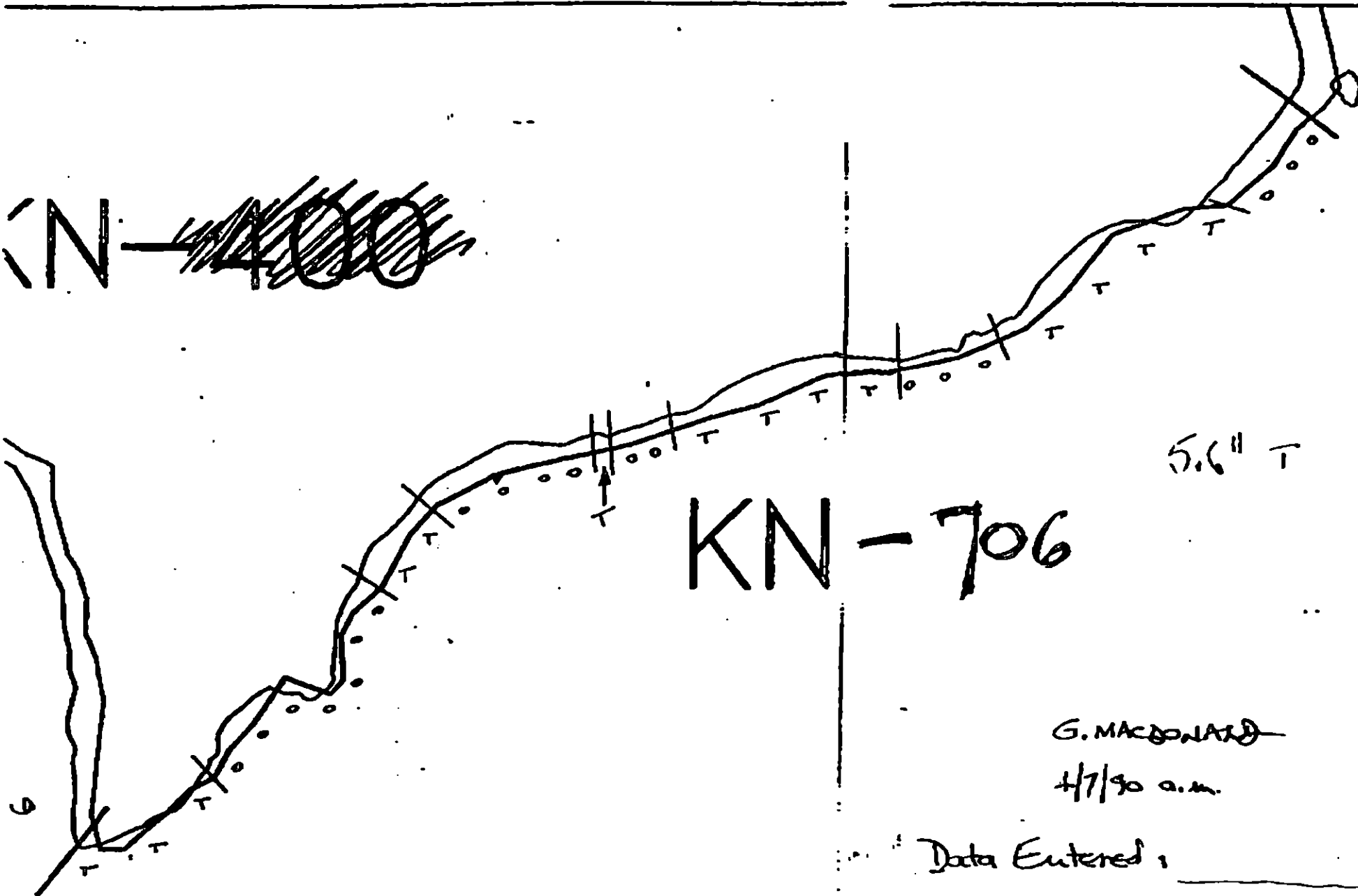
APR-06-1998 15:38 FROM EDOON

TO (12) BELLARONDIES P.03

APR-06-1998 15:35 FROM EDOON

TO (12)

KN-400



KN-706

5.6" T

G. MACDONALD

4/7/90 a.m.

Data Entered: _____

SHORELINE EVALUATION

SEGMENT ST/ KN-5000 SUBDIVISION A (1 OF 1) DATE 4/19/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ST-2 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
6Y Recreation: Special use destination
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: J. David McMillan DATE: 5/1/90

OILING CATEGORIZATION:

Wide 0 m: Medium 192 m: Narrow 61 m: V.Light 180 m: No Oil 585 m
Subsurface Oil Observed: Yes X No Maximum Depth 10 cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes bioremediation of areas indicated on attached sketch map. Work should be conducted after 6/1 with approval of USFWS due to eagle nest constraint. Do not treat within 50 m of Exxon set aside sites (Dames and Moore sign and stream at back of cove). Both are marked with red flagging in backshore shrubs.

TAG COMMENTS:

TAG APPROVAL DATE: 4/28/90
ADEC ART WEINER
EXXON AMY ZER
NOAA GARY RITZER
USCG KENNETH KATZ

FOSC: W L DATE: 5-9-90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
- 1C Salmon fry nursery area (4/31 to 7/31)
 1D Esther Hatchery release (4/15 to 6/1)
 1E Main Bay Hatchery release (4/20 to 5/10)
 1F Sawmill Bay Hatchery release (4/15 to 6/1)
 1G Cannery Creek Hatchery release (4/21 to 6/1)
 1H Remote release site
 1I Gill net area (6/7 to 8/31)
 1J Purse seine area (7/20 to 9/30)
 1K Purse seine hook-off (7/20 to 9/30)
 1L Set net sites (6/11 to 7/25)
 For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/1 to 6/15)
 Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
- 3N, 3P Harbor seal and sea lion pupping (5/15 to 7/1)
 3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 5R Seabird colony (5/1 to 9/1)
 Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic.
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
- 6U Recreation: Tent sites (6/1 to 9/15)
 6V Anchorages (6/1 to 9/15)
 6W Forest Service cabins (6/1 to 9/15)
 6X Lodge (6/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
 7H-H Finfish harvesting
 7I Deer harvesting (6/15 to 2/28)
 7J Invertebrate harvesting
 For Codes 7Z through 7J contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / KN 5000 SUBDIVISION: — DATE 4-19-90

USCG
NAME Patrick Malay SIGNATURE Patrick Malay

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

Recommend bioremediation in coated areas of the
UI zone.

ADEC
NAME M. Cunningham SIGNATURE M. Cunningham

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

- ① Bioremediate nr pocket covers sites 1+2. No hand fill possible due to highly angular interlocking boulders. Oil confined to surface lens.
- ② Hand till to aerate fine sediments from site #4 west to Dames + Moore site. Bioremediate when possible
- ③ Bioremediate boulders adjacent to beaches at extreme west end beach/segment. No debris observed.

LAND MANAGER
NAME Steven Phillips SIGNATURE Steven Phillips

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

Bioremediate from stream west to end of segment. This oil hasn't penetrated very deep. Band of oil visible from at least 500 m. Dames + Moore study site; clean as soon as study allows.

Small pocket to south should be bioremediated.

Note: substrate is angular suggesting poor wave action. Don't expect much natural washing.

SHORELINE OILING SUMMARY

REVISION NO. 04/12/88

OG Greg Chaney USCG Pat Malay SEGMENT ST/ KN 5000
 BIO Jill Roth LAND REP DNR Steve Phillips SUBDIVISION A (1 OF 1)
 EXXON Key Satelo ADEC Mike Cunningham TIME 15:50 10/18/90
 TEAM NO. 7 TIDE LEVEL 2.0 to 3.5 DATE April 19 1990
 ST. SUBDIVISION LENGTH: 1016 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock Snow
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: South to North
 SURFACE SEDIMENTS: R 40 % B 25 % C 15 % P 15 % G 5 % S — % M — % V — %
 SLOPE: Long 40 % Hang 20 % Vert 40 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 300 m N 60 m VL 310 m NO 446 m

SURFACE OIL

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

PAYEMENT 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	X		
Vegetation			
Trash			
Debris	X		

DID YOU COLLECT DEBRIS?

YES ☒ NO ☐TYPE Pom pom Str#BAGS less than 1

Photographs:

Roll No. ST-7-3Frames 1, 2

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	SHEEN (Y/N)	↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	VB	5	6	7	8	SW	W	M	U				
1	15		X				5-10		X			X		X					Y	8	B - CPM
2	20					X	.								X				N	10	P - PG
3	20					X	.							X					N	15	GP - GM
4	20			X			0-3	X	X	X				X					Y	5	G - VM
							.														
							.														

COMMENTS

See Attached Page

REVIEWED

7W

DATE

4/21/90

OG Greaney

SEGMENT SW 5000

SUBDIVISION A 1 of 1

DATE April 19 90

CHECKLIST

- Map Area
- Approx. Scale
- Top/Sub Bathy
- Oil Dist.
- Wash
- Length
- % Cover
- Substrate Character
- Est. HRR/LWR
- SSR
- Profile Location(s)
- Photo(s)
- Photo Location(s)

BIOREMEDIATE
OILED AREA

SYMBOLS

- TRACE STAIN & DRIPS
- SPLATTER COAT
- ◻ DARK BLACK OIL COAT ON UNDER SIDE OF BOULDERS

LEGEND

1 Δ
PB - No Subsurface Oil

2 Δ
PB - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

CT/P
Patchy Distribution

CT/S
Splashed Distribution

eee
Other Vegetation

1 ●
Photo location, direction, and number

KN-5000A

HERRING BAY

METERS
80

ATCH MAP

EXAM ON
STILL STUDY
SITE. DO
NOT DISTURB
DARES & RANGE

ORANGE STAKES ON
STORM BERM
3 TO 4 METERS WIDE
SPRINKLE COAT & STAIN
MOBILE FILM ON PIN
UP TO 5 cm

THIN
TREES

STREAM

3
ALDERS

TREES

THIN
TREES

THIN
TREES

ONE METER DISCONTINUOUS BAND
TAR COAT
TAR COAT BAND
PATCHY 20 cm HIGH

THIN
TREES

SILVER SHEEN ON POOLS
2 TO 3 METERS TAR ON BEDROCK
& BOULDERS 50% COVERAGE
5 TO 6 METERS TAR ON
BEDROCK & BOULDERS 40%
2 TO 3 METERS TAR ON BEDROCK & BOULDERS
30% COVERAGE
BLACK TO RAINBOW FILM ON OLD PEAT LAYER
OIL PENETRATION ROUGHLY 1 TO 3 cm. BAND TO
1 TO 2 METERS WIDE IN HIGH INTER TIDAL ZONE.

Low
Rocks

Low
Rocks

DARK BLACK COAT ON
UNDER SIDE OF BOULDER

COMMENTS
SEGMENT BT-KN-5000A

Greg Cheney
April 19 1990

Segment BT-KN-5000-A was surveyed during the late afternoon under a primarily overcast sky. Along the majority of the southern portion of this segment random drips and stains were located. Oil retention in the north eastern portion of the segment was observed in an unusual form. The beach had a layer of peat approximately 2 to 5 cm. thick which contained a surficial layer of mobile black oil. A rainbow film covered some of the surface sediments in the region. Also along the SSL of this region were a series of orange stakes and a sign which stated "EXXON OIL SPILL STUDY SITE. DO NOT DISTURB. DAMES AND MOORE." Due to this sign, no pits were dug along the northern shore of this segment. It was unclear how extensive the study site was. Along the north west edge of the segment, boulders and bedrock had a rough discontinuous oil coated band. The bottom of boulders in the northern region retained a thin black film of oil. This oil seemed mobile and smelled like "fresh" motor oil.

SHORELINE ECOLOGICAL SUMMARY

REVISED 02/25/90

Segment ST / KN 5000 Subdivision A Date (mo / day / yr) Apr 19, 90
 (24 hr) Apr 1545 1990 Biologist ROTH

- (A) Substrate type and % of segments:
 (1) Bedrock 40 (2) Boulder 25 (3) Cobble 15 (4) Pebble 15 (5) Sand 5 (6) Silt —
- (B) Overall % cover of biota (% of segment): Dense 20 Moderate 40 Low 40
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (G)

Photographs: ST-7-3
 Roll No. ST-7-3
 Frames 1-2

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

TIDE TOO HIGH FOR MUCH OBSERVATION IN LITZ; FUCUS ONLY SCORED IN LITZ ABOVE. AREA IN N. END OF SEGMENT WAS POSTED AS "DAMES AND MOORE STUDY SITE;" SEE OG: MAP.

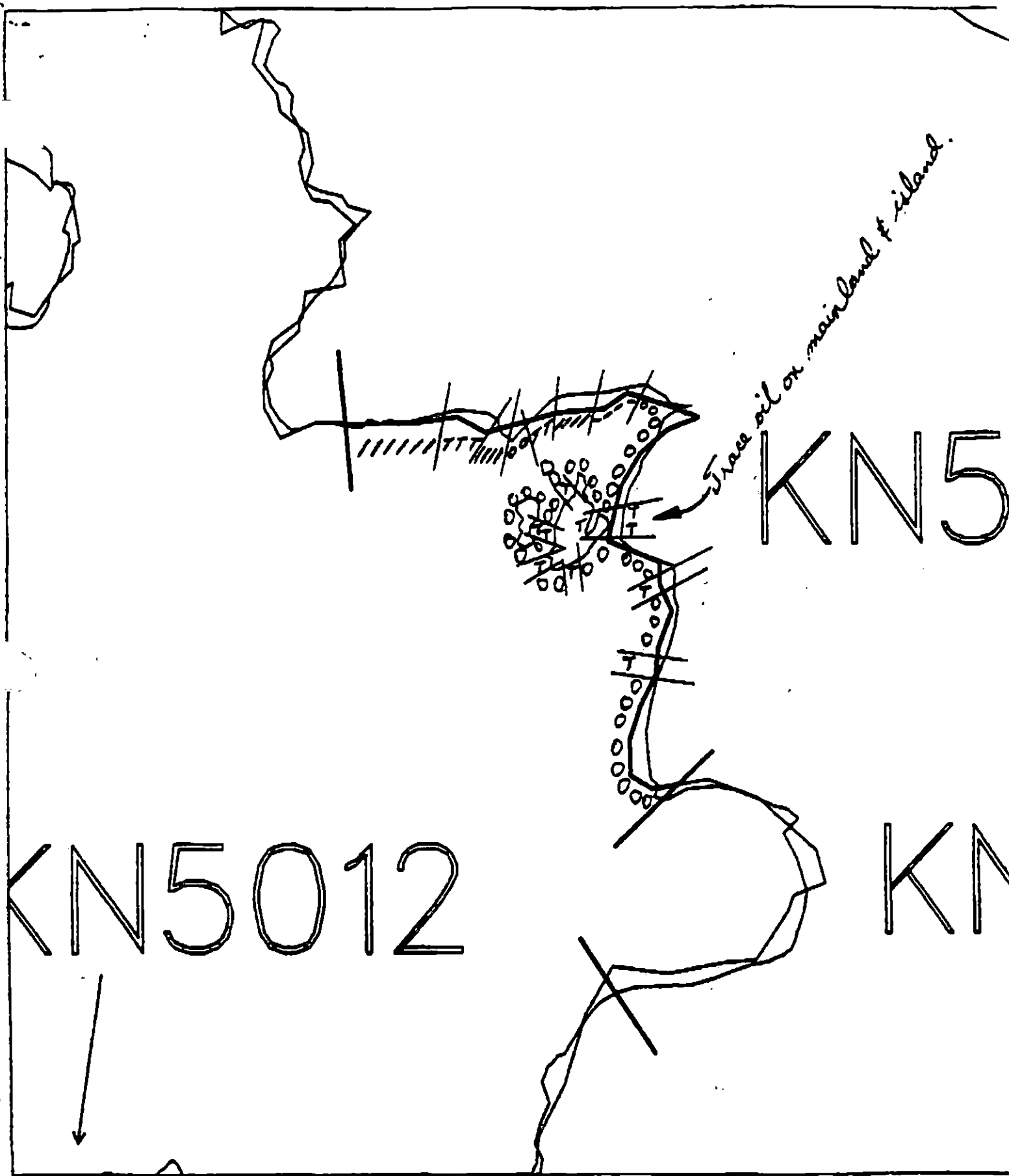
Ecological Considerations:

NONE

DATE Apr 19 70 TIME 1545-1800 TIDE HEIGHT +2 - +3.5

1= BEDROCK 2=BOULDER 3=COBBLE 5=SAND 6=SILT
SEGMENT: ST. KN 5000 SUBDIVISION A LENGTH 1016m BIOLOGIST ROTH

SPECIES	UTZ	MITZ	LITZ	COMMENTS
FLORA: BOSSIELLA/CORALLINA				
CALLIARTHRON/CORALLINA				
CLADOPHORA SPP				
COSTARIA SPP			X	OBSERVED FROM BOAT
ENDOCLADIA MURICATA				
FILAMENTOUS GREENS				
FILAMENTOUS REDS				
GLOIOPELTIS FURCATA				
HALOSACCION OLANDIFORME				
LAMINARIA SPP				
LITHOTHAMNION				
NEREOCYSTIS SPP				
PORPHYRA SPP				
RALPHSIA/HILDENBRANDIA				
PHODOMELA LARX				
RHOHOMENIA PALMATA				
SCYTOSIPHON SPP				
ULVA SPP				
ZOSTERA MARINA			X	OBSERVED FROM BOAT
ENTOROMORPHA				
BLenny EGGS		2,3		
HEMIGRAPSIS OREGONENSIS		2,3		RARE
AUNA: ANTHOPLLEURA SPP				
(SEMI) BALUNUS CARIOSUS		1,2		
B. GLANDULA				
BRYOZOANS				
CHITONS (other than K. TUNICATA)				
CLAMS				
CRABS				
DERMASTERIAS IMBRICATA			1	OBSERVED FROM BOAT
KATHARINA TUNICATA				
LEPTASTERIAS HEXACTIS		2,		RARE
LIMPETS	1,2,3	1,2,3		N. PREGNA + N. scutum + COLISEU
LITTORINA SPP				
NUCELLA SPP		2,3		w/ EGGS
PAOURUS SPP				
PISASTER OCHRACEUS				
POLYCHAETES				
PYCNOPODIA HELIANTHOIDES				
SEARLESIA DIRA				
SERPULIDS				
SIPHONARIA THERSITES				
TEALIA				
SPINEROMANID ISOPODS		3,4		
GAMMARID DEAN AMPHIPODS		3,4		INCL. COPULATING PAIRS



KN5012

KN5

KN

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

KN-5000

ADEC Segment Length: 1017m
EXXON SEGMENT LENGTH 1016m



Map Key: PWS-368

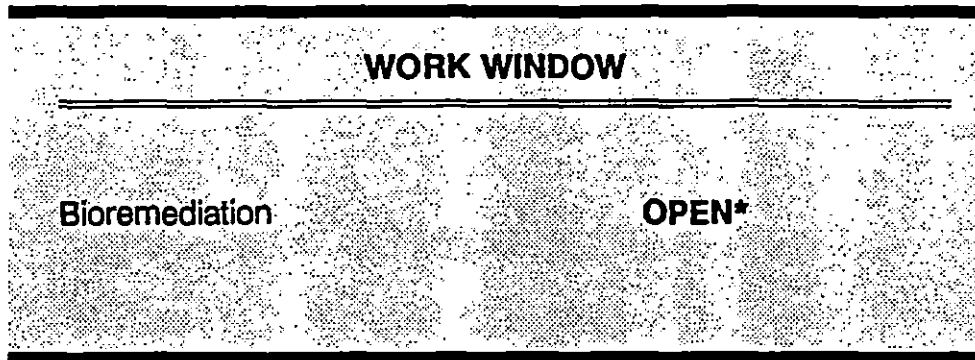
Name: Greg Chaney

Date: April 19 1990

Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT KN-5000 SUBDIVISION A (1 of 1)



*Set Aside Sites SA-1 and SA-2. Do not treat between study site signs.

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T Bald Eagle Nest NO CONSTRAINT. USFWS 6/1/90 map indicates no active nest within 400m of Subdivision A work site.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

R. Zawadzki

Date

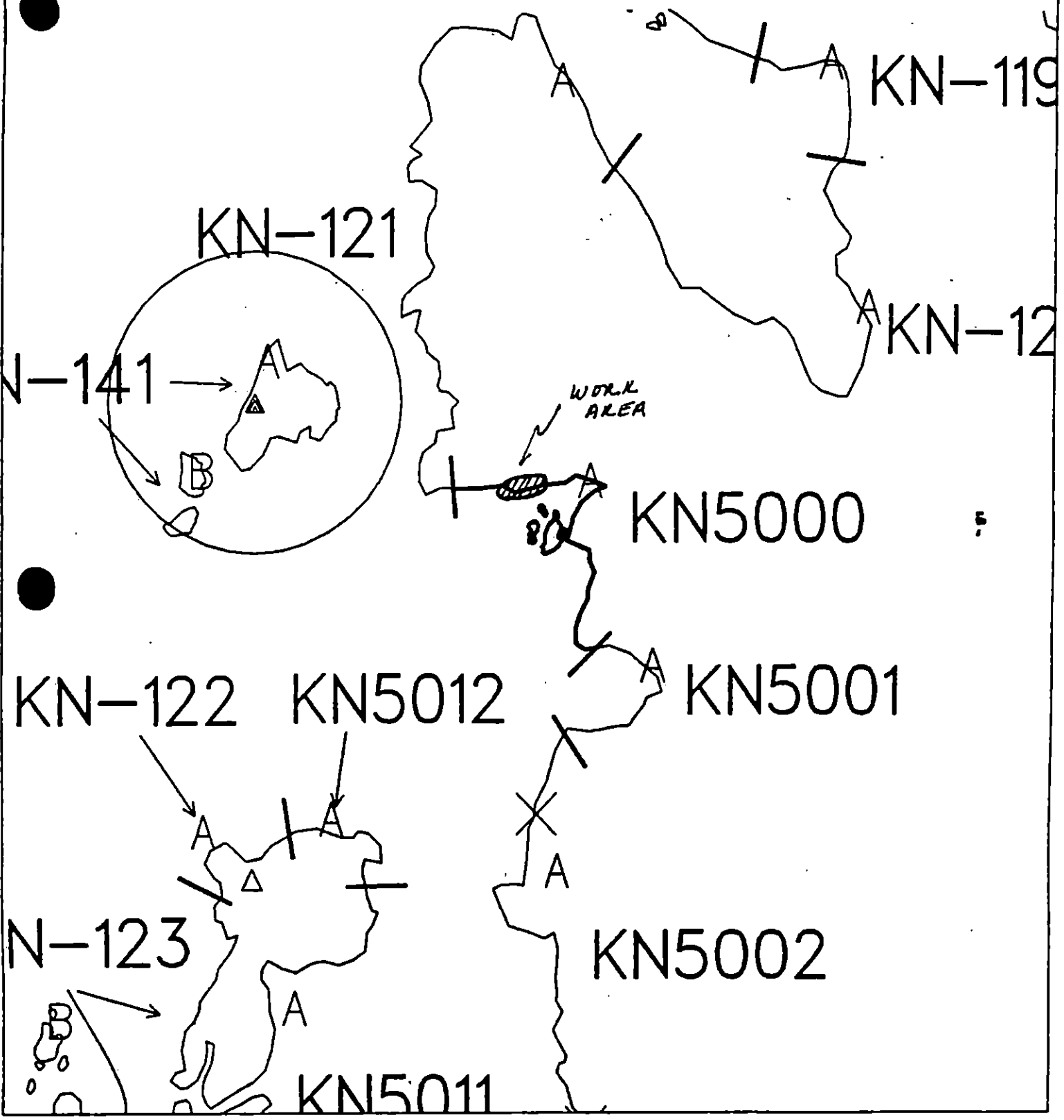
2/3/90

Prepared by

W. Kelly

Date

2/3/90





Exxon Company, USA
Map Key: PMS-KN-5000
June 09, 1990

ECOLOGY MAP
SEGMENT KN-5000
SUBDIVISION A (1 of 1)
METERS

0 371 743

★	Seabird Colony
▲	Active Eagle Nest
△	Inactive Eagle Nest

1 inch = 1219 feet

SHORELINE EVALUATION

SEGMENT ST/ KN-5001 SUBDIVISION A (1 OF 1) DATE 4/19/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

No specific constraints identified.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: *J. David McManus*

DATE: 5/1/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 223 m: No Oil 329 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: 4/28/90.
ADEC ART WENGER
EXXON ANDY GAR
NOAA Geary Petrop
USCG KENNETH KEANS

FOSC: *W L*

DATE: 5-9-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / KN5001 SUBDIVISION: DATE April 19, 1990

USCG
NAME

David Sylvestre
Patrick Malay

SIGNATURE

David Sylvestre
Patrick Malay

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

No treatment recommended.

ADEC
NAME

Dianne Munson

Michael Cunningham

SIGNATURE

Dianne Munson
Mr. Cunningham

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

A few tar balls observed and picked up. Very little oil on this segment.

LAND MANAGER

NAME *Steven Phillips / David Mendrella*

SIGNATURE

Sam Phillips / David Mendrella

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Phillips: oil stains and coats were small and widely spaced. No significant debris found. Tar balls were picked up where possible.

SHORELINE OILING SUMMARY

REVISION NO. 04/13/91

OG Chancy/Pittenger USCG Malay/Sylvester SEGMENT ST/ KN 5001
 BIO Rath/Bancroft LAND REP Phillips/Mandrella SUBDIVISION A (1 OF 1)
 EXXON Satoh/Kabimpali ADEC Cunningham/Munson TIME 14:00:15:30
 TEAM NO. 728 TIDE LEVEL 3-2 feet DATE 4/19/90
 EST. SUBDIVISION LENGTH: 561 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock SNOW
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: North to South
 SURFACE SEDIMENTS: R 10 % B 50 % C 30 % P 10 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 30 % Hang 60 % Vert 10 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 200 m NO 361 m

SURFACE OIL

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

PAVEMENT H F S 0 sq. m by 0 cmPATTIES TARBALLS 41 BAGSNEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation	X		
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE 0#BAGS 0

Photographs:

Roll No. 57-8-4Frames 1, 2

SUBSURFACE OIL

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

COMMENTS

Tar ball samples collected
 No oil debris found

Trace amounts of tar balls, splatter and stain were observed in this segment. No subsurface oil was detected.

REVIEWED 7WDATE 4/21/90

On Character: CV CT ST MS TS FI NO
 100 100 100 100 100 100 100
 30 30 30 30 30 30 30
 361 361 361 361 361 361 361

SHORELINE ECOLOGICAL SUMMARY

REVISION: 08/22/70

Segment ST / KN5001 Subdivision NONE Date (mo / day / yr) 4/19/90Time (24 hr) 1400-1530 Biologist Roth / Benson

- (A) Substrate type and % of segments:
 (1) Bedrock 10 (2) Boulder 50 (3) Cobble 30 (4) Pebble 10 (5) Sand 0 (6) Silt 0
- (B) Overall % cover of biota (% of segment): Dense 10 Moderate 40 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. ST-B-4Frames 1-2

BARNACLES

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

GASTROPODS

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

Wildlife Observations/ General Comments:

Although the mussels are sparse, they extend over much of this segment in the mid zone (see accompanying "Ecology Map").

Ecological Considerations:

A somewhat limited variety of animals were observed here (see accompanying sheet), e.g., no starfishes, ciliatons, or anemones noted. Limited life observations and few nitz pools may have been contributing factors.

DATE 4/19/90 TIME 1400-1530 TIDE HEIGHT +3' to +2'

1 = BEDROCK 2 = BOULDER 3 = COBBLE 5 = SAND 6 = SILT
 Segment BT/KN-5001 Subsegment NONE Length 561m Bio Benson/Rot

FLORA:

SPECIES	UTZ	MITZ	LITZ	COMMENTS
BOSSIELLA/CORALLINA				
CALLIARTHRON/CORALLINA				
CLADOPHORA SPP				
COSTARIA SPP				
ENDOCLADIA MURICATA				
FILAMENTOUS GREENS			1,3,4	
FILAMENTOUS REDS				
GLOIOPELTIS FURCATA				
HALOSACCION GLANDIFORME				
LAMINARIA SPP				
LITHOTHAMNION		1		
NEREOCYSTIS SPP				
PORPHYRA SPP				
RALPHSIA/HILDENBRANDIA		1		
PHODOMELA LARIX		1	1	
RHOHOMENIA PALMATA				
SCYTOSIPHON SPP		1	1	
ULVA SPP			1,2,3	
ZOSTERA MARINA				
ENTOROMORPHA		1		
Verrucaria	1	5		

FAUNA:

ANTHOPLEURA SPP				
(SEM) BALUNUS CARIOSUS		1,2		
B. GLANDULA		1,2		
BRYOZOANS				
CHITONS (other than K. TUNICATA)				
CLAMS		1		Macoma in tidepool
CRABS				
DERMASTERIAS IMBRICATA				
KATHARINA TUNICATA				
LEPTASTERIAS HEXACTIS				
LIMPETS	2,3	1,2,3		(eggs on 3) N. scutum, N. personata
LITTORINA SPP		3		
NUCELLA SPP		2		
PAGURUS SPP		1,2	1,2	
PISASTER OCHRACEUS				
POLYCHAETES		2		
PYCNOPODIA HELIANTHOIDES				
SEARLESIA DIRA				
SERPULIDS				
SIPHONARIA THERSITES				
TEALIA				
amphipods		3,4		Copulating pairs
blebbioid				

KN500

.... = location of runoff streams

Range of Mytilus bed
in mid-intertidal

KN50

ECOLOGY MAP (1 OF 1)

RESOURCE CODES FOR
ENTIRE SEGMENT:

NONE

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

KN-5001

ADEC Segment Length: 551m



Map Key: PWS-369

Name: Benson/Roth

Date: 4/19/90

Date Entered:

KN500

KN50

KN-5001

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

ADEC Segment Length: 551m

Enron Segment Length: 561m

0 100 200 300
METERS

Map Key: PWS-369

Name: Chaney/Pittenger

Date: April 19th 1992

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ KN-5002 SUBDIVISION A (1 OF 3) DATE 4/19/90

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

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unopened biota and substrate. Possible pinned haulout within 400m at north end of peninsula on opposite side of embayment inlet.

SHPO SIGNATURE: Charles J. H. Jones DATE: 5/2/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 616 m: V. Light 505 m: No Oil 0 m
Subsurface Oil Observed: Yes X No Maximum Depth 30 cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes bioremediation of areas indicated on sketch map. Work should be conducted after 5/1.

TAG COMMENTS: MANUAL TILL/RAKE AREA AROUND PIT 3 IF FEASIBLE PRIOR TO BIOREMEDIATION.

TAG APPROVAL DATE: 5/2/90
ADEC ART WENIGER
EXXON AMITESH
NOAA GARY DEWEE
USCG KENNETH KEANE

FOSC: ML DATE: 5-8-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1 KN 5002 SUBDIVISION: A DATE 4/19/90

USCG

NAME David A. Sykes SIGNATURE David A. Sykes☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

There is speradic oil coating in this area. The coatings of oil are approximately 2-3 mm thick in places. The beaches are composed of Boldet cobbles & pebble. There was sub surface found in this section just below the surface. On many of the Bolders and cobbles we turned over we found to have oil on them

ADEC

NAME Dianne Munson SIGNATURE Dianne Munson☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

- Primarily bedrock cliffs with boulder/cobble/pebble pocket beaches.
- 1 meter band of patchy coat on bedrock cliffs, sheens on small pools coats on boulders/pebbles.
- Subsurface residual oil at pits 1, 3 and 7.
- Recommend manual tilling of pocket beaches and bioremediation.

LAND MANAGER

NAME David Mandrella SIGNATURE David Mandrella☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

Subsurface oiling occurs in cobble, pebble beach covers in the vicinity of pits 1, 3 and 7. These areas should be manually tilled followed by bioremediation.

Majority of segment consists of vertical bedrock cliff with narrow band of patchy coats in upper intertidal zone. This shoreline receives moderate wave action, which should accelerate continued natural cleaning.

SHORELINE OILING SUMMARY

REVISION NO. 04/13/90

OG Alan Pittenger USCG Dave Sylvester SEGMENT ST/ KN5002
 BIO John Benson LAND REP Dave Mandreha SUBDIVISION A (1 OF 3)
 EXXON Chris Katrampalis ADEC Diane Munson TIME 16:00 to 17:00
 TEAM NO. #8 TIDE LEVEL 2m - 3m H DATE 4/19/90
 EST. SUBDIVISION LENGTH: 999 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock Snow
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: North to South
 SURFACE SEDIMENTS: R 70 % B 10 % C 10 % P 10 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 30 % Hang 60 % Vert 10 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 499 m VL 500 m NO 0 m

SURFACE OIL

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

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

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

DID YOU COLLECT DEBRIS?

YES ☒ NO ☐TYPE Rope, Abr. Pad#BAGS 1

Photographs:

Roll No. ST-8-4Frames 3,4,5

SUBSURFACE OIL * oiled interval < 5 cm in pit #3 does not constitute subsurface oil.

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					BELOW	OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (Y/N)	DEPTH (cm)	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		1	2	3	4	5	SU	U	M	U				
1	20		X					X		X				X				Y	5	C,P-C,P
2	20					X									X			N	15	P,G-P,G
* 3	30		X					X		X				X				Y	15	P,G-P,G
4	20					X									X			N	5	B,C-P,G
5	20					X										X		N	>20	C,P-C,P,G
6	25					X										X		N	>25	C,P-C,P,G

COMMENTS

REVIEWED

7W

DATE

4/24/90

OG A. Pittenger
 SEGMENT S 15002
 SUBDIVISION A
 DATE 4/19/90

CHECKLIST

☐ H Area
☐ Approx. Scale
☐ Seg/Sub Entry
☐ Oil Dist.
☐ Width
☐ Length
☐ % Cover
☐ Substrate Character
☐ Est. HW/LW/L
☐ SSL
☐ Profile Location(s)
☐ Photo(s)
☐ Photo Location(s)

LEGEND

1 Δ
 Pt - No Subsurface Oil

2 Δ
 Pt - Subsurface Oil

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

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

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

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

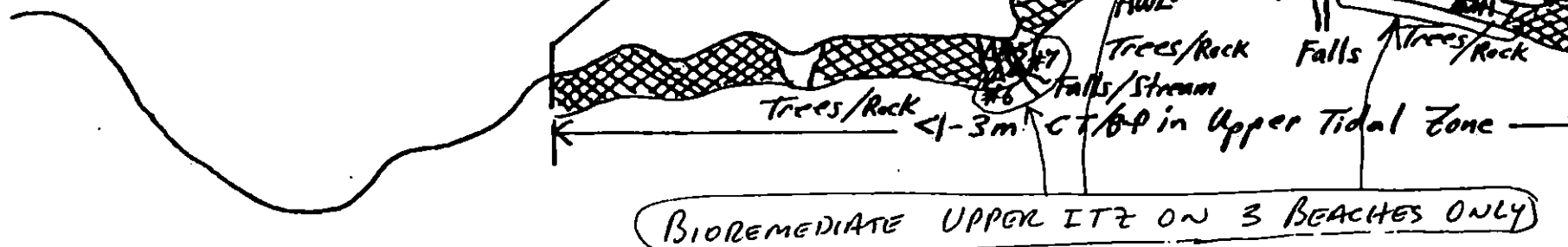
Oiled Vegetation

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

SKETCH MAP

Herring Bay

KN500K
 A



Knight Island



Symbols

Bedrock

$\boxed{\text{I}}$ Boulder, Cobble, Pebble beach

Scale

0 100m 200m 300m

Oil Character Length (m): AP 0 PO 0 CV 0 CT 800 ST 0 MS 0 PT 0 TB 0 FL 10 NO 189

REVISIONS

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / KN5002 Subdivision A Date (mo / day / yr) 4/19/90Time (24 hr) 1545-1800 Biologist Benson

- (A) Substrate type and % of segments:
 (1) Bedrock 70 (2) Boulder 10 (3) Cobble 10 (4) Pebble 10 (5) Sand 0 (6) Silt 0
- (B) Overall % cover of biota (% of segment): Dense 30 Moderate 50 Low 20
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
Roll No. ST-8-4Frames 3-5

BARNACLES

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

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

GASTROPODS

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

FUCUS

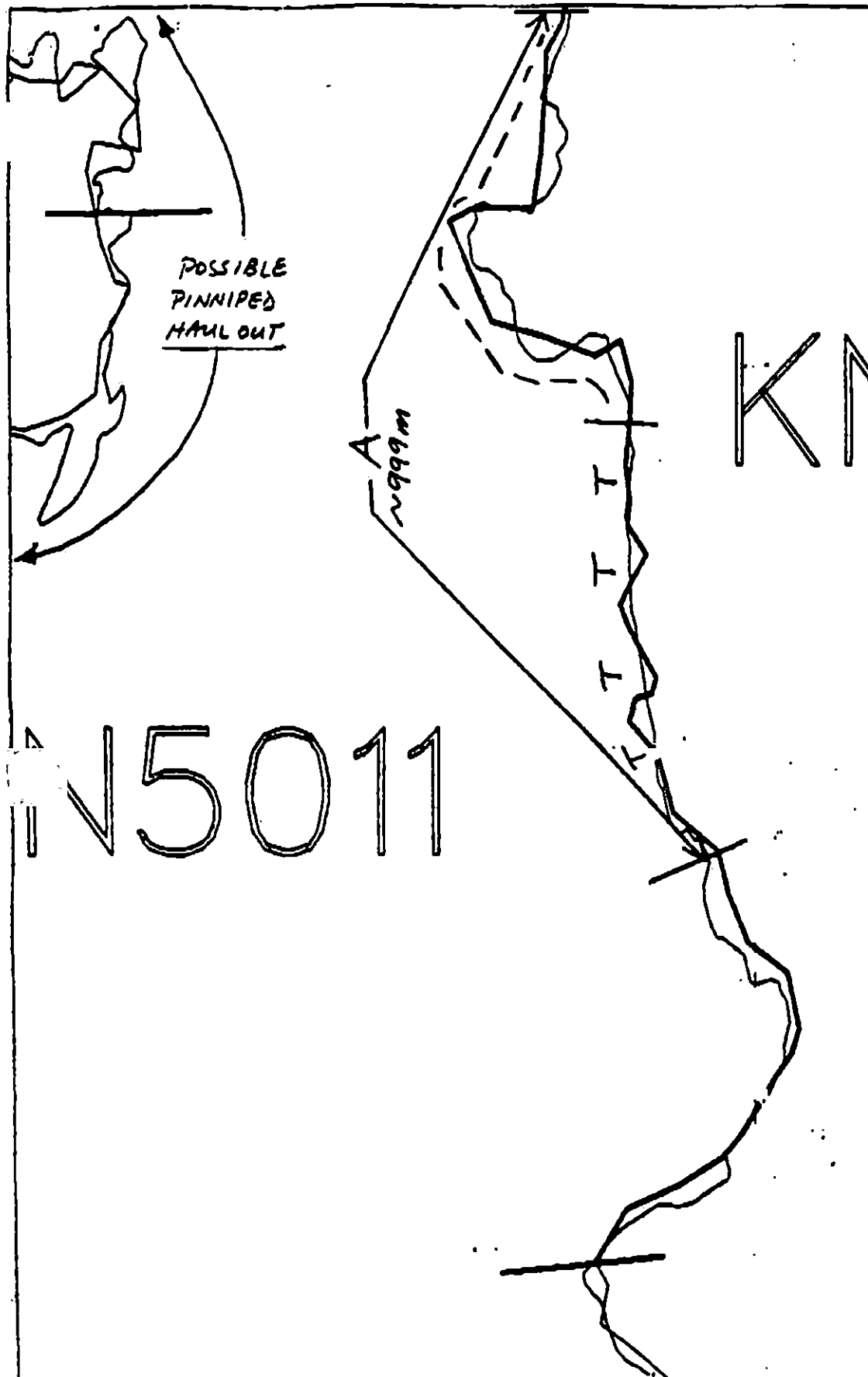
Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	X	X	2	X	X	2	1M	1L	NOT PRESENT
3	3	3	3	3	3	3	X	X	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

Wildlife Observations/ General Comments:

great blue heron (*Ardea herodias*)
 Harbor Seal (*Phoca vitulina*)

Ecological Considerations:

- possible pinniped haulout within 400 m
- this site is very protected from wave exposure
- there are somewhat limited populations of mussels (see Ecology map)
- there are a number of runoff streams that are not officially listed as anadromous streams



↑
PWS
370B

N5011

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

KN-5002

ADEC Segment Length: 1861m

Exxon Seg. Length: 1899m

0 100 200 300
METERS

Map Key: PWS-370a

Name: Pittenger

Date: 4/19/90

Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT KN-5002 SUBDIVISION A (1 of 3)

WORK WINDOW

Bioremediation
Manual Tilling/Raking

OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

No ecological time constraints.

OTHER ECOLOGICAL CONSIDERATIONS

Avoid any unnecessary disturbance or damage to unrolled biota and substrate. Possible pinniped haulout within 400m at north end of peninsula on opposite side of embayment inlet. Do not apply bioremediation to specific areas where seals are observed to haulout. Do not chase or harass seals or sea lions, and do not approach pups under any circumstances. When working on or near haulouts, complete the job as quickly as possible with minimum personnel, equipment, noise and disturbance. Keep boats and personnel as far from actual haulouts as is practical to do the work specified. Minimize air traffic near haulouts, maintain elevation as is practical, and avoid repeated overflights of the same haulout areas.

FOSC

Date

6-10-90

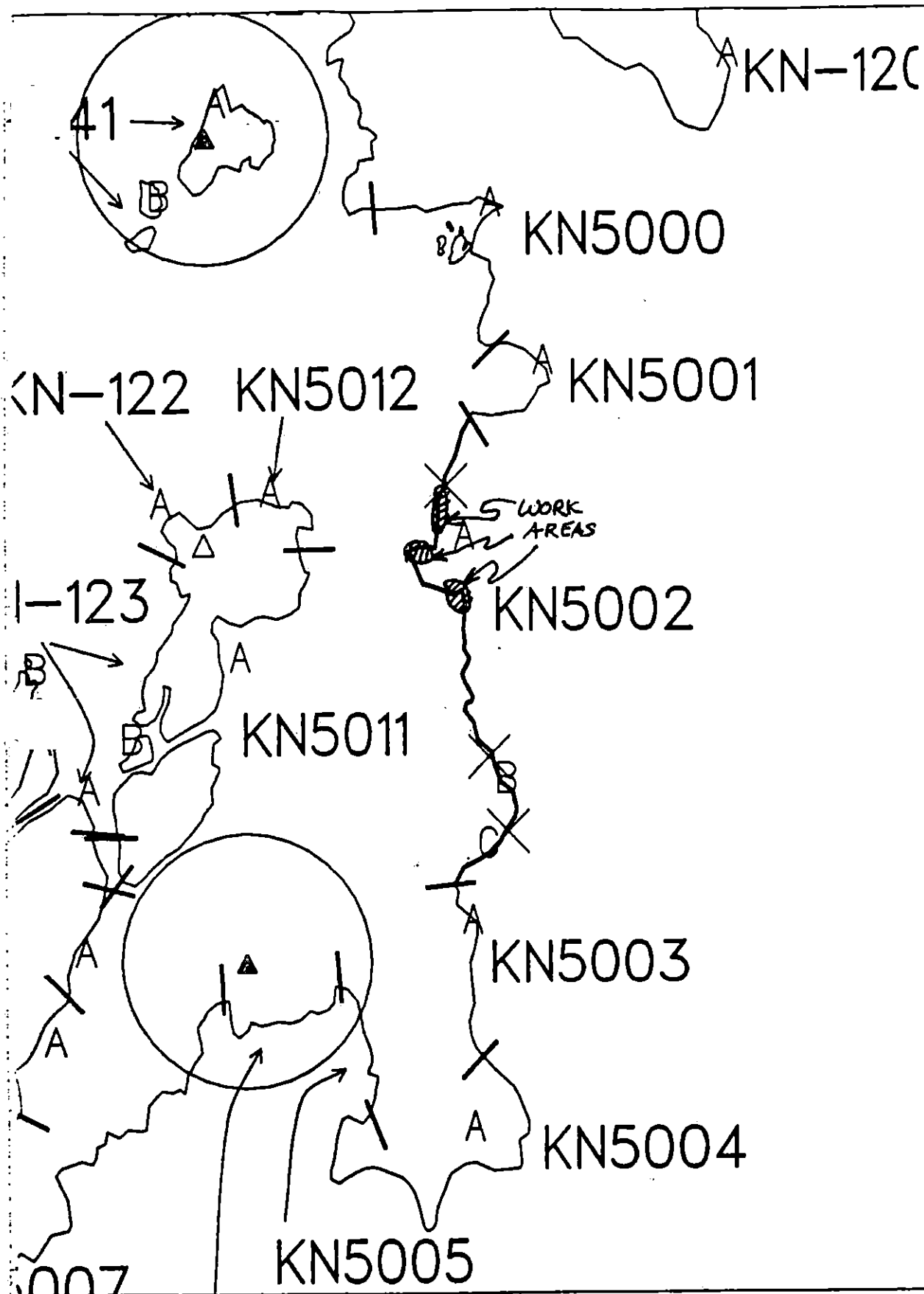
Prepared by

J. P. Phillips

6-10-90
Jmm

Date

6/10/90



Exxon Company, USA

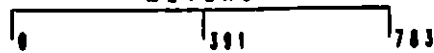
Map Key: PWS-KN-5002

June 05, 1990

ECOLOGY MAP SEGMENT KN-5002

SUBDIVISION A (1 of 3)

METERS



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

1 inch = 1284 feet

SEGMENT ST/ KN-5002 SUBDIVISION B (2 OF 3) DATE 4/19/90

No specific constraints identified.

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate. Possible pinniped haulout within 1/2 mile at north end of peninsula on opposite side of inlet.

SHPO SIGNATURE: *[Signature]* DATE: 5/2/90

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 262 m: No Oil 0 m
Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

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

COMMENTS: Recommended treatment includes 1) manual removal of tar mat in area indicated on sketch map, and 2) bioremediation of area indicated on sketch map. Work should be conducted after 5/1. No specific ecological time constraints identified.

TAG COMMENTS: _____

TAG APPROVAL DATE: 5/2/90.
 ADEC ART WENIE Art Wenie
 EXXON ANDY TEL Andy Tel
 NOAA GARY DELANEY Gary Delaney
 USCG KENNETH KEANE Kenneth Keane

FOSC: WJL DATE: 5-8-80

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1 KN-5003 SUBDIVISION: P DATE 4/30/90

USCG
NAME David A. Spleeter SIGNATURE David A. Spleeter

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

There is a beach that is approx. 100 m. long with a distinctive boulder in the middle of the beach at the mid tidal zone. About 60 m. of the beach needs treatment. At high tide a sheen bright in color can be seen emerging from the cobbles and pebble. There is tar coating on the boulder and on the bedrock to the North. The tar coating was from 2-4 mm thick.

ADEC
NAME Dianne Munson SIGNATURE Dianne Munson

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

- Primarily low angle cobble, pebble beach.
- Surface Coats and asphalt/pavement (behind large boulder)
- Subsurface sediments are fine and saturated with residual oil to 5 cm from bw to mid it2.
- pits produce sheen and free floating black oil. Beach is actively sheening.
- Recommend manual tilling, flooding, bioremediation and removal of asphalt/pavement.

LAND MANAGER
NAME David Mandrella SIGNATURE David Mandrella

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

Residual oil occurs in sediments to a depth of 5 cm. primarily in lower intertidal zone, but also noted in middle intertidal zone in the vicinity of pit no. 3. Significant sheening was noted in shallow water along shore. Broken and patchy coats and covers occur in all zones on cobble and boulder substrate. Recommended treatment includes manually tilling the areas containing residual oil, (to hasten the removal process) followed by bioremediation.

SHORELINE OILING SUMMARY

REVISION NO. 06/12/90

OG A. Pittenger USCG D. Sylvester SEGMENT ST/ KN5002
 BIO J. Bencan LAND REP D. Mandrella SUBDIVISION R (2 OF 3)
 EXXON C. Katsimpalis ADEC D. Munson TIME 18:00 to 18:30
 TEAM NO. #8 TIDE LEVEL 3-3.5 m St DATE 4/19/90
 EST. SUBDIVISION LENGTH: 300 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock Snow
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: North to South
 SURFACE SEDIMENTS: R 0 % B 30 % C 40 % P 30 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 70 % Hang 30 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 300 m NO 0 m

SURFACE OIL

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

PAVEMENT H F S 10 sq. m by 5 cmPATTIES / TARBALLS 0 BAGSNEAR SHORE SHEEN? NO BR (RW) SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE 0#BAGS 0

Photographs:

Roll No. ST-8-4Frames 6

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR								PIT ZONE	A N A	SHEEN (Y/N)	↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UG	UG	1	2	3	4	5	6	7	8					
1	20					X														N	>20	C.P-C.P
2	30					X														N	>30	C.P-C.P.G
3	20	X					0.5	X		X										N	>20	C.P-C.P.G
4	15	X					0.5	X		X										N	>15	CP-C.P
5	20	X					0.5	X		X										N	>20	C.P-C.P
6	20	X					0.5	X		X										N	>20	C.P-C.P

COMMENTS

Wading in shallow water produced an oil sheen from disturbed sediments. Tide was rising at the time. Team returned to the location the following day, when tide was at low point, to dig pits along the beach (#4, 5, & 6) in sediments that were submerged the previous day.

REVIEWED 7/10 DATE 4/21/90

DATE 4/19/90

_____ H Azon
 _____ Apprx. Scale
 _____ Seg/Sub Entry
 _____ Oil Dist.
 _____ Width
 _____ Length
 _____ % Cover
 _____ Substrate Character
 _____ Est. HPA/LWL
 _____ SSL
 _____ Profile Location(s)
 _____ Profile(s)
 _____ Pit Location(s)
 _____ Photo Location(s)

! Δ
PM - No Subsurface Oil

2 ▲
Fig. Subtraction C99

CT/C
Controlled Distribution

CT/B

Broken Distribution

CT/P
Patchy Distribution

CT/S
Spliced Distribution

Old Vegetation

Phone location, direction,
and number

Oil Character Length (in): AP 0 PO 0 CV 0 CT 300 ST 0 MS 0 PT 0 TB 0 FL 0 NO 0

SKETCH MAP

MANUALLY RAKE AND BIOM. DIATEX
LOWER ITZ UP TO LARGE BOULDER.
AT MID ITZ - ~~THE~~

Herring Bay

KN5002
B

Aw Sheen on shallow, surface water

3'x4'
Boulder
on mid
bench

itchy Cysts throughout,
in Lower, Middle, &
Upper Tidal Zone

Knight Island

Stream

Trees/Rock

REMOVAL
MANUAL ~~BREAKUP~~ OF TARMAT
BEHIND LARGE BOULDER
(5m x 2m AREA)

Symbols

 Bedrock

 Bolder, Cobble, Pebble Beach

Scale

A horizontal number line with tick marks at 0, 100m, 200m, and 300m.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 06/23/90

Segment ST / KN5002 Subdivision B Date (mo / day / yr) 4/20/90
4/19/90
 ne (24 hr) 1600-1630 Biologist Benson
1800-1820

- (A) Substrate type and % of segments:
 (1) Bedrock 0 (2) Boulder 30 (3) Cobble 40 (4) Pebble 30 (5) Sand 0 (6) Silt 0
- (B) Overall % cover of biota (% of segment): Dense 20 Moderate 50 Low 30
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
 Roll No. ST-B-4

Frames 6

BARNACLES

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

MYTILUS

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

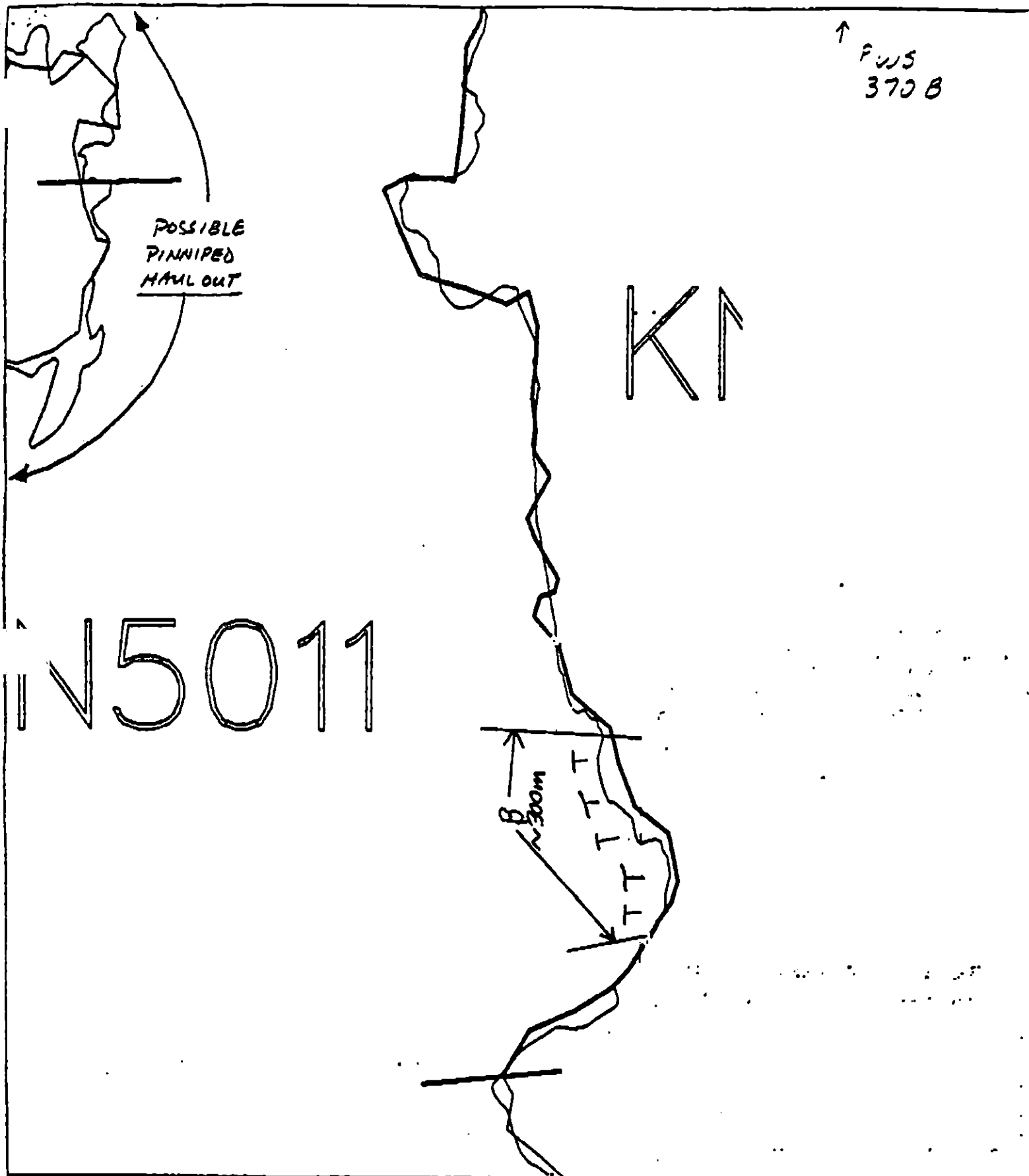
FUCUS

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

Wildlife Observations/ General Comments:

Ecological Considerations: No sensitivities

This relatively shallow sloping beach seems to be a natural drift trap, since many empty shells and loose-lying algae are found here. Littorine egg masses were more common here than any other segment I have seen. There were also many Littorines less than 2mm in diameter. The mussel bed is only rare to sparse.



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

KN-5002

ADEC Segment Length: 1861m
 Exxon Segment Length: 1899m

0 100 200 300

Map Key: PWS-3700

Name: PittengerDate: 4/19/90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ KN-5002 SUBDIVISION C (3 OF 3) DATE 4/19/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

No specific constraints identified.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Charles E. H. [Signature] DATE: 5/2/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 253 m: V. Light 0 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 Removal	☐ Beach Cleaner
	☐ Other (see comments)

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 5/2/90.
ADEC Art Wilson [Signature]
EXXON Andy [Signature]
NOAA Gary [Signature]
USCG Kenneth [Signature]

FOSC: [Signature] DATE: 6-19-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1 KN 5002 SUBDIVISION: C DATE 4/19/90

USCG

NAME David A. Sylvester SIGNATURE David A. Sylvester

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

This area was primarily cliffs composed of bedrock. There was a couple of small beaches. Oil coating and splatter was visible on the face of bedrock in places. Oil was found in random pits that we dug. Not all the pits showed evidence of oiling. In this particular area we did see a sea otter swimming. There was an abundance of mussels and barnacles also in this area that appear to be thriving. Realistically looking at this area I can't support the fact that more good would come out of treatment than harm.

ADEC

NAME Dianne Munson SIGNATURE Dianne Munson

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

- Primarily boulder, cobble, pebble beach and bedrock cliffs.
- Bioremediate pocket beaches with coats and subsurface residual oil.

LAND MANAGER

NAME David Mandrella SIGNATURE David Mandrella

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Over 80% of subdivision consists of vertical bedrock and boulder substrate with patchy coats in the upper intertidal. The beach cove where the pit was dug had a relatively thin layer of subsurface residual oil which would benefit from a bioremediation application. The subsurface layer is located in the upper intertidal zone near the southern portion of beach cove.

SHORELINE OILING SUMMARY

REVISION NO. 04-13-90

OG A. Pittenger USCG D. Sulverter SEGMENT ST/ KN5002
 BIO Tohn Bedran LAND REP D. Mandrella SUBDIVISION C (3 OF 3)
 EXXON C. Katsimpalis ADEC D. Munoz TIME 18:20 10/19/90
 TEAM NO. #8 TIDE LEVEL 3-5m ft DATE 4/19 1990
 EST. SUBDIVISION LENGTH: 600 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock Snow
 SURVEYED FROM: ☐ Foot ☒ Boat ☐ Helo WORKING DIRECTION: North to South
 SURFACE SEDIMENTS: R 75 % B 10 % C 10 % P 5 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 100 % Hang 0 % Ven 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 600 m VL 0 m NO 0 m

SURFACE OIL

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

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

NEAR 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 Plastic#BAGS < 1

Photographs:

Roll No. 0Frames 0

SUBSURFACE OIL *oiled interval < 5 cm in pit #1 does not constitute 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		SO	UC	1	2	3	4	5	SU	U	M	L						
* 1	30	X					0-5	X		X	X					X						N	>30	P, PG, S
							.																	
							.																	
							.																	
							.																	
							.																	

COMMENTS

REVIEWED 7WDATE 4/21/90

OG A. Menger
SEGMENT ST/ KN5002

SUBDIVISION C

DATE 4/19/90

CHECKLIST

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

LEGEND

1 Δ
Pit - No Subsurface Oil

2 Δ
Pit - Subsurface Oil

$\boxed{CT/C}$
Continuous Distribution

$\boxed{CT/D}$
Broken Distribution

$\boxed{CT/P}$
Patchy Distribution

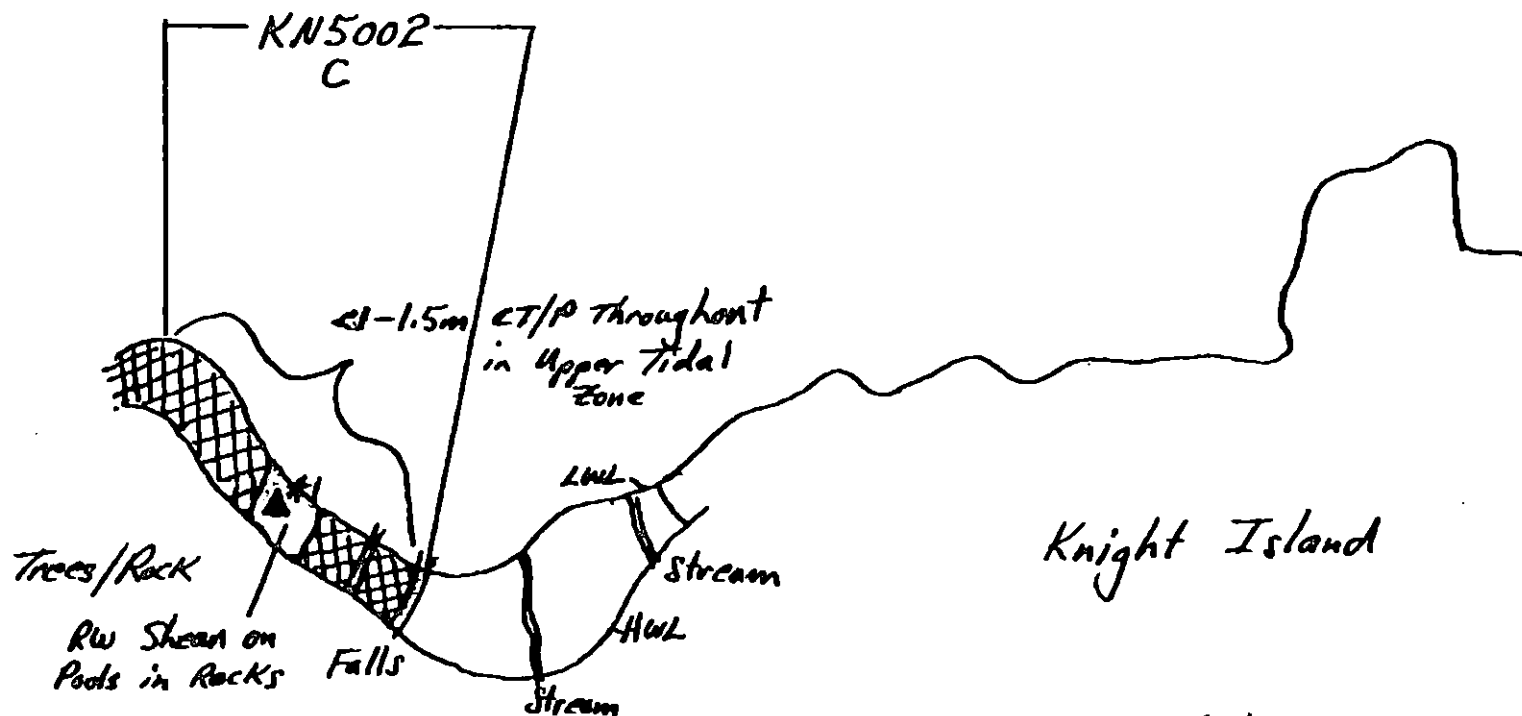
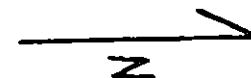
$\boxed{CT/S}$
Splashed Distribution

lll
Oiled Vegetation

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

ETCH MAP

Herring Bay



Knight Island

Symbols

$\boxed{B,C,P}$ beach

$\boxed{Hatched}$ Bedrock

Scale

0 100m 200m 300m

Oil Character Length (m): AP 0 PO 0 CV 0 CT 500 ST 0 MS 0 PT 0 TB 0 FL 0 NO 100

REVISIONS

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/28/90

Segment ST / KNS002 Subdivision C Date (mo / day / yr) 4/19/90
1820-1900
 Time (24 hr) 1820-1900 Biologist Benson
1825-1850

- (A) Substrate type and % of segments:
 (1) Bedrock 75 (2) Boulder 10 (3) Cobble 10 (4) Pebble 5 (5) Sand 0 (6) Silt 0
- (B) Overall % cover of biota (% of segment): Dense 30 Moderate 50 Low 20
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X) . new settlement (O)

Photographs:
 Roll No. ST-8-4

Frames

BARNACLES

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

MYTILUS

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

GASTROPODS

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

FUCUS

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

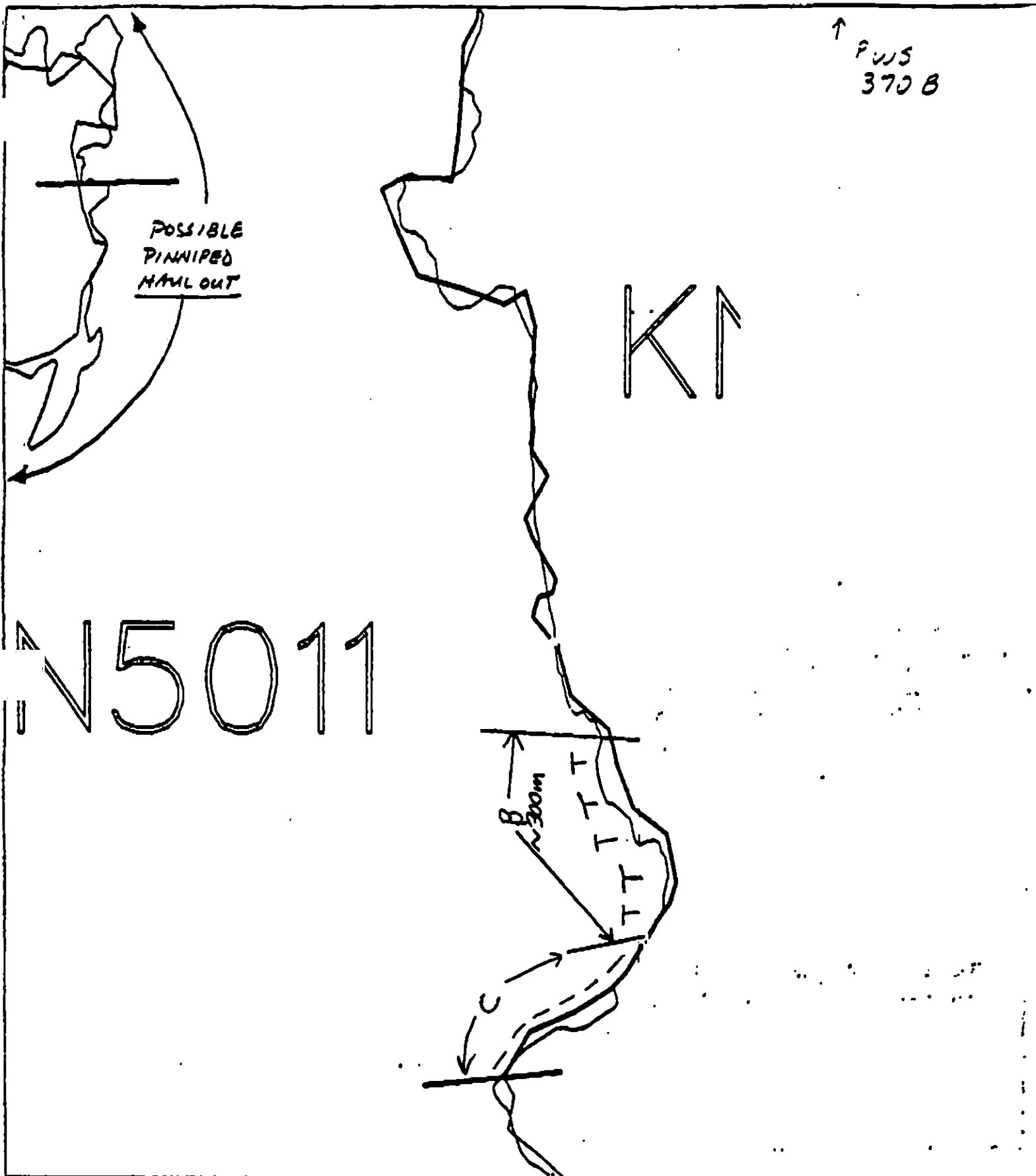
Wildlife Observations/ General Comments:

harbor seal (*Phoca vitulina*) - molting?, sunning itself out of water
 2 goldeneyes (*Bucephala* sp.)

Ecological Considerations:

Since we needed to return to KNS002 B at low tide to examine the extent of oiling, I censused KNS002-B & C at the low tide level for biological information as well. Neither subsegment's low tide level had been examined on 4/19/90.

I observed many gastropod (*Littorina* & *Nucella*) egg masses in the low and mid-tide levels, as in the adjacent KNS000



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

KN-5002

ADEC Segment Length: 1861m

Exxon Segment Length: 1899m



Map Key: PWS-3700

Name: PittengerDate: 4/19/90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ KN-5003 SUBDIVISION A (1 OF 1) DATE 4/20/90

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

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

SHPO SIGNATURE: [Signature] DATE: 5/1/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 33 m: V.Light 457 m: No Oil 110 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: MONITORS TO ASSESS SUITZ + LOGS/LIMBS
TO DETERMINE SIGNIFICANCE

TAG APPROVAL DATE: 4/28/90
ADEC ART WILSON
EXXON ANDY GIL
NOAA GARY PETRO
USCG KENNETH KIRBY

FOSC: [Signature] DATE: 5-9-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / KN 5003 SUBDIVISION: A DATE 4/20/90

USCG

NAME David A. Specker SIGNATURE David A. Specker

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Removal of debris primarily oiled logs and tree limbs
Patchy / sporadic oiling

ADEC

NAME Dianne Munson SIGNATURE Dianne Munson

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

- Primarily bedrock cliff with several boulder, cobble, pebble pocket beaches.
- Patchy / sporadic coats and stains.
- No subsurface oil observed.
- oiled tree limbs at pocket beach.
- very little oil in this segment
- Recommend removal of oiled tree limbs.

LAND MANAGER

NAME David Mandrella SIGNATURE David Mandrella

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

- Oil distribution limited to patchy and sporadic coats in upper intertidal.
- Remove oiled logs and limbs in the vicinity of pits 3x4 and 5x6.
- Continued manual cleaning of coats on vertical bedrock cliffs.

SHORELINE OILING SUMMARY

REVISION NO. 04-12-80

OG A. Piffenger USCG D. Sylvester SEGMENT ST/ KN5003
 BIO J. Benton LAND REP D. Mandrella SUBDIVISION A (1 OF 1)
 EXXON C. Ratchapalis ADEC D. Munson TIME 13:20 to 15:00
 TEAM NO. #P TIDE LEVEL 2-5 ft. DATE 4/20/90
 EST. SUBDIVISION LENGTH: 313 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: South to North
 SURFACE SEDIMENTS: R 70 % B 10 % C 15 % P 5 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 10 % Hang 60 % Vert 30 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 50 m VL 463 m NO 100 m

SURFACE OIL

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

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

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

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE Logs & Trash#BAGS 0

Photographs:

Roll No. 54-8-4Frames 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		SO	UC	1	2	3	4	SU	U	M	U				
1	15					X	.									X			N	>15	B,C,P-B,C,L
2	30					X	.									X			N	>30	P,G-P,G
3	30					X	.									X			N	>30	C,P-P,G
4	25					X	.									X			N	>25	B,C,P-C,L
5	20					X	.									X			N	>20	C,P-C,P
6	25					X	.									X			N	>25	B,C-C,P,G

COMMENTS

REVIEWED 7W DATE 4/21/90

SKETCH MAP

WALLACE CT
SEGMENT ST/KN5003

SUBDIVISION A

DATE 4, 20/90

CHECKLIST

- ☐ M Area
- ☐ Approx. Bedrock
- ☐ Seg/Sub Study
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HWA/LA/MR
- ☐ SBL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Photo Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

PH - No Subsurface Oil

2 Δ

PH - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

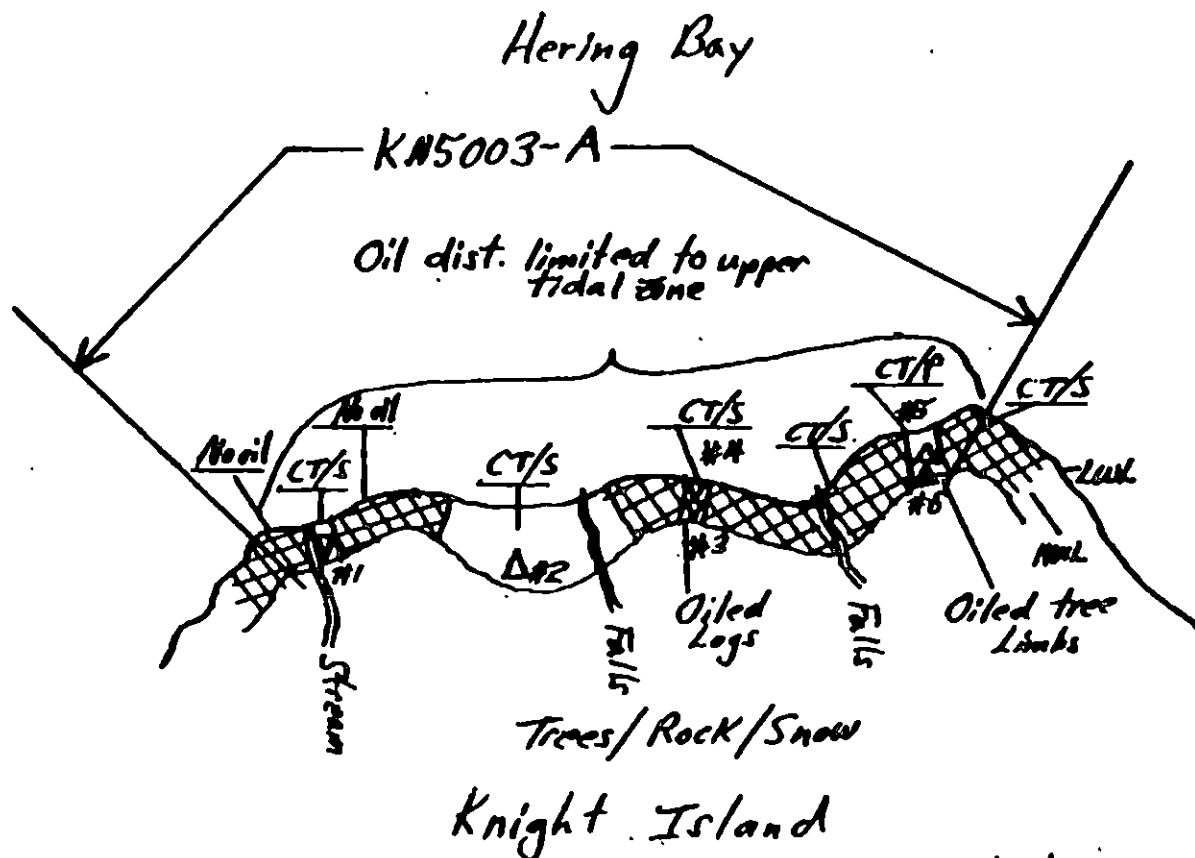
Spotted Distribution

eee

Oiled Vegetation

1 ●

Photo location, direction, and number



Symbols

- Bedrock
- B, C, P Beach

Scale



Oil Character Length (m): AP 0 PO 0 CV 0 CT 500 ST 0 MB 0 PT 0 TB 0 FL 0 NO 100

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / KN5003 Subdivision A Date (mo / day / yr) Apr 20, 1990Time (24 hr) 1330-1500 Biologist Benson(A) Substrate type and % of segments:
(1) Bedrock 70 (2) Boulder 10 (3) Cobble 15 (4) Pebble 5 (5) Sand 0 (6) Silt 0(B) Overall % cover of biota (% of segment): Dense 30 Moderate 40 Low 30

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

Photographs:

Roll No. ST-B-4Frames 7

BARNACLES

LOW INTERTIDAL COULD NOT BE OBSERVED ADEQUATELY

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	X	2	2
3	3	3	3	3	3	3	X	3	X	3	3
4	4	4	4	4	4	4	X	4	X	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

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

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

LOW INTERTIDAL COULD NOT BE OBSERVED ADEQUATELY
dead salmon head in subtidal

Ecological Considerations: No sensitivities — Most non-oiled barnacles were alive.

Barnacles were oiled (coats) in several locations and 70 to 80% of these oiled barnacles were dead. There are sporadic patches of dense littorina populations, but not nearly so often as in locations with extensive cobble beds. In these areas, young littorines (1-2mm length) were sometimes common in barnacle clusters accumulations.

DATE Apr 20 1990 TIME 1330-1500 TIDE HEIGHT 2.5'-5' ft

1= BEDROCK 2=BOULDER 3=COBBLE 5=SAND 6=SILT

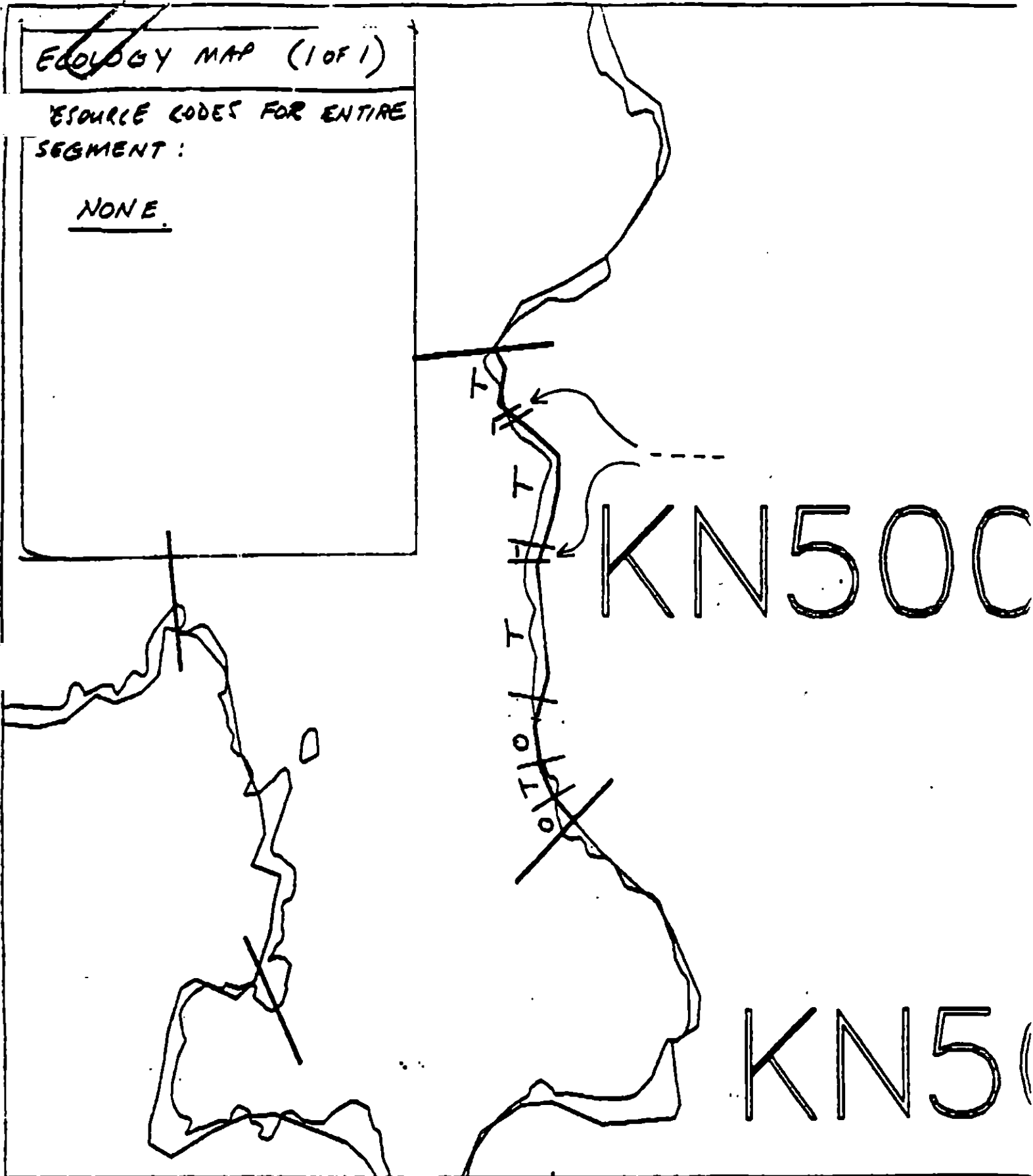
INT: ST. KN5003 SUBDIVISION A LENGTH 613 m BIOLOGIST Benson

SPECIES	UITZ	MITZ	LITZ	COMMENTS
FLORA: BOSSIELLA/CORALLINA				
CALLIARTHRON/CORALLINA				
GLADOPHORA SPP				
COSTARIA SPP				
ENDOCLADIA MURICATA				
FILAMENTOUS GREENS				
FILAMENTOUS REDS				
OLOIOPELTIS FURCATA				
HALOSACCION GLANDIFORME				
LAMINARIA SPP				
LITHOTHAMNION				
NEREOCYSTIS SPP				
PORPHYRA SPP				
RALPHSIA/HILDENBRANDIA		3		
PHODOMELA LARIX		1		
RHOHOMENIA PALMATA				
SCYTOSIPHON SPP		2		
ULVA SPP				
ZOSTERA MARINA				
ENTOROMORPHA				
FAUNA: ANTHOPLEURA SPP				
(SEMI) BALANUS CARIOSUS		1,2,3		2 most non oiled ones were alive.
B GLANDULA	1,2,3	1,2,3	1,2,3	1 most oiled ones were dead
BRYOZOANS				
CHITONS (other than K. TUNICATA)				
CLAMS				
CRABS		2,3	2,3	many hermit crabs in pools too
DERMASTERIAS IMBRICATA				
KATHARINA TUNICATA				
LEPTASTERIAS HEXACTIS				Notogammarus perssoni & Scutium
LIMPETS	1	1,2,3	1,2,3	upper tidal limpets in crevices
LITTORINA SPP	1	1,2,3		
NUCELLA SPP		1,2,3		eggs on M2
PAOURUS SPP				
PISASTER OCHRACEUS				
POLYCHAETES				
PYCNOPODIA HELIANTHOIDES		2	2	
SEARLESIA DIRA				
SERPULIDS				
SIPHONARIA THERSITES				
TEALIA				
beach hopper amphipods		3	3	

ECOLOGICAL MAP (1 OF 1)

RESOURCE CODES FOR ENTIRE
SEGMENT:

NONE



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

KN-5003

ADEC Segment Length: 600m

Exxon Segment Length: 613m



Map Key: PWS-371

Name: A. Pittenger

Date: April 20, 1990

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ KN-5004 SUBDIVISION A (1 OF 1) DATE 4/4/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. 226-10-16956

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

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

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Charles J. H. [Signature] DATE: 4/20/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V. Light 128 m: No Oil 1481 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/17/90

ADEC Art Weiner Art Weiner

EXXON Andy [Signature] Andy [Signature]

NOAA Burt Wescott Burt Wescott

USCG Ken [Signature] Ken [Signature]

FOSC: DATE: 4-25-90

PWS ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
- 1C Salmon fry nursery area (4/31 to 7/31)
- 1D Esther Hatchery release (4/15 to 6/1)
- 1E Main Bay Hatchery release (4/20 to 5/10)
- 1F Sawmill Bay Hatchery release (4/20 to 5/10)
- 1G Cannery Creek Hatchery release (4/21 to 6/1)
- 1H Remote release site
- 1I Gill net area (6/7 to 8/31)
- 1J Purse seine area (7/21 to 9/30)
- 1K Purse seine hook-off (7/20 to 9/30)
- 1L Set net sites (6/11 to 7/25)
 For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/1 to 6/15)
 Restrict boat traffic to essential minimum. Avoid damage to unrolled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
- 3N, 3P Harbor seal and sea lion pupping (5/15 to 7/1)
 3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 5R Seabird colony (5/1 to 9/1)
 Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic.
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
- 6U Recreation: Tent sites (6/1 to 9/15)
- 6V Anchorages (6/1 to 9/15)
- 6W Forest Service cabins (6/1 to 9/15)
- 6X Lodge (6/1 to 9/15)
- 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
- 7HH Finfish harvesting
- 7I Deer harvesting (8/15 to 2/28)
- 7JJ Invertebrate harvesting
 For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

GMENT ST KN 5004 SUBDIVISION: Nene DATE 4-3-90

USCG

NAME W.E. WHITE SIGNATURE W.E. White☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

No oil observed!

ADEC

NAME Dianne Munson SIGNATURE Dianne Munson☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

No oil observed within this segment.

LAND MANAGER

NAME David Mendrella SIGNATURE David M. Mendrella☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

*No oil coats or subsurface oil was discovered.
Excellent population of fucus in lower intertidal zones.*

SHORELINE OILING SUMMARY

REVISION NO. 06/28/90

OG Sawyer USCG White SEGMENT ST/ KN5004
 BIO Beason LAND REP Mandrella (FS) SUBDIVISION Area A (1 of 1)
 CXN Katsimpeelis ADEC Munson TIME 13:00 to 14:30
 DAM NO.: 8 TIDE LEVEL: +6.0 to +3.0 DATE Apr 1 4 /90
 EST. SUBDIVISION LENGTH: 1554 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 60 % B 15 % C 20 % P 5 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 40 % Hang 0 % Vert 60 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 50 m NO 1504 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	10	15	10	15	10	15	10	15	10	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 pompan#BAGS 0

Photographs:

Roll No. St-8-2Frames 1-6

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
		OP	OR	OL	OF	NO		UG	UC	10	15	10	15	10	SU	U	M	U		
1	25						- - -												N	P, G, C
2	20						.												N	B, P, S
3	20						.												N	P, S
4	20						.												N	C, P, S
							.													
							.													

COMMENTS ST/KN-5004: The only observed oil was occasional films on lithic fragments.

OG Sawy

SK H MAP

SEGMENT ST/ KN5004

SUBDIVISION none

DATE Apr 14 90

TTTT Bedrock cliff

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Sample Body
- ☐ CR Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HYDRAUL.
- ☐ SGL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pt Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

FL - No Subsurface Oil

2 Δ

FL - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

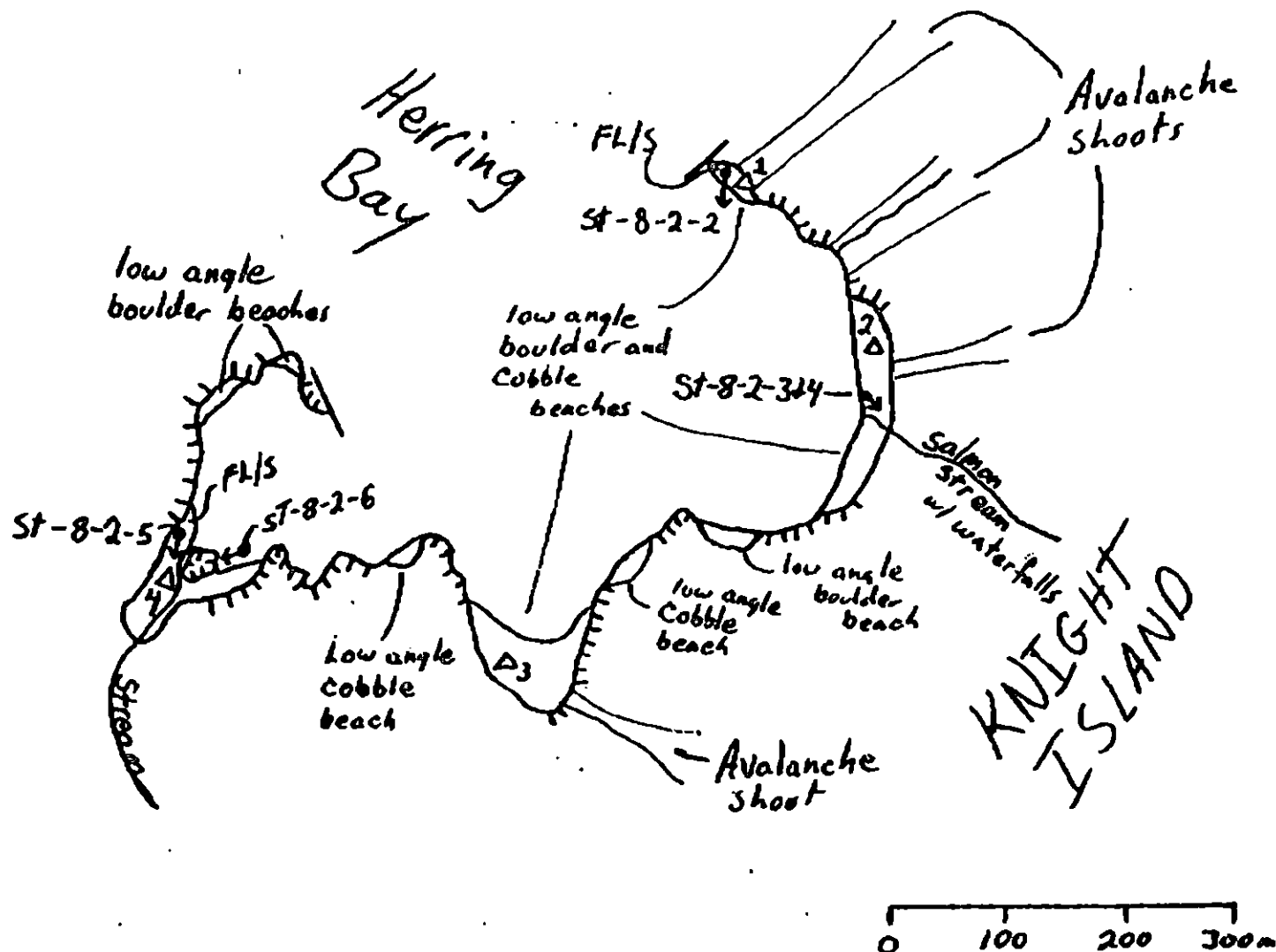
CT/S

Splashed Distribution

Other Vegetation

1 <=>

Photo location, direction, and number



Oil Character Length (m): AP ☐ CR ☐ CV ☐ CT ☐ ST ☐ MS ☐ PT ☐ TB ☐ FL ☒ NO 1504

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/23/90

Segment ST / KN5004 Subdivision None Date (mo / day / yr) 4/4/90

Time (24 hr) 1300-1445 Biologist John Benson

- (A) Substrate type and % of segments:
 (1) Bedrock 60 (2) Boulder 15 (3) Cobble 20 (4) Pebble 5 (5) Sand 0 (6) Silt 0
- (B) Overall % cover of biota (% of segment): Dense 30 Moderate 30 Low 40
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (O)

Photographs:
 Roll No. ST-B-2

Frames 1-6

BARNACLES

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

MYTILUS

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

GASTROPODS

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

FUCUS

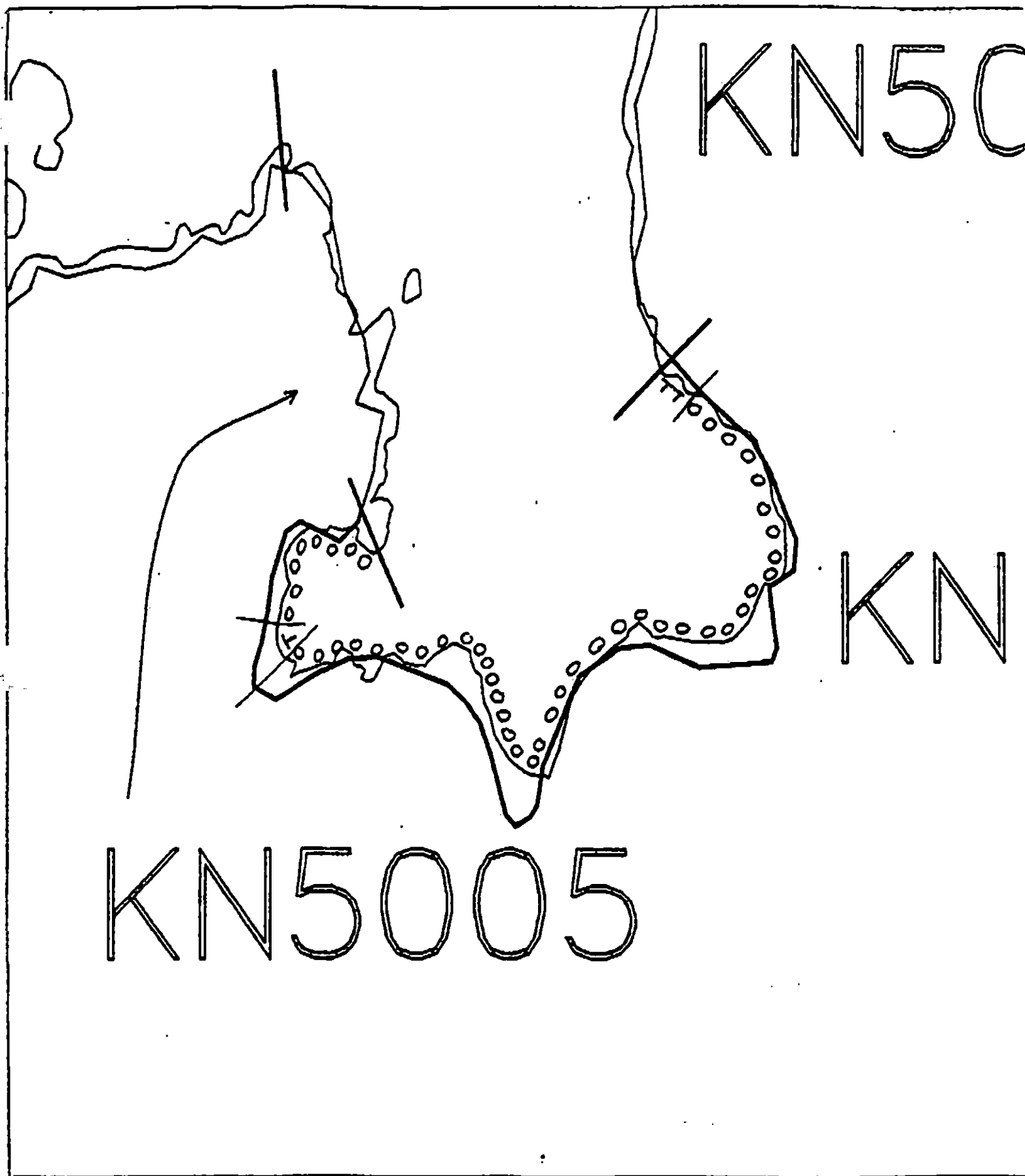
Dense			Moderate			Sparse			Rare			NOT PRESENT
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	2	2	2	2	2	
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

Wildlife Observations/ General Comments:

10 goldeneyes (probably 5 male & 5 female, but I'm not sure)
 This is a very protected site with significant inflow of freshwater.

Ecological Considerations:

Sensitivities: 1B (salmon stream)



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

KN-5004

ADEC Segment Length: 1609m



Map Key: PWS-372

Name: Sawyer

Date: Apr. 4, 1990

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ KN-5008 SUBDIVISION A (1 OF 1) DATE 4/6/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

6V Recreation: Anchorages (6/1 to 9/15)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: *[Signature]* DATE: 4/13/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 433 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/18/90
DEC *[Signature]*
EXXON *[Signature]* FOSC: *[Signature]* DATE: 4-22-90
NOAA *[Signature]*
USCG *[Signature]*

PWS ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
- 1C Salmon fry nursery area (4/31 to 7/31)
 1D Esther Hatchery release (4/15 to 6/1)
 1E Main Bay Hatchery release (4/20 to 5/10)
 1F Sawmill Bay Hatchery release (4/20 to 5/10)
 1G Cannery Creek Hatchery release (4/21 to 6/1)
 1H Remote release site
 1I Gill net area (6/7 to 8/31)
 1J Purse seine area (7/21 to 9/30)
 1K Purse seine hook-off (7/20 to 9/30)
 1L Set net sites (6/11 to 7/25)
 For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/1 to 6/15)
 Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
- 3N, 3P Harbor seal and sea lion pupping (5/15 to 7/1)
 3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 5R Seabird colony (5/1 to 9/1)
 Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic.
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
- 6U Recreation: Tent sites (6/1 to 9/15)
 6V Anchorages (6/1 to 9/15)
 6W Forest Service cabins (6/1 to 9/15)
 6X Lodge (6/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
 7HH Finfish harvesting
 7II Deer harvesting (8/15 to 2/28)
 7JJ Invertebrate harvesting
 For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ KN 5008 SUBDIVISION: None DATE 4/6/90

USCG
NAME W. E. WHITE SIGNATURE W. E. White

☒ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

No oil was observed!

ADEC
NAME Dianne Munson SIGNATURE Dianne Munson

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS No oil was observed within this segment.

LAND MANAGER
NAME David Mandrella SIGNATURE David Mandrella

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

No oil observed.

SHORELINE OILING SUMMARY

REVISION NO. 03/23/90

OG Sawyer USCG White SEGMENT ST/ KN5008
 O Benson LAND REP Mandrella SUBDIVISION None
 AXON Katsimpalis ADEC Munson TIME 14:30 to 17:00
 TEAM NO.: 8 TIDE LEVEL: +6 to +1.5 DATE Apr 1 6 /90
 EST. SUBDIVISION LENGTH: 467 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 30 % C 50 % P 10 % 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 467 m

SURFACE OIL

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

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☒ YES ☐ NOTYPE rope#BAGS 1

Photographs:

Roll No. ST-8-2Frames 21-22

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		UO	UC	SP	BP	OP	BP	OT	TL	LR	SU	U	M	U			
1	25					/	- . -		/								/			N	P, G		
2	25					/	- . -		/									/		N	P, G, S		
3	30					/	- . -		/									/		N	G, P, S		
4	20					/	- . -		/									/		N	P, G		
5	25					/	- . -		/									/		N	G, S		
6	15					/	- . -		/									/		N	C, P, S		

COMMENTS ST/KN5008: Large rock at bottom of pit 6.No oil was observed in this segment.

SHORELINE OILING SUMMARY (PAGE ___ of ___)

REVISION 02/22/99

SEGMENT ST/ KN5008 SUBDIVISION NONE

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	BR	BL	GR	WH	ST	BLK	DR	LT	SU	UT	M	LI		
7	20					/	---		/									/				N	P, G, S
8	25					/	---		/									/				N	P, S
9	30					/	---		/									/				N	C, P, S
10	25					/	---		/									/				N	B, C, P
11	20					/	---		/									/				N	C, P, S
							.																
							.																
							.																
							.																
							.																
							.																
							.																
							.																
							.																
							.																

COMMENTS

REVIEWED

DATE

10 Sawye

SKE MAP

EGMENT ST/K... 08

UBDIVISION -

ATE Apr 16 90

CHECKLIST

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

LEGEND

1 Δ
1 - No Subsurface Oil

2 Δ
1 - Subsurface Oil

CT/C
intermediate Distribution

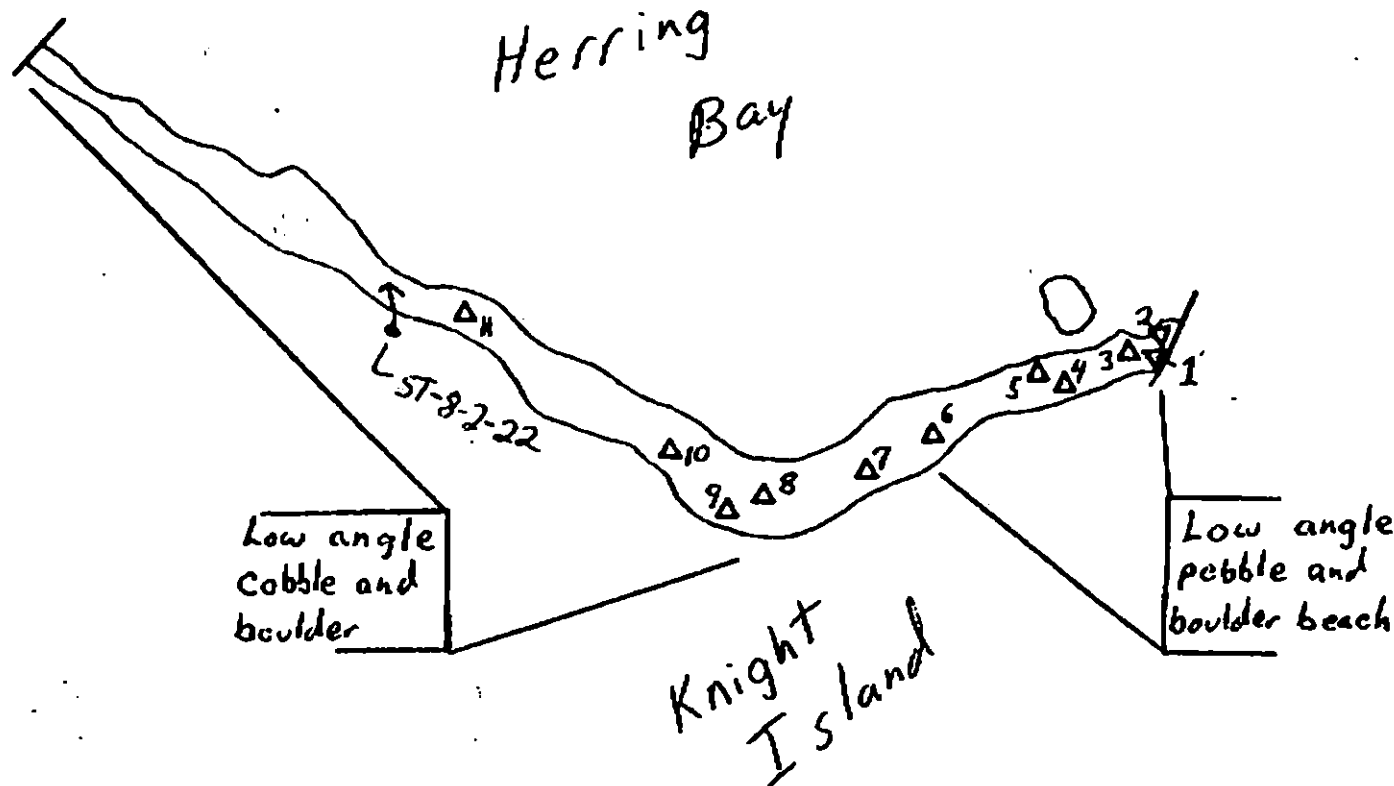
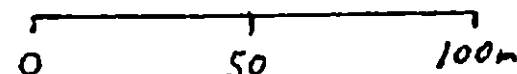
CT/B
open Distribution

CT/P
edge Distribution

CT/S
flushed Distribution

ed Vegetation

1 ●→
oto location, direction,
d number



Character Length (m): AP — PO — CV — CT — ST — MS — PT — TB — FL — NO 467

REVISION: 03/04/90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/23/88

Segment ST/KN500B Subdivision None Date (mo / day / yr) 4/6/90e (24 hr) 1520-1700 Biologist John Benson

- (A) Substrate type and % of segments:
 (1) Bedrock 10 (2) Boulder 30 (3) Cobble 50 (4) Pebble 10 (5) Sand 0 (6) Silt 0
- (B) Overall % cover of biota (% of segment): Dense 10 Moderate 60 Low 30
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
Roll No. ST-8-2Frames 21-22

BARNACLES

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

MYTILUS

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

GASTROPODS

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

FUCUS

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

Wildlife Observations/ General Comments:

sea otter (*Enhydra lutris*), harbor seal (*Phoca vitulina*), merganser*Nucella lamellosa* egg cases were observed beneath a boulder

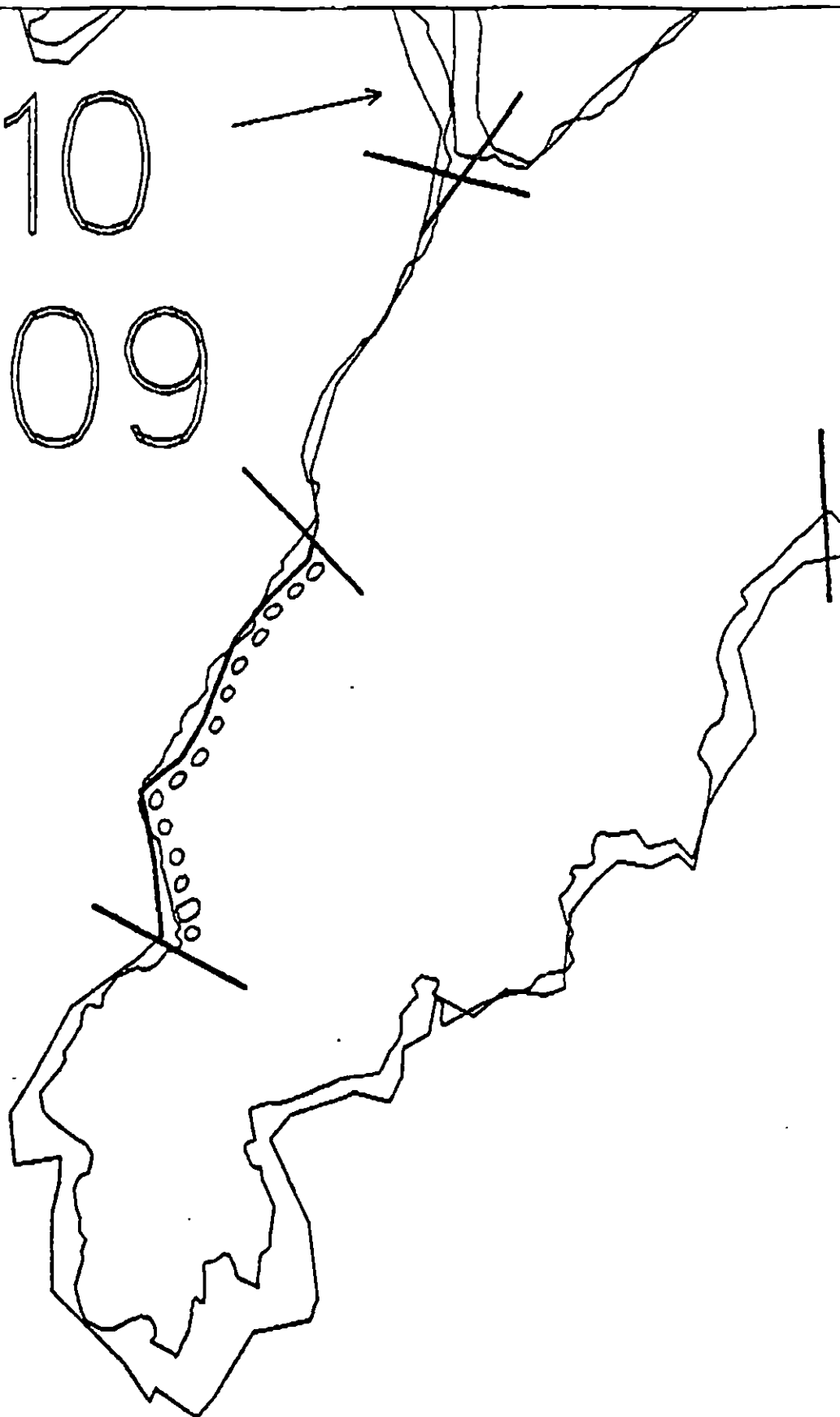
Ecological Considerations:

Sensitivities: GV (anchorages)

overhang. This was the first segment in which I have found these egg cases with the egg still contained within it. I do not know what the seasonal pattern of egg release

KN5010

KN5009



XXX Wide

/// Medium

--- Narrow

TTTT Very light

KN-5008

ADEC Segment Length: 433m

Map Key: PWS-376

Name: Sawyer

Date: Apr. 6, 1990

SHORELINE EVALUATION

SEGMENT ST/ KN-5009 SUBDIVISION A (1 OF 1) DATE 4/6/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE *Charles E. [Signature]*

DATE: 4/20/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 68 m: V.Light 0 m: No Oil 308 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: 4/19/90.

ADEC ART WEINER
EXXON ANDY EAR
NOAA Bruce Wescott
USCG KENNETH KOTHE

FOSC: *[Signature]*

DATE: 4-25-90

PWS ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
- 1C Salmon fry nursery area (4/31 to 7/31)
 1D Esther Hatchery release (4/15 to 6/1)
 1E Main Bay Hatchery release (4/20 to 5/10)
 1F Sawmill Bay Hatchery release (4/20 to 5/10)
 1G Cannery Creek Hatchery release (4/21 to 6/1)
 1H Remote release site
 1I Gill net area (6/7 to 8/31)
 1J Purse seine area (7/21 to 9/30)
 1K Purse seine hook-off (7/20 to 9/30)
 1L Set net sites (6/11 to 7/25)
 For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/1 to 6/15)
 Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
- 3N, 3P Harbor seal and sea lion pupping (5/15 to 7/1)
 3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 5R Seabird colony (5/1 to 9/1)
 Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic.
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
- 6U Recreation: Tent sites (6/1 to 9/15)
 6V Anchorages (6/1 to 9/15)
 6W Forest Service cabins (6/1 to 9/15)
 6X Lodge (6/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
 7HH Finfish harvesting
 7II Deer harvesting (8/15 to 2/28)
 7JJ Invertebrate harvesting
 For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST KN 5009 SUBDIVISION: None DATE 4/6/90

USCG

NAME W.F. WHITE SIGNATURE William F. White☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

No Treatment - very LITTLE OIL.

ADEC

NAME Dianne Munson SIGNATURE Dianne Munson☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

A sporadic, light coat of oil exists in a narrow band at the upper intertidal zone. The majority of the segment had no oil. No subsurface oil was observed.

LAND MANAGER

NAME David Mandrella SIGNATURE David Mandrella☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

a very light coat of oil exists in a narrow band in upper intertidal along cobble beach. Minimal coatings not warrant any treatment. Continued natural cleaning.

SHORELINE OILING SUMMARY

REVISION NO. 02/28/88

OG Sawyer USCG White SEGMENT ST/ KN5009
 BIO Benson LAND REP Mandrella (Fs) SUBDIVISION A 10f1
 EXXON Katsimpalis ADEC Munson TIME 17:00 to 18:15
 TEAM NO.: 2 TIDE LEVEL: +1.5 to +1 DATE Apr 16 1990
 EST. SUBDIVISION LENGTH: 394 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 60 % B 25 % C 10 % P 5 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 40 % Hang 0 % Vert 60 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 54 m VL 0 m NO 340 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	10	15	10	15	10	15	10	15	10	15	10	15	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 1 BAGSNEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. ST-8-2Frames 23

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	OP	NO		UO	UC	10	15	10	15	10	15	10	15	SU	U	M	U		
1	25						---															N	C, P, S
2	20						---															N	B
3	20						---															N	P, G, S. wt
							.																
							.																
							.																

COMMENTS ST/KN5009: Boulders at base of pits 2 and 3.

Oil was only observed in the upper intertidal zone along the north half of the beach.

OG Saw
SEGMENT ST/KN-5009

SUBDIVISION -

DATE Apr 16 90

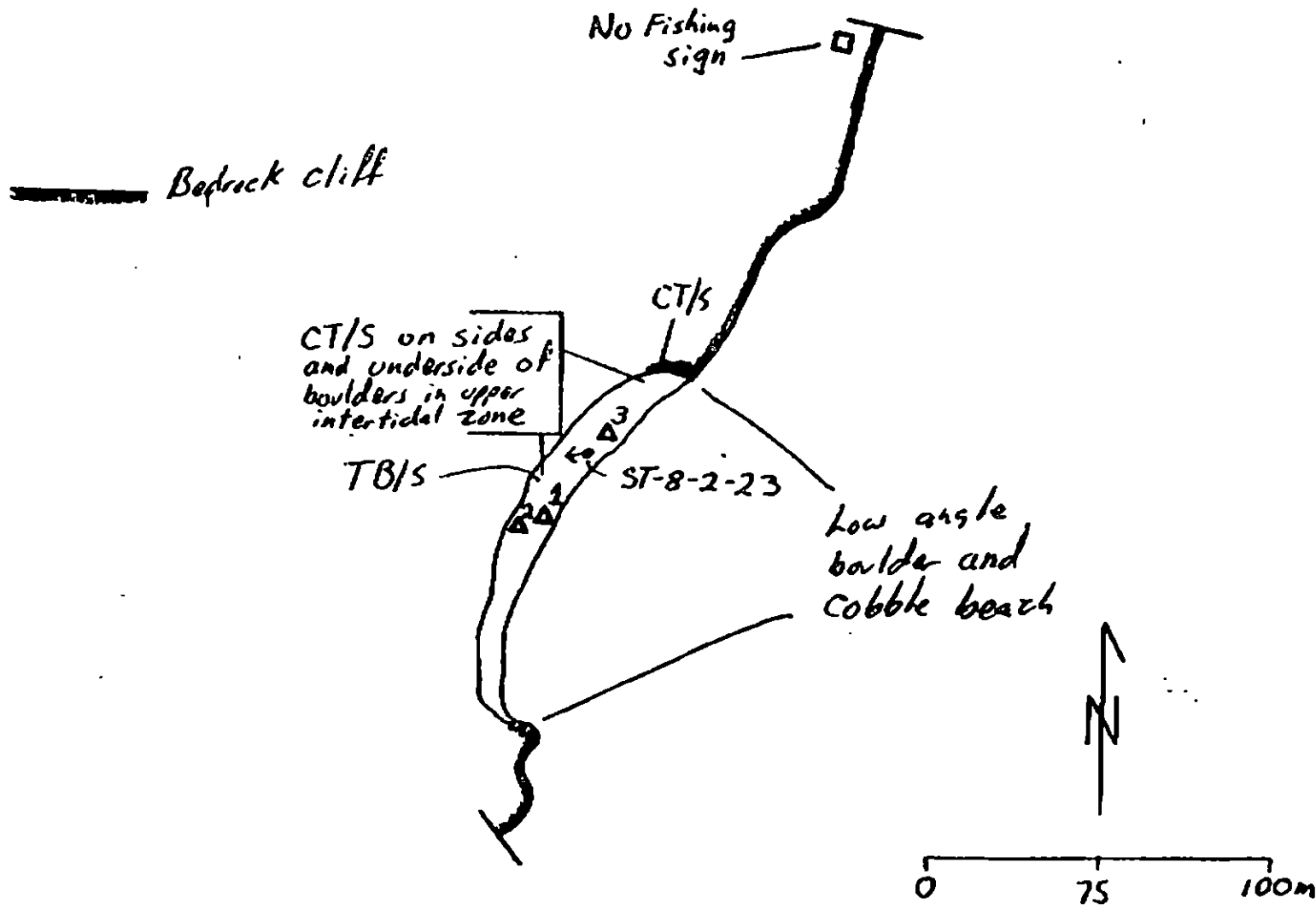
CHECKLIST

- ☐ M Row
- ☐ Approx. Scale
- ☐ Seg/Sub Body
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HML/AVL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pt Location(s)
- ☐ Photo Location(s)

LEGEND

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

SKETCH MAP



Oil Character Length (m): AP ☐ PO ☐ CV ☐ CT 45 ST ☐ MS ☐ PT ☐ TB ☐ FL ☐ NO 340

REVISION: 000000

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST/KN5009 Subdivision None Date (mo / day / yr) 4/6/90

Time (24 hr) 1700-1750 Biologist John Benson

- (A) Substrate type and % of segments:
 (1) Bedrock 60 (2) Boulder 25 (3) Cobble 10 (4) Pebble 5 (5) Sand 0 (6) Silt 0
- (B) Overall % cover of biota (% of segment): Dense 20 Moderate 60 Low 20
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (O)

Photographs:
Roll No. ST-8-2

Frames 23

BARNACLES

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

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

GASTROPODS

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

FUCUS

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

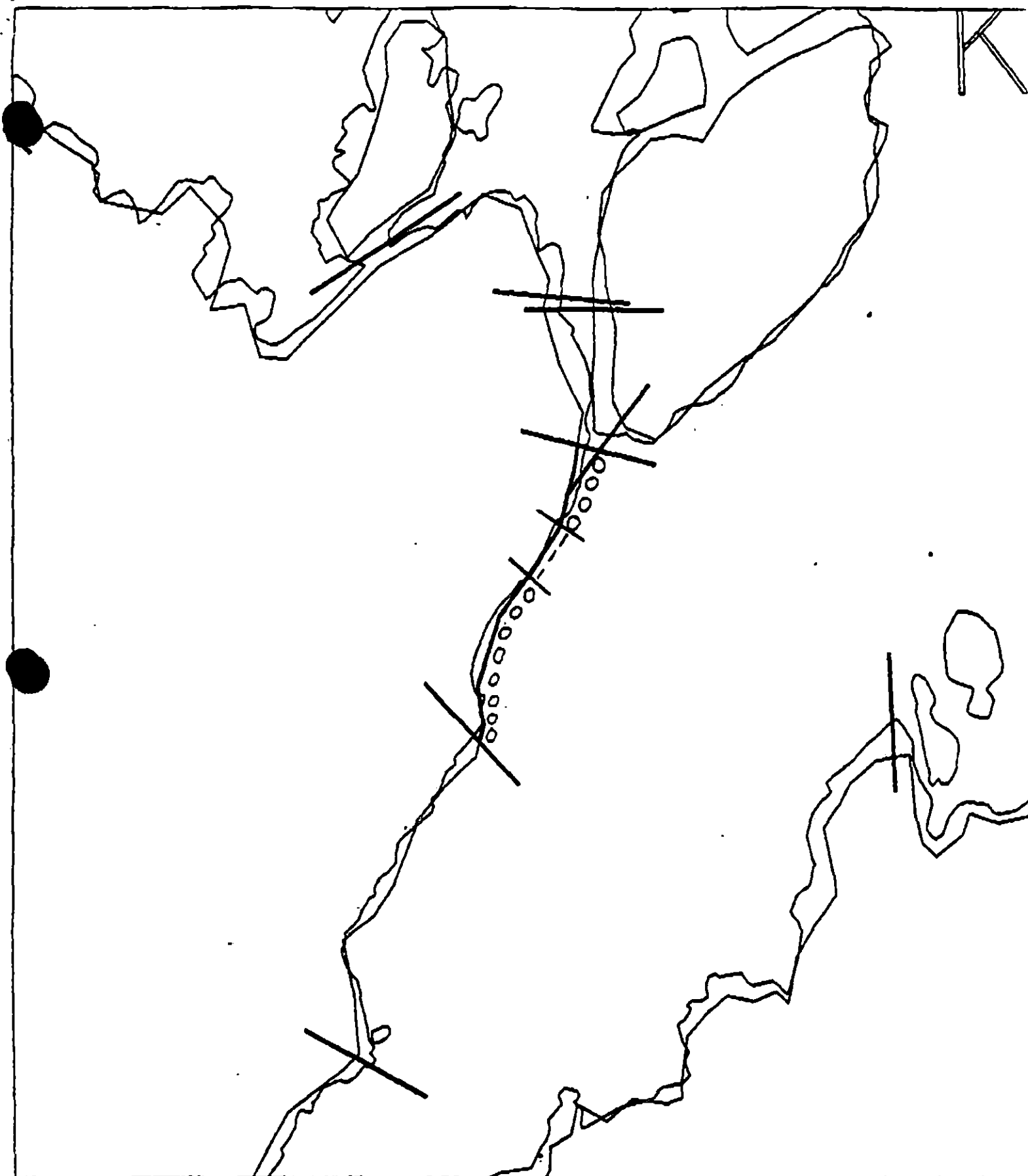
Wildlife Observations/ General Comments:

Gastropods were surprisingly common here as compared to previously examined protected sites. Littorines and the limpet, Notacmaea persona, predominated. However, these

Ecological Considerations:

Sensitivities: 6U (tent sites)

species were not abundant in the subtidal, perhaps because they are consumed more often there by predators (e.g. sea stars).



XXXX Wide

//// Medium

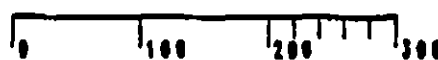
---- Narrow

TTTT Very Light

0000 No Oil

KN-5009

ADEC Segment Length: 377m


METERS

Map Key: PWS-377

Name: SaunierDate: Apr. 6, 1990

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ KN-5011 SUBDIVISION A (1 OF 1) DATE 4/21/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
3N,3P* Harbor seal and sea lion pupping (5/15 to 7/1)
3O,3Q* Harbor seal and sea lion molting (8/15 to 9/15)

See attached Ecological Constraint sheet for specific constraints and contacts.

*Possible pinniped haulouts to the north.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Charles E. Johnson DATE: 5/5/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 148 m: V.Light 145 m: No Oil 1336 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: May 5 1990

ADEC Art Weiner D. Weiner
EXXON Mark N. Willett Mark N. Silbert FOSC: W L DATE: 5-9-90
NOAA Gary Petrage Gay Petrage
USCG G.A. BEITER G.A. Beiter

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G Habitat Division prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G John Morison 267-2324
- 1C Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to July 31 unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Esther Hatchery release (4/15 to 6/1)
 1E Main Bay Hatchery release (4/20 to 6/10)
 1F Sawmill Bay Hatchery release (4/15 to 6/1)
 1G Cannery Creek Hatchery release (4/21 to 6/1)
 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G or PWS Aquaculture Association for confirmation and authorization.
 AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
 1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I Gill net area (6/7 to 8/31)
 1J Purse seine area (7/20 to 9/30)
 1K Purse seine hook-off (7/20 to 9/30)
 1L Set net sites (6/11 to 7/25)
 Contact ADF&G for specific dates, locations and constraints. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G James Brady 424-3212
- 2M Herring spawning (4/1 to 6/15)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Evelyn Biggs 424-3235
- 35 3P Harbor seal and sea lion pupping (5/15 to 7/1)
 35 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31).
 Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2206
- ✓ 8T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (8/1 to 9/15)
 6V Anchorages (8/1 to 9/15)
 6W Forest Service cabins (8/1 to 9/15)
 6X Lodge (8/1 to 9/15)
 6Y Special use destination
- 7Z Subistence area: Salmon harvesting (5/1 to 9/30)
 7-H Finfish harvesting
 7I Deer harvesting (8/15 to 2/25)
 7J Invertebrate harvesting
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2350

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / KN 5011 SUBDIVISION: A DATE 4-21-90**USCG**NAME David A. Sylvester SIGNATURE David A. Sylvester☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED**ADEC**NAME Dianne Munson SIGNATURE Dianne Munson☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

- Primarily bedrock cliff w/ pocket beaches
- Broken, patchy, sporadic weathered coats.
- No subsurface oil observed
- Segment has very little oil

LAND MANAGERNAME David Mandrella SIGNATURE David Mandrella☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

- Minimal amounts of weather coats along primarily bedrock cliff.
- Does not warrant any treatment

SHORELINE OILING SUMMARY

REVISION NO. 04-13-88

OG A. Pittenger USCG D. Sylvester SEGMENT ST/ KA15011
 BIO Ranson LAND REP D. Mandrella SUBDIVISION A (LOFI)
 EXXON Ratsimpalis ADEC D. Munson TIME 14:40 10/17/20
 TEAM NO. #2 TIDE LEVEL 3 1/2 - 5 ft DATE 4/21/90
 EST. SUBDIVISION LENGTH: 2028 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock Snow
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: South to North
 SURFACE SEDIMENTS: R 65 % B 10 % C 20 % P 5 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 10 % Hang 40 % Vert 50 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 120 m VL 175 m NO 1733 m

SURFACE OIL

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

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris	X		

DID YOU COLLECT DEBRIS?

YES ☒ NO ☐TYPE Rope & Float#BAGS <1

Photographs:

Roll No. —Frames —

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (Y/N)	▼	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	VC	1	2	3	4	5	SU	M	M	U				
1	25					X	.										X			N	10	GP-GP
2	10					X	.											X		N	3	GP-GP
3	20					X	.											X		N	10	GP-P
4	30					X	.											X		N	20	GP-P
5	30					X	.											X		N	20	P-P
6	15					X	.								X					N	10	GP-GP

COMMENTS

REVIEWED 7/0DATE 4/23/90

REVISED 04-12-00

SUBSURFACE OIL (CONTINUED)

[illegible]

COMMENTS

REVIEWED

DATE _____

4/23/90

OC A. *Temper*
 SEGMENT ST/K/5011

SUBDIVISION A

DATE 12/1/80

CHECKLIST

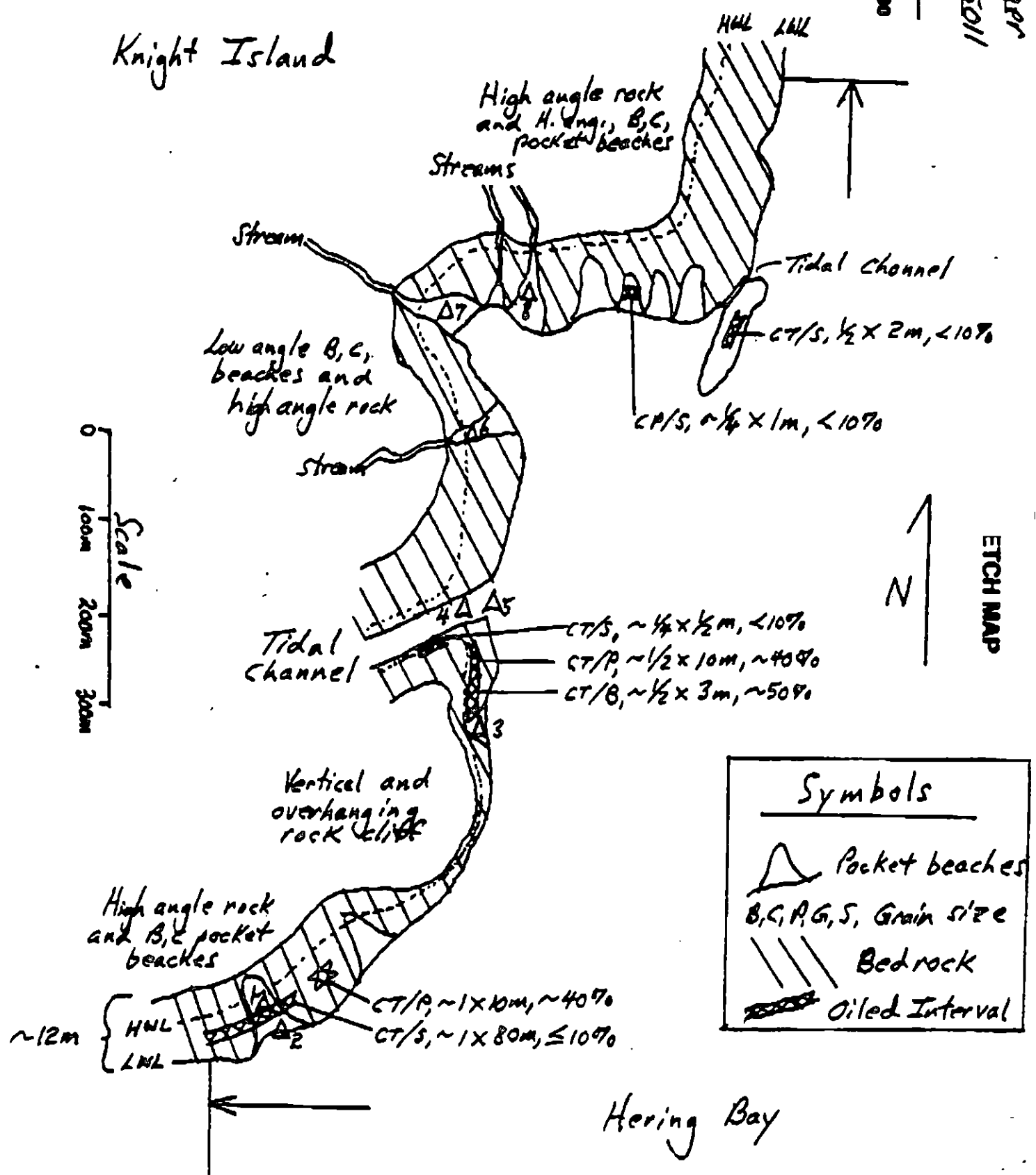
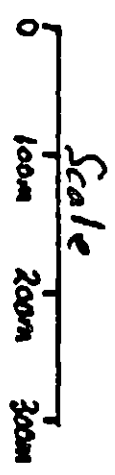
- ☐ Marine
- ☐ Airport, State
- ☐ Seg/Qua Drift
- ☐ On Dkt
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. Wet Area
- ☐ Silt
- ☐ Profile (Location)
- ☐ Profile
- ☐ Pn (Location)
- ☐ Pn (Coverage)

LEGEND

- 1 A
- 2 A
- Pn - Substrate On
- CT/C
- Continuous Distribution
- CT/B
- Bedrock Distribution
- CT/P
- Grain Distribution
- CT/S
- Grain Distribution
- Obs Vegetation
- 1
- Photo location, elevation, and number

Knight Island

ETCH MAP



On Character Length (m): NP 0 NO 0 CV 0 CT/110 ST 0 MS 0 PT 0 TB 0 FL 0 NO/1918

REVISIONS

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/23/90

Segment ST / KN5011 Subdivision A Date (mo / day / yr) Apr 21 1990

Time (24 hr) 1445-1720 Biologist Benson

- (A) Substrate type and % of segments:
 (1) Bedrock 65 (2) Boulder 10 (3) Cobble 20 (4) Pebble 5 (5) Sand 0 (6) Silt 0
- (B) Overall % cover of biota (% of segment): Dense 60 Moderate 20 Low 20
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (O)

Photographs:
 Roll No.
 Frames

BARNACLES

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

NOT PRESENT

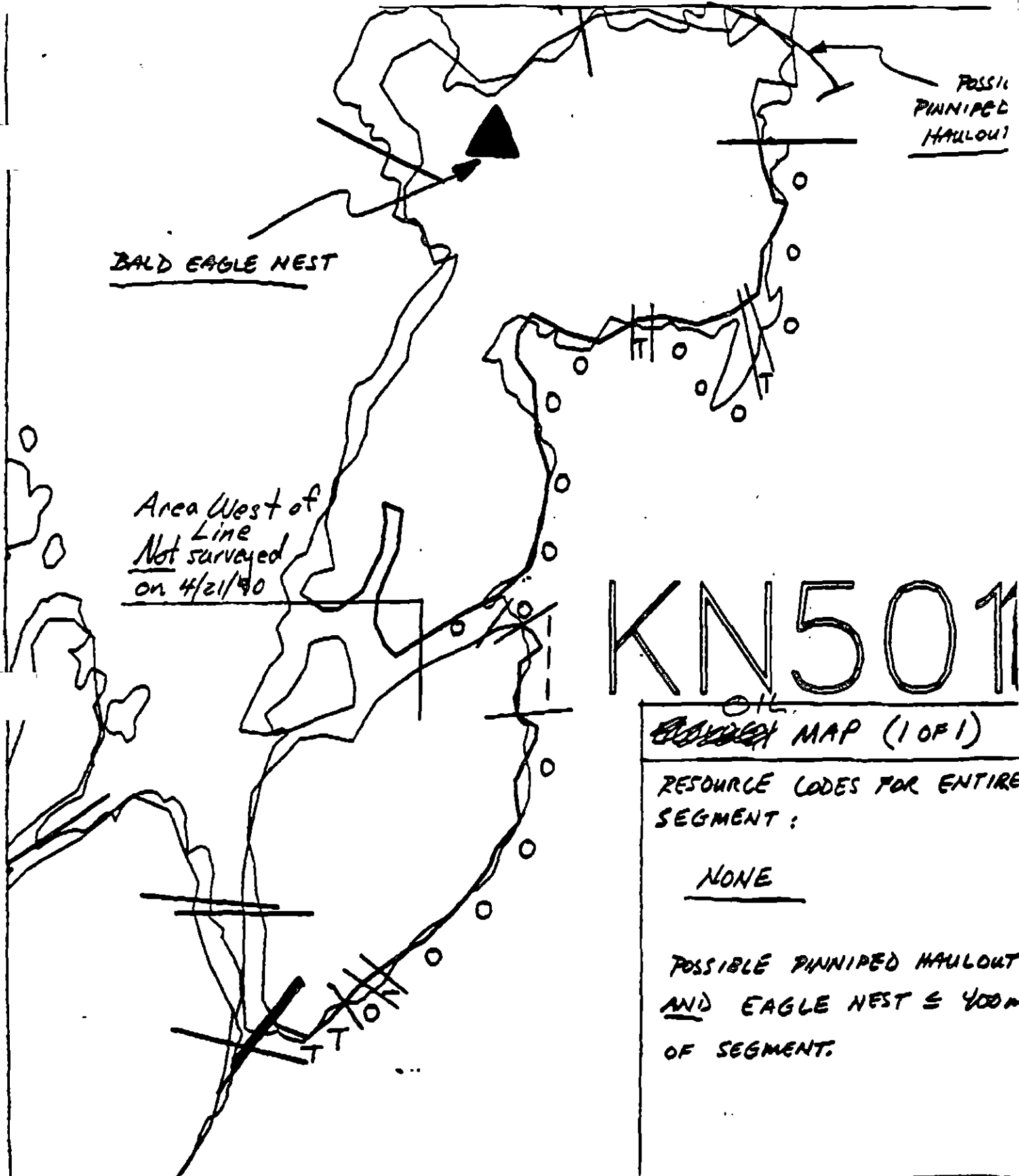
Wildlife Observations/ General Comments:

sea otter (Enhydra lutris) swimming
 herring? (school of 150-200)
 Steller's Jay (Cyanocitta stelleri)

Ecological Considerations:

3N, 3O, 3P, 3Q and ST are in adjacent segments, but none in KN5011

Barnacles (especially B. glandula) were extremely common, particularly on vertical rock walls. On sloping walls, Fucus was also found in abundance in the mid zone. At the southern end of the segment, many bare Fucus stipes were found. Oiled barnacles are 60-80% alive; only about 95% of unoled barnacles are alive. About mid-way through this segment is a very unusual habitat - intertidal fine sediments that have high organic content.



~~BOAT~~ MAP (1 OF 1)

RESOURCE CODES FOR ENTIRE
SEGMENT:

NONE

POSSIBLE PINNIPED HAULOUT
AND EAGLE NEST $\leq$ 400m
OF SEGMENT.

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

KN-5011

Total Segment Length: 2052

Exxon Seg. Length: 2027

0 100 200 300
METERS

Map Key: PMS-380

Name: Pittenger

Date: 4/21/90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ KN-5012 SUBDIVISION A (1 OF 1) DATE 4/20/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

- *3N,3P Harbor seal and sea lion pupping (5/15 to 7/1)
- *30,3Q Harbor seal and sea lion molting (8/15 to 9/15)
- *Possible pinniped haulout in adjacent segment.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: J. David M. McKim DATE: 5/1/90

OILING CATEGORIZATION:

Wide 0 m: Medium 74 m: Narrow 94 m: V.Light 278 m: No Oil 0 m
Subsurface Oil Observed: Yes X No Maximum Depth 10 cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual removal of oiled grass and vegetation in area indicated on sketch map, 2) manual raking of surface of cobble and pebble beaches in two areas indicated on sketch map, and 3) bioremediation of two cobble and pebble beaches after raking is completed as indicated in areas on sketch map. Work should be conducted between 7/1 and 8/15 or with approval from ADF&G regarding possible seal haulout and USFWS due to eagle nest.

TAG COMMENTS: Raking may not be required - monitors to assess on-site the need to rake prior to bid.

TAG APPROVAL DATE: 4/30/90
ADEC ART WEINER
EXXON AMY TEAL
NOAA GARY PETERSON
USCG KENNETH KERR

FOSC: [Signature] DATE: 5-8-90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
- 1C Salmon fry nursery area (4/31 to 7/31)
 1D Esther Hatchery release (4/15 to 6/1)
 1E Main Bay Hatchery release (4/20 to 5/10)
 1F Sawmill Bay Hatchery release (4/15 to 6/1)
 1G Cannery Creek Hatchery release (4/21 to 6/1)
 1H Remote release site
 1I Gill net area (8/7 to 8/31)
 1J Purse seine area (7/20 to 9/30)
 1K Purse seine hook-off (7/20 to 9/30)
 1L Set net sites (8/11 to 7/25)
 For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/1 to 6/15)
 Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
- 3N, 3P ?
 3O, 3Q ?
 Harbor seal and sea lion pupping (5/15 to 7/1)
 Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 5R Seabird colony (5/1 to 9/1)
 Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic.
- 5T ?
 All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
- 6U Recreation: Tent sites (8/1 to 9/15)
 6V Anchorages (8/1 to 9/15)
 6W Forest Service cabins (8/1 to 9/15)
 6X Lodge (8/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
 7H-H Finfish harvesting
 7I Deer harvesting (8/15 to 2/28)
 7J Invertebrate harvesting
 For Codes 7Z through 7J contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1 KN 50/2 SUBDIVISION: A DATE 4/20/90

USCG NAME David A. Sykes SIGNATURE David A. Sykes

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

Patches of oil tacky to the touch. There are signs of sheen in the run-off from snow melting in the super tidal zone. There was sheen in the pits when we checked the sub-surface. There are patches of Tar coat on the bedrock adjacent to the coves as well.

ADEC NAME Dianne Munson SIGNATURE Dianne Munson

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

Bedrock cliff w/ 3 pocket beaches.

- Pocket beaches with pit #s 1-7 are possible sealion/seal haulout
- surface weathered coats (non mobile, sporadic)
- undersides of cobbles/pebbles brown coats (mobile)
- subsurface oil film.
- Borderline treatment situation. May have higher priority due to sensitivity. Possibly treat by manually flipping rocks, spot wash, bioremediation.

LAND MANAGER

NAME David Mandrella SIGNATURE David Mandrella (continued)

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

This segment is a possible pinniped haulout area. Impacted areas occur primarily in the two beach coves in the vicinity of pits 1-7. Oil distribution occurs in upper intertidal zone and would benefit from selected manual tilling followed by bioremediation. ~~at the site~~ ~~priority~~. The long narrow beach pocket facing north in the vicinity of pits 8-10 has extensive surface oiling in mid to upper intertidal zones. Sheering is occurring in upper-intertidal zone where oiled vegetation is noted. Recommend removing oiled vegetation followed by bioremediation.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ KN 5012 SUBDIVISION: A DATE 4/20/90**USCG**

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED**ADEC**NAME Dianne Monson SIGNATURE Dianne Monson☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

- pocket beach with pit #'s 8, 9, 10.
- surface coats, oiled grass at high saturated and dead.
- Actively sheening.
- subsurface with fine sediments oiled to 2 cm.
- Recommend removal of dead oiled vegetation, flooding and bioremediation
- Do not bioremediate uncoiled living grass at supratidal.

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY

REVISION NO. 06-13-90

OG A. Pittenger USCGD Sylvester SEGMENT ST/ KN5012
 BIO J. Bensch LAND REF Mandrella SUBDIVISION A (1 OF 1)
 EXXON C. Katsimpalis ADEC D. Mungan TIME 15:04 to 19:00
 TEAM NO. #8 TIDE LEVEL 1/2 - 4 ft. DATE 4 / 20 / 90
 EST. SUBDIVISION LENGTH: 695 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock Snow
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: Gath to North
 SURFACE SEDIMENTS: R 70 % B 10 % C 15 % P 5 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 15 % Hang 75 % Vert 10 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 100 m N 295 m VL 300 m NO 0 m

SURFACE OIL

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

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

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

DID YOU COLLECT DEBRIS?

YES ☒ NO ☐TYPE Net / Grass#BAGS 1

Photographs:

Roll No. ST-8-4Frames 8

SUBSURFACE OIL

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

COMMENTS * Oiled interval < 5 cm in pits #4, 5, 8, 9, & 10 does not constitute Subsurface oil

 REVIEWED 7W DATE 4/24/90

REVISION 04-15-98

SUBSURFACE OIL (CONTINUED)

[illegible]

COMMENTS

REVIEWED 7w DATE 4/21/90

00 A. HengerSEGMENT NS012SUBDIVISION ADATE 4/20/90

ATCH MAP

CHECKLIST

☐ N Area
☐ Approx. Scale
☐ Seg/Sub Entry
☐ Oil Dist.
☐ Width
☐ Length
☐ % Cover
☐ Substrate Character
☐ Est. MWLA/VL
☐ SSL
☐ Profile Location(s)
☐ Profile(s)
☐ Pht Location(s)
☐ Photo Location(s)

LEGEND

1 Δ
 Pht - No Subsurface Oil

 2 Δ
 Pht - Subsurface Oil

 CT/C
 Continuous Distribution

 CT/B
 Broken Distribution

 CT/P
 Patchy Distribution

 CT/S
 Splashed Distribution

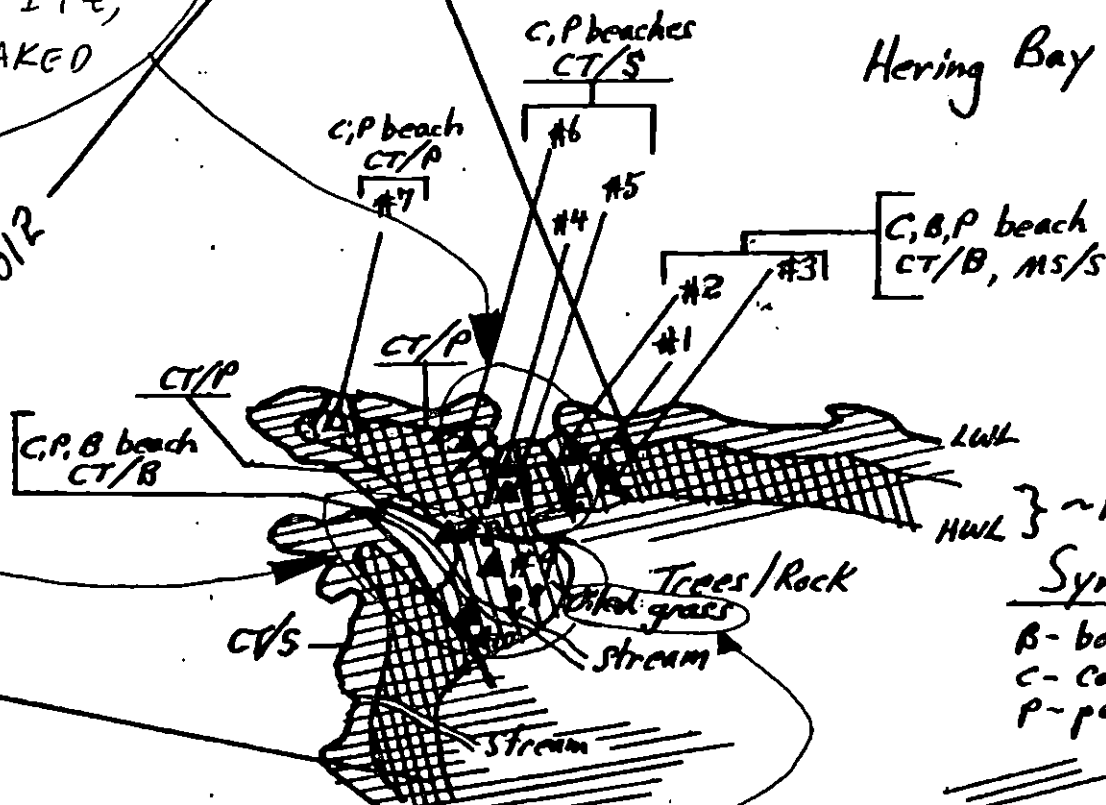
 eee
 Oiled Vegetation

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

SURFACE OF
 MANUALLY RAKE COBBLE AND
 PEBBLE BEACHES BETWEEN
 MID AND UPPER ITZ;
 BIOREMEDIATE RAKED
 SURFACES.

KN5012

MANUALLY REMOVE OILED
 GRASS AND VEGETATION



Symbols

B - boulders
 C - cobbles
 P - pebbles

Bedrock
 Interval
 affected by oiling

Scale

1 in./111. ft

Oil Character Length (m): AP 0 PO 0 CV 0 CT 695 ST 0 MS 1 PT 0 TB 0 FL 10 NO 0

REVISED 000000

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/23/90

Segment ST / KN5012 Subdivision A Date (mo / day / yr) Apr 20, 1990Time (24 hr) 1505-1900 Biologist Benson(A) Substrate type and % of segments:
(1) Bedrock 70 (2) Boulder 10 (3) Cobble 15 (4) Pebble 5 (5) Sand 0 (6) Silt 0(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 (O)

Photographs:
Roll No. ST-8-4Frames 8

BARNACLES

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

MYTILUS

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

GASTROPODS

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

FUCUS

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

Wildlife Observations/ General Comments:

2 goldeneyes (Bucephala sp.)

small grubs (flies?) are now very common, especially near piles of drift seaweed.

a lot of organic material (especially drift Fucus) has accumulated in intertidal channels & pools

Ecological Considerations:

3 N, O, P, Q — possible pinniped haulout // ST-1 in adjacent segment KN122

Barnacles and gastropods are remarkably abundant on mid-zone bedrock & cobbles, resp.

Fucus and Mytilus are most common on horizontal bedrock in the mid-zone.

Overall, this is a biologically productive site, but ^{species} diversity is only average

Unboiled barnacles: 60-80% alive; boiled barnacles: 20-40% alive (upper zone usually)

DATE Apr 20 1990 TIME 1505 - 1900

TIDE HEIGHT

1 1/2' - 4'

1 = BEDROCK

2 = BOULDER

3 = COBBLE

5 = SAND

6 = SILT

SEGMENT ST. KN 5012

SUBDIVISION

A

LENGTH

695

BIOLOGIST

Benson

FLORA:

SPECIES	UITZ	MITZ	LITZ	COMMENTS
BOSSIELLA/CORALLINA				
CALLIARTHRON/CORALLINA				
CLADOPHORA SPP				
COSTARIA SPP				
ENDOCLADIA MURICATA				
FILAMENTOUS GREENS & browns		1, 2		fairly common on S-facing slopes
FILAMENTOUS REDS				
GLOIOPELTIS FURCATA				
HALOSACCION GLANDIFORME				
LAMINARIA SPP				
LITHOTHAMNION				
NEBROCYSTIS SPP				
PORPHYRA SPP				
RALPHSIA/HILDENBRANDIA				
PHODOMELA LARX		1, 2	1, 2, 3	
RHOHOMENIA PALMATA				
SCYTOSIPHON SPP		1, 2	2, 3	
ULVA SPP			1, 3	
ZOSTERA MARINA				subtidal sand in channels
ENTOROMORPHA			2, 3	
Verrucaria	1			

FAUNA:

encrusting yellow sponge			1	in tidepool
ANTHOPELURA SPP				
(SEMI) BALUNUS CARIOSUS				
B. GLANDULA				
BRYOZOANS				
CHITONS (other than K. TUNICATA)				
CLAMS				
CRABS				many hermit crabs; Hemigrapsus oregonensis
DERMASTERIAS IMBRICATA				
KATHARINA TUNICATA				
LEPTASTERIAS HEXACTIS				
LIMPETS	1, 2	1, 3	1, 2, 3	Notoacmea personae & N. scutum
LITTORINA SPP				
NUCELLA SPP		1	1	eggs on 1, 3
PAGURUS SPP				
PISASTER OCHRACEUS				
POLYCHAETES				
PYCNOPODIA HELIANTHOIDES				
SEARLESIA DIRA				
SERPULIDS				
SIPHONARIA THERSITES				
TEALIA				
Idotea & Gnathoporeia	Bopods	X	X	in tidepool, on rubble
blenny eel		X		" " under "

ECOSYSTEM MAP (1 OF 1)
Resource Codes For Entire
Segment

3N, O, P, Q-1

KN5012

BALD EAGLE NEST $\leq$ 400m
OF SEGMENT

POSSIBLE
PINNIPED
HAULOUT

BALD EAGLE
NEST

KN5011

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

OOOO No Oil

KN-5012

ADEC Segment Length: 695m

Exxon Seg. Length: 695m



Map Key: PWS-446

Name: A. Pittenger

Date: April 20, 1990

Date Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT KN-5012 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN
Manual Raking Bioremediation	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

3N,O,P,Q	Harbor Seal & Sea Lion Pupping and Molting	NO TIME CONSTRAINT. Authorized per memorandum dated 5/14/90 from Kathryn Frost/ADF&G to Mark Kuwada/ADF&G.
5T	Bald Eagle Nest	NO CONSTRAINT. USFWS 6/1/90 map indicates no active nest within 400m of Subdivision A work site.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

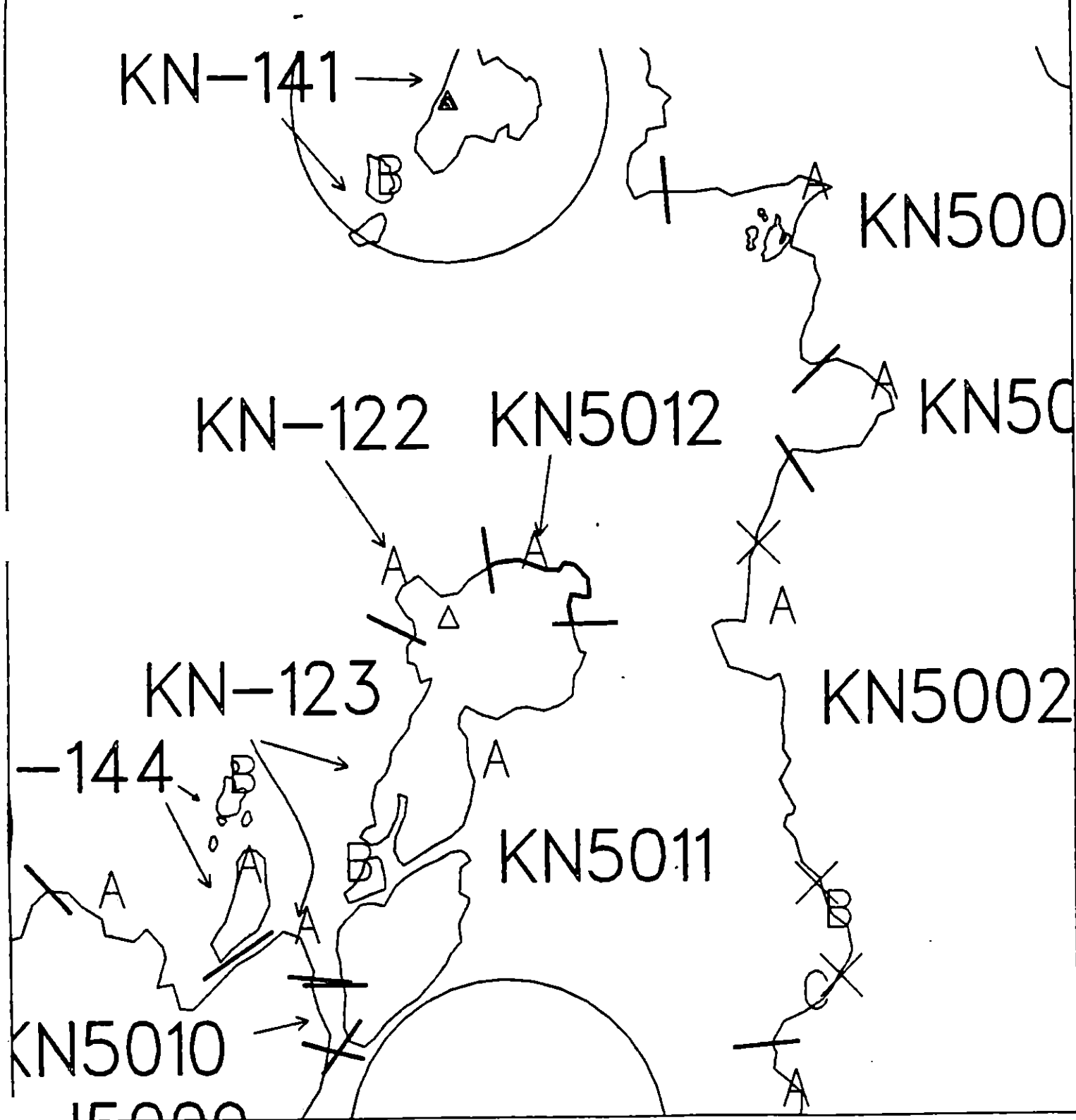
Date

6-10-90

Prepared by

Date

6/8/90



Exxon Company, USA
Map Key: PWS-KN-5012

ECOLOGY MAP
SEGMENT KN-5012
SUBDIVISION A (1 of 1)
METERS

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

SHORELINE EVALUATION

SEGMENT ST K0101-SI-007 SUBDIVISION A (1 OF 5) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon outmigration (3/1 to 5/15) Stream mouth spawning (7/10 to 8/31)
Sensitive Estuary near sement, LAND Mammals, near anadramous stream
No. 251-18-ASC# 10010

SUBDIVISION ECOLOGICAL CONSTRAINTS:

SHPO SIGNATURE: Charles Z. Adams DATE: April 14, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 2434 m
Subsurface Oil Observed: Yes No Maximum Depth

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/14/90.

ADEC JOHN BAUER
EXXON ANDY TGR
NOAA B. / W. / B.
USCG G.A. REITER

FOSC:

DATE: 4-22-90

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
- 1C Salmon fry nursery area (4/31 to 7/31)
 1D Kotol Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
 1I Gill net area
 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay - 6/9 to 10/1.
 East side Kodiak, East side Afognak - 7/4 to 10/1.
- 1K Purse seine hook-off
 1L Set net sites
 USFWS setnet uplands permit 5/15 to 9/15.
- For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/15 to 6/30)
 Restrict boat traffic to essential minimum. Avoid damage to 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 8/1)
 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 (6/1 to 9/15)
 6X Lodge (8/1 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 / 10101 / 51007 SUBDIVISION: A DATE 4-1-90

NOAA

USCG

NAME

John Naughton

SIGNATURE

John P. Naughton☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDNo oil observed.

ADEC

NAME

Scott Shelton

SIGNATURE

Scott Shelton☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTEDCOMMENTS 10101 / 51007 Sub. AHigh energy shoreline ~ access very limited, steep cliffs,
bedrock outcrops, and considerable tidal in beaches.
Helicopter flyby No oil observed.

LAND MANAGER

NAME

Ray Burger ADNR

SIGNATURE

Ray Burger☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDTwo pocket beaches were quickscatted by helicopter setdown on tidelands
for 5-10 min. while 2 crewmembers got out - no oil observed.Headlands on remainder of subd. prevented access/assessment.Area being considered for Shuyak State Park addition.Numerous deer on beach.

OG Perland NCAA USCG Naughton SEGMENT ST/ K0101/51007
 BIO Spright LAND REP Burger - APNR SUBDIVISION A
 EXXON Byers ADEC Shelton TIME 11:05:10.12:45
 TEAM NO.: 19 TIDE LEVEL: 12.5 ft 10.0 ft DATE 4/1/90
 EST. SUBDIVISION LENGTH: 3815 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☐ Foot ☐ Boat ☒ Helo WORKING DIRECTION: N 10 S
 SURFACE SEDIMENTS: R 20 % B 20 % C 20 % P 20 % G 20 % S 0 % M 0 % V 0 %
 SLOPE: Land 20 % Hang 30 % Vert 50 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NU 3815 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	0	1	2	3	SB	BR	OR	OW	YL	SU	U	M	U
ASPHALT													
PAVEMENT													
POOLED													
COVER													
COAT													
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL													

PAVEMENT: H F S 4/4 sq. m by 4/4 cmPATTIES / TARBALLS 4/40 ^{R4} 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. —Frames —

SUBSURFACE OIL

No Dits Dug

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	DELOW		OIL / FILM COLOR							PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	VC	SB	BR	OR	OW	YL	SL	TL	SU	U	M	U		
<u>C</u>																						

COMMENTS

No Dits dug, helicopter flyby.

OG Per d

SKETCH MAP

SEGMENT ST/ K0121/SC007

SUBDIVISION A

DATE 9 / 1 / 90

CHECKLIST

- ☒ M Arrow
- ☒ Approx. Scale
- ☒ Seg/Sub Boundary
- ☒ Oil Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HML/LML
- ☒ 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

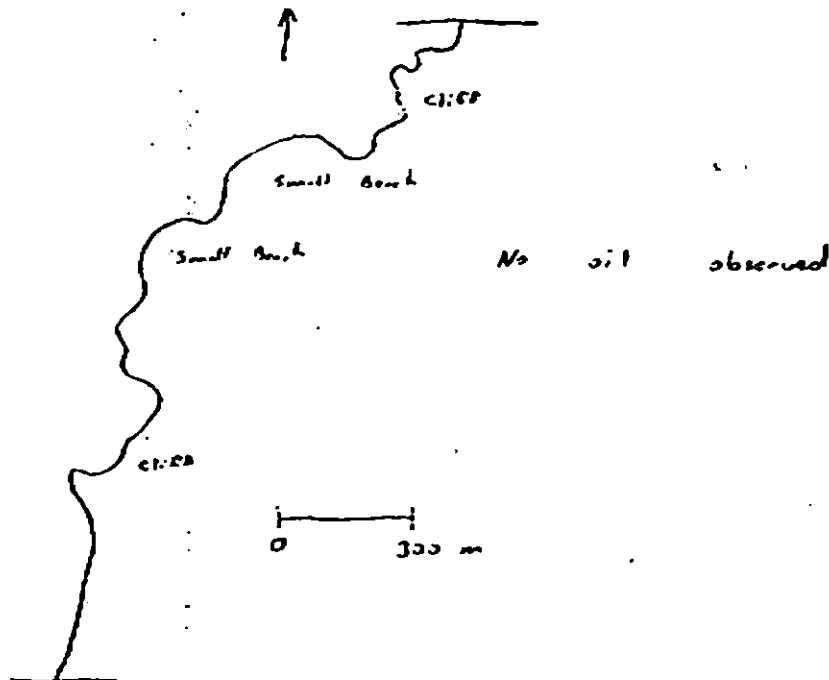
CT/S

Sploshed Distribution

Other Vegetation

1 →

Photo location, direction,
and number



Time (24 hr) _____ Biologist _____

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

Photographs: _____
 Roll No. _____

Frames _____

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

Ecological Considerations:

Subdivision inaccessible — no observations

SI-4

SI-6

SI-7

SI-8

A

* see detail map

XXXX Wide

//// Medium

--- Narrow

TTTT V

SI-7

ADEC Segment Length: 5115m

Map Key: KOD-179

Name: Perland

Date: 4-1-90



SHORELINE EVALUATION

SEGMENT ST/ K01-01-SI-007 SUBDIVISION B (2 OF 5) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream mouth - fry outmigration (3/1 to 5/15); Salmon stream mouth spawning (7/10 to 8/31); Sensitive Estuary near segment; land mammals near anadromous stream no. 251-18- ASC#10010.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid disturbance/damage to unoiled biota and substrate.

SHPO SIGNATURE: Charles Z. [Signature]

DATE: April 14, 1990

OILING CATEGORIZATION:

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

RECOMMENDATIONS:

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

COMMENTS: Treat continuous cover and broken coat areas. Work between 5/16 to 7/9.

TAG COMMENTS:

TAG APPROVAL DATE: 4/14/90

ADEC Art Weiner

EXXON ANDY TEAR

NOAA Bert Wasscott

USGG G.A. REITER

FOSC: [Signature]

DATE: 4-22-90

FIELD SHORELINE COMMENT SHEET

SEGMENT GT1 K0101/SI007 SUBDIVISION: B DATE 4-1-90NOAA
SECNAME John Naughton SIGNATURE John J. Naughton☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Coating of oil on vertical wall for approximately 100m. and some additional splashes and patches on boulders. However no treatment recommended. Majority of area has not been previously cleaned and has cleaned up naturally to a great degree. Good test site for natural cleaning. In addition, rich benthic in lower intertidal (especially dense concentrations of littorine snails) which may be impacted by treatment.

ADEC

NAME Scott Shelton SIGNATURE Scott Shelton☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTEDCOMMENTS K0101/SI007 Sub. B

K.I.S.C.C. Site. NO SUBSURFACE OIL OBSERVED IN PIT LOCATIONS. PATCHY SPREADS stain can be found along Supratidal location further in segment boulders. Very little to no oil observed in sediment between cobbles, boulders, and Bedrock. Coat is MORE than 1mm thick surface needles can be found attached. COVER AREA OIL is weathered and can be removed with some force. THIS AREA HAS CLEANED WELL due to the high energy location N/E & S/E WAVE EXPOSURE: ^{Coat/Cover est. Impact} 20 meters by 1.5 meters.

LAND MANAGER

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

COMMENTS

KISCC site #4

North facing beach has cover in interstitial space of cobbles & cracks in boulders
- manual removal by small crew recommended

Vertical faces with coat survived winter storms / therefore manual removal recommended

Area considered for Shagok State Park addition.

Deer scat plentiful in uplands

SHORELINE OILING SUMMARY

REVISION NO. 03/25/90

OG Pea Island Naughton SEGMENT ST/ KO101/51007
 BIO Seigist LAND REP Curry ADNR SUBDIVISION 8
 EXXON Byers ADEC Sheldon TIME 11:05 10:12 45
 TEAM NO. 19 TIDE LEVEL: +2.5 ft to 0 ft DATE 4/1/90
 EST. SUBDIVISION LENGTH: 200 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 20 % S 30 % C 30 % F 10 % G 10 % M 0 % V 0
 SLOPE: Lang 30 % Hang 30 % Vert 40 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 200 m VL 0 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	L
ASPHALT PAVEMENT POOLED																
COVER	X															
COAT																
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL																X

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED

☐ YES ☒ NOTYPE N/ABAGS N/A

Photographs:

Roll No. 19-3Frames 11-18

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	REFLOW		OIL / FILM COLOR								PIT ZONE				A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	UC	30	35	40	45	50	55	60	65	SU	U	M	L		
1	30					X	-											X					cobble, pebble
2	30					X	-												X				cobble, pebble
3	30					X	-													X			cobble, pebble
							-																
							-																
							-																

COMMENTS

- oil occurs in 1.5m mid to upper intertidal band (continuous and broken)
- oil splashes are patchy in the supratidal zone.
- no oil is found in the cobble channels
- this is the KISCC site

OG. Portland

SKETCH MAP

SEGMENT ST/ K2101/S1007

SUBDIVISION B

DATE 4 / 1 90

CHECKLIST

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

LEGEND

1 Δ

Pit - No Subsurface Oil

2 Δ

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

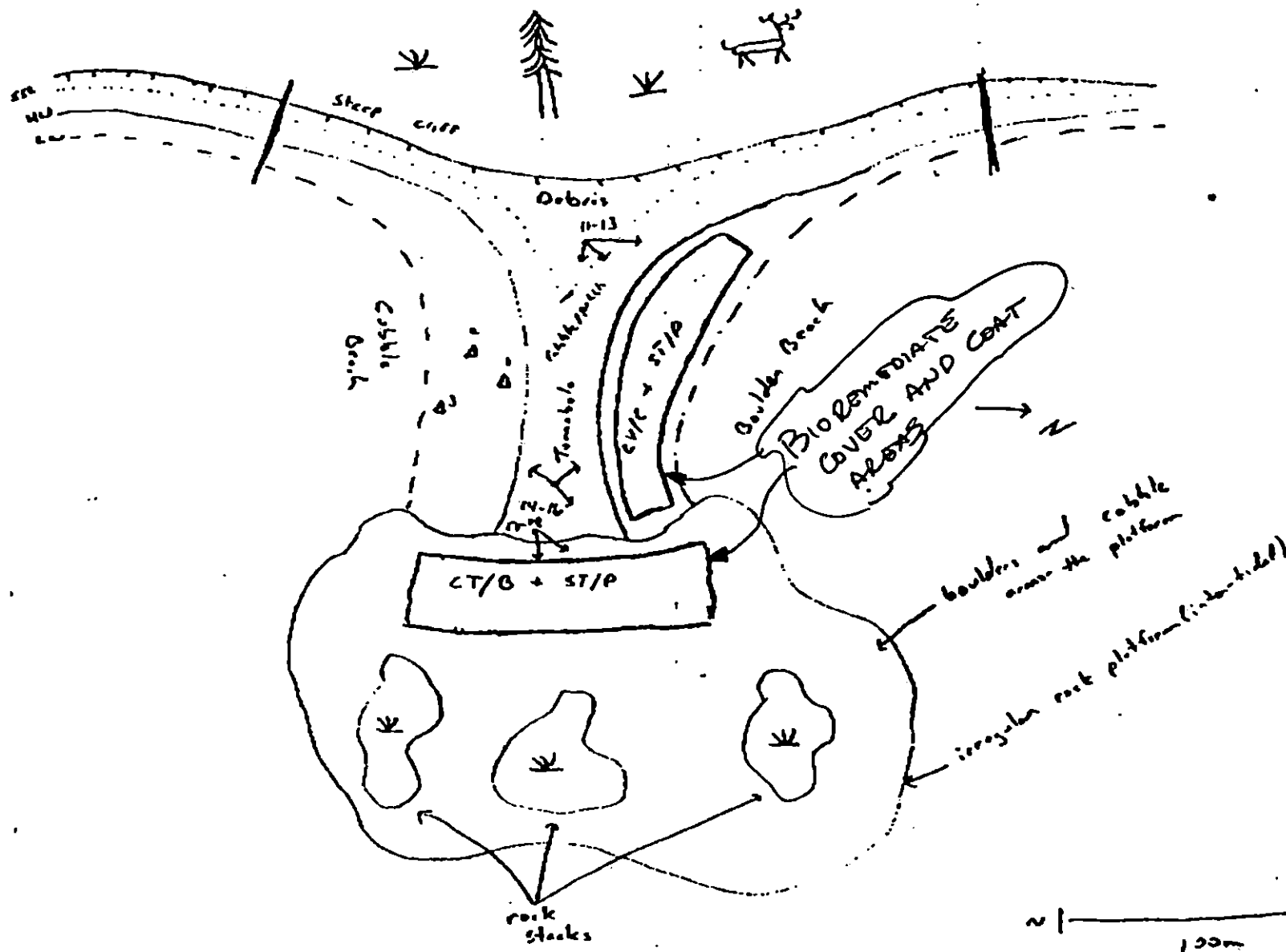
CT/S

Splashed Distribution

Oiled Vegetation

1 →

Photo location, direction, and number



Oil Character Loc (n): AP 0 PO 0 CV 100 CT 100 ST 200 MS 0 TB 0 FL 0 NO 0

VERSION 01/2000

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/22/91

Segment ST / 51-7 Subdivision B Date (mo / day / yr) 4/1/90Time (24 hr) 11:46 Biologist SPIGHT(A) Substrate type and % of segments:
(1) Bedrock 60 (2) Boulder 0 (3) Cobble 0 (4) Pebble 0 (5) Sand 0 (6) Silt 0(B) Overall % cover of biota (% of segment): Dense 30 Moderate 30 Low 40(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L):
juveniles / adults (X), new settlement (3)Photographs:
Roll No. _____

Frames _____

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	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:

Sensitivities 1A, 1B, 9AA → not at this site.
9LM

Ecological Considerations:

Fucus locally dense on mid-level boulders
Some kelp offshore
Bedrock pools with 1000's of large Littorines

SI-4

SI-6

SI-7

SI-8

A

* see detail map

XXXX Wide

//// Medium

--- Narrow

TTTT Very light

SI-7

ADEC Segment Length: 5115m

Map Key: KOD-179

Name: Penland

Date: 4-1-90



ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K01-01-SI-007 SUBDIVISION B (2 of 5)

WORK WINDOW	
Bioremediation	OPEN: [REDACTED]

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

ADF&G catalogued anadromous streams (251-18-10010) is more than 100m from work site. No constraint to bioremediation.

5R Seabird Colony

No constraint to bioremediation, but follow transit route through seabird colony buffer zone as described on attached map.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict boat traffic to essential minimum. Avoid any unnecessary disturbance or damage to unrolled substrate and biota especially intertidal and subtidal algae and seagrass. Sensitive estuary.

FOSC

[Signature]

Date

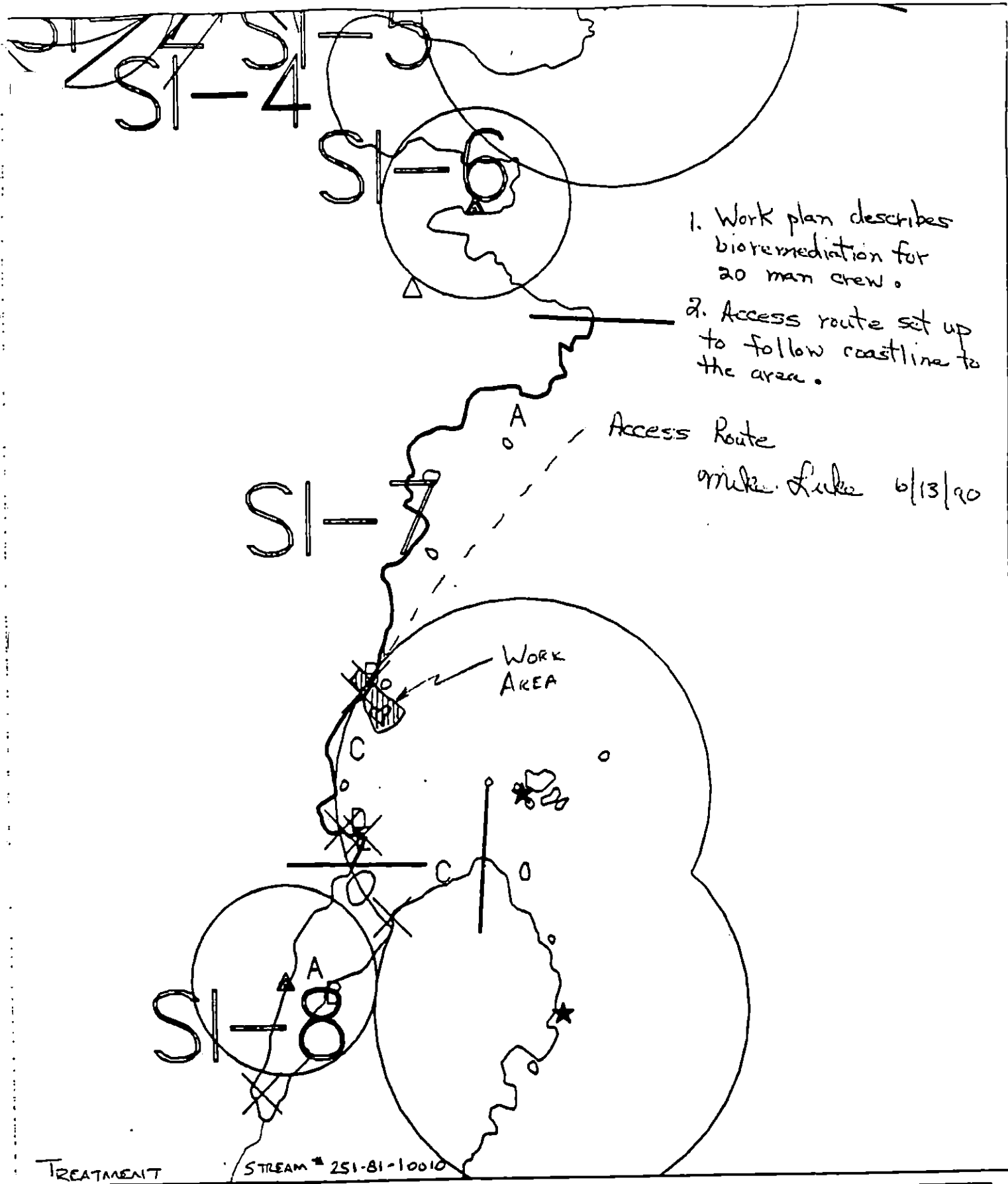
6-16-90

Prepared by

[Signature]

Date

6/15/90

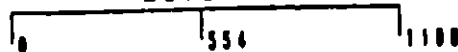


Exxon Company, USA
Map Key: K00-SI-7
June 10, 1990



ECOLOGY MAP
SEGMENT KI-1 SI-7
SUBDIVISION B (2 of 5)

METERS



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

1 inch = 1818 feet

SHORELINE EVALUATION

SEGMENT ST/ K01-01-SI-007 SUBDIVISION C (3 OF 5) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream outmigration (1A) - 3/1 to 5/15; Salmon stream mouth spawning (1B) - 7/10 to 8/31. No disturbance of stream bed or banks unless authorized by ADF&G Habitat Division prior to treatment for permits. Sensitive estuary, ASC# 256-40, #10010.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid disturbance/damage to uncoiled biota and substrate.

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

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 810* 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: No computer map data, OG estimate used.

TAG COMMENTS:

TAG APPROVAL DATE: 4/14/90
ADEC JOHN BAKER
EXXON ANDY TEA FOSC: DATE: 4-22-90
NOAA Burt Wescott
USCG G.A. REITER

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K0101 SUBDIVISION: C DATE 3-31-90

10AA

0300

NAME

John Moughton

SIGNATURE

John Moughton☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDNo oil observed.

ADEC

NAME

Scott Shelton

SIGNATURE

Scott Shelton☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

K0101-SI007-sub. CHigh energy shoreline. Access limited
No oil observed - Helicopter Fly by.
Rocky shore NO beach access steep cliffs.

LAND MANAGER

NAME

Ray Burger ADR

SIGNATURE

Ray Burger☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDSteep bluffs/access limited/no assessment~~Area high energy~~Area considered for Shuyak State Park additionBench at south end of this subd. was walked with no oil observed.

NOAA

OG Penland 0006 Naughton SEGMENT ST/ Kaloi / 51207
 BIO Spigh LAND REP ADNR SUBDIVISION 6
 EXXON 0001 ADEC Shelton TIME 2:25:10.3:05
 TEAM NO.: 19 TIDE LEVEL: -2.51 10 +3.51 DATE 3/31/90
 EST. SUBDIVISION LENGTH: 450 m 900 ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☐ Foot ☐ Boat ☒ Helo WORKING DIRECTION: 11 10 5
 SURFACE SEDIMENTS: R 22 % B 22 % C 22 % P 22 % G 22 % S 0 % M 0 % V 0 %
 SLOPE: Lang 22 % Hang 42 % Vert 42 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 900 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	AC	AS	PS	BS	SP OR BR	OR OR PW	GY	SL	BR OR TL	LEA	SU	UI	ME	U
ASPHALT														
PAVEMENT														
POOLED														
COVER														
COAT														
STAIN														
MOUSSE														
PATTIES														
TARBALLS														
FILM														
NO OIL											X	X	X	X

PAVEMENT: H F S N/A sq. m by N/A cm

PATTIES / TARBALLS N/A 20 BAGS

NEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT			
	SM	MD	LG	
Logs				DEBRIS COLLECTED ☐ YES ☒ NO
Vegetation				
Trash				
Debris				
				TYPE <u>N/A</u>
				#BAGS <u>N/A</u>

Photographs:

Roll No. —

Frames —

SUBSURFACE OIL

No Pits Dug

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-EM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OP	NO		VO	UC	SC	BR	FM	SL	SU	UI	ME	U	SU	UI	ME	U		
0							.																
							.																
							.																
							.																
							.																
							.																
							.																

COMMENTS

No Pits Dug, helicopter fly by.

SKETCH MAP

SEGMENT ST/ K2101 / SI 007

SUBDIVISION C

DATE 3 / 31 90

CHECKLIST

- ☒ M Area
- ☒ Approx. Soil
- ☒ Seg/Sub Entry
- ☒ Oil Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ (at 1 MWALP)
- ☒ SSI
- ☒ Profile Location(s)
- ☒ Profile(s)
- ☒ Pit Location(s)
- ☒ Photo Location(s)

LEGEND

1 Δ

Pit - No Subsurface CR

2 Δ

Pit - Subsurface CR

CT/C

Continuous Distribution

CT/D

Broken Distribution

CT/P

Patchy Distribution

CT/S

Spattered Distribution

Other Vegetation

1 ●→

Photo location, direction, and number

↑ N

C1:EF

0 300m

Oil Character (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 0 TB 0 FL 0 NO 450 900

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/9

Segment ST / S1-7 Subdivision C Date (mo / day / yr) 4/5/90

Time (24 hr) _____ Biologist _____

(A) Substrate type and % of segments:

(1) Bedrock _____ (2) Boulder _____ (3) Cobble _____ (4) Pebble _____ (5) Sand _____ (6) Silt _____

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

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

Photographs:

Roll No. _____

Frames _____

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

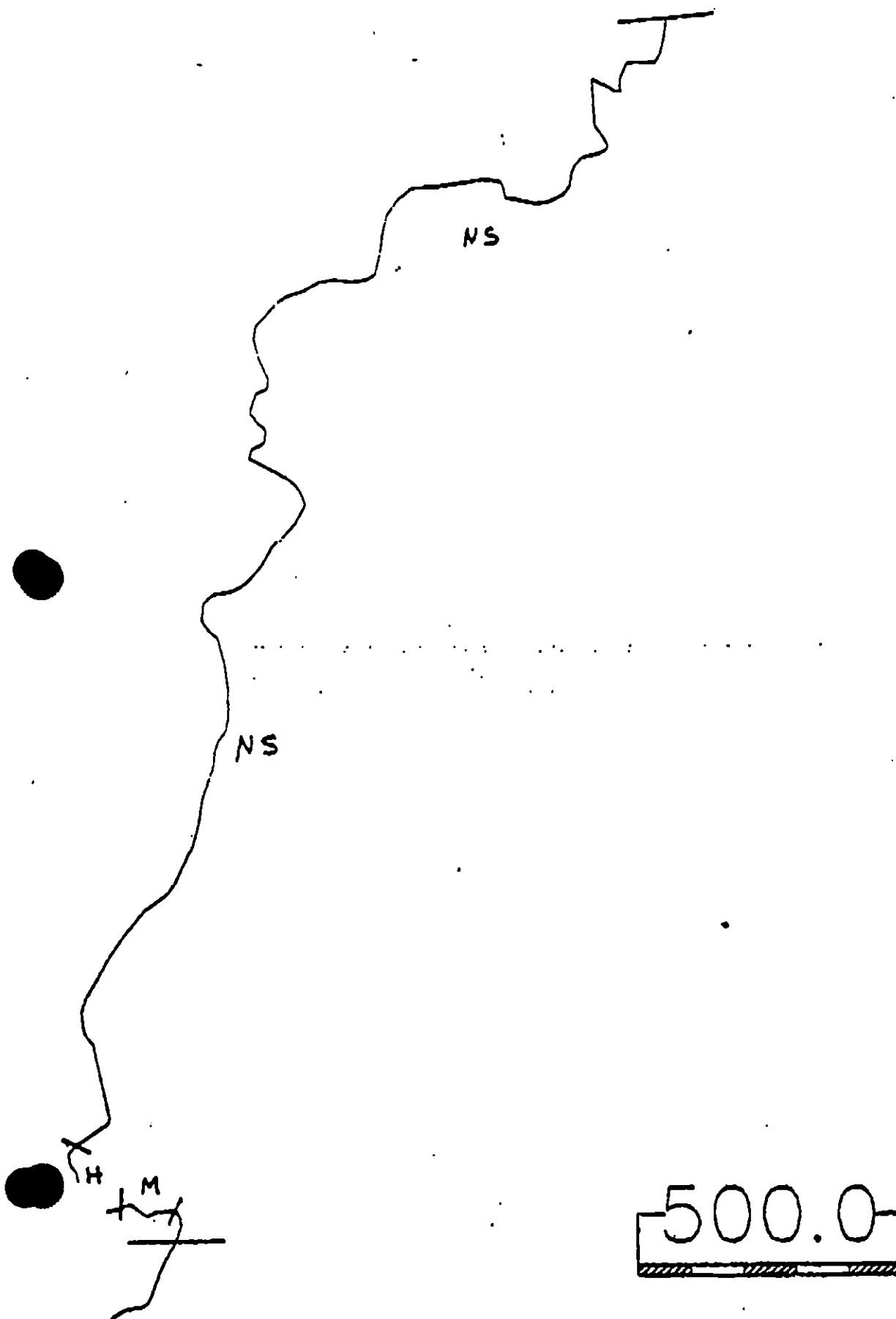
NOT PRESENT

Wildlife Observations/ General Comments:

Ecological Considerations:

Subdivision Inaccessible - No observations

K0101-SI007



OILING

H = Heavy
M = Moderate
L = Light
VL = Very Light
N = None
NS = Not Surveyed

Distance in Meters

ADCE Sep/Oct 1988 Survey

SI-4

SI-6

SI-7

SI-8

A

* see detail map

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

SI-7

ADEC Segment Length: 5115m

Map Key: KOD-179

Name: Portland

Date: 4-1-90



SHORELINE EVALUATION

SEGMENT ST/ K0101-SI-007 SUBDIVISION D (4 OF 5) DATE 4/4/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
Sensitive estuary nearby (8AA); Land Mammals present (9LM).

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

SHPO SIGNATURE: Charles J. Johnson DATE: April 14, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V. Light 91 m: No Oil 0 m
Subsurface Oil Observed: Yes No Maximum Depth

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/14/90

ADEC JOHN BAUER

EXXON ANDY TEAL

NOAA Bruce W. Wiercott

USCG G. A. REITER

FOSC: hgh

DATE: 4-22-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K021 / SI 027 SUBDIVISION: D DATE 3-31-90

NOAA

USCG

NAME John Naughton SIGNATURE John Naughton☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

small amount of oil on east side of pocket beach.

ADEC

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

COMMENTS

2 Pits NO oil observed on surface & subsurface.
Observed very light oil in the splash form can be found in the S/E corner of K0101/SI007 Sub. D. This area of impact could be picked up & work in the beach area assignment SI008 is authorized. Sub. D has less than one bag of oiled sediment.

LAND MANAGER

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

COMMENTS

Splashes of cover found at eastern end of beach
-Would amount to less than 1 bag but could be worked if crew went to SI008

Much deer sign

Capable/landable by small craft

Area considered for Shuyak State Park addition.

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Penland NoAA USCG Naughton SEGMENT ST/ K0121/51007
 BIO Spight LAND REP Burgen SUBDIVISION 0
 EXXON Oxyers ADEC Shelton TIME 2:25 to 3:05
 TEAM NO.: 19 TIDE LEVEL: +3 ft to +3 ft DATE 3/31/90
 EST. SUBDIVISION LENGTH: 100 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 20 % B 20 % C 40 % P 20 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 50 % Hang 30 % Vert 20 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 100 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	10	15	17	18	SP	OR	OL	OF	NO	CM-CM	UD	UC	SU	U
ASPHALT PAVEMENT														
POOLED														
COVER				X		X		X					X	
COAT														
STAIN														
MOUSSE														
PATTIES														
TARBALLS														
FILM														
NO OIL											X		X	X

PAVEMENT: H F S N/A sq. m by N/A crPATTIES / TARBALLS N/A ^{Reg} 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. 19-3Frames 8-9

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UD	UC	SP	OR	OL	OF	NO	CM-CM	SU	U	M	U		
1	30					X	-									X					cobble / pebble
2	30					X	-										X				cobble / pebble
							-														
							-														
							-														

COMMENTS

a cover of oil in splash morphology occurs in the eastern side of the pocket beach on the surface of the closest land here.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/22/90

Segment ST / SI-7 Subdivision D Date (mo / day / yr) 3 / 31 / 90Time (24 hr) 2:24 Biologist SP16HT(A) Substrate type and % of segments:
(1) Bedrock _____ (2) Boulder 50 (3) Cobble 50 (4) Pebble _____ (5) Sand _____ (6) Silt _____(B) Overall % cover of biota (% of segment): Dense 30 Moderate 30 Low 30

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

Photographs:
Roll No. _____

Frames _____

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

Probable Anadromous stream 1A, 1B, 8AA, 9LM

STREAM ID 251-81 ASC 10010 ← This stream is in 51-008 am

Ecological Considerations: Too late for Low level

Mid level dense algal community, lots of Fucus, Littorina; Barnacles where algae is not growing.

Upper level = peppering of Chthamalus

Very dense Kelp litter

SI-4

SI-6

SI-7

SI-8

A

* see detail map

XXXX Wide

//// Medium

--- Narrow

TTTT Very light

SI-7

ADEC Segment Length: 5115m

Map Key: KOD-179

Name: Portland

Date: 4-1-90



SHORELINE EVALUATION

SEGMENT ST/K0101-SI-007 SUBDIVISION E (5 OF 5) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream outmigration (1A) - 3/1 to 3/15 and spawning (1B) - 7/10 to 8/31, ASC# 256-40, #10010. No disturbance of stream bed or banks unless authorized by ADF&G. Contact ADF&G Habitat Division prior to cleanup for permits. Sensitive estuary.

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

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

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 96 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 Art Weiner
EXXON Andy Tate FOSC: My L DATE: 4-22-90
NOAA Paul Wesely
USCG G.A. Reiter

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K0101 / ST 007 SUBDIVISION: E DATE 3-31-90~~NOAA~~
~~USCG~~NAME John Naughton SIGNATURE John Naughton☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

No oil observed.

ADEC

NAME Scott Shelton SIGNATURE Scott Shelton☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDHelicopter Flyby NO oil observed. Steep
Cliff area NO ACCESS from Helicopter set down
down locations

LAND MANAGER

NAME Ray Burger ADNR SIGNATURE Ray Burger☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDCliffs yield no access / no assessment
Area considered for Shuyak State Park addition.

NAAA

OG Pea land USOC Naughten SEGMENT ST/ K2101/37.007
 BIO Spight LAND REP Burgen ADNR SUBDIVISION E
 EXXON Byers ADEC Shelton TIME 2:25 to 3:05
 TEAM NO.: 19 TIDE LEVEL: +2 ft to +3 ft DATE 2/21/90
 EST. SUBDIVISION LENGTH: 100 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☐ Foot ☐ Boat ☒ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 22 % B 22 % C 22 % P 20 % G 23 % S 0 % M 0 % V 0 %
 SLOPE: Long 25 % Hang 40 % Vert 45 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 100 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	C	B	P	G	SBL BR	DR RW	GY	SL DBR	TL LBI	SU	U	M	U	
ASPHALT														
PAVEMENT														
POOLED														
COVER														
COAT														
STAIN														
MOUSSE														
FATTIES														
TARBALLS														
FILM														
NO OIL														

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

OILED DEBRIS	AMOUNT	
	SM	MDTG
Logs		
Vegetation		
Trash		
Debris		

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

Photographs:

Roll No. —Frames —

SUBSURFACE OIL

No pits dug

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CH)	DELOW		OIL/FILM COLOR						PIT ZONE				A N A	SURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UC	UC	SP BR	ORL RW	GY SL	DR TL	LB	SU	U	M	U			
C							.														
							.														
							.														
							.														
							.														
							.														
							.														

COMMENTS

No pits dug, helicopter flyby.

OG Kenland

SKETCH MAP

SEGMENT ST/ K0121 / SI 007

SUBDIVISION E

DATE 3 / 31 90

CHECKLIST

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

LEGEND

1 

PH - No Subsurface Oil

2 

PH - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Spattered Distribution

Oiled Vegetation

1 

Photo location, direction,
and number

1  CL:SP

0 300m

Oil Character: h (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 0 0 TB 0 FL 0 NO 100

REVISION: 000100

SHORELINE ECOLOGICAL SUMMARY

REVISION: 0

Segment ST/ S1-7 Subdivision E Date (mo / day / yr) 4/5/90

Time (24 hr) _____ Biologist _____

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

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

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

Photographs:
Roll No. _____

Frames _____

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

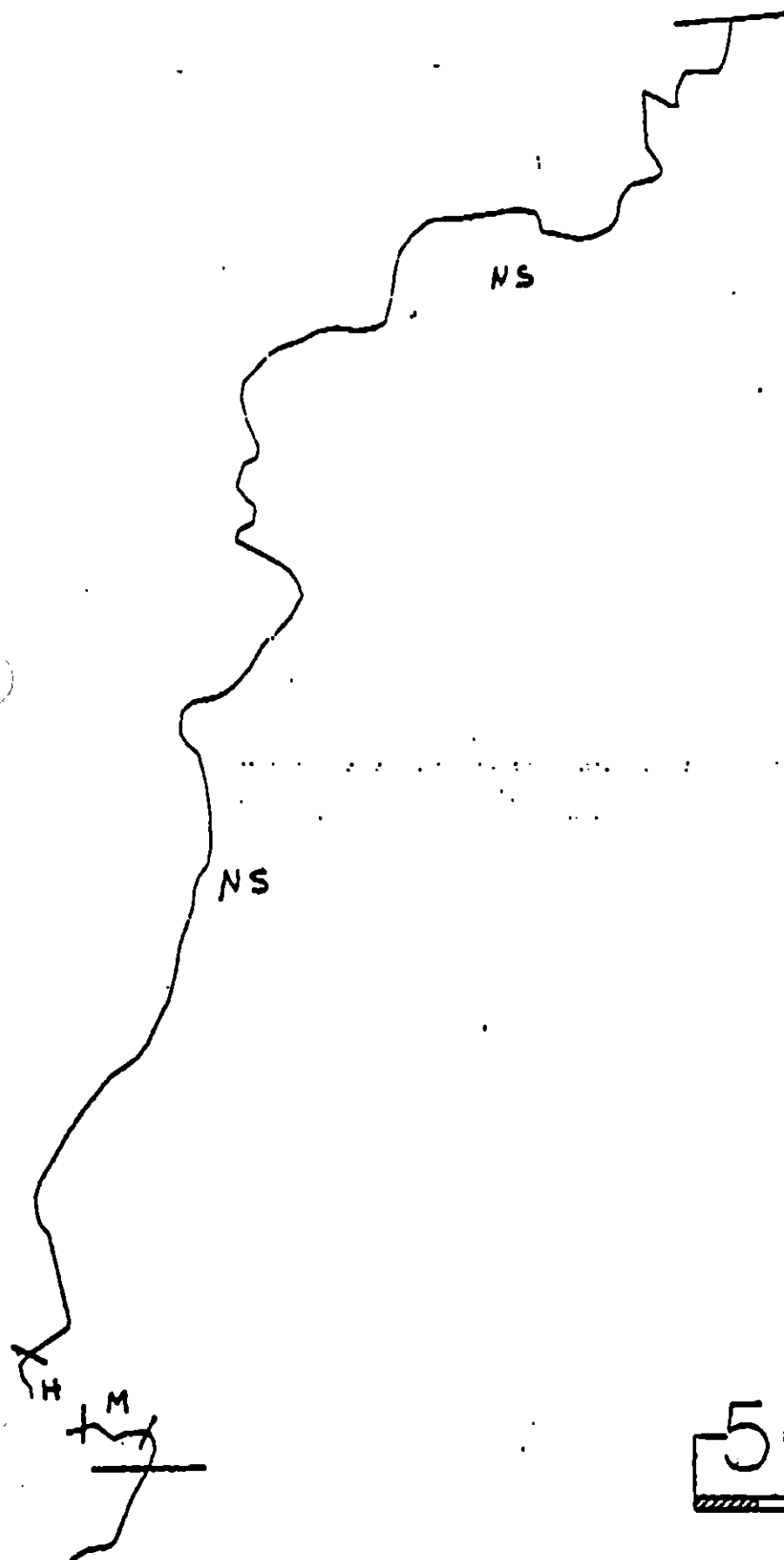
NOT PRESENT

Wildlife Observations/ General Comments:

Ecological Considerations:

Subdivision inaccessible — no observations

K0101-SI007



500.0

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

ASCE Jan/Oct 1988 Survey

SI-4

SI-6

SI-7

SI-8

A

* see detail map

XXXX Wide

//// Medium

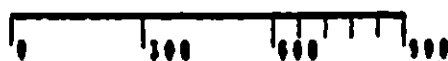
--- Narrow

TTTT Very Light

^ ^ ^ ^ "

SI-7

ADEC Segment Length: 5115m



Map Key: KOD-179

Name: Penland

Date: 4-1-90

SHORELINE EVALUATION

SEGMENT ST/ K01-01-SI-008 SUBDIVISION A (1 OF 3) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
5T All bald eagle nests (3/1 to 6/1)
Active bald eagle nests (3/1 to 9/1)
8AA Sensitive Estuary

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Charles E. [Signature]

DATE: 4/20/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 1173 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/20/90.

ADEC Art Weiner
EXXON Andy Tetz
NOAA Bruce Wescott
USCG Kenneth Keran

FOSC: ML

DATE: 4-26-90

KODIAK ECOLOGICAL CONSTRAINTS

SI-008-A, B, C

- 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 (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.
- 5R Seabird colony (5/1 to 8/31)
 Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic.
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
- 6U Recreation: Tent sites (5/1 to 9/15)
- 6V Anchorages (5/1 to 9/15)
- 6W Forest Service cabins (5/1 to 9/15)
- 6X Lodge (5/1 to 9/15)
- 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
- 7HH Finfish harvesting
- 7H Deer harvesting (5/1 to 1/7)
- 7JJ Invertebrate harvesting
- 7KK Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
- For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ K0101/S1008 SUBDIVISION: A DATE 4-1-90NOAA
USCG

NAME

John Naughton

SIGNATURE

John J. Naughton☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDNo oil observed

ADEC

NAME

Scott Shelton

SIGNATURE

Scott Shelton☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

BEAR Cove N/W side

No oil observed Helicopter fly by
K0101/S1008 Sub-A Has been a low priority for agency
concerns. S/E BEAR Cove has more reported impact

LAND MANAGER

NAME

Ray Burger AONR

SIGNATURE

Ray Burger☐ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Not assessed - DEC personnel have been on beach before & not
observed oil given low impact level as subdivision B
& no reported oiling ever on subd. A, team deemed this
low priority for assessment

NOAA

OG Pealend USGS Naughton SEGMENT ST/ Kelol/52008
 BIO Spight LAND REP Grays ADNR SUBDIVISION 4
 EXXON Byers ADEC Shelton TIME 13:08 to 14:11
 TEAM NO.: 19 TIDE LEVEL: 0 to +1.74 DATE 9/1/90
 EST. SUBDIVISION LENGTH: 1556 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☐ Foot ☐ Boat ☒ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 10 % B 10 % C 20 % P 40 % G 10 % S 10 % M 0 % V 0 %
 SLOPE: Long 60 % Hang 20 % Vert 22 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 1556 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	IC	IS	IF	IR	BR	BL	BP	GB	GR	GL	SL	SR	SU	UI	MI	U
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL													X	X	X	X

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

Frames -

SUBSURFACE OIL No Pits Dug

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CH)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	VC	BR	BL	BP	GB	GR	GL	SL	SR	SU	UI	MI	U		

COMMENTS

No Pits Dug, surveyed by helicopter.

OG Pearls

SURCH MAP

SEGMENT ST/ K2121/51008

SUBDIVISION A

DATE 4 / 1 90

CHECKLIST

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

LEGEND

1 Δ

PH - No Subsurface Oil

2 Δ

PH - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

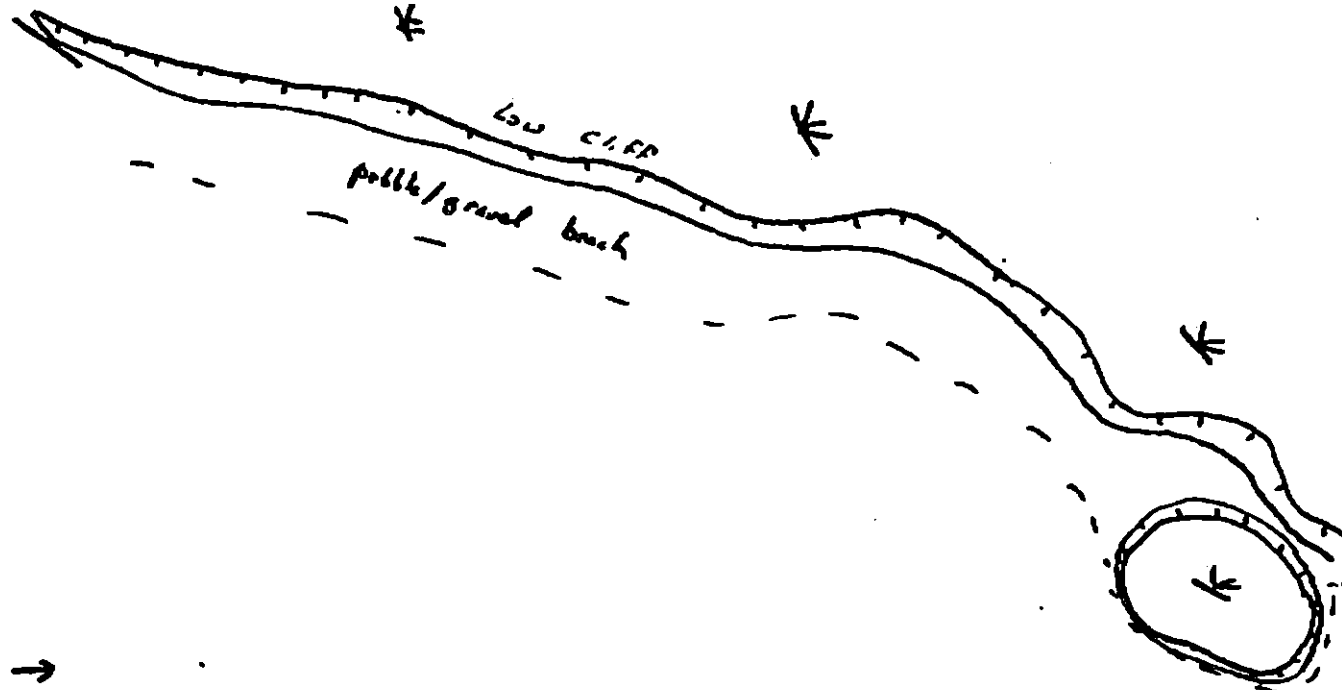
CT/S

Splashed Distribution

Other Vegetation

1 $\Rightarrow$

Photo location, direction,
and number



Oil Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 0 PT 0 TB 0 FL 0 NO 1556

REVISIONS

SHORELINE ECOLOGICAL SUMMARY

REVISION: 00/22/90

Segment ST / SI-008 Subdivision A Date (mo / day / yr) 4 / 1 / 90

Time (24 hr) _____ Biologist SPIGHT

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

(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 (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	X	X	X	2	2	2
3	3	3	3	3	3	X	X	X	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

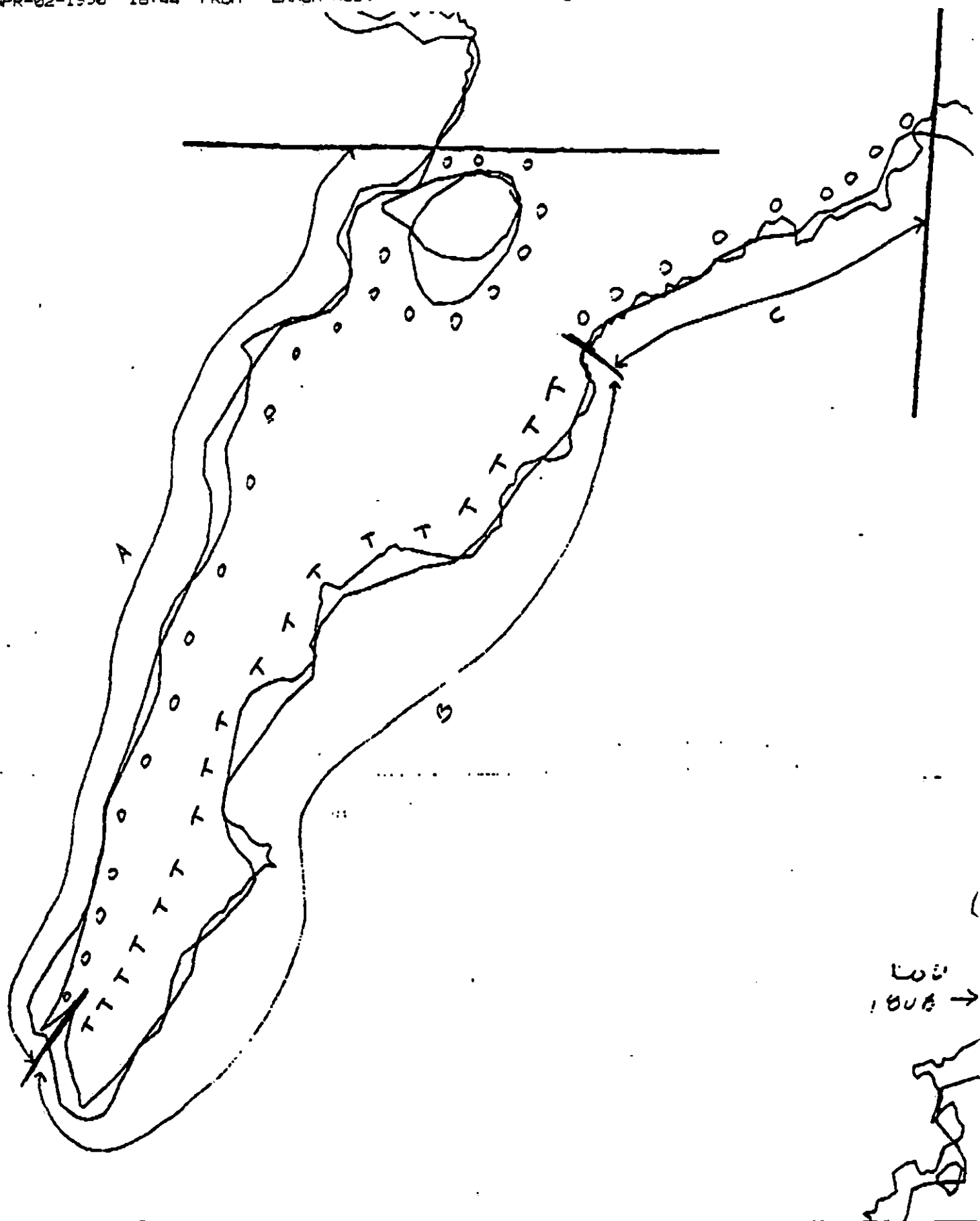
Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	X	X	X	2	2	2
3	3	3	3	3	3	X	X	X	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments:

Ecological Considerations:

Polymesoda glandula cobble. Barnacles typically dense on individual cobbles but occupied cobbles are scattered, thus overall densities low. Only upper part examined



XXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 Very Light

SI-8

ADEC Segment Length: 3257m

0 100 200 300

Map Key: KOD-1800

Name: Penland

Date: 4-1-90

North Arrow

SHORELINE EVALUATION

SEGMENT ST/ K01-01-SI-008 SUBDIVISION B (2 OF 3) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
5T All bald eagle nests (3/1 to 6/1)
Active bald eagle nests (3/1 to 9/1)
8AA Sensitive Estuary

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Charles E. H. Hume

DATE: 4/20/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V. Light 1247 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: 4/26/90.

ADEC Art Weiner
EXXON Andy Teal
NOAA Bull Wescott
USCG Kenneth Kettner

FOSC: W L

DATE: 4.26-90

KODIAK ECOLOGICAL CONSTRAINTS

- 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. 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 (8/15 to 9/15)**
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 5R** **Seabird colony (5/1 to 8/31)**
 Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
- 5S** **Shorebird/waterfowl concentration (4/1 to 5/15)**
 Restrict all activity to essential minimum, especially air traffic.
- 5T** **All Bald Eagle nests (3/1 to 6/1)**
Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
- 6U** **Recreation: Tent sites (8/1 to 9/15)**
- 6V** **Anchorage (8/1 to 9/15)**
- 6W** **Forest Service cabins (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 / K0101 / S1008 SUBDIVISION: B DATE _____AAA
USCG
NAMEJohn Naughton

SIGNATURE

John Naughton☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

Entire south-east side of Bear Cove walked. Splatters of oil seen throughout area but very patchy in distribution.

ADEC
NAMEScott Shelton

SIGNATURE

Scott Shelton☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

K0101 / S1008. Sub. B
Upper tidal zone oil impact splatters and patches of the remaining oil band in Sub. B. can be found. NO OIL observed in Pits depth 30cm. OCCASSIONAL SPLATTERS. - Splatters and dips in the Upper tidal zone can be picked up. Warming weather could expose more impact in the impacted cobble boulder tide line areas. TEAMS walked 1000 meters.

LAND MANAGER

NAME

Ray Burger

SIGNATURE

Ray Burger☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Upper tidal area has ^{splatters of} sparse coat that is retrievable.

Area well protected for landing small craft.

Deer tracks & a carcass (unrotted) found @ North end of subdivision

Area considered for addition to Shuyak State Park

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Penland USCG Naughton SEGMENT ST/ K0101/S1008
 BIO spight LAND REP Oregon ADNR SUBDIVISION 0
 EXXON Dyn ADEC Shelton TIME 13:08 10 14:11
 TEAM NO.: 19 TIDE LEVEL: 0 to 1 ft DATE 4/1/90
 EST. SUBDIVISION LENGTH: 1200 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 20 % P 20 % G 10 % S 20 % 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 1200 m NO 0 m

SURFACE OIL

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

PAVEMENT: H F S 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 0#BAGS 0

Photographs:

Roll No. 19-3Frames 19-23

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	1	2	3	4	5	6	7	8	SU	U	M	U		
1	30																						pebble/gravel
2	30																						"
3	30																						"
4	30																						"
5	30																						"

COMMENTS

- oil is oil observed in the upper-tidal zone in splashes which cut sediment and rubble at the base of low cliffs
- the west side of Bear Cove not surveyed because of agency concerns that little or no oil has been observed there

OG Pentagon

SEGMENT ST/ 21/51008

SUBMISSION B

DATE 4 / 1 / 90

CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☐ Seg/Sub Body
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. NW/AL/WL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pli Location(s)
- ☐ Photo Location(s)

LEGEND



Pli - No Subsurface Oil



Pli - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution



Patchy Distribution



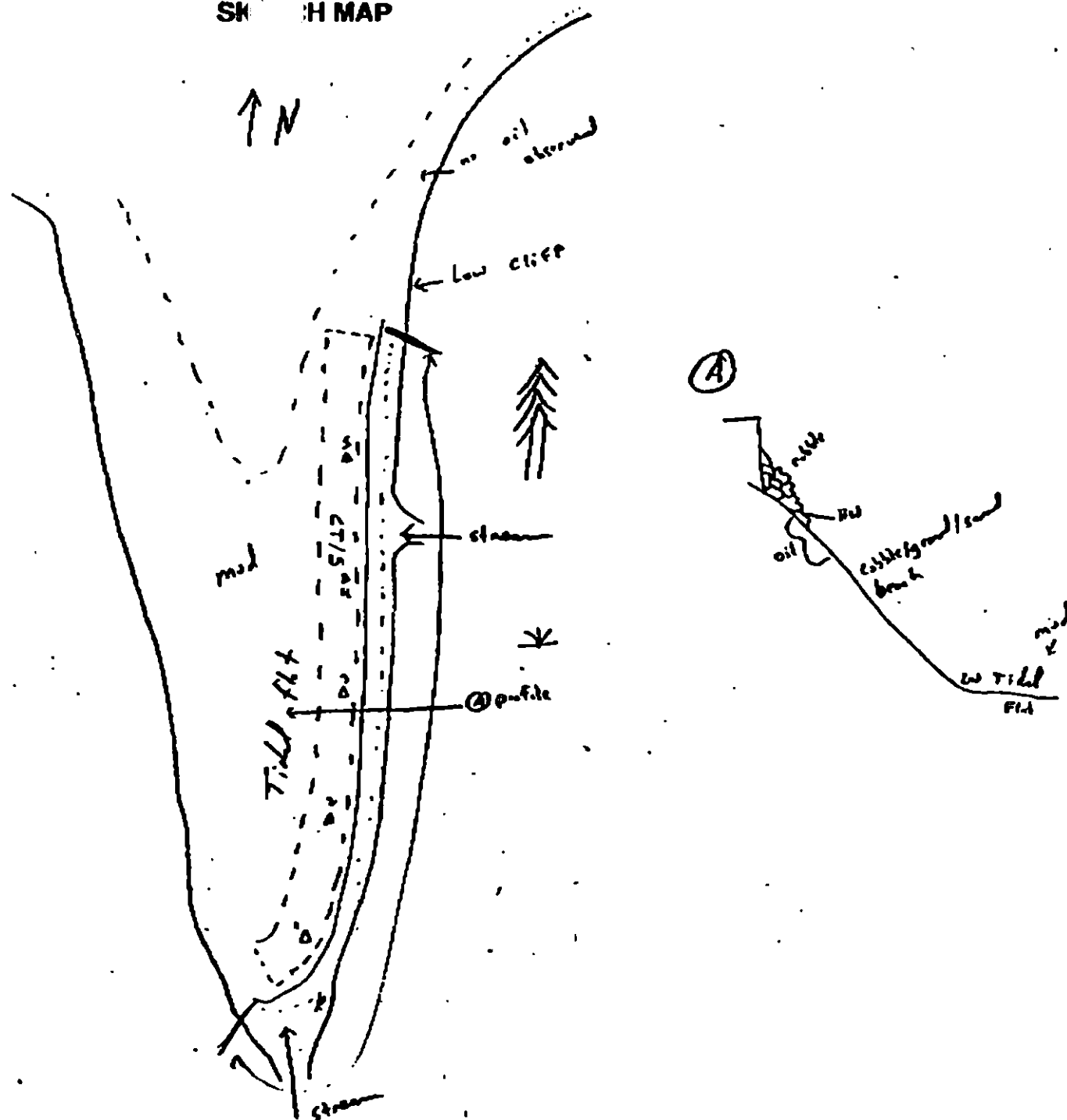
Splashed Distribution

Other Vegetation



Photo location, direction, and number

SKETCH MAP



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

REVISION 03/88

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22

Segment ST / SI-8 Subdivision B Date (mo / day / yr) 4 / 1 / 90Time (24 hr) 1:06 Biologist SPIGHT Bear Cove

(A) Substrate type and % of segments:

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

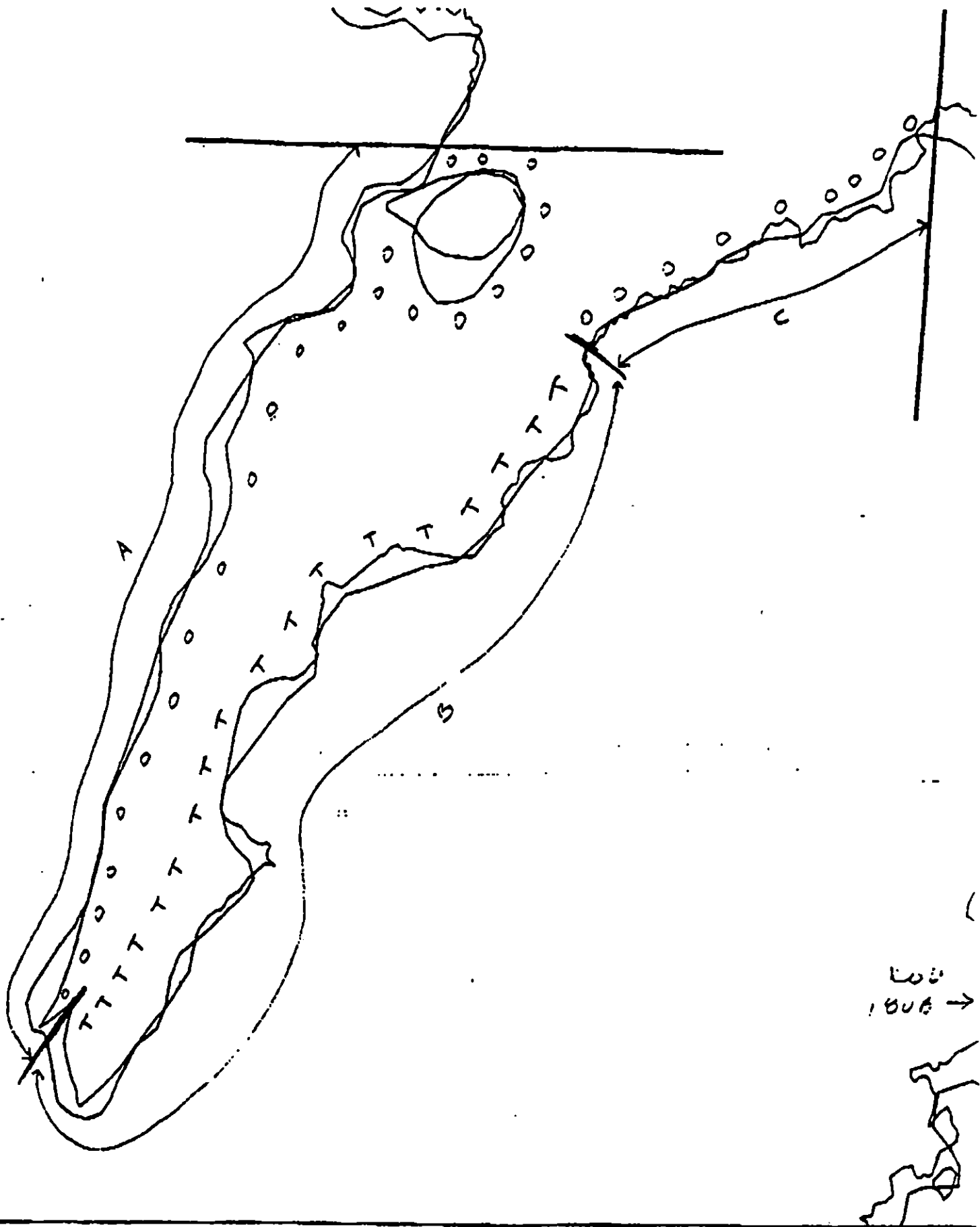
Probable anadromous stream at head of lagoon

Deer signs, remains

Sensitivity 1A, 1B, 8AA

Ecological Considerations:

Typical tidal flat. Sedentary fauna mostly on scattered small cobbles, these usually very densely covered, with barnacles (up B glandula, sometimes Chthamalus). Littorina sparse to very abundant on cobbles, etc., some places on pebble/sand/silt the cobbles are on. Larger cobbles with B. carosus near mouth of lagoon. Fucus dense in some patches.



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

SI-8

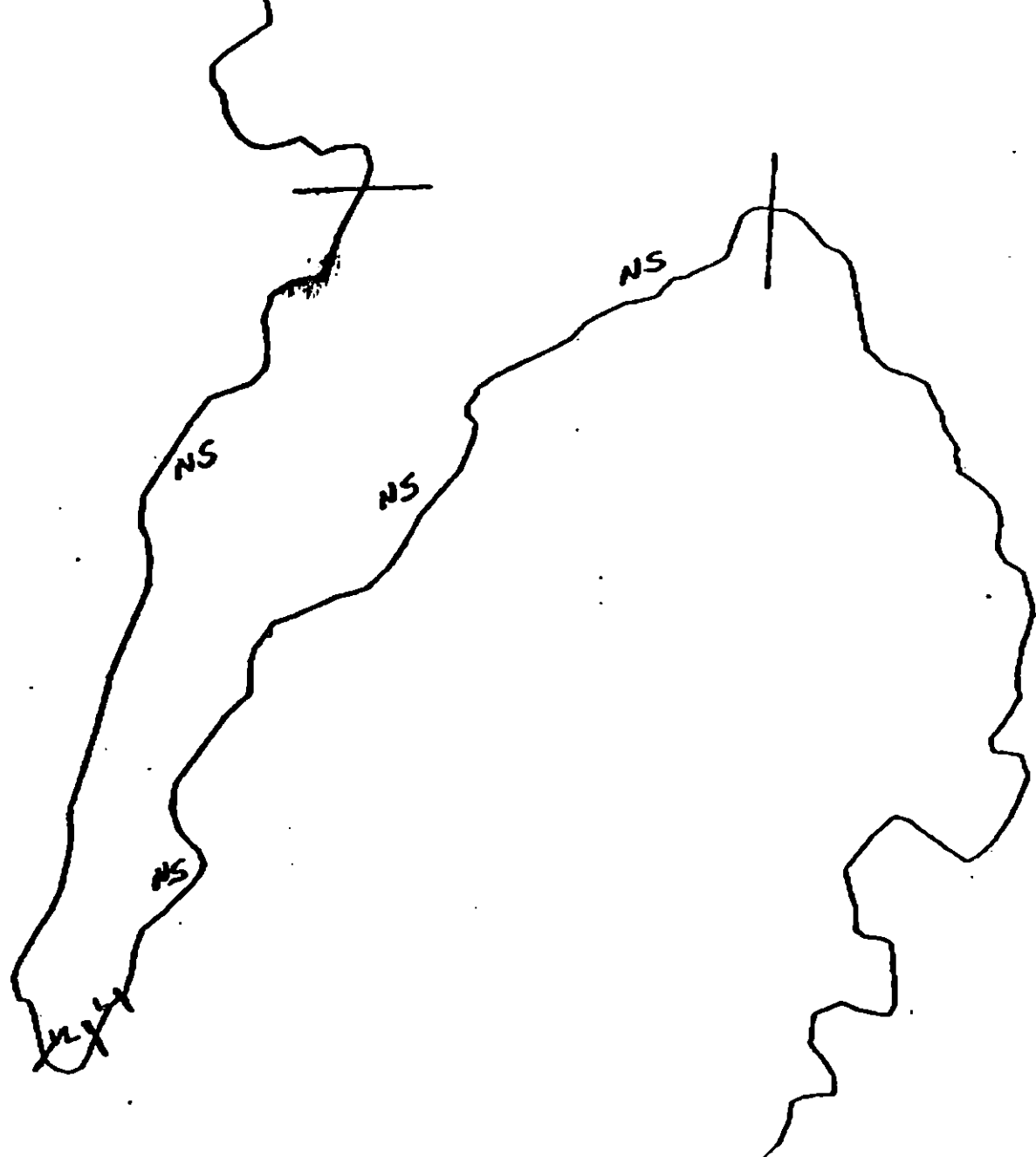
ADEC Segment Length: 3257m

Map Key: KOD-180a

Name: Penland

Date: 4-1-90

K0101-S1008



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

500.5

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/K01-01-SI-008 STREAM NO: 251-81-10010 DATE 5/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-1 All Bald Eagle nests (3/1 to 6/1) (Seabird colony in adjacent segment SI-009)
8AA Sensitive estuary
9LM Land mammals

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Subject stream exists in subdivision A (1 of 1). Avoid disturbance of intertidal biota.

SHPO SIGNATURE: Rachel Dan Osee DATE: 5/22/90

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: 5/18/90

ADEC Art Weir Art Weir

EXXON Andy Tak Andy Tak

NOAA Gary Petrac Gary Petrac

USCG G.A. Reiter G.A. Reiter

FOSC: [Signature]

DATE: MAY 25 1990

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 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
- 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.

2/25

FIELD SHORELINE COMMENT SHEET

ASC# (BACK BAY CREEK)

SEGMENT ST / SI-008 SUBDIVISION: 251-81-10010 DATE 01 MAY 90

USCG

NAME Kerwin L. Dreher SIGNATURE CWO K. L. Dreher☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

ADFG

ADEC

NAME EDWARD W. WEISS SIGNATURE Edward W. Weiss☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

RECOMMEND MANUAL PICK-UP OF T.BALLS / RATTLES EAST SIDE OF LAGOON. IMPACT ON WEST SIDE COULD BE PICKED UP AT SAME TIME, BUT THE IMPACT ON THE NORTH SIDE IS SIGNIFICANTLY LESS AND MORE OCCASIONAL.

ADNR

LAND MANAGER

NAME Mike Schuler SIGNATURE Mike Schuler☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

This segment contains state lands proposed for future inclusion into Shuyak Island State Park. And is an area of high recreational potential as well as providing for wildlife habitat. An active eagle nest was observed in this immediate area. This area provides a commonly used anchorage in this protected bay for recreational and commercial fishing vessels. Manual pick-up of T.balls and scattered rattles on the East side of the bay is recommended.

SHORELINE OILING SUMMARY (ANAO)

REVISION NO. 06/13/90

OG CAL LARSON USCG DREHER, CWE SEGMENT ST/SE 008 4/25
 BIO KEN CRITCHLOW LAND REP MIR. GROWIN STREAM 251-B1-10410 (OF)
 EXXON DARLHL YOE3 ADFG ED WEISS TIME 01:45 10/2:30
 TEAM NO. 14 TIDE LEVEL -0.1 FT DATE 5/1/90
 EST. SUBDIVISION LENGTH: 200 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R % B 10 % C 10 % P 30 % G 40 % S 10 % M % V %
 SLOPE: Lang 75 % Hang 25 % Vert % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W m M m N m VL 540 m NO m

SURFACE OIL

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

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

Did you collect DEBRIS

☐ YES ☒ NOTYPE #BAGS

Photographs:

Roll No. Frames

SUBSURFACE OIL

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

COMMENTS NO PITS DUG DUE TO LACK OF OIL PENETRATIONREVIEWED 7WDATE 5/3/90

SEGMENT ST/ SL 00E

STRAIT 251-61-1000

DATE 5/1/90

CHECKLIST

- ☐ N. Area
- ☐ Approx. Scale
- ☐ Sog/Side Body
- ☐ On Dike
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Eel HWA/LWL
- ☐ SCL
- ☐ Photo Location(s)
- ☐ Profile(s)
- ☐ Pt Location(s)
- ☐ Photo Location(s)

LEGEND

1 A

Pt - No Substrate On

2 A

Pt - Substrate On

CT/C

Continuous Distribution

CT/G

Broken Distribution

CT/P

Patchy Distribution

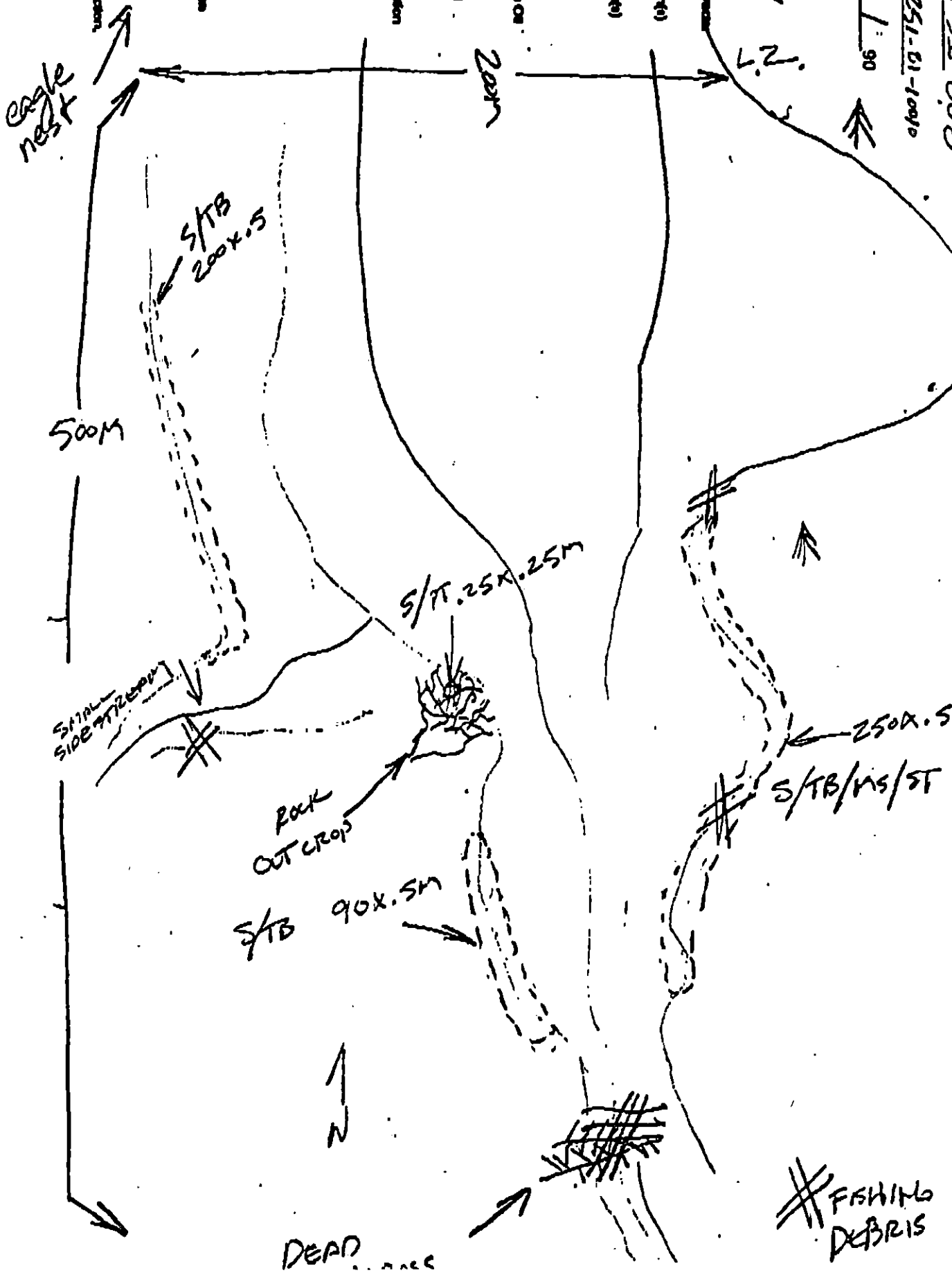
CT/S

Spatial Distribution

Dead Vegetation

Photo location, direction, and number

SKETCH MAP



OR Character Length (m): AP PO CV CT ST 83 MS 83 PT 25 TB 373 FL NO

ANADSSAT 9/25

ADFG MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: DS SS TS AVS SCA MMS PTA 2 REGION: PWS KP,CI QAP

METHOD: Aerial Ground Boat

3 DATE: 5-2-90 15 HIGH TIDE TIMES: 1 21 TEAM RECORDER: E. WEISS

4 START TIME: 1335 16 HIGH TIDE HTS: 1 22 OBSERVERS: K. LARSON K. CRITCHLOW

5 STOP TIME: 1455 17 LOW TIDE TIMES: 1500 23 AGENCY: ADFG/ADNR

6 SEGMENT #: SI 008 18 LOW TIDE HTS: .5 24 PHOTOS TAKEN: Y X

7 STATION #: _____ 19 TIDE HT AT SURVEY: _____ Roll #: _____ Frame: _____

8 K-UNIT: K0101 (Ebb) Stack Flood Stack 25 VIDEO TAKEN: Y X TAPES: _____

9 STAT AREA: _____ 20 USCG QUAD: _____ Starts: _____ Ends: _____

10 LAT: _____ 11 LONG: _____ 26 SAMPLES TAKEN Y X Number _____

12 SOURCE: Map Loran 011 _____

13 LOCATION: BACK BAY BEAR COVE, SHUYAK IS. Sediment _____

14 DESCRIPTION: _____ Biological _____

Water _____

EXTENT OF OIL

	SHORELINE				STREAM			
	L	V	N ²	N	L	V	N ²	N
27 SURFACE COVERAGE								
28 SURFACE THICKNESS								
29 PENETRATION								

30 OVERALL OIL IMPACT: N (VL) L N N

31 OIL TYPE: Pooled (Mouse) (Tar) Asphalt Sticky Stain

32 OILED DEBRIS: Y (N)

33 SHORELINE TYPE: Headland (Lagoon) Low-lying Rocks Marsh Beach Cove

34 WAVE EXPOSURE: High Moderate (Low)

35 SUBSTRATE TYPE: Bedrock Boulder 20 Cobble 30

Gravel 50 Sand Mud/silt

36 CATALOGED ANAD. FISH STREAM: X N

37 CATALOG #: 251-81-10010

38 STREAM NAME: BACK BAY CREEK

39 OIL IN STREAM BED: Y X

40 OIL ON STREAM BANKS: X N

41 OIL ON BEACH ADJACENT TO MOUTH? Y N
(within 50 meters)

42 OIL WITHIN 1 MILE OF STREAM: Y N

Where: _____

43 ANADROMOUS FISH PRESENT? Y N

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

COMMENTS: SPORADIC BAND OF TAR/MOUSE DUMPLINGS/SALATERINGS
1M WIDE AROUND EAST SIDE OF LAGOON TO STREAM
MOUTH. BECOMING MORE SPORADIC ON WEST SIDE
OF LAGOON.

9/25

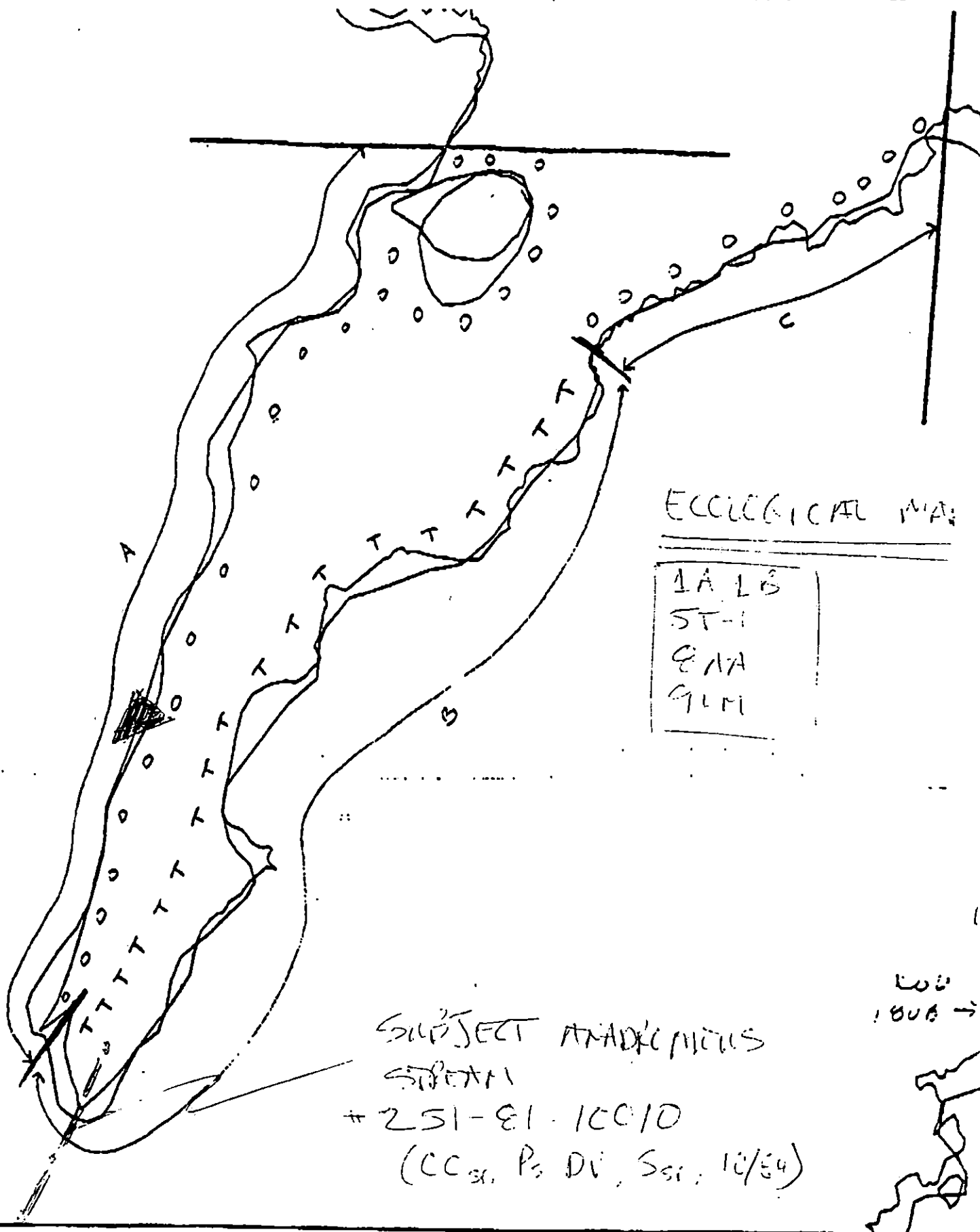
Seg ID: SI-008 Subdiv: 251-81-10010
Survey Date: 5/1/90
Comments by: Ken Critchlow

The upper edge of the MITZ and the STZ were observed to contain a narrow band of starn, mousse, patties and small tarballs. Oil of any sort was scattered along the upper portion of the stream on both banks.

The intertidal biota in this lagoon-stream site was very rich. The MITZ contained abundant barnacle and littorinid populations. The LITZ was primarily a muddy substrate that seem to support fairly dense clam beds and eelgrass beds.

The lower west bank of the stream is the site of an active bald eagle nest. Both members of the pair were observed, with the female on the nest. This nest site should not be disturbed. No clear benefit would be gained from cleanup.

KRCritchlow



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

SI-8

ADEC Segment Length: 3257m

Map Key: KOD-1800

Name: Penland

Date: 4-1-90

SHORELINE EVALUATION

SEGMENT ST/ K01-01-SI-009 SUBDIVISION A (1 OF 3) DATE 4/1/90

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)

See attached Ecological Constraint Sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid disturbance/damage to uncoiled substrate and biota.

SHPO SIGNATURE: Charles E. H. Hume DATE: 4/20/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 7223 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: 4/19/90.
ADEC ART WENGER
EXXON ANNY GAL
NOAA Burl Wescott
USCG KENNETH KEANE

FOSC: [Signature] DATE: 4-25-90

KODIAK ECOLOGICAL CONSTRAINTS

~~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.~~

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 (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.

SEGMENT ST/ K0101/ST009 SUBDIVISION: A DATE 4-1-90NOAA
USCGNAME John Naughton SIGNATURE John J. Naughton☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDNo oil observed.

ADEC

NAME Scott Shelton SIGNATURE Scott Shelton☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTEDCOMMENTS K0101/ST009 Sub. A.High energy coast line - No oil observed - Helicopter fly by - Cliffs no beach access.

LAND MANAGER

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

Cliffs prevent access / no assessment (could be done by Aven in calm seas)
Peninsula at south end of subd. was quickscattered by helicopter
landing on tidelands & 2 crew members walking beach for ~10 min.
- no oil observed, high energy beach
Area considered for Shuyak State Park addition.

SHORELINE OILING SUMMARY

REVISION NO. 03/22

NOAA

OG Penland ~~USCG~~ Naughton SEGMENT ST/ K0101/S1009
 BIO Spright LAND REP Buaya ADNR SUBDIVISION A
 EXXON Arco ADEC Shelton TIME 2:55 10:3 :17
 TEAM NO.: 19 TIDE LEVEL: 2 ft to DATE 4 / 1 /90
 EST. SUBDIVISION LENGTH: 13917 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☐ Foot ☐ Boat ☒ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 50 % B 30 % C 10 % P 10 % G 0 % S 0 % M 0 % V 0
 SLOPE: Long 20 % Hang 30 % Vert 50 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 12917 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	10	15	17	18	19	20	21	22	23	24	25	26	SU	U	M	L
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL																

PAVEMENT: H F S N/A sq. m by N/APATTIES / 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. -Frames -

SUBSURFACE OIL

No pits dug

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CH)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OF	OR	OL	OF	NO		VO	UC	19	20	21	22	23	24	25	26	SU	U	M	L		

COMMENTS

• No pits dug due to shallow occurrence of bedrock

00-121-101

SEGMENT 10121/51009

SUBDIVISION A

DATE 4 / 1 / 90

CHECKLIST

- ☒ N Area
- ☒ Approx. Scale
- ☒ Seg/Sub Entry
- ☒ Oil Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HW/LWR
- ☒ SSL
- ☒ Profile Location(s)
- ☒ Profile(s)
- ☒ Pt Location(s)
- ☒ Photo Location(s)

LEGEND

1 Δ

Pt - No Subsurface Oil

2 Δ

Pt - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

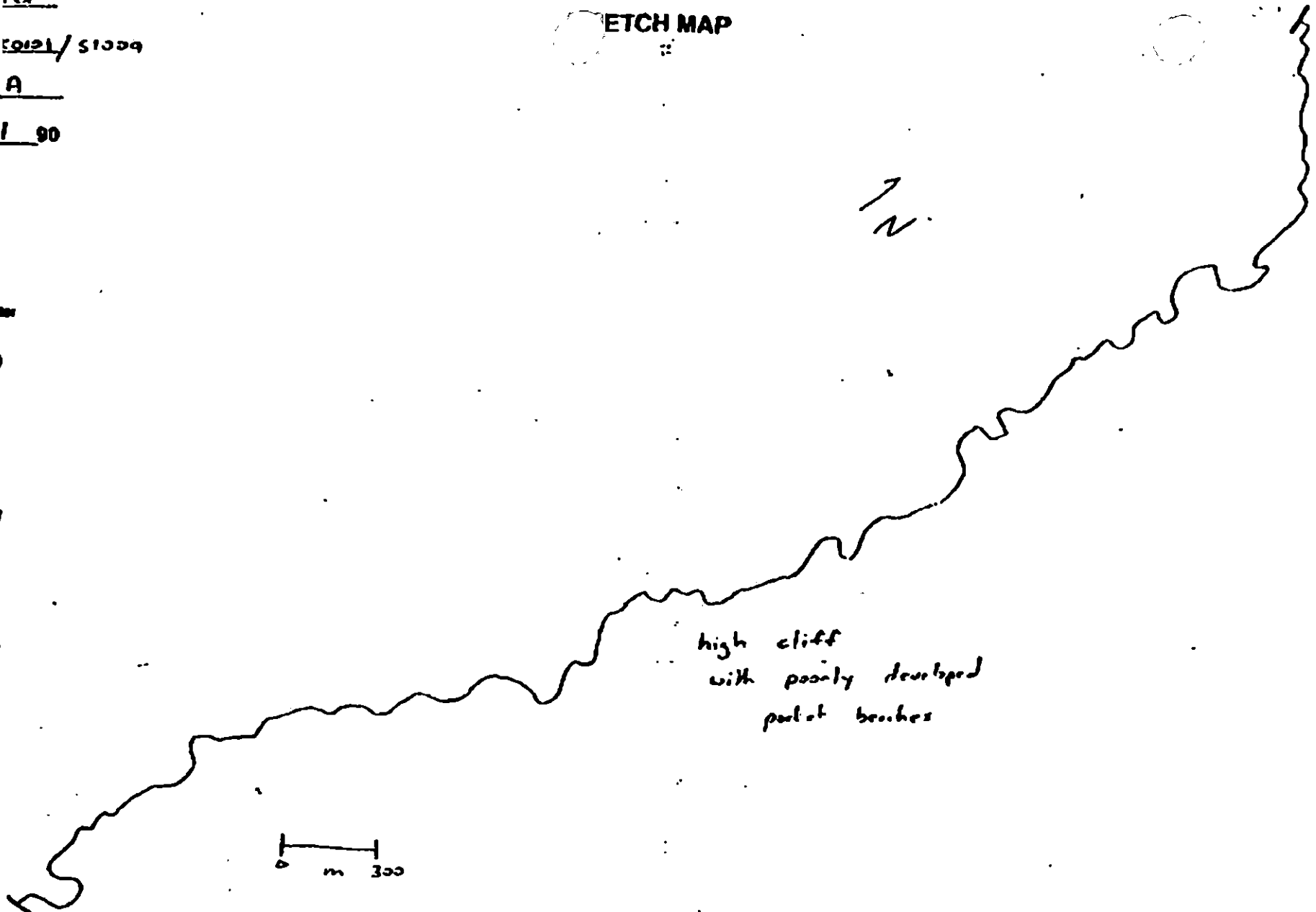
Spotted Distribution

Old Vegetation

1 ●→

Photo location, direction,
and number

ETCH MAP



Character Length (m): AP 0 PD 0 CV 0 CT 0 ST 0 MS 0 PT 0 TB 0 FL 0 NO 12917

REVISION 000400

K0101

SHORELINE ECOLOGICAL SUMMARY

REVISION: 06/23/98

Segment ST/ S1009 Subdivision A Date (mo / day / yr) 4 / 10 / 90Time (24 hr) 13:00 Biologist SPIGHT(A) Substrate type and % of segments:
(1) Bedrock _____ (2) Boulder _____ (3) Cobble _____ (4) Pebble _____ (5) Sand _____ (6) Silt _____

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

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

Photographs:
Roll No. _____

Frames _____

BARNACLES

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

Inaccessible — no observations

SI-7

SI-8

↓ KOD 181A

XXXX Wide

///// Medium

---- Narrow

TTTT Very Light

OOOO No Oil

SI-9

ADEC Segment Length: 13917m

0 500 1000 1500

Map Key: KOD-181c

Name: PenlandDate: 4-1-90

Data Entered:

TO
KOD
181C

SI-9

A

B

C

XXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

SI-9

ADEC Segment Length: 13917m

0 500 1000 1500

Map Key: K00-181a

Name: PenlandDate: 4-1-90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ K01-01-SI-009 SUBDIVISION B (2 OF 3) DATE 4/1/90

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)
5R Seabird colony (5/1 to 8/31)
5T All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. One eagle nest in Subdivision B.

SHPO SIGNATURE: Charles E. Adams DATE: 4/20/90

OILING CATEGORIZATION:

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

RECOMMENDATIONS:

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

COMMENTS: Recommend bioremediation of cover and coat areas as indicated on sketch map. Work should be conducted only with approval from ADF&G and USFWS due to above listed constraints.

TAG COMMENTS:

TAG APPROVAL DATE: 4/19/90
ADEC ART WEINER
EXXON AMY TEAL
NOAA Burt Wescott
USCG KENNETH KEANE
FOSC: X DATE: 4-25-90

KODIAK ECOLOGICAL CONSTRAINTS

- ~~1B~~ ~~Salmon fry nursery area (4/31 to 7/31)~~
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
- 1C Salmon fry nursery area (4/31 to 7/31)
- 1D 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 (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.
- 5R Seabird colony (5/1 to 8/31)
 Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic.
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
- 6U Recreation: Tent sites (5/1 to 9/15)
- 6V Anchorages (5/1 to 9/15)
- 6W Forest Service cabins (5/1 to 9/15)
- 6X Lodge (5/1 to 9/15)
- 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
- 7HH Finfish harvesting
- 7H Deer harvesting (5/1 to 1/7)
- 7JJ Invertebrate harvesting
- 7KK Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K0101 / S1009 SUBDIVISION: B DATE 4-1-92NOAA
JSCGNAME John Naughton SIGNATURE John J. Naughton☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Oil found among boulders and cobbles with slicken seen in water at mid to lower intertidal. However, very hard beach to clean - no boat access because of rocky barrier. This area also has dense Littorine snail cover and wildlife (deer, bear, eagle) which would be impacted by cleanup operations.

ADEC

NAME Scott Shelton SIGNATURE Scott Shelton☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTEDCOMMENTS K0101 / S1009 Sub. B.

EFFECTED IMPACT AREA 60M X 20 METERS. NO pits. Bedrock in oiled area (0 to 20 cm) below surface. Deposits of clay 5 cm below surface has acted as a ^(oil) barrier - oil mixed with sediment can be found between boulders and cobble on the underside of boulders. Thickness to 2mm in some areas. Weathered coat on boulder/cobble in impact zone can be observed. Cover impacted upper tidal, and coat area supratidal location. Weathered scattered mussel patches observed in the supratidal zone. DIFFICULT ACCESS AREA.

LAND MANAGER

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

COMMENTS

- Almost entire upper tidal area has cover a coat that is retrievable
- Access difficult with ~~small~~ large craft but Bell 206 or Aron raft can get in
- Eagle nest w/ 100 m
- Area under consideration for Shuyak State Park addition.
- Area landable/campable (small craft)

SHORELINE OILING SUMMARY

REVISION NO. 03/23/91

OG Penland NOAA USCG Naughton SEGMENT ST/ K0101/51009
 BIO Spright LAND REP Oregon ADNR SUBDIVISION B
 EXXON Ovens ADEC Shelton TIME 2:55 to 3:17
 TEAM NO.: 19 TIDE LEVEL: 2 ft to 4 ft DATE 4/1/90
 EST. SUBDIVISION LENGTH: 100 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 20 % B 60 % C 20 % P 0 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 20 % Hang 50 % Vert 30 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 60 100m M 0 m N 0 m VL 0 m NO 30 m

SURFACE OIL

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

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	X		
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED

☐ YES ☒ NOTYPE N/A#BAGS 0

Photographs:

Roll No. 19-3Frames 24-28

SUBSURFACE OIL

No pits dug

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

COMMENTS

- No pits dug due to shallow bedrock
- oiled zone is ~ 60cm x 20cm
- some oil is found on the log debris

SI-7

SI-8

↓ KOD 181A

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

SI-9

ADEC Segment Length: 13917m

0 500 600 900

Map Key: KOD-181c

Name: PenlandDate: 4-1-90

Data Entered:

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22

Segment ST/ SI-9 Subdivision B Date (mo/day/yr) 4/1/90
 Time (24 hr) 2:41 Biologist STAGHT Red Rock

- (A) Substrate type and % of segments:
 (1) Bedrock 50 (2) Boulder 30 (3) Cobble 20 (4) Pebble (5) Sand (6) Silt
 (B) Overall % cover of biota (% of segment): Dense 30 Moderate 30 Low 40
 (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
 Roll No.

Frames

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

Wildlife Observations/General Comments:

Bear sign, deer: Eagle nest (57)

Kelp offshore; lots of debris

Sensitivity 1A; 1B. Stream on adjacent beach

Ecological Considerations:

locally very dense Littorina. Low level "Red zone" dense algae including Fucus.

OG Penlan

SKETCH MAP

SEGMENT ST/ K0101 / 61009

SUBDIVISION 2

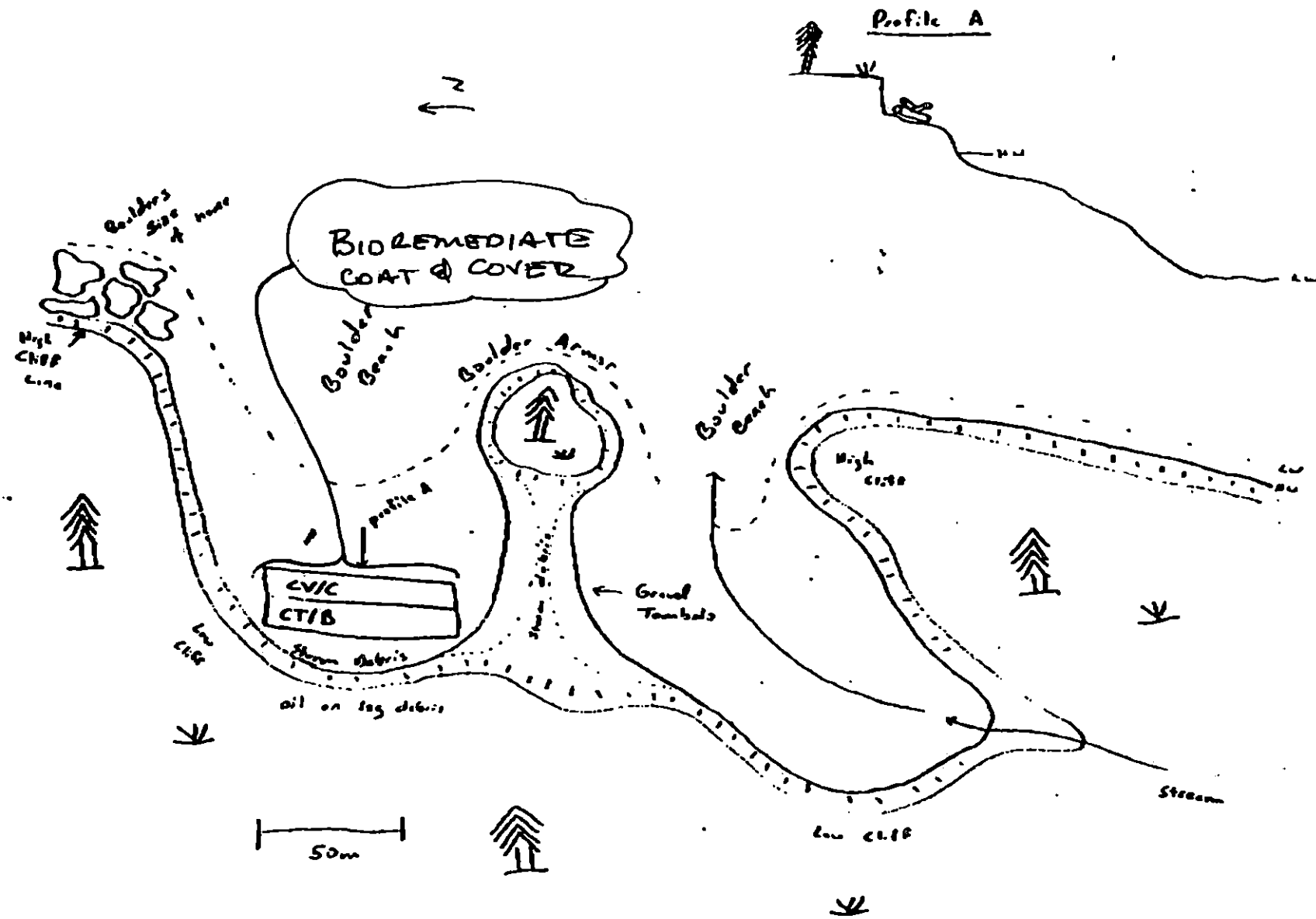
DATE 4 / 1 90

CHECKLIST

- ✓ H Arrow
- ✓ Approx. Scale
- ✓ Seg/Sub Entry
- ✓ Oil Dist.
- Width
- Length
- % Cover
- ✓ Substrate Character
- ✓ Est. HAWLA/VL
- ✓ SSL
- Profile Location(s)
- Photo Location(s)
- Photo Location(s)

LEGEND

- 1 Δ
- Pt - No Subsurface Oil
- 2 Δ
- Pt - Subsurface Oil
- CT/C
- Continuous Distribution
- CT/B
- Broken Distribution
- CT/P
- Patchy Distribution
- CT/S
- Splashed Distribution
- Cited Vegetation
- 1 ●→
- Photo location, direction, and number



Character Length (m): AP 0 PO 0 CV 60 CT 100 ST 0 MS 0 PT 0 TB 0 FL 0 NO 100

HR-05-1550 13:33 PM EXUN KUDLIK TU 15643771 P.03

KOD
1810

SI-9

A

B

C

XXX Wide

//// Medium

--- Narrow

TTTT Very Light

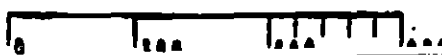
SI-9

ADEC Segment Length: 13917m

Map Key: KOD-1810

Name: Penland

Date: 4-1-90



ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K01-01-SI-009 SUBDIVISION B (2 of 3)

WORK WINDOW	
Bioremediation	CLOSED

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B	Salmon Stream	NO ADF&G catalogued stream in Segment. No constraint to bioremediation.
5T	Bald Eagle Nest	USFWS 4/9/90 map indicates an active nest in Subdivision B. Closed to bioremediation within 400m of active nest. No constraint to bioremediation more than 400m from active nest.
5R	Seabird Colony	NO CONSTRAINT. Work site is more than 800m from seabird colony.

OTHER ECOLOGICAL CONSIDERATIONS

FOSC

[Signature]

Date

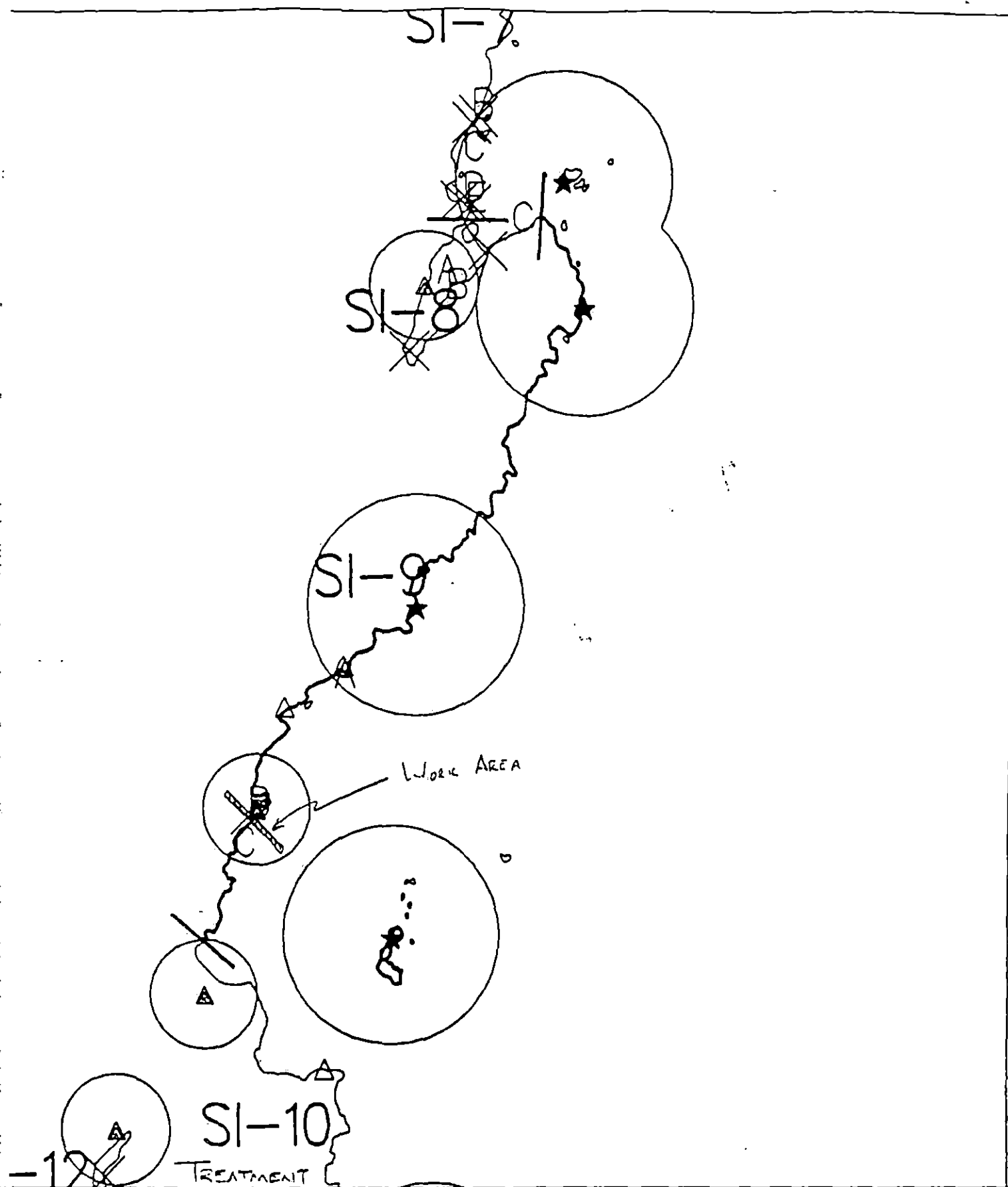
6/15/90

Prepared by

Ray D. Coulter

Date

06-14-90



Exxon Company, USA
Map Key: K00-SI-9
June 10, 1990



ECOLOGY MAP
SEGMENT KI-1 SI-9
SUBDIVISION B (2 of 3)
METERS
0 971 1941

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

1 inch = 3185 feet

SHORELINE EVALUATION

SEGMENT ST/ K01-01-SI-009 SUBDIVISION C (3 OF 3) DATE 4/1/90

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)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Charles E. Hume

DATE: 4/20/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 1230 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 Art Weaker Art Weaker

EXXON Andy Tate Andy Tate

NOAA Burt Wescott Burt Wescott

USCG Kenneth Kean Kenneth Kean

FOSC:

DATE: 4-25-90

KODIAK ECOLOGICAL CONSTRAINTS

[REDACTED] - fry emigration (4/15 to 7/30)
[REDACTED] - spawning (7/15 to 8/10; PEAK 8/10)

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 uncolled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.

3N, 3P **Harbor seal and sea lion pupping (5/10 to 6/30)**

Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.

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

Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.

5R **Seabird colony (5/1 to 8/31)**

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

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

Restrict all activity to essential minimum, especially air traffic.

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

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

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

6U **Recreation: Tent sites (8/1 to 9/15)**

6V **Anchorage (8/1 to 9/15)**

6W **Forest Service cabins (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 / K002 ST 009 SUBDIVISION: C DATE 4-1-90

NOAA
1000

NAME John Naughton SIGNATURE John J. Naughton

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

No oil observed.

ADEC
NAME Scott Shelton SIGNATURE Scott Shelton

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS K0101 / ST009 Sub. C.

Helicopter fly by - NO oil observed.
High energy beach - cliffs broken coast line no
beach access.

LAND MANAGER

NAME Ray Burger AONR SIGNATURE Ray Burger

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Cl. fhs prevent access / no assessment

Area considered for Shuyak State Park addition

OG Perland NOAA USCG Naughton SEGMENT ST/ K01211 ST009
 BIO Spright LAND REP Ginger - ADNR SUBDIVISION 6
 EXXON Ayers ADEC Shelton TIME 2:55 to 3:17
 TEAM NO.: 19 TIDE LEVEL: 2 ft to 4 ft DATE 4/1/90
 EST. SUBDIVISION LENGTH: 900 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☐ Foot ☐ Boat ☒ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 40 % B 40 % C 20 % P 0 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 10 % Hang 20 % Vert 70 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 900 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	S	P	B	SP	OR	OL	OP	NO	TL	TR	BL	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. -Frames -

SUBSURFACE OIL

No Pits Dug

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CL)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OP	NO		VO	UC	SP	OR	OL	OP	NO	TL	TR	BL	SU	U	M	U		

COMMENTS

No Pits Dug due shallow occurrence of bedrock.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / Kolo1 Subdivision S1009 C Date (mo / day / yr) 4/10/90
Time (24 hr) 13:00 Biologist SP16HT

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

Photographs:
Roll No. _____
Frames _____

BARNACLES

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

Inaccessible — no observations

SKETCH MAP

SEGMENT: (312) / ST 009

SUBDIVISION C

DATE 4 / 1 / 90

CHECKLIST

- ☒ H Area
- ☒ Approx. Scale
- ☒ Top/Sub Entry
- ☒ Oil Dnt.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HAWAIIAN
- ☒ SSL
- ☒ Profile Location(s)
- ☒ Photo(s)
- ☒ Pt Location(s)
- ☒ Photo Location(s)

LEGEND

1 Δ

Pt - No Subsurface Oil

2 Δ

Pt - Subsurface Oil

CT/C

Continuous Distribution

CT/D

Broken Distribution

CT/P

Patchy Distribution

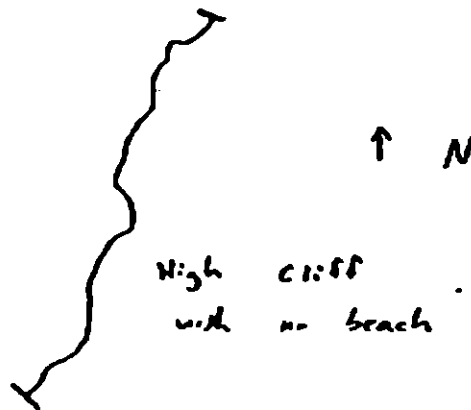
CT/S

Spaced Distribution

Oiled Vegetation

1 →

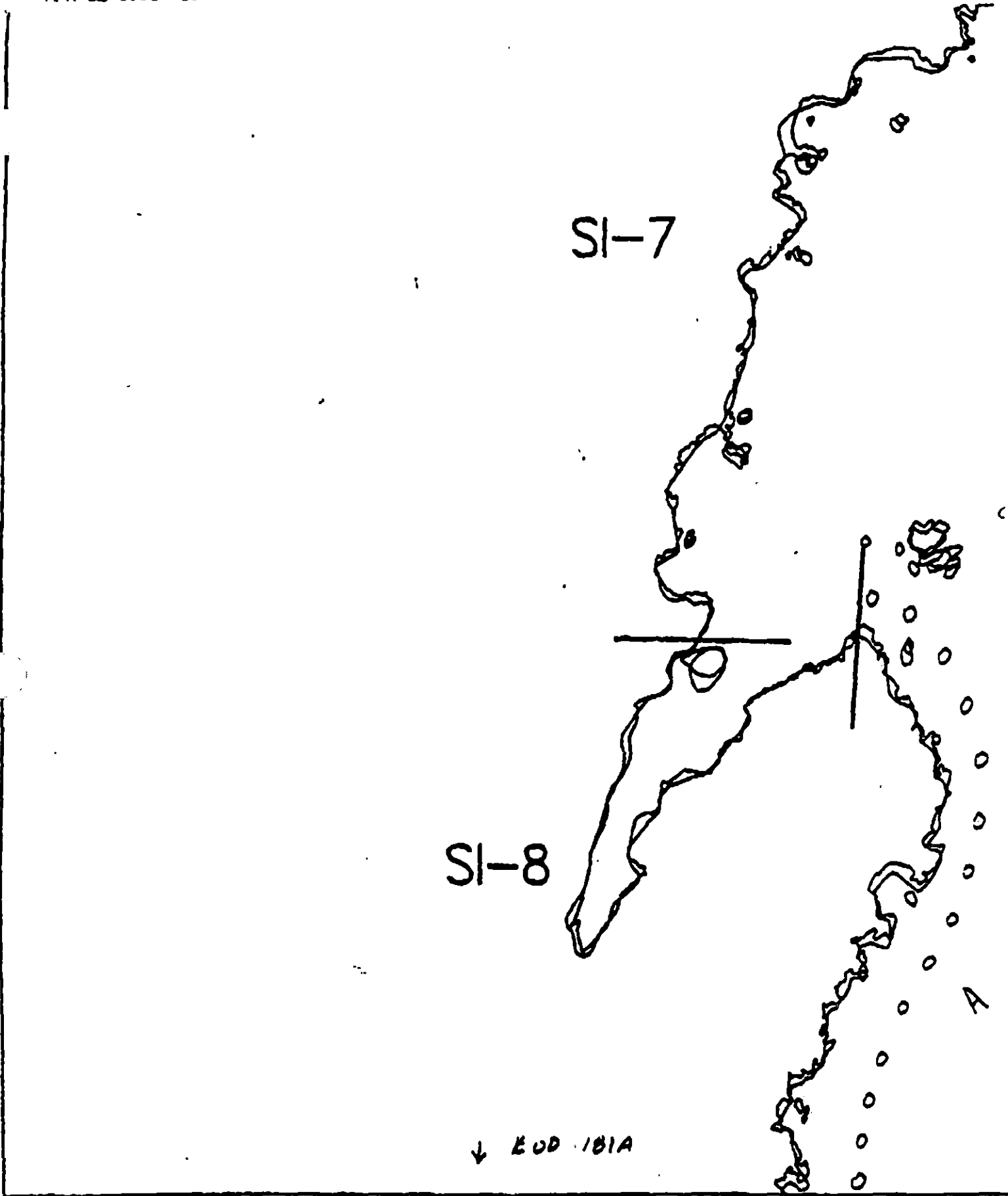
Photo location, direction, and number



300m

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

REVISION: 000000



XXXX Wide

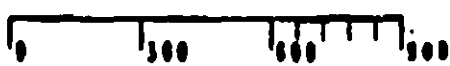
//// Medium

--- Narrow

TTTT Very Light

OOOO No Ob

ADEC Segment Length: 13917m



Map Key: KOD-181c

Name: Penland

Date: 4-1-90

↑
KOD
191C

SI-9

A

B

C

SI-9

ADEC Segment Length: 13917m

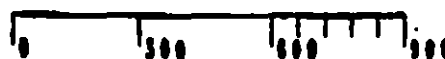
XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

OOOO Not Oil



Map Key: KOD-181a

Name: Peatland

Date: 4-1-90

SHORELINE EVALUATION

SEGMENT ST/ K01-01-SI-011 SUBDIVISION A (1 OF 2) DATE 6/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5R Seabird colony (5/1 to 9/1)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Charles E. Hume DATE: June 19, 1990

OILING CATEGORIZATION:

Wide 21 m: Medium 21 m: Narrow 0 m: V. Light 10 m: No Oil 727 m
Subsurface Oil Observed: Yes X No Maximum Depth 10 cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment is manual removal of mousse, tarballs and
pavement as shown on attached sketch map.

TAG COMMENTS: BIOREMEDIATION (CUSTOMER) AS REQUIRED FOLLOWING
TARMAT REMOVAL

TAG APPROVAL DATE: 6/16/90

ADEC Roy Munnis R. Munnis
EXXON ANDY TEAL FOSC: My L DATE: 6-27-90
NOAA Joseph Tallant J. Tallant
USCG G.A. REITER 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 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
- 3N, 3P Harbor seal and sea lion pupping (5/10 to 7/1)
3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
ADF&G Tom Rothy 267-2208
- 5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (8/1 to 9/15)
6V Anchorages (8/1 to 9/15)
6W Forest Service cabins (8/1 to 9/15)
6X Lodge (8/1 to 9/15)
6Y Special use destination
- 7Z Subistence area: Salmon harvesting (8/1 to 9/30)
7H-H Finfish harvesting
7I Deer harvesting (8/1 to 1/7)
7J Invertebrate harvesting
7K Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST KI-01/SI-11 SUBDIVISION: SI-11 A&B DATE 6/1/90

~~NOAA~~
USCG
NAME

Tom Callahan

SIGNATURE

Tom Callahan

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Mousse incorporated in sediments is still soft but has potential to harden and form ^{hard} asphalt. Occurs in selected spots above "green zone". Suggest manual removal of mousse/sediment mixture or break-up and leave in order to prevent formation of hard asphalt.

Cover observed on rock faces has hardened and would require scraping to remove, spot washing would not remove it.

ADEC

NAME

Terry Ellsworth

SIGNATURE

Terry Ellsworth

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Recoverable oil occurs as soft asphalt and mousse interstitial between boulders and cobbles and on bedrock. Cover and coat is found on rock faces in the high tide zone as well as on bedrock outcrop. The major area of impact is found on the south east side of the island. A smaller area is located at the north end. Manual removal of the asphalt and mousse is recommended in these two areas. Access to the smaller of the two areas may be difficult.

LAND MANAGER

NAME

Mike Anderson

SIGNATURE

Mike Anderson

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Little Foot Island is state land managed by ANR. The oiled area located on the south east end of the island is an area of low to medium ^{wave} energy. Naturally occurring small shores in the mid-intertidal zone were damaged as a result of oil present. This oil mousse mixed with gravel, sediment and cobbles are recommended for removal.

SHORELINE OILING SUMMARY

REVISION NO. 26-13-20

USCG James Springer USCG NOAA T. Callahan SEGMENT ST/ K-101 / SI-11
 BIO D. Lohse LAND REP M. Goodwin SUBDIVISION A (1 OF 2)
 EXXON-A F&G, J. Barnhart ADEC T. Elsworth TIME 12:15 to 15:00
 TEAM NO. 19 TIDE LEVEL +6 TO +2 DATE 06/01/190
 EST. SUBDIVISION LENGTH: 725 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☒ Helo WORKING DIRECTION: SW to NE
 SURFACE SEDIMENTS: R 30 % B 40 % C 20 % P 5 % G 5 % S % M % V %
 SLOPE: Long 10 % Hang 50 % Vert 40 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 20 m M 30 m N m VL 15 m NO 60 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	S	P	S	SP	OP	OT	OR	OL	OB	OC	OS	SU	U	M	L
ASPHALT PAVEMENT		X				X									X	
POOLED																
COVER																
COAT			X			X								X		
STAIN																
BOUSSE			X					X						X		
PATTIES																
TARBALLS				X				X					X			
FILM																
NO OIL																X

PAVEMENT H F (S) 100 sq. m by 5 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	X			TYPE _____
Debris				#BAGS _____

Photographs:

Roll No. _____

Frames _____

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SHEEN (Y/N)	▼ 7	SURFACE - SUBSURFACE SEDIMENTS	
		OP	OR	OL	OF	NO		UO	UC	SP	BP	OR	OT	OT	OR	OT	OR	SU	U	M	U					
1	20				X		0-10		X						X		X									P/P/GC
2	10					X	.		X									X				BR	7		CP/CPG	
							.																			
							.																			
							.																			
							.																			

COMMENTS RWSheen on puddles in MITZ.

Originally surveyed as one subdivision. Since the subdivision was not contiguous, it was broken into subdiv A & B after agency comments. Pocket 1 is in subdiv. A and 2 is in subdiv. B.

LOG J. Springer

SEGMENT ST/ K-101/SI-11

SUBDIVISION A

DATE 6/1/90

CHECKLIST

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

LEGEND

1 Δ
Pit - No Subsurface Oil

2 Δ
Pit - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

CT/P
Patchy Distribution

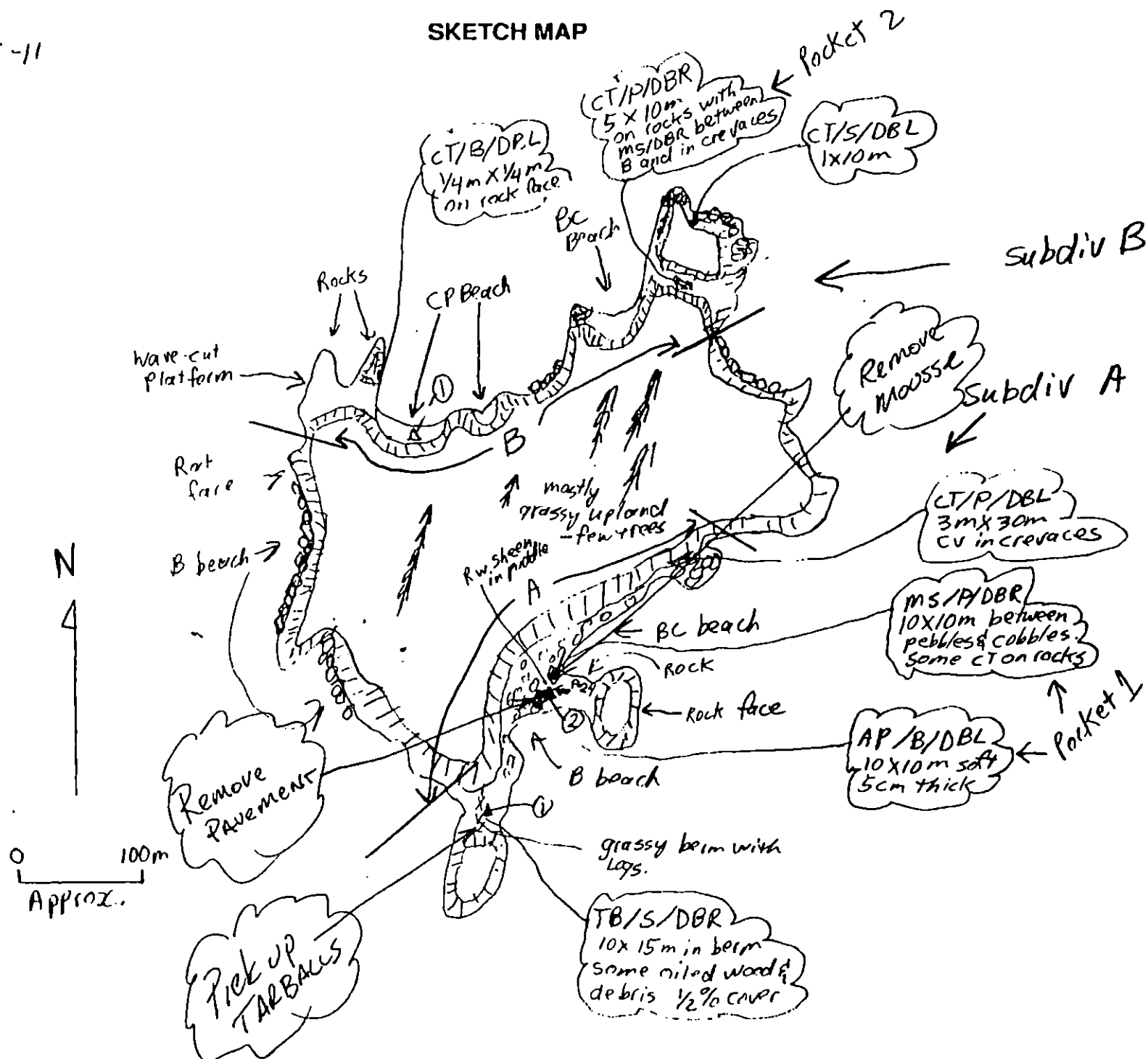
CT/S
Splashed Distribution

Oiled Vegetation

1 $\rightarrow$

Photo location, direction, and number

SKETCH MAP



Oil Character Length (m): AP 10 PO CV CT 30 ST M 10 PT TB 15 FL NO 660

K0101-SI011A

Ecology Map
Resource Codes for Entire
Segment

SR



500.0

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

ADCC Sep/Oct 1988 Survey

N

SHORELINE ECOLOGICAL SUMMARY

REVISION 10-1-78

Segment ST / K1-1 Subdivision 171E Date (mo / day / yr) 6-1-78Time (24 hr) 12:15 Biologist David Lehn(A) Substrate type and % of segments:
(1) Bedrock 30 (2) Boulder 40 (3) Cobble 20 (4) Pebble 5 (5) Sand 5 (6) Silt (B) Overall % cover of biota (% of segment): Dense 30 Moderate 40 Low 30

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

Photographs:

Roll No. ST-19-100Frames 23, 24

BARNACLES

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

MYTILUS

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

GASTROPODS

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

FUCUS

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

Wildlife Observations/ General Comments:

See page 2

Ecological Considerations:

SR - One gull nesting colony and one oystercatcher nesting area were observed in this segment

2005/11/15

2005/11/15

2005/11/15

Biologist: David Lohr

Wildlife Observations/General Comments

present in low intertidal: *Iridaea*, *Alaria*, unknown yellow sponge, *Rhodomenia*, *Helosaccus*, *Siphonaria*, *Ralfsia*, *Epicetus*, *Ulva*, *Porphyra*, *Rhodamelia*, coralline algae, *Katharina tunicata*, unknown filamentous red (*Ag. sp.*?)

mid intertidal: *Sculpins*, *Scytosiphon*, *Ralfsia*, coralline algae, *Rhodomenia*, *Nucella*, *Gloiopeltis*, *Endocladia*, *Rhodomenia*, *Orchestoidea*, *Helosaccus*, *Chydophora*, *Porphyra*, unknown yellow sponge, *Alaria*, *Ulva*, *Epicetus*, *Anthopleura*

high intertidal: *Lilva*

2. One otter, ~8 oystercatchers, 2 ravens, 2 mature bald eagles, and several gulls spotted in area

3. Littorina eggs were found underneath mid-intertidal cobble

4. *Ulva* was abundant on high intertidal bedrock, varying from 30-50% cover. However, it did look fairly dried at.

5. Not much of low intertidal in segment was seen due to tidal cycle. However where it was seen, algal cover ranged from 75-80% on bedrock and was ~75% on boulders

Stent ST/141-152-11

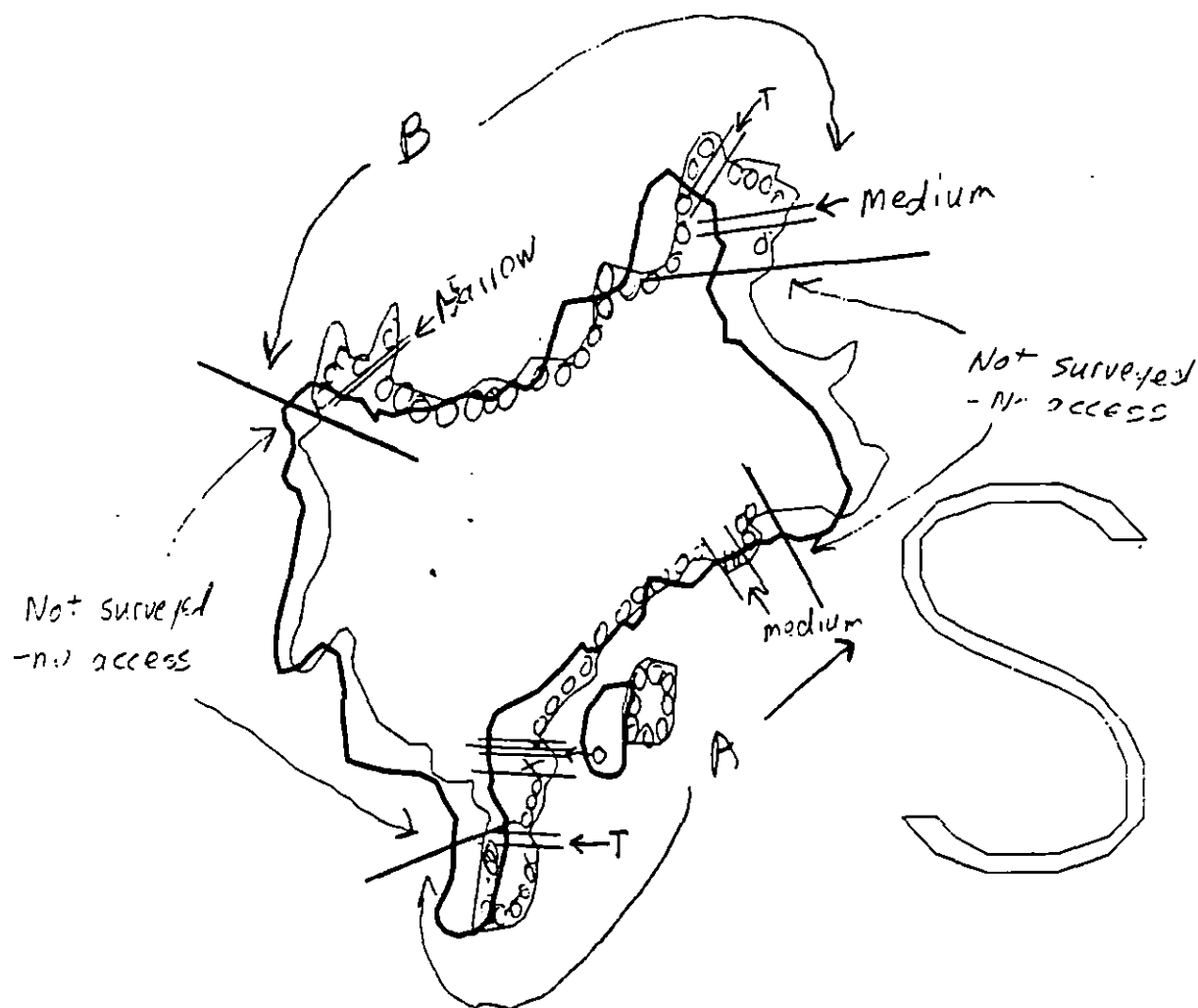
Stodman Air

6.1.10

Recruitment of barnacles and Fucus were patchy

1. Distribution of Littorina eggs was patchy

3 Mortality of Barnacles was ~ 10% on mid-intertidal bedrock (1 site surveyed)



XXXX Wide
 /// Medium
 --- Narrow

K0101-SI-11-A

Approx. Segment Length: 2484
 2300m

Map Key: K0D-SI-11

Name: James S. 17-1

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K01-01-SI-011 SUBDIVISION A (1 of 2)

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN (USFWS MONITOR REQ.)
Bioremediation*	OPEN (USFWS MONITOR REQ.)

*No Inpol - Use Customblen Only

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5R Seabird Colony

Constraint may be waived by USFWS monitor per conversation of Jill Parker/USFWS to Rex Coulter/Exxon on 7/02-90. Approach must be from the south.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

[Signature]

Date

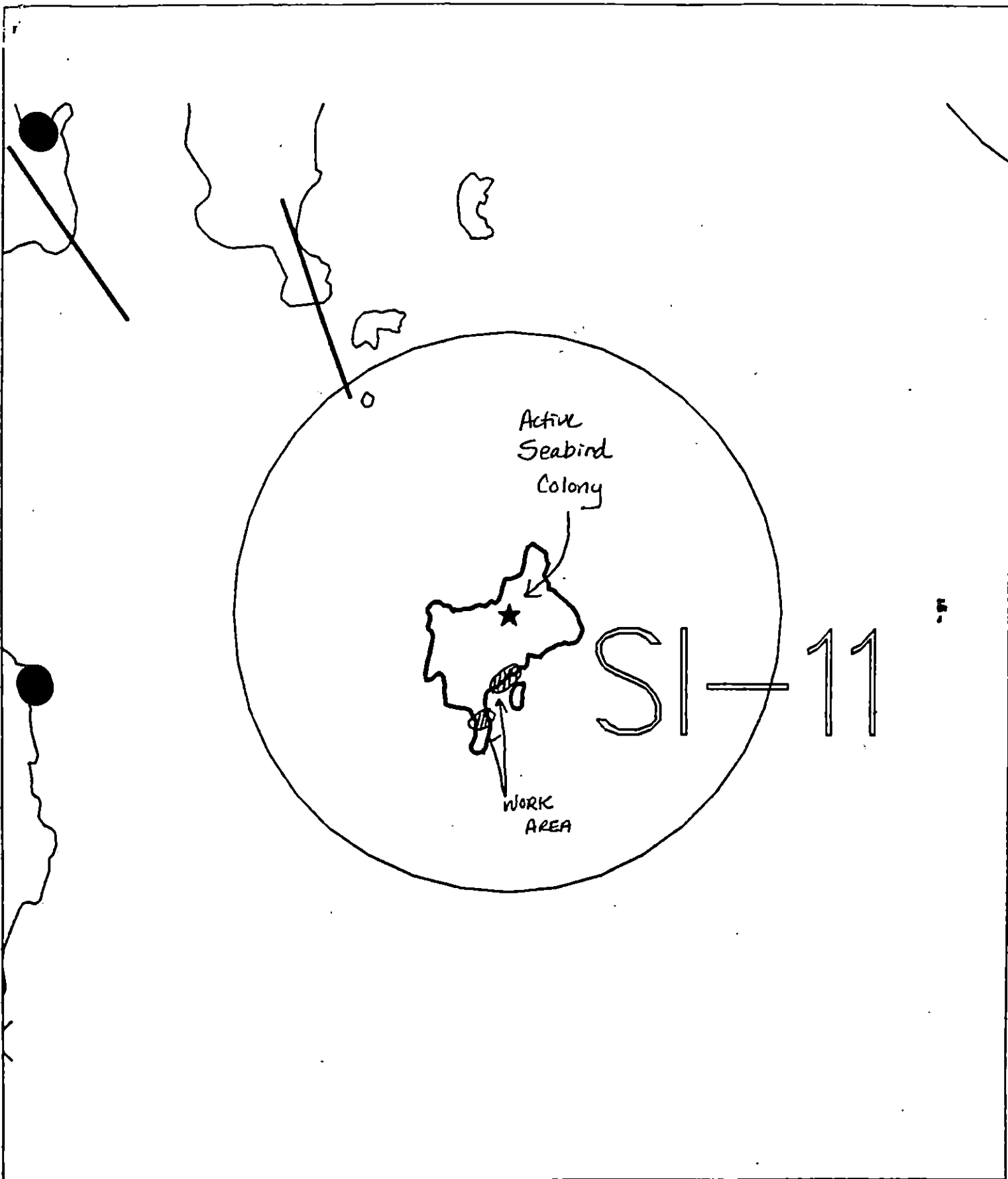
7/3/90

Prepared by

Rex D. Coulter

Date

7-2-90



Exxon Company, USA
 Map Key: KDD-SI-11
 June 10, 1990



ECOLOGY MAP
 SEGMENT K1-1 SI-11
 SUBDIVISION A (1 of 2)
 METERS
 0 382 764

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

1 inch = 1253 feet

REVISION 1
7/24/90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K01-01-SI-011 SUBDIVISION A (1 of 2)

WORK WINDOW

Manual Pickup
Tarmat Removal

CLOSED
OPEN
(USFWS MONITOR REQ.)

Bioremediation*

CLOSED
OPEN
(USFWS MONITOR REQ.)

G.A. Reiter
for FOSC

*No Inpol - Use Customblen Only

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 584-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5R Seabird Colony

CLOSED TO Manual Pickup, Tarmat Removal, and
Bioremediation based on Communications
with USFWS (Jim Parker) a
7/24/90
Constraint may be waived by USFWS monitor per conversation of
Jim Parker/USFWS to Rex Coulter/Exxon on 7/02-90. Approach
must be from the south.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

[Signature]

Date

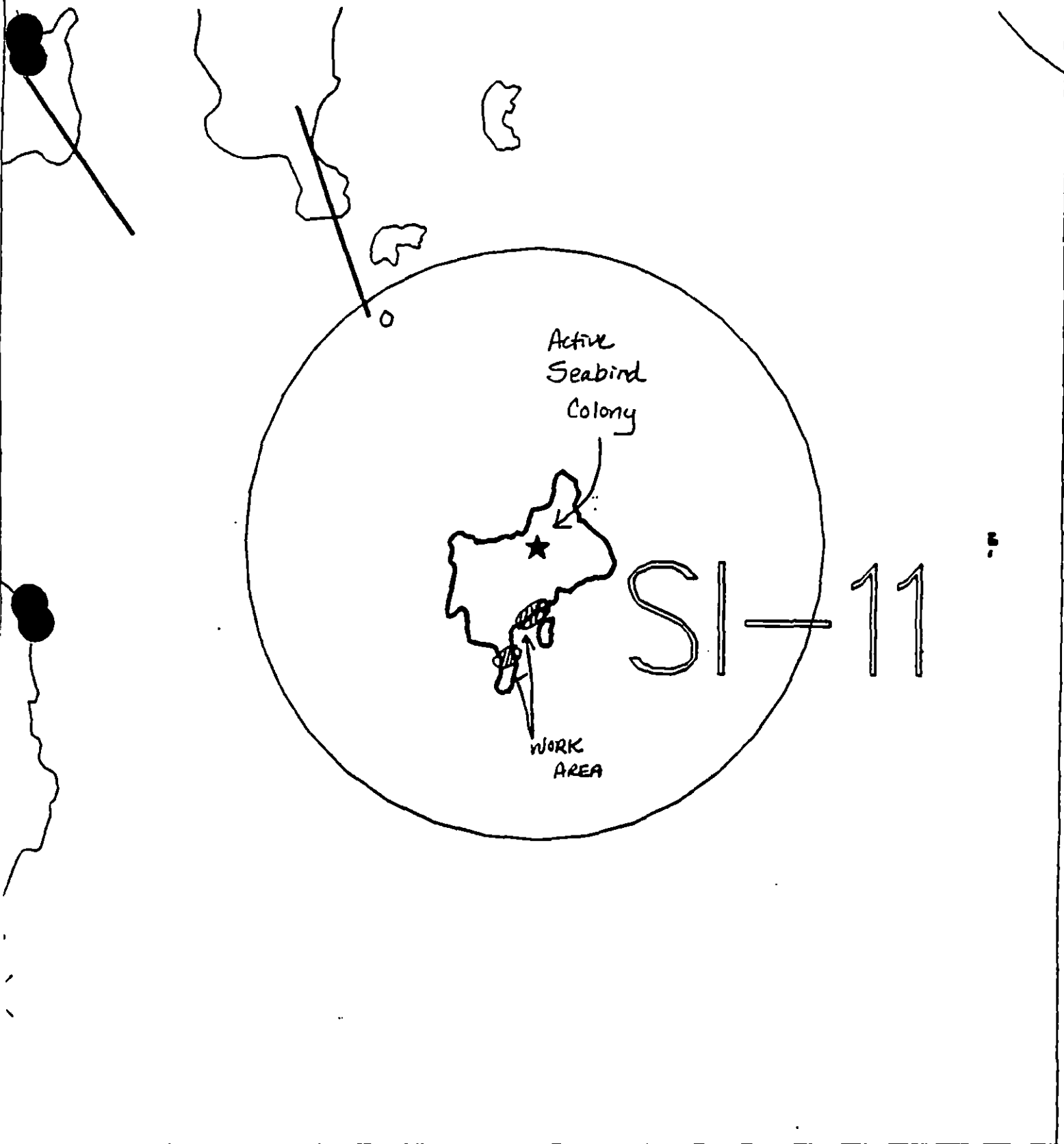
7/3/90

Prepared by

[Signature]

Date

7-2-90



Exxon Company, USA

Map Keys KOD-SI-11

Scale 1:10,000



ECOLOGY MAP
SEGMENT KI-1 SI-11
SUBDIVISION A (1 of 2)

METERS



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

SHORELINE EVALUATION

SEGMENT ST/ K01-01-SI-011 SUBDIVISION B (2 OF 2) DATE 6/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5R Seabird colony (5/1 to 9/1)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: *Charles E. Hines* DATE: June 19, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 11 m: Narrow 4 m: V. Light 10 m: No Oil 526 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 *R. M. Morris* *R. T. Morris*

EXXON *ANDY TEAL* *Real*

NOAA *Joseph Talbot* *J. C. Talbot*

USCG *G. H. Reiter* *G. A. Reiter*

FOSC: *[Signature]*

DATE: 6-27-90

KODIAK ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / KI-01/SI-II SUBDIVISION: SI-II A&B DATE 6/1/90

NOAA
USCG
NAME Tom Callahan SIGNATURE Tom Callahan

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

Mousse incorporated in sediments is still soft but has potential to harden and form ^{hard} asphalt. Occurs in selected spots above "green zone". Suggest manual removal of mousse/sediment mixture or break-up and leave in order to prevent formation of hard asphalt.

Cover observed on rock faces has hardened and would require scraping to remove, spot washing would not remove it.

ADEC
NAME Terry Ellsworth SIGNATURE Terry Ellsworth

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

Recoverable oil occurs as soft asphalt and mousse interstitial between boulders and cobbles and on bedrock. Cover and coat is found on rock faces in the high tide zone as well as on bedrock outcrop. The major area of impact is found on the south east side of the island. A smaller area is located at the north end. Manual removal of the asphalt and mousse is recommended in these two areas. Access to the smaller of the two areas may be difficult.

LAND MANAGER
NAME Mike [unclear] SIGNATURE [unclear]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

Little Foot Island is state land managed by ANR. The oiled area located on the south east end of the island is an area of low to medium ^{WAVE} energy. Naturally occurring small shores in the mid-intertidal zone were damaged as a result of oil present. This oil mousse mixed with gravel, sediment and cobbles are recommended for manual removal. A smaller area on the North end

SHORELINE OILING SUMMARY

REVISION NO. 34-13-90

OG J. S. 19-1 USEG N. H. T. Cooper SEGMENT STI 15-121/111-1
 BIO D. Lohse LAND REP M. Goodwin SUBDIVISION B (2 OF 2)
 EXXON A & G. J. Barnhart ADEC J. Ellsworth TIME 12:15 to 15:01
 TEAM NO. 19 TIDE LEVEL +6 TO +2 DATE 06/01/90
 EST. SUBDIVISION LENGTH: 800 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☒ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 30 % B 40 % C 20 % P 5 % G 5 % S 0 % M 0 % V 0 %
 SLOPE: Long 10 % Hang 50 % Vert 40 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 10 m N 1 m VL 10 m NO 779 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	1	2	3	4	5	6	7	8	9	SU	U	M	U
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT		X	V	+		X		V		X			
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL										X		X	X

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE 0#BAGS 0

Photographs:

Roll No. 0Frames 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)	↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	UC	5A	5B	5C	5D	5E	SU	U	M	U				
1	35					X	.	X							X							PS/PGS
							.															
							.															
							.															
							.															
							.															

COMMENTS

Originally surveyed as one subdivision. Since the subdiv. was not contiguous, it was broken into subdiv. A & B after agency comments. Pocket 1 is in subdiv. A, Pocket 2 is in subdiv. B

REVIEWED BAT DATE 6 Jun 90

UG J. Springer
 SEGMENT ST/ K-101/SI-11
 SUBDIVISION B
 DATE 6/1/90

CHECKLIST

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

LEGEND

1 Δ
 Pit - No Subsurface Oil

2 Δ
 Pit - Subsurface Oil

CT/C
 Continuous Distribution

CT/B
 Broken Distribution

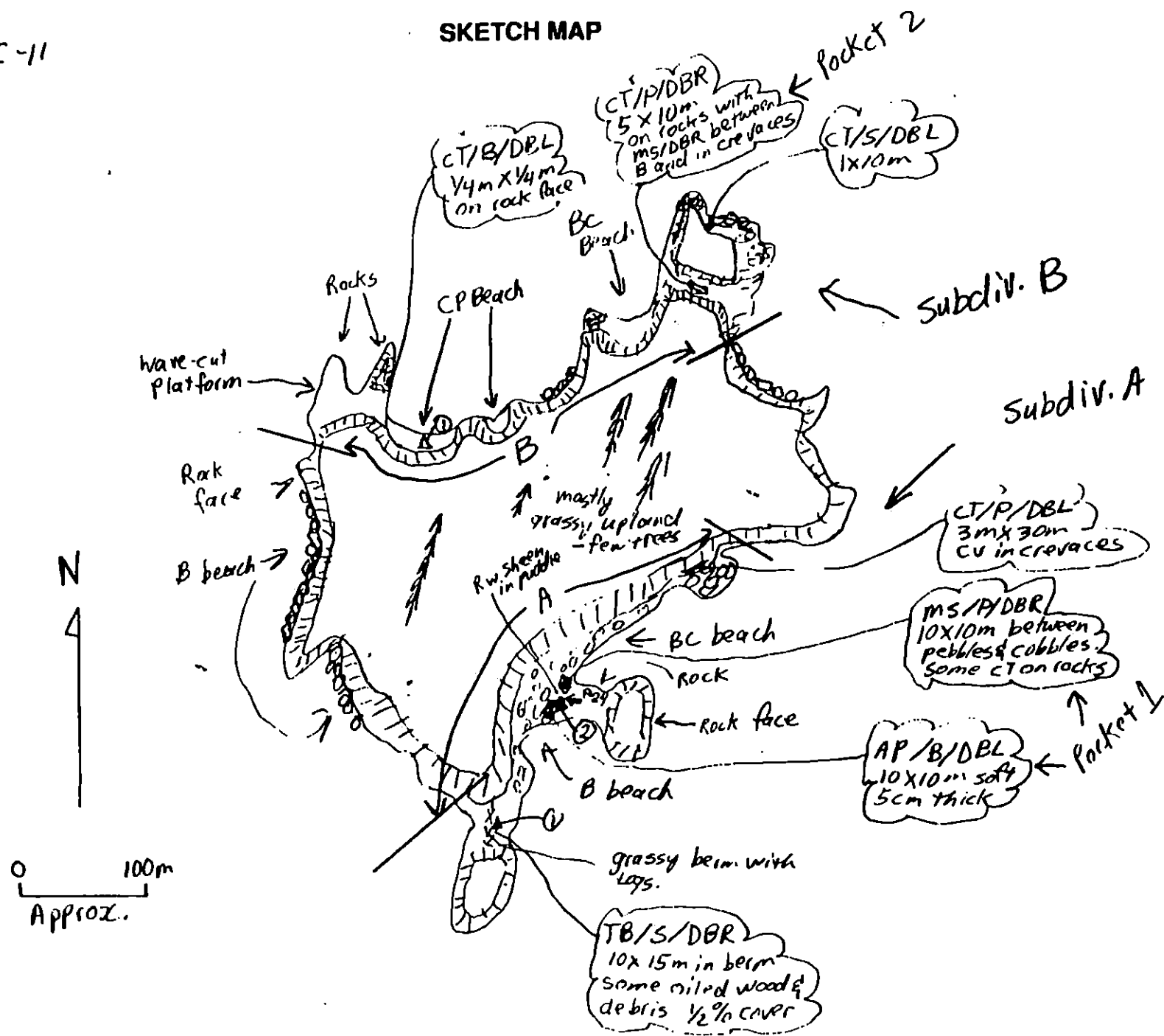
CT/P
 Patchy Distribution

CT/S
 Splashed Distribution

Oiled Vegetation

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

SKETCH MAP



Oil Character Length (m): AP PO CV CT 21 ST MS PT TB FL NO 779

SHORELINE ECOLOGICAL SUMMARY

REVISION 03-22-90

Segment ST/K1-1/ST-114 Subdivision A & B Date (mo / day / yr) 6-1-90

Time (24 hr) 12:15 Biologist David Lohse

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

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

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

Photographs:
Roll No. ST-19-100

Frames 23, 24

BARNACLES

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

MYTILUS

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

FUCUS

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

Wildlife Observations/ General Comments:

See page 2

Ecological Considerations:

SR. One gull nesting colony and one oystercatcher nesting area were observed in this segment

Segment ST/KI-1/SE-11A

Subdivision A & B

6-1-90

Biologist: David Lohr

Wildlife Observations/General Comments

- 1. present in low intertidal: *Iridaea*, *Alicia*, unknown yellow sponge, *Rhodomenia*, *Halosaccus*, *Siphonaria*, *Ralfsia*, *Epiaulus*, *Ulva*, *Porphyra*, *Rhodomenia*, coralline algae, *Katharina tunicata*, unknown filamentous red (Dasyca?)
- mid intertidal: *Sculpins*, *Scytosiphon*, *Ralfsia*, coralline algae, *Rhodomenia*, *Nucella*, *Gloiopeltis*, *Endouladia*, *Rhodomenia*, *Orchestoidea*, *Halosaccus*, *Cladophora*, *Porphyra*, unknown yellow sponge, *Alicia*, *Ulva*, *Epiaulus*, *Anthopleura*
- high intertidal: *Ulva*
- 2. One otter, ~8 oystercatchers, 2 ravens, 2 mature bald eagles, and several gulls spotted in area
- 3. *Littorina* eggs were found underneath mid-intertidal cobble
- 4. *Ulva* was abundant on high intertidal bedrock, varying from 30-50% cover. However, it did look fairly dried at.
- 5. Not much of low intertidal in segment was seen due to tidal cycle. However where it was seen, algal cover ranged from 75-80% on bedrock and was ~75% on boulders

K0101-SI011A

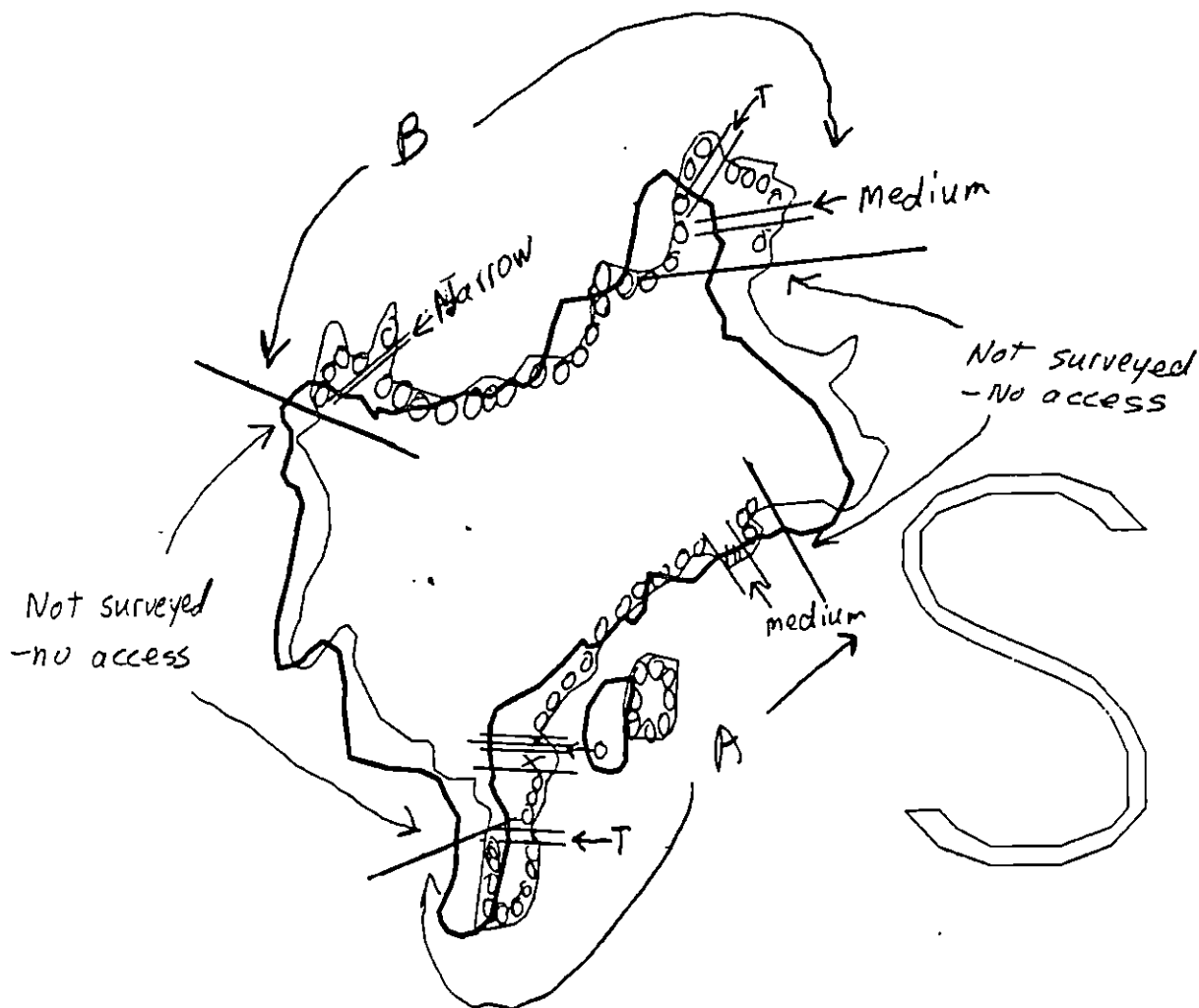
Ecology Map
Reserve Codes for Entire
Segment

SR



500.0

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



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

OOOO No Oil

KØIØI-SI-11-B

Approx. Segment Length: 2484



Map Key: KØD-SI-11

Name: James Springer

Date: 6/1/90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ K01-01-SI-12 SUBDIVISION A (1 OF 5) DATE 4/8/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: V. Miller Sgt & Mrs DATE: 4/28/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 1413 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: 3/26/90.
 ADEC JOHN POWER
 EXXON ANNY TEAL
 NOAA Gary Petrac
 USCG KENNETH KEANE

FOSC: WJL DATE: 5-3-90

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
- 1C Salmon fry nursery area (4/31 to 7/31)
- 1D 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 8/30)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 5R Seabird colony (5/1 to 8/31)
 Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic.
- 5T All Bald Eagle nests (3/1 to 6/1) φ
 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 / K0101 / SI 012 SUBDIVISION: A DATE 4-8-90

~~NAME~~
~~USE~~

NAME John Naughton SIGNATURE John J. Naughton

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

This entire outer bay area walked. No oil observed.

ADEC

NAME Scott Shelton SIGNATURE Scott Shelton

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

K0101 / SI 012 Sub. A.

No oil observed 1296 meters walked in this segment 12 pits were dug / each series of 3 pits were dug from upper tidal to lower tidal zone. NO subsurface oil observed. High energy shoreline coarse gravel surface sediment. Deer activity in this area feeding on beach vegetation.

LAND MANAGER

NAME Mike Goodman SIGNATURE Mike Goodman

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Sub-
Fred Byers, Exxon, stated this segment was treated by Exxon crews during summer of 1989. I observed this area to have active deer, eagle, seal and waterfowl habitat. Deer were using this subsegment as a kelp storage area. Driftwood present showed no oil staining. No oil observed in this subsegment. MLB

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Penland Naughton SEGMENT ST/ K0101/31012
 BIO spight LAND REP Goodman/ADP SUBDIVISION A
 EXXON nyac ADEC Shelton TIME 8:46 to 11:08
 TEAM NO.: 19 TIDE LEVEL: +0.5 to +5.5 ft DATE 4/8/90
 EST. SUBDIVISION LENGTH: 1296 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 30 % B 20 % C 40 % P 10 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 40 % Hang 20 % Vert 20 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 1296 m

SURFACE OIL

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

PAVEMENT: H F S 0 sq. m by 0 cm.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 —#BAGS 0

Photographs:

Roll No. ST-19-6Frames 22-27

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-OR)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	1	2	3	4	5	SU	U	M	L		
1	30					X	.									X				Cobble
2	30					X	.										X			Cobble
3	30					X	.											X		Cobble
4	30					X	.									X				Gravel
5	30					X	.										X			Gravel
6	30					X	.											X		Gravel

COMMENTS

• no oil observed in segment A, 12 major pits dug and numerous smaller pits dug to inspect for oil, none observed.

• one piece of driftwood 10cm x 40cm was observed on beach, it appeared to be washed in by the last tide

SHORELINE OILING SUMMARY (PAGE 2 of 2)

REVISION 03/23/98

SEGMENT ST/ K2121 SUBDIVISION A
SE012

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR							PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UG	UG	1	2	3	4	5	6	7	SU	LI	MI	LI		
7	30					X	.										X					Gravel
8	30					X	.											X				Gravel
9	30					X	.													X		Gravel
10	30					X	.										X					Gravel
11	30					X	.											X				Gravel
12	30					X	.													X		Gravel
							.															
							.															
							.															
							.															
							.															
							.															
							.															
							.															
							.															
							.															

COMMENTS

REVIEWED BAT DATE 12 Apr 90

UU Verland

SKETCH MAP

SEGMENT TI Kolo/51012

SUBDIVISION 4

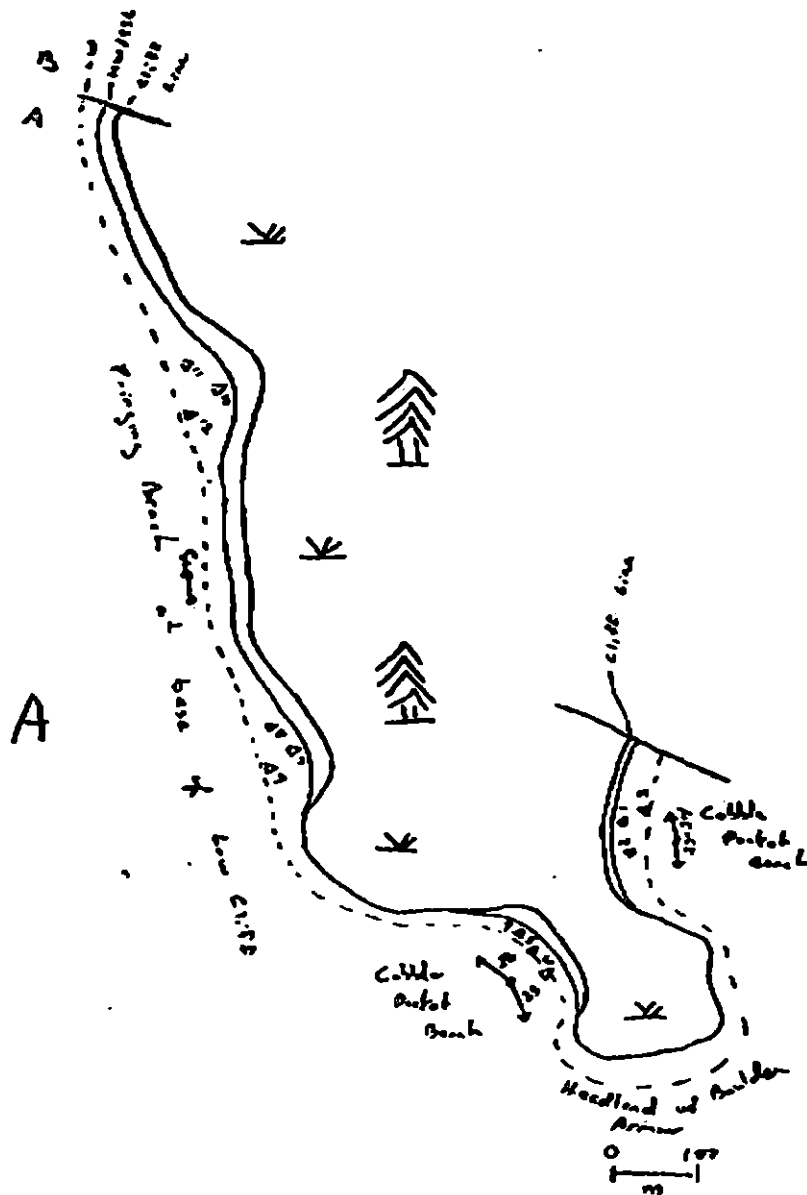
DATE 4 / 4 90

CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Seg/Sub Boundary
- ☒ Oil Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HW/LWR
- ☒ SSL
- ☒ Profile Location(s)
- ☒ Profile(s)
- ☒ PH Location(s)
- ☒ Photo Location(s)

LEGEND

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



Oil Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 0 PT 0 TB 0 FL 0 NO 1296

REVISION 02/14/88

SHORELINE ECOLOGICAL SUMMARY

REVISION: 08/23/90

Segment ST / S1-12 Subdivision A Date (mo / day / yr) 4/8/90Time (24 hr) 8:40 Biologist SP16HT

(A) Substrate type and % of segments:

(1) Bedrock 30 (2) Boulder 30 (3) Cobble 40 (4) Pebble 10 (5) Sand 0 (6) Silt 0(B) Overall % cover of biota (% of segment): Dense 30 Moderate 30 Low 35

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

Photographs:

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

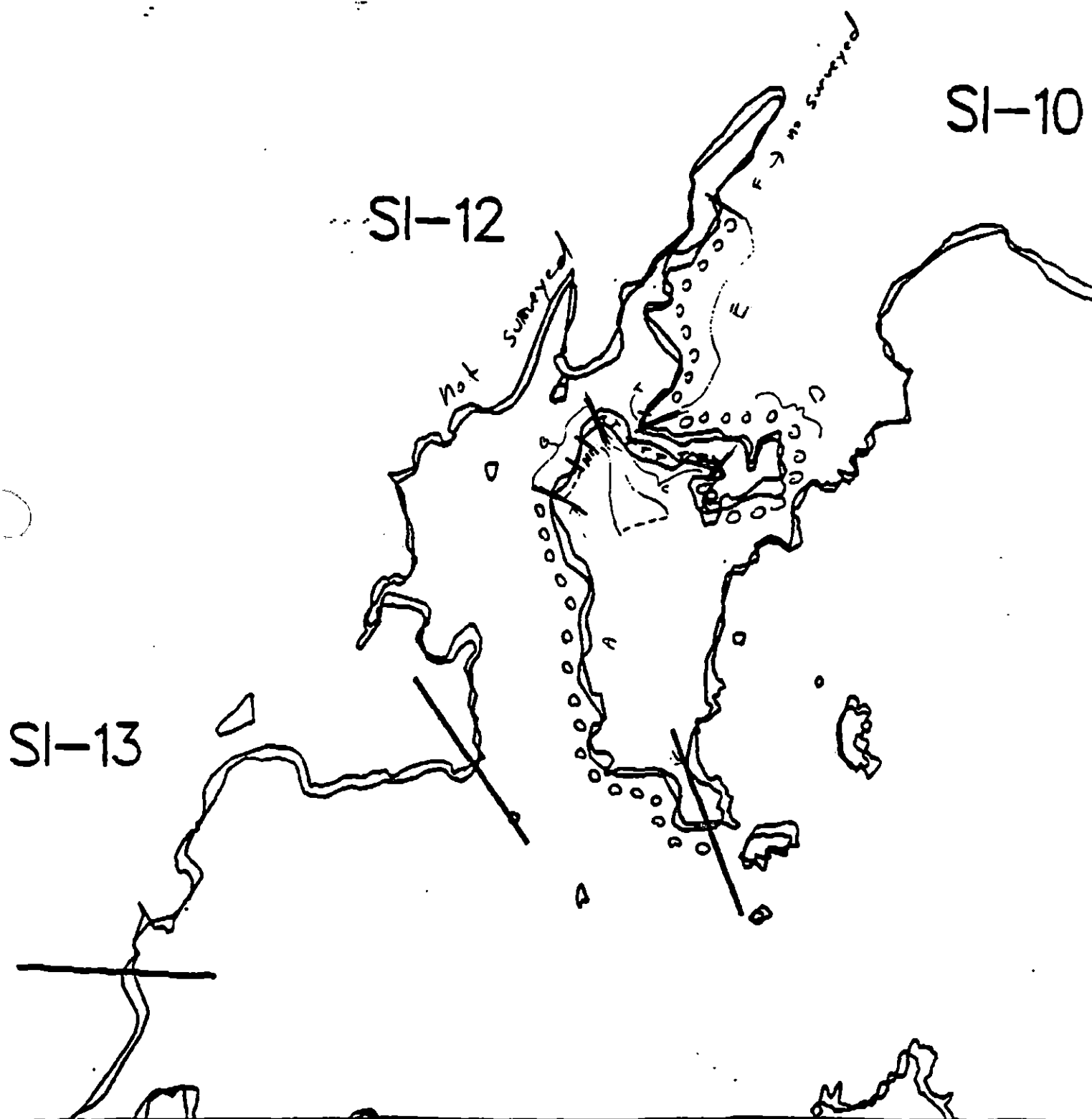
NOT PRESENT

Wildlife Observations/ General Comments:

harbor seal active in area

Ecological Considerations:

Section varies from diverse exposed community at headland to limited "barnacle cobble" assemblage at N limit. Species patchily dense with intervening areas of gravel, etc.



XXXX Wide

//// Medium

---- Narrow

SI-12

ADEC Segment Length: 9081m

Map Key: KOD-170

Name: Portland

SHORELINE EVALUATION

SEGMENT ST/ K01-01-SI-12 SUBDIVISION B (2 OF 5) DATE 4/8/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Charles E. H. H. H. DATE: 4/28/90

OILING CATEGORIZATION:

Wide 0 m: Medium 83 m: Narrow 198 m: V. Light 0 m: No Oil 0 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes manual pick up of pooled oil using absorbents as necessary then bioremediate. Work should be conducted after 6/1 with approval of USFWS regarding eagle nest. ^T Mousse _B

TAG COMMENTS:

TAG APPROVAL DATE: 4/26/90
ADEC JOHN BANGE
EXXON ANDY TGA
NOAA Gary Petrac
USCG KENNETH KIRK
FOSC: DATE: 5-3-90

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage.
 No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
- 1C Salmon fry nursery area (4/31 to 7/31)
- 1D Kotol Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
- 1I Gill net area
- 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay - 6/9 to 10/1.
 East side Kodiak, East side Afognak - 7/4 to 10/1.
- 1K Purse seine hook-off
- 1L Set net sites
 USFWS setnet uplands permit 5/15 to 9/15.
- For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/15 to 6/30)
 Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass.
 Contact ADF&G for specific dates and locations.
- 3N, 3P Harbor seal and sea lion pupping (5/10 to 6/30)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 5R Seabird colony (5/1 to 8/31)
 Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic.
- 5T All Bald Eagle nests (5/1 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 / K0101 / SI 012 SUBDIVISION: B DATE 4-8-90

~~NOAA~~
~~USGS~~

NAME John Naughton SIGNATURE John Naughton

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

mousse patches and pooled oil seen throughout this segment (subdivision B). Oil mixed in with sediment. This concentrated oil should be removed manually.

ADEC

NAME Scott Shelton SIGNATURE Scott Shelton

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS K0101 / SI 12 Sub. B 220 Meter Seg. length
Patches of Mousse and occasional splashes of oil (weathered) can be observed throughout this segment (subdivision B)
Pooled areas Broken in distribution. Impact length 170m x 3m
6 pits no subsurface oil observed
Low energy beach good vessel and skiff access.
Manual clean up of oiled sediment suggested.

LAND MANAGER

NAME Mike Goodwin SIGNATURE Mike Goodwin
ADNR

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

This segment and subunit contains a 200m x 3m band of weathered mousse patches on the upper intertidal zone that I would recommend for removal by hand/manual clean up techniques. An upland camp was witnessed in this subunit as well as a fine scored beach log on the upper intertidal. This area is also being reviewed for inclusion into the Shumak Island State Park because of its high

SHORELINE OILING SUMMARY

REVISION NO. 03/23/90

3 Portland USCG Neighton SEGMENT ST/ K0101/5E012
 O. Spart LAND REP Goodman/ADNE SUBDIVISION 13
 XX Byron ADEC Shelton TIME 8 : 46 : 11 : 08
 EA 19 TIDE LEVEL: +0.5 to +5.5 ft DATE 4 / 8 / 90
 ST. SUBDIVISION LENGTH: 220 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 PLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 URVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 URFACE SEDIMENTS: R 10 % B 10 % C 50 % P 10 % G 10 % S 10 % M 0 % V 0 %
 LOPE: Lang 70 % Hang 15 % Vert 15 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 IL CATEGORY LENGTH: W 0 m M 50 m N 170 m VL 0 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	10	15	20	25	1	2	3	4	5	SU	U	M	U
ASPHALT PAVEMENT													
POOLED		X				X		X			X		
COVER													
COAT													
STAIN													
MOUSSE													
PATTIES													
ILLS													
VIEW													
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	X		
Vegetation			
Trash			
Debris			

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

Photographs:

Roll No. 57-19-6Frames 28-34

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	UD	1	2	3	4	5	SU	U	M	U		
1	30					X	.									X				Gravel
2	30					X	.									X				Gravel
3	30					X	.									X				Gravel
4	30					X	.									X				Gravel
5	30					X	.									X				Gravel
6	30					X	.									X				Gravel

COMMENTS

- MS/S oil is distributed throughout subdivision B.
- PO/S oil fills the cracks and inter-visible spaces on the surface of the beach. Injection pits revealed oil is concentrated only in the surface layer.

SKETCH MAP

SEGMENT 11 Kerala/ST012SUBDIVISION BDATE 4 / 8 / 90

CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Seg/Sub Entry
- ☐ Oil Out.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HWR/LVR
- ☐ Soil
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PH Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

PH - No Subsurface Oil

2 Δ

PH - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

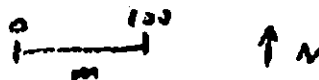
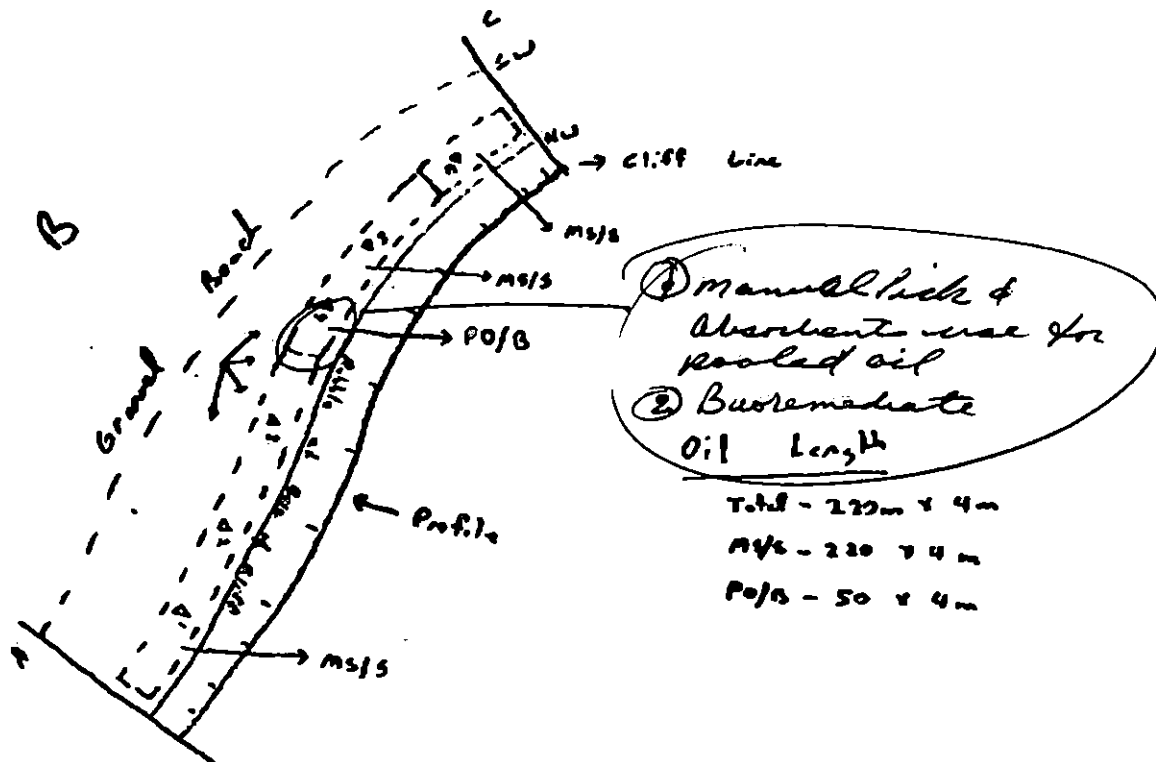
Patchy Distribution

CT/S

Splashed Distribution

Oil on Vegetation

1 ●

Photo location, direction,
and numberOil Character Length (m): AP 0 PO 50 CV 0 CT 0 ST 0 MS 220 FT 0 TB 0 FL 0 NO 0

REVISION 2/2000

SHORELINE ECOLOGICAL SUMMARY

REVISED 08/08/91

Segment ST/ 31-12 Subdivision B Date (mo / day / yr) 4/8/90Time (24 hr) <10:31 Biologist SPLITT

(A) Substrate type and % of segments:

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

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

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	X	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

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	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

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

NOT PRESENT

FUCUS

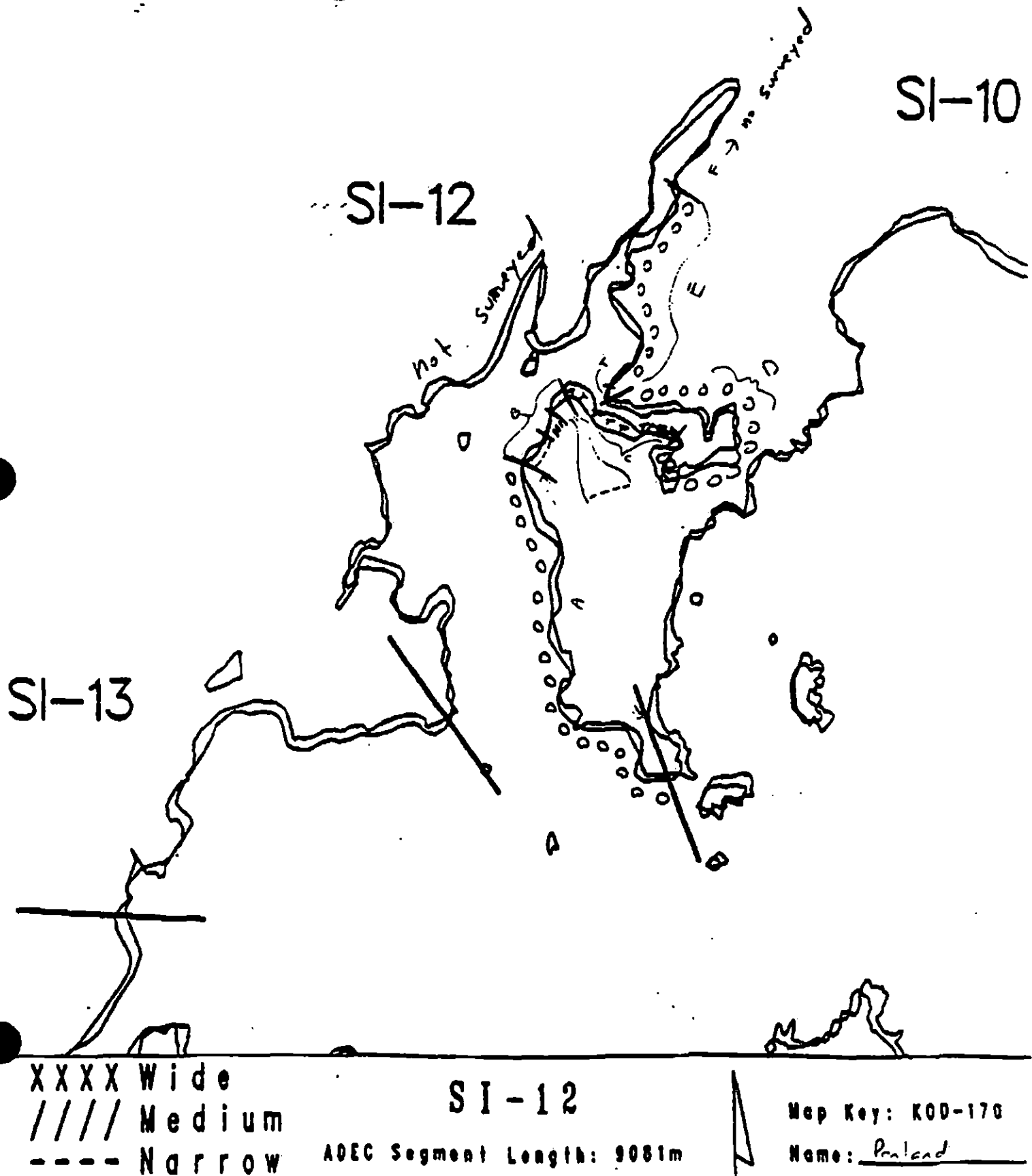
Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	X	X	X	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments:

by Mike Goodwin / ABNR
 This area contains habitat witnessed to contain
 deer, bald eagles, seals, and migratory waterfowl.

Ecological Considerations:



SI-12

SI-13

not surveyed

✓ no survey

XXXX Wide

//// Medium

----- Narrow

SI - 12

ADEC Segment Length: 9081m

Map Key: KOD-170

Name: Pranav

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K01-01-SI-12 SUBDIVISION B (2 of 8)

WORK WINDOW	
Manual Pickup	OPEN
Bioremediation	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

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.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

[Signature]

Date

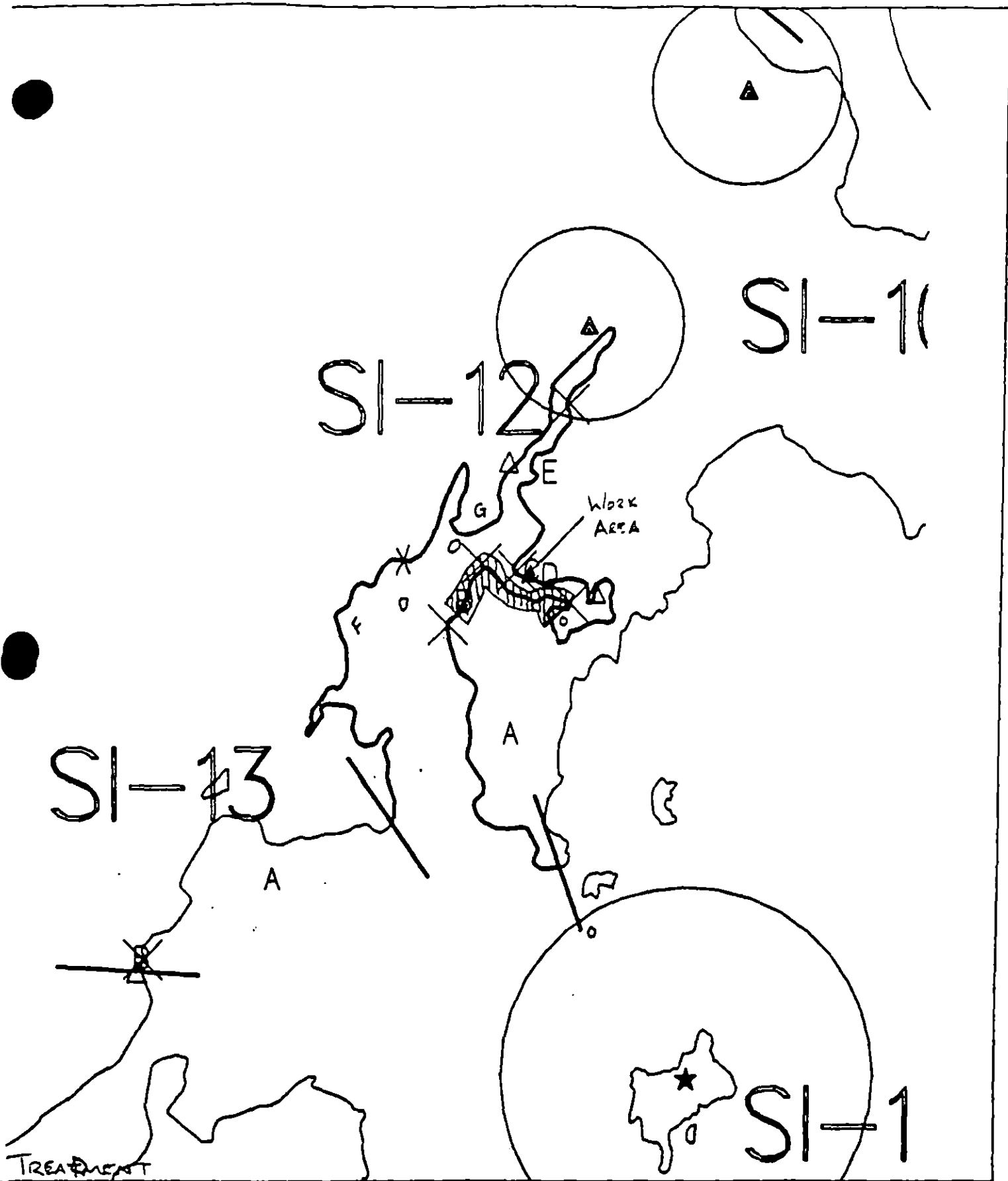
6/14/90

Prepared by

[Signature]

Date

06/13/90



Exxon Company, USA
Map Key: KOD-SI-12
June 10, 1990



ECOLOGY MAP
SEGMENT K1-1 SI-12
SUBDIVISION --- (--- of ---)
METERS
0 550 1100

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

1 inch = 1024 feet

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K01-01-SI-12 SUBDIVISION B (2 of 8)

WORK WINDOW	
Manual Pickup	OPEN
Bioremediation	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T **Bald Eagle Nest**

NO CONSTRAINT. USFWS 4/9/90 map indicates no active nest within 400m of Subdivision B work site.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

[Signature]

Date

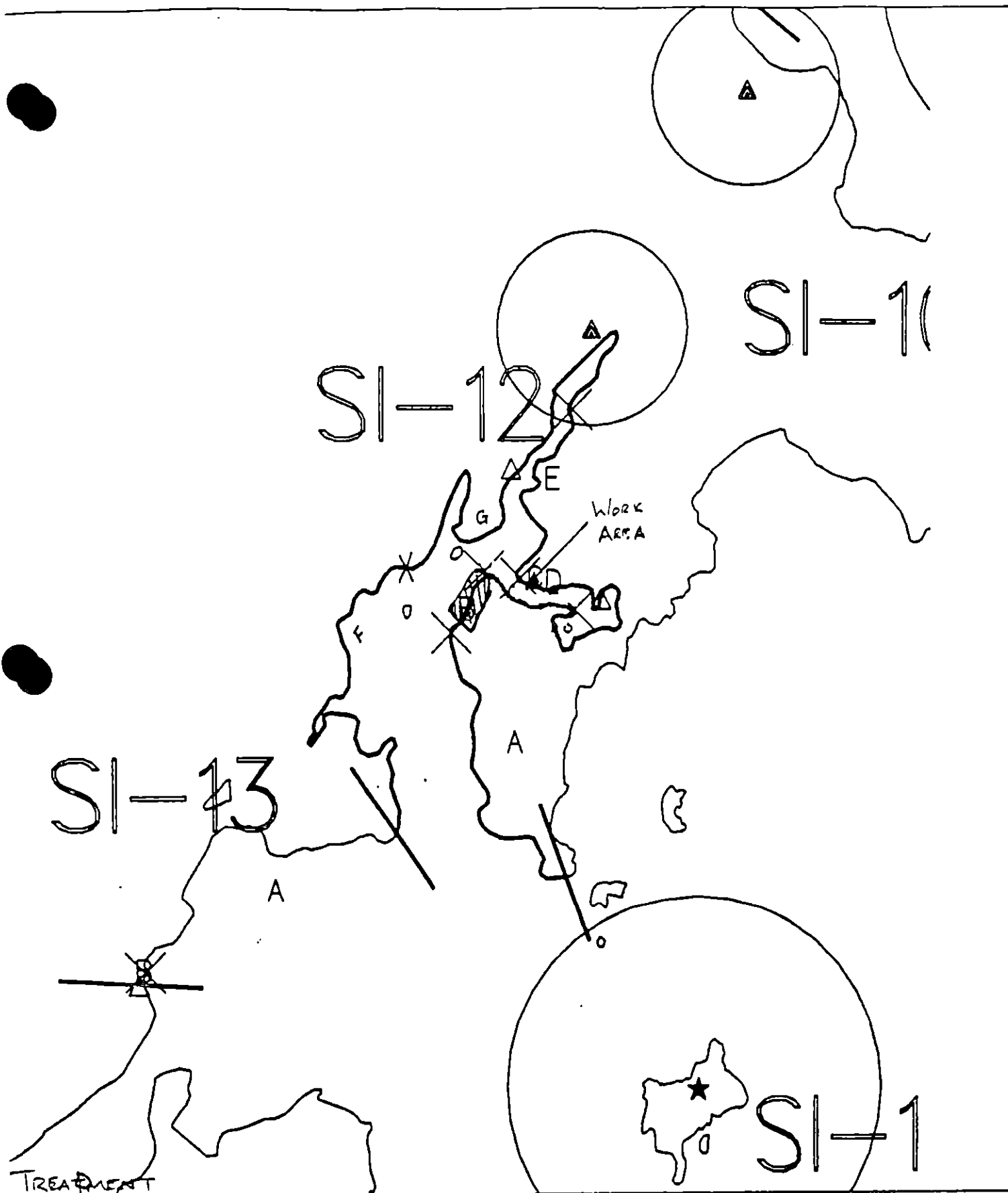
6-22-90

Prepared by

[Signature: J. Phillips]

Date

6/22/90



Exxon Company, USA
Map Key: KCD-SI-12
June 10, 1990

ECOLOGY MAP
SEGMENT KI-1 SI-12
SUBDIVISION B (2 of 8)
METERS
0 556 1112

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

1 inch = 1824 feet

SHORELINE EVALUATION

SEGMENT ST/ K01-01-SI-12 SUBDIVISION C (3 OF 5) DATE 4/8/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 437 m: No Oil 0 m
Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: MANUAL PICKUP OF MOUSE PATTIES DUE TO
HIGH HUMAN USE INDICATED BY LAND MANAGER

TAG COMMENTS: _____

TAG APPROVAL DATE: 4/26/90
ADEC JOHN BAUER
EXXON ANDY GATZ
NOAA GARY PETRAE
USCG KENNETH KEANE

FOSC: L DATE: 5-8-90

KODIAK ECOLOGICAL CONSTRAINTS

- 1A** Salmon stream mouth - fry outmigration (4/15 to 7/31)
- 1B** Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage.
No bioremediation or other chemical application within 100m of stream. 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 uncultivated 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 6/1)
Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
- 6U** Recreation: Tent sites (8/1 to 9/15)
- 6V** Anchorages (8/1 to 9/15)
- 6W** Forest Service cabins (8/1 to 9/15)
- 6X** Lodge (8/1 to 9/15)
- 6Y** Special use destination
- 7Z** Subsistence area: Salmon harvesting (8/1 to 9/30)
- 7HH** Finfish harvesting
- 7II** Deer harvesting (8/1 to 1/7)
- 7JJ** Invertebrate harvesting
- 7KK** Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K0101 / ST012 SUBDIVISION: C DATE 4-8-90

NOAA
USGS
NAME

John Naughton SIGNATURE John J. Naughton

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

Only a few scattered mussel patches and some splatter observed. Not worth disturbance of area to clean. However, one individual from crew cleaning subdivision B might walk subdivision C and manually remove few patches.

ADEC

NAME Scott Shelton SIGNATURE Scott Shelton

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS K0101 - ST012

270 meters Sep. length.

Manual clean up of scattered splatters of mussel on sediment suggested. 270 meters VL impact in upper tidal levels. Pits dug no subsurface silt observed - low energy area. Sub. C. Sporadic band 2 meters wide within easy skiff access.

LAND MANAGER

NAME Mike Cochran SIGNATURE Michael Cochran

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

A manual clean up of the scattered mussel patches is recommended in this subdivision "C" as part of the clean up recommended for this segment and subdivision "B". This subdivision also has high scenic and recreational value for boaters and sea kayakers and is being recommended for future inclusion into Stuyall Island State Park.

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Penland USCG Neesh Ln SEGMENT ST/ K 3101 / SE 312
 BIO Spicket LAND REP Goodman / ADNR SUBDIVISION C
 EXXON Agens ADEC Shelton TIME 8:46 10:11 :22
 TEAM NO.: 19 TIDE LEVEL: 0.5 ft 10.5 ft PL DATE 4 1 8 / 90
 EST. SUBDIVISION LENGTH: 270 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 50 % P 10 % G 10 % S 10 % M 0 % V 0 %
 SLOPE: Long 70 % Hang 15 % Vert 15 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 270 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	IC	IS	IP	IR	SOL OR	DBL RW	GY	SL DBR	TL	LBH	SU	UI	ME	U
ASPHALT PAVEMENT														
POOLED														
COVER														
COAT														
STAIN														
MOUSSE				X				X			X			
PATTIES														
TARBALLS														
FILM														
NO OIL											X		X	X

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

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

Photographs:

Roll No. ST-19-6Frames 35-36

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CL)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UD	UC	SOL	DEL	BR	RW	GL	SL	DBR	TL	SU	UI	ME	U		
1	30					X	.											X					gravel
2	30					X	.											X					"
3	30					X	.											X					"
4	30					X	.											X					"
5	30					X	.											X					"
6	30					X	.											X					"

↑ DISREGARD - ERROR BY PENLAND

COMMENTS

- scattered mouse droppings in subdivision C
- six major pits and random smaller pits dug through area, no oil observed

OG Perched

SEGMENT SH K0101/SE012

SUBDIVISION C

DATE 4 / 8 / 90

CHECKLIST

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

LEGEND

1 Δ

PK - No Subsurface Oil

2 Δ

PK - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

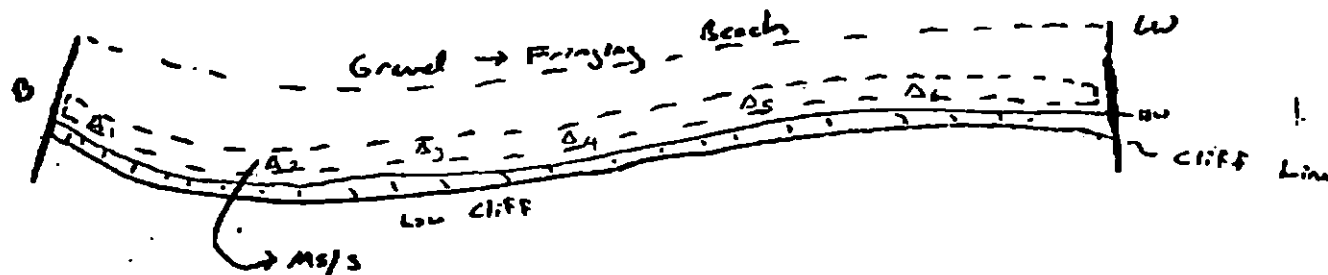
Splashed Distribution

Oiled Vegetation

1 $\Rightarrow$

Photo location, direction,
and number

ATCH MAP



Total Oil - 2m x 270m
MS/S



Oil Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 270 PT 0 TB 0 FL 0 NO 0

REVISED 10/1/90

SHORELINE ECOLOGICAL SUMMARY

REVISION:

Segment ST / 51-12 Subdivision C Date (mo / day / yr) 4/8/90

Time (24 hr) 10:31 Biologist SPIGHT

(A) Substrate type and % of segments:
(1) Bedrock 10 (2) Boulder 10 (3) Cobble 50 (4) Pebble 10 (5) Sand 10 (6) Silt 0

(B) Overall % cover of biota (% of segment): Dense 10 Moderate 25 Low 65

(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 PRES

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	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 PRES

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 PRES

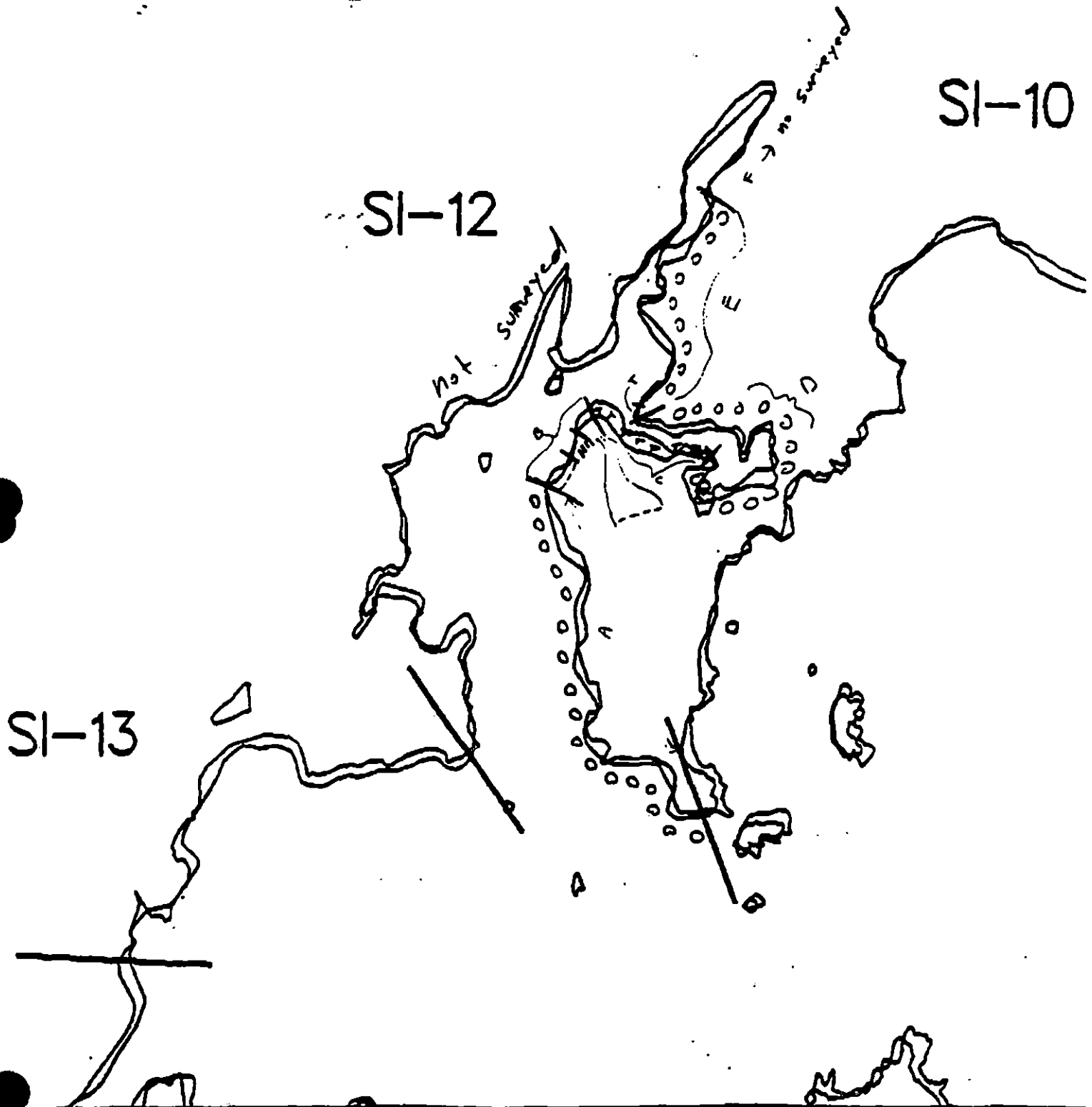
FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	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 PRES:

Wildlife Observations/ General Comments:

Ecological Considerations:



XXXX Wide

//// Medium

---- Narrow

SI-12

ADEC Segment Length: 9081m

Map Key: KOD-170

Name: Portland

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT KO1-01-SI-12 SUBDIVISION C (3 of 5)

WORK WINDOW

Manual Pickup

OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T Bald Eagle Nest

NO CONSTRAINT. USFWS 4/9/90 map indicates no active nest within 400m of Subdivision C work site.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

D. D. Rome

Date

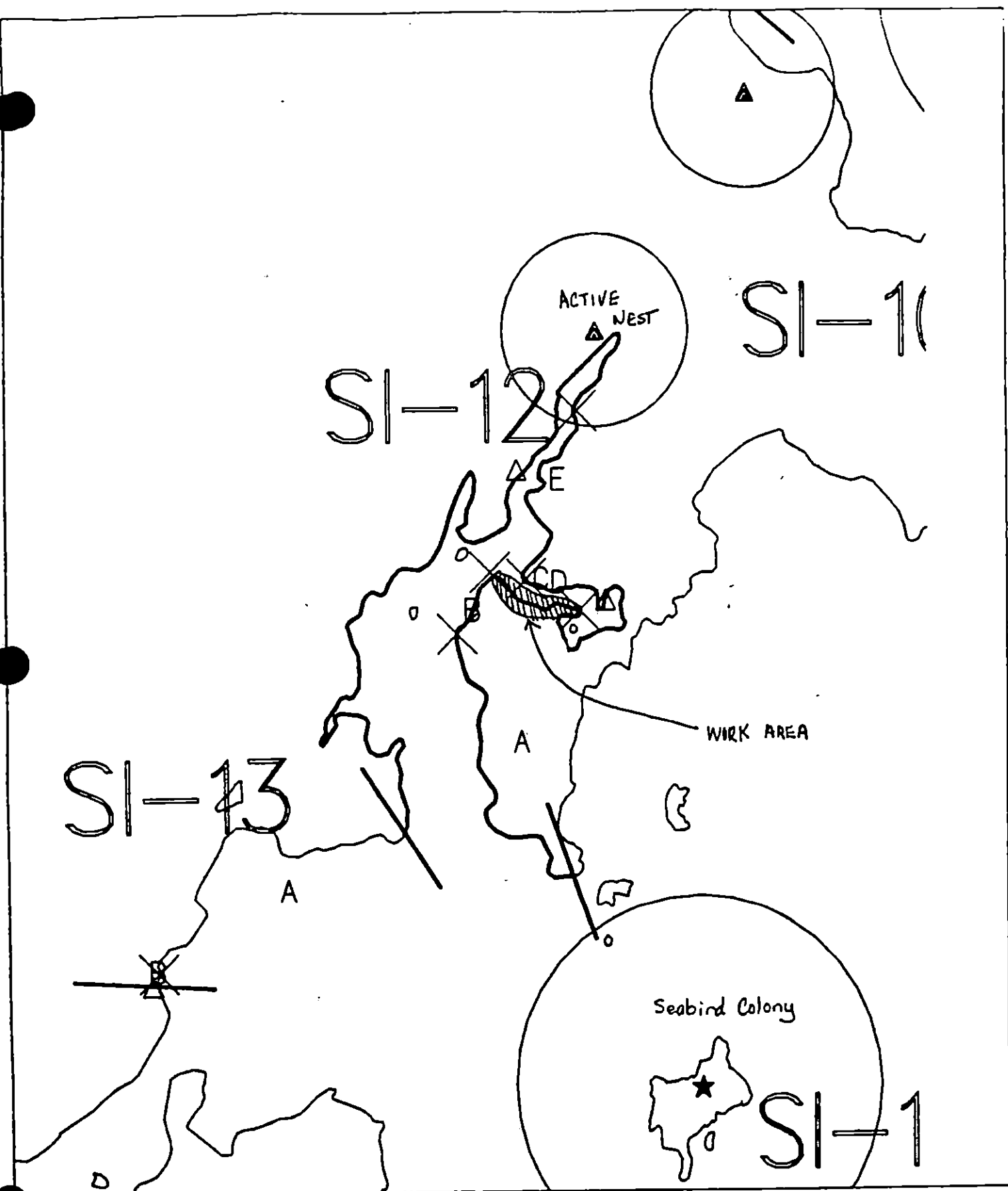
6/24/90

Prepared by

J. Phillips

Date

6/22/90



Exxon Company, USA
Map Key: KOD-SI-12
June 10, 1990



SHORELINE EVALUATION

SEGMENT ST/ K01-01-SI-12 SUBDIVISION D (4 OF 5) DATE 4/8/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Wanda E. Johnson DATE: 4/29/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 1192 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: 4/26/90
ADEC JOAN DANIEL
EXXON ANDY TEAL
NOAA GARY PETRAE
USCG KENNETH KEANE

FOSC: DATE: 5-3-90

KODIAK ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ K0101/ST012 SUBDIVISION: D DATE 4-8-90

NAME John Naughton

SIGNATURE John J. Naughton

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

No oil observed in the back bay area. Substrate primarily fine sediment.

NAME Scott Shelton

SIGNATURE Scott Shelton

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

K0101 ST012

Sub. D.

NO oil observed. Segment included mudflats lagoon areas. 1420 meters walked to pits at the upper tidal areas observed no subsurface CERCLA. Marker observed inside lagoons east side.

NAME Dixie Goodwin

SIGNATURE Dixie Goodwin

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

No oil was observed in this subdivision. A CERCLA damage assessment orange painted marker was visible on a rock cliff face at the eastern end of this subdivision. This presents an intrusion on the aesthetics of the area and is recommended for removal.

SHORELINE OILING SUMMARY

REVISION NO. 6382

OG Port of New York USCG Naval Station SEGMENT ST/ K9121/ST312
 BIO Spent LAND REP Goodman DR SUBDIVISION 0
 EXXON Spent ADEC Shellen TIME 8:46 to 11:00
 TEAM NO.: 19 TIDE LEVEL: 0.5 PL to 5.5 PL DATE 4/9/90
 EST. SUBDIVISION LENGTH: 1420 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 30 % P 20 % G 20 % S 10 % M 0 % V 0
 SLOPE: Long 70 % Hang 15 % Vert 15 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 1420 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	C	B	P	N	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 0 sq. m by 0PATTIES / 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. —Frames —

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	1	2	3	4	5	SU	U	M	U		
1	30					X	1-2													Gravel
2	30					X	.													Gravel
3	30					X	.													Gravel
4	30					X	.													Gravel
5	30					X	.													Gravel
6	30					X	.													Gravel

COMMENTS

• Area inspected, six pits dug, small random pits dug and no oil observed

BAT 12 Apr 90

OG Penland

SEGMENT 10101/51012

SUBDIVISION 0

DATE 4 / 8 90

CHECKLIST

- ☐ N Area
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HW/LVL
- ☐ SST
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PR Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ
P1 - No Subsurface Oil

2 Δ
P1 - Subsurface Oil

$\boxed{CT/C}$
Continuous Distribution

$\boxed{CT/B}$
Broken Distribution

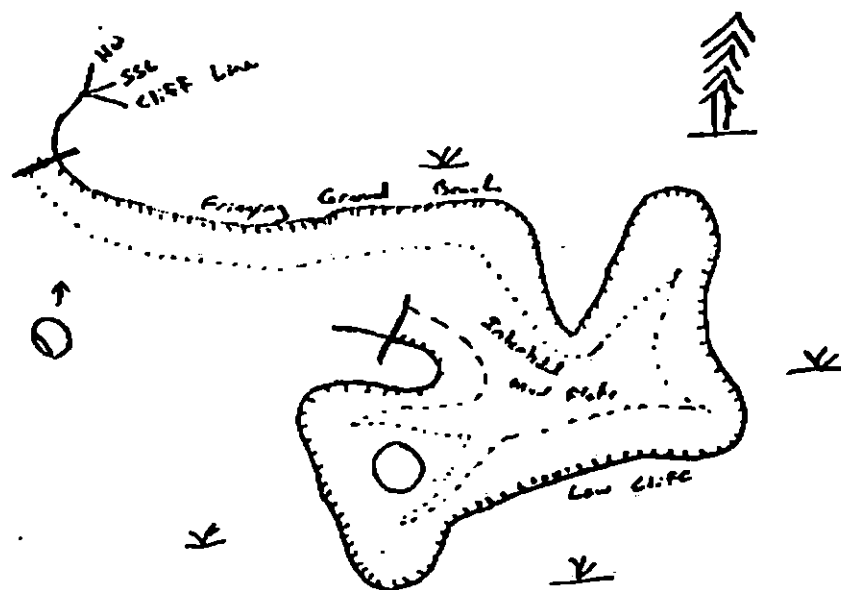
$\boxed{CT/P}$
Patchy Distribution

$\boxed{CT/S}$
Splotched Distribution

Oil Vegetation

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

SKETCH MAP



Oil Character Length (m): AP 0 PO 0 GV 0 CT 0 ST 0 MS 0 PT 0 TB 0 FL 0 NO 1420

REVISION: 000000

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/02

Segment ST/ S 1-12 Subdivision D Date (mo / day / yr) 4/8/90
 Time (24 hr) 7:10:31 Biologist SPIGHT

- (A) Substrate type and % of segments:
 (1) Bedrock 10 (2) Boulder 10 (3) Cobble 30 (4) Pebble 20 (5) Sand 20 (6) Silt 0
- (B) Overall % cover of biota (% of segment): Dense 10 Moderate 25 Low 65
- (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	X	X	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESEN

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 PRESEN

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
X	X	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
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 PRESEN

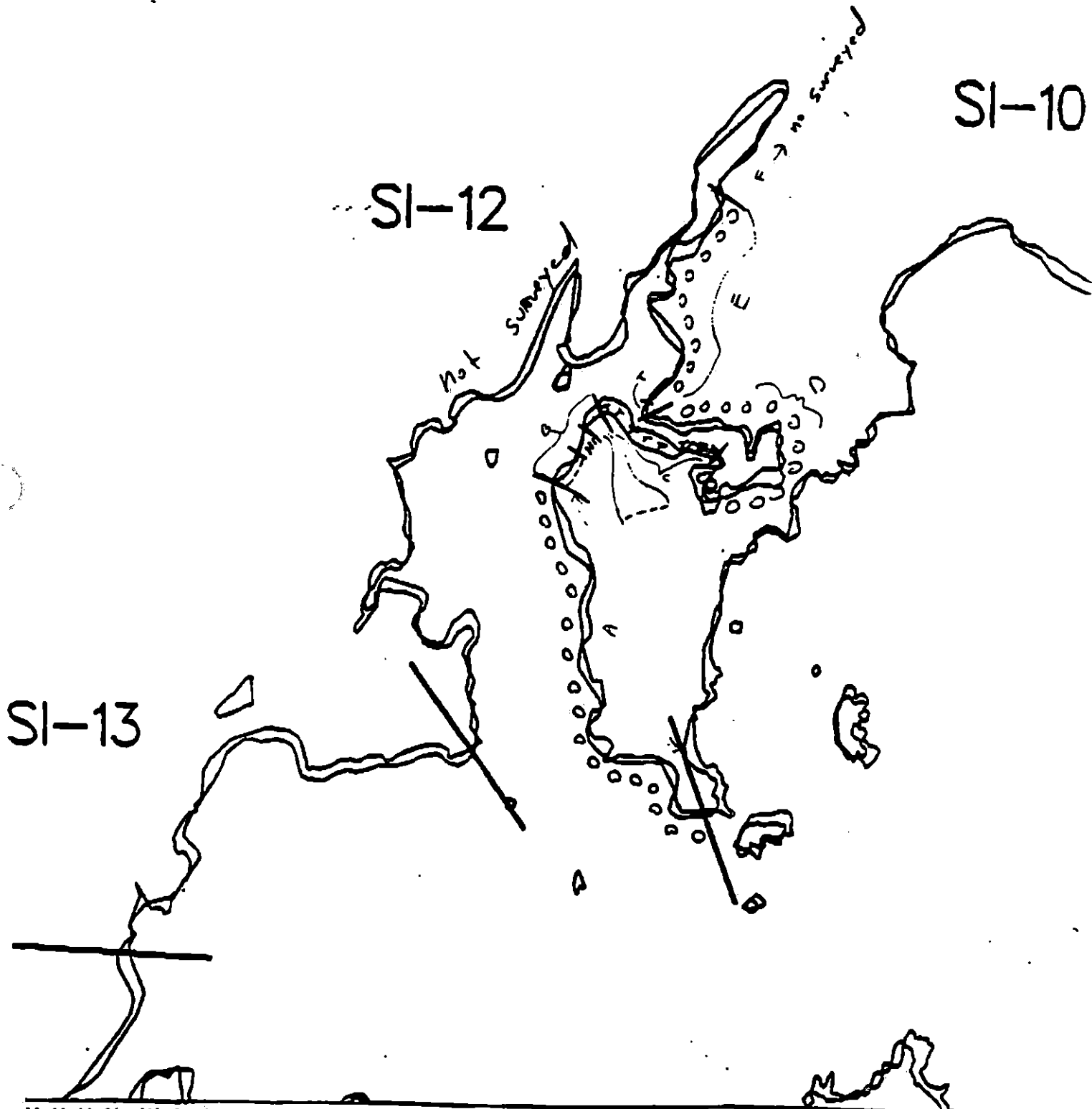
FUCUS

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 PRESEN

Wildlife Observations/ General Comments:

Ecological Considerations:



XXXX Wide

//// Medium

---- Narrow

SI-12

ADEC Segment Length: 9081m

Map Key: KOD-170

Name: Priland

SHORELINE EVALUATION

SEGMENT ST/ K01-01-SI-12 SUBDIVISION E (5 OF 5) DATE 4/8/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: *Paula Elfrone*

DATE: 4/28/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 37 m: No Oil 912 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: 4/26/90

ADEC *JOHN BAKER*
EXXON *ANDY TEAL*
NOAA *GARY PETROE*
USCG *KENNETH KEANE*

FOSC: *[Signature]*

DATE: 5-9-90

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage.
 No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
- 1C Salmon fry nursery area (4/31 to 7/31)
- 1D Kotol Bay Hatchery releases
 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 9/15)
 Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
- 6U Recreation: Tent sites (5/1 to 9/15)
- 6V Anchorages (5/1 to 9/15)
- 6W Forest Service cabins (5/1 to 9/15)
- 6X Lodge (5/1 to 9/15)
- 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
- 7HH Finfish harvesting
- 7I Deer harvesting (5/1 to 1/7)
- 7JJ Invertebrate harvesting
- 7KK Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K0101 / ST012 SUBDIVISION: E DATE 4-8-90

~~NOAA~~
~~USGS~~

NAME John Naughton SIGNATURE John J. Naughton

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

No oil observed. This is the second beach bay area of this segment but this one has a stream flowing into it.

ADEC

NAME Scott Shelton SIGNATURE Scott Shelton

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

NO oil observed. 875 meters walked. Random pits NO oil observed. Low energy beach.

LAND MANAGER

NAME Nike Goodwin SIGNATURE Michael Goodwin

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

NO oil observed in this subdivision.

SHORELINE OILING SUMMARY

REVISION NO. 02/20/90

OG Penland 4000 Noughton SEGMENT ST/ 160101/ST012
 BIO spixt LAND REP Gonding SUBDIVISION E
 EXXON Agens ADEC Shelton TIME 8:45 to 11:00
 TEAM NO.: 19 TIDE LEVEL: 0.5 ft to 1.5 ft DATE 4/8/90
 EST. SUBDIVISION LENGTH: 175 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 70 % P 20 % G 20 % S 10 % M 0 % V 0 %
 SLOPE: Long 20 % Hang 15 % Vert 15 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 30 m NO 875 m

SURFACE OIL

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

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

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 —

#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	SUBSURFACE SEDIMENTS
		OF	OR	OL	OF	NO		UO	UC	1	2	3	4	5	S	M	L	U		
1	30					X	.									X				Gravel
2	30					X	.									X				"
3	30					X	.									X				"
4	30					X	.									X				"
5	30					X	.									X				"
6	30					X	.									X				"

COMMENTS

No oil observed in subdivision E, six major pits dug and a series of smaller random pits dug.

00 Pm1

SKETCH MAP

SEGMENT ST/ K2101/ST 012

SUBDIVISION E

DATE 4 / 8 90

CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Seg/Sub Entry
- ☒ Oil Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Eut. HMLA/VOL
- ☒ Eut.
- ☒ Profile Location(s)
- ☒ Photo(s)
- ☒ Photo Location(s)

LEGEND

1 Δ

FL - No Subsurface Oil

2 Δ

FL - Subsurface Oil

CT/C

Continuous Distribution

CT/D

Broken Distribution

CT/P

Patchy Distribution

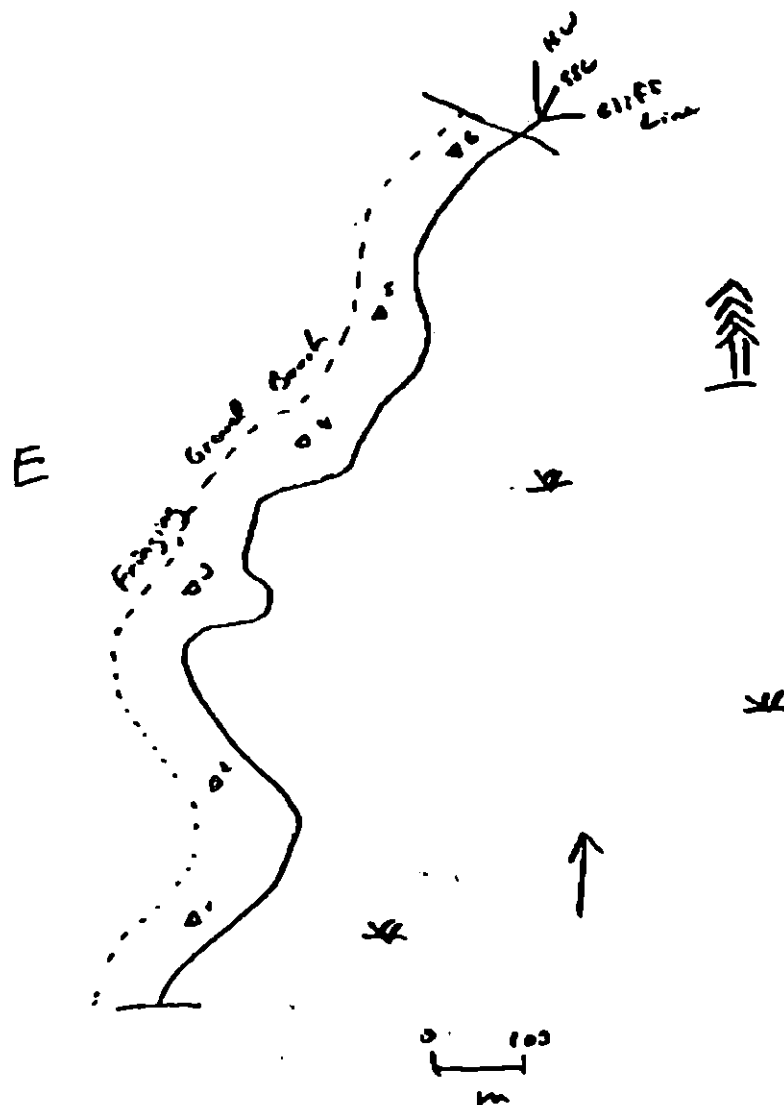
CT/S

Splashed Distribution

Other Vegetation

1 →

Photo location, direction,
and number



Oil Character Length (m): AP 0 PO 0 CV 0 CT 0 BT 0 MS 0 FT 0 TB 0 FL 0 NO 875

REVISION 02/04/90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 0

Segment ST / ST-12 Subdivision E Date (mo / day / yr) 4 / 8 / 90

Time (24 hr) 11:09 Biologist SP/6HT

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

(B) Overall % cover of biota (% of segment): Dense 15 Moderate 30 Low 55

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tide-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 PRESE

MYTILUS

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

NOT PRESE

GASTROPODS

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

NOT PRESE

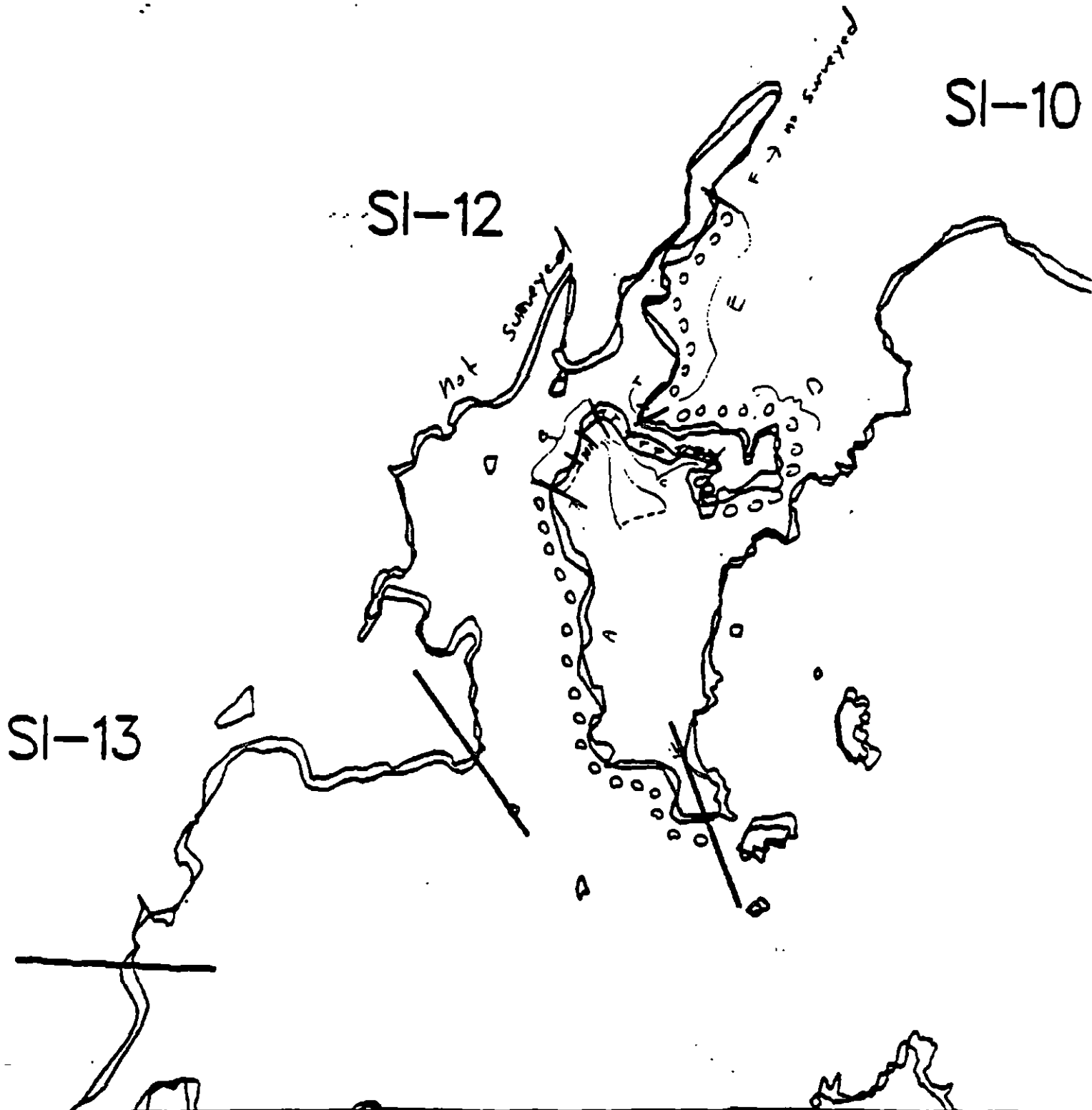
FUCUS

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

NOT PRESE

Wildlife Observations/ General Comments:

Ecological Considerations:



SI-12

ADEC Segment Length: 9081m

SHORELINE EVALUATION

SEGMENT ST/ K01-01-SI-012 SUBDIVISION F (1/OF 7) DATE 5/26/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

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

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. Himes

DATE: June 19, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 27 m: Narrow 0 m: V.Light 911 m: No Oil 1153 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: Manual removal of mousse splashes as indicated.

TAG COMMENTS:

TAG APPROVAL DATE: 6/16/90

ADEC Ray Mearns R Mearns

EXXON AWAY TSM

NOAA JORDAN Talbot P. Talbot

FOSC: My L

DATE: 6-27-90

KODIAK ECOLOGICAL CONSTRAINTS

- 1A** Salmon stream mouth - fry outmigration (4/15 to 7/31)
B 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, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31).
 Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R** Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S** Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2206
- 5T** All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U** Recreation: Tent sites (8/1 to 9/15)
6V Anchorages (8/1 to 9/15)
6W Forest Service cabins (8/1 to 9/15)
6X Lodge (8/1 to 9/15)
6Y Special use destination
- 7Z** 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)
 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.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K101 SE. 12 SUBDIVISION: F DATE 5.26.78

USCG

NAME STAN SHIELDS SIGNATURE Stan Shields

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

IN THE WESTERN PART OF SUBDIVISION THERE IS AN AREA WITH SMALL MOUSSE PATTIES THAT WOULD BE EASY TO PICK UP OR OF SAND, SM ANGULAR ROCK AND GRAVEL. 2ND AREA OF MOUSSE IS IN EASTERN PART OF SUBDIVISION IN INTERSTICES OF BOULDER AND COBBLE.

ADEC

NAME Frances J. Bean's SIGNATURE Frances J. Bean

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

RECOMMEND MANUAL PICK-UP OF MOUSSE PATTIES + MOUSSE CAUGHT BETWEEN BOULDERS/COBBLES: SMALL CREW (2-4 people) USING TROWELS + SHOVELS.

2 main areas in this subdivision:

- 1) small estuary has all patties in UITE near the head of Baylet
- 2) area 3m x 20m with patchy mousse among boulders/cobbles

LAND MANAGER

NAME Ray Burger ADNR SIGNATURE Ray Burger

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

- Area being considered for addition to Shuyak Island State Park
- Well used campsite near pit #2 - pickup mousse balls here + along next 100m @ MHW (going west)
- Manual pickup of mousse recommended from area of pit #3 + near rock island

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

Mike Foget USCG Stan Shields SEGMENT ST/ 160101 - SI 0012
 Heather Davis LAND REP Ray Burger DNR SUBDIVISION F (6 OF 7)
 ADECO Fran Bonh: TIME 13:30 to 15:00
 TAM NO. 20 TIDE LEVEL -1 - +4.0 DATE 5 / 26 / 90
 ST. SUBDIVISION LENGTH: 2085 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 PLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock 1302m Rocky backshore w/ forest
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 10 % B 30 % C 30 % P 10 % G 10 % S 5 % M 5 % V 0 %
 POPE: Lang 30 % Hang 70 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 CATEGORY LENGTH: W 0 m M 20 m N 0 m VL 923 m NO 1142 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	R	B	C	P	SP	BR	OR	GR	BL	PK	LT	DR	SU	U	M	V
ASPHALT																
PAVEMENT																
COILED																
OVER																
BOAT			X	X		X							X			
RAIN				X		X							X			
MOUSSE				X						X			X			
PATTIES				X						X			X			
TARBALLS																
FILM																
NO OIL														X	X	

PAVEMENT H F S — sq. m by — cm

PATTIES / TARBALLS 10 BAGS

NEAR 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 0.

#BAGS 0

Photographs:

Roll No. ST-20-13

Frames 2,3,4

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR								PIT ZONE	A N A	SHEEN (Y/N)	T	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SP	BR	OR	GR	BL	PK	LT	DR	SU	U	M	V	
1	20					X	.		X									X				G, S, C
2	25					X	.		X									X				P, G
3	20	X					0-1	X							X			X	X			G, M, G
							.															
							.															
							.															

COMMENTS shore zone consists - mostly of High angle B/C beaches
 with a couple of small Low angle bays w/ G/S/M. The Northern
 end of the subdivision has a 900m x 1m CT/S on B/C in the HITZ
 with some localized mousse. In a finger bay in the south end there is a

REVISION 24 - 3 80

21005

[illegible]

In the Northern end of the subdivision is a 3m x 20m CT/P w/ localized mouse in the HITZ on B/C.

like Foyet

VRST/K0101-51012

SNOW F

5, 26 80

LIST

1. Scale
2. Scale
3. Scale

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6. Scale

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8. Scale
9. Scale

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33. Scale

34. Scale
35. Scale
36. Scale

37. Scale
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39. Scale

40. Scale
41. Scale
42. Scale

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44. Scale
45. Scale

46. Scale
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67. Scale
68. Scale
69. Scale

70. Scale
71. Scale
72. Scale

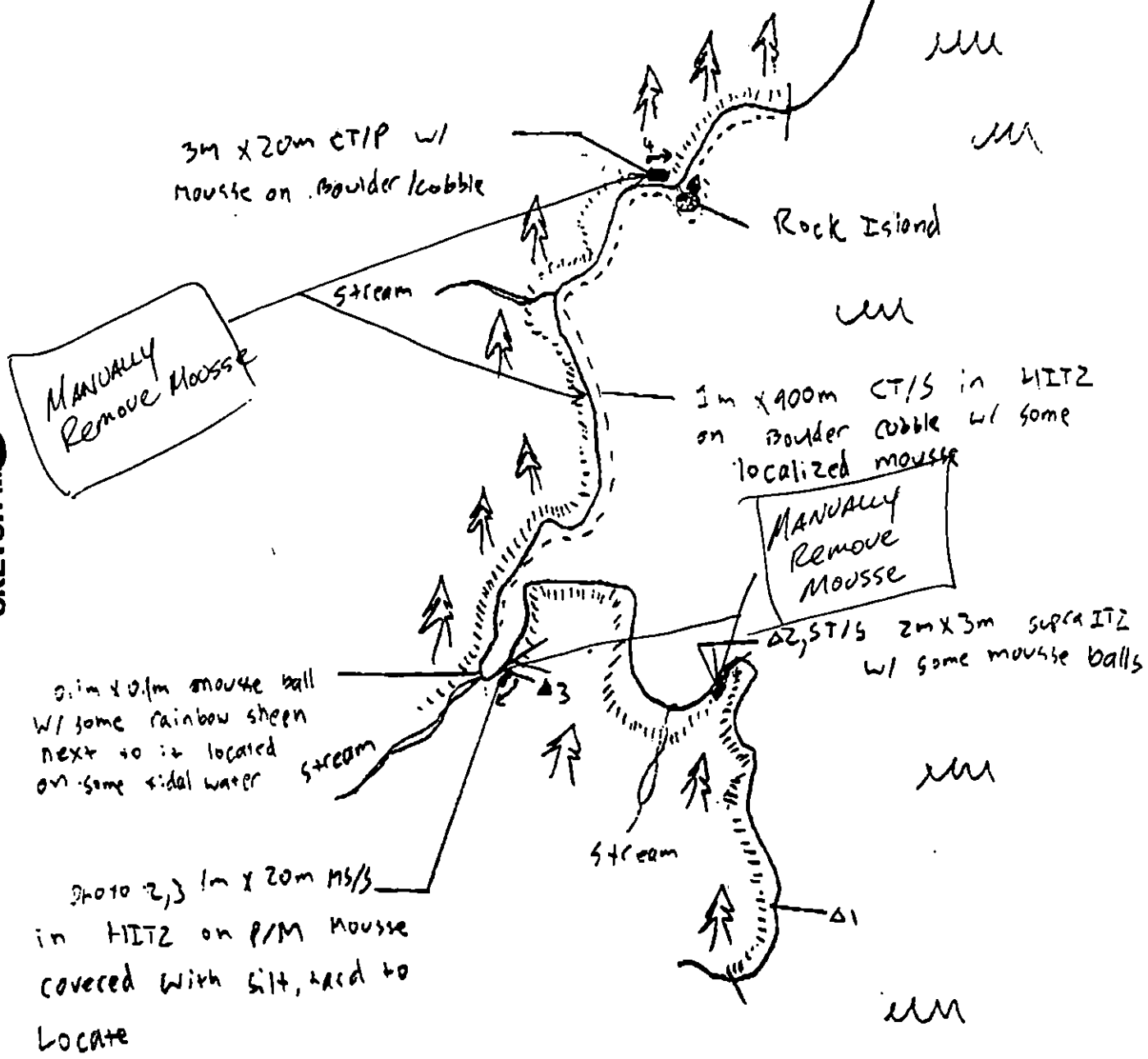
73. Scale
74. Scale
75. Scale

SKETCH MAP



Scale
0 100m

LEGEND
--- CT/S
/// - 2m steep rocky backshore
▲ - Forest
w - water



Net Length (m): AP 0 PO 0 CV 0 CT 920 ST 3 MS 20 PT 5 TB 0 FL 0 NO 1142

REVISION: 05/22/95

Time (24 hr) 13:30 Biologist H. Davis

- (A) Substrate type and % of segments:
(1) Bedrock 10 (2) Boulder 30 (3) Cobble 30 (4) Pebble 15 (5) Sand 5 (6) Silt 10
- (B) Overall % cover of biota (% of segment): Dense 20% Moderate 40% 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-20-13

Frames 2 3 4

BARNACLES continuous dense-moderate, Recent cyprid settlement

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

NOT PRESENT
5, 6

MYTILUS B.ds - sparse, small dense patches on boulders.

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
5 / C

GASTROPODS Littorina - Dense - sparse, Nucella - sparse, Limpets - Mod - Sparse

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

NOT PRESENT
S, C

FUCUS Dense areas, patchy along segment.

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

Wildlife Observations/ General Comments: UT2 - Barnacles, limpets, littorina, small patches of mytilus. Porphyra, endocladia, and Fucus. MT2 - Barnacles, limpets, littorina, sparse beds of mytilus, Fucus, Gelidium, Ulva, Green filamentous, Diatom mats, Pagurus, Saxidomus, periwinkle, Perna and Clinocardium (shells). LT2 - Fucus, Filamentous algae, Scytosiphon, Ulva, Saxidomus, Pristigaster, Pteridium, Pagurus, Verrucaria and Phoronids. Birds: Laysan Duck, Raven, Pintail?, White-winged Scoter, Wandering Tattler, sparrow, Thrush and Glaucous-winged gulls.

Ecological Considerations: The area is a good example of a natural area in this subdivision.

biological Considerations: ST-2, Two Eagle nests. No Eagle nests were seen on this subdivision of SE-012. None of the streams showed evidence of being anadromous.

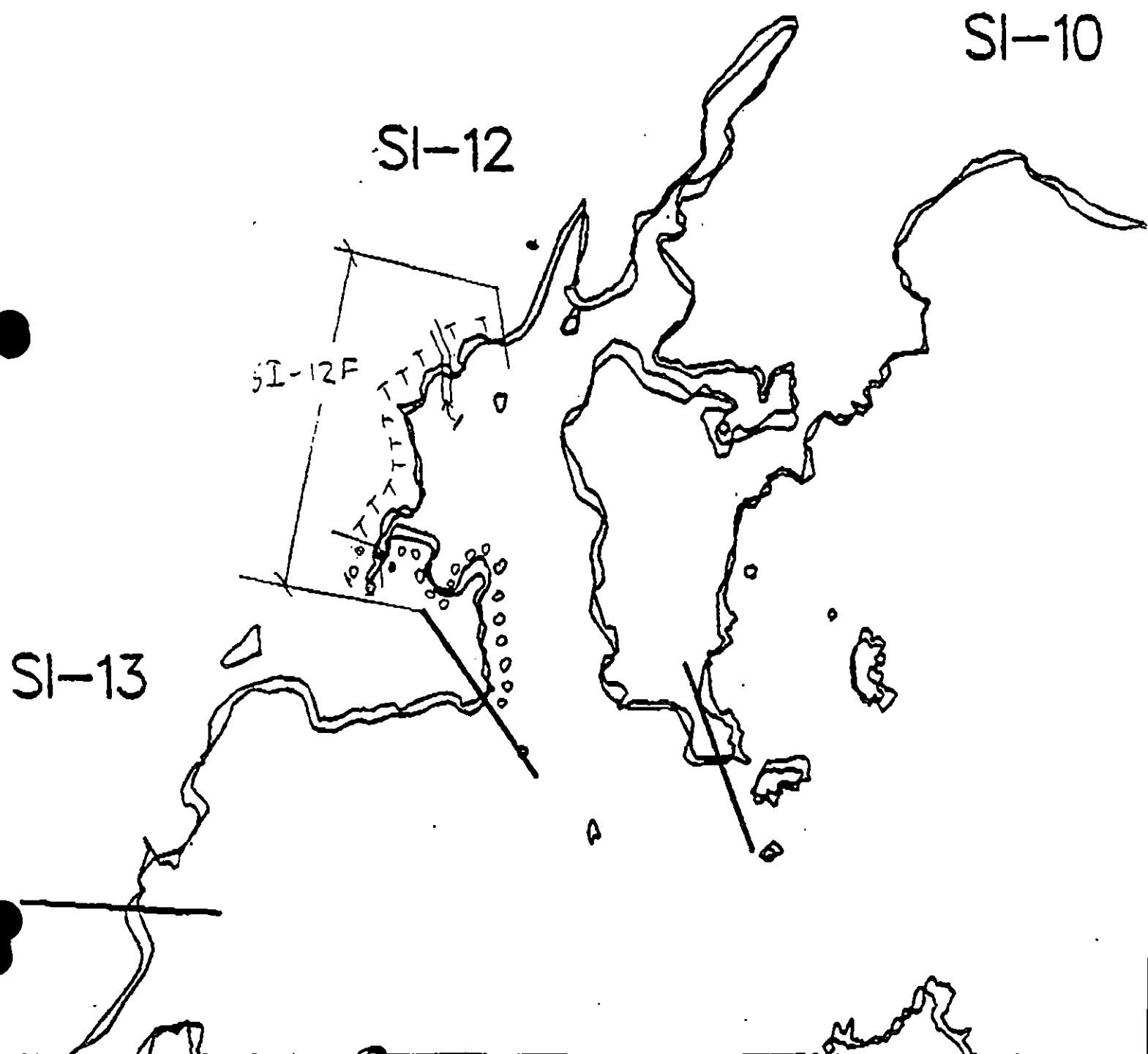
11/11/2016

PHOTOGRAPHY LOG

ROLL NO. ST-20-13 FROM 5/26 TO _____
TEAM NO. 20 PWS / KENAI / KODIAK / AK. PENINSULA

FRAME	PHOTO	DATE	BY	LOCATION	REMARKS
NUMBER	GRAPHIC				

[illegible]



XXXX Wide

//// Medium

SI-12F

Map Key: K00-170

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K01-01-SI-12 SUBDIVISION F (6 of 7)

WORK WINDOW

Manual Pickup

OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T Bald Eagle Nest

NO CONSTRAINT. USFWS 4/9/90 map indicates no active nest within 400m of Subdivision F work sites.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

[Signature]

Date

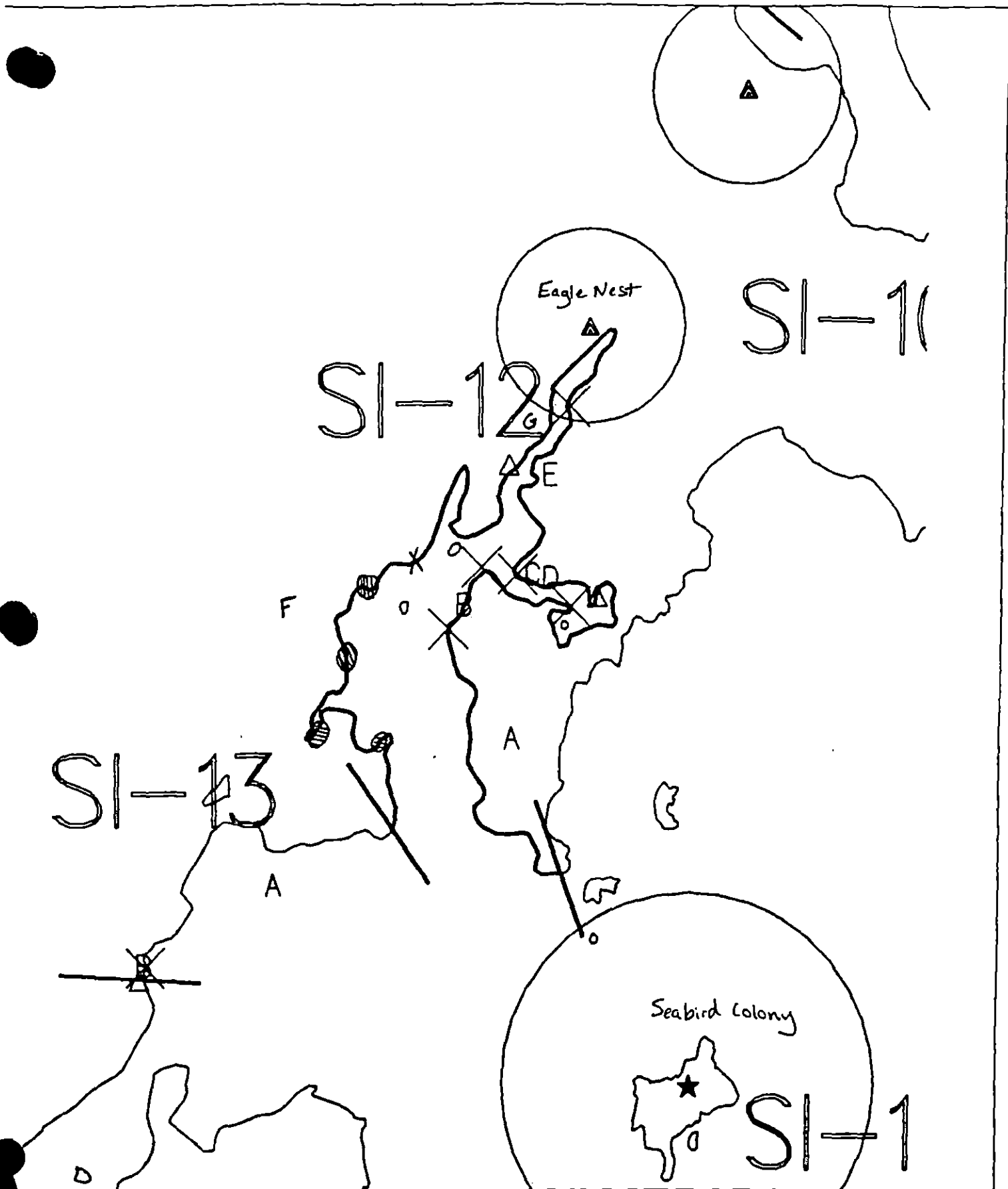
6/29/90

Prepared by

Ray R. Chubbe

Date

6-28-90



Exxon Company, USA
M. V. K1-1 SI-12



ECOLOGY MAP
SEGMENT K1-1 SI-12
SUBDIVISION F (6017)
METERS

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

SHORELINE EVALUATION

SEGMENT ST/ K01-01-SI-012 SUBDIVISION G (7 OF 7) DATE 6/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

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

4GG State Marine Park Alaska State Parks

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Charles H. Jones

DATE: June 19, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 96 m: V. Light 109 m: No Oil 2038 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

 No Treatment Recommended

X Treatment Recommended

X Manual Pickup

 Bioremediation

 Tarmat Removal

 Snare/Absorbent Booms

 Oil Snares (pom poms)

 Absorbents (pads, rolls, etc)

 Spot Washing: Wands

 Beach Cleaner

 Other (see comments)

COMMENTS: Recommended treatment is manual removal of mousse and the bag
of oiled material (mousse) as indicated on attached sketch map.

TAG COMMENTS:

TAG APPROVAL DATE: 6/16/90

ADEC Ray Moore R-M

EXXON ANDY TAY

NOAA Wanda T. H. + K. T.

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 unopened intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- 3N, 3P Harbor seal and sea lion pupping (5/10 to 7/1)
 3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom 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 (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)
 7H1 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 Ken Fall 267-2280

FIELD SHORELINE COMMENT SHEET

SEGMENT ST K1-01 SUBDIVISION: SI-12G DATE 6/1/90

^{NOAA}
~~USCG~~
NAME Tom Callahan SIGNATURE Tom Callahan

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Very light mousse and patties, < 10% in only a few locations.

All other areas clean of oil.

A black garbage bag containing mousse and oiled sediment should be removed.

^{ADEC}
NAME Terry Ellsworth SIGNATURE Terry Ellsworth

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Oil is found primarily as mousse patties with entrained sediment in the southern portion of the subdivision (see OG sketch map).

Clean up efforts should concentrate on the east side of the small southern bight. Also, the black plastic bag containing mousse/sediment located at the head of this bight should be picked up.

^{LAND MANAGER}
NAME Mike Gordin SIGNATURE Mike Gordin

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

This subdivision contains state lands and uplands that may some day be included into the Stump Island State Park if expanded. I agree the oiled bag of mousse/sediment must be removed and minor mousse patties in same general area be removed also by manual removal techniques.

SHORELINE OILING SUMMARY

REVISION NO 24-13-90

OG J. Springer ~~used~~ NOAA T. Callahan SEGMENT STI K-101/SE 12
 BIO D. Lohse LAND REP M. Goodwin SUBDIVISION G (7 OF 7)
 EXXON A F & G J Barnhart ADEC T. Ellsworth TIME 15:00 to 16:30
 TEAM NO. 19 TIDE LEVEL +2 TO +1 DATE 06/01/90
 EST. SUBDIVISION LENGTH: 2400 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☒ Helo WORKING DIRECTION: NE to SW
 SURFACE SEDIMENTS: R 5 % B 5 % C 20 % P 25 % G 15 % S 15 % M 10 % V 5 %
 SLOPE: Lang 100 % Hang _____ % Vert _____ % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W _____ m M _____ m N 40 m VL 130 m NO 2230 m

SURFACE OIL

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

PAVEMENT H F S _____ sq. m by _____ cm

PATTIES / TARBALLS _____ BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris	X		

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒

TYPE _____

#BAGS _____

Photographs:

Roll No. _____

Frames _____

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SHEEN (YN)	▽ T	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SP	BR	OR	GR	BL	TR	LR	LR	SU	U	M	L				

COMMENTS No pits dug. Time limitations due to schedule and weather.

J. Spring

SKETCH MAP

MENT ST/K-10/5I-12

DIVISION G

06/01/90

CKLIST

Arrow
p.prox. Scale
eg Sub Bndry
Dist.
width
length
Cover
substrate Character
st. HWA/LWL
SL
rofile Location(s)
rofile(s)
Location(s)
photo Location(s)

SEND

Subsurface Oil

Subsurface Oil

CT/C
aceous Distribution

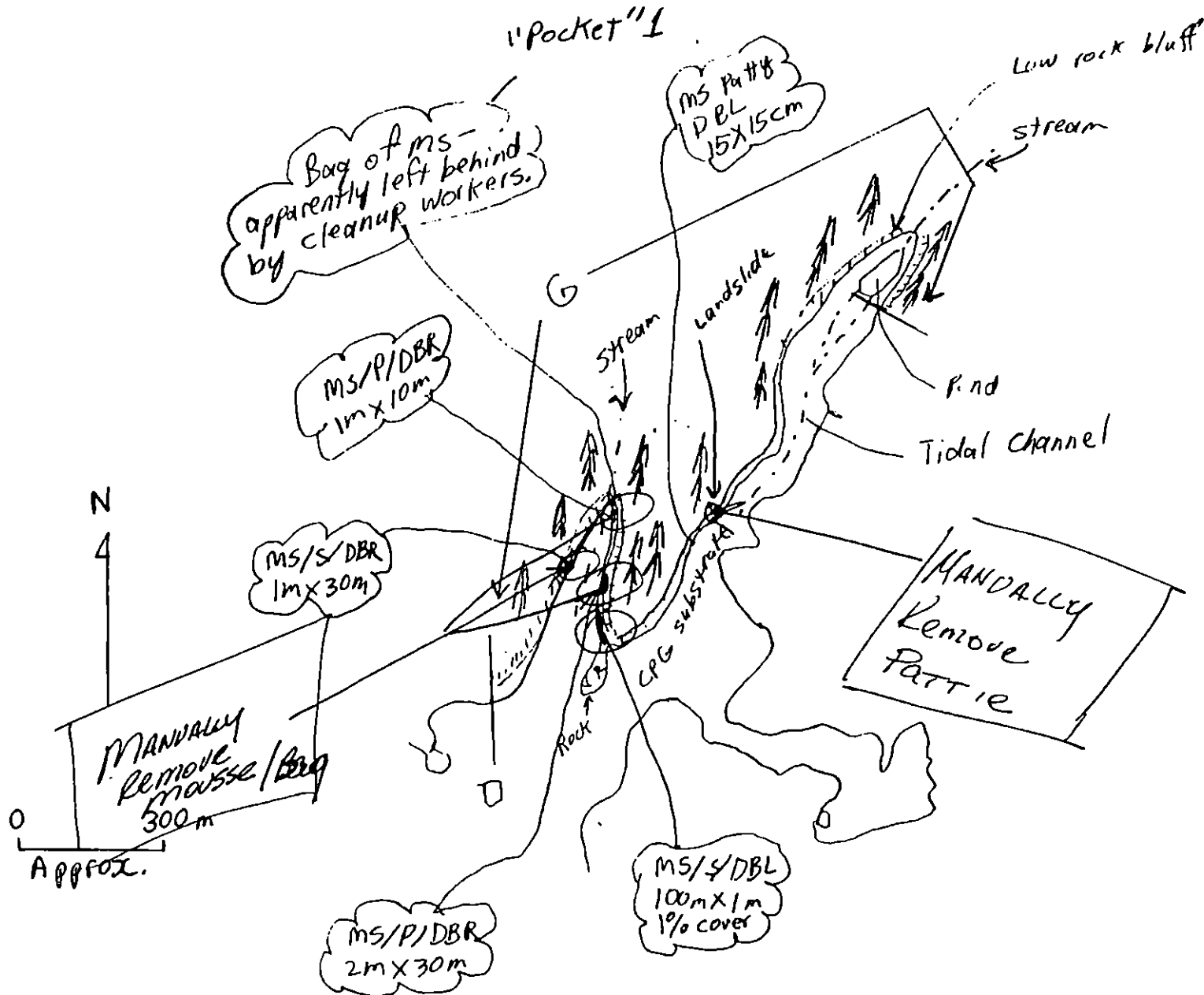
CT/B
in Distribution

CT/P
y Distribution

CT/S
had Distribution

Vegetation

location, direction,
umber



aracter Length (m): AP _____ PO _____ CV _____ CT _____ ST _____ MS 170 PT _____ TB _____ FL _____ NO 2230

REVISION: 03/24/90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / KI-1 / SI-12 Subdivision 6 Date (mo / day / yr) 6-1-90Time (24 hr) 15:00 Biologist David White(A) Substrate type and % of segments:
(1) Bedrock 5 (2) Boulder 5 (3) Cobble 20 (4) Pebble 25 (5) Sand 30 (6) Silt 10(B) Overall % cover of biota (% of segment): Dense 15 Moderate 45 Low 40

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

Photographs:
Roll No. ST-19-100Frames 25

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:

ST: no nests observed in this subdivision

Segment ST/K1-1/SI-12

Subdivision 6

6-1-90

Biologist: David Lohr

Wildlife Observations/General Comments

Present in low intertidal: Cladophora, Ulva, filamentous diatoms, Scytosiphon, Anthopleura, Palythoa, Odonthallia, Nuella

mid intertidal: Scytosiphon, Odonthallia, Gloiopeltis, Nuella

2. Two Harlequin ducks and ~16 gulls seen in area
3. Segment consisted primarily of pebble beaches with occasional pockets of bedrock/boulder/cobble. The back of bay #1 (see ecology map) contained lots silt which was anoxic just below the surface
4. Lots of clam siphons were evident in silt in Bay #1.
5. One stream was found in subdivision (see ecology map). Not listed as ~~an~~ anadromous on ADFG maps. Oil was present within ~25m of stream mouth
6. Algal cover on low intertidal pebbles (primarily Cladophora and filamentous diatoms with some Ulva and Scytosiphon) reached 80% in some areas.

Recruitment and Mortality of barnacles

Project ST/KI-1/SI-12

Subdivision 6

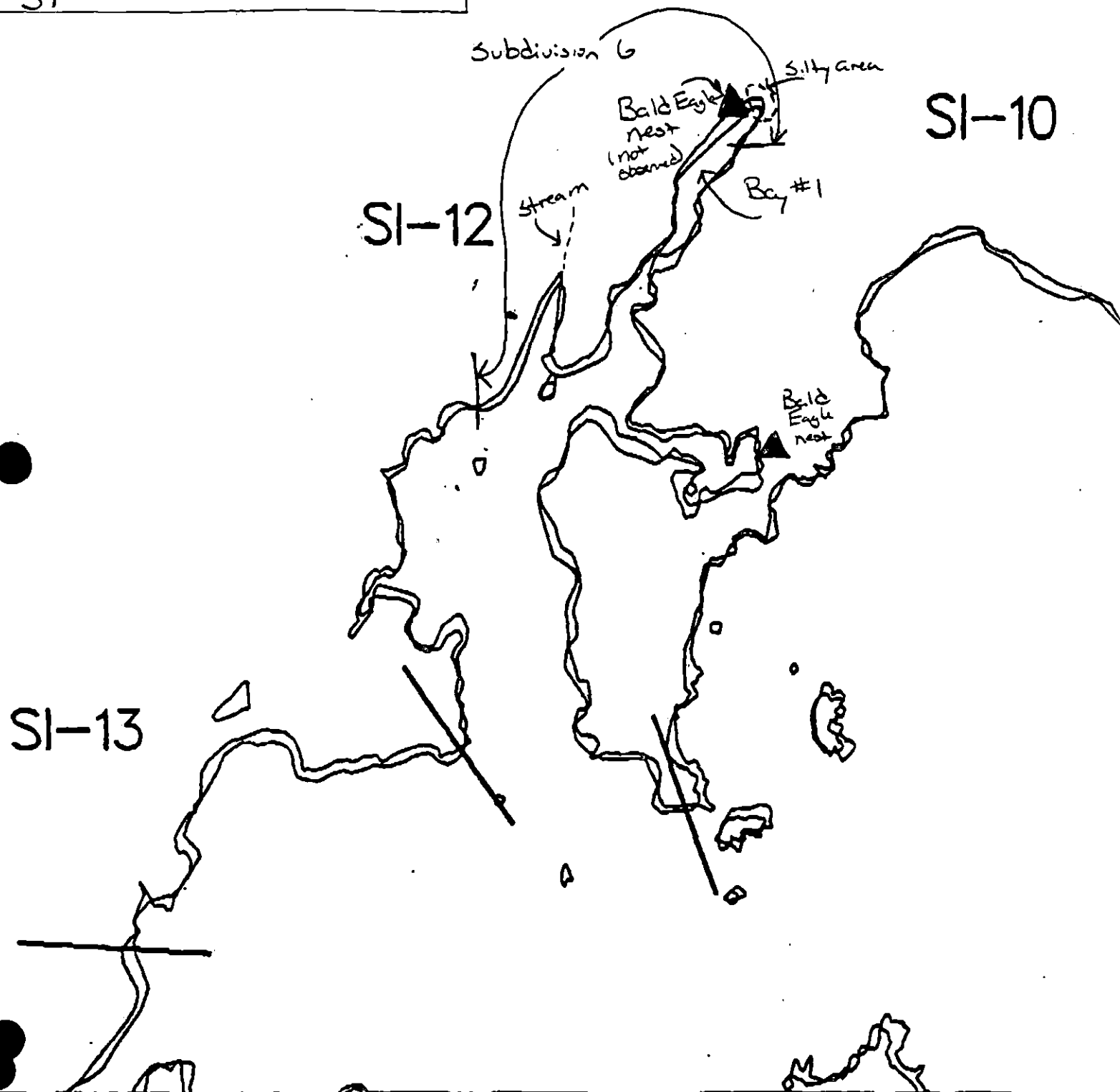
6-1-90

Biologist: David Lohse

Recruitment of barnacles was patchy

- 1. Mortality of barnacles was ~10% on mid-intertidal bedrock (1 site surveyed) and ~15% on high ~~intertidal~~ intertidal bedrock (1 site surveyed).
- 2. Mortality of mussels was ~10% in mid intertidal ~~public~~ (one site surveyed).

Ecology Map
Resource Cods for Entire Segment
ST



XXXX Wide

//// Medium

---- Narrow

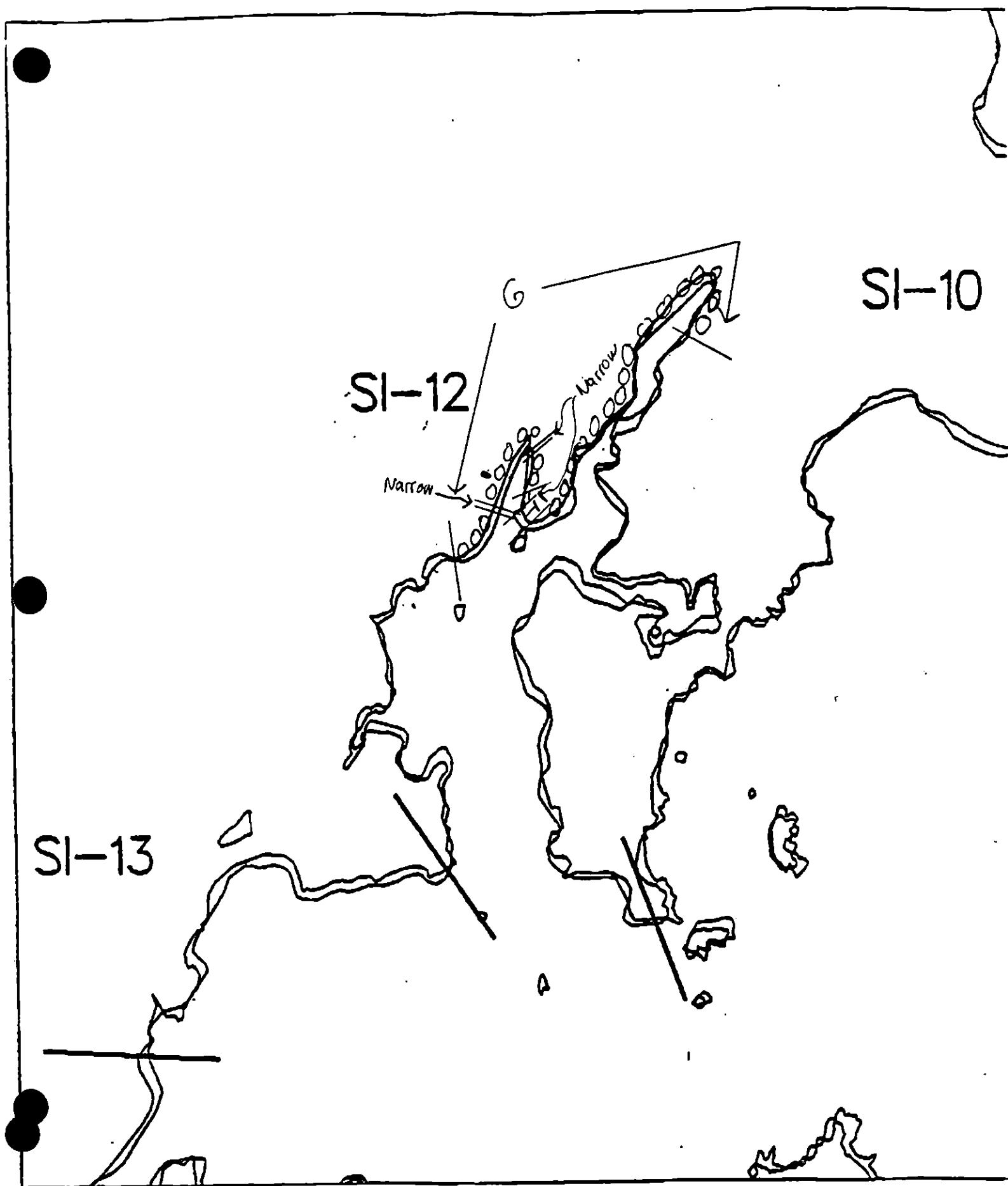
SI-12-G

ADEC Segment Length: 9081m

Map Key: KOD-170

Name: _____

Date: _____



XXXX Wide

//// Medium

Kølp- SI-12-G

ADEC Segment length: 9081m

Map Key: KOD-170

Name: J. Springer

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K01-01-SI-012 SUBDIVISION G (7 of 7)

WORK WINDOW

Manual Pickup

OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T Bald Eagle Nest

NO CONSTRAINT. USFWS 4/9/90 map indicates no active nest within 400m of Subdivision G work sites.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

R. Zengler

Date

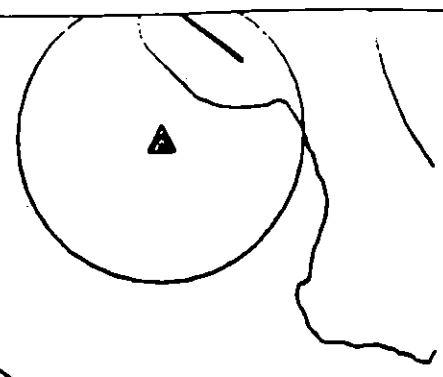
6/29/90

Prepared by

Ray R. Coulton

Date

6-28-90



SI-11

SI-12

Active Eagle Nest



WORK AREAS



SI-13

A

A

Active Seabird Colony



SI-1



Exxon Company, USA
Map Key: KOD-SI-12



ECOLOGY MAP
SEGMENT KI-1 SI-12
SUBDIVISION G (2 of 7)

METERS



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

1 inch = 1824 feet

SHORELINE EVALUATION

SEGMENT ST/ K01-01-SI-013 SUBDIVISION A (1 OF 2) DATE 4/3/90

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 J. Hoffman DATE: April 14, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 1636 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 oiled plastic, between 5/16 and 7/9.

TAG COMMENTS:

TAG APPROVAL DATE: 4/14/90
ADEC JOHN BAUER John
EXXON ANDY TAYLOR Andy FOSC: DATE: 4-22-90
NOAA Burt Wescott Burt
USCG G.A. REITER G.A. Reiter

KODIAK ECOLOGICAL CONSTRAINTS

SI-013-A 1/2 B

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
- 1C Salmon fry nursery area (4/31 to 7/31)
- 1D Kotol Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
- 1I Gill net area
- 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay - 6/9 to 10/1.
 East side Kodiak, East side Afognak - 7/4 to 10/1.
- 1K Purse seine hook-off
- 1L Set net sites
 USFWS setnet uplands permit 5/15 to 9/15.
 For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/15 to 6/30)
 Restrict boat traffic to essential minimum. Avoid damage to unholed intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
- 3N, 3P Harbor seal and sea lion pupping (5/10 to 6/30)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 5R Seabird colony (5/1 to 8/31)
 Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic.
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
- 6U Recreation: Tent sites (6/1 to 9/15)
- 6V Anchorages (6/1 to 9/15)
- 6W Forest Service cabins (6/1 to 9/15)
- 6X Lodge (6/1 to 9/15)
- 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (6/1 to 9/30)
- 7HH Finfish harvesting
- 7II 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/ KO101/ST013 SUBDIVISION: A DATE 4-3-90

~~NOAA~~
~~USCG~~

NAME John Naughton SIGNATURE John J. Naughton

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Walked entire segment. No oil observed.

ADEC
NAME Scott Shelton SIGNATURE Scott Shelton

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS KO101/ST13 Sub. A

No oil observed - High energy beach. Access due to the steep cliffs is possible from Sub. A northern most boundary and SW subdivision B. Teams members walked 1911 meters of the cobble/bedrock beach. 11 pits were dug with no subsurface oil observed. Deer observed feeding on beach vegetation. Stream in this subdivision has a salmon run.

LAND MANAGER

NAME Ray Burger ADNR SIGNATURE Ray Burger

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

No oil observed

Two pieces of oiled ^{plastic} debris found @ MHW of pocket beach in mid-segment.

Two beaches on segment are landable/campable

Numerous deer tracks on beach + upland trails

Stream at south end of segment had 2 deer carcasses + 6 eagles overh.

Area considered for addition to Shuyak State Park

SHORELINE OILING SUMMARY

REVISION NO. 03/29/91

OG Penland ~~USCG~~ Naughton SEGMENT ST/ K0101/58013
 BIO Spight LAND REP Bryson SUBDIVISION A
 EXXON Exxon ADEC Shelton TIME 13:15 to 15:42
 TEAM NO.: 19 TIDE LEVEL: -3 ft to -1.78 ft DATE 4/3/90
 EST. SUBDIVISION LENGTH: 1911 m ☐ Sun ☐ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 20 % B 20 % C 20 % P 20 % G 20 % S 0 % M 0 % V 0 %
 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 0 m NO 1911 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	R	B	P	N	1	2	3	4	5	6	7	8	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 0#BAGS 0

Photographs:

Roll No. ST-19-4Frames 1 & 2

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	UO	1	2	3	4	5	6	7	8	SU	U	M	L		
1	30					X	.												X				Cobble, gravel
2	30					X	.												X				"
3	30					X	.												X				"
4	30					X	.												X				"
5	30					X	.												X				"
6	30					X	.												X				"

COMMENTS

- no oil observed in subdivision A
- subdivision A is a series of interconnected headlands with cobble beaches.

SHORELINE OILING SUMMARY (PAGE 1 of 2)

REVISION 03/22/89

SEGMENT ST/ K2121/58313 SUBDIVISION A

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS	
		OP	OR	OL	OF	NO		VO	UC	BR	OR	MR	ST	BL	LT	BL	BU	U	M	U				
7	30					X	.										X							Cobble, gravel
8	40					X	.										X							"
9	50					X	.										X							"
10	50					X	.										X							"
11	3					X	.										X							"
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COMMENTS

REVIEWED 7W DATE 4/8/90

SEGMENT 0121/SI013

SUBDIVISION A

DATE 4 / 3 90

CHECKLIST

- ☒ N Asow
- ☒ Approx. Scale
- ☒ Seg/Sub Entry
- ☒ Oil Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HWA/LWL
- ☒ SSL
- ☒ Profile Location(s)
- ☒ Profile(s)
- ☒ PB Location(s)
- ☒ Photo Location(s)

LEGEND

1 Δ
PB - No Subsurface Oil

2 Δ
PB - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

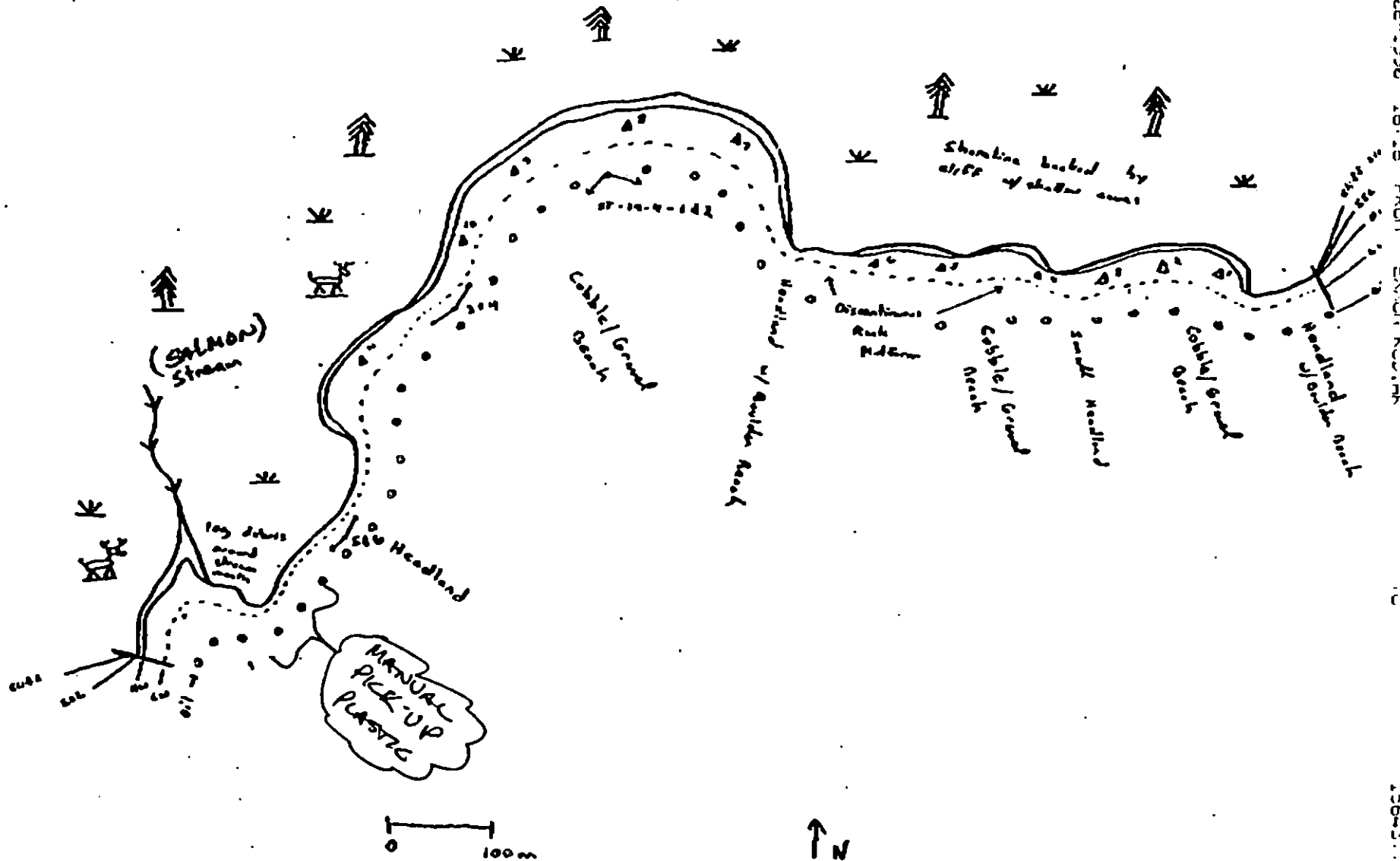
CT/P
Patchy Distribution

CT/S
Splashed Distribution

Cited Vegetation

1 ●→
Photo location, direction,
and number

SKETCH MAP



Tractor Length (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 0 PT 0 TB 0 FL 0 NO 1911

REVISIONS

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / SI-013 Subdivision A Date (mo / day / yr) 4/3/90Time (24 hr) 13:22 Biologist SPIGHT

(A) Substrate type and % of segments:

(1) Bedrock 20 (2) Boulder 20 (3) Cobble 20 (4) Pebble 20 (5) Sand (6) Silt (B) Overall % cover of biota (% of segment): Dense 30 Moderate 50 Low 20

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

Photographs:

Roll No. 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

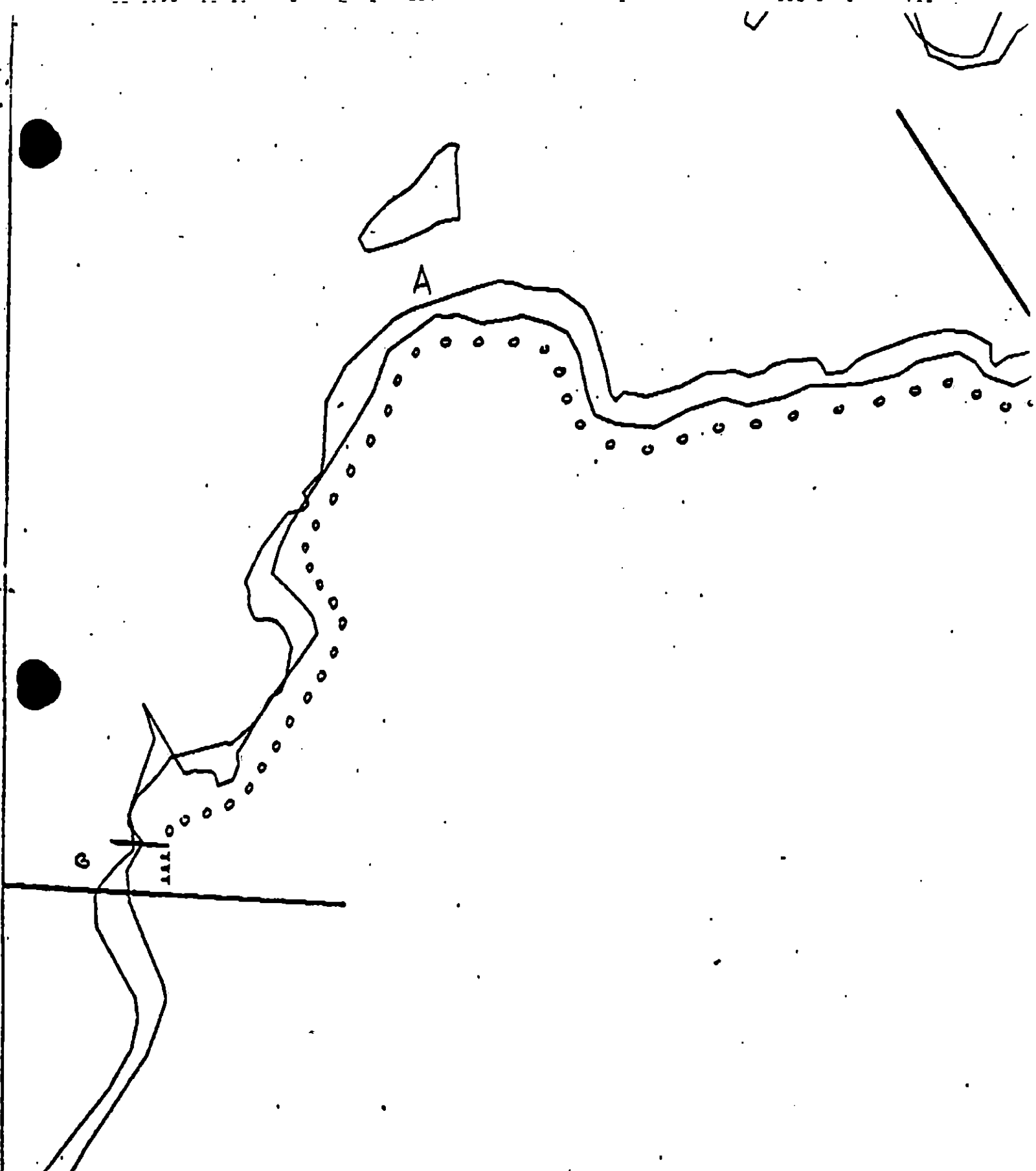
NOT PRESENT

Wildlife Observations/ General Comments:

Possible Anadromous stream at Western end of section
Abundant signs of deer, bear above on headlands.

Ecological Considerations:

One basic habitat type but extremely patchy; all forms locally very dense; in amt. of dense population in total habitat probably barnacles > snails > Fucus > Mytilus. Variants depend on exposure, cobble size, amt of relatively flat surface (vs. vertical, which favors barnacles), and others



XXXX Wide

/// Medium

---- Narrow

TTTT Very Light

OOOO No Oil

SI-13

ADEC Segment Length: 1971m



Map Key: KOD-171a

Name: Shaa Penland

Date: 4-4-90

Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K01-01-SI-013 SUBDIVISION A (1 of 2)

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 (251-82-812) is in Subdivision A. No constraint to manual pickup.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

A. Farwaghi

Date

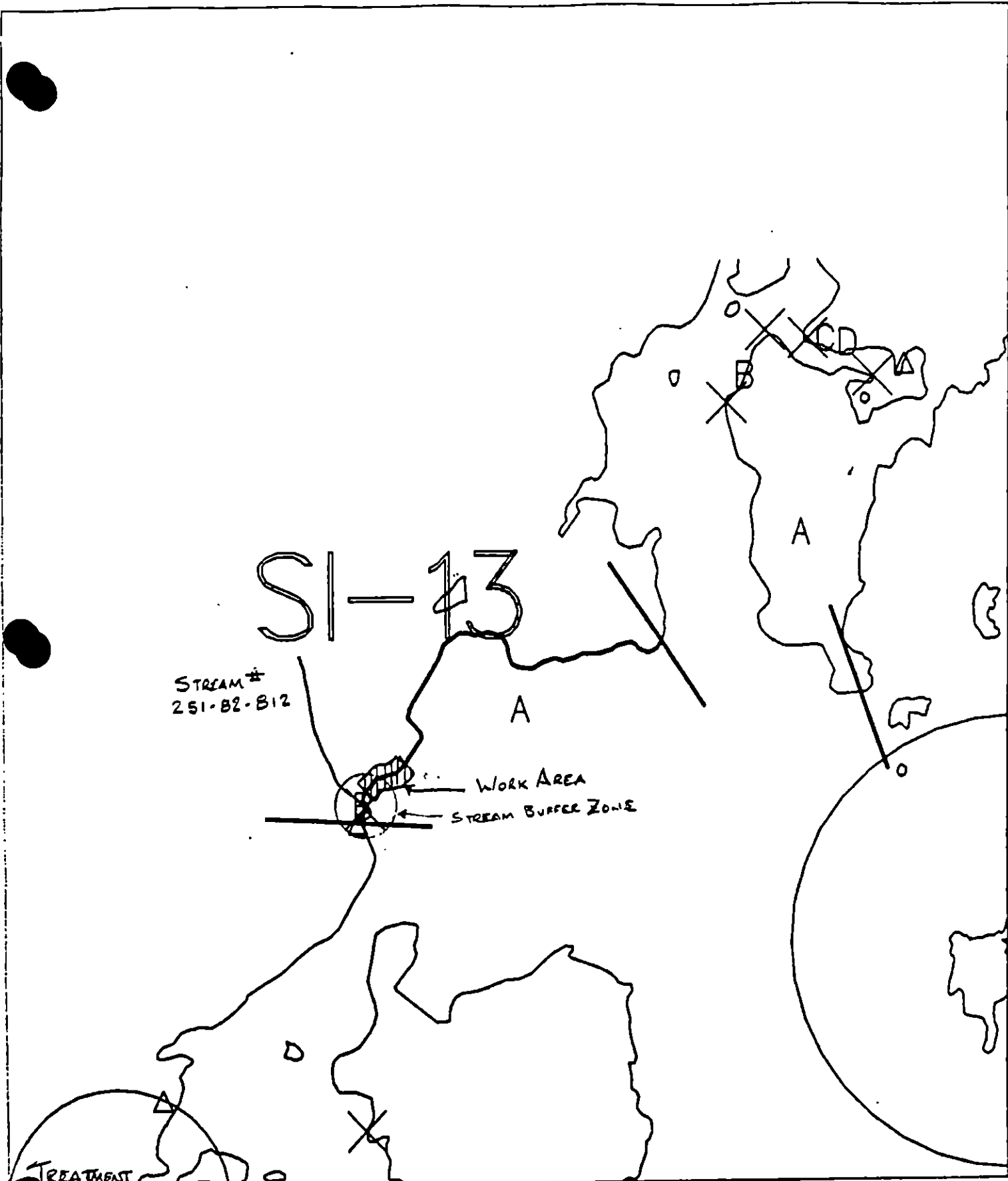
6-15-90

Prepared by

J.P. Phillips

Date

6/15/90



Exxon Company, USA
 Map Key: KOD-SI-13
 June 10, 1990



ECOLOGY MAP
 SEGMENT KI-1 SI-13
 SUBDIVISION A (1 of 2)



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

1 inch = 1534 feet

SHORELINE EVALUATION

SEGMENT ST/ K01-01-SI-013 SUBDIVISION B (2 OF 2) DATE 4/3/90

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. Hedman DATE: April 14, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 14 m: No Oil 62 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 Art Weiner Art Weiner
EXXON ANDY TEAR Andy Tear FOSC: W L DATE: 5-1-90
NOAA Bud Wiersma Bud Wiersma
USCG G.A. REITER 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** 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/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
 USFWS sonnet uplands permit 5/15 to 9/15.
- For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M** Herring spawning (4/15 to 6/30)
 Restrict boat traffic to essential minimum. Avoid damage to unholed intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
- 3N, 3P** Harbor seal and sea lion pupping (5/10 to 6/30)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 3O, 3Q** Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 5R** Seabird colony (5/1 to 8/31)
 Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
- 5S** Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic.
- 5T** All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
- 6U** Recreation: Tent sites (6/1 to 9/15)
- 6V** Anchorages (6/1 to 9/15)
- 6W** Forest Service cabins (6/1 to 9/15)
- 6X** Lodge (6/1 to 9/15)
- 6Y** Special use destination
- 7Z** Subsistence area: Salmon harvesting (6/1 to 9/30)
- 7HH** Finfish harvesting
- 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/ K01011/SI013 SUBDIVISION: B DATE 4-3-90~~IOAA~~
~~USGS~~NAME John Naughton SIGNATURE John J. Naughton☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

Walked segment. Few splatters and stain observed on log debris.

ADEC

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

K01011/SI013 Sub. B (60 meters)
Staining on drift observed located in the supratidal storm drift Belt. One weathered TAR ball observed less than 5 cm in diameter. 3 Pits to 30 cm NO sub surface oil observed in cobble/gravel beach.
Heavy marine debris/plastic in this area.
Six deer observed feeding on beach vegetation.

LAND MANAGER

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

This pocket beach @ south end of segment had old tar balls & very sporadic splatters of stain on the driftwood logs so few as to be unobtrusive.

Beach has moderate amount of unsorted plastic debris
Landable/campable.

Six deer seen on beach.

Area considered for addition to Shuyck State Park

SHORELINE OILING SUMMARY

REVISION NO. 000000

OG Penland NOAA Naughton SEGMENT ST/ K0191/SP0.3
 BIO Spight LAND REP Surge ADNR SUBDIVISION B (2012)
 EXXON Byers ADEC Shelton TIME 13:15 to 15:42
 TEAM NO.: 19 TIDE LEVEL: -3ft to -1.75 ft DATE 4/3/90
 EST. SUBDIVISION LENGTH: 60m ☐ Sun ☐ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 10 % B 20 % C 50 % P 10 % G 10 % S 0 % M 0 % V 0 %
 SLOPE: Long 70 % Hang 20 % Vert 10 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 10 m NO 50 m

SURFACE OIL

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

PAVEMENT: H F S C sq. m by C cPATTIES / 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-19-4Frames 7

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	UE	1	2	3	4	5	SU	U	M	U		
1	30																			Cobble / gravel
2	30																			Cobble / gravel
3	30																			Cobble / gravel

COMMENTS

- oil stain can be observed on log debris, the stain is very disperse.
- using the VL category is misleading to the actual extent of oiling.
- only observed approximately 10 signs, area stained in 10m x 1m

SKETCH MAP

SEGMENT CT/ K0191/ ST 013

SUBDIVISION 6

DATE 4 / 3 00

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Bdry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HAV/LWL
- ☐ SSZ
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PB Location(s)
- ☐ Photo Location(s)

LEGEND

1

PT - No Subsurface Oil

2

PT - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

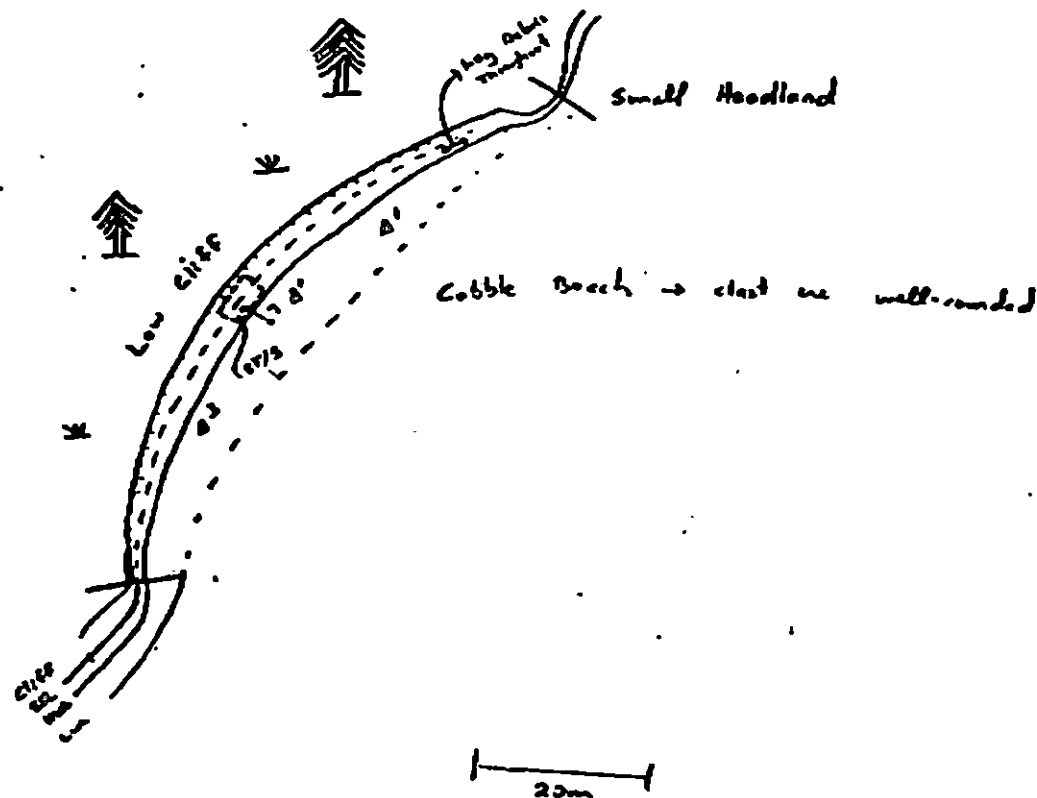
CT/S

Spaced Distribution

Old Vegetation

1

Photo location, direction, and number



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

REVISIONS

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/22/90

Segment ST/ SI-013 Subdivision B Date (mo / day / yr) 4 / 3 / 90

Time (24 hr) 15:39 Biologist SPIGHT

(A) Substrate type and % of segments:
(1) Bedrock 10 (2) Boulder 20 (3) Cobble 50 (4) Pebble 10 (5) Sand 10 (6) Silt

(B) Overall % cover of biota (% of segment): Dense 10 Moderate 25 Low 65

(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	X	2	X	2	2	2	2	2	2	2	
3	3	X	3	X	3	3	3	3	3	3	3	
4	4	4	4	4	X	4	4	4	4	4	4	
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	X	X	2	2	2	
3	3	3	3	3	3	3	X	X	3	3	3	
4	4	4	4	4	X	4	X	X	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

GASTROPODS

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

Wildlife Observations/ General Comments:

Several deer on beach, probably feeding on kelp

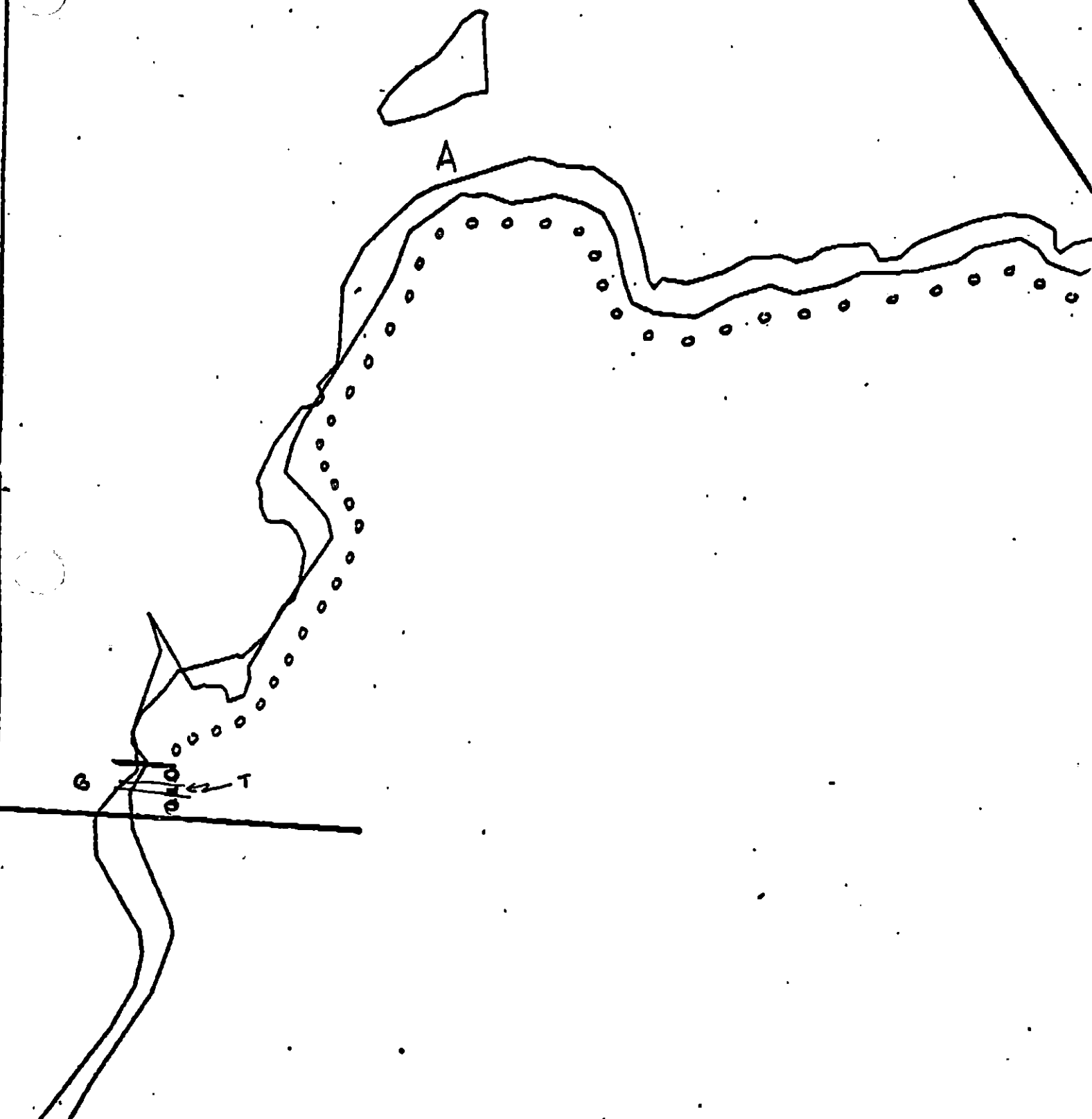
Ecological Considerations:

Mussels forming bed in gravel areas but overall bed density is M

1A, 1B



A



KXX Wide

//// Medium

--- Narrow

TTTT Very Light

SI-13

ADEC Segment Length: 1971m



Map Key: KOD-171e

Name: Shan Penland

Date: 4-4-90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K01-01-SI-014, SUBDIVISION A (1 of 1)

WORK WINDOW

Manual Pickup Less Than 400m From Active Nest	CLOSED
Manual Pickup More Than 400m From Active Nest	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 (251-82-10090) is more than 100m from work site. No constraint to manual pickup.
5T Bald Eagle Nest	USFWS 4/9/90 map indicates an active nest in Subdivision A. Closed to manual pickup within 400m of active nest. No constraint to manual pickup more than 400m from active nest.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

[Signature]

Date

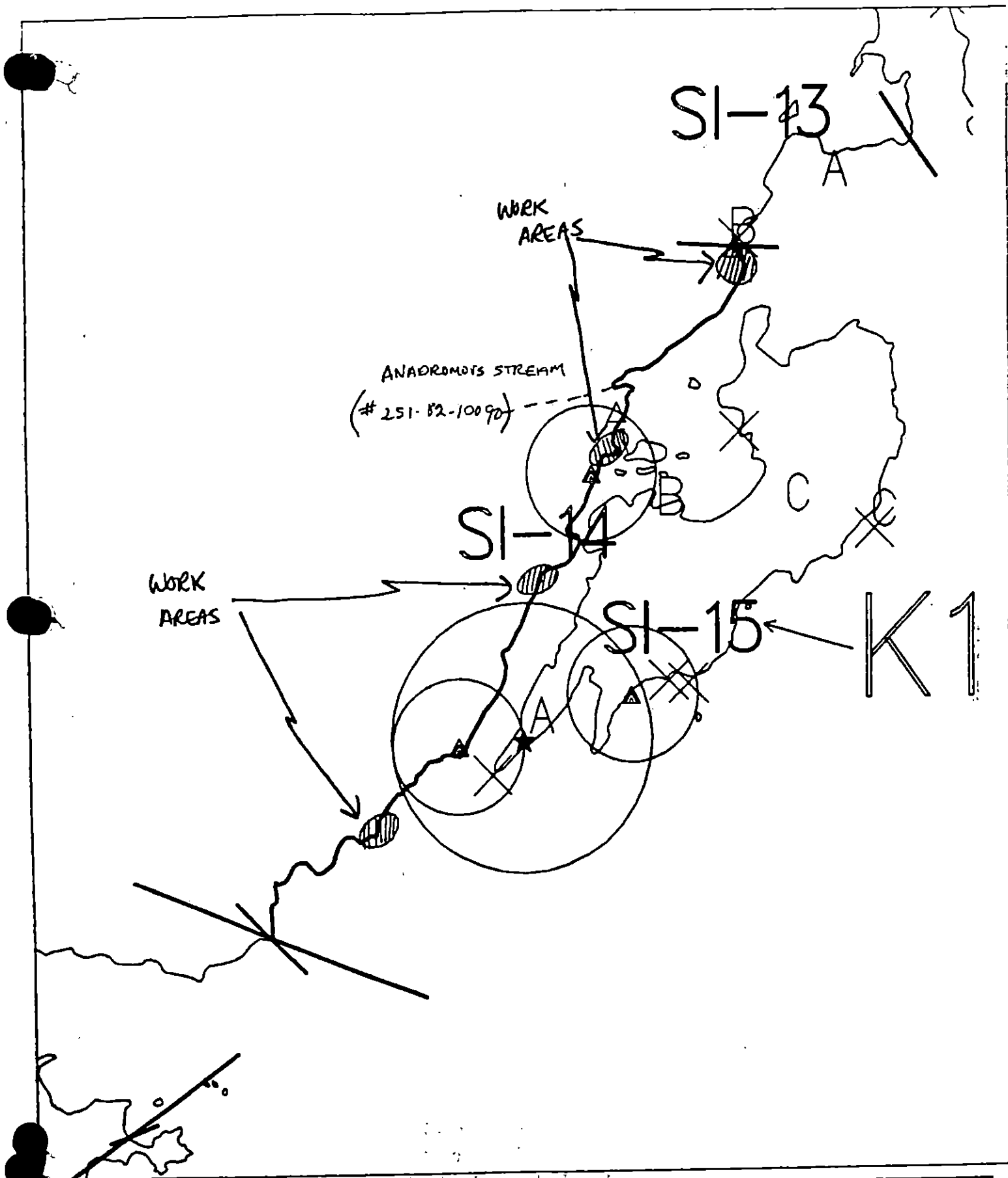
6/29/90

Prepared by

[Signature]

Date

6-28-90



Exxon Company, USA
Map Key: KOD-SI-14

ECOLOGY MAP SEGMENT K1-1 SI-14 SUBDIVISION A (L-01-1-1) METERS

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

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