

OIL SPILL PUBLIC INFO. CENTER



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EVOS
GC
1552
.P75
S42
1991
v.27

[Shoreline evaluations, 1991].

Prince William Sound CU-04 to CU-15

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1991 MAYSAP EVALUATION

SEGMENT: CU 004 SUB: M REGION: PWS SURVEY DATE: 5/12/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) RESTRICTED 3/1 - 9/1

Ecological/Constraints (see page two for details) Eagle nest

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO Signature: Rachel Jan Darr Date: 5/24/91

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

N

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE: MAY 24 1991

FOSC APPROVAL DATE: 5/29/91

ADEC

FOSC

EXXON

E. E. PAGE, LCDR, USCG
CHIEF OF STAFF, FOSC

USCG

NOAA

ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES

Eagle Nest: Access restricted from 3/1 to 9/1. USF&WS
authorization required. Maintain 1000' vertical and 1/4 mile
horizontal buffer.

TEAM NO. 1 SEGMENT CU-004 SUBDIVISION M DATE 5/12/91

ADEC

NAME JEFF GINALIASSIGNATURE [Signature]☒ NTR

ONLY NOTED OIL ISOLATED TO ONE BEACH ON SEGMENT (SITE A, CG MAY)
THIS OIL (SMALL MOUSSE CLUMP AMONGST BOULDERS) REMOVED. NO FURTHER
TREATMENT NECESSARY.

EXXON

NAME RANDALL K. BOYERSIGNATURE Randall K. Boyer☒ NTR

ONLY A 15 CM X 15 CM MOUSSE PATTY WAS RECOVERED.
THIS WAS THE ONLY RECOVERABLE OIL FOUND ON THE SUBDIVISION.
VERY HEALTHY INTERTIDAL ZONE WITH RICH AND PROLIFIC MUSSEL
BEDS. PIGEON GUILLEMOTS WERE SEEN NEARBY. CERTAINLY NO
TREATMENT OR REASSESSMENT IS WARRANTED, A BEAUTIFUL BEACH.

LANDMANAGER

NAME MARSHA HALL OF DNRSIGNATURE Marsha Hall☒ NTR

MOUSSE RECOVERED WAS LOCATED AT BASE OF BOULDERS,
UPPER END MITE.

USCG/NOAA

NAME SCHULTZ / CHILDSSIGNATURE [Signature] / 122C☒

NTR SURFACE OIL REMOVED BY MAYSAP TEAM. NOTHING ELSE LOCATED

NO SUBSURFACE OIL LOCATED. SURFACE OIL EXISTED ONLY AS A SMALL
MS PATCH CLEANED UP BY MAYSAP TEAM.

PAGE 1 OF 1

DATE 2 / 12 / 91

ENERGY LEVEL: ☐ H ☒ ~~H~~ ☒ U

NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONE

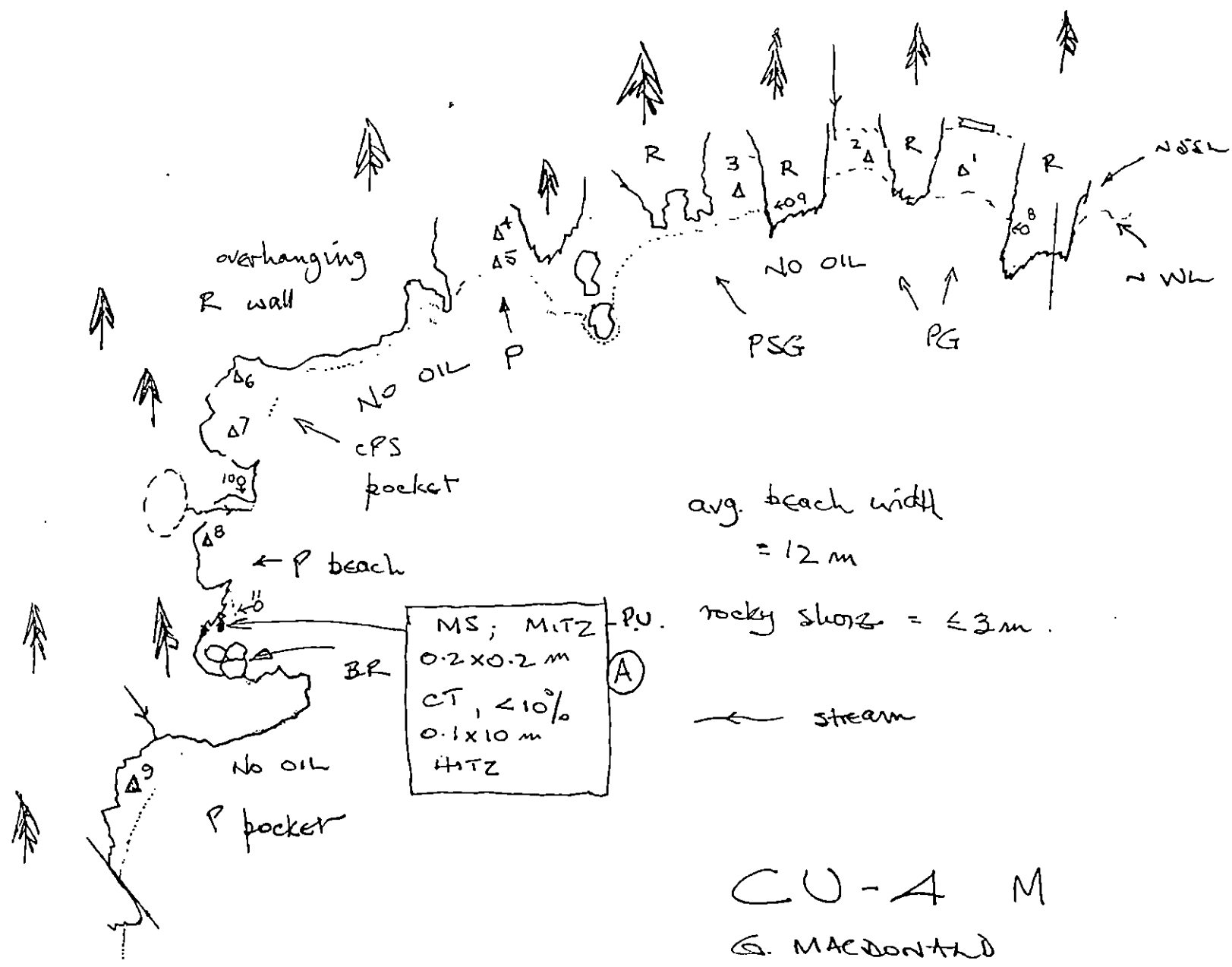
EST. OIL CATEGORY LENGTH: W m M m N m VL 10 m NO 894 m US m

DISTRIBUTION: C = 91-100%; B = 61-80%; P = 11-50%; S = 1-10%; T = <1%

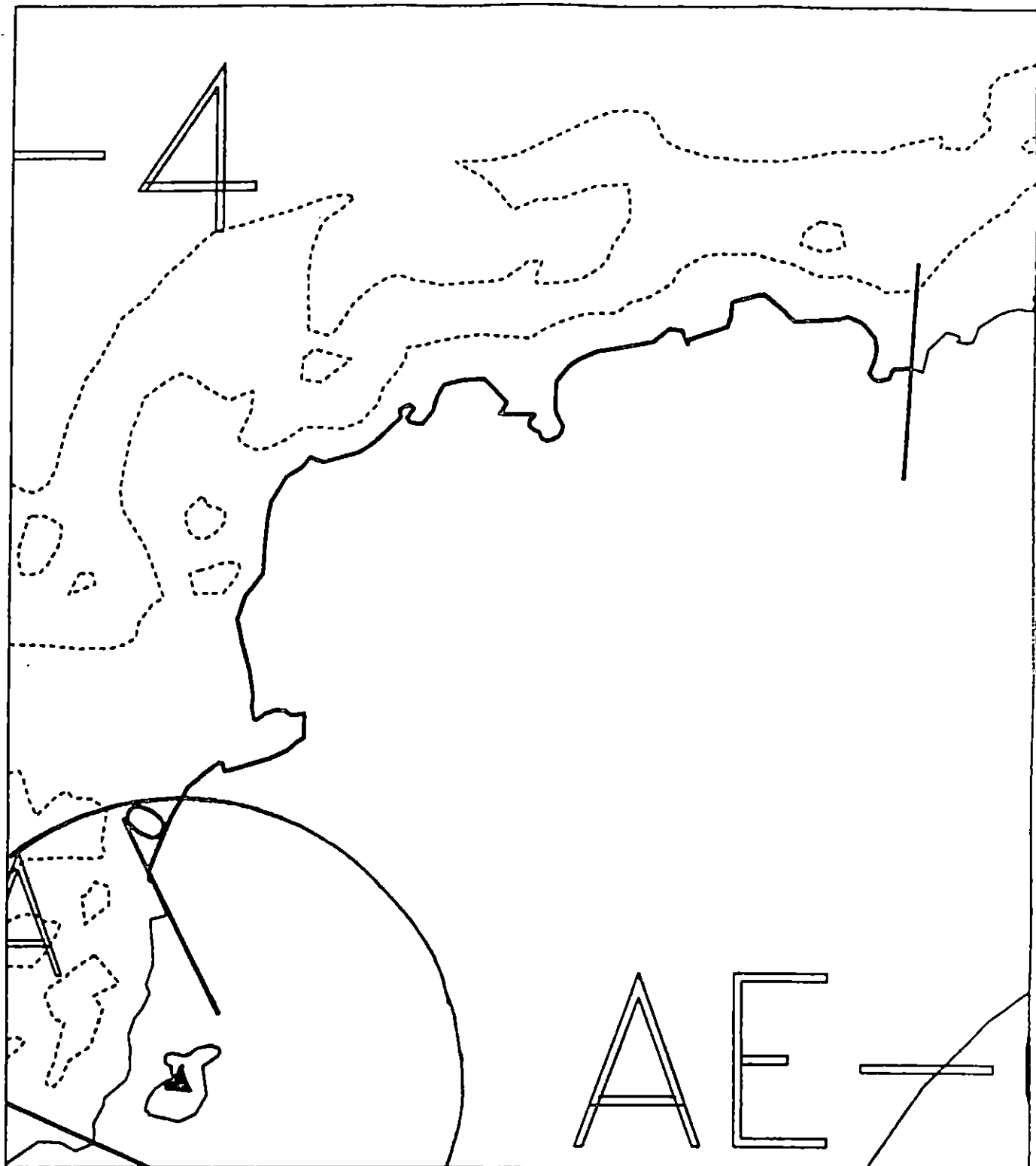
SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE PHOTO ROLL # MAYSAP- 1 - 20 FRAMES 8~11

SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

REVISED CD HANA
26 revised 5/14



CU-A M
G. MACDONALD
5.12.91

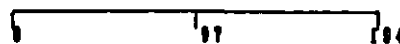


CU004

Segment Reference Map

Map Key: PWSCU004

METERS



AK State Plane Zone 4
psu004



EAGLE NEST

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 1 DATE 12 May 91
 SEGMENT # CU-4 TIDAL HEIGHT(Range) +3.8 to +7.3 ft MLLW
 SUBDIVISION M BIOLOGIST Michael Fawcett
 SEA STATE calm WIND SPEED/DIRECTION calm
 PHOTOGRAPHS: ROLL # FRAME #

COMMENTS/OBSERVATIONS (to be completed in oiled subdivisions only):

This subdivision contains rugged bedrock outcrops and pocket beaches of PLE/B, with smaller sediments toward the upper beach. The boulders and bedrock areas have dense rockweed, barnacles (very dense spat), patches of dense mussels, *Rhodanella*, limpets, littorinids, and other organisms. Tidepools have typical diversity, including coralline algae, sculpins (some pregnant), littorinids, limpets, chitons, anemones, tube worms (sabellids), etc. No oil was found except a very small patch of weathered mousse, which was picked up (see sketch map). Three small (non-anadromous fish) streams occur within the subdivision.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles			
Seabirds	2 <i>Cassins auklet</i> <i>Pigeon Guillemot</i>	5	
Waterfowl			
Gulls/kittiwakes			
Shorebirds			
Corvids	2 (raven, stell. jay)	3	
Other Birds			

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters			
Pinnipeds(specify)	1 harbor seal		
Whales(specify)			

Shoreline subdivision map showing important biological features attached.

 REVISED 10 MAY 91
 D. J. ...

0940 CU-4 Fawcett

5/12/91 - south facing beach
pocket beach w/ p/c/B - visible
no brook in pebbles

- 2 pigeon guillemot

- rugged outcrop on east side,
dense Fuus, patchy mussels + rocks
& older barn, dense spat

- Cladophora, Ulva, Scytos, Rhodo
spindle limp

- Subdivisor includes several
shale pebble pocket beaches,
w/ large rugged shale outcrops -
no oil - dense Fuus, barn, mussel,
limp etc - rich pool habitat
limpets, Litho, Torricella, pregnant
scalpings, dense littorines, anemones,
variety of algae

dep. 1015 - 2 Jays

4 1 Raven

1025 - another pocket - no oil
1 harbor seal (1 tiny moulted pup)

1030 - another site - small, non
anal stream - no oil

finish subdivision 1100,
return to 36A

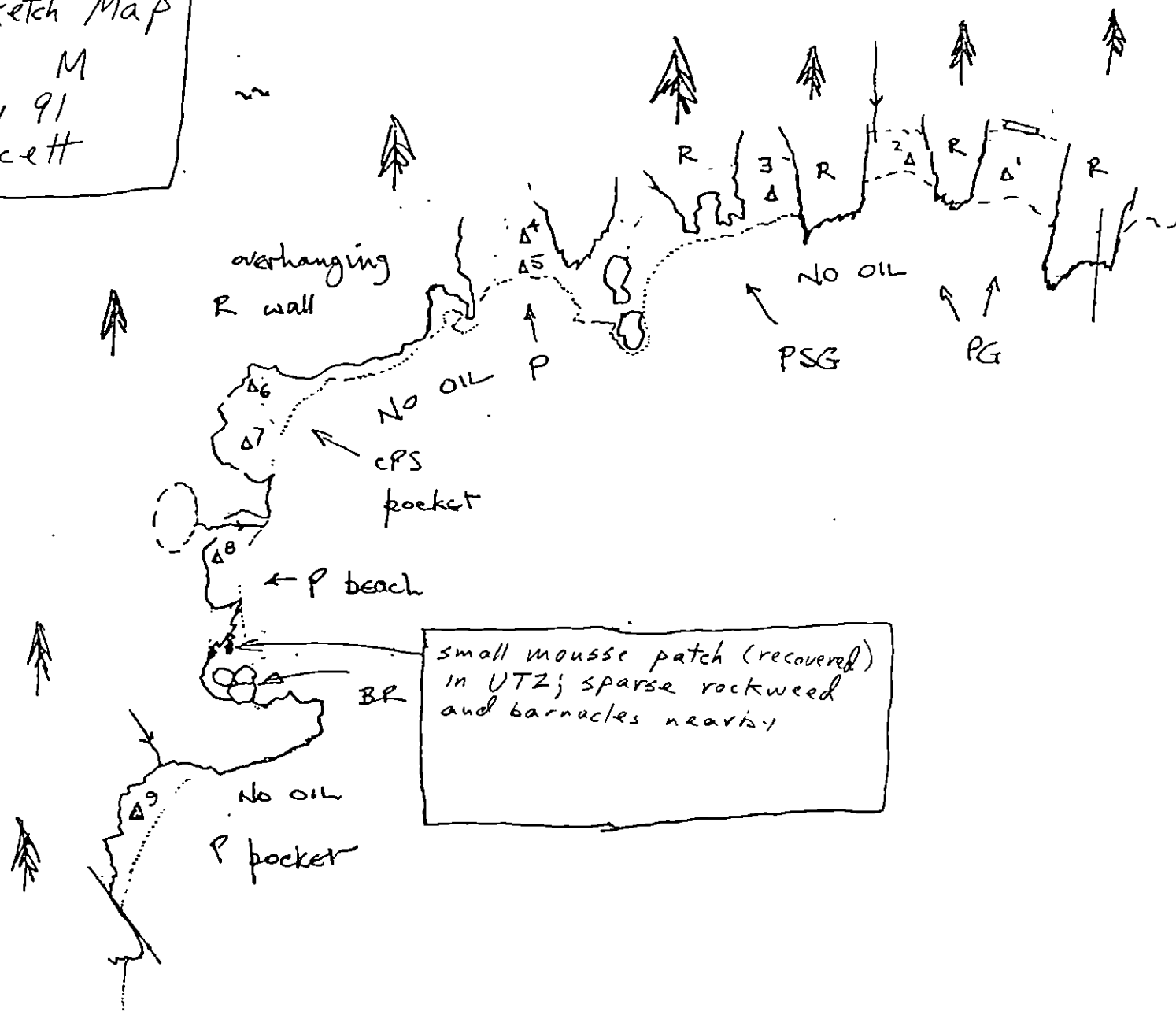
2 Auklets, 1 P. gullie mat
(classmate)

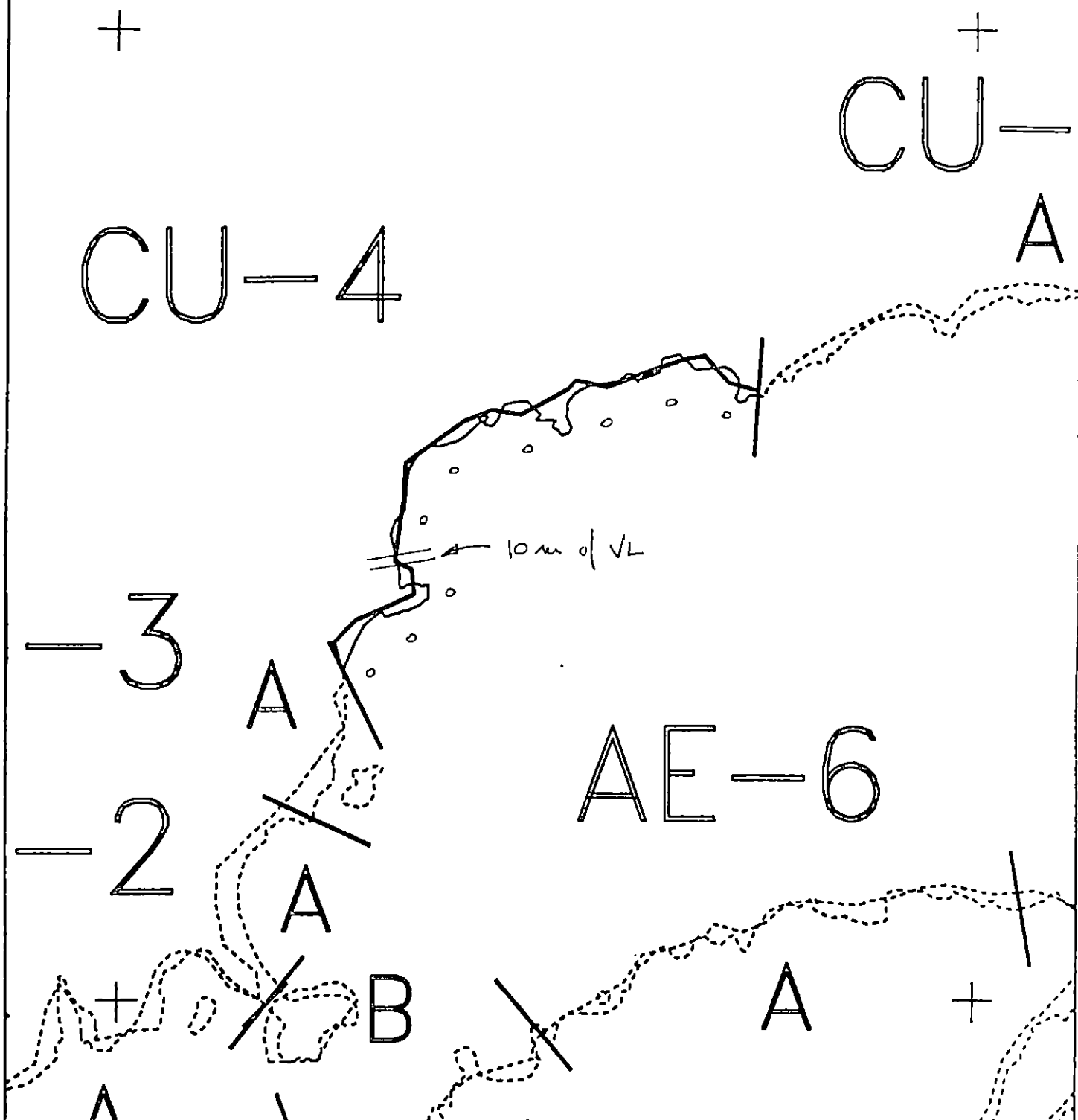
Bio Sketch Map

CU-4 M

12 May 91

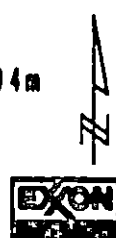
M. Fawcett





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

CU004 : M
 ADEC Subsegment Length: 904m
 METERS
 AK State Plane Zone 4
 pr0884a



Subdivision Field Map
 Map Key: PWSCU004A
 Name: GM
 Date: 5.12.91
 Date Entered:

EC reviewed 5/14
 REVISED: CB 14 MA

1991 MAYSAP EVALUATION

SEGMENT: CU 004 SUB: M REGION: PWB SURVEY DATE: 5/12/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) RESTRICTED 3/1 - 9/1

Ecological/Constraints (see page two for details) Eagle nest

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO Signature: _____ Date: _____

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL: _____

TAG: _____

FOSC: _____

TAG APPROVAL DATE: _____

FOSC APPROVAL DATE: _____

ADEC _____

FOSC _____

EXXON _____

USCG _____

NOAA _____

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

Eagle Nest: Access restricted from 3/1 to 9/1. USF&WS
authorization required. Maintain 1000' vertical and 1/4 mile
horizontal buffer.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 1 SEGMENT CU-004 SUBDIVISION M DATE 5/12/91

ADEC

NAME JEFF GINALIASSIGNATURE [Signature]☒ NTR

ONLY NOTED OIL ISOLATED TO ONE BEACH ON SEGMENT (SITE A, OG MAP)
THIS OIL (SMALL MOUSSE CLUMP AMONGST BouldERS) REMOVED NO FURTHER
TREATMENT NECESSARY.

EXXON

NAME RANDALL K. BOYERSIGNATURE Randall K. Boyer☒ NTR

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BEDS. PIGEON GUILLEMOTS WERE SEEN NEARBY. CERTAINLY NO
TREATMENT OR REASSESSMENT IS WARRANTED, BEAUTIFUL BEACH.

LANDMANAGER

NAME MARSHAHALL

OF

DNRSIGNATURE Marsha Hall☒ NTR

MOUSSE RECOVERED WAS LOCATED AT BASE OF boulders,
UPPER END MITZ.

USCG/NOAA

NAME SCHOLTZ/CHILDSSIGNATURE [Signature]☒ NTR SURFACE OIL REMOVED BY MAYSAP TEAM. NOTHING ELSE LOCATED

NO SUBSURFACE OIL LOCATED. SURFACE OIL EXISTED ONLY AS A SMALL
MS PATCH CLEANED UP BY MAYSAP TEAM.

PAGE 1 OF 1

REVISED CC: HWA
26 revised 5/14

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 1 DATE 12 May 91
 SEGMENT # CU-4 TIDAL HEIGHT (Range) +3.8 to +7.3 ft MLLW
 SUBDIVISION M BIOLOGIST Michael Fawcett
 SEA STATE calm WIND SPEED/DIRECTION calm
 PHOTOGRAPHS: ROLL # FRAME #

COMMENTS/OBSERVATIONS (to be completed in oiled subdivisions only):

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TO BE COMPLETED IN ALL SUBDIVISIONS

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Shorebirds			
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Other Birds			

LAND MAMMALS

MARINE MAMMALS	# OBSERVED	SPECIES	# OBSERVED
Sea Otters			
Pinnipeds (specify)	1 harbor seal		
Whales (specify)			

Shoreline subdivision map showing important biological features attached.

REVISED 10 MAY

0940 CU-4 Fawcett

5/12/91 - South facing beach

pebble beach w/ p/c/B - unstable

no brok in pebbles

- 2 pigeon gullen of

- rugged outcrop on east side

dense Frans, patchy mussels + rocks

& older barn, dense spat

- Clatophora, Ulva, Scyto, Rhodi

sparte limp

- Subdunon includes several

shale pebble pocket beach

w/ large rugged shale outcrops

no oil - dense Fur, barn, mussels

limp etc - rich pool beach

limpets, Litho, Tonicella, perognat

sculpins, dense littorines, anemones

variety of algae

dep. 1015 - 2 Jays

4 1 Raven

1025 - another pocket - ~~poor~~

1 harbor seal (1 tiny mouse Ants)

1030 - another site - small, non

anal stream - no oil

finish subdunon 1100,

return to ship

2 Antelope 1 P gullen mit

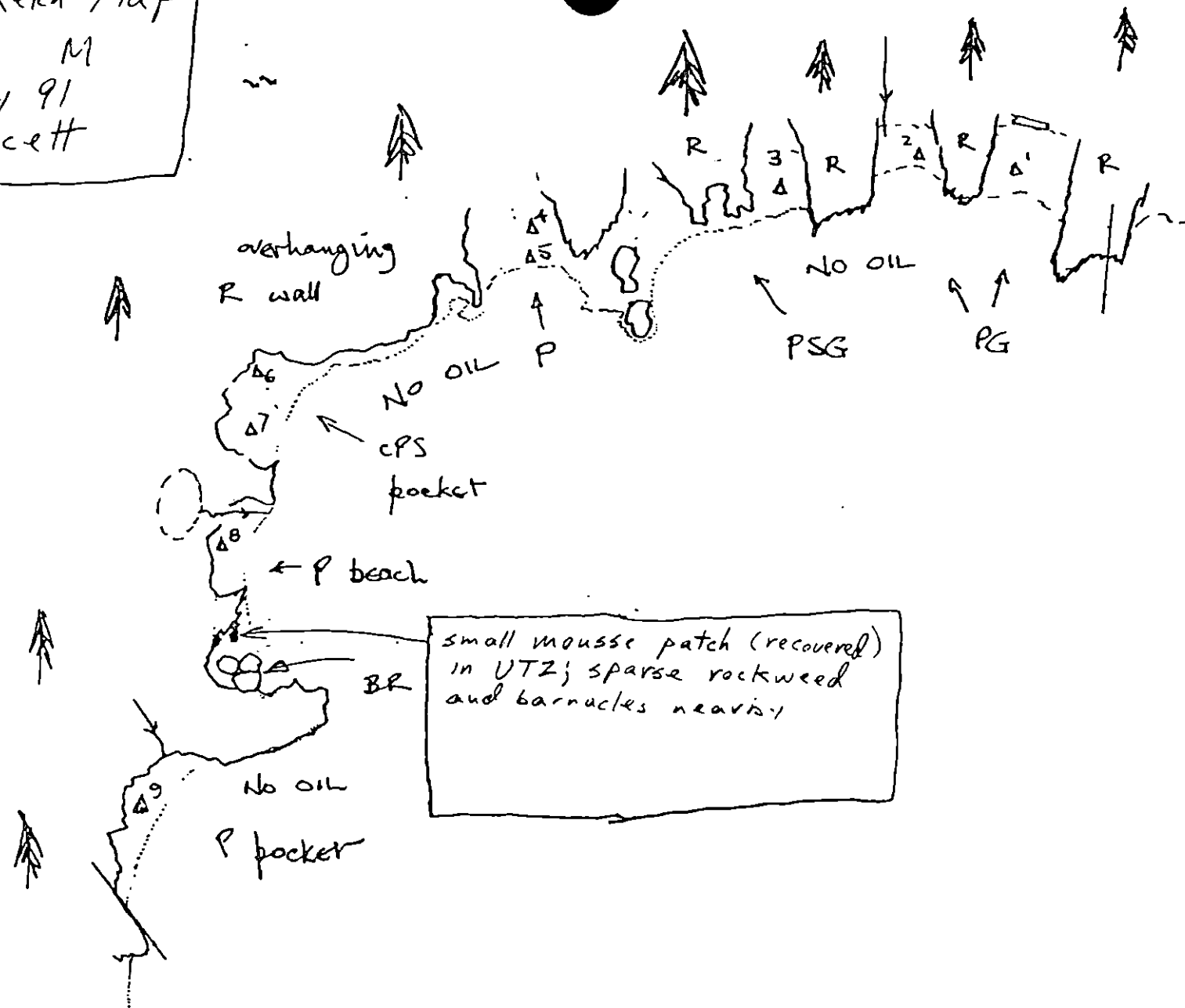
(Cassins)

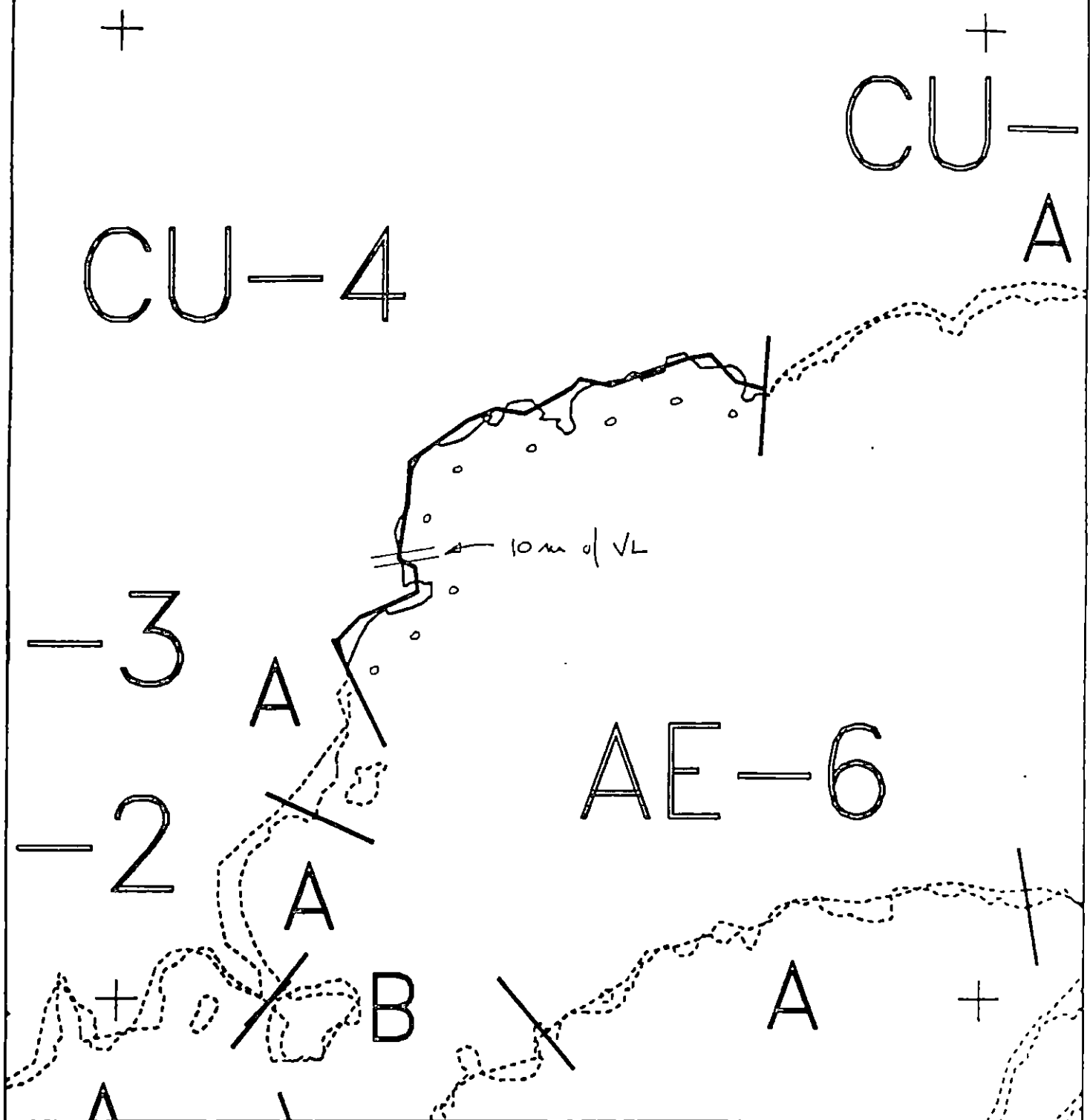
Bio Sketch Map

CU-4 M

12 May 91

M. Fawcett





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

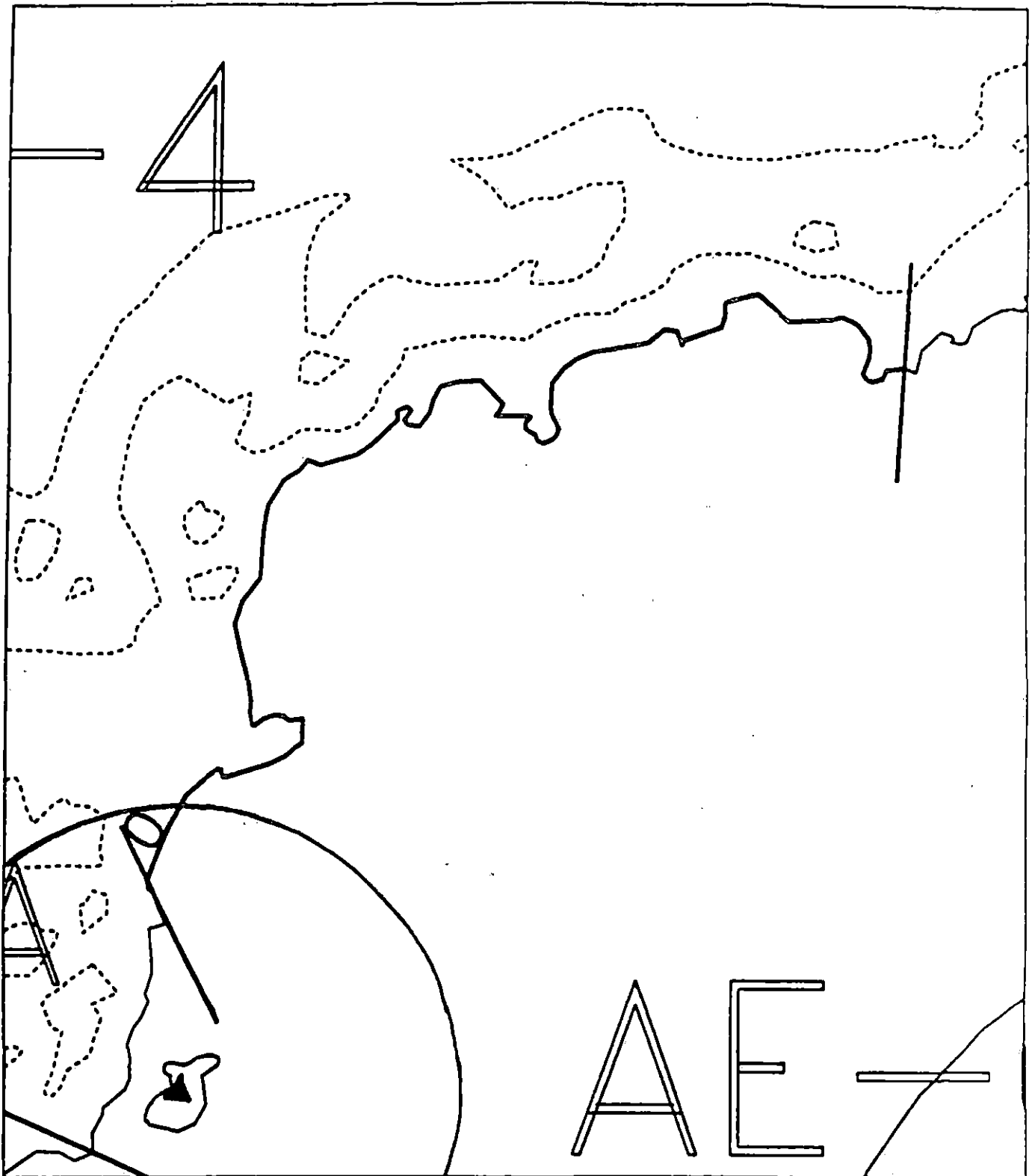
CU004 M
 ADEC Subsegment Length: 904m
 METERS

AK State Plane Zone 4
 psu004a



Subdivision Field Map
 Map Key: PWSCU004A
 Name: GM
 Date: 5.12.91
 Date Entered:

EC reviewed 5.12.91
 REVISED 5.12.91

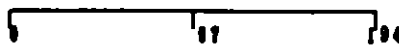


CU004

Segment Reference Map
Map Key: PUSCU004



METERS



AK State Plane Zone 4
p0004



EAGLE NEST

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/CU-05

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ CU-05 SUBDIVISION A (1 OF 1) DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
Biologist noted eagle nest at east end of segment.

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.

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 984 m
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: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream 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
- 30, 3Q Harbor seal and sea lion pupping (5/15 to 7/1)
 Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (6/1 to 9/15)
 6V Anchorages (6/1 to 9/15)
 6W Forest Service cabins (6/1 to 9/15)
 6X Lodge (6/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
 7HH Finfish harvesting
 7H Deer harvesting (8/15 to 2/28)
 Invertebrate harvesting
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / CU-5 SUBDIVISION: A DATE 4/24/90

CG

NAME M. J. SHARPESIGNATURE M. J. SharpeNO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

ADEC

NAME STEPHEN FERGUSONSIGNATURE Stephen FergusonNO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

OBSERVED SOME STAINS / NOT WORKABLE

LAND MANAGER

NAME Leigh CarlsonSIGNATURE Leigh Carlson

ADNR

☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

Listed in FWS Area Plan as frequently used camping and anchorage spot. Listed as priority 1 by PWSCA.

SHORELINE OILING SUMMARY

REVISION NO. 06/13/90

OG K. Ramsey USCG B. Sharpe SEGMENT ST/ CU-5
 BIO G. PENN LAND REP L. Carlson SUBDIVISION A (OF)
 EXXON S. REID ADEC S. FERGUSON TIME 8:54 to 9:52
 TEAM NO. 4 TIDE LEVEL 0' to 3' DATE 4/24/90
 EST. SUBDIVISION LENGTH: 1027 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 3 % B 2 % C 45 % P 50 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 2 % Hang 98 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 1027 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	1C	1B	1P	1S	2	3	4	5	6	SU	U	M	U
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT													
STAIN				X		X						X	
MOUSSE													
PATTIES													
TARBALLS													
LM													
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			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒

TYPE 0

#BAGS 0

Photographs:

Roll No.

Frames

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR							PIT ZONE				A	N	A	SHEEN (Y/N)	F	SURFACE - SUBSURFACE SEDIMENTS	
		OF	OR	OL	OF	NO		UD	UC	1	2	3	4	5	6	7	8	SU	U	M							U
1	35					X	1-1		X								X				N						P, C, M
2	45					X	1-1		X									X			N						P, C, R
3	20					X	1-1		X								X				N						P, C, R
4	40					X	1-1		X								X				N						P, B
5	15					X	1-1		X								X				N	N		13			P, R

COMMENTS

REVIEWED 7W DATE 4/25/90

og K. Ramsey

SEGMENT ST. 4-5

SUBDIVISION A

DATE 4, 24 90

SURFACE MAP

CHECKLIST

- ☒ N Area
- ☒ Approx. Scale
- ☒ Beg/Sub Entry
- ☒ Oil Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HW/LWL
- ☒ SSI
- ☒ 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

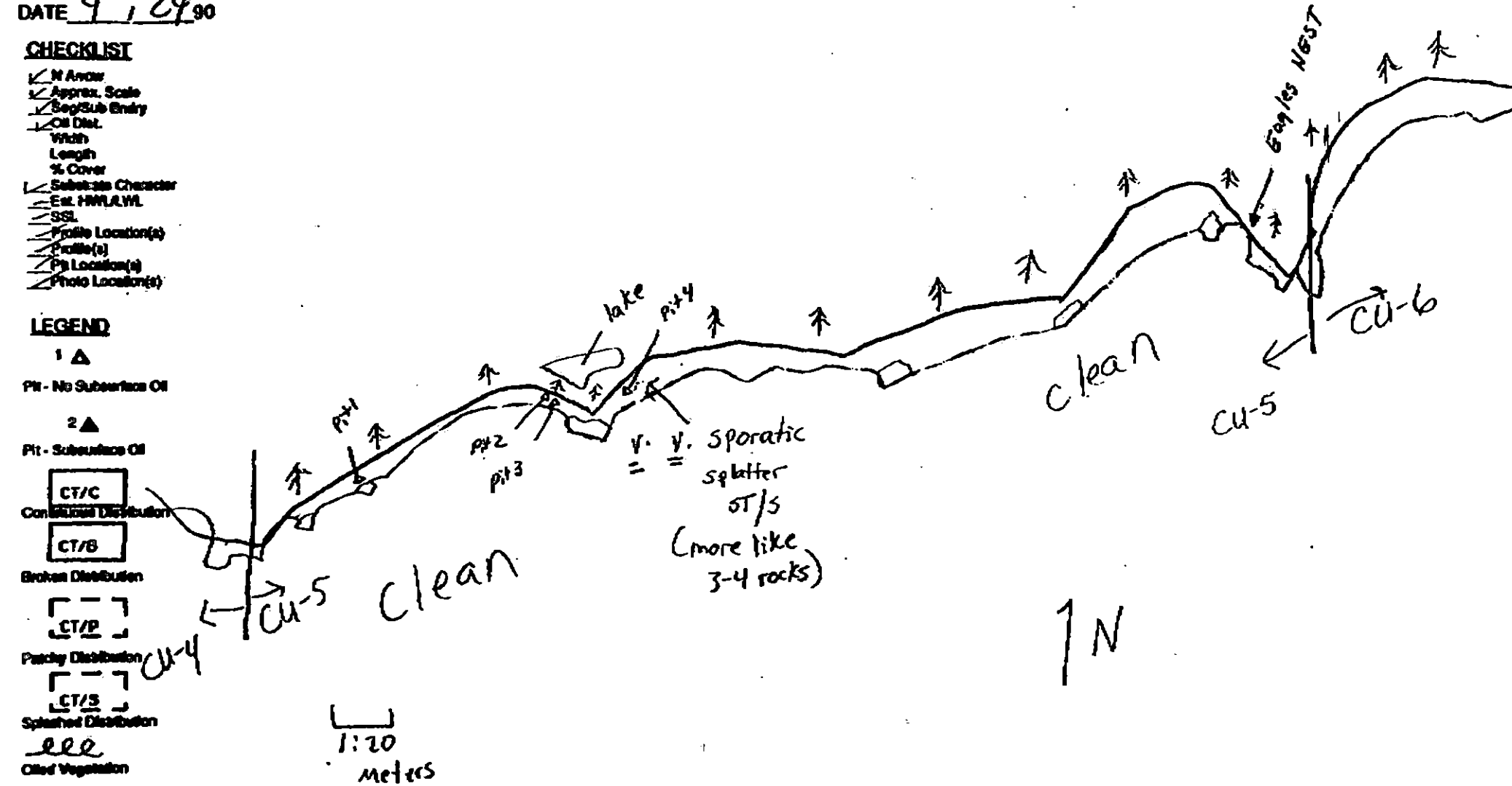
CT/B
Broken Distribution

CT/P
Patchy Distribution

CT/S
Splashed Distribution

eee
Oiled Vegetation

1 ●
Photo location, direction, and number



Oil Character Length (m): AP PO CV CT ST MS PT TB FL NO 1027

APR-24-1990 22:43 FROM NY BEULIH CANDIES TO EXXON SGT P.14

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/88

Segment ST/ CU-5 Subdivision A Date (mo / day / yr) 4-24-90
 Time (24 hr) 0854 Biologist Penn

- (A) Substrate type and % of segments:
 (1) Bedrock 3 (2) Boulder 2 (3) Cobble 45 (4) Pebble 50 (5) Sand 0 (6) Silt 0
- (B) Overall % cover of biota (% of segment): Dense 12 Moderate 12 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-4-2

Frames 17, 18, 19

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:

4 Harlequin, 20, 22

3 Seals

Ecological Considerations:

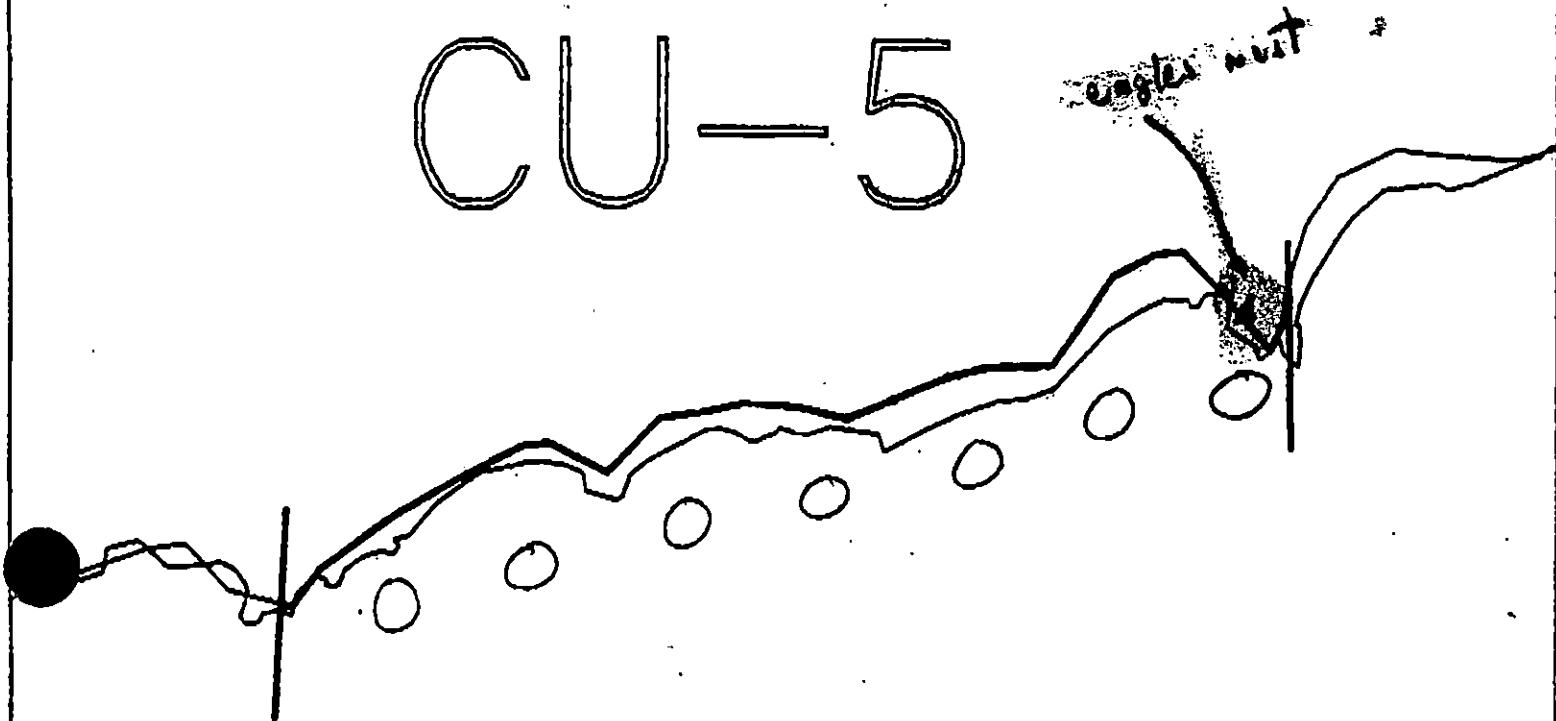
1 song sparrow
 1 Seal Haul out - offshore rock
 1 eagle nest (not on Ecology map) - see map
 Limpets unusually dense in Hite on cobble

E COLOGICAL MAP

64

CU-5

coastal wet



A F-6



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CU-5

ADEC Segment Length: 984m



Map Key: PWS-83

Name: K. RAMSEY

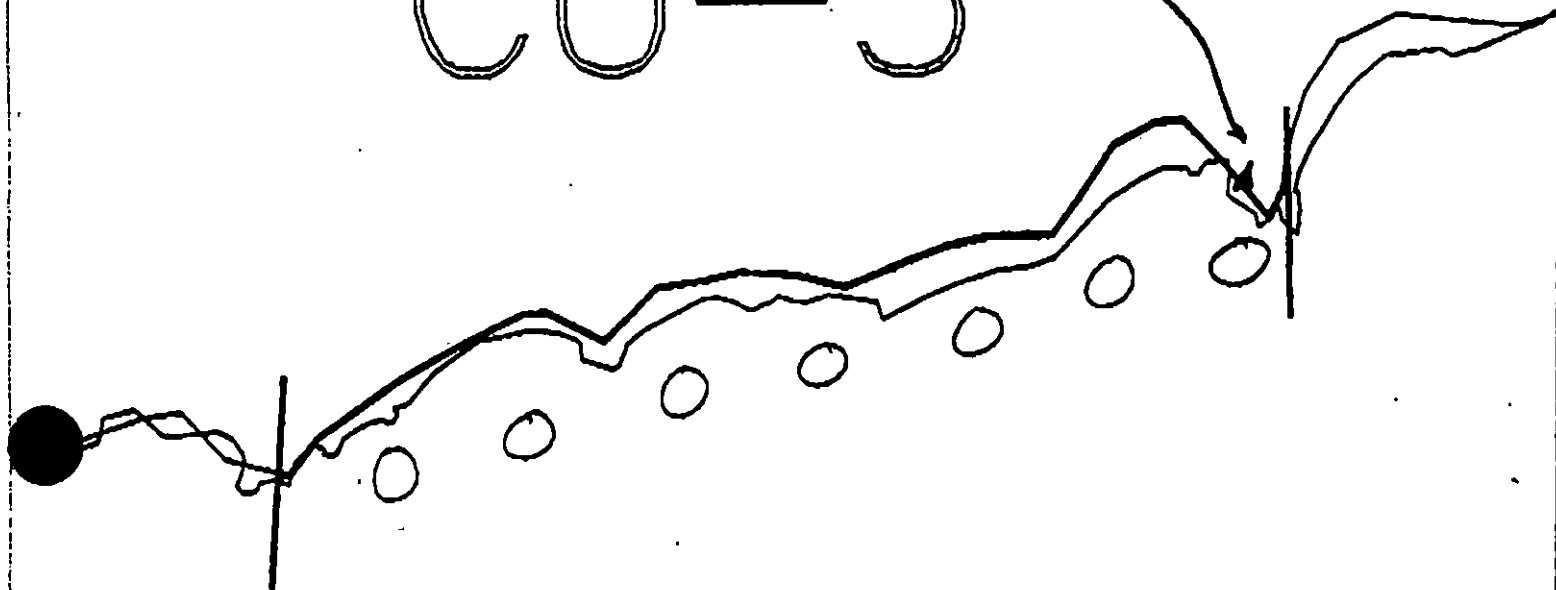
Date: 4/24/90

Data Entered:

(15)

CU-5

eagles nest



F-6



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CU-5

ADEC Segment Length: 984m



Map Key: PWS-83

Name: K. RAMSEY

Date: 4/24/90

Data Entered:

(15)

SHORELINE EVALUATION

SEGMENT ST/ CU-05 SUBDIVISION A (1 OF 1) DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1).
Biologist noted eagle nest at east end of segment.

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.

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: [Signature] DATE: 5/3/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 984 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: 5/3/90
ADEC ART WENGER Dpt Marine
EXXON ANDY TATE
NOAA GARY PETRAZ
USCG KENNETH KEANE

FOSC: [Signature] DATE: 5-8-90

OG K. Ramsey

SEGMENT STATION 5

SUBDIVISION A

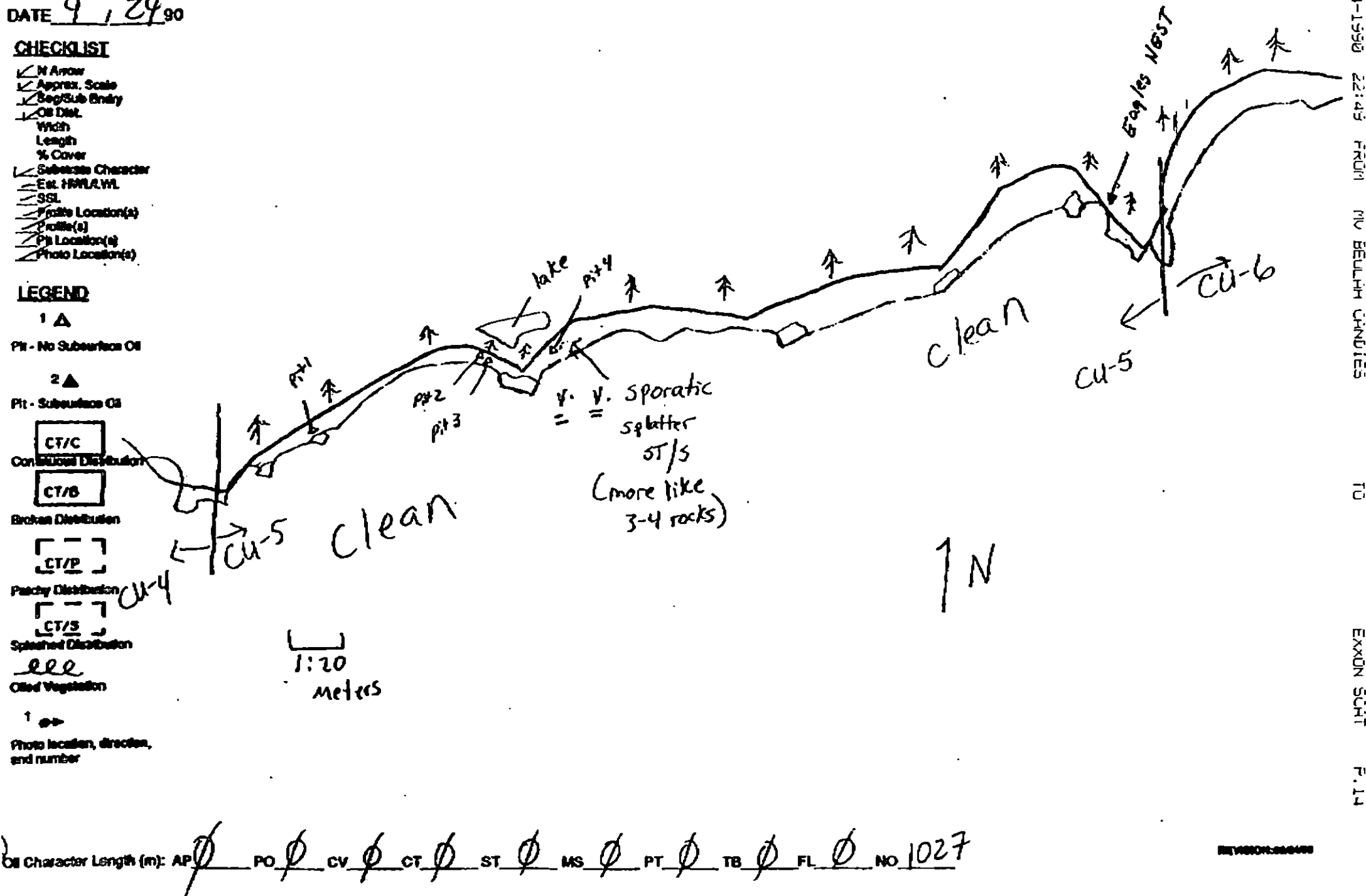
DATE 4/24/90

CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Seg/Sub Entry
- ☒ Oil Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HML/VML
- ☒ 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
- eee
Oiled Vegetation
- 1 ➡
Photo location, direction, and number



HP-24-1590 22:45 FROM NY BEULH CHINDIES TO EXXON SCHT F.14

REVISION: 000000

ECOLOGICAL MAP

64

CU-5

water nut

A F-6



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CU-5

ADEC Segment Length: 984m



Map Key: PWS-83

Name: K. RAMSEY

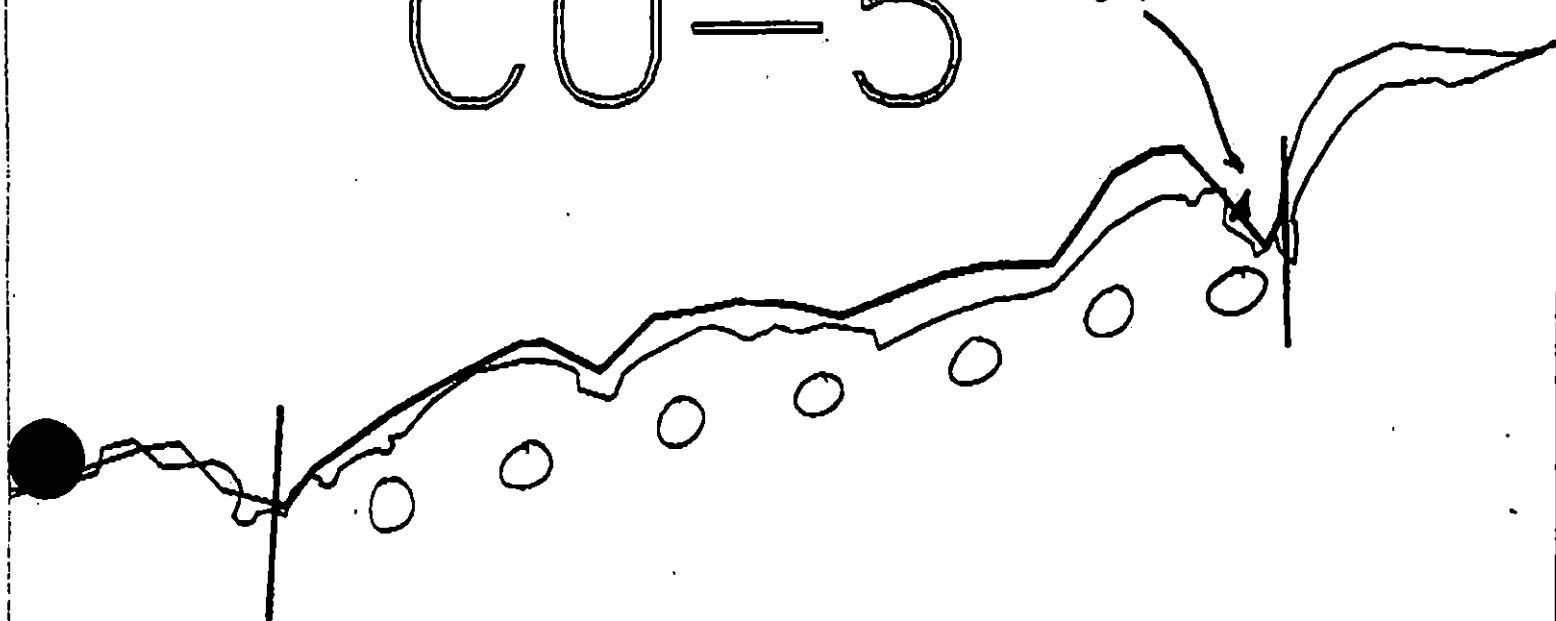
Date: 4/24/90

Data Entered:

(15)

CU-5

eagles nest



F-6



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CU-5

ADEC Segment Length: 984m



Map Key: PWS-83

Name: K. RAMSEY

Date: 4/24/90

Data Entered:

(15)

1991 MAYSAP EVALUATION

SEGMENT: CU 006 SUB: A REGION: PWS SURVEY DATE: 5/21/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) RESTRICTED 3/1 - 9/1

Ecological/Constraints (see page two for details) Eagle nest

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO Signature: _____ Date: _____

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL: _____

TAG: _____

FOSC: _____

TAG APPROVAL DATE: _____

FOSC APPROVAL DATE: _____

ADEC _____

FOSC _____

EXXON _____

USCG _____

NOAA _____

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

Eagle Nest: Access restricted from 3/1 to 9/1. USF&WS authorization required. Maintain 1000' vertical and 1/4 mile horizontal buffer.

ADEC

NAME

JEFF GUNKLAS

SIGNATURE

[Signature]

☒ NTR

My main basis for recommending no further treatment is that it appears no further environmental harm is threatened by leaving the remaining oil. The mousse referenced at CG map site C2 is sporadic, trapped in bedrock crevices, TROWEL WORK. WHEN COMBINED WITH THE TARBALLS (WELL WEATHERED) AT CG MAP C4, I DOUBT WHETHER TWO OED BAGS WOULD BE FILLED. WHEN CONSIDERING THE REMAINING OIL FROM AN ENVIRONMENTAL AND COST EFFECTIVE STANDPOINT, TREATMENT DOES NOT SEEM NECESSARY. HOWEVER, FROM A TREATMENT STANDPOINT, THE OIL (MOUSSE/ASPHALT) IS READILY APPARENT, VISUALLY UNAPPEALING AND EASILY ACCESSIBLE AND RETRIEVABLE. THE ONLY PROBLEM IS THERE IS NOT MUCH OIL. IF TREATMENT OCCURS, AM ADVISED, PER USFWS, THAT NO THREAT TO YOUNG EAGLES AFTER FLEDGLING STAGE

EXXON

NAME

LARRY D. OLSON

SIGNATURE

[Signature]

☒ NTR

Site C on sketch map should be left to weather and deteriorate naturally. Remainder of segment surveyed indicated no retrievable oil.

LANDMANAGER

NAME

MARSHA HALL OF DNR

SIGNATURE

[Signature]

☒ NTR

☒ TREATMENT

WE picked up a good deal of the oil at area B. Area C2, C4 would require treatment only due to the number of people in the area. All is fairly weathered with the exception of the mousse. The mousse is fairly scarce, but could pose problems if someone stumbles across it.

USCG/NOAA

NAME

SCHULTZ / Childs

SIGNATURE

[Signature]

☒ NTR

NO RETRIEVABLE OIL REMAINS. NO FURTHER INTRUSION IS WARRANTED

Bed Rock outcrop section w/ BEACHES COMPOSED OF PEGS & (GSSB) - E'ly. END OF SEGMENT CONTAINS 2 ROCK BENCH w/ OVERLYING ROCK DEBRIS (GSSB) MISTB ON THIS ROCK POINT (C1-C5) WERE IN SHELTERED CRACKS & CREVICES BEHIND SIDEWALL CIB. FINE ROCK (PEG) WERE FOUND TOGETHER BY THE TAR. PUT BY TEAM IN B, C1 & C3.

TEAM NO. 1 MAYSAP SHORELINE OILING SUMMARY PAGE 1 OF 1
 OG GT. MACDONALD BIO M. FAWCETT SEGMENT CU-6
 ADEC J. GINALIAS LANDMANAGER M. HALL for DNR SUBDIVISION A
 EXXON R. BOYER USCG/NOAA SCHULTZ/CHILDS DATE 5 / 21 / 91

TIME 11 : 00 to 11 : 30, $\frac{5}{2}$ ' TIDE LEVEL 5.5 ft. to +4.8 ft. ENERGY LEVEL: ☐ H ☒ M ☐

SURVEYED FROM: ☒ FOOT ☐ BOAT ☐ HELO WEATHER: ☒ SUN ☐ CLOUDS ☐ FOG ☐ RAIN ☐ SNOW

TOTAL LENGTH SHORELINE SURVEYED: 1,120 m NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONE

EST. OIL CATEGORY LENGTH: W - m M - m N 52 m VL 93 m NO 975 m US - m

L O C	SURFACE OIL CHARACTER										SURFACE SEDIMENT TYPE	SHORE SLOPE VHML	AREA		ZONE				NOTES
	AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO			WIDTH m	LENGTH m	S	UI	MI	LI	
A						P	P	P			PCR	M	2	2	X				
B		T									R	H	3	3		X			
C1						S					RCB	M	<0.5	5		X			
C2		S									R	L	5	5		X			
C3					P	P					RCB	M	<0.5	30	X	X			
C4			S								CBG	L	3	20	X				= 30 cm dia.
C5						T							<1	70		X			

DISTRIBUTION: C = 91-100%; B = 51-90%; P = 11-50%; S = 1-10%; T = <1%

SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE

PHOTO ROLL # MAYSAP-

1 28

2 FRAMES 17-2

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE				SURFACE- SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO					S	UI	MI	LI		
1	20							X	-		-			X			P-PGC	

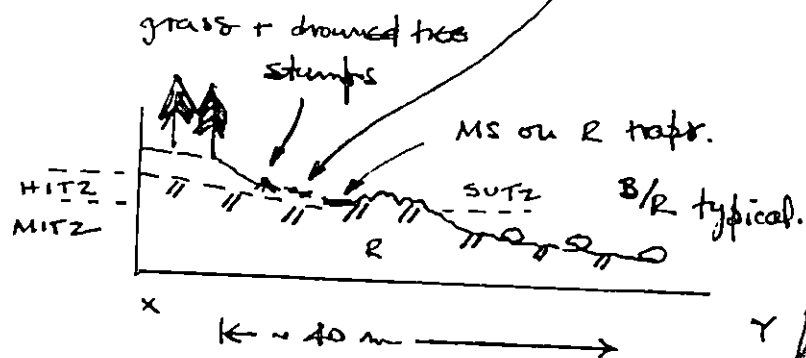
SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

OG COMMENTS: Rugged rocky shore w/ hi angle PC pockets for most of the segment; A broad rock headland w/ CB veneer has remnant patches binding granules @ SWTZ. The patches are part of an oiled band, including MS/E on bedrock, lessening in impact from a prominent outcrop to the NE. The MS/E are easily accessible. There is no subsurface oil here.

REVISED: C.W. 5/23/91 1

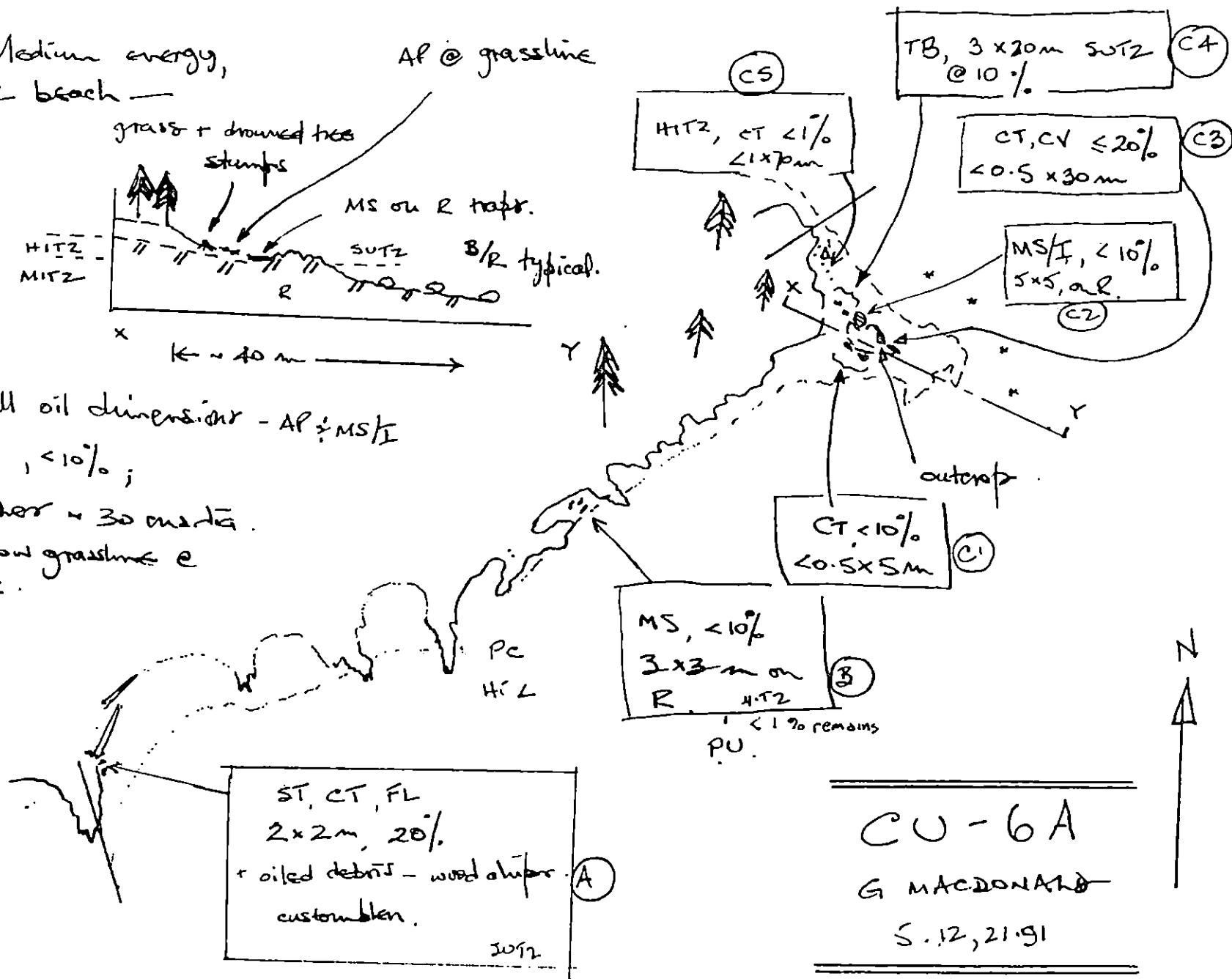
Medium energy,
low L beach —

AP @ grassline



overall oil dimension - AP & MS/I
 $\sim 5 \times 60$, $< 10\%$;

AP patches ~ 30 m² or less.
 at $\frac{1}{2}$ below grassline &
 SUTZ.



CU-6A

G MACDONALD

S. 12, 21.91

TEAM # 1 DATE 5/12, 5/21/91
 SEGMENT # CU 006 TIDAL HEIGHT (Range) +1.9 to +5.8 ft MLLW
 SUBDIVISION A BIOLOGIST Michael Fawcett
 SEA STATE 1/2 ft WIND SPEED/DIRECTION NE 0-5
 PHOTOGRAPHS: ROLL # _____ FRAME # _____

COMMENTS/OBSERVATIONS (to be completed in oiled subdivisions only):

This subdivision was surveyed on two days, because discovery of active eagle nest on May 12 resulted in aborted survey near north end of subdivision. Returned May 21 with USFWS rep. Doug Stine monitoring. The northern end of subdivision near the eagle nest has a series of low bedrock outcrops & platform with intermittent pebble/cobble channels and pools. The residual oil in this area is concentrated in a UTZ-SUTZ P/C/B area in lee of an outcrop rising to about +16 ft MLLW. The southern half of the subdivision has some rugged, steep bedrock shoreline and several small beaches of mixed sediments, and some low bedrock reefs at various angles to the shore. See sketch map for descriptions of biota near oiled sites.

The May 21 survey was accomplished by a small shore party working quietly. One eagle sat in a tree near the nest watching us, and vocalized briefly as we were departing, but never flew.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	2 (at nest)	salmon fry
Seabirds	1 (pigeon guillemot)	1	tide pool sculpin
Waterfowl	1 (harlequin duck)	5	black prickleback
Gulls/kittiwakes	1 (G-w gull)	2	
Shorebirds	1 (bl. oystercatcher)	2	
Corvids	1 (crow)	1	
Other Birds	1 (arctic tern)	1	

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters			
Pinnipeds (specify)	2 harbor seals		
Whales (specify)			

Shoreline subdivision map showing important biological features attached.

Rev 4 5/23/91

1715 site E (pecked cone)

3/4 mile west of D -

5-6 terns feeding

3-4 Mergansers

Small, depart 1720,

head for CD-6

CP-1
Continued
12 May

Fawcett

12 May 91

Arrive CU-6 1735 hrs, at
and near eagle nest - (marked
inactive)

Saw eagle pick up red
snapper in water and fly up

to nest - 1st skiff already

landed ~ 150 m from nest, we

skirted around it & had

the crew ashore picked up from

other side of spit - eagle

sitting in nest, not disturbed

for a while, then left nest

10 minutes later, flew out on

water & picked something else up

Then returned to nest, while rather

- site B (500 yards ^{flew off}

south of eagle nest) - pecked

up mouse in SUTZ

no birds nearby except some *N. parsoni*

c/b on top of bedrock -

patchy dense *Fucus* on BR

about 5 m away, with more
dense (also dense barnacles & mussels
further away & down shore ~ 15 m

- pair of oystercatchers feeding
near eagle nest

- salmon fry in water, ^{about 2 cm} also *typhlops*

1825 - Rugged BR platform

South of pecked-up-mouse

area - large tide pools in T2 &

UT2 - very dense mussels, barnacles -

- many spat & 2-3 mm mussels

poorly upright & encrusted by

crallines, sculpens, limpets

Littorina, anemones, old

B. canotus, *Scytosipon*,

Rhodoba, barnacles, *Ulva*,

Katherina, *Halosaccus*, or *Peloreus*,

Tunicella, mussels, *Nucella*,

- small stream cuts through a

channel in BR

1835 Finish segment

CU 6A - (return) 5/21/91. Fairly

- appeared from North w/

Doug Stone Monobong 1100 hrs

- 5 Herring - moderate asphy

- 1 cross

1 eagle, in tree at point

CT/SOR in BC spot leading

out to outcrop - mostly SUTZ

N. T. 10-12 ft - amphipods

of all, lichen, in other b/c

in lee side of BR, goes

down to HTZ, + 8 ft, upper

edge of littorals, limp, Fucus, barn

- dense, rockweed + littorals,

+ tidepools on downshore from

BR - Enter, Urosalpinx, Rhod,

Litt, mussels, limp, scallops,

Scyto in pools

- downshore from oil in BC spot

are Litt, limp, sparse barn

beginning 5m distance - intertidal

(mussels 10m distance -

further down (+6-8 ft) dense

spot, mod patch Fucus, dense

Litt + eggs, peckbacks, left

CU 6A (cont)

Tr CT on wall of BR when

we landed ship - no birds

SUTZ, visible at ~~below~~ below

- eagle remained in tree during

Survey, watching as - vocalizing

as we left

2 warblers, shags

2 BV gulls on beach

- many salmon fr.

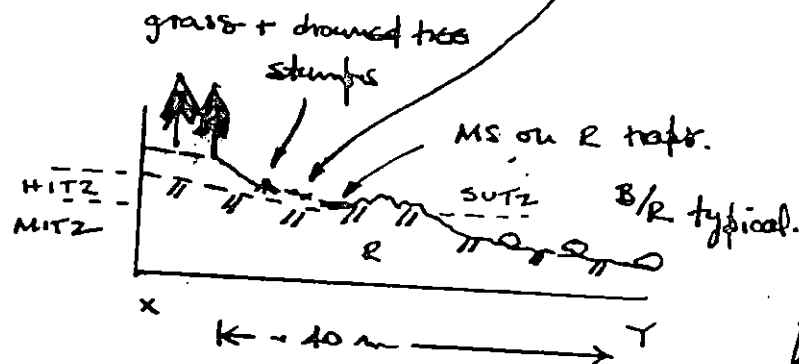
finished 1130

1 tosh

1 P.G.

Medium energy,
low L beach —

AF @ grassline



(C5)
Traces LT on BR
Wall, no biota near
or below (loose pebbles
below)

SUTZ; terrestrial grass,
lichen, amphipods only biota
near TB

(C3)
CT/CV among or above
sparse barnacles

(C2)
MS + BFT in upper edge
of rockweed, barnacles,
limpets, littorinids,
tidepools 3m down shore

2 oyster catchers

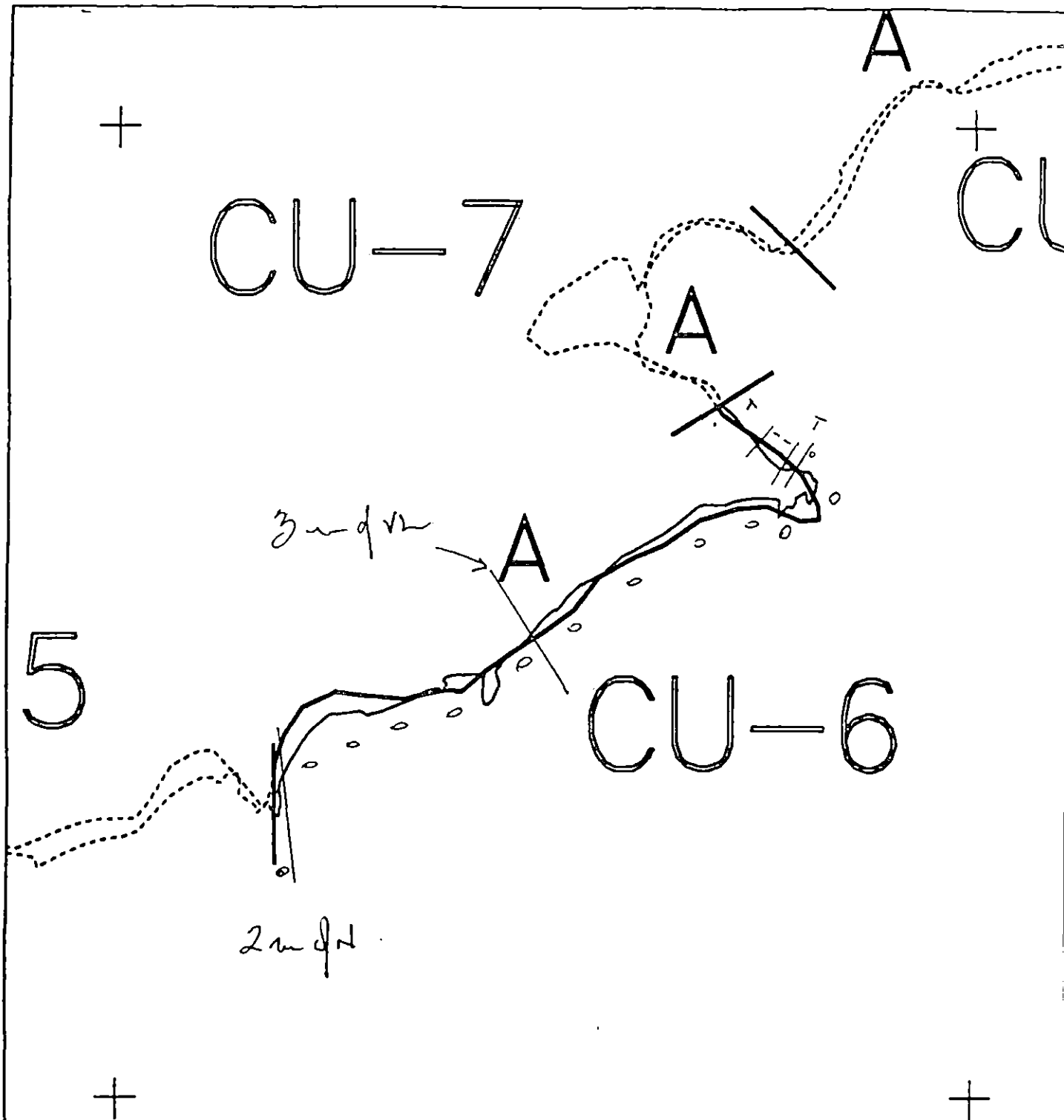
outcrop

(C4)
MS in UTZ-SUTZ --- no biota
nearby except sparse limpets
(*Notoacmea personata*); patchy
rockweed 5m away, dense
rockweed, barnacles, mussels
15m down shore

(A)
no biota near ST/CT/F
in SUTZ

CU-6A
Bio Sketch Map
M. Fawcett
May 12, 21, 1991





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

CU006 A
 ADEC Subsegment Length: 1121m
 METERS
 0 200 400
 AK State Plane Zone 4
 psu006a



Subdivision Field Map
 Map Key: PWSCU006A
 Name: GM
 Date: 5.21.91
 Date Entered:

REVIEWED: F.W. 5/23/91

1991 MAYSAP EVALUATION

SEGMENT: CU 006 SUB: A REGION: PWS SURVEY DATE: 5/21/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) RESTRICTED 3/1 - 9/1

Ecological/Constraints (see page two for details) Eagle nest

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO Signature: Timothy Smith Date: 5/31/91

RECOMMENDATIONS:

	INITIAL	TAG	FOSC
TREATMENT REQUIRED (Y or N)	<u>N</u>	<u>N</u>	<u>N</u>
Manual Pickup (Check as Req.)	<u> </u>	<u> </u>	<u> </u>
Spot Washing	<u> </u>	<u> </u>	<u> </u>
Bio-Customblen Only	<u> </u>	<u> </u>	<u> </u>
Bio-Inipol/Customblen	<u> </u>	<u> </u>	<u> </u>
Other	<u> </u>	<u> </u>	<u> </u>
Other	<u> </u>	<u> </u>	<u> </u>

COMMENTS:

INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE: MAY 31 1991

FOSC APPROVAL DATE: 6/5/91

ADEC [Signature]

FOSC [Signature]

EXXON [Signature]

E. E. PAGE, CDR, USCG
CHIEF OF STAFF, FOSC

USCG [Signature]

NOAA [Signature]

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

Eagle Nest: Access restricted from 3/1 to 9/1. USF&WS
authorization required. Maintain 1000' vertical and 1/4 mile
horizontal buffer.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 1 SEGMENT CH 6 SUBDIVISION A DATE 5/21/91

ADEC

Jeff Gunklas

SIGNATURE

[Signature]



NTR

My main basis for recommending no further treatment is that it appears no further environmental harm is threatened by leaving the remaining oil. The mouse referenced at OG map site C2 is sporadic, trapped in bedrock crevices, towel work. When combined with the tarballs (well weathered) at OG map C4, I doubt whether two OED bags would be filled. When considering the remaining oil from an environmental and cost effective standpoint, treatment does not seem necessary. However, from a treatment standpoint, the oil (mouse/asphalt) is readily apparent, visually unappealing, and easily accessible and recoverable. The only problem is there is not much oil. If treatment occurs, am advised, per USFWS, that no threat to young eagles after fledgling stage.

EXXON

NAME LARRY D. OLSON

SIGNATURE

[Signature]



NTR

Site C on sketch map should be left to weather and deteriorate naturally. Remainder of segment surveyed indicated no retrievable oil.

LANDMANAGER

NAME MARSHA HALL OF DNR

SIGNATURE

[Signature]



NTR

☒ TREATMENT

WE picked up a good deal of the oil at area B. Area C2, C4 would require treatment only due to the number of people in the area. All is fairly weathered with the exception of the mouse. The mouse is fairly scarce, but could pose problems if someone stumbles across it.

USCG/NOAA

NAME SCHULTZ / CHILDS

SIGNATURE

[Signature]



NTR

NO RETRIEVABLE OIL REMAINS. NO FURTHER INTRUSION IS WARRANTED

Bed Rock outcrop section w/ beaches composed of pebbles & cobble -
 END OF SEGMENT CONTAINS 2 ROCK BENCH w/ OVERLYING ROCK DEBRIS (40)
 TB ON THIS ROCK POINT (C1-C5) WERE IN SHELTERED CRACKS & CREVICES BEHIND
 C.B. FINE ROCK (P&G) WERE BOUND TOGETHER BY THE TAR. RUN BY
 TEAM IN B, C1 & C3.

PAGE 1 OF 1

SEGMENT CU-6

SUBDIVISION A

DATE 5 / ¹²21 / 91

EST. OIL CATEGORY LENGTH: W m M m N 52 m VL 93 m NO 975 m US m

DISTRIBUTION: C = 91-100%; B = 51-90%; P = 11-50%; S = 1-10%; T = <1%
 SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE

PHOTO ROLL #	MAYSAP	1	28	2
		-	20	FRAMES 17-21

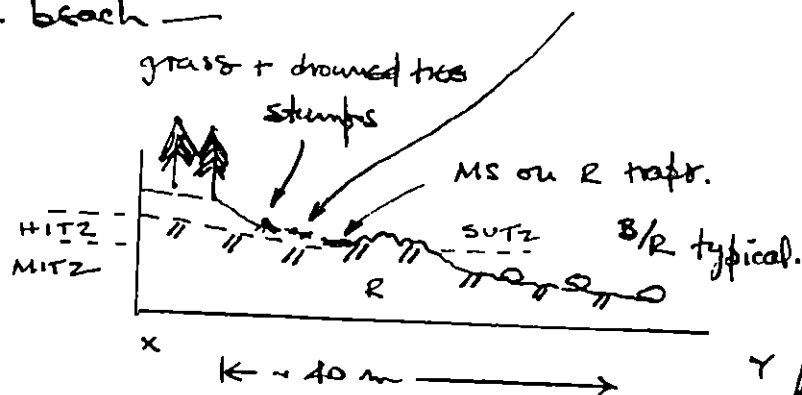
SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

OG COMMENTS: Rugged rocky shore w/ hi angle PC pockets for most of the segment; A broad rock headland w/ CB veneer has remnant patches binding granules @ SWTZ. The patches are part of an oiled sand, including MS/I in bedrock, lessening in impact from a prominent outcrop to the NE. The MS & PT are easily accessible. There is no subsurface oil here.

REVISED: F.W. 5/23/91

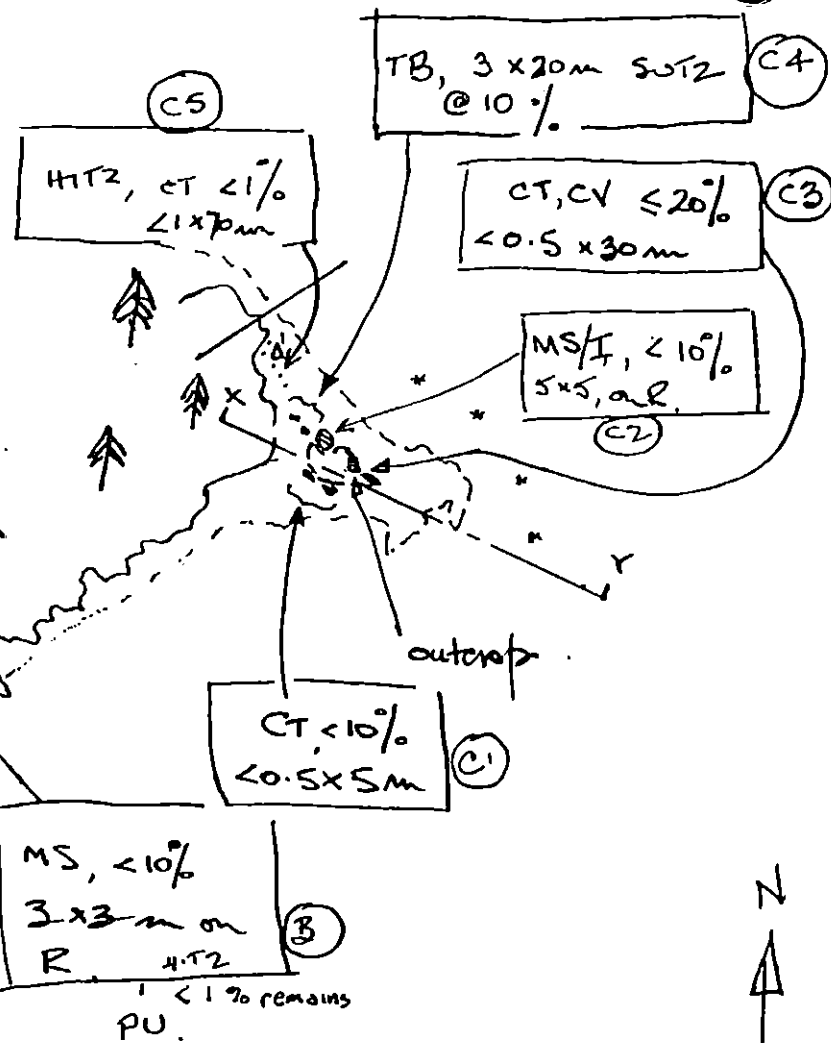
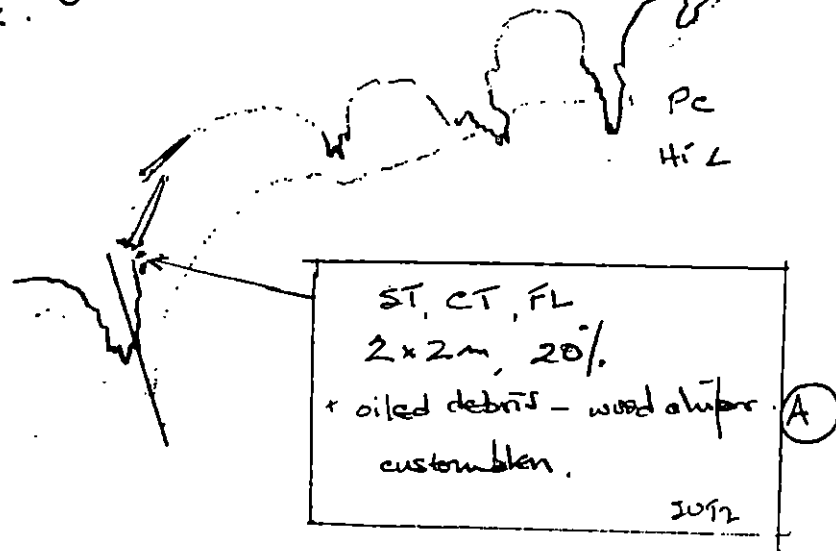
Medium energy,
low L beach —

AP @ grassline



overall oil dimensions - AP & MS/I
~ 5x60, <10%;

AP patches ~ 30 m apart
at 1/2 below grassline @
SUTZ.



CU-6A

G MACDONALD

S. 12, 21.91

0 120m

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM #

1

DATE

5/12, 5/21/91

SEGMENT #

CU 006

TIDAL HEIGHT (Range)

+1.9 to +5.8 ft MLLW

SUBDIVISION

A

BIOLOGIST

Michael Fawcett

STATE

1/2 ft

WIND SPEED/DIRECTION

NE 0-5

PHOTOGRAPHS: ROLL #

FRAME #

COMMENTS/OBSERVATIONS (to be completed in oiled subdivisions only):

This subdivision was surveyed on two days, because discovery of active eagle nest on May 12 resulted in aborted survey near north end of subdivision. Returned May 21 with USFWS rep. Doug Stine monitoring. The northern end of subdivision near the eagle nest has a series of low bedrock outcrops & platforms with intermittent pebble/cobble channels and pools. The residual oil in this area is concentrated in a VTZ-SUTZ P/C/B area in lee of an outcrop rising to about +16 ft MLLW. The southern half of the subdivision has some rugged, steep bedrock shoreline and several small beaches of mixed sediments, and some low bedrock reefs at various angles to the shore. See sketch map for descriptions of biota near oiled sites.

The May 21 survey was accomplished by a small shore party working quietly. One eagle sat in a tree near the nest watching us, and vocalized briefly as we were departing, but never flew.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	2 (at nest)	salmon fry
Seabirds	1 (pigeon guillemot)	1	tide pool sculpin
Waterfowl	1 (harlequin duck)	5	black prickleback
Gulls/kittiwakes	1 (G-w gull)	2	
Shorebirds	1 (bl. oystercatcher)	2	
Corvids	1 (crow)	1	
Other Birds	1 (arctic tern)	1	

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters			
Pinnipeds (specify)	2 harbor seals		
Whales (specify)			

Shoreline subdivision map showing important biological features attached.

+

p. 1 - 1.2.91

1715 site E (pecked cone

3/4 mile west of D-

5-6 terns feeding

3-4 mergansers

Fawcett / I. much, depart 1720,

head for CU-6

CP-1
Continued
12 May

12 May 91

Arrive CU 6 1735 hrs at
and near eagle nest. - (marked inactive)

Saw eagle pick up red
snapper in water and fly up
to nest - 1st skiff already
landed ~ 150 m from nest, we
skirted around it & had

the crew ashore picked up from
other side of spit - eagle
sitting in nest not disturbed
for a while, then left nest

10 minutes later, flew out on
water & picked something up
then returned to nest, while partner

- site B (500 yards
south of eagle nest) - pecked
up mouse in SUT 2

no biota nearby except sparse *N. parsoni*
C/b on top of bedrock -
patchy dense *Fucus* on BR

about 5 m away - high rock
dense / also dense barnacles & mussels
further away & down shore ~ 15 m

- pair of oystercatchers feeding
near eagle nest

- salmon fry in water, about 2 cm
also *Pseudopleuronectes*

1825 - Rugged BR platforms

South of pecked-up-mouse

area - large tide pools in T 2 &

UT 2 - very dense mussels, barnacles -

- many spots of 2-3 mm mussels

Pools w/ upright & encrusting
corallines, sponges, limpets

Littorina, anemones, old

B. caninus, *Scytosipon*,

Rhodospira, barnacles, *Ulva*,

Katharina, *Halosaccus*, & *Peltonotus*,

Tenacella, mussels, *Nereis*,

- small stream cuts through a
channel in BR

1835 Finish segment

CU 6A - (return) 5/21/91 - Fairly

- approached from North w/
Dongshue Monobay 1100 hrs

- 5 Herring - moderate aspy
- 1 cross

1 eagle, in tree at point
CT/SOR in AC spot leading
out to outcrop - mostly SUTZ

N. T. 10-12 ft - amphipods
of abs, lichen, and other b. etc.

in lee side of BR, goes
down to HTZ, + 8 ft, upper
edge of littorals, limp, Fucus, barn

- dense rockweed + littorals,
+ tidepools on downshore from

BR - Entero, Urospora, Rhoda,

Litt, mussels, limp, scallops,

Scyto in pools

- downshore from oil in B/C spit

are Litt, limp, sparse barn

beginning 5m from shore - intertidal

(mussels 10m downshore -

further down (+6-8 ft) dense

spout, mod patch Fucus, dense

Litt + eggs, pebblebacks, left

CU 6A (cont)

Tr CT on wall of BR where
we landed ship - no birds

SUTZ, unstable A/- ~~below~~ below

- eagle remained in tree during

Survey, watching as - vocalizing

as we left

2 warbler shrike

2 BW gulls on rock

- many salmon fr.

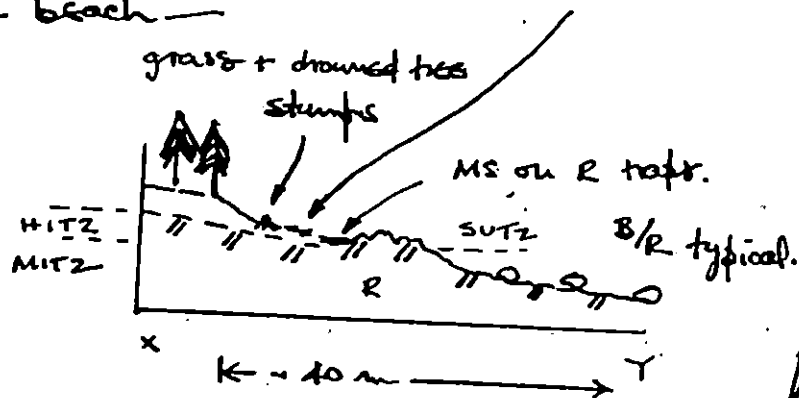
finished 1130

1 + 2 SH

1 P.G.

Medium energy,
low L beach

At @ grassline



Traces CT on BR
Wall, no biota near
or below (loose pebbles
below)

SUTZ; terrestrial grass,
lichen, amphipods only biota
near TB

CT/CV among or above
sparse barnacles

MS + 80% in upper edge
of rockweed, barnacles,
limpets, littorinids,
tidepools 3m downshore

2 oystercatchers

outcrop

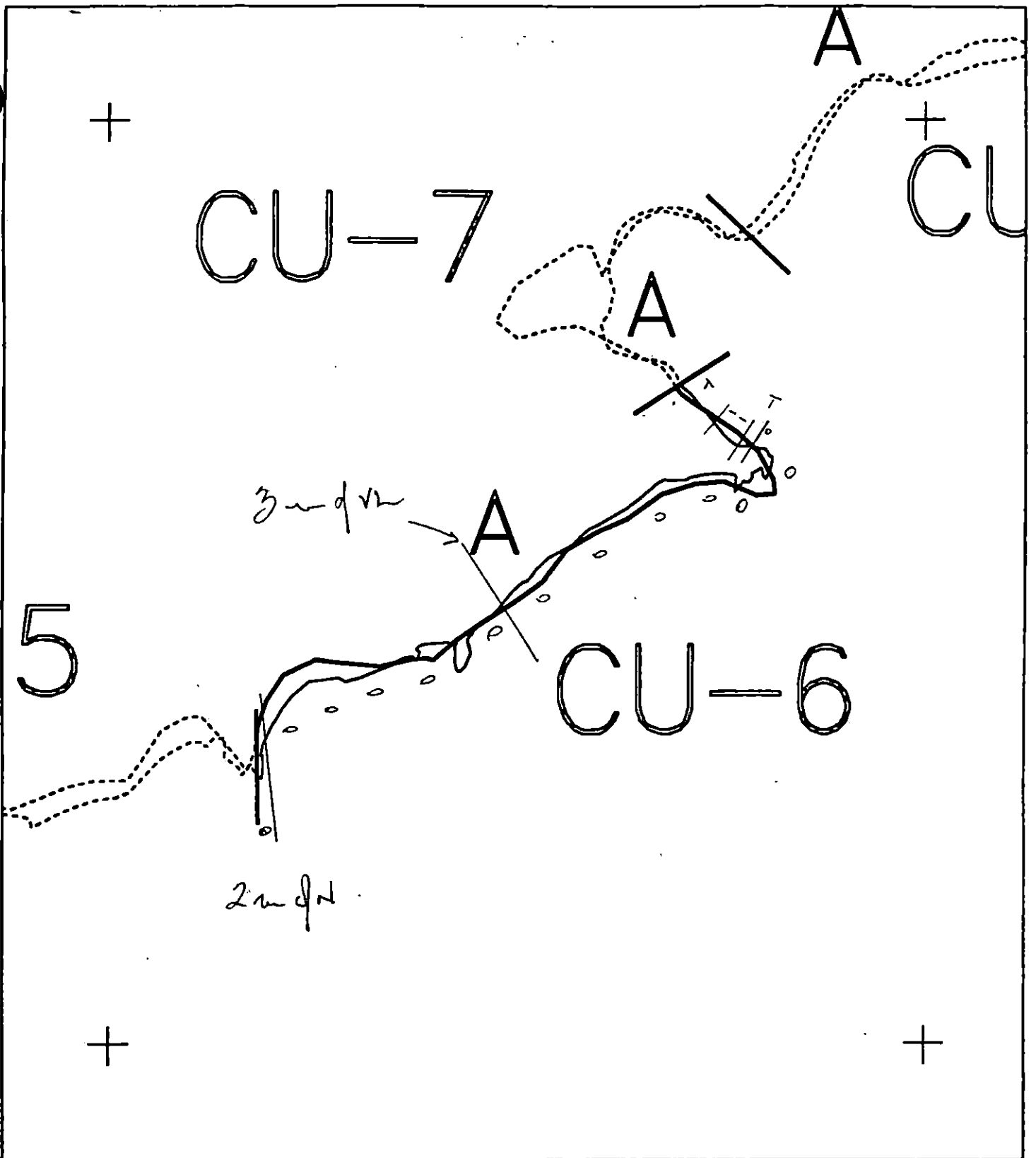
MS in VTZ-SUTZ---no biota
nearby except sparse limpets
(*Notoacmea perona*); patchy
rockweed 5m away, dense
rockweed, barnacles, mussels
15m downshore

no biota near ST/CT/FI
in SUTZ

CU-6A
Bio Sketch Map
M. Fawcett
May 12, 21, 1991

0 120m





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

CU006 A
 ADEC Subsegment Length: 1121m
 METERS
 0 200 400
 AK State Plane Zone 4
 psr006a



Subdivision Field Map
 Map Key: PWSCU006A
 Name: GM
 Date: 5-21-91
 Date Entered:

REVIEWED: F.W. 5/23/91

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/CU-06

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

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

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
One eagle nest within 400M of segment.
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.

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 148 m: No Oil 973 m
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: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / CU-06 SUBDIVISION: A DATE 4/24/90NAME SCOTT RAINSFORD SIGNATURE Scott Rainford MST1☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDADEC NAME Lori J. Stratton SIGNATURE Lori J. Stratton☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS Boulder, cobble & pebble beaches with high angle bedrock is in this segment. Oil consisted of traces of coat ^(very light distillate) splashed on boulders & bedrock. On location #3, patches of soft pavement ^{is} splashed 2-3 cm thick, along an area 60 m long and 10 m wide, UI occurring about every 3-4 meters. (Areas varied from 15-30 cm² in diameter; rainbow sheen was observed in pools of water. It is a highly recreational area; active eagle nest and seals were spotted. The oil is weathering well, indicated by dark brown to black color. A layer of peat lies directly under oil, so there is low potential for further saturation & mobility.

No treatment is recommended due to sensitivity considerations, lack of mobility ^{to the oil} and high weathering exposure to the oiled area.

LAND MANAGER

NAME U.S. Forest Service SIGNATURE (NFS) Lee Reeler☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Oil in location 3 is concern due to high recreation use at south end of Island. Biological enhancement is Recommended with treatment delayed until after potential egg hatch at nearby Eagle nest.

SHORELINE OILING SUMMARY

REVISION NO. 04/13/90

OG G. MACDONALD USCG J. RAINSFORD SEGMENT ST/ CU-6
 BIO MA. SCOTT LAND REP L. KEELER NPS SUBDIVISION A (1 OF 1)
 EXXON J. BUTLER ADEC LORI J. STRATTON TIME 16:55 to 18:00
 TEAM NO. 3 TIDE LEVEL 5.5 to 2.5 DATE 4/24/90

ST. SUBDIVISION LENGTH: 1310 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow.

LANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock

SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: W to E

SURFACE SEDIMENTS: R 20 % B 0 % C 50 % P 40 % G 10 % S 0 % M 0 % V 0 %

SLOPE: Long 70 % Hang 30 % Vert - % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High

OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 165 m NO 1135 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	10	15	10	15	10	15	10	15	10	15	10	15	SW	U	SE	U
ASPHALT PAVEMENT				X					X					X		
POOLED																
COVER																
COAT				X		X		X						X		
STAIN																
MOUSSE																
PATTIES				X				X						X		
TARBALLS																
FILM																
OIL													X	X	X	

PAVEMENT H F S 600 sq. m by 3 cm

PATTIES / TARBALLS 0 BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT			DID YOU COLLECT DEBRIS?
	SM	MD	LG	
Logs				YES ☒ NO ☐
Vegetation				
Trash				
Debris				
				TYPE <u>SWAG</u> <u>bottom</u>
				#BAGS <u>< 1</u>

Photographs:

Roll No. SI-3-3

Frames -

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR								PIT ZONE	A N A	SHEER (mm)	↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OP	NO		NO	UC	10	15	10	15	10	15	10	15					
1	30					X	- - -											X			-	P
2	28					X	- - -											X			-	G
3	15					X	- - -											X			-	BG beat.
4	25					X	- - -											X			-	C
5	20					X	- - -												X		-	CP

COMMENTS Exposed, scalloped shore w/ pebble beaches. Surface oil only as CT/S & AP/S @ HITZ, especially on rocky bluff @ NE end of segment.

NE: SW end of segment had fish oil spots @ MITZ, probably from herring processor vessel. - may attract bears.

REVIEWED 7/6 DATE 4/26/90

OG MACDONALD

SEGMENT ST/CU-6

SUBDIVISION A

DATE 4/24/90

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

$\square$ 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

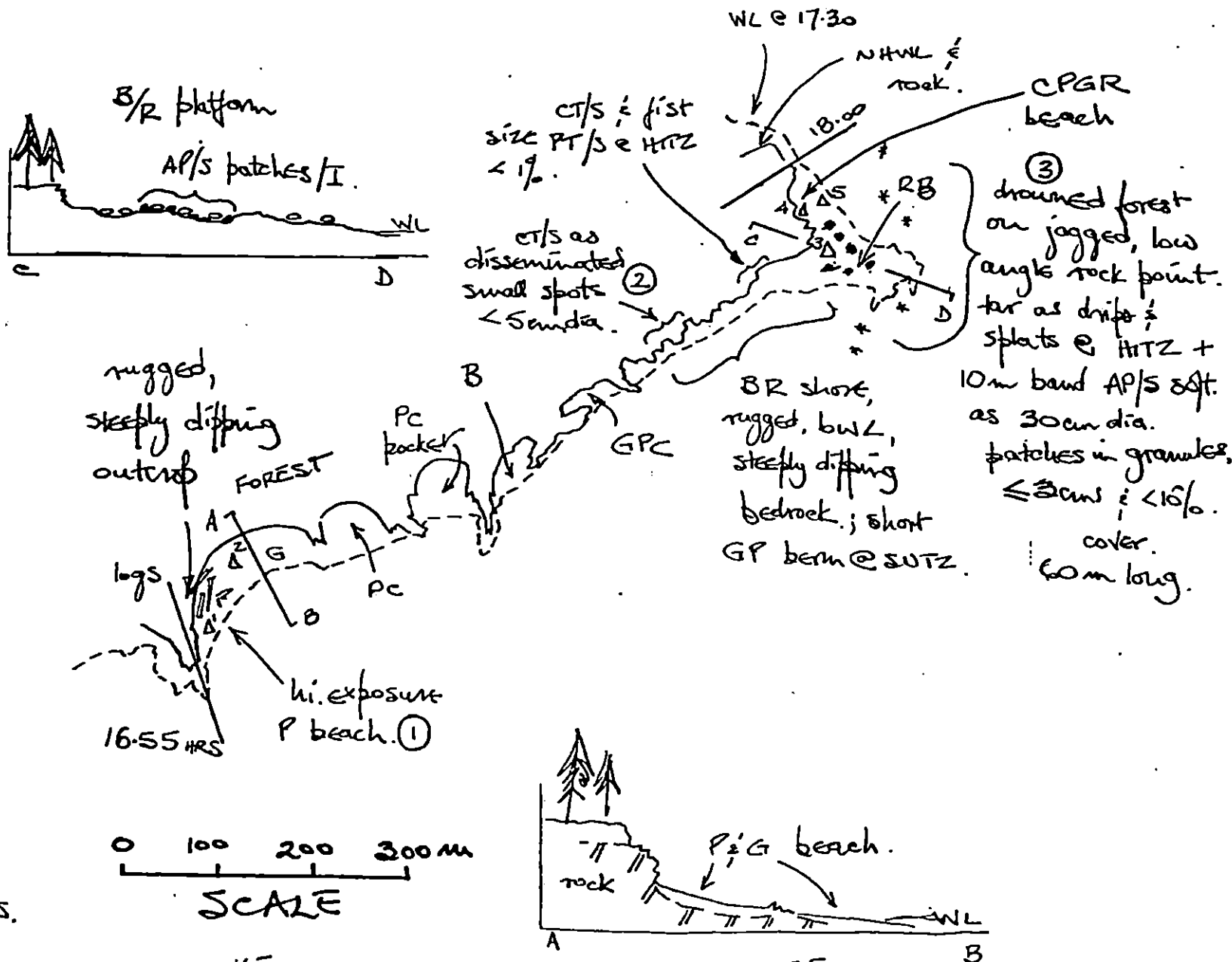
* rock

CPG grain sizes.

① DEC. LOC.

Oil Character Length (m): AP 60 PO - CV - CT 165 ST - MS - PT - TB - FL - NO 1135

SKETCH MAP



SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/25/88

Segment ST / CU-6 Subdivision A Date (mo / day / yr) 4/27/91

Time (24 hr) 1655-1800 Biologist M.A. Scott

- (A) Substrate type and % of segments:
 (1) Bedrock 20 (2) Boulder — (3) Cobble 30 (4) Pebble 50 (5) Sand — (6) Silt —
- (B) Overall % cover of biota (% of segment): Dense 10 Moderate 10 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. Ø

Frames Ø

BARNACLES

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

MYTILUS

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

GASTROPODS

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

FUCUS

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

Wildlife Observations/ General Comments: (observation boat + land)
 6 golden eyes
 5 eagles
 5 crows
 2 gulls
 rock/bldr headlands separated by cobble coves (cobble - no biota)
 deer tracks in STB

Ecological Considerations:

eagle nest - as shown on eco-map; active - adult present
 rock/bldr headlands - moderate diversity, moderate density - Fucus reproductive, barnacle
 spat common throughout, Mytilus - S+G in crevices & edges of beds, patches of
 dense beds; small tidepools on flat headland areas (diversity + density lower
 than more wa segments i.e. CU-8A, 9A)

ECCOLOGICAL MAP

CU-7

ANADZIGI HILLS
STREAM
224-30-13010

BAD
EAGLE
NESTS

CU-6

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

CU-6

ADEC Segment Length: 1121m



Map Key: PWS-84

Name: G.M

Date: 4/24/90

Date Entered:

CU-7

CU-6

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CU-6

ADEC Segment Length: 1121m



Map Key: PWS-84

Name: G.M

Date: 4/24/90

Date Entered:

SHORELINE EVALUATION

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

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
One eagle nest within 400M of segment.

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 uncoiled biota and substrate.

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: A. Vaind M. Makam DATE: 5/9/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 148 m: No Oil 973 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: 5/9/90.

ADEC	Art Weiner	Art Weiner
EXXON	Andy Teal	Andy Teal
NOAA	Burl Weirath	Burl Weirath
USCG	D. D. Rome	DD Rome

FOSC: W L DATE: 5-15-90

OG MICDONALD

SEGMENT ST/CU-6

SUBDIVISION A

DATE 4/24/90

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

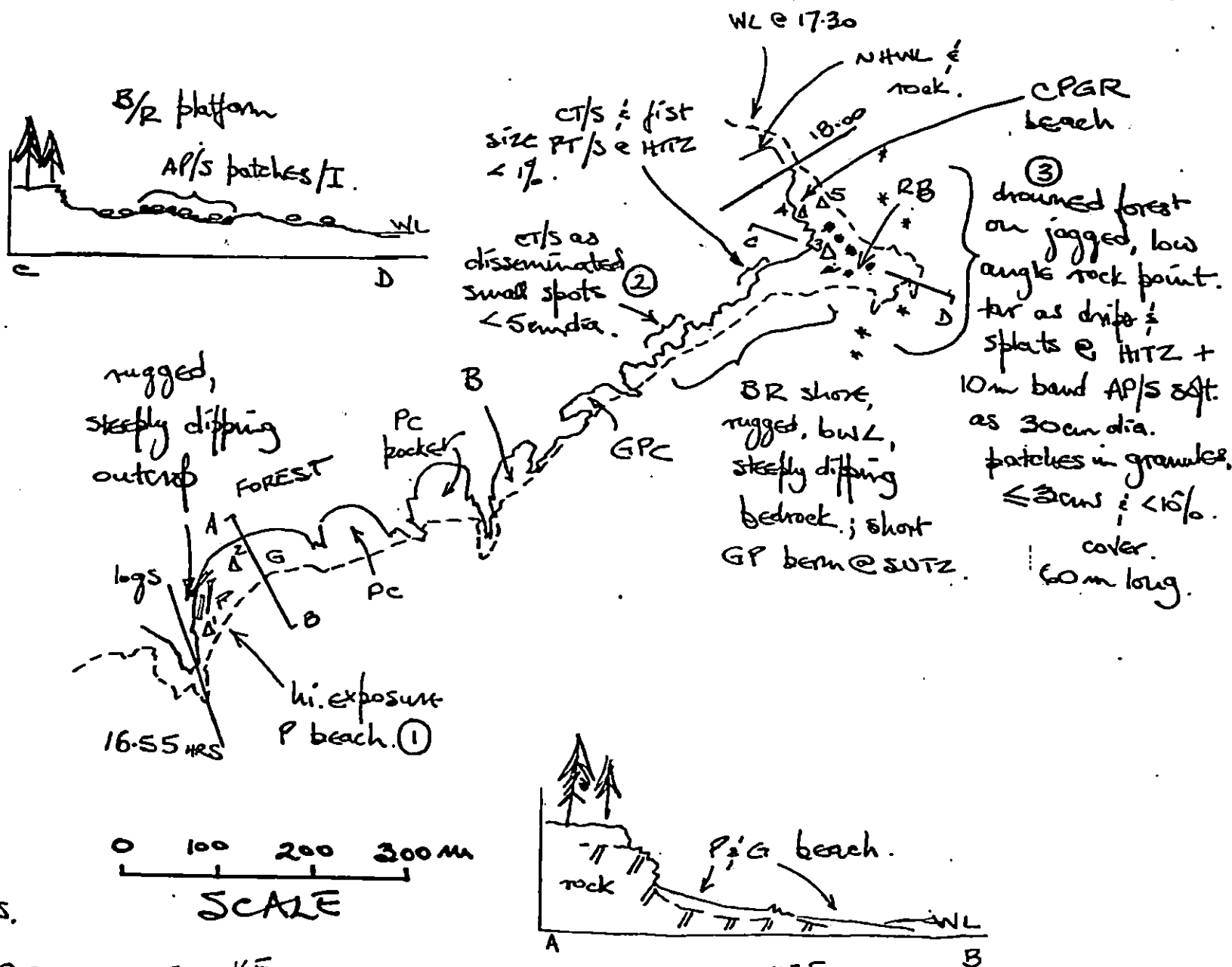
* rock

CPG grain sizes.

① DEC. LOC.

Oil Character Length (m): AP 60 PO - CV - CT 165 ST - MS - PT - TB - FL - NO 1135

SKETCH MAP



ECCOLOGICAL MAP

CU-7

ANADROMOUS
STREAM
224-20-13010

BIRD
EAGLE
NESTS

CU-6

4

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CU-6

ADEC Segment Length: 1121m



Map Key: PWS-84

Name: G.M

Date: 4/24/90

Date Entered:

CU-7

CU-6

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CU-6

ADEC Segment Length: 1121m



Map Key: PWS-84

Name: G.M

Date: 4/24/90

Date Entered:

1991 MAYSAP EVALUATION

SEGMENT: CU 007 SUB: A REGION: PWS SURVEY DATE: 5/3/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) RESTRICTED 3/1 - 9/15

Ecological/Constraints (see page two for details) Eagle nest,
Anadromous stream

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is
required prior to shoreline treatment.

SHPO Signature: Rachel Jean Dine Date: 5/14/91

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

N

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE: MAY 14 1991

FOSC APPROVAL DATE: 5/20/91

ADEC

FOSC

EXXON

E. E. PAGE, CDR, USCG
CHIEF OF STAFF, FOSC

USCG

NOAA

ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES

Eagle Nest: Access restricted from 3/1 to 9/1. USF&WS authorization required. Maintain 1000' vertical and 1/4 mile horizontal buffer.

Anadromous Stream: Unlimited treatment up to stream bank between May 15 and July 10. ADF&G approval required for work after July 10. Fish Habitat Permit required for instream work. ADF&G approval required for bioremediation within 100 meters of anadromous stream after July 10.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 1 SEGMENT CU-7 SUBDIVISION A DATE 5/3/91

ADEC

NAME

JEFF GINALIAS

SIGNATURE

☐ NTR☒ TREATMENT RECOMMENDED

ASPHALT/MOUSSE PATCH AT SITE A1 OF OG MAP. AREA IS READILY ACCESSIBLE AND OIL EASILY RECOVERABLE FROM SURFACE. OIL LOCATED UITSZ AT LOW ENERGY AREA ON BEACH, PROTECTED. DOES NOT APPEAR THAT WAVE ACTION WILL BREAKDOWN OIL SOON. TREATMENT SUGGESTED MANUAL - SMALL CREW (3-5 PERSONS) SHOULERS, TROWELS, A COUPLE HOURS). RECOMMEND TREATMENT AT MID TIDE OR JUST BEFORE, AS LONG DISTANCE FROM LOW TIDE MARK AND OIL (100 YDS). HIGHER TIDE REDUCES HUMAN IMPACT AND HAULING OF SEDIMENTS. TILTING WILL NOT REMOVE OIL AS LOW ENERGY BEACH, OIL WILL SETTLE BACK ONTO BEACH.

EXXON

NAME

FRANKA. Bai

SIGNATURE

☒ NTR

Small patches of patches observed in the back of the segment. close to a stream runoff. Recommend no action due to further intrusion of sensitive area would give no net benefit.

LANDMANAGER

NAME

MARSHA HALL

OF

DNR

SIGNATURE

☐ NTR☒ treatment

ASPHALT/MOUSSE AT AREA A1 NEEDS to be MANUALLY REMOVED. THIS IS A RECREATIONAL AREA. A SEAL WAS OBSERVED AT THE ROCKS ON THE SOUTH OF THE SEGMENT. TREATMENT METHODOLOGY AS SUGGESTED BY DEC REP. IS RIGHT ON.

USCG/NOAA

NAME

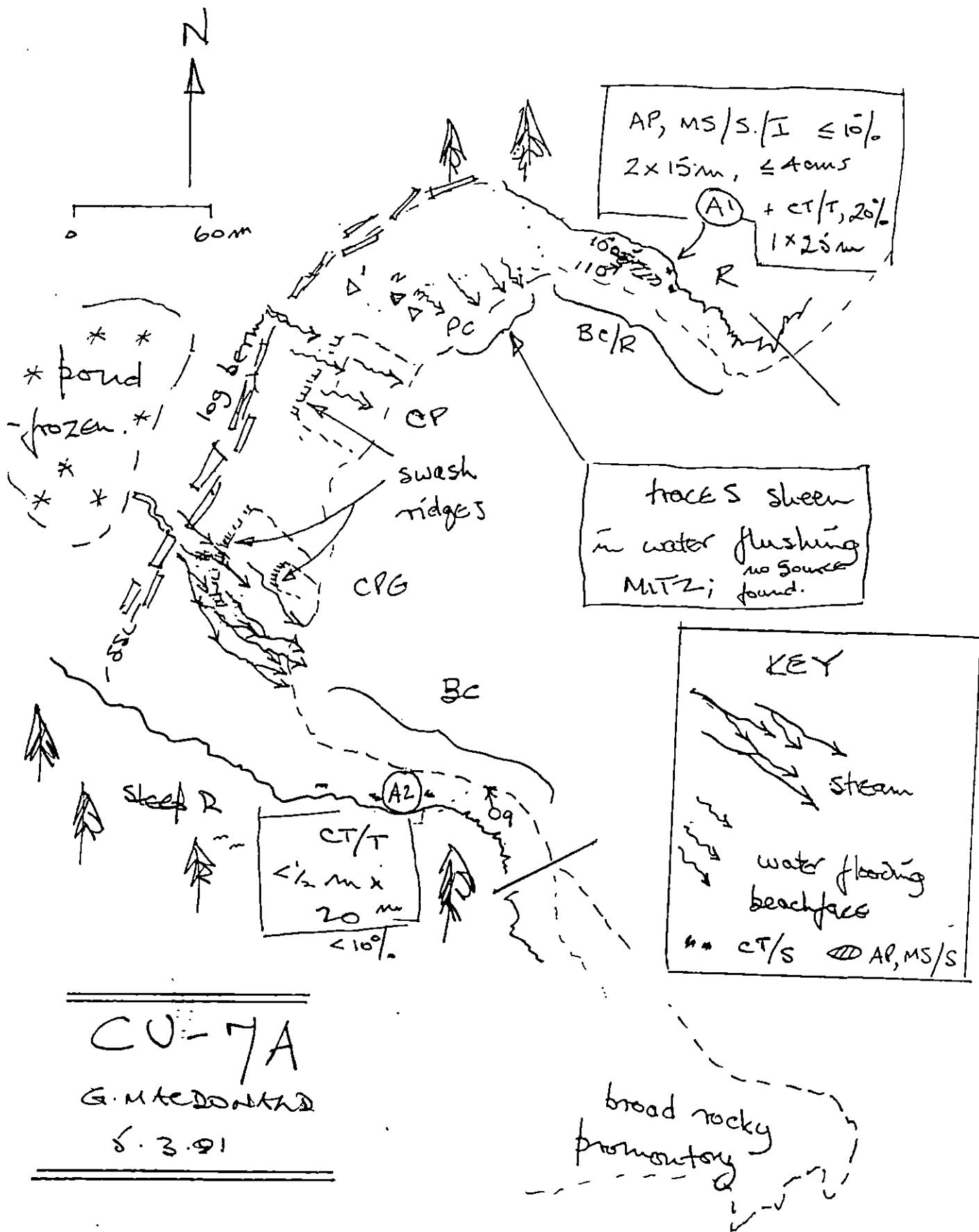
Jensen / Childs

SIGNATURE

☒ NTR

Further removal operations would cause more environmental harm than the oil to be removed

LOW ANGLE CP BEACH BOUNDED BOTH SIDES BY VERTICAL BERRY DC'S. FROZEN POND DAMMED UP BY STORM SWASH - SURFACE OIL CT & ST ALONG. PATCHING MS FOUND IN ROCKS NE'ly & SW'ly - SHEEN OBSERVED IN LI N 2/3 N'ly DIR UP BEACH FACE - NUMEROUS PITS ALONG UP DIP AREA FAILED TO DISCLOSE SOURCE OF SHEEN.



Reviewed: 5/7/91 KC
2
Reviewed: May 7

TEAM # 1

DATE 3 May 91

SEGMENT # CU 007

TIDAL HEIGHT(Range) +0.1 to +0.3 ft

SUBDIVISION A

BIOLOGIST Michael Fawcett

STATE Calm

WIND SPEED/DIRECTION NE 0-5 knots, ra

TOGRAPHS: ROLL #

FRAME #

COMMENTS/OBSERVATIONS (to be completed in oiled subdivisions only):

This protected, low energy cove has a small, deep lake in the backshore area feeding what appears to be a suitable, though small, stream for anadromous fish (pink, silver, possibly red salmon). Only traces of residual oil coat found in depauperate supra-tidal area near the stream. Patches of asphalt/mousse were found among boulders in the VTZ on the north east side of the cove, among sparse isopods (*Ligia pallasii*) and limpets (*Notoacmea personata*). A wide boulder/cobble beach extends downshore from the oiled area. Barnacles and littorinids begin to occur 6-8 m downshore from the oil, and a dense mussel bed with scattered rockweed, barnacles, *Rhodomela*, and typical cryptic species (limpets, hermit crabs, isopods, etc) occurs about 20 m downshore from the oil, at about +5 to +7 ft MLLW. Rockweed dominates the area below +5 ft.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1 (dead juvenile)	1	
Seabirds	1 (double-crested cormorant)	1	
Waterfowl	1 (Barrow's goldeneye)	4	
Gulls/Kittiwakes			
Shorebirds	1 (semi-palmated plover)	~ 20	
Corvids			
Other Birds	1 American robin	10	

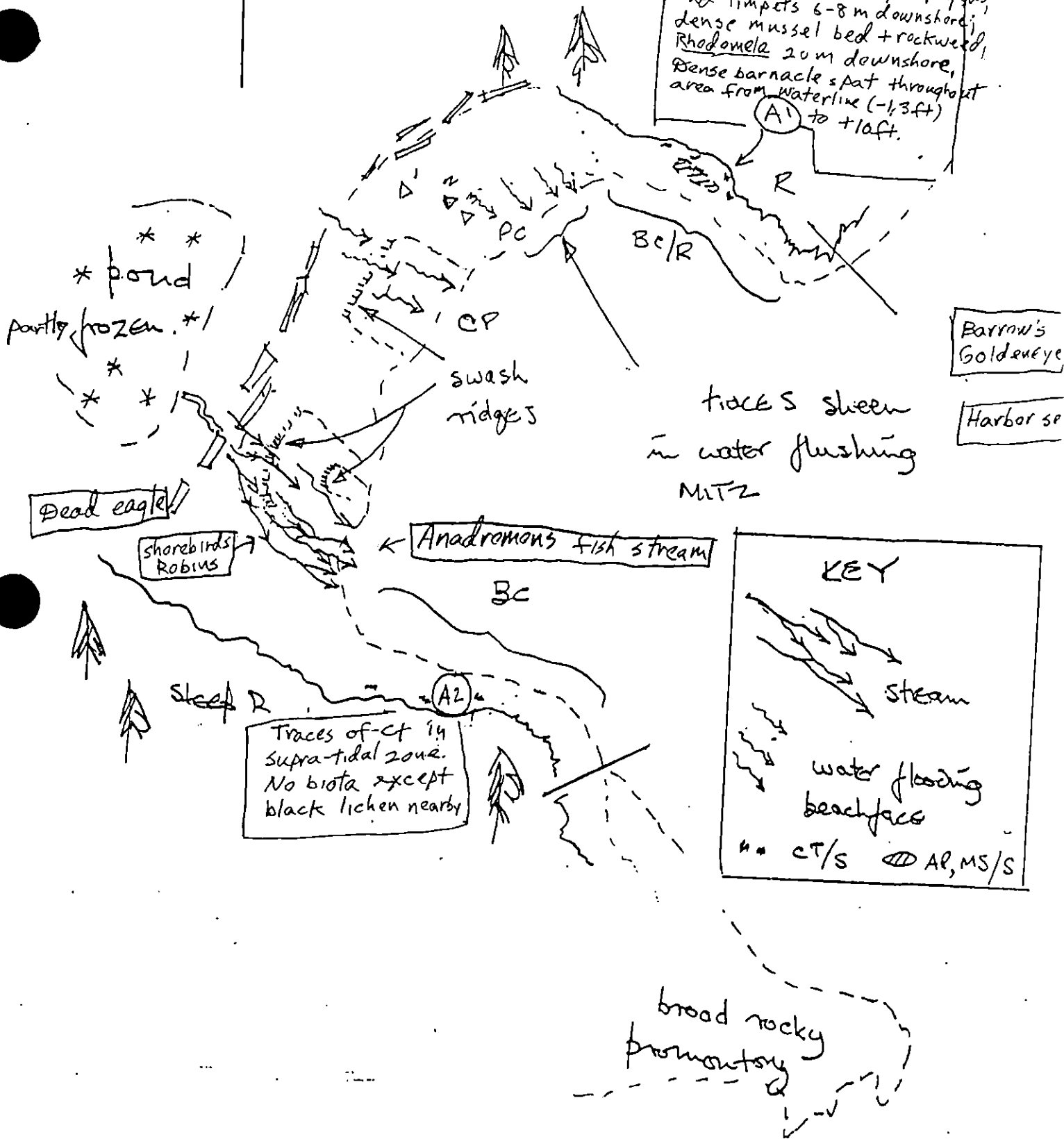
MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters		deer	bones of two deer
Pinnipeds (specify)	1 harbor seal		in backshore by lake
Whales (specify)			

Shoreline subdivision map showing important biological features attached.

 REVIEWED: 5/7/91 MC
 D. J. M. L. H.

CU 007-A
3 May 91
M.H. Fawcett

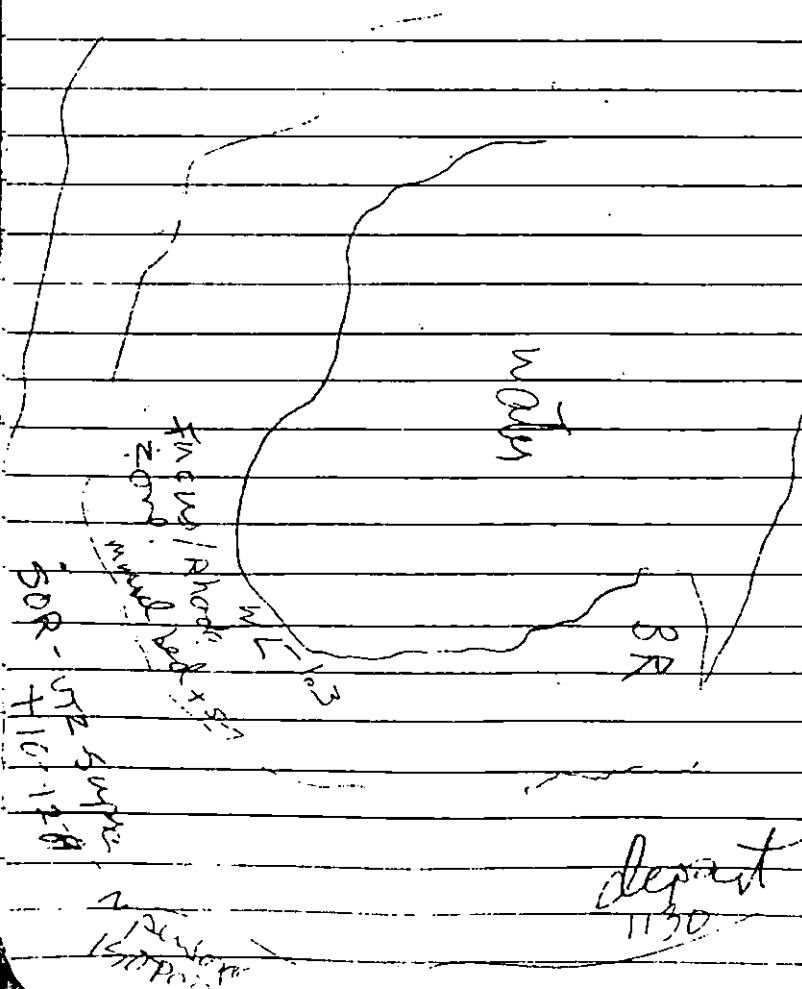
Sparse limpets and isopods beneath boulders near AP/MS. Sparse barnacles, Littorinids, amphipods and limpets 6-8 m downshore; dense mussel bed + rockweed, Rhodomele 20 m downshore. Dense barnacle spat throughout area from waterline (-1.3 ft) to +10 ft.



CU 007A 3 May 91 Fawcett

Arr 1030

• SOR on west side UTZ shale
b/c/p - scattered N. persica,
no other b/c/a except Lygia



6-8 M down shore of SOR beyond
sparse barnack, litt, amph, etc,
get more limp

- about 20 m down shore 1+7 ft
begins dense mussel bed, scattered
barn, Fucus, Rhod.

- dense Fucus from +5 down
to water at -17

- dense spat/cyprids everywhere
up to ~ +10 ft

1 harbor seal

1 dead juvenile eagle in
supra littoral log at east
end of berm blocking lake

- 2 deer carcasses in back 5/10.

- stream looks like good
but small, anal stream
for pink, silver, possibly
reds

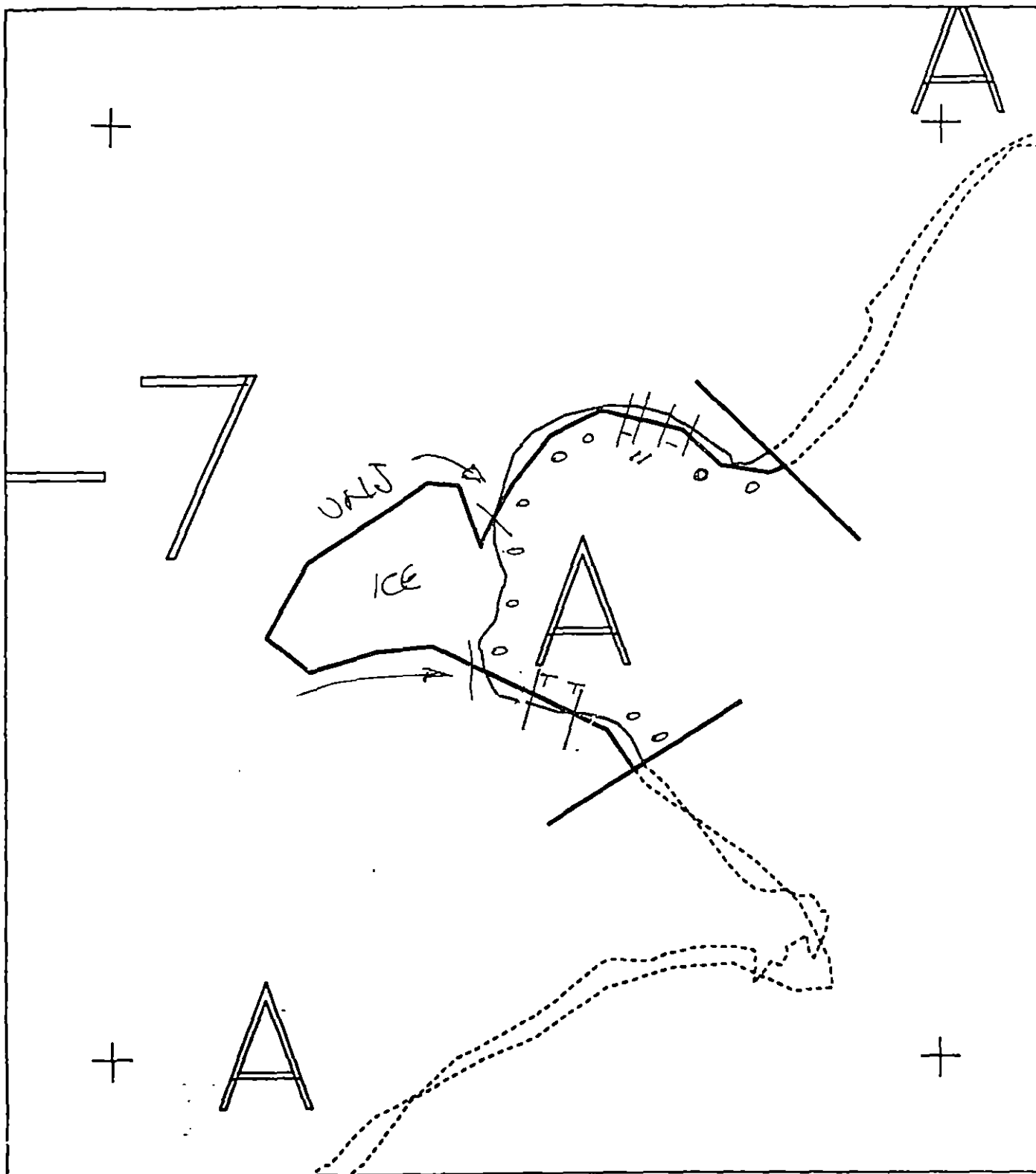
- shorebirds ~ 20 (semi-palmated plover)
birds w/ white callus initially
than N. deer

- 10 robins

- 1 double-crested cormorant

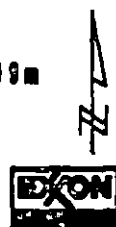
- 4 scowls, Barrow's gulls, etc.

- no birds near ST 5. 5/10.



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

CU007 A
 ADEC Subsegment Length: 809m
 METERS
 0 100 200
 AK State Plane Zone 4
 psu007a



Subdivision Field Map
 Map Key: PWSCU007A
 Name: GM
 Date: 5.3.91
 Data Entered:

Reviewed 5/7/91 MC

ANADROMOUS FISH STREAM ASSESSMENT

REGION: PRINCE WILLIAM SOUND

SEGMENT: CU-07

STREAM NO: 224-20-13010

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ CU-07 STREAM NO: 224-20-13010 DATE 4/26/90

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 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
Eagle nest within 400 M of subject segment.
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 uncoiled biota and substrate. Subject stream is located within Subdivision A (1 of 1).

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: _____ DATE: _____

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: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream 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 267-2208
- 5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (6/1 to 9/15)
6V Anchorages (6/1 to 9/15)
6W Forest Service cabins (6/1 to 9/15)
6X Lodge (6/1 to 9/15)
6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
7H Finfish harvesting
Deer harvesting (8/15 to 2/28)
Invertebrate harvesting
Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

10
/2

SEGMENT ST / CU-007 SUBDIVISION: ASC 224-20-13010 DATE 26 APR 90

USCG
NAME Karwin L. Dreher SIGNATURE CWO K. L. Dreher

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

~~ADFG~~ → ADFG
NAME Rick Gustin SIGNATURE Rick Gustin

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

~~LAND MANAGER~~ → NAME
NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

OG CAL LARSON USCG BREMER, CWE SEGMENT ST/ C11007
 BIO REN LITCHMAN LAND REP STREAM 27430 13010 1 OF
 EXXON AL 3000A ADFG 24 KAYEN-AIMEE WEHMAN TIME 11:07:10 A %
 TEAM NO. 105 TIDE LEVEL +1.8 DATE 4/26/90
 EST. SUBDIVISION LENGTH: 45 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☐ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 5 % B 5 % C 20 % P 70 % G 5 % S 5 % M 5 % V 5
 SLOPE: Long 60 % Hang 20 % Vert 5 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ H
 OIL CATEGORY LENGTH: W 5 m M 5 m N 5 m V 6 m NO 39

SURFACE OIL

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

PAVEMENT H F S 9 sq. m by 1PATTIES/TARBALLS 1 ENEAR SHORE SHEEN? ☒ BR RW SL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

Did You Col
DEBRIS
☐ YES ☒ NOTYPE
#BAGS 1

Photographs:

Roll No. 1Frames 1

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	GREEN SHEEN (Y/N)	V	SURFA SUBSUR SEDIME
		OP	OR	OL	OF	NO		NO	NO	1	2	3	4	5	SW	M	W	U				
1	30																					AS, 4/2/90

COMMENTS STREAM 17, RUNNING UNDER BRIDGE THRU UPPER SPAN, BRIDGEREVIEWED FW DATE 4-29-90

DATE 4/26/90

CHECKLIST

- ___ N Area
- ___ Approx. Grade
- ___ Soil/Sub. Study
- ___ On Dist.
- ___ Width
- ___ Length
- ___ % Cover
- ___ Substrate Character
- ___ Cat. NUMBER
- ___ Col.
- ___ Profile Location(s)
- ___ Profile(s)
- ___ Pit Location(s)
- ___ Photo Location(s)

LEGEND

- PH - No Substitution On**

- PA**
PH - Substantive CD

CTAC

Conducting a Literature Search

CT/W

Product Characteristics

—

Planning Client Meetings

CT/S

Endorsed Content

Old Testament

- Photo location, direction,
and number

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

100

CU-007

Seq ID: ~~XXXXXXXXXX~~ Subdiv: 224-20-13010

Survey Date: 4/26/90

Comments by: Ken Critchlow

A few small splatters of oil were observed in the UITZ along the left side of the beach distant from the stream. No subsurface oil was observed in a pit located in the face of a storm berm near and on the right side of the stream in the UITZ.

No cleanup is required at this location.

ECCLESIASTICAL

(U-007-A
(1 of 1)

1A, 1B

ST

64

RAFT

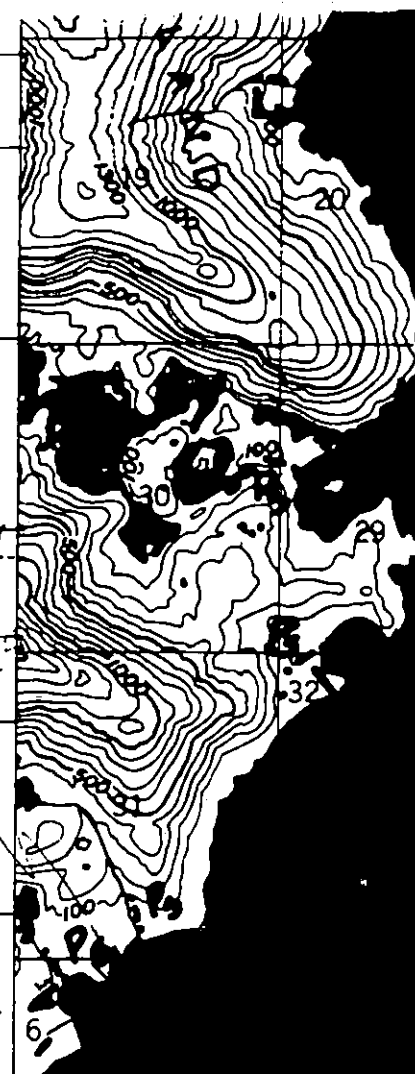
OFFICE ADDRESS
SIXTH

274 70 13010
(1, 2/90)

LOCATED IN SUBDIVISION
A (1 of 1)

(SEWARD C-4)

150



CU 007 $\frac{1}{2}$

224-20-1301

43 PHOTOLOG

NAME(S)

DESCRIPTION

pt 1 30 mm x 1

Recommendation No treatment required

48 OIL DISTRIBUTION DIAGRAM

band appears

be seen
shear

to
still
need

1991 MAYSAP EVALUATION

SEGMENT: CU 007 SUB: A REGION: PWS SURVEY DATE: 5/3/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) RESTRICTED 3/1 - 9/15

Ecological/Constraints (see page two for details) Eagle nest,
Anadromous stream

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is
required prior to shoreline treatment.

SHPO Signature: _____ Date: _____

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL: _____

TAG: _____

FOSC: _____

TAG APPROVAL DATE: _____ FOSC APPROVAL DATE: _____

ADEC

FOSC

EXXON

USCG

NOAA

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

Eagle Nest: Access restricted from 3/1 to 9/1. USF&WS authorization required. Maintain 1000' vertical and 1/4 mile horizontal buffer.

Anadromous Stream: Unlimited treatment up to stream bank between May 15 and July 10. ADF&G approval required for work after July 10. Fish Habitat Permit required for instream work. ADF&G approval required for bioremediation within 100 meters of anadromous stream after July 10.

MAYTAG FIELD SHORELINE COMMENT SHEET

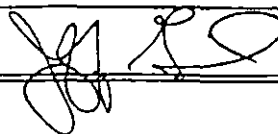
TEAM NO. 1 SEGMENT CU-7 SUBDIVISION A DATE 5/3/91

ADEC

NAME

JEFF GINALIAS

SIGNATURE


☐ NTR☒ TREATMENT RECOMMENDED

ASPHALT/MOUSSE PATCH AT SITE A1 OF OG MAP. AREA IS READILY ACCESSIBLE AND OIL EASILY RECOVERABLE FROM SURFACE. OIL LOCATED WITHIN AT LOW ENERGY AREA ON BEACH, PROTECTED. DOES NOT APPEAR THAT WAVE ACTION WILL BREAKDOWN OIL SOON. TREATMENT SUGGESTED MANUAL - SMALL CREW (3-5 PERSONS) SHOULDS, TROWELS, A COUPLE HOURS). RECOMMEND TREATMENT AT MID TIDE OR JUST BEFORE, AS LONG DISTANCE FROM LOW TIDE MARK AND OIL (100 YDS). HIGHER TIDE REDUCES HUMAN IMPACT AND HAULING OF SEDIMENTS. TILLING WILL NOT REMOVE OIL AS LOW ENERGY BEACH, OIL WILL SETTLE BACK ONTO BEACH.

EXXON

NAME

FRANK A. BOY

SIGNATURE


☒ NTR

Small patches of patches observed in the back of the segment. Close to a stream runoff. Recommend no action due to further intrusion of sensitive area would give no net benefit.

LANDMANAGER

NAME

MARSHA HALL

OF

DNR

SIGNATURE


☐ NTR☒ treatment

ASPHALT/MOUSSE AT AREA A1 NEEDS TO BE MANUALLY REMOVED. THIS IS A RECREATIONAL AREA. A SEAL WAS OBSERVED AT THE ROCKS ON THE SOUTH OF THE SEGMENT. TREATMENT METHODOLOGY AS SUGGESTED BY DEC REP. IS RIGHT ON.

USCG/NOAA

NAME

Jensen / Childs

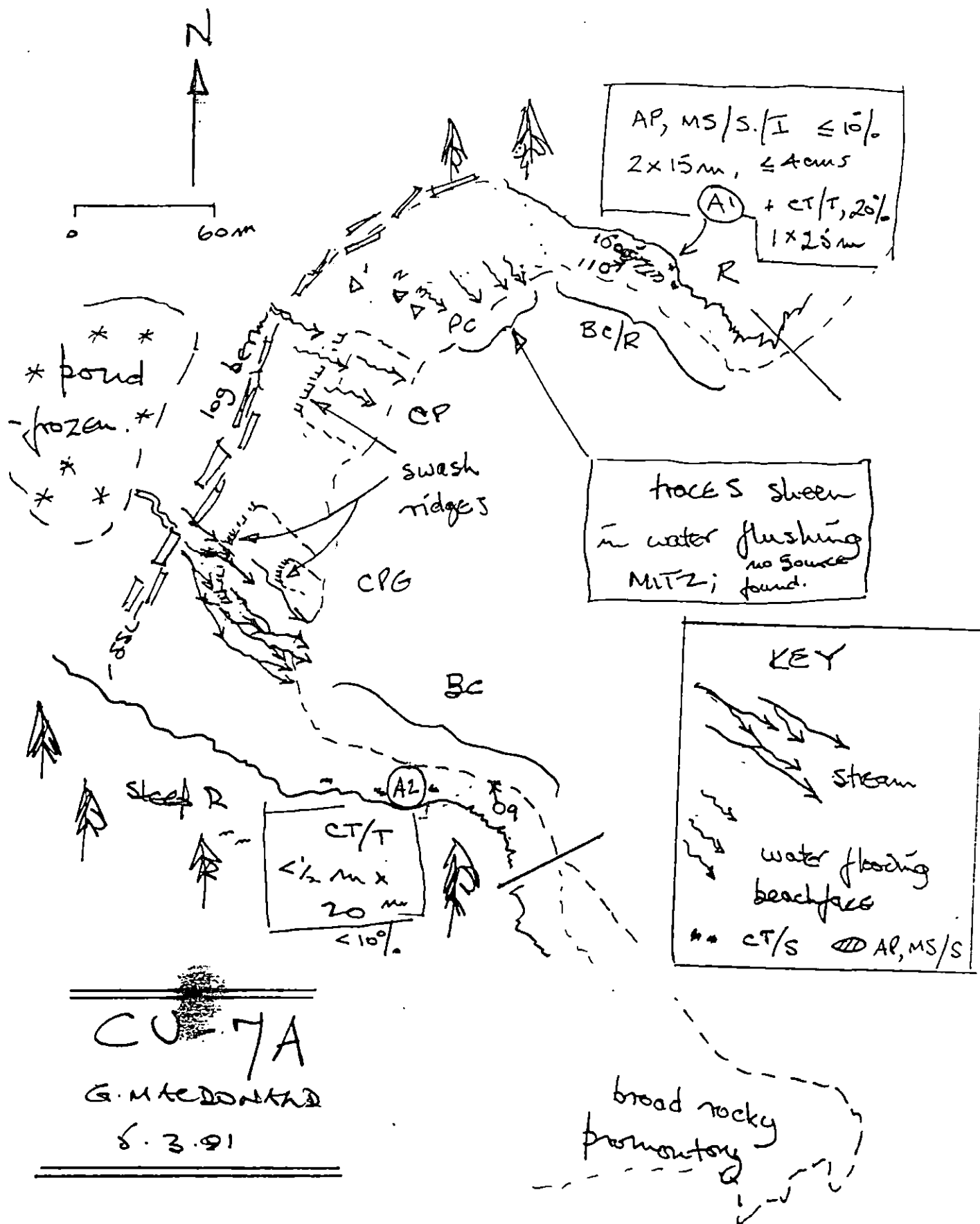
SIGNATURE


☒ NTR

Further removal operations would cause more environmental harm than the oil to be removed

LOW ANGLE CP BEACH BOUNDED BOTH SIDES BY VERTICAL BEACH X'S. FROZEN POND DAMMED UP BY STORM SWASH - SURFACE OIL CT & ST ALSO. PATCHES MS FOUND IN ROCKS NE'ly & SW'ly - SHEEN OBSERVED IN LI ~ 2/3 N'ly DIR UP BEACH FACE - NUMEROUS PITS ALONG UP DIP AREA. FAILED TO DISCLOSE SOURCE OF SHEEN.

Ex revised May 7



CU-7A

G. M. McDONALD

6.3.91

REVIEWED: 5/7/91 MC

Z
E reviewed 1.2.7

TEAM # 1

DATE 3 May 91

SEGMENT # CU 007

TIDAL HEIGHT(Range) +0.1 to +0.3 ft

SUBDIVISION A

BIOLOGIST Michael Fawcett

SEA STATE Calm

WIND SPEED/DIRECTION NE 0-5 knots; ra

PHOTOGRAPHS: ROLL #

FRAME #

COMMENTS/OBSERVATIONS (to be completed in oiled subdivisions only):

This protected, low energy cove has a small, deep lake in the backshore area feeding what appears to be a suitable, though small, stream for anadromous fish (Pink, silver, possibly red salmon). Very traces of residual oil coat found in depauperate supra-tidal area near the stream. Patches of asphalt/mousse were found among boulders in the VTZ on the north east side of the cove, among sparse isopods (*Ligia pallasii*) and limpets (*Notoacmea personata*). A wide boulder/cobble beach extends downshore from the oiled area. Barnacles and littorinids begin to occur 6-8 m downshore from the oil, and a dense mussel bed with scattered rockweed, barnacles, *Rhodomela*, and typical cryptic species (limpets, hermit crabs, isopods, etc) occurs about 20 m downshore from the oil, at about +5 to +7 ft MLLW. *Pachydes* dominates the area below +5 ft.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	(1 dead juvenile)	(1)	
Seabirds	1 (double-crested cormorant)	1	
Waterfowl	1 (Barrow's goldeneye)	4	
Gulls/Kittiwakes			
Shorebirds	1 (semi-palmated plover)	N 20	
Corvids			
Other Birds	1 American robin	10	

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters		deer	bones of two deer
Pinnipeds(specify)	1 harbor seal		in backshore by lake
Whales(specify)			

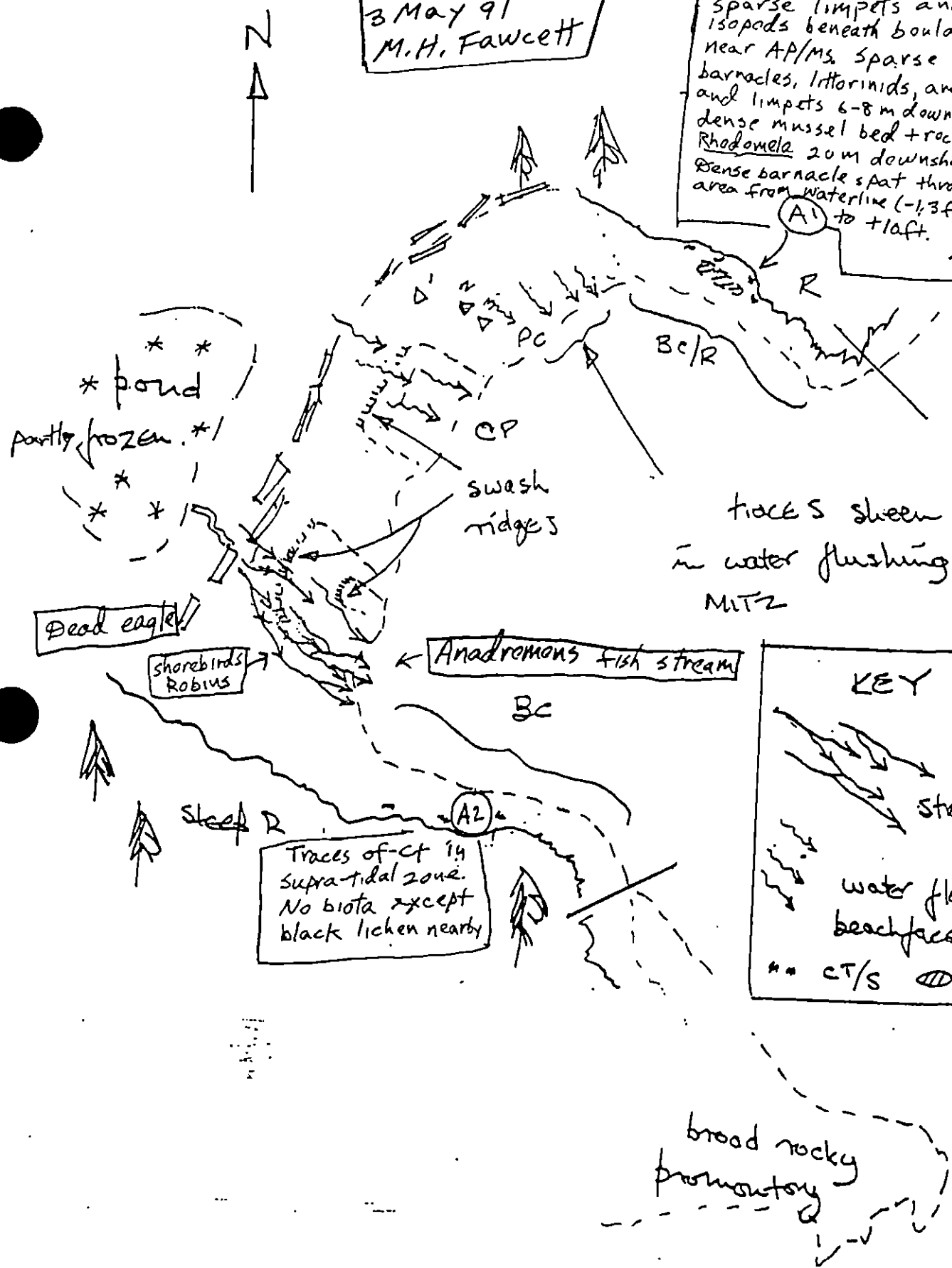
Shoreline subdivision map showing important biological features attached.

REVIEWED: 5/7/91 MC
n. i. m. h.

CU 007-A
3 May 91
M.H. Fawcett

Sparse limpets and isopods beneath boulders near AP/MS. Sparse barnacles, littorinids, amphipods, and limpets 6-8 m downshore; dense mussel bed + rockweed, Rhodomele 20 m downshore. Dense barnacle spat throughout area from waterline (-1.3 ft) to +10 ft.

Barrow's Goldeneye
Harbor's

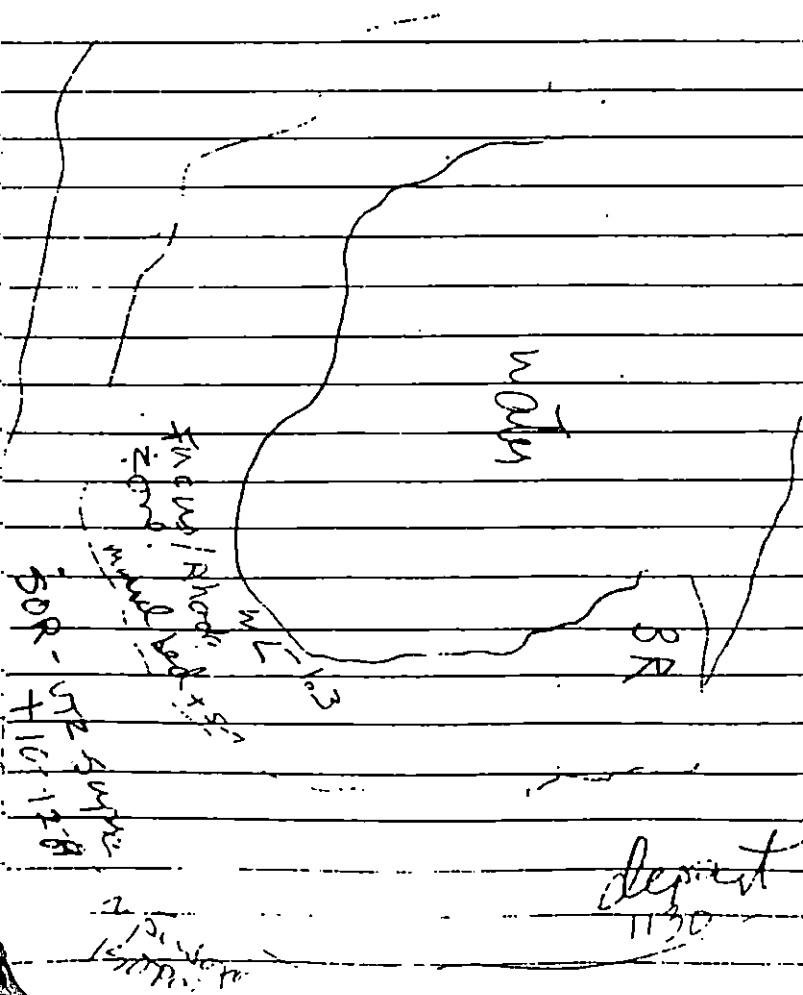


KEY
stream
water flooding beachface
CT/S AP, MS/S

CU 007 A 3 May 91 Fawcett

Arr 1030

• 50R on west side UTZ glaze
b/c/p - scattered N. persoria,
no other bryta except Lygia



6-8 M down shore of 50R bays
sparse barnacle, litt, amphipods,
more limp

- about 20 m down shore 1+7 ft
begins dense mussel bed, scattered
barn, Fucus, Rhod

- dense Fucus from +5 down
to water at -17

- dense spat/cyprids everywhere
up to ~ +10 ft

1. Harbor seal

1 dead juvenile eagle in
supra littoral log at east
end of bay looking lake

- 2 deer carcasses in bays 5/10

- stream looks like good
but small, and stream
for pinky silver, possibly
reds

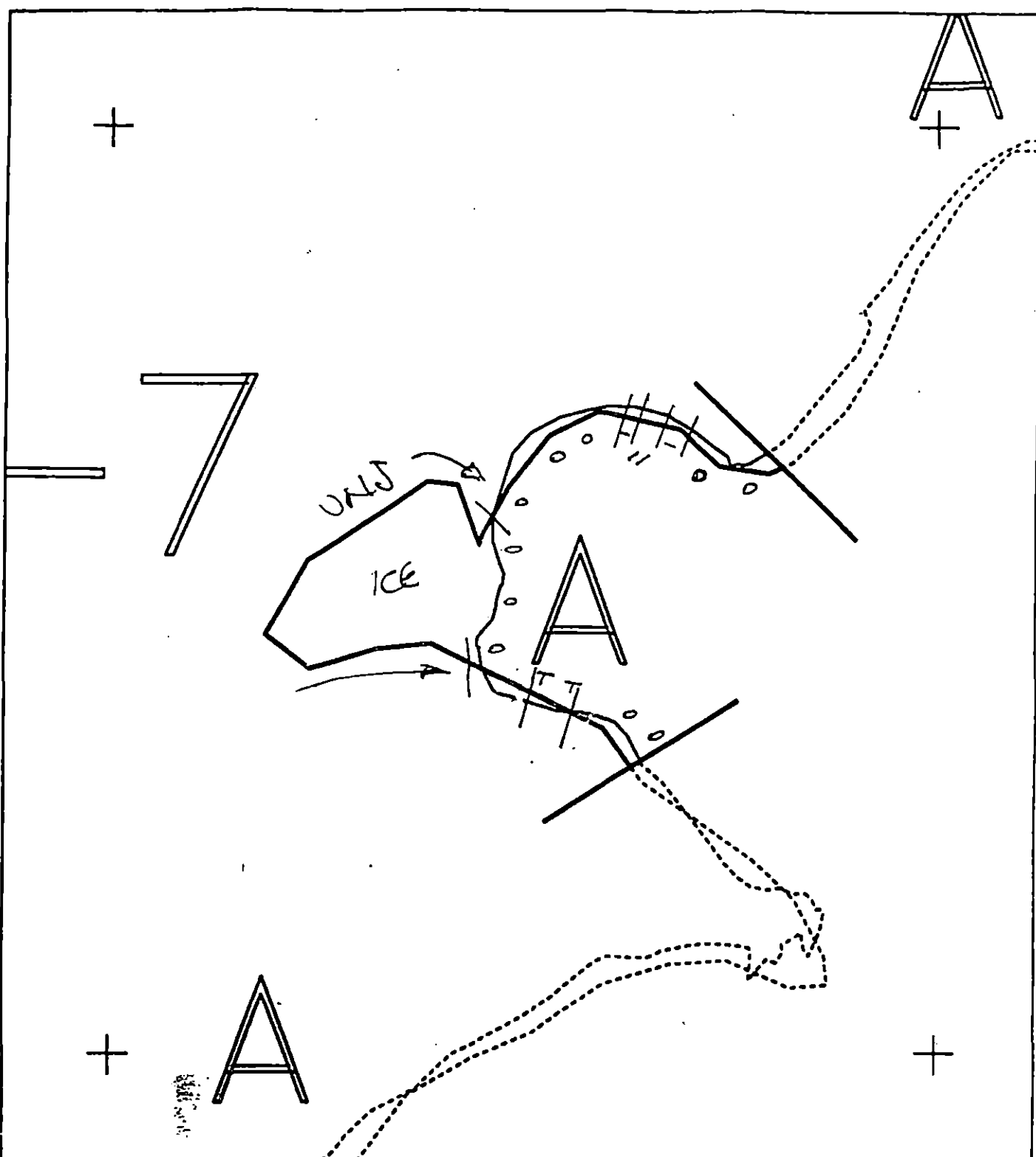
- shorebirds ~ 20 (semi-palmated plover)
birds w/ white collars mostly
than N. deer

- 10. others

- 1 double crested cormorant

- 4 jaegers: Barrow's goldeneye

- 11 birds near 50R



XXXX	Wide	CU007 A ADEC Subsegment Length: 800m METERS 0 100 200 AK State Plane Zone 4 psr007c		Subdivision Field Map
////	Medium			Map Key: PWSCU007A
----	Narrow			Name: <u>GM</u>
TTTT	Very Light			Date: <u>5.3.91</u>
0000	No Oil			Date Entered:

Reviewed 5/7/91 mc

REGION: PRINCE WILLIAM SOUND

SEGMENT: CU-07

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ CU-07 SUBDIVISION A (1 OF 1) DATE 4/4/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream mouth (ADF&G catalogue 224-20-13010) - fry outmigration (1A) - 3/1 to 5/15 and spawning (1B) - 7/10 to 8/31; active bald eagle nest (5T) - 3/1 to 6/1; recreation special use designation (6Y) - 6/1 to 9/15.

SUBDIVISION ECOLOGICAL CONSTRAINTS: (1A, 1B) No disturbance of stream bed or banks unless authorized by ADF&G. Contact ADF&G Habitat Division prior to treatment for permits. (5T) Restrict air traffic to essential minimum. Air approach and takeoff from and to seaward only. Contact USFWS prior to treatment for confirmation of dates and avoidance minimums.

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 113 m: No Oil 696 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: Pick up sporadic tarballs. Bioremediation of areas shown on sketch map. Work between 6/1 and 7/10.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / CU-07 SUBDIVISION: A-1 of 1 DATE 04/04/9

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

✓ L. area. removal of oil / manual - Tarball found
in HWC debris -

LAND MANAGER

NAME Marsha Martin/DNR SIGNATURE Marsha Martin

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

For both areas marked on map.
Beware that the lake against the storm berm
gets occasional inundation from storms.
Snow covered still, many washed up logs in
one section adjacent to berm.

SHORELINE OILING SUMMARY

REVISION NO. 03-22-90

OG Rick Gillie USCG bm 1 Thomas SEGMENT ST/ CU-07
 BIO DAVE Lohse LAND REP Marsha Martin SUBDIVISION A, 1 of 1
 EXXON FRANK bay ADEC Clara Crosby (ADNR) TIME 16:51 to 17:41
 TEAM NO.: 13 TIDE LEVEL: +1 10 +2 DATE 04/04/90
 EST. SUBDIVISION LENGTH: 514 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☐ Rock snow
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 30 % B 20 % C 20 % P 30 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 60 % Hang 30 % Vert 30 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 40 m NO 494 m

SURFACE OIL

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

PAVEMENT: H F S N/A sq. m by cmPATTIES / TARBALLS 0.1 BAGSNEAR SHORE SHEEN? NO BR RW SL TL

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

DEBRIS COLLECTED
☐ YES ☒ NOTYPE #BAGS

Photographs:

Roll No. ST-13-2Frames 18-20

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	UC	SL	BR	RW	GY	SL	BR	TL	LR	SU	UI	M	U		
1	10					X	-											X					G, S
2	15					X	-											X					P, S
3	20					X	-											X					P
4	40					X	-											X					P, G
5	20					X	-											X					C, P, S
6	40					X	-											X					P, C

COMMENTS (GENERAL)

① OILING: V. LIGHT CT/S ON NORTH AND SOUTH SIDES
 OF BAY NEAR BEACH ON CORAL/BOWLER
 INFILTRATE.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / CU007 Subdivision A Date (mo / day / yr) 4-4-90Time (24 hr) 16:50 Biologist David Lohr(A) Substrate type and % of segments:
(1) Bedrock 30 (2) Boulder 20 (3) Cobble 20 (4) Pebble 30 (5) Sand (6) Silt (B) Overall % cover of biota (% of segment): Dense 20 Moderate 30 Low 50

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

Photographs:
Roll No. ST-13-2Frames 18-20

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

1. present in low intertidal - Enteromorpha, Anthopleura, Nuxella, Nuxella egg cases
 mid intertidal - Endocladia, Nuxella, beach hoppers under cobble (Orchestoidea?)
 high intertidal - Beach hoppers under cobble (Orchestoidea?)

Ecological Considerations: Z. Ducks spotted in area

I, IS, 6Y - no comment

ST - none observed

IG. RICK MILLIE
SEGMENT ST/ CU-07
SUBDIVISION A-1 of 1
DATE 04/04/90

SKETCH MAP

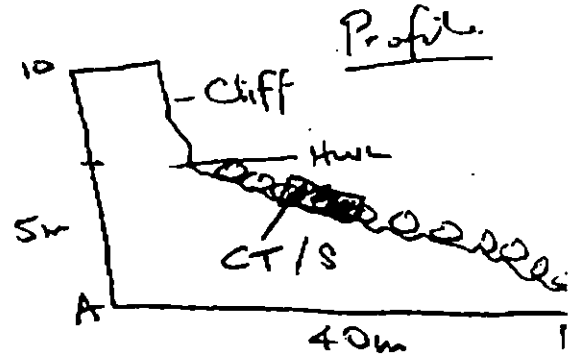
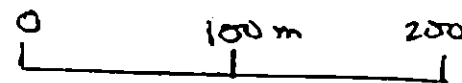
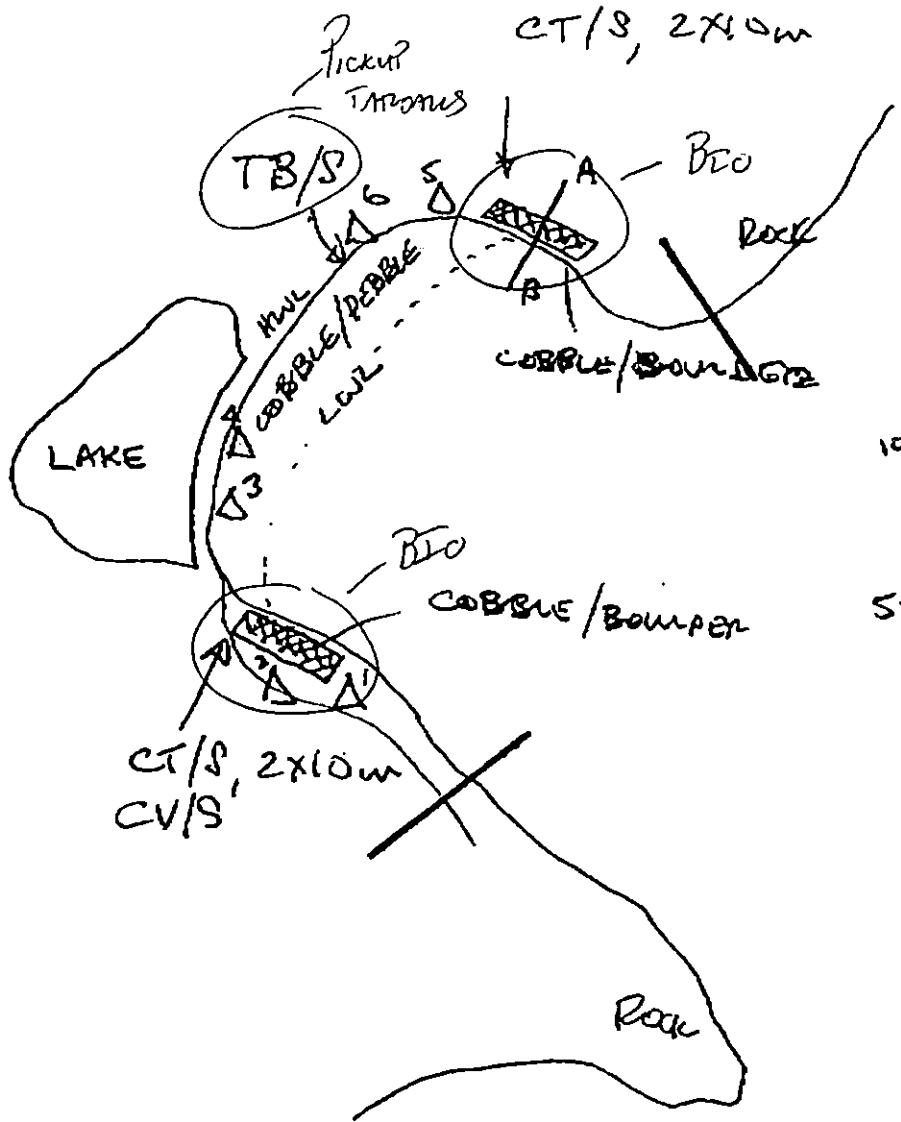


CHECKLIST

- ✓ 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

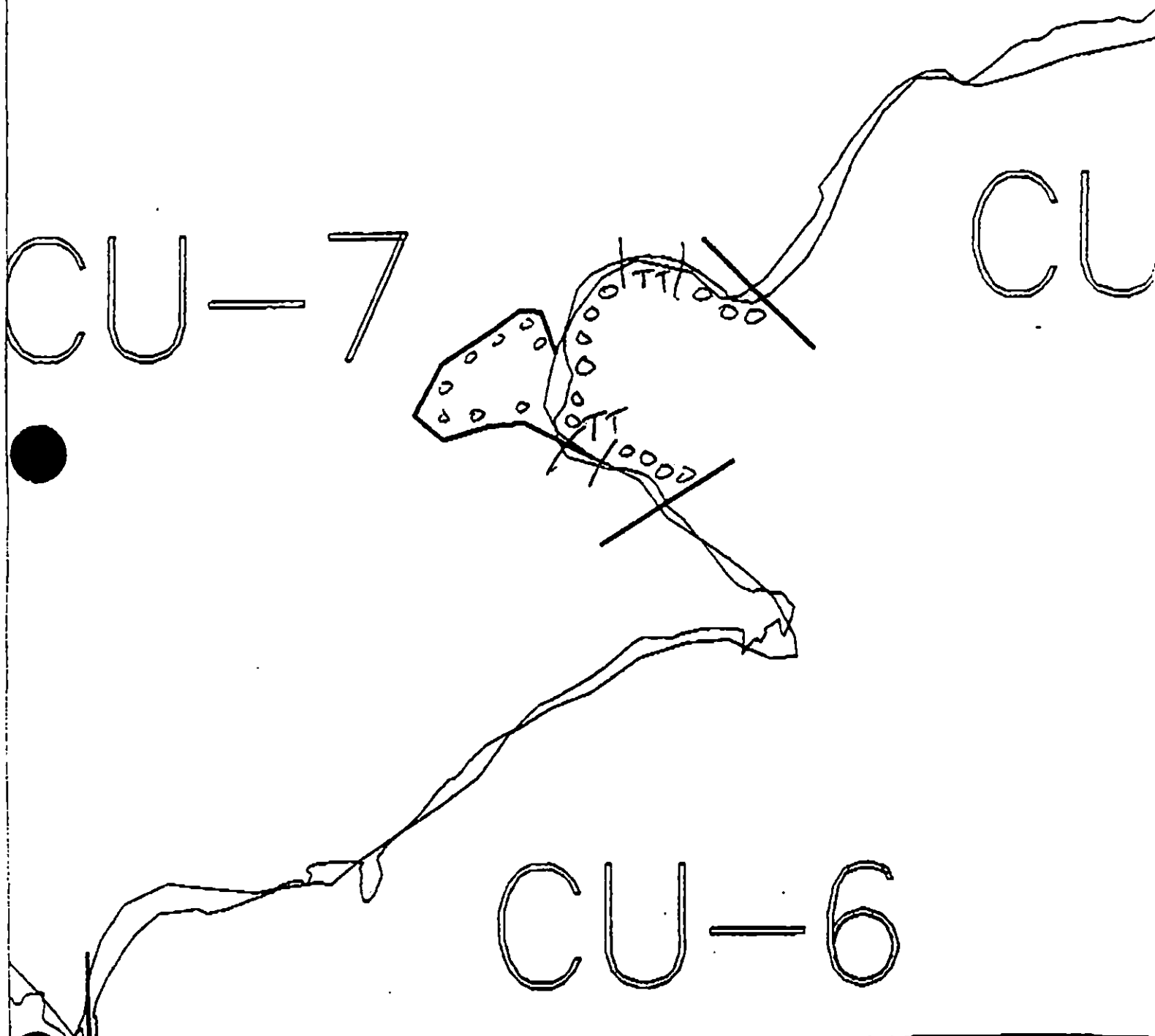
- 1 Δ
- 11 - No Subsurface Oil
- 2 Δ
- 11 - Subsurface Oil
- CT/C
- Continuous Distribution
- CT/B
- Broken Distribution
- CT/P
- Patchy Distribution
- CT/S
- Spashed Distribution
- Red Vegetation
- 1 →
- Photo location, direction, and number



Character Length (m): AP 0 PO 0 CV 0 CT 20 ST 0 MS 0 PT 0 TB 1 FL 0 NO 493

CULEOAS ISLAND

Segment: CU-07
Division: A-1 of 1



XXX Wide

//// Medium

---- Narrow

TTTT Very Light

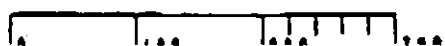
CU-7

ADEC Segment Length: 443m

Map Key: PWS-85

Name: GILLIE

Date: 4-4-90



ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ CU-07 STREAM NO: 224-20-13010 DATE 4/26/90

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 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
Eagle nest within 400 M of subject segment.
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 unopened biota and substrate. Subject stream is located within Subdivision A (1 of 1).

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: [Signature] DATE: 5/9/90

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: 5/9/90
ADEC ART WEINER
EXXON AMY TGM
NOAA Burl Wescott
USCG D.D. ROME

FOSC: [Signature] DATE: 5-15-90

SEGMENT ST. (600)

STRATA 120 1910

DATE 4/26/90

CHECKLIST

- Anchor
- Approx. Scale
- Seg/Sub Entry
- On Dist.
- Width
- Length
- % Cover
- Substrate Character
- Est. HYPOLAMEL
- PHL
- Profile Location(s)
- Profile(s)
- PH Location(s)
- Photo Location(s)

LEGEND

1 ▲
PH - No Substrate CH

2 ▲
PH - Substrate CH

CT/C
Continuous Distribution

CT/B
Broken Distribution

CT/P
Patchy Distribution

CT/S
Sporadic Distribution

eee
Old Vegetation

1 00
Photo location, direction,
and number

Character Length (m): AP PO CV CT ST ME FT TB FL NO

SKETCH MAP

UNDERGROUND
RUN OFF

STREAM
OP WELLING THROUGH STORM BELLS

SHALL
DELTA

LOOZ
PRIFT

SUP.

UFTZ.

MITZ

LITZ

8/ST
10x.5M

6/ST
4/ST

REVISIONS

ECCOLOGICAL MAP

CU-007-A

(1 of 1)

1A, 1B

5T

6Y

END
ENCL
100

T 7 N

T 6 N

(SEWARD C-4)

SUBJECT AMPHIPHILUS
SIXFAM

274 20-13010

(15, 2/90)

LOCATED IN SUBDIVISION

A (1 of 1)

150

19

CHANDLER

20

End

CU007 $\frac{1}{2}$

224-20-1301

45 PHOTOLOG

TIME(S)

DESCRIPTION

pt 1 30 mm x 1

Recommendation No treatment Required

46 OIL DISTRIBUTION DIAGRAM

band appears

burn over
sheen

still
need

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT CU-7 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup Less Than 400m From Eagle Nest	CLOSED
Manual Pickup More Than 400m From Eagle Nest	OPEN
Bioremediation Less Than 400m From Eagle Nest	CLOSED
Bioremediation More Than 400m From Eagle Nest	OPEN
Bioremediation Less Than ^{100m} 400m From Stream	WORK PRIOR TO 7/10 (ADF&G MONITOR REQ.)
Bioremediation More Than ^{100m} 400m From Stream	

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

- 1A,1B Salmon Stream ADF&G catalogued anadromous stream (224-20-13020) is present in the Subdivision. This subdivision is closed to bioremediation less than 100m from stream 7/10 to 8/31. Before 7/10, bioremediation is permitted less than 100m from stream with on-site ADF&G monitor or ADEC alternate present. No constraint to bioremediation more than 100m from stream.
- 5T Bald Eagle Nests USFWS 6/1/90 map indicates an active nest in Subdivision B. Closed to manual pickup and bioremediation within 400m of active nest. No constraints more than 400m from nest.

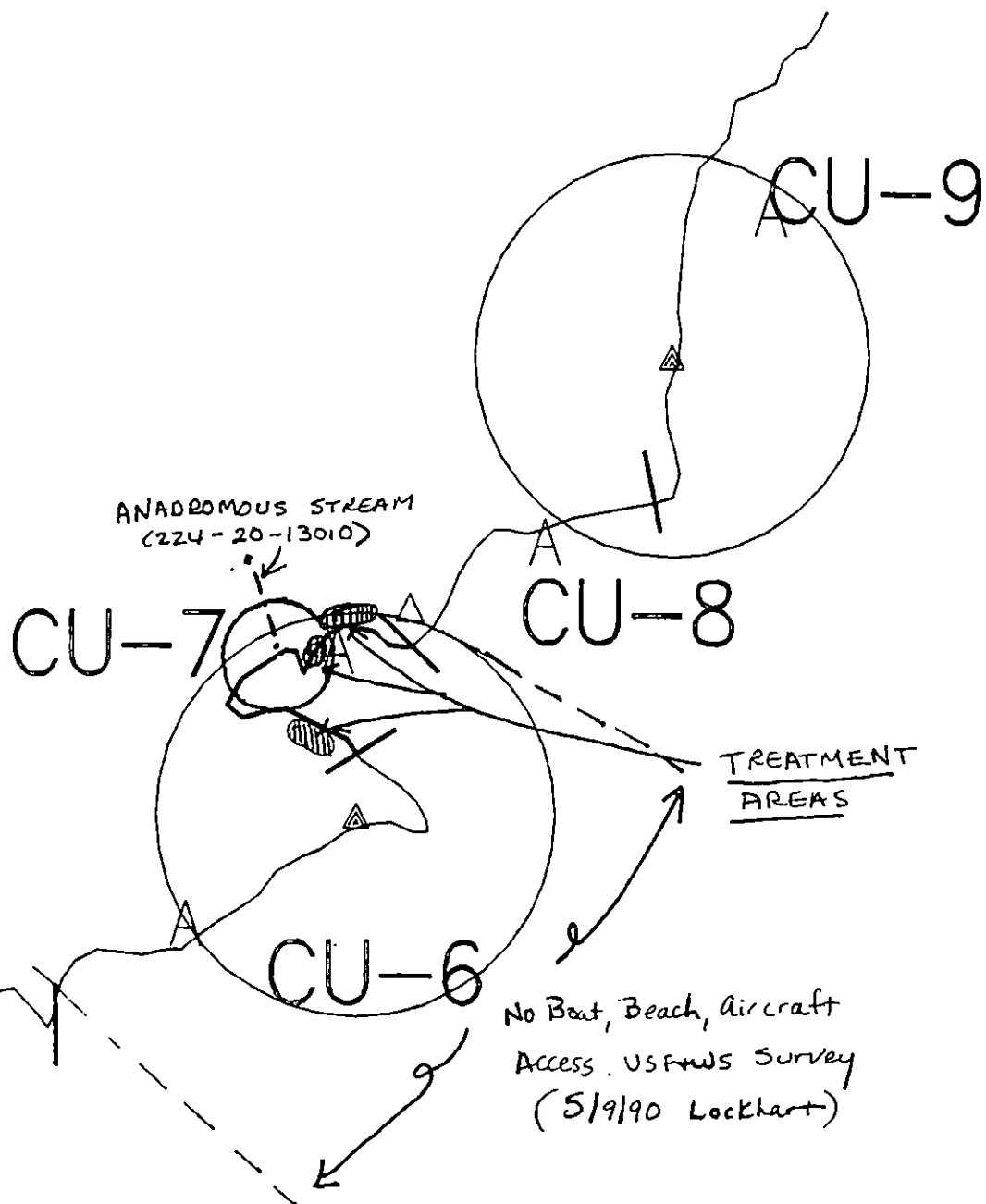
OTHER ECOLOGICAL CONSIDERATIONS

No disturbance to stream bed or banks. No flushing of pollutants or sediments into stream drainage; do not allow Inipol to enter stream flow. On-site examination and consultation by ADF&G monitor is required prior to bioremediation in order to authorize a setback distance from the stream during chemical application; if ADF&G monitor's presence is impossible, authorization may be given by the ADEC monitor. Restrict air traffic and all disturbance to essential minimum. No personnel or boat traffic within 400m of active nests. Air approach and takeoff from and to seaward only; maintain 400m horizontal, 300m vertical distance from active nests. Avoid any unnecessary disturbance or damage to uncollected biota and substrate.

SEE ANADROMOUS FISH STREAM EVALUATION ADDENDUM (STREAM NO. 224-20-13020)
FOR ADDITIONAL CONSTRAINT INFORMATION

FOSC

Date 6-10-90



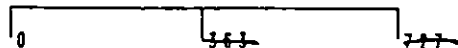
Exxon Company, USA

Map Key: PWS-CU-7

June 04, 1990



ECOLOGY MAP
SEGMENT CU-7
SUBDIVISION A (1 of 1)
METERS



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

1 inch = 1100 feet

SHORELINE EVALUATION

SEGMENT ST/ CU-07 SUBDIVISION A (1 OF 1) DATE 4/4/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream mouth (ADF&G catalogue 224-20-13010) - fry outmigration (1A) - 3/1 to 5/15 and spawning (1B) - 7/10 to 8/31; active bald eagle nest (5T) - 3/1 to 6/1; recreation special use designation (6Y) - 6/1 to 9/15.

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

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V. Light 113 m: No Oil 696 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Pick up sporadic tarballs. Bioremediation of areas shown on sketch map. Work between 6/1 and 1/10.

See Constraint Addendum dated 6/9/90 WSC

TAG COMMENTS: MONITORS TO ASSESS SEAWARD SIDE OF THE LAKE INDICATED ON THE SKETCH MAP.

TAG APPROVAL DATE: 4/13/90.

ADEC JOHN BAKER

EXXON ANDY TEAL

NOAA Burt Westcott

USCG G.A. REITER

FOSC: DATE:

SHORELINE EVALUATION

SEGMENT ST/ CU-07 SUBDIVISION A (1 OF 1) DATE 4/4/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream mouth (ADF&G catalogue 224-20-13010) - fry outmigration (1A) - 3/1 to 5/15 and spawning (1B) - 7/10 to 8/31; active bald eagle nest (5T) - 3/1 to 6/1; recreation special use designation (6Y) - 6/1 to 9/15.

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

COMMENTS: Pick up sporadic tarballs. Bioremediation of areas shown on sketch map. Work between 6/1 and 7/10.

TAG COMMENTS: MONITORS TO ASSESS SEAWARD SIDE OF THE LAKE INDICATED ON THE SKETCH MAP.

TAG APPROVAL DATE: 4/13/90.

ADEC JOHN BAKER

EXXON ANDY TEAL

NOAA Burt Wright

USCG G.A. BEITER

FOSC:

DATE: 4-10-90

DATE 04, 04 90

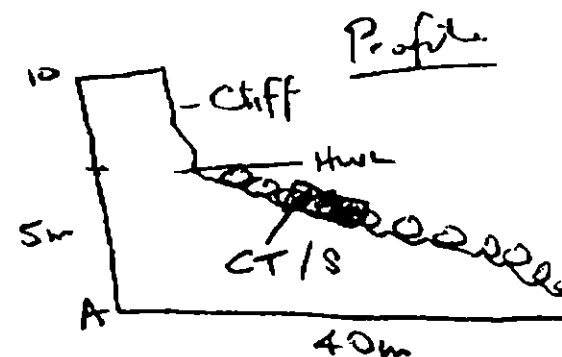
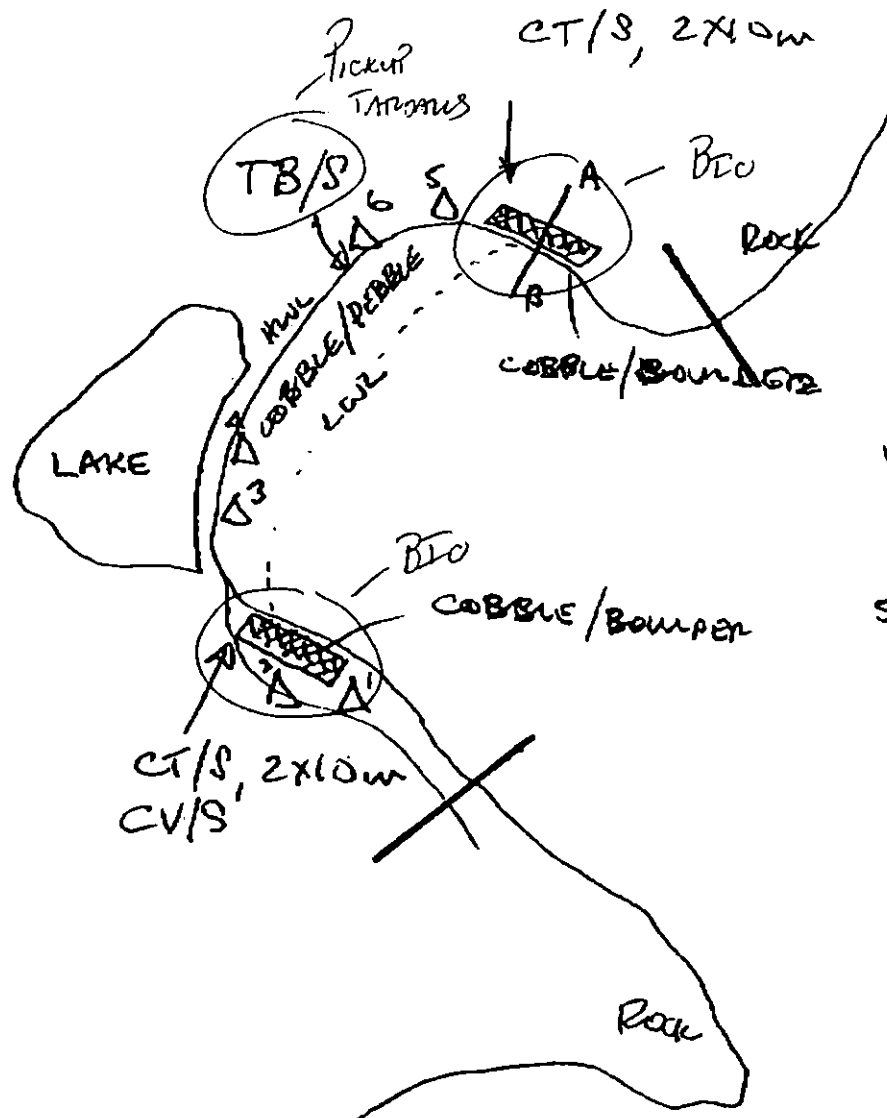
CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Seg/Sub Bndry
- ☒ Oil Dist.
- Width
- Length
- % Cover
- Substrate Character
- Est. HWM/LWM
- SSL
- Profile Location(s)
- Profile(s)
- ☒ P/L Location(s)
- Photo Location(s)

LEGEND

- 1 ▲
P11 - No Subsurface Oil
- 2 ▲
P11 - 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 (mm): AP 0 PO 0 CV 0 CT 20 ST 0 MS 0 PT 0 TB 1 FL 0 NO 493

REVISION: 03/24/09

CULEOAS ISLAND

Segment: CU-07

Subdivision: A-1 of 1

CU-7

CU

CU-6

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

OOOO M. 0:1

CU-7

ADEC Segment Length: 443m

0 100 200 300

Map Key: PWS-85

Name: GILLIE

Date: 4-4-90

Date Entered:

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/CU-08

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ CU-08 SUBDIVISION A (1 OF 1) DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. 224-20-13014 (Ps, 2/90)
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
and an eagle nest within 400M in adjacent segment to north.
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 uncoiled biota and substrate.

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 625 m
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: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- ✓ 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 ✓ 1B Salmon stream mouth - spawning (7/10 to 8/31)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream 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 unrolled 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)
 30 Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2208
- ✓ 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (8/1 to 9/15)
 6V Anchorages (8/1 to 9/15)
 6W Forest Service cabins (8/1 to 9/15)
 6X Lodge (8/1 to 9/15)
 ✓ 6Y Special use destination
- 7Z Substance area: Salmon harvesting (5/1 to 9/30)
 7H Finfish harvesting
 7I 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 267-2350

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ CU-08 SUBDIVISION: A DATE 4/24/90

NAME SCOTT RAMSFORD SIGNATURE Scott Ramsford MIST

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADEC NAME Lori J. Stratton SIGNATURE Lori J. Stratton

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Cobble and pebble beaches with boulder and bedrock borders
dominate this segment. No oil was observed except one dull black
coat splashed on a boulder at U.I.

No treatment is recommended due to lack of sig. oil.

LAND MANAGER

NAME U.S. Forest Service SIGNATURE Lee K. Wolf FS

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Only oil found was one small splatter
No treatment recommended.

SHORELINE OILING SUMMARY

REVISION NO. 04/13/88

OG G. MACDONALD USCG S. RAINSTORM SEGMENT ST/ CU-8
 BIO MA. SCOTT LAND REP L. KEELEK NFS SUBDIVISION A (LOF)
 EXXON J. BUTLER ADEC LOREI J. STRATTON TIME 10:15 to 10:18:55
 TEAM NO. 3 TIDE LEVEL 1.8 to +1 FT DATE 4/24/90
 ST. SUBDIVISION LENGTH: 650 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow.
 PLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: SW to NE
 SURFACE SEDIMENTS: R 65 % B 10 % C 10 % P 5 % G 5 % S 5 % 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 0 m NO 650 m

SURFACE OIL

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

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

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

Photographs:

Roll No. ST-2-3Frames —

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				AN A	SHEEN (Y/N)	V	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		NO	UC	1	2	3	4	5	SU	U	M	U				
1	35					X	1-1								X						—	C
2	40					X	1-1								X						28	PGPG
3	32					X	1-1									X					31	PSC
							.															
							.															
							.															

COMMENTS Exposed rocky shore w/ mod. L. CPG beach. Single splat of tar was observed @ NE end of segment.
No oil.

 REVIEWED 7a DATE 4/26/90

SEGMENT / CU-8

SUBDIVISION A

DATE 4 / 24 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Body
- ☐ 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
P1 - No Subsurface Oil

2 Δ
P1 - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

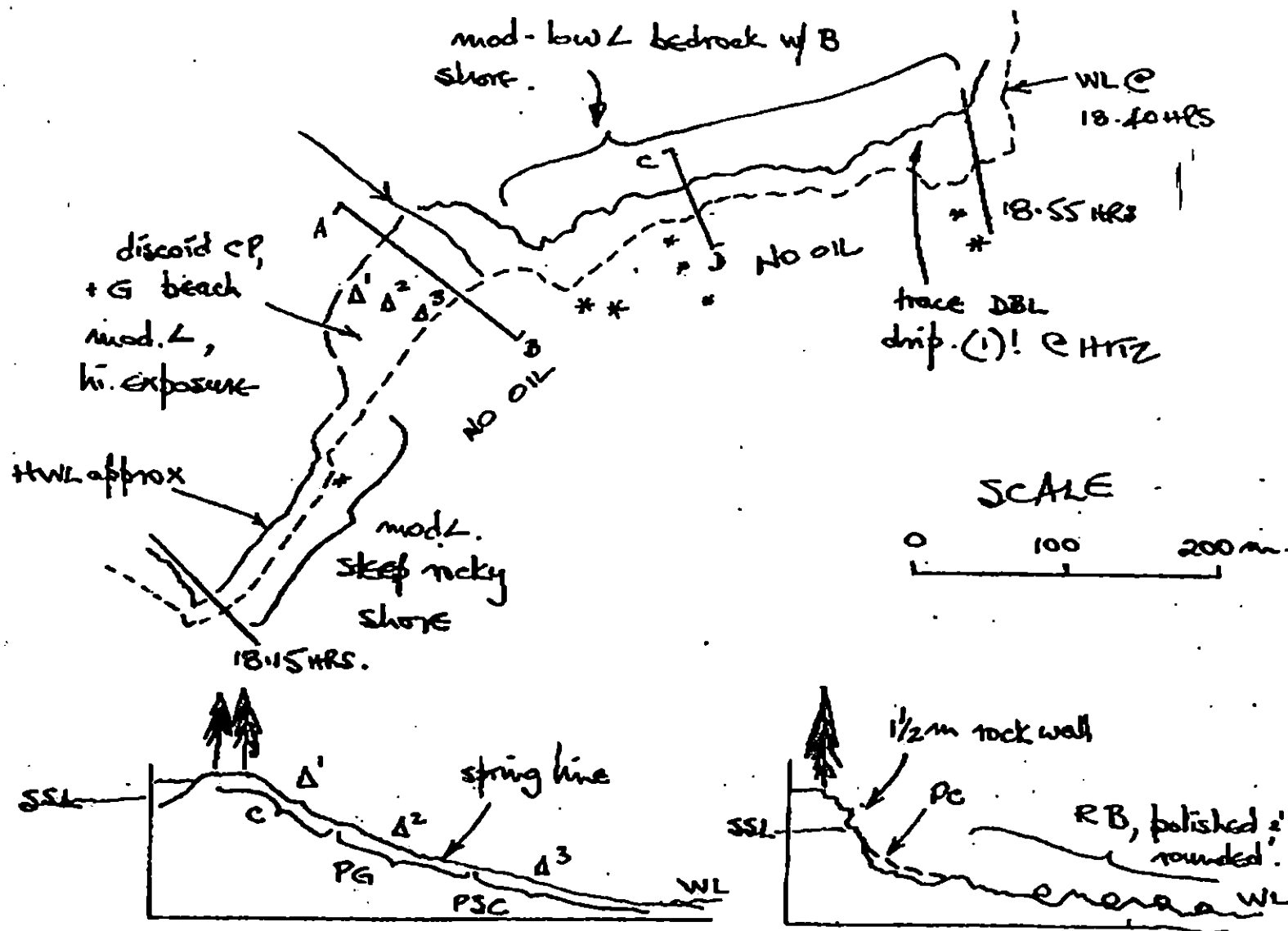
CT/P
Patched Distribution

CT/S
Splashed Distribution

Oil Vegetation

1 →
Photo location, direction, and number

SKETCH MAP



* submerged rocks

Oil Character Length (m): AP — PO — CV — CT — ST — MS — PT — TB — FL — NO 650

REVISION 9/2000

SHORELINE ECOLOGICAL SUMMARY

REVISION: 10/22/90

Segment ST/CN-B Subdivision A Date (mo / day / yr) 4/24/90

Time (24 hr) 1815-1955 Biologist M. A. Scott

- (A) Substrate type and % of segments:
 (1) Bedrock 65 (2) Boulder 10 (3) Cobble 10 (4) Pebble 10 (5) Sand 5 (6) Silt —
- (B) Overall % cover of biota (% of segment): Dense 30 Moderate 35 Low 35
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L):
 juveniles / adults (X), new settlement (3)

Photographs:
 Roll No. Ø
 Frames Ø

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

by dense patches

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: (observation = best + land)

- 6 eagles - rock/bleed headlands separated by cobble cays (cobble - no biota)
- 2 gulls - eagle nest on eco-map not observed
- 10 surfers
- 1 seal

Ecological Considerations:

anachronous stream - extensive cobble/pebble area at mouth
 eagle nest - so. end of segment noted on "eco-map" - not observed; suspect additional nest at north end of segment (behavior of pair of eagles)
 rock/bleed - moderate density and diversity; *Eucus* reproductive, barnacle spat throughout, *Mytilus* - dense patches with 3+6 in crevices & edge of beds; small tide pools on headlands (diversity & density slightly greater than CN-BA)

ECOLOGICAL MAP

1A, 1B
ST-1
67

BALD EAGLE
NESTS

ANADROMOUS STREAM
224-20-13014

CU-8

14

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CU-8

ADEC Segment Length: 025m

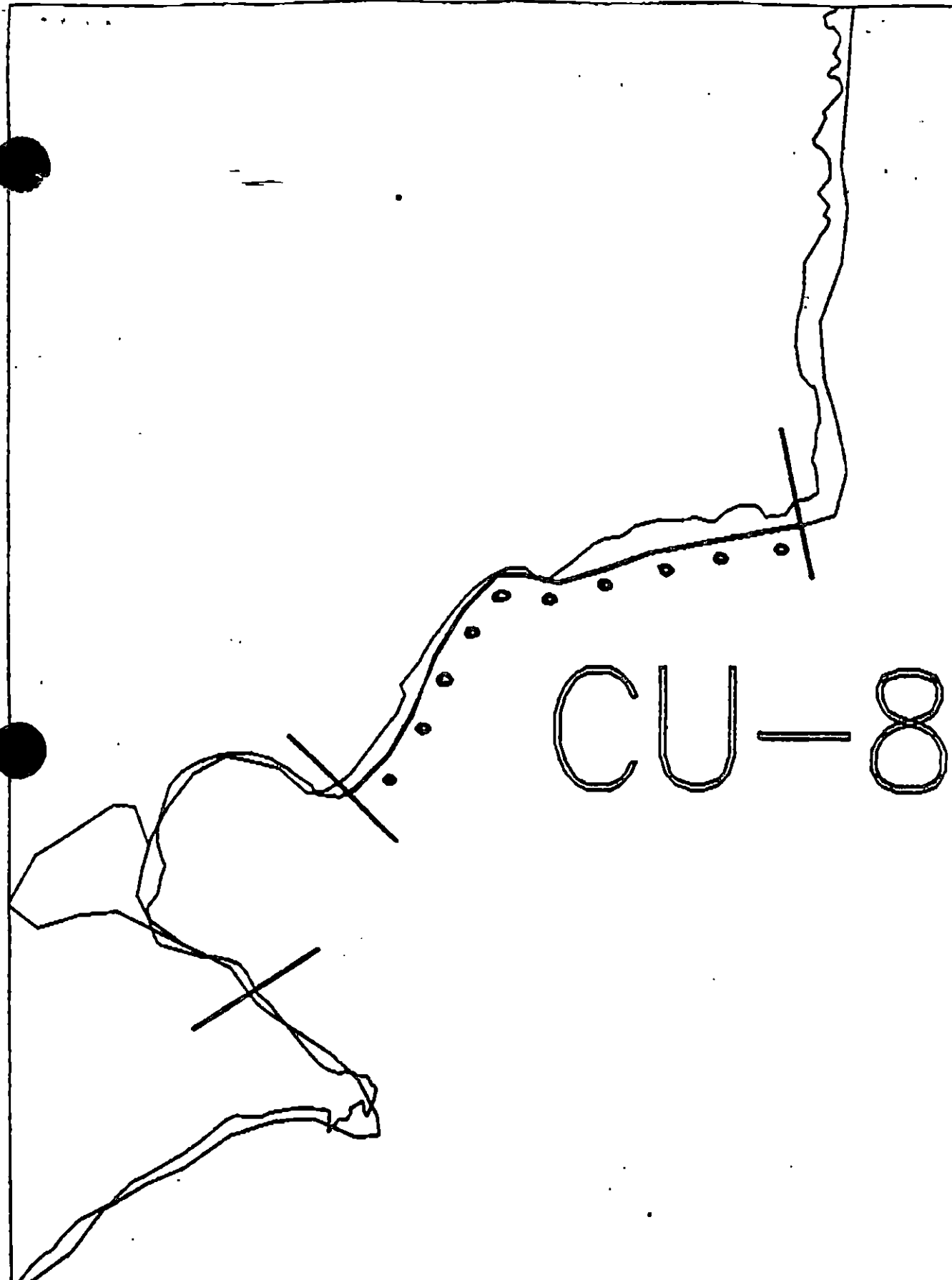


Map Key: PWS-86

Name: GM.

Date: 4.24.90

Date Entered:



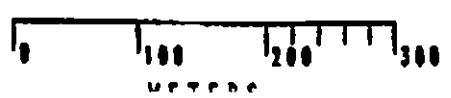
CU-8

14

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

CU-8

ADEC Segment Length: 625m



Map Key: PWS-86
Name: G.M.
Date: 4.24.90
Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ CU-08 SUBDIVISION A (1 OF 1) DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. 224-20-13014 (Ps, 2/90)

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

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

5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
and an eagle nest within 400M in adjacent segment to north.

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 uncoiled biota and substrate.

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: *Charles E. Hume* DATE: 5/3/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 625 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 5/3/90
ADEC Art Weiner
EXXON Andy Fenn
NOAA Gary Peterson
USCG Kenneth Kenner

FOSC: *h* DATE: 5-8-90

CHECKLIST

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

$\boxed{CT/P}$
Patched Distribution

$\boxed{CT/S}$
Splashed Distribution

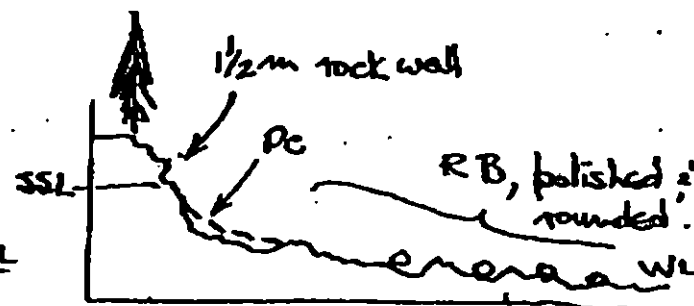
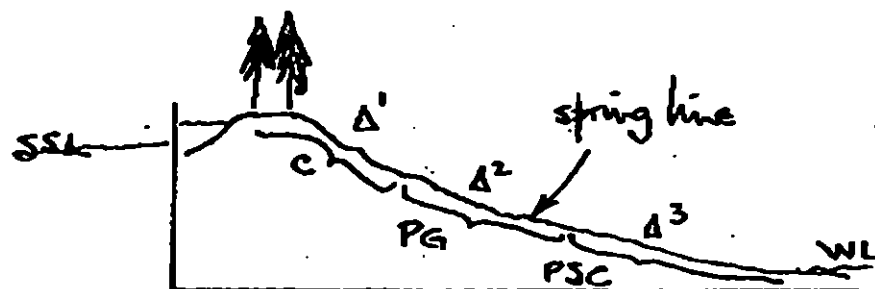
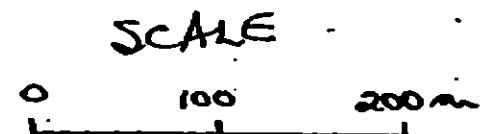
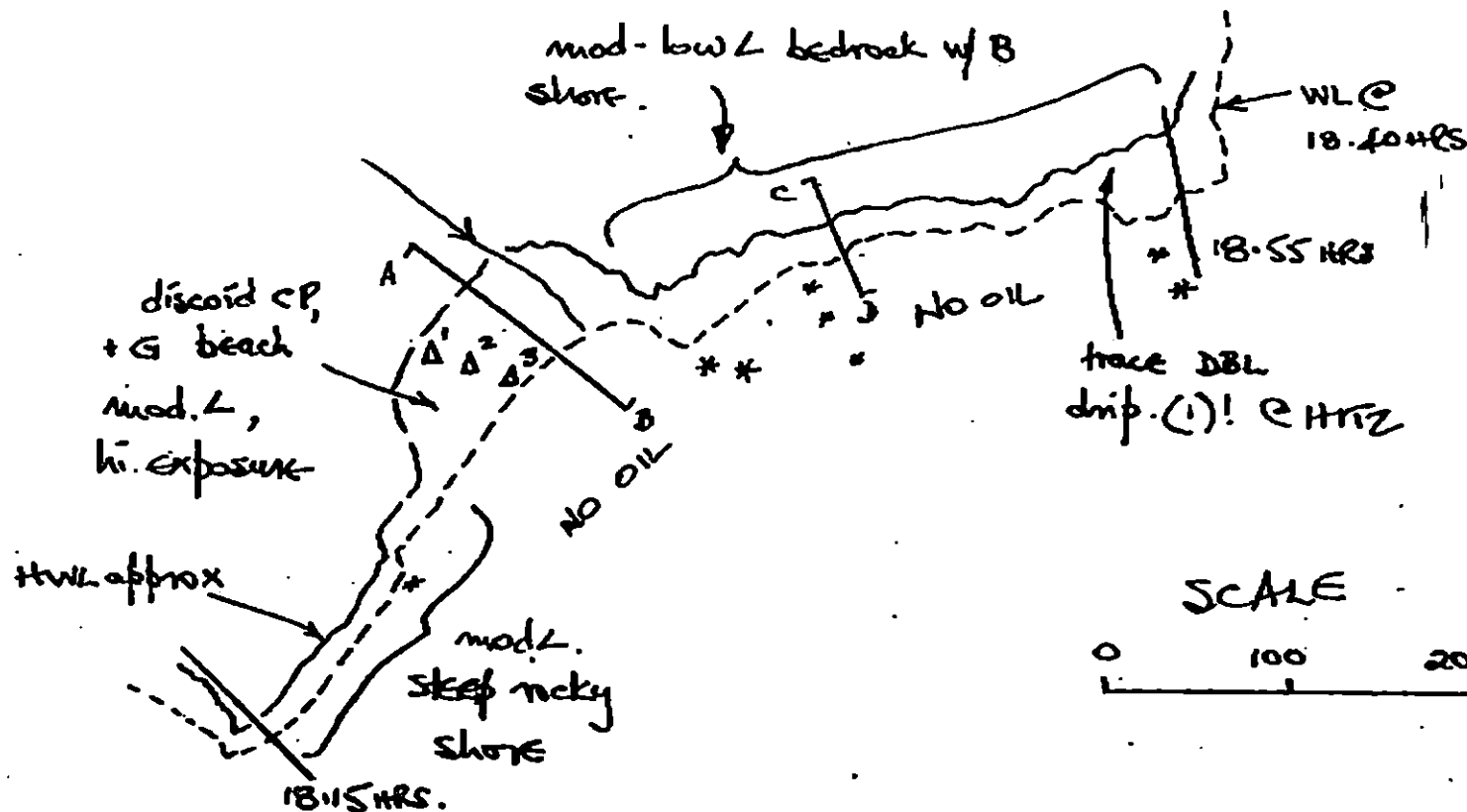
$\boxed{CT/S}$
Splashed Distribution

$\boxed{CT/S}$
Splashed Distribution

$\bullet$
Oil Vegetation

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

* submerged rocks



ECOLOGICAL MAP

1A, 1B
ST-1
67

BALD EAGLE
NESTS

ANADROMOUS STREAM
224-20-13014

CU-8

14

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CU-8

ADEC Segment Length: 625m

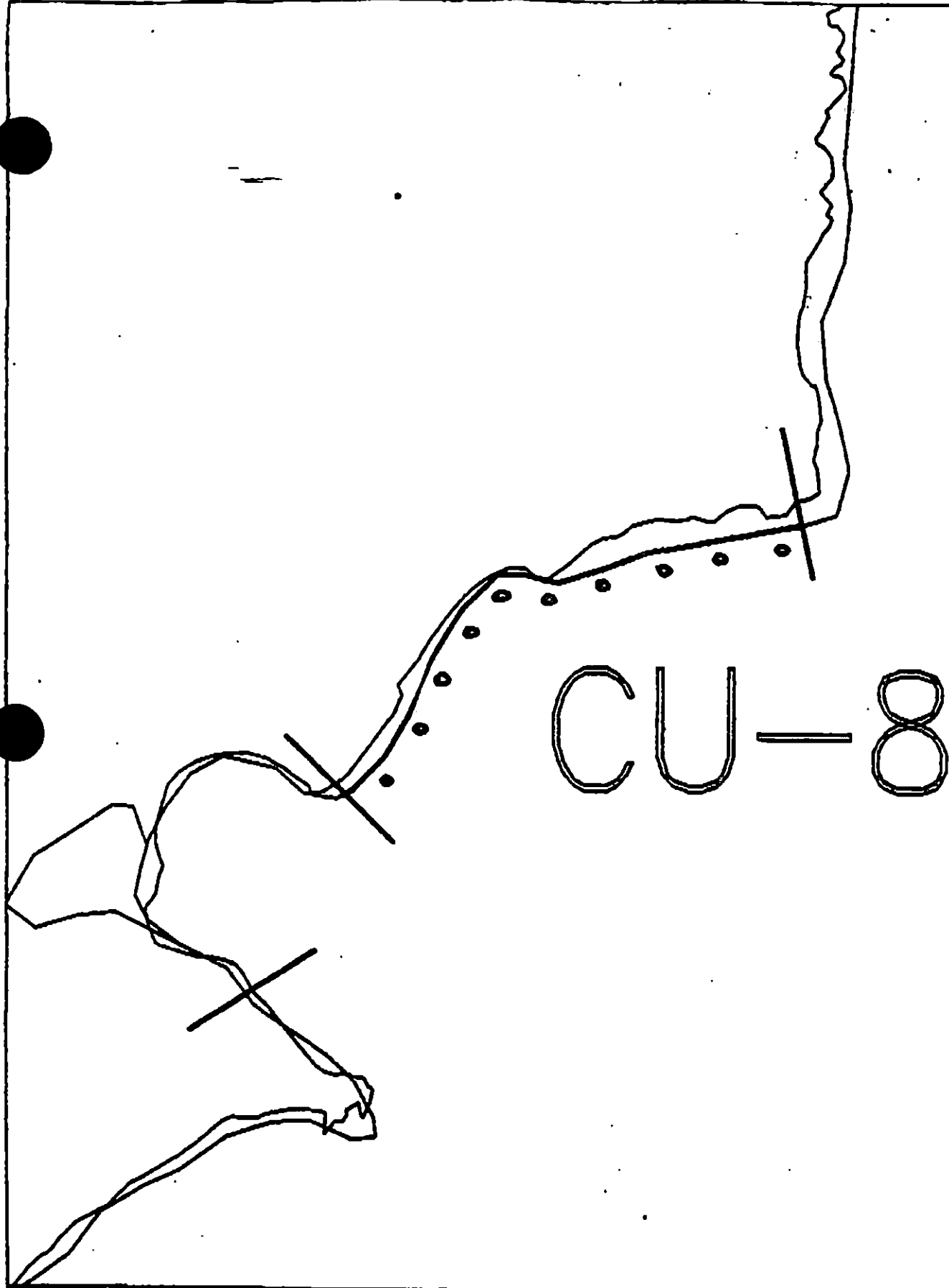
0 100 200 300

Map Key: PWS-88

Name: GM.

Date: 4.24.90

Data Entered:

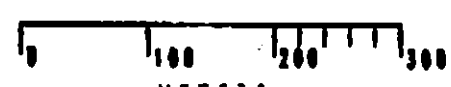


14

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

CU-8

ADEC Segment Length: 625m



Map Key: PWS-86
Name: GM.
Date: 4.24.90
Data Entered:

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/CU-09

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ CU-09 SUBDIVISION A (1 OF 1) DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 39 m: No Oil 1264 m
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: _____
ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream 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 unrolled 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
- 3I Harbor seal and sea lion pupping (5/15 to 7/1)
3O 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 Substance area: Salmon harvesting (5/1 to 9/30)
7HH Finfish harvesting
7I 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

SEGMENT ST / CW-09 SUBDIVISION: A DATE 4/24/90

USCG NAME SCOTT RAINSFORD SIGNATURE Scott Rainford MST1

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

ADEC NAME Lori J. Stratton SIGNATURE Lori J. Stratton

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS Pebble & cobble/pebble beaches are surrounded by boulder and bedrock. Most of the segment had very light traces of coat and stain splashed in UI + SU on boulders. In Location #2, the coat was splashed on boulders over an area 10 m x 35 m. ~~Also~~ There was very light coat splashed and ^{patches of} cover in ^{splash} patchy distribution, with some pooling between boulders (<1% category). The oil is protected by boulder & bedrock barriers from being weathered by waves. Cleanup is not recommended due to lack of significant oil present + low potential for being mobile.

LAND MANAGER NAME M. S. [unclear] SIGNATURE Ben Kehler (NPS)

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

Oil is on vertical faces of large boulders and in small protected pockets. No sensitive resources in the area. Does not warrant physical treatment or Biological Enhancement. Continue Natural Cleaning.

SHORELINE OILING SUMMARY

REVISION NO. 04/13/90

OG G. MACDONALD USCG S. RAINFOLD SEGMENT ST/ CU-9
 BIO MA. SCOTT LAND REP L. KEELER NPS SUBDIVISION A (1 OF 1)
 EXXON J. BUTLER ADEC LORI J. STRATTON TIME 18:56 to 19:40
 TEAM NO. 3 TIDE LEVEL +1 to 0.5 ft DATE 4/24/90
 EST. SUBDIVISION LENGTH: 1630 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 15 % P 25 % G 10 % S 0 % M 0 % V 0 %
 SLOPE: Long 40 % Hang - % Vert 60 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 35 m NO 1395 m

SURFACE OIL

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

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

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

Photographs:

Roll No. ST-3-3Frames -

SUBSURFACE OIL BEDROCK / BOULDER SUBSTRATE TYPICAL - NO PITS

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (Y/N)	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UO	1	2	3	4	5	SW	W	M	E			

COMMENTS Exposed rocky shore, partly scalloped w/ small pc pockets.
 Trace of surface oil at NE end of segment — cr/s and cv/s
 in protected rock channel — driplines and splashes plus
 30 cm dia. cv patches on PG between boulders.
 No subsurface oil.

 REVIEWED YU DATE 4/24/90
 22



CHECKLIST

- ☐ M Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Bndry
- ☐ Off Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HAZ/LAW
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PH Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ
Pit - No Subsurface Oil

2 Δ
Pit - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

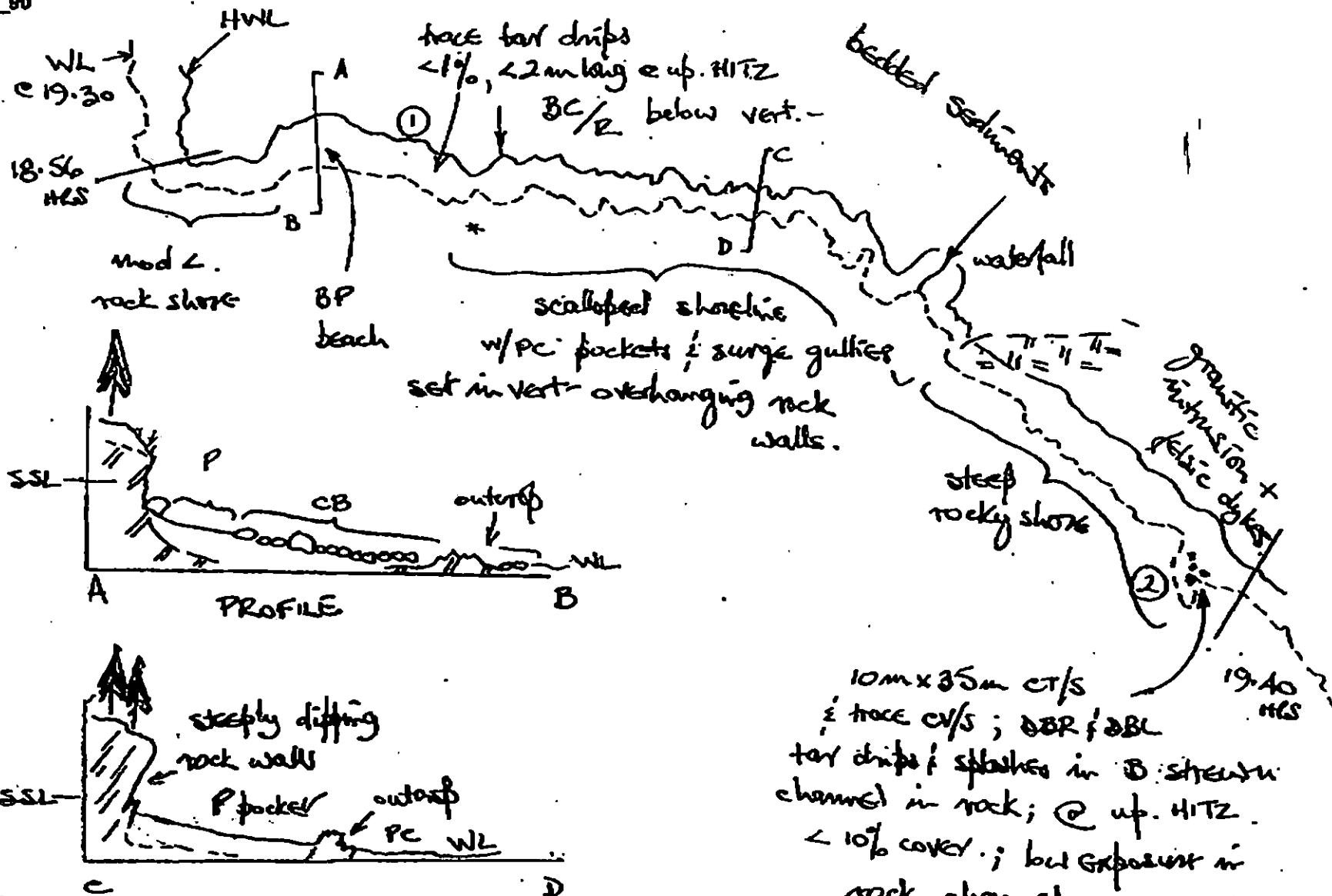
CT/P
Patchy Distribution

CT/S
Splashed Distribution

Oil Vegetation

Photo location, direction, and number

① DEC. LOC.



10m x 35m CT/S
& trace CV/S; DBR & DBL
tar drips & splashes in B stream
channel in rock; @ up. H.T.Z.
< 10% cover; but exposure in
rock channel.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 08/22/90

Segment ST CU-9 Subdivision A Date (mo / day / yr) 4/25/92

Age (24 hr) 1955-1955 Biologist MA SCOTT

(A) Substrate type and % of segments:
(1) Bedrock 30 (2) Boulder 20 (3) Cobble 15 (4) Pebble 35 (5) Sand — (6) Silt —

(B) Overall % cover of biota (% of segment): Dense 30 Moderate 25 Low 45

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

NOT PRESENT

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

by dense patches

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: (observations by bent & land)

2 eagles
1 sea lion
2 golden eyes
5% barnacle ear-rock wall

Ecological Considerations:

eagle nest (as located on "eco-map"); eagle in vicinity

rocks - very low diversity & density

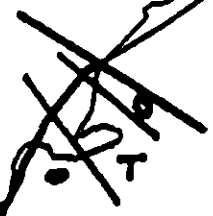
headlands - moderate density & diversity; appears to be slight increase in density & diversity from so end of island (CUB-2, through CUB-4 to CUB-4); dense patches of well established mytilus (w/ new settlement); new settlement of barnacles, fishes reproductive

ECOLOGICAL MAP

5T-1
6Y -

BALD
EAGLE
NEST

CU-9



24

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CU-9

ADEC Segment Length: 1621m

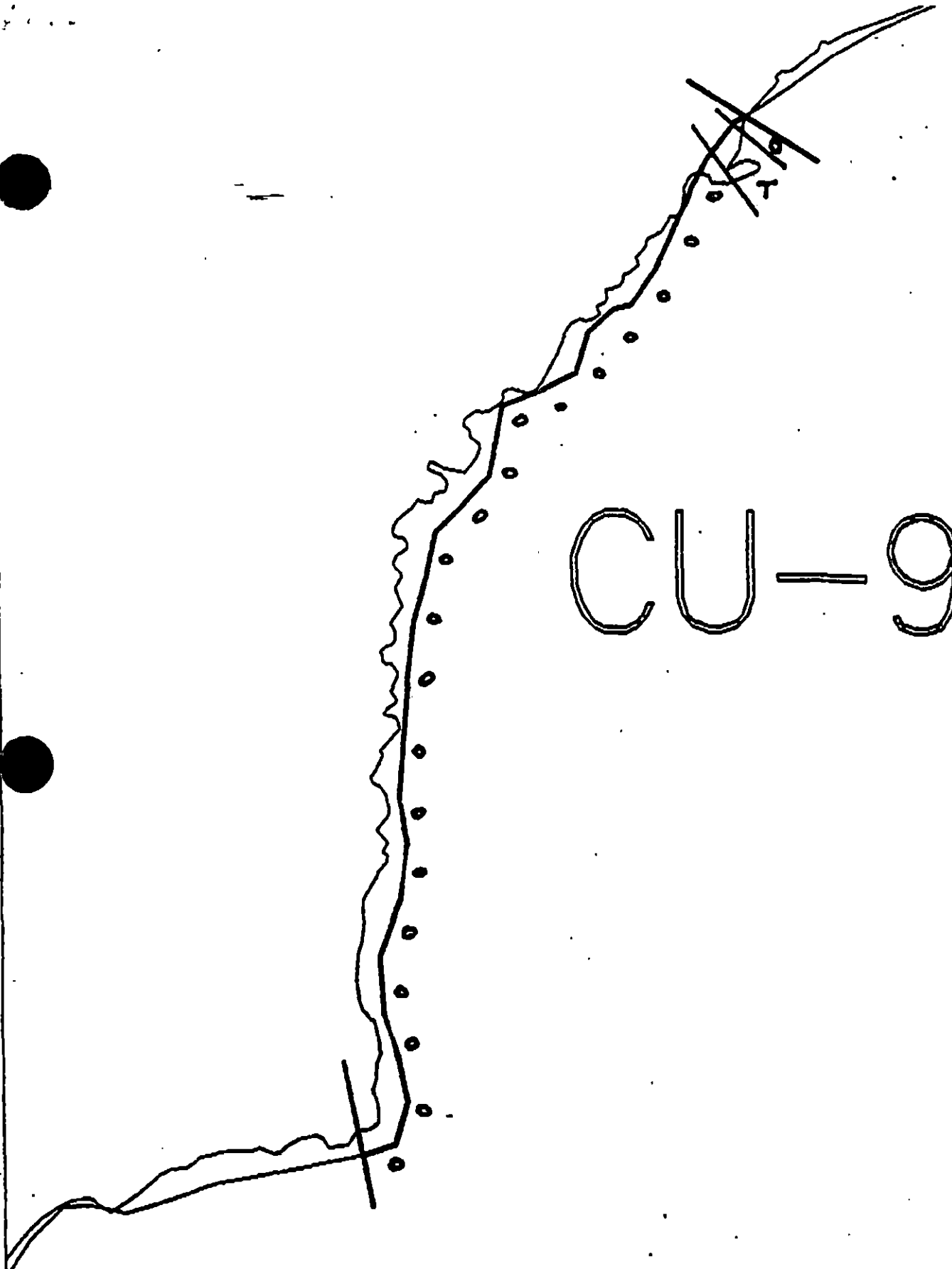


Map Key: PWS-127

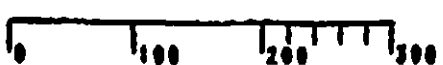
Name: G.M.

Date: 4.24.90

Date Entered:



24

XXXX Wide	CU-9		Map Key: PWS-127
/// Medium	ADEC Segment Length: 1621m		Name: <u>G.M.</u>
--- Narrow			Date: <u>4-24-90</u>
TTTT Very Light			Date Entered:
0000 No Oil	WETERS		

SHORELINE EVALUATION

SEGMENT ST/ CU-09 SUBDIVISION A (1 OF 1) DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
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 uncoiled biota and substrate.

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

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

OILING CATEGORIZATION:

Wide_0_m: Medium_0_m: Narrow_0_m: V.Light_39_m: No Oil_1264_m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: 5/3/20.
ADEC ART WEINER *Art Weiner*
EXXON *Andy TGA*
NOAA *Gary Petros*
USCG *KENNETH KEANE*

FOSC: WJL DATE: 5-8-90

CHECKLIST

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

LEGEND

1 A

Pit - No Subsurface Oil

2 A

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

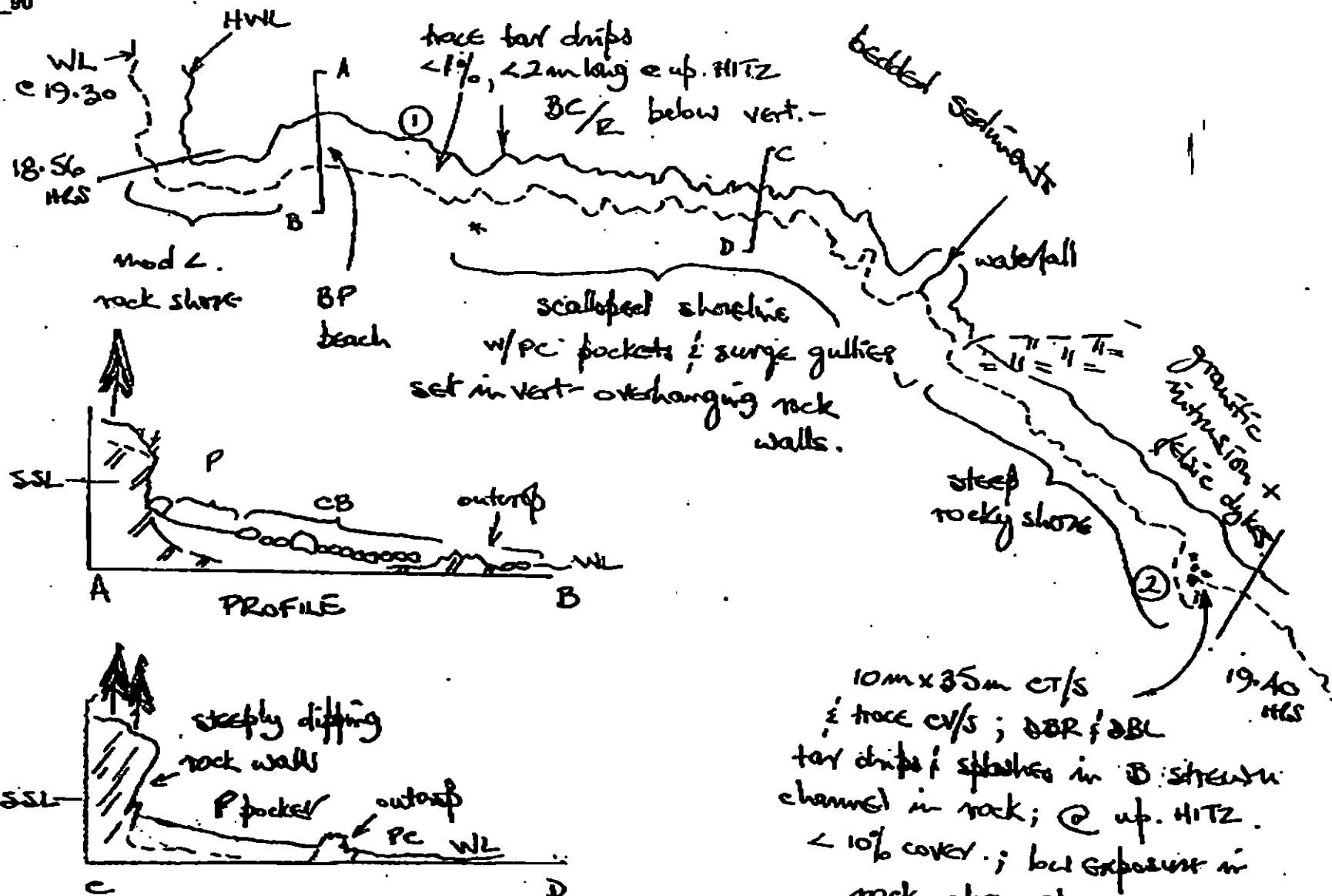
CT/S

Splashed Distribution

Oiled Vegetation

1

Photo location, direction, and number

① DEC. LOC^N

Oil Character Length (m): AP - PO - CV 20 CT 35 BT - MS - PT - TB - FL - NO 1595

ECOLOGICAL MAP

5T-1

6Y -

BALD
EAGLE
NEST

CU-9



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CU-9

ADEC Segment Length: 1621m

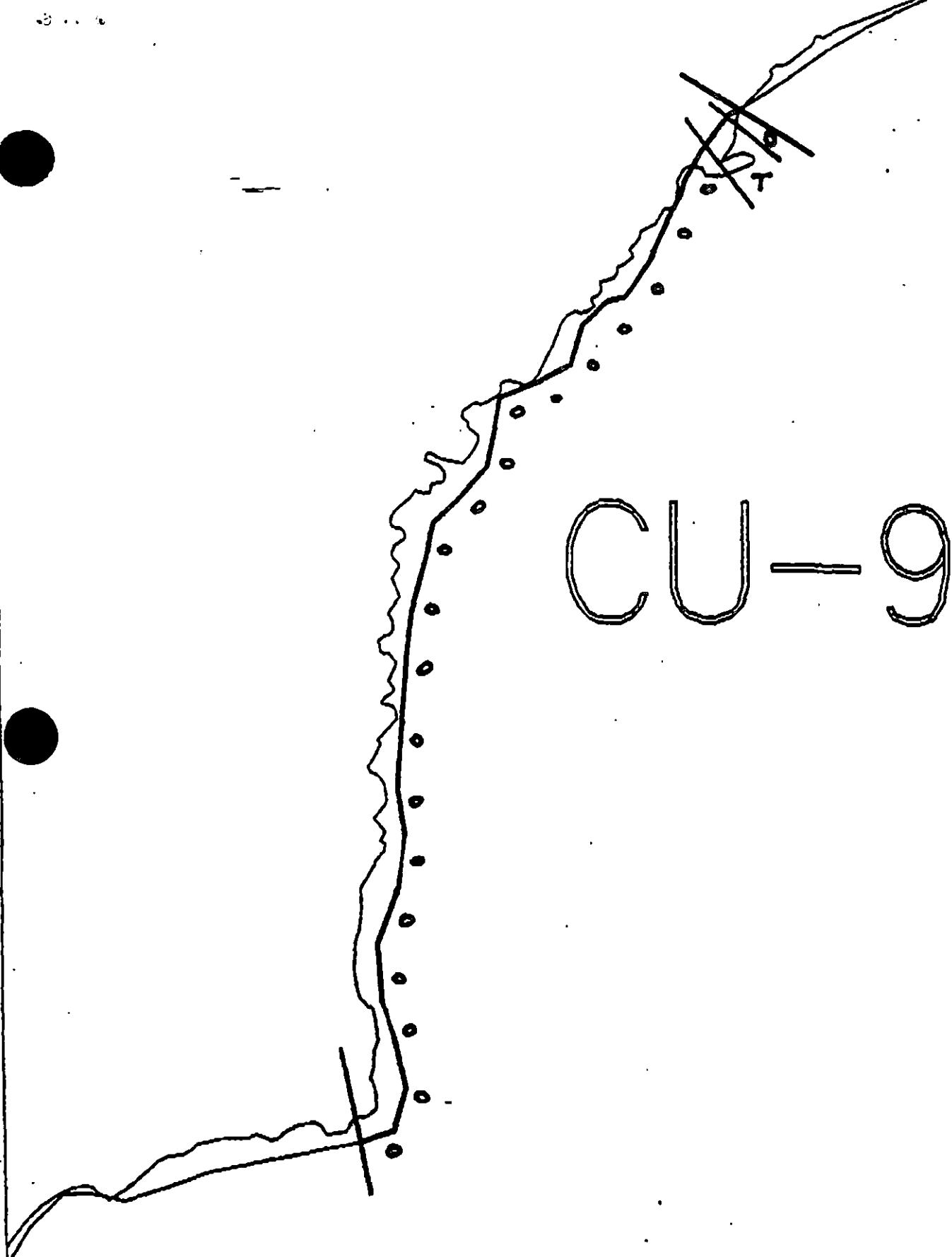
0 100 200 300
METERS

Map Key: PWS-127

Name: G.M.

Date: 4.24.90

Date Entered:



CU-9

24

XXXX Wide

CU-9

/// Medium

--- Narrow ADEC Segment Length: 1621m

TTTT Very Light

0000 No Oil



0 100 200 300
METERS

Map Key: PWS-127

Name: G.M.Date: 4.24.90

Date Entered:

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/CU-10

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ CU-10 SUBDIVISION A (1 OF 1) DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream no. 224-20-13020 (Ps, 2/90)

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

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

5T-2 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)

6Y Recreation: Special use destination

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 29 m: V.Light 536 m: No Oil 1534 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: Recommended treatment includes manual pickup of mousse
patties and manual removal of tarmats in area indicated on sketch map.
Work should be conducted between 6/1 and 7/10 with approval of USFWS
regarding eagle nest constraint.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

SEGMENT ST / CU-10 SUBDIVISION: A DATE 4/24/90
 US NA MI SHARP SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
 COMMENTS

ADEC NAME STEPHEN FERGUSON SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
 COMMENTS

REF TO WHERE PIT #1 IS LOCATED ON SKETCH MAP → PATCHY
 PAVEMENT LOCATED IN THE 4m(W) X 4m(L) AREA OF OILING → SUGGEST
 MANUAL REMOVAL OF PAVEMENT (1-2 HRS. WORK) THEN PUT BIO DOWN
 IN THIS AREA → AREA WHERE PAVEMENT IS LOCATED IS APPROX. 4m(W)
 X 10m(L). PAVEMENT IS JUST SOUTH OF TEST PIT #1.

AND MANAGER NAME Leigh Carlson SIGNATURE Leigh Carlson ADNR

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
 COMMENTS

Listed as priority 2 by PWSCA. Area used for recreation.
 Most of the oil found on this segment was very sporadic and
 mainly coat and stain splatters on the boulders and bedrock.
 Due to the coloring of the rocks, the splatters are not readily visible.
 Recommend manual removal of the mousse patties located in area 1
 of the sketch map as they are adjacent to a pocket beach
 that is good for recreational use. Also recommend
 bioremediation after removal of the patties.

SHORELINE OILING SUMMARY

REVISION NO. 04/15/88

Page 1 of 2

OG K. Ramsey USCG R. Sharpe SEGMENT ST/ CU-10
 BIO G. Penn LAND REP L. Carlson SUBDIVISION A (1 OF 1)
 EXXON S. Reid ADEC S. Ferguson TIME 5:37 to 7:50
 TEAM NO. 4 TIDE LEVEL +4" to 11" DATE 4 / 27 / 90
 ST. SUBDIVISION LENGTH: 2127 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 55 % B 25 % C 15 % P 4.5 % G .5 % 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 191 m VL 750 m NO 1336 m

SURFACE OIL

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

PAVEMENT H @ 9.164 sq. m by 1.5 cmPATTIES / TARBALLS 5 BAGSNEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT	
	SM	KG
Logs		
Vegetation		
Trash		
Debris		

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE C#BAGS 5

Photographs:

Roll No. Frames

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					BELOW	OIL / FILM COLOR					PIT ZONE				AN	SHEEN (Y/N)	↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		W	M	N	VL	NO	SU	U	M	L				
1	23					X		X					X				N	N	20	B, C, P, G
2	20					X		X					X				N	-	-	C, P, G
3	24					X		X					X				N	-	-	B, C, P
4	30					X		X					X				N	-	-	B, C, P, G
5	25					X		X					X				N	-	-	B, C, P, G

COMMENTS

This segment was composed of bedrock outcrops with a small cover made of boulders, cobbles, pebbles + gravel + 2) two beaches. The cove on diagram labeled as area 1 had coat + stain splashes on boulders in U^{CV} + SU with splashed in cracks of bedrock outcropping - v. sporadic. There was an area of mossy asphalt which was mousse at one time but has hardened down to friable AP almost (next page)

REVIEWED DATE

(L OF L)

[illegible]

COMMENTS

hard. This area covered Most of the cove $\approx$ 41m long
x 4m wide x 1.5 cm thick. However coverage was
only about 10% over the SITZ + HITZ. Area Z (shown
on diagram was a small pocket beach of cobbles^{with boulders} which
had CT + ST/S₁^{and dr. boulders} on bedrock + boulders in SU + UT. Same
type of CT + ST as was seen in area 1. The last bay
Area had the same type of CT + ST but it was
also seen in the MITZ. There was an area of CT/B in
rock crevice in SITZ. The crevice was about 2m wide x 3-4 deep.

REVIEWED _____ DATE _____

DATE _____

800-368-2478

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/22/90

Segment ST/ C4-10 Subdivision A Date (mo/day/yr) 4-24-90

Time (24 hr) 1727 Biologist PENN

(A) Substrate type and % of segments:
(1) Bedrock 55 (2) Boulder 25 (3) Cobble 15 (4) Pebble 4.5 (5) Sand 1.5 (6) Silt 0

(B) Overall % cover of biota (% of segment): Dense 12 Moderate 5 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 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 Eagle Nests - occupied (one with chicks) see map
2 Seals

Ecological Considerations:

(ZONE 4)

113

ST(2)

64

13042

FAIR DEAL
NETS

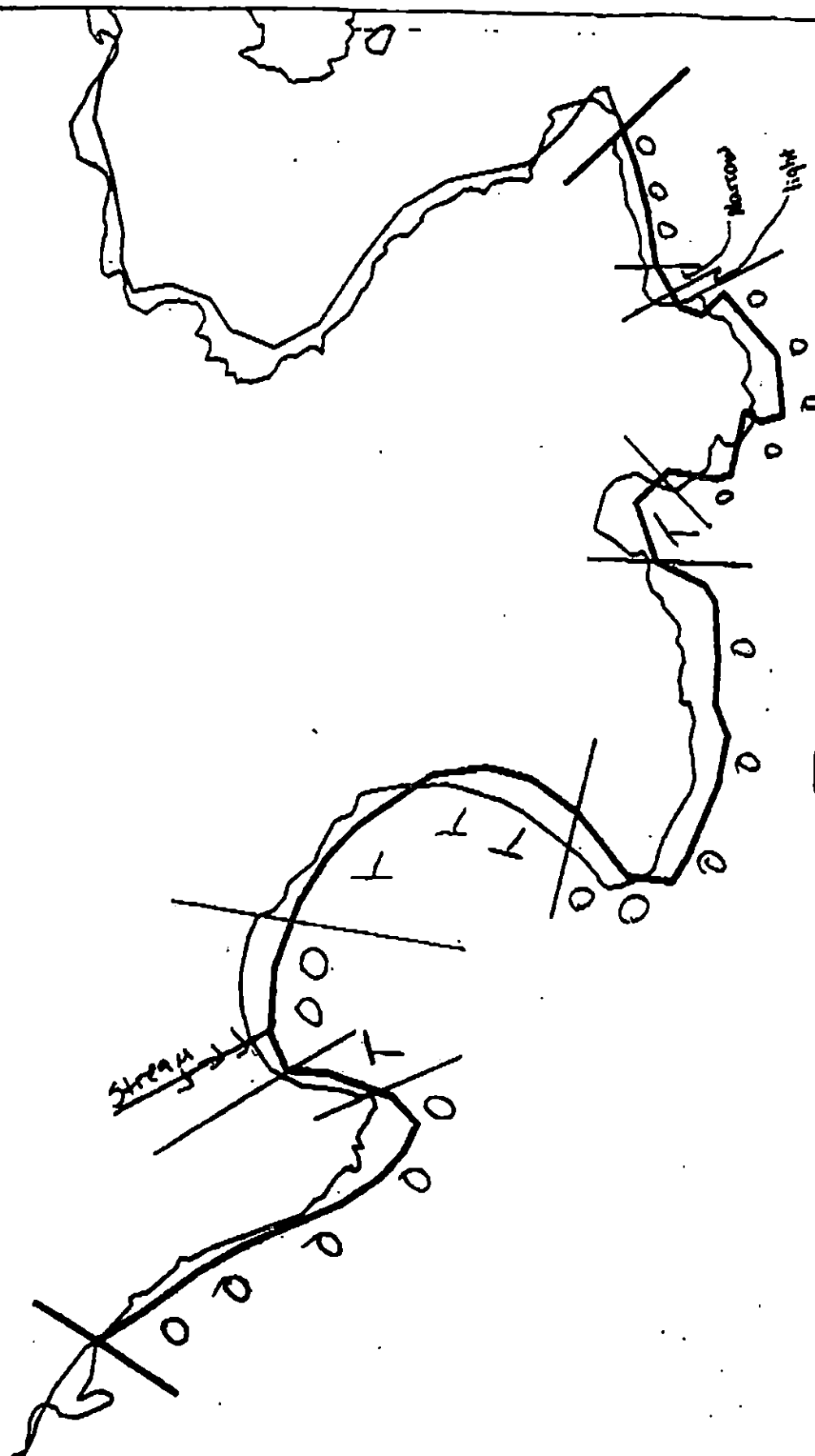
-40

7. 11 15. 13220

ANALYSIS
of text

Exempt
CU-10A
(L.F.2)

T Z N
B A
6 N.



CU-

YXXX Wide

/// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

CU-10

ADEC Segment Length: 2099m



Map Key: PWS-88

Name: K. Ramsey

Date: 4/24/90

Date Entered: 7

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT CU-10 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup Tarmat Removal	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 (224-20-13020) is more than 100m from work site. No constraint to manual pickup and tarmat removal.

1K Purse Seine Hook-off

No constraint to manual pickup and tarmat removal.

5T Bald Eagle Nest

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

OTHER ECOLOGICAL CONSIDERATIONS

If eagle nest constraint is removed, other ecological considerations will apply. Avoid any unnecessary disturbance or damage to uncollected biotas and substrates.

FOSC

DD Rome

Date

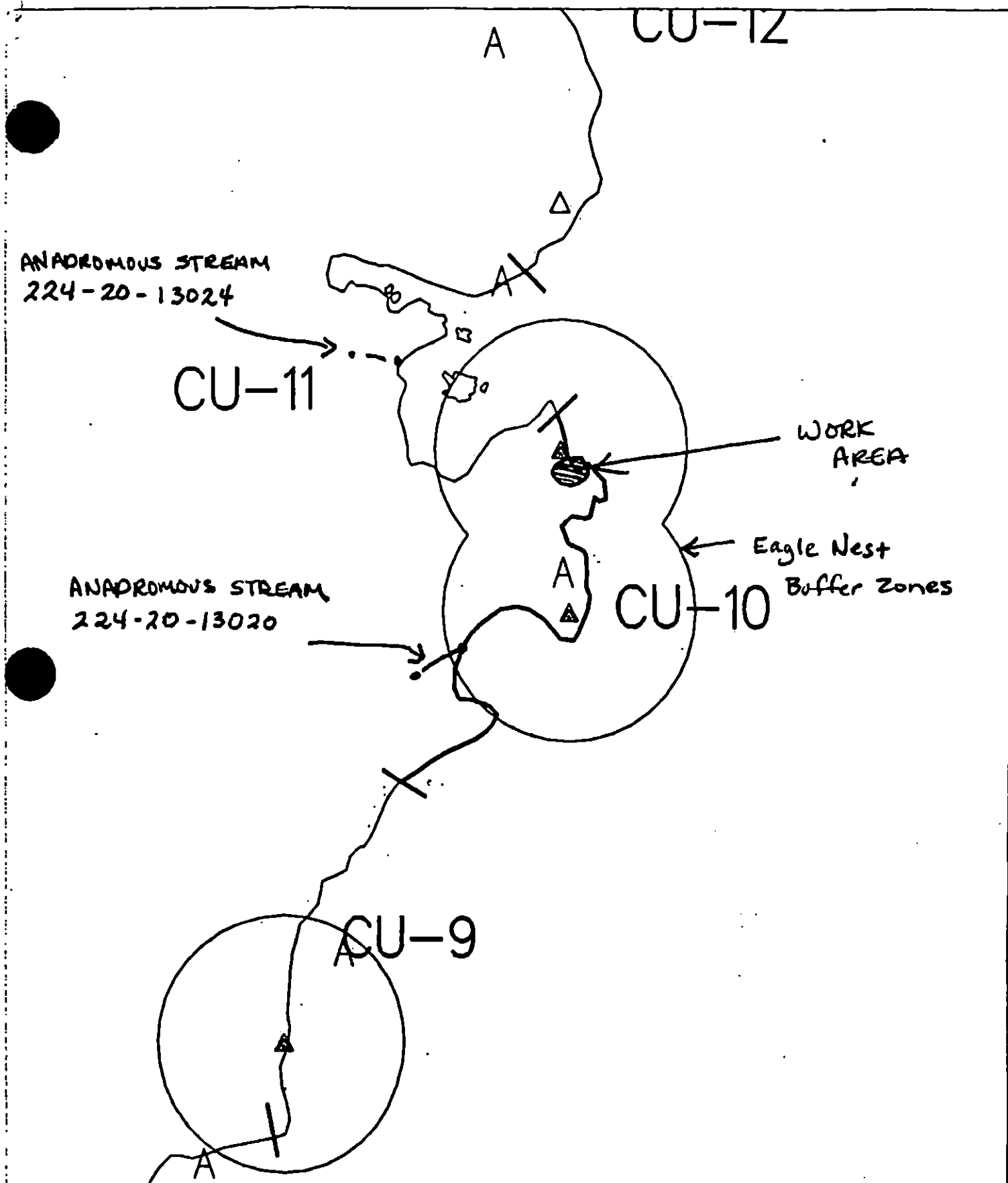
6/24/90

Prepared by

J. Phillips

Date

6/22/90



Exxon Company, USA

Map Key: PMS-CU-10

June 08, 1990

ECOLOGY MAP
SEGMENT CU-10
SUBDIVISION A (1 of 1)

METERS

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

1 inch = 1357 feet

SHORELINE EVALUATION

SEGMENT ST/ CU-10 SUBDIVISION A (1 OF 1) DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream no. 224-20-13020 (Ps, 2/90)

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

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

5T-2 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)

6Y Recreation: Special use destination

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: J. Daniel McManis DATE: 5/9/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 29 m: V.Light 536 m: No Oil 1534 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

 No Treatment Recommended

X Treatment Recommended

X Manual Pickup

 Bioremediation

X Tarmat Removal

 Snare/Absorbent Booms

 Oil Snares (pom poms)

 Absorbents (pads, rolls, etc)

 Spot Washing: Wands

 Beach Cleaner

 Other (see comments)

COMMENTS: Recommended treatment includes manual pickup of mousse
patties and manual removal of tarmats in area indicated on sketch map.
Work should be conducted between 6/1 and 7/10 with approval of USFWS
regarding eagle nest constraint.

SEE CONSTRAINTS ADDENDUM DATED 6/22/90

TAG COMMENTS:

TAG APPROVAL DATE: 5/9/90

ADEC Art Winters

EXXON Andy Tate

NOAA Barl Wescott

USCG D.D. Rome

FOSC: hgl DATE: 5-15-90

SHORELINE EVALUATION

SEGMENT ST/ CU-10 SUBDIVISION A (1 OF 1) DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream no. 224-20-13020 (Ps, 2/90)

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X Treatment Recommended

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 Bioremediation

X Tarmat Removal

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 Oil Snares (pom poms)

 Absorbents (pads, rolls, etc)

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 Other (see comments)

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Work should be conducted between 6/1 and 7/10 with approval of USFWS
regarding eagle nest constraint.

TAG COMMENTS:

TAG APPROVAL DATE: 5/9/90

ADEC Art Weimer
EXXON Andy Tate
NOAA Barl Wescott
USCG D.D. Rome

FOSC: Wyl

DATE: 5-15-90

SEGMENT CU-10
 SUBDIVISION A
 DATE 4/24/80

SKETCH MAP

CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Seg/Sub Bndry
- ☒ Oil Dist
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Ext. HMLA/VOL
- ☒ SSL
- ☒ Profile Location(s)
- ☒ Photo(s)
- ☒ PR Location(s)
- ☒ Photo Location(s)

LEGEND

1 Δ
 PR - No Subsurface Oil

2 Δ
 PR - Subsurface Oil

CT/C
 Continuous Distribution

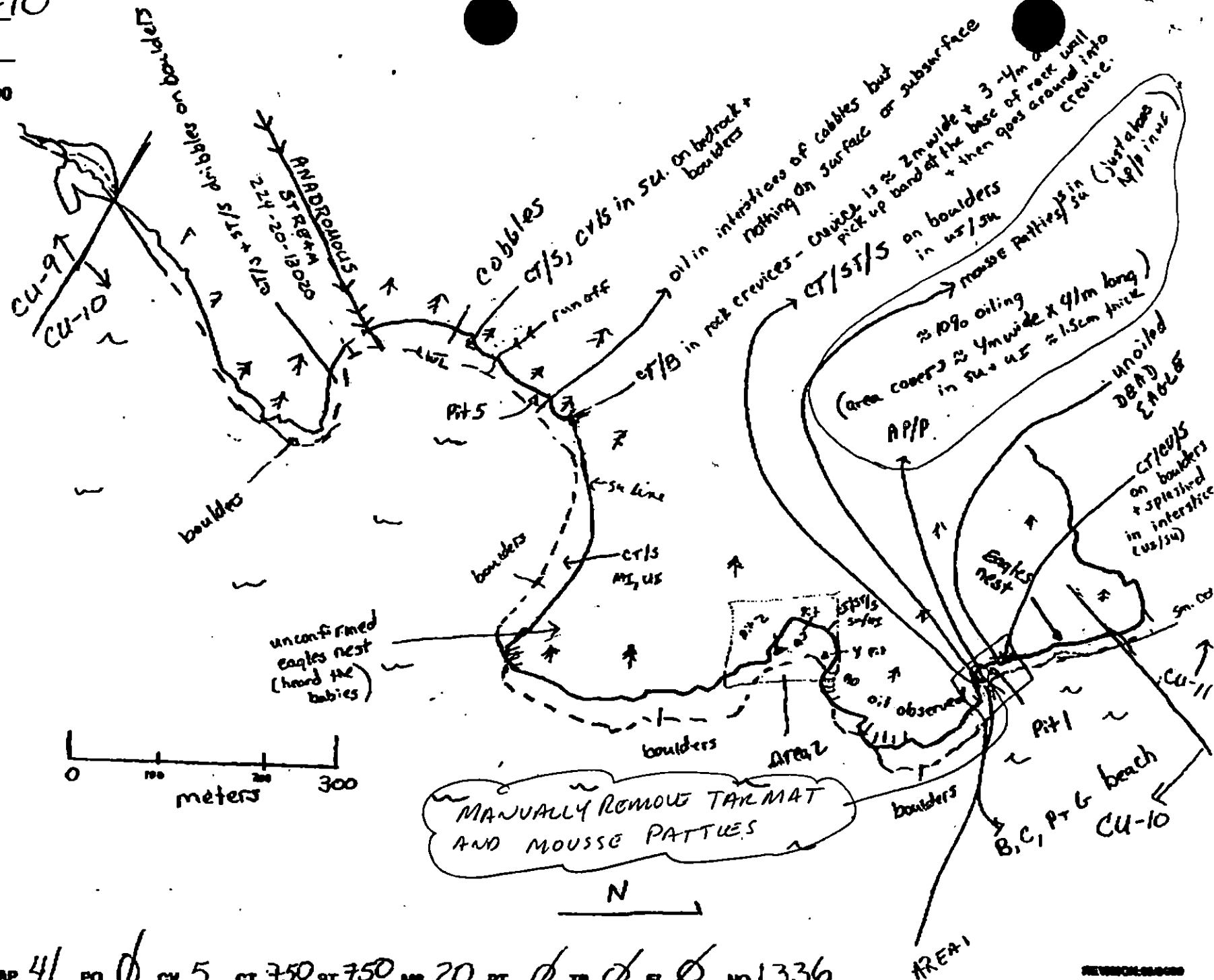
CT/B
 Broken Distribution

CT/P
 Patchy Distribution

CT/S
 Splashed Distribution

eee
 Oil on Vegetation

1 ●●
 Photo location, direction,
 and number



Oil Character Length (m): AP 41 PO 0 CV 5 CT 750 ST 750 MS 20 PT 0 TB 0 FL 0 NO 1336

REVISION: 000000

ECCOLOGICAL MAP

2460 000 FEET

(ZONE 4)

1B
ST(2)
6Y

13042

BALDEAGLE
NESTS

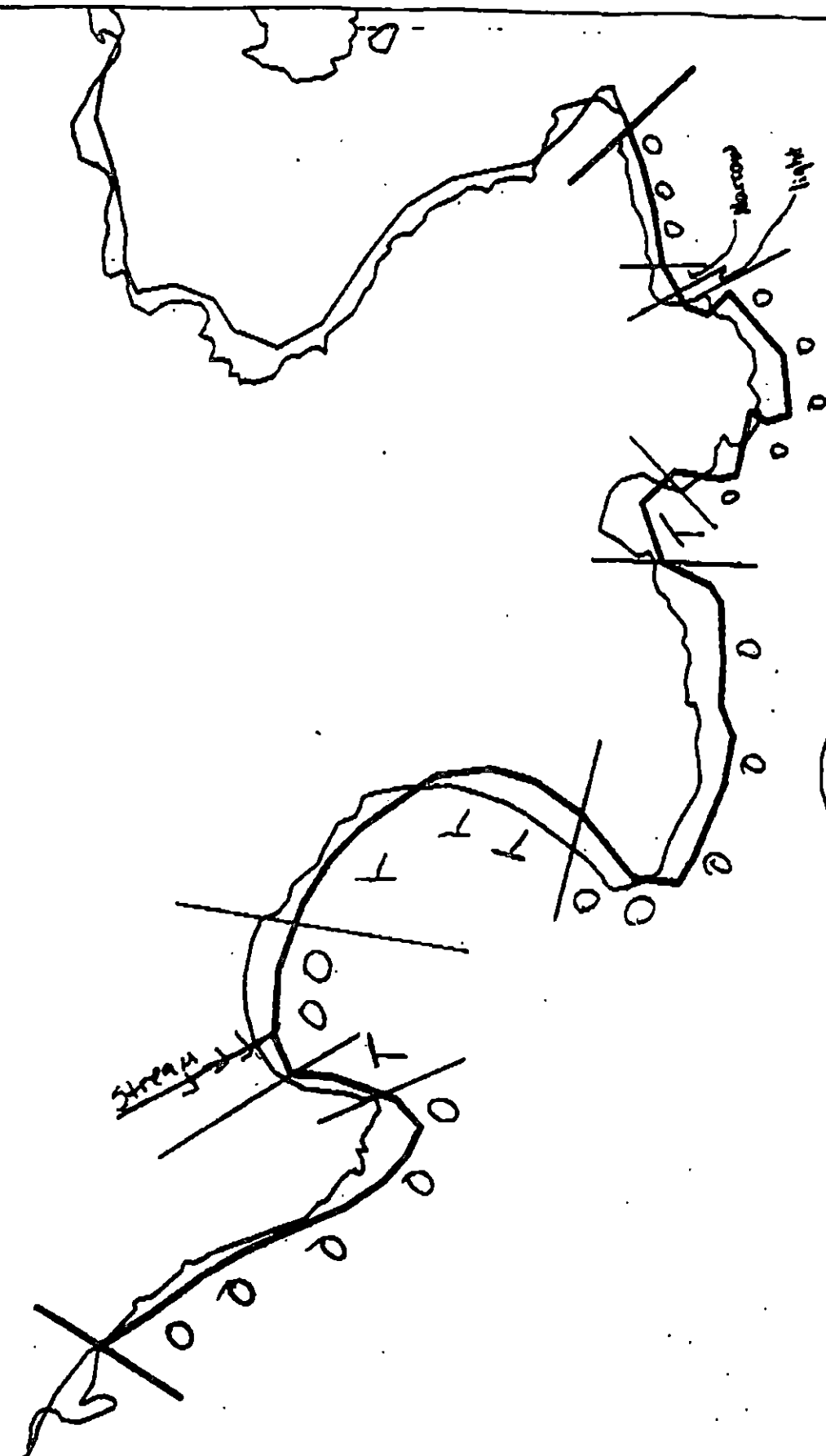
224-20-13020

ANADROMOUS
STREAM

SEMENT

CU-10A
(10FA)





CU-

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CU-10

ADEC Segment Length: 2099m



Map Key: PWS-88

Name: K. RAMSEY

Date: 4/24/90

Date Entered: (7)

1991 MAYSAP EVALUATION

SEGMENT: CU 010 SUB: A REGION: PWS SURVEY DATE: 5/3/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) RESTRICTED 3/1 - 9/15

Ecological/Constraints (see page two for details) Eagle nest,
Anadromous stream, Subsistence - salmon harvesting

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is
required prior to shoreline treatment.

SHPO Signature: _____ Date: _____

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL: _____

TAG: _____

FOSC: _____

TAG APPROVAL DATE: _____

FOSC APPROVAL DATE: _____

ADEC _____

FOSC _____

EXXON _____

USCG _____

NOAA _____

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

Eagle Nest: Access restricted from 3/1 to 9/1. USF&WS authorization required. Maintain 1000' vertical and 1/4 mile horizontal buffer.

Anadromous Stream: Unlimited treatment up to stream bank between May 15 and July 10. ADF&G approval required for work after July 10. Fish Habitat Permit required for instream work. ADF&G approval required for bioremediation within 100 meters of anadromous stream after July 10.

Subsistence - Salmon Harvesting: Unlimited treatment up to stream bank between May 15 and July 10. ADF&G approval required for work after July 10. Fish Habitat Permit required for instream work. ADF&G approval required for bioremediation within 100 meters of anadromous stream after July 10.

ADEC

NAME JEFF GINGLIAS SIGNATURE [Signature]

☒ NTR ONLY AREA OF DEBATE (IN MY OPINION) IS SEGMENT A4 (OG MAP).
 SOME SURFACE MOUSSE/ASPHALT OBSERVED SURT-UTZ IN SMALL AREA (1m x 5m).
 OIL IS TRAPPED AMONG SPACES BETWEEN BOULDERS, LEAVING DIFFICULT ACCESS.
 SURFACE ONLY, OIL IN STATE OF DEGRADATION. TRADE OFF IS THAT THIS AREA
 HAS POTENTIAL HIGH HUMAN USE ACTIVITY, THIS UNSIGHTLY ^{and seen on environment}. IF TREATMENT TO
 OCCUR, SMALL CREW (2-3 PERSONS) MANUAL REMOVAL OR TILLING. ~~BECAUSE OF THE~~
~~PROPOSED TREATMENT~~ AREA ~~BECAUSE OF THE~~ CONTAMINATION DOES NOT APPEAR TO CONTAIN HIGH
 BIOTA, THIS LITTLE ENVIRONMENTAL DAMAGE FROM TREATMENT. RATHER, ISOLATED AREA ON SMALL SEGMENT

EXXON

NAME FRANK A. BOX SIGNATURE [Signature]

☒ NTR Very little oiling - patches of tar patches observed in
 the back of the bog. Heavy biota, recommended nothing
 be done, other than let nature take care of it.

LANDMANAGER

NAME MARSHA HALL OF DNR SIGNATURE [Signature]

☐ NTR ☒ TREATMENT
 IN AREA OF A4, A SMALL CREW 2-4 PEOPLE,
 could break up the asphalt patches and remove. Some
 of the oil seems to be less potent but with some
 SUN SHINE AND WARMER DAYS it could be
 contaminating. RECREATIONAL AREA.

USCG/NOAA

NAME Jensen/Childs SIGNATURE [Signature]

☒ NTR Further removal operations would cause more
 environmental harm than the oil to be removed.

Rough, Graph, Coastline w/ Boulder (cobble pebble pocket beach).
 No subsurface oil was observed. Surface oiling consisted of
 Degraded MS? AP localized, COATS on Vertical Rock Faces

Surface oil only as remnant MS/AP patches and CT/TR
oil often in B interstices and rock crevices; often well
degraded, may produce forced sheen; mixed w/ vegetation.
Sheening creosote log mapped for reference only.

Revised, Mar 7

TEAM # 1 / DATE 3 May 91
 SEGMENT # CU 010 TIDAL HEIGHT (Range) +0.6 to +5.0 ft MLLW
 SUBDIVISION A BIOLOGIST Michael Fawcett
 SEA STATE calm WIND SPEED/DIRECTION NE 0-5 Knots
 PHOTOGRAPHS: ROLL # FRAME #

COMMENTS/OBSERVATIONS (to be completed in oiled subdivisions only):

This subdivision consists of one 300m wide cove (A1 + A2) within which are small pocket beaches and two small (non-anadromous) streams, and two smaller coves where residual oil was found. The oil at each site occurs in small amounts in UTZ or SUTZ zones occupied only by black lichen or lichen and sparse limpets and isopods. Downshore areas are dominated by barnacles, rockweed, patches of mussels, and snails (littorinids, whelks, and limpets). Species diversity and habitat diversity are relatively low in this subdivision, although density of the dominant species is often high. Recent recruits of rockweed, mussels, and barnacles are abundant, and littorinid egg masses are common beneath MTZ boulders.

WILDLIFE OBSERVATIONS
 TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1 Sitting in tree	1	
Seabirds			
Waterfowl			
Gulls/kittiwakes			
Shorebirds			
Corvids			
Other Birds			

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters		(deer bones)	
Pinnipeds (specify)	1 harbor seal		
Whales (specify)			

Shoreline subdivision map showing important biological features attached.

REVIEWED: MC 5/7/91
 Rev 1 5/7/91 DM

3 May 91 CU010 Fawcett
arrive 1140

low tide small non-anad. streak
in stream

BR/B/LTZ-MTZ, BR/P/UTZ-sup

dense whelks among barn
on boulders MTZ

- dense spat everywhere

- CT in quality intrusion

UTZ-supra west of stream

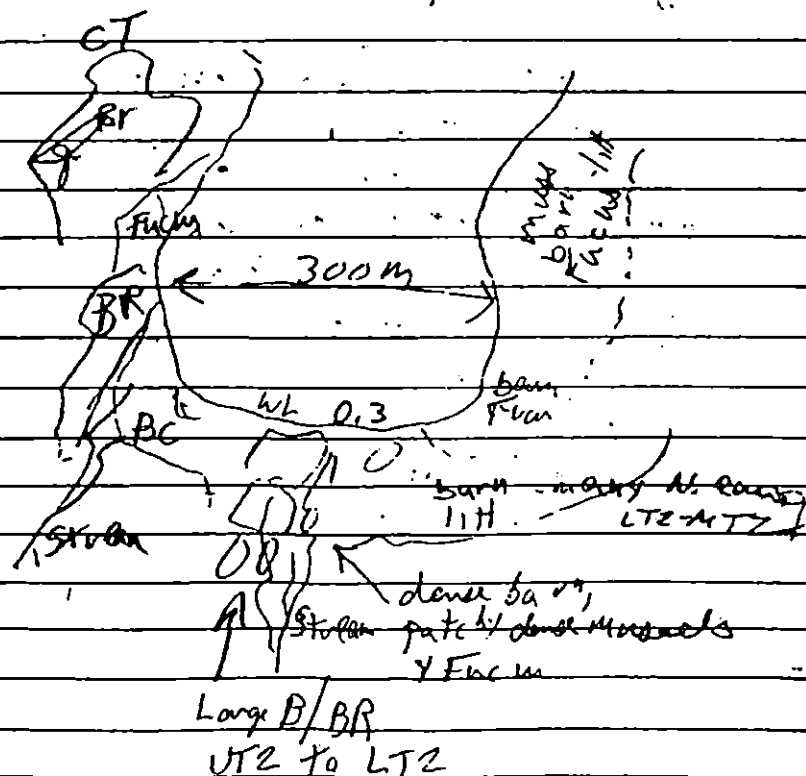
- mostly dense Fucus
down here from CT-

also dense barn, 1/H

W/whelks - depart 1225

1 harbor seal

CU 10A site A1



CUIBA Site B Fawcett

3 May 91 Arr 1230

- small cove, high ^{mod} wave
energy - round cobbles/boulders
of ~~one~~ large B & BR - lots
of abrasion in center

BR at edge with dense Fucus
barn, litt, limp, Rhodog, etc

- large, exposed rocks in center
have dense barnacles mostly on lee
sides, one big boulder has dense
mussels on lee side

1 deer pelvis

1 eagle in tree at entrance

Depart 1245

Arrive Site C 1250

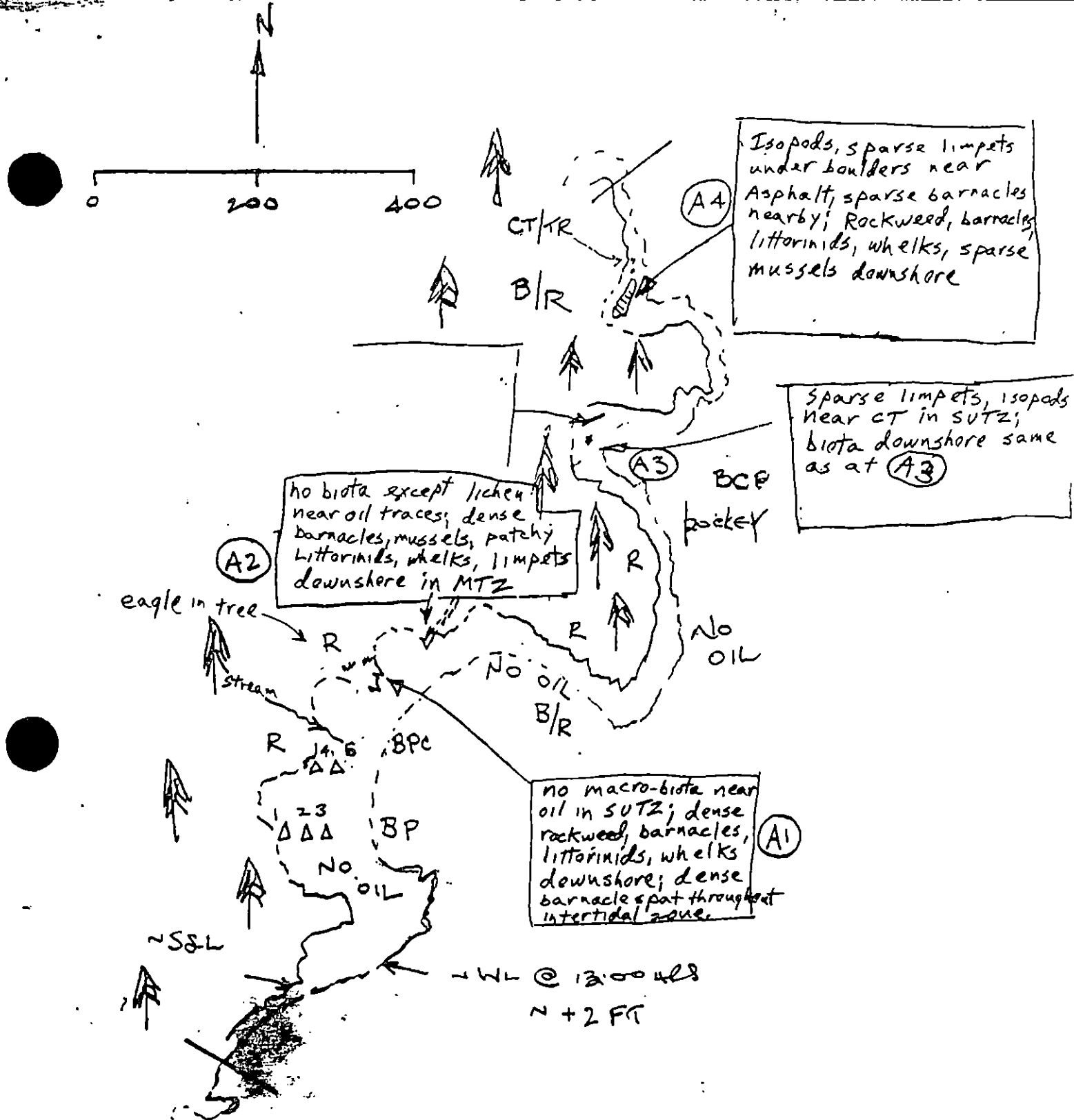
small pocket cove similar
to B, but more massive boulders
boulders the same

dense Fucus, muss, barn, litt,
limp, limp + LTZ - LTZ

50% in LTZ - Lygia, sparse
10% pers 011a

depart 1350 after lunch

2012 10/10/12



Bio Sketch Map
CU 010-A
3 May 91
M. Fawcett

11+

A

15m d N

1m d VL

A

CU-1

5m d VL

2m d VL

UNS

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

CU010 A
 ADEC Subsegment Length: 2000m
 METERS
 0 200 400
 AK State Plane Zone 4
 psu010a



Subdivision Field Map
 Map Key: PWSCU010A
 Name: GM
 Date: 5.3.91
 Date Entered:

REVIEWED: 5/7/91 MC
 3
 ET reviewed, May 7

1991 MAYSAP EVALUATION

SEGMENT: CU 010 SUB: A REGION: PWS SURVEY DATE: 5/3/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) RESTRICTED 3/1 - 9/15

Ecological/Constraints (see page two for details) Eagle nest,
Anadromous stream, Subsistence - salmon harvesting

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is
required prior to shoreline treatment.

SHPO Signature: Pickel Joan Doe Date: 5/14/91

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

N

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL: _____

TAG: _____

FOSC: _____

TAG APPROVAL DATE: May 14 1991

FOSC APPROVAL DATE: 5/20/91

ADEC

FOSC

EXXON

E. E. PAGE, CDR, USCG
CHIEF OF STAFF, FOSC

USCG

NOAA

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1991 FIELD ACTIVITIES**

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MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 1 SEGMENT CU-10 SUBDIVISION A DATE 5/3/91

ADEC

NAME JEFF GUALIAS SIGNATURE [Signature]

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 OCCUR, SMALL CREW (2-3 PERSONS) MANUAL REMOVAL OR TILLING. ~~RECOMMENDATION~~
~~FROM THE AREA~~ ^{SURROUNDING} CONTAMINATION DOES NOT APPEAR TO CONTAIN HIGH
 BIOTA, THUS LITTLE ENVIRONMENTAL DAMAGE FROM TREATMENT. RATHER, ISOLATED AREA ON SMALL SEGMENT

EXXON

NAME FRANK A. Box SIGNATURE [Signature]

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NAME MARSHA HALL OF DNR SIGNATURE [Signature]

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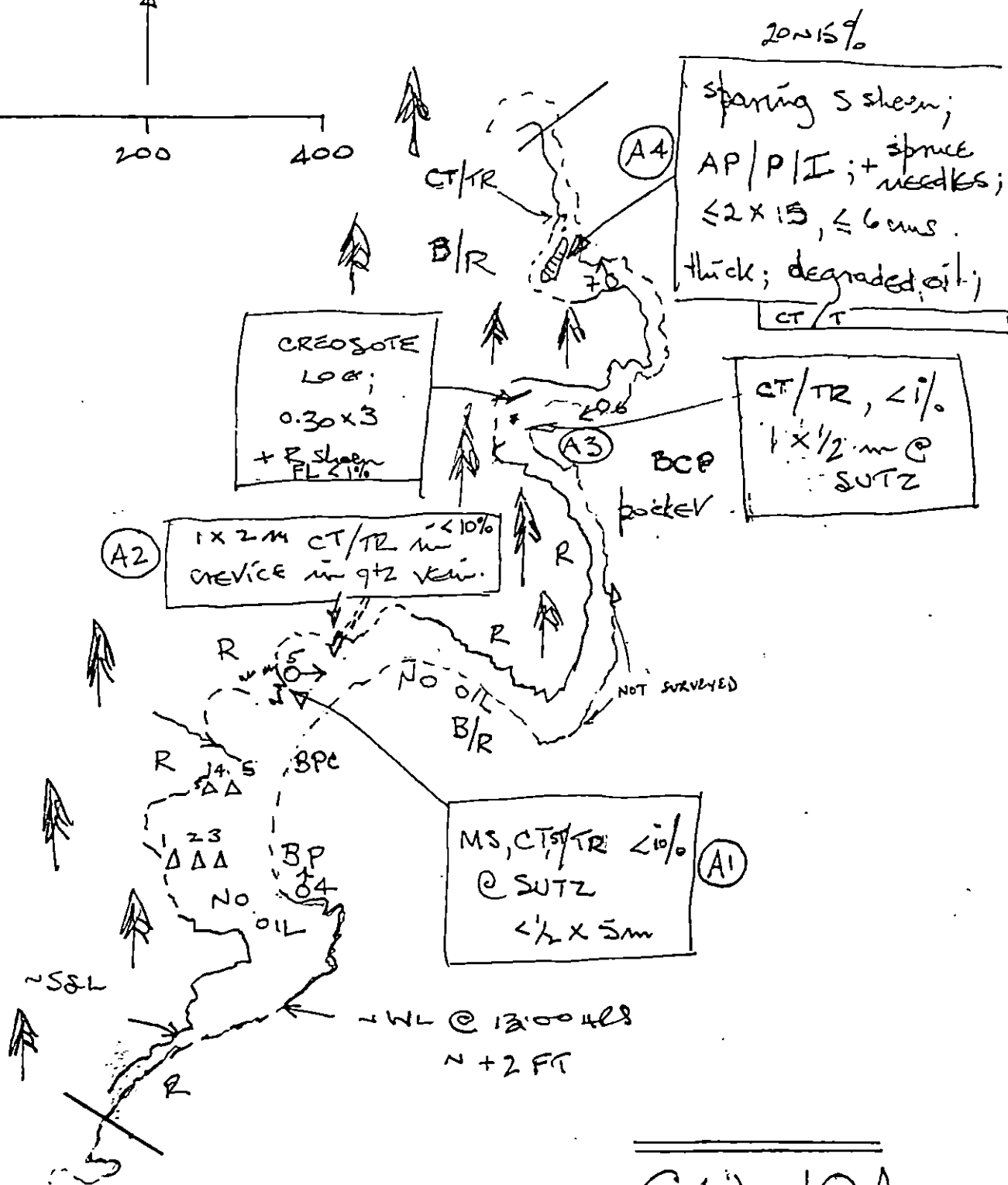
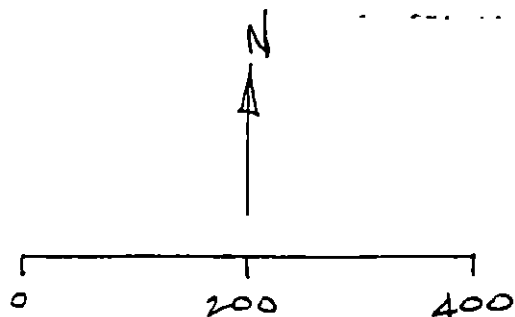
USCG/NOAA

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revised, May 7



E.O.S. 13.10 Hrs

CU-10A

G. MACDONALD

8.3.91

REVIEWED: 5/7/91 MC
ET revised, May 7

REVIEWERS: MC 5/7/91
P. 1-12/2 200

3 May 91 CU010 Fawcett
arrive 1140

low w/ small non-anchored streak
in center

BR/B/C LTZ-MTZ, BR/P UTZ-Sup

dense whelks among barn
on boulders MTZ

- dense spat everywhere

- CT in quartz intrusion

UTZ-Supia west of stream

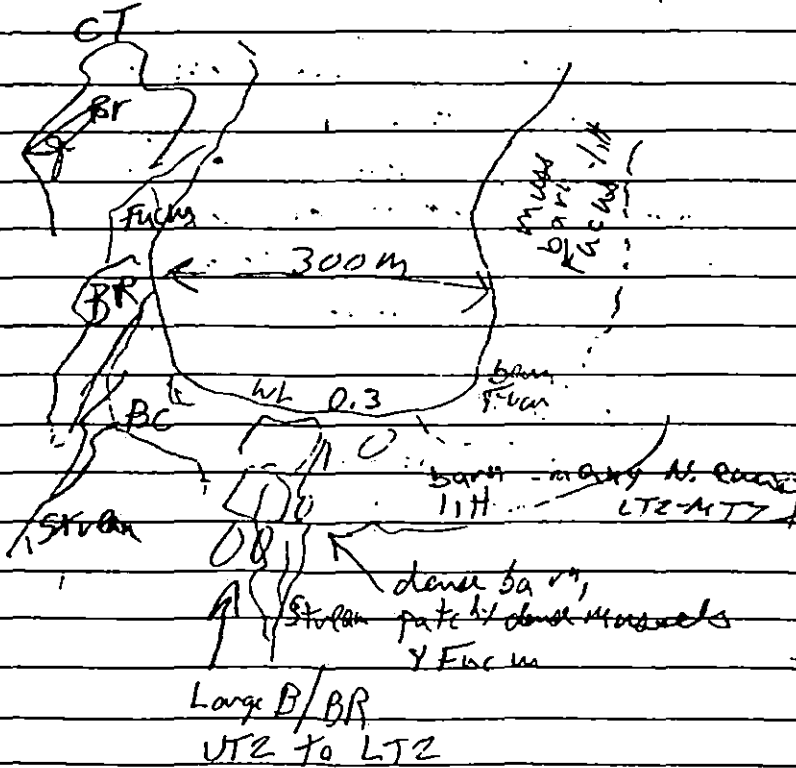
- mostly dense Fucus
down here from CT-

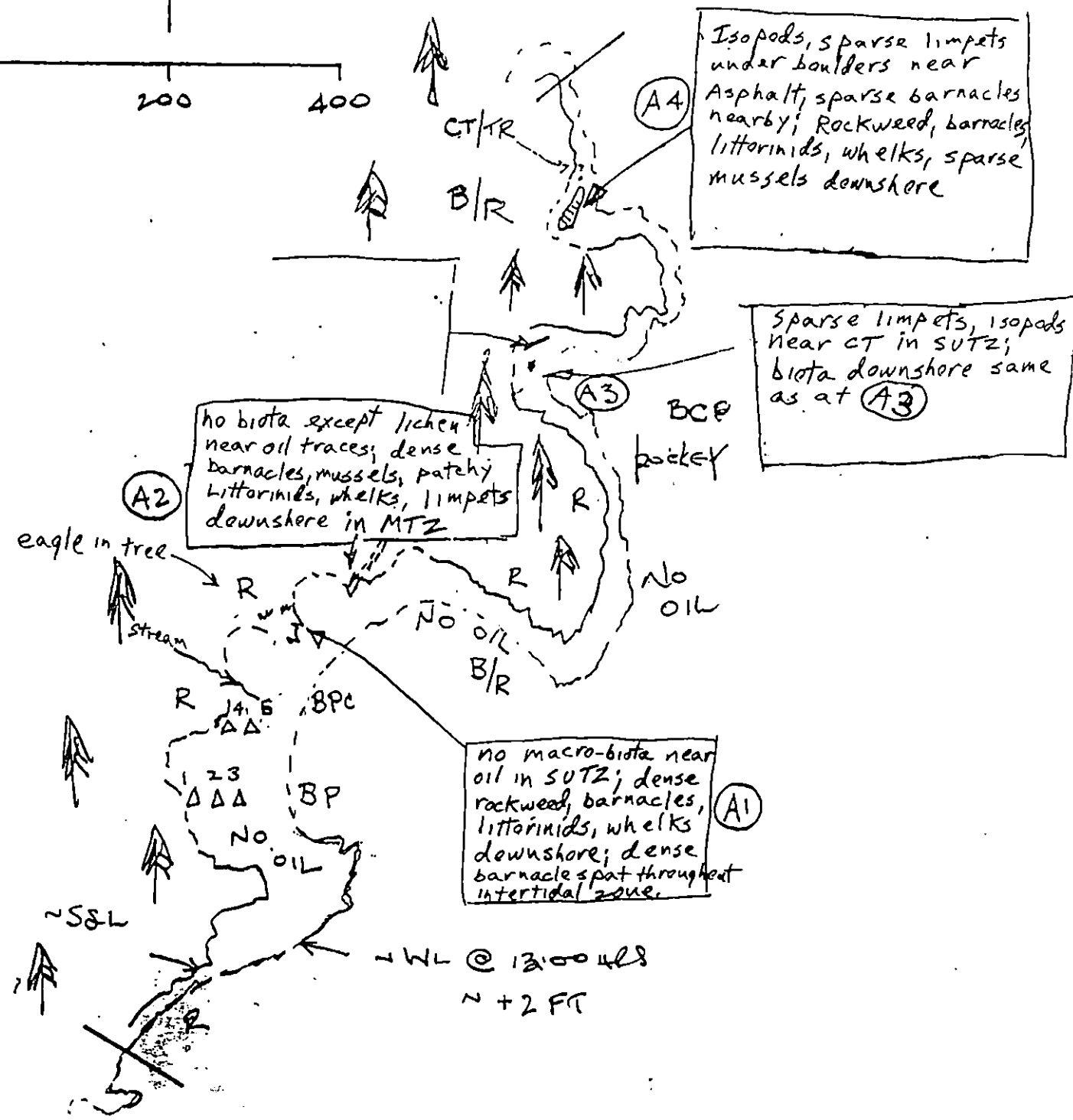
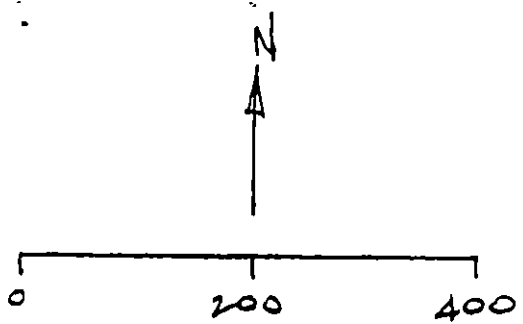
also dense barn, 1/H

w/ helms - depart 1225

1 harbor seal

CU 10A site A1





Bio Sketch Map
 CU 010-A
 3 May 91
 M. Fawcett

11+

A

15m d N

1m d VL

A

CU-1

5m d VL

2m d VL

UNS

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

CU010 A
 ADEC Subsegment Length: 2000m
 METERS
 0 200 400
 AK State Plane Zone 4
 position



Subdivision Field Map
 Map Key: PWSCU010A
 Name: GM
 Date: 5.3.91
 Date Entered:

REVIEWED: 5/7/91 MC
 ET reviewed, May 7

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/CU-11

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ CU-11 SUBDIVISION A (1 OF 1) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream no. 224-20-13024 (Ps, 2/90)

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

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

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.

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 66 m: Narrow 140 m: V.Light 939 m: No Oil 1890 m
Subsurface Oil Observed: Yes X No _____ Maximum Depth 10 cm

RECOMMENDATIONS:

☐ No Treatment Recommended	☐ Snare/Absorbent Booms
☒ Treatment Recommended	☐ Oil Snares (pom poms)
☐ Manual Pickup	☐ Absorbents (pads, rolls, etc)
☒ Bioremediation	☒ Spot Washing: <u>4</u> Wands
☒ Tarmat Removal	☐ Beach Cleaner
	☐ Other (see comments)

COMMENTS: Recommended treatment includes 1) manual removal of tarmat in area indicated on sketch map #1, 2) spot hot water washing in areas indicated on sketch maps #1, and 2, and 3) bioremediation in areas indicated on sketch maps #1 and 2. Work should be conducted between 5/15 and 7/10 due to salmon stream constraints.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A/ Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B/ Salmon stream mouth - spawning (7/10 to 8/31)
No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream 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/ Seawall 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 unrolled 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, 3O, 3Q/ Harbor seal and sea lion pupping (5/15 to 7/1)
Harbor seal and sea lion molting (8/15 to 9/15)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31).
Contact ADF&G and USFWS prior to treatment for confirmation.
AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
ADF&G Don Calkins 267-2403
- 5R/ Seabird colony (5/1 to 9/1)
Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S/ Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
ADF&G Tom Roth 267-2206
- 5T/ All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U/ Recreation: Tent sites (5/1 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)
7-H/ Finfish harvesting
Deer harvesting (3/15 to 2/28)
Invertebrate harvesting
Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

SEGMENT ST/ CU-11 SUBDIVISION: A DATE 4/25/90

REG
E MS. SHARPLE SIGNATURE [Signature]
☐ NO TREATMENT RECOMMENDED
COMMENTS ☒ TREATMENT SUGGESTED

ADEC
NAME STEPHEN FERGUSON SIGNATURE [Signature]
☐ NO TREATMENT RECOMMENDED
COMMENTS ☒ TREATMENT SUGGESTED

DEC (MAP) RECOMMENDATIONS

POCKET #3 SPOT WASH → POOLED MOUSE ON STATE COUNTRY RR.
MANUAL REMOVAL → SPOT WASH → BIO → PAPERPORT + POOLED MOUSE AREA SHOWN IN ☐

POCKET #4 SPOT WASH + BIO

POCKET #5 SPOT WASH (POOLED MOUSE → BEATED AT TOP ANTIPOD BEDROCK)

☒ → IF SPOT WASHING IS GOING ON AT POCKETS 3+4+5 MAY WANT TO ASSESS POSSIBILITY OF WASHING THIS AREA ALSO

LAND MANAGER

NAME Leigh Carlson SIGNATURE Leigh Carlson ADNR

☐ NO TREATMENT RECOMMENDED
COMMENTS ☒ TREATMENT SUGGESTED

Listed as priority 2 by PWSCA. Area used for recreation.
Oiling is in or adjacent to pocket beaches that are good for recreational uses. Recommend treatment as suggested by ADEC above.

SHORELINE OILING SUMMARY

REVISION NO. 04/13/90

OG K. Ramsey USCG R. SHARPE SEGMENT ST/ CU-11 Page 192
 BIO G. PENN LAND REP L. CARLSON SUBDIVISION A (1 OF 1)
 EXXON S. REID ADEC S. FERGUSON TIME 8:20 11:30
 TEAM NO. 4 TIDE LEVEL -3.0 to +5.5' DATE 4/25/90
 EST. SUBDIVISION LENGTH: 3924 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 70 % B 20 % C 3 % P 7 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 0 % Hang 50 % Vert 50 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 114 m N 153 m VL 1,143 m NO 2,513 m

SURFACE OIL

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

PAVEMENT H (E) S 1 sq. m by 3 cmPATTIES / TARBALLS 10 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 absorbent pa#BAGS 1

Photographs:

Roll No. ST-4-2Frames 20, 26, 27 + 28

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				A	N	SHEEN (Y/N)	D	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		US	UC	1	2	3	4	5	SU	U	M	U					
1	25					X	1-1	X							X				N	N		20	C, G, S
2	35					X	1-1	X							X				N	N		34	B, P, G, Rx
3	15					X	1-1	X							X				N				P, G, Rx
4	30			X			5-10	X		X					X				N				P, G
5	37			X			5-10	X		X					X				N				P, G
6	30					X	1-1	X							X				N				P, G, Rx

COMMENTS

See attached sheet

REVIEWED MHDATE 4-27-90

COMMENTS

Segment CU-11 consists of mainly high angle to vertical rocky headlands with several boulder and cobble pocket beaches and coves. The northern bay area is a low wave exposure environment, and the southern bay is a moderate to high wave exposure area. In general, there is a band which ranges from patchy coat, cover and stain found in the southern bay. It is roughly 3-4 m in width and is found at the HWL along the vertical bedrock face.

The second predominant oiling is pooled with soft dull black oil which occurs in the crevices and interstices of bedrock and localized areas in the upper intertidal zone. There are a couple of pocket beaches worthy of notice. See diagram for location.

Pocket beach No. 3. This beach is a cobble pocket beach which has pooled mousse splash in an area approx. 13 m long x 2 m wide. Then there is an area of heavier pooled mousse described as patchy (20 - 30% coverage) in an area approx. 13 m long x 4 m wide. Next to this area, there is a small area of friable asphalt pavement about 1 m x 1 m and 3 cm deep.

Pocket beach No. 4. The south side of this pocket beach had the band on the bedrock and patchy pooled mousse which ran from the mitz to sitz. There was oiled fucus in the mitz. There was subsurface oiling in the storm berm and the north side of this pocket beach. The subsurface oiling was 5 cm down and was about 5 cm thick. It covers an area about 1 m wide x 7 m long.

Pocket beach No. 5. There is a runoff stream located mid way on this pocket beach. There is pooled mousse under the runoff water trapped behind boulders which creates a shallow tidal pool. A light brown film occurs on the surface of the water in this area.

OG K. Isamsey
 SEGME CU-11
 SUBDIVISION A
 DATE 4.25.90

LOCATION SKETCH MAP

CHECKLIST

- ☒ N Area
- ☒ Approx. Scale
- ☒ Bay/Sub Body
- ☒ Oil Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HW/LWL
- ☒ SBL
- ☒ Profile Location(s)
- ☒ Profile(s)
- ☒ Pt Location(s)
- ☒ Photo Location(s)

LEGEND

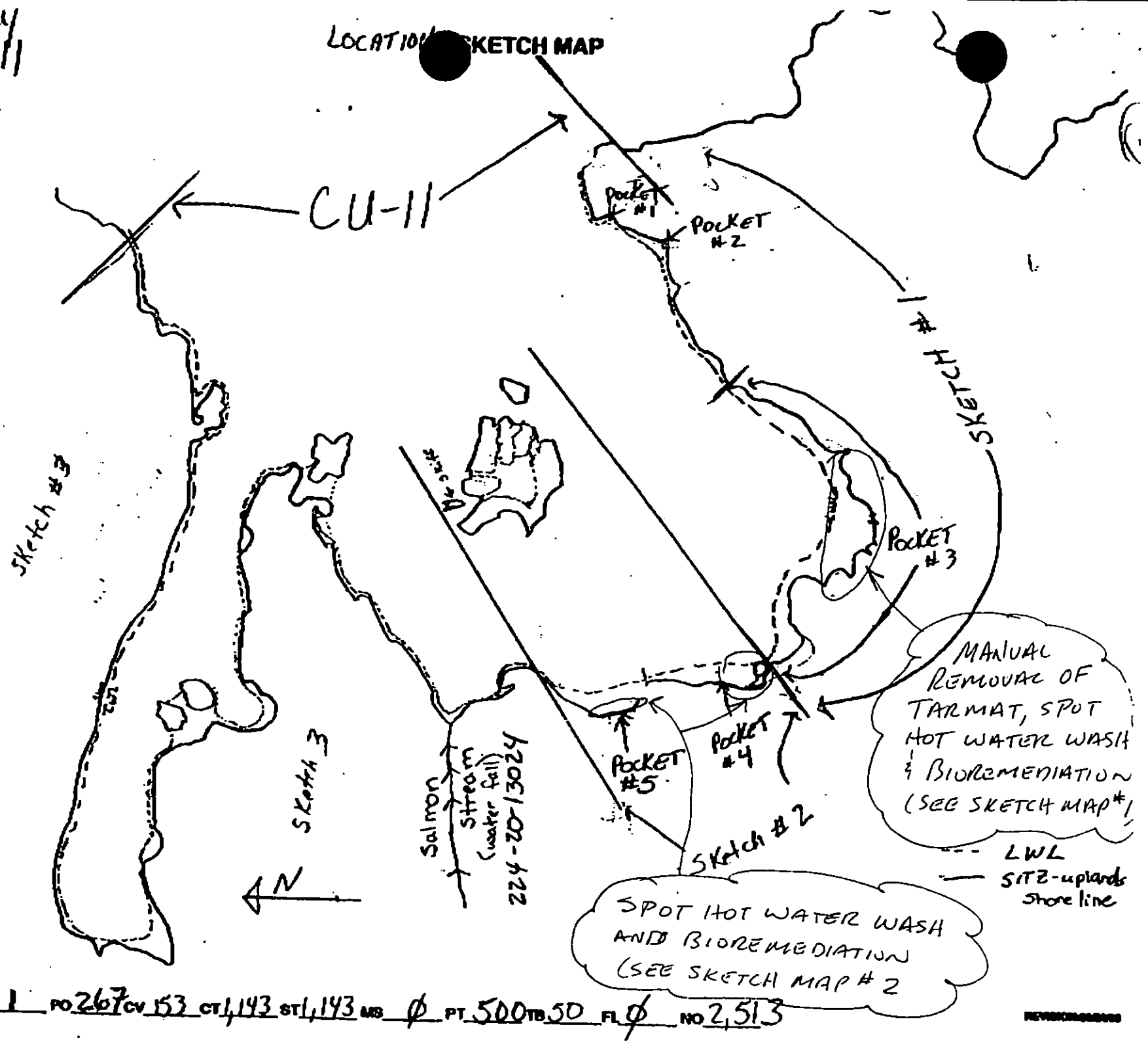
- 1 Δ
Pt - No Subsurface Oil
- 2 Δ
Pt - Subsurface Oil
- CT/C

Continuous Distribution
- CT/B

Broken Distribution
- CT/P

Patchy Distribution
- CT/S

Splashed Distribution
- eee
Oiled Vegetation
- 1 $\Rightarrow$
Photo location, direction, and number



Oil Character Length (m): AP 1 PO 267 CV 53 CT 1,143 ST 1,143 MS 0 PT 500 TB 50 FL 0 NO 2,513

OG K. KAMSE

SEGMENT **CU-11**

SUBDIVISION **A**

DATE **4, 25** 90

CHECKLIST

- ☐ M Area
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. NW/SE/WL
- ☐ S/S
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pit Location(s)
- ☐ Photo Location(s)

LEGEND

1 **Δ**
PR - No Subsurface Oil

2 **▲**
PR - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Belt Distribution

CT/P
Patchy Distribution

CT/S
Splashed Distribution

eee
Oiled Vegetation

1 **⊙**
Photo location, direction, and number

SKETCH MAP #1

CONTINUE ON
TO SKETCH
MAP #2

BIOREMEDIATE

POCKET #3

MANUALLY
REMOVE
TARMAT

SW/S on sediments + interstices (BBE)
TOLS on basalt (BBE) use oil
Coat + st. build before unit (same band as before but not quite thick enough to be called cover)

POCKET #2

POCKET #1

Pit 1

CT/S @ HWL

Clean sorbent
Pad in berm
(Picking up)

Cobbles

CT/S on bedrock @ HWL

ST/CT/CT/S on Rock face
+ P/S splashed in crevices
AP/P/F 1/1 area
3m deep

State country Rx
Pooled mouse
between state
crevices
(Patchy - 20-300
cm range)
area ~ 13m long x 4m
wide

Oiled along
Silt 2
Pooled mouse
(splat)

area ~ 13m long x 2m wide

CT/Cr
band is
5m long x 1m wide up to 2-3m wide
(from Hitz to Silt 2)

SPOT HOT WATER WASH

CU-11
CU-10

N

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

REVISION: 000000

OG K. KAMUJE 1
 SEGMENT CU-11
 SUBDIVISION A
 DATE 4, 25 90

CHECKLIST

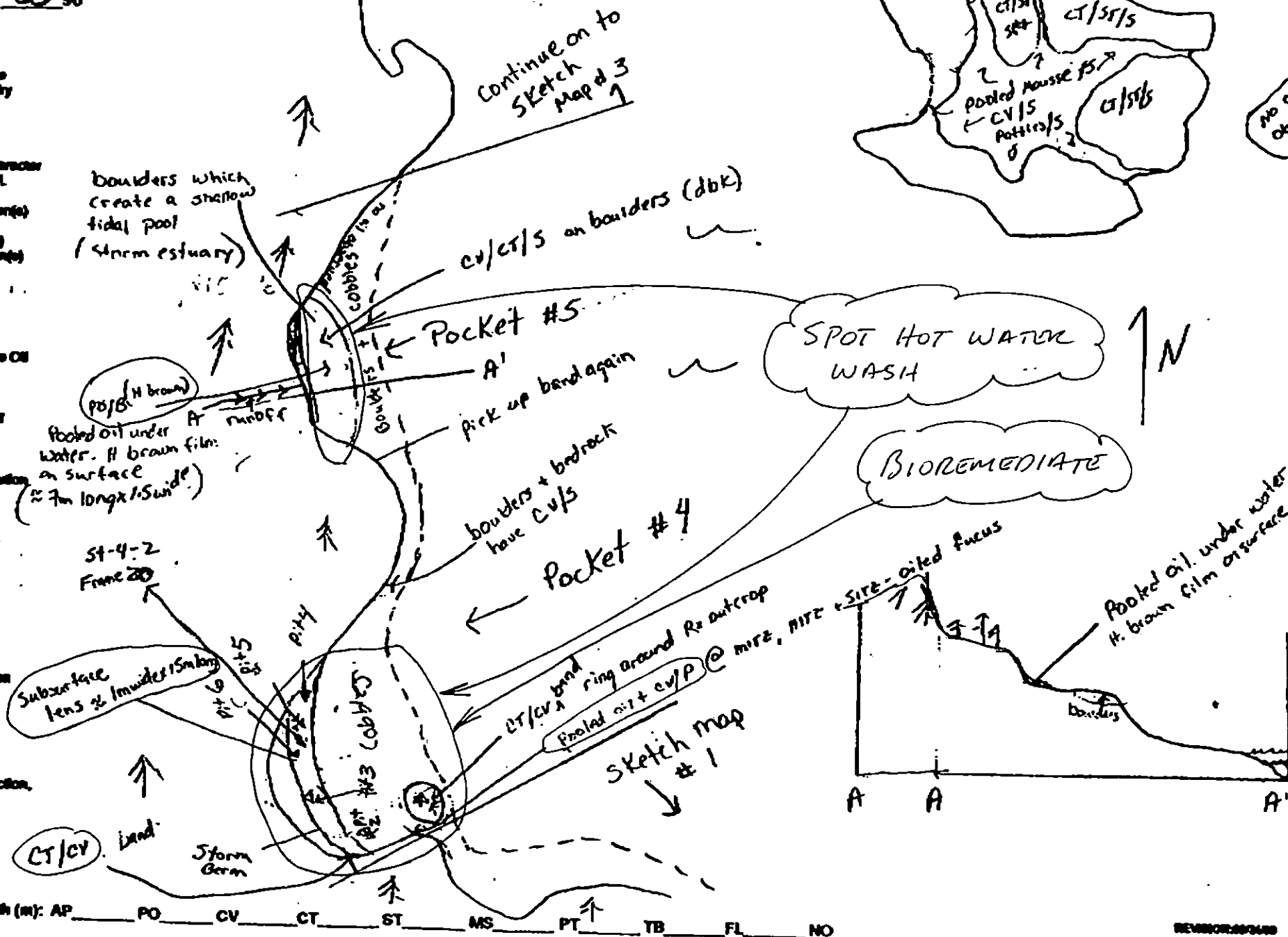
☐ H Area
☐ Approx. Scale
☐ Bag/Sub Entry
☐ Oil Dist.
☐ Width
☐ Length
☐ % Cover
☐ Substrate Character
☐ Ext. HMA/LVL
☐ SST
☐ Profile Location(s)
☐ Photo Location(s)
☐ Photo Location(s)

LEGEND

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

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

SKETCH MAP # 2



DATE 9, 25 90

CHECKLIST

- ☐ N Area
- ☐ Approx. Scale
- ☐ Septal Band
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HRA/LWA
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pl. Location(s)
- ☐ Photo Location(s)

LEGEND

- 1 ▲**
Pr - No Subsurface Oil
- 2 ▲**
Pr - Subsurface Oil

CT/C

CONFIDENTIAL INFORMATION

CT/O

Broken Distribution

СТАР

Patient Distribution

CVS

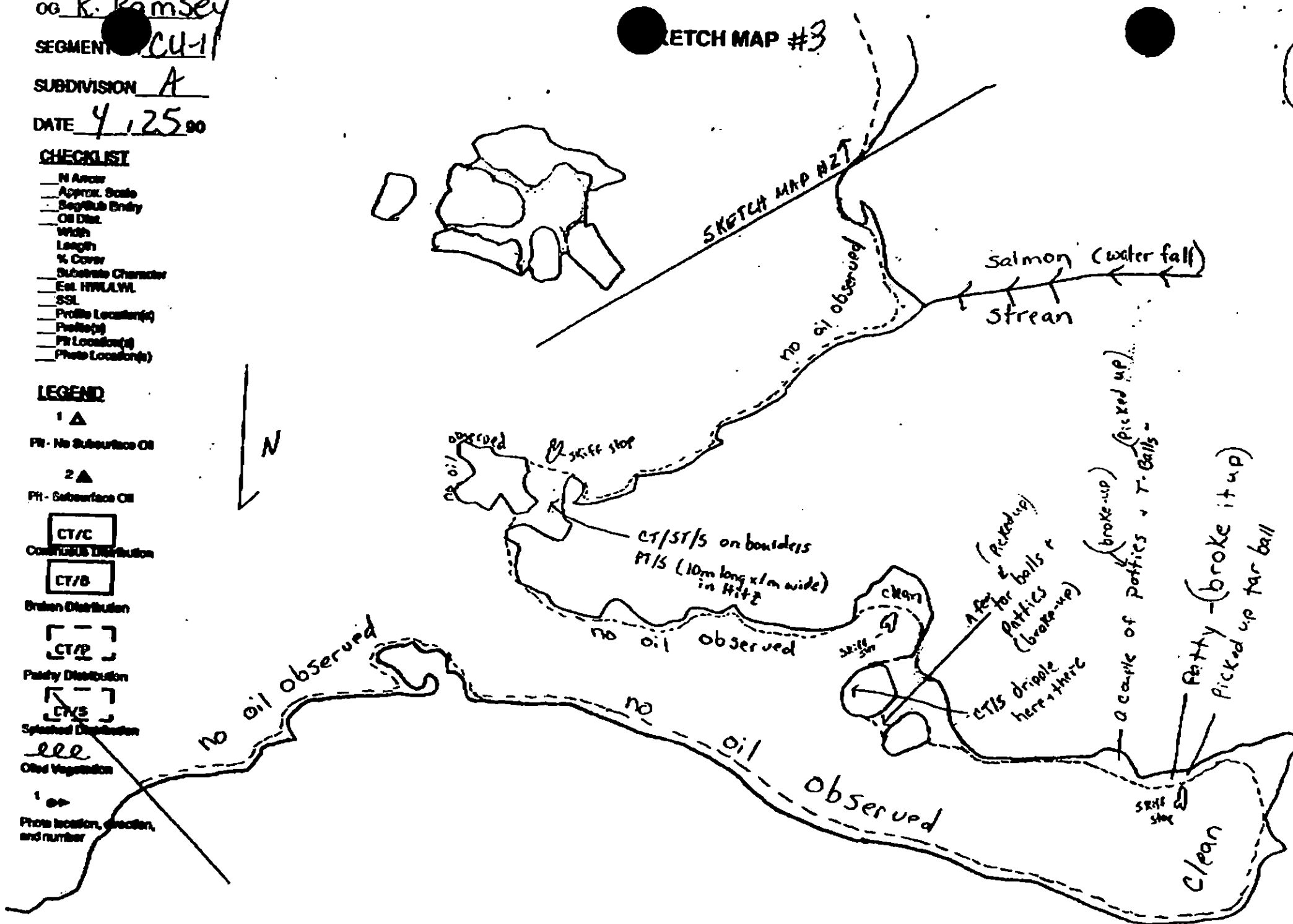
Splashed Disposition

Old Vegetation

Phone location, address, and number

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

RESERVOIR



SHORELINE ECOLOGICAL SUMMARY

REVISION: 06/23/90

Segment ST / C4-11 Subdivision A Date (mo / day / yr) 4/25/90
 Time (24 hr) 0820 Biologist PENN

- (A) Substrate type and % of segments:
 (1) Bedrock 70 (2) Boulder 20 (3) Cobble 3 (4) Pebble 7 (5) Sand 0 (6) Silt 0
- (B) Overall % cover of biota (% of segment): Dense 5 Moderate 10 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-4-2

Frames 20-28

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	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	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 eagles

4 Harlequins

~75 Sand Hill Cranes (overflight)

2 Seals

1 Killdeer Jay

1 River Otter

11 Kittywakes

2 murrelets

1 Song Sparrow

Ecological Considerations:

ANADROMOUS STREAM
224-20-13024

Narrow

1 of 1

Island is very light but
not calculated in segment ADEC
Length. However, since Fam
Lengths using EXXON SEG. LENGTHS it
is calculated in
oil category
length.

ECOLOGY MAP

RESOURCE CODES FOR ENTIRE SEGMENT

1A-1B-224-20-13024

6Y

CU-11

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

ADEC Segment Length: 2458m



Map Key: PWS-69

Name: K. Ramsey

Date: 4/25/90

Date Entered:

ANADROMOUS STREAM
224-20-13024

Narrow



Island is very light but
not calculated in segment ADEC
Length. However, since it
is calculated in
oil category
length.

medium
Narrow

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CU-11

ADEC Segment Length: 2458m



Map Key: PWS-69

Name: K. Ramsey

Date: 4/25/90

Date Entered: 77

SHORELINE EVALUATION

SEGMENT ST/ CU-11 SUBDIVISION A (1 OF 1) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream no. 224-20-13024 (Ps, 2/90)

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

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

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 uncoiled biota and substrate.

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: J. David M. McKen DATE: 5/9/90

OILING CATEGORIZATION:

Wide_0_m: Medium_66_m: Narrow_140_m: V.Light_939_m: No Oil_1890_m
Subsurface Oil Observed: Yes X No Maximum Depth 10 cm

RECOMMENDATIONS:

No Treatment Recommended

X Treatment Recommended

Manual Pickup

X Bioremediation

X Tarmat Removal

____ Snare/Absorbent Booms

Oil Snares (pom poms)

____ Absorbents (pads, rolls, etc)

X	Spot Washing:	4	Wands
---	---------------	---	-------

Beach Cleaner

Other (see comments)

COMMENTS: Recommended treatment includes 1) manual removal of tarmat in area indicated on sketch map #1, 2) spot hot water washing in areas indicated on sketch maps #1, and 2, and 3) bioremediation in areas indicated on sketch maps #1 and 2. Work should be conducted between 5/15 and 7/10 due to salmon stream constraints.

TAG COMMENTS: _____

TAG APPROVAL DATE: 5/9/90

ADEC Art Worker Art Union

EXXON *Amstel*

NOAA Bur / Wescott R. L. L. L. L.

USCG D.D. Rome DD Rome

FOSC: 11 DATE: 5-12-90

OG K Kamsey
 SEG ST/CU-11
 SUBDIVISION A
 DATE 4,25 90

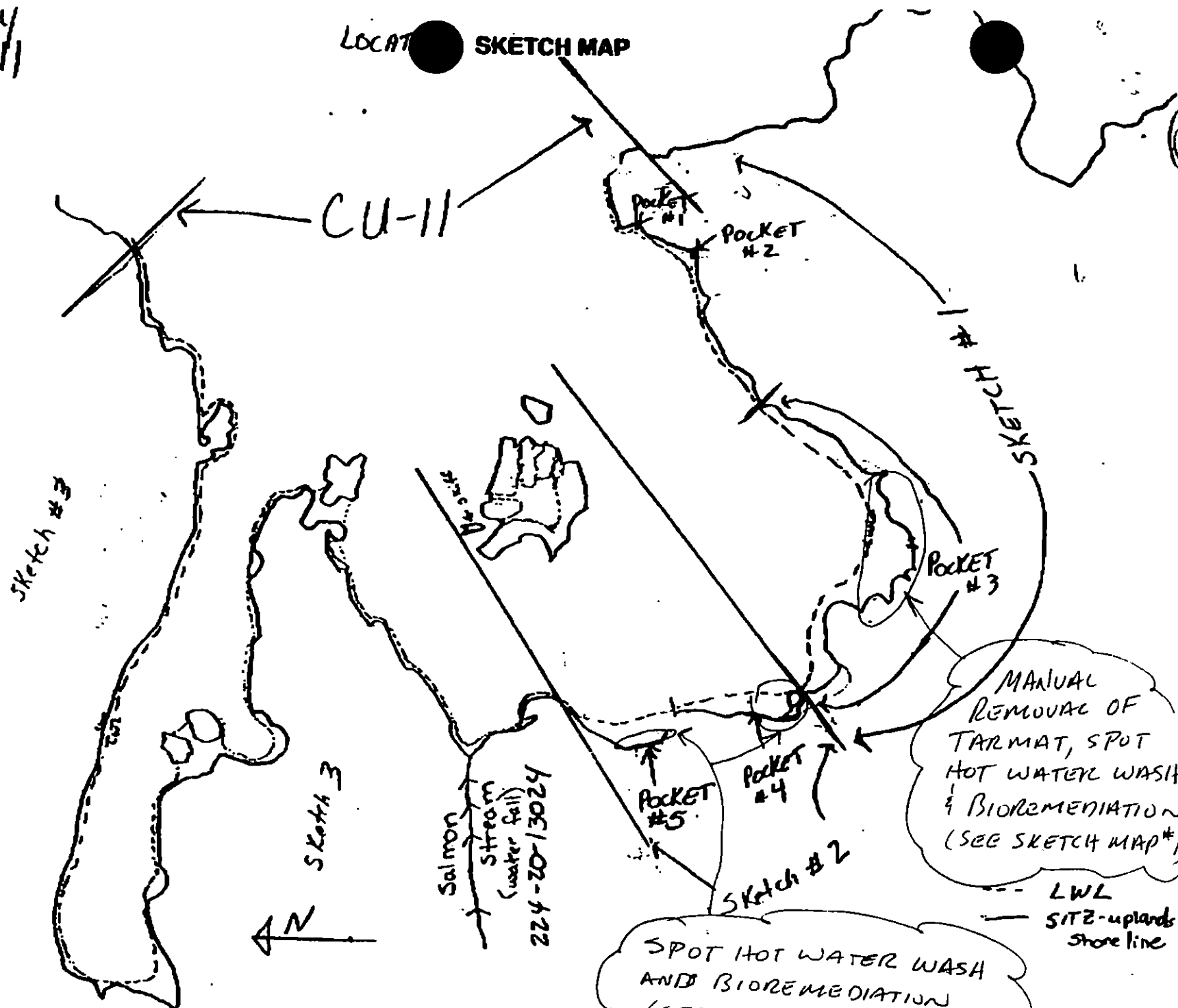
CHECKLIST

- ☒ N Area
- ☒ Approx. Scale
- ☒ Sup/Sub Entry
- ☒ Oil Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HWLASH
- ☒ SBL
- ☒ Profile Location(s)
- ☒ Profile(s)
- ☒ PR Location(s)
- ☒ Photo Location(s)

LEGEND

- 1 Δ
PR - No Subsurface Oil
- 2 Δ
PR - Subsurface Oil
- CT/C
Continuous Distribution
- CT/B
Broken Distribution
- [CT/B]
Patchy Distribution
- [CT/B]
Spashed Distribution
- eee
Oiled Vegetation
- 1 →
Photo location, direction, and number

LOCAT SKETCH MAP



Oil Character Length (m): AP 1 PO 267 CV 153 CT 1,143 ST 1,143 MD 0 PT 500 TB 50 FL 0 NO 2,513

DATE 4, 25 90

SKETCH MAP #1

CHECKLIST

- ___ M Area
- ___ Approx. Size
- ___ Septate Body
- ___ OS Dist.
- ___ Width
- ___ Length
- ___ % Cover
- ___ Substrate Character
- ___ Col. H2O/LVL
- ___ SOL
- ___ Profile Location(s)
- ___ Profile(s)
- ___ PM Location(s)
- ___ Photo Location(s)

LEGEND

1 Δ
Pr - No Subsurface CM

2 ▲
FM - Substitution Cipher

CT/C
Continuous Distribution

CT/D
Strategic Decision

[CT/P]
Patchy Distribution

CT/3
Spliced Distribution

eee
Other Vegetation

1 of
Photo location, direction,
and number

CONTINUE ON
TO SKETCH
MAP
#2

MANUALLY
REMOVE
TARMAT

BIOREMEDIATE

POCKET

PREMEDIATE

BUCKET #3

Wells on Sediments

Wells on bedrocks (BBK) in situ

Coat #48 bedrock with (some)

Pickup band

BBK

POCKET

ADLKE

pit 1

ct/s@HWL

COBBLES
CT/IS on bedrock @ HWL

2014-12-12

Applied Motion
(to plush).

CT/CV

m long x
(from Hitz to

SPOT HOT WATER WASH

ST (band)
+ Pops blasted in reverts
AP/P/P/E 1/1 ana
3m deep

State country R
Pooled mouse
@ nitz
between state
creates
(Patty - 20-300)
range
area n

20-300
(marginal)
age ~ 13m long x 4m
wide

no oil observed

CU-11

CU-10

12

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

00 K Ramsey
 SEG ST/CU-1
 SUBDIVISION A
 DATE 4.25.90

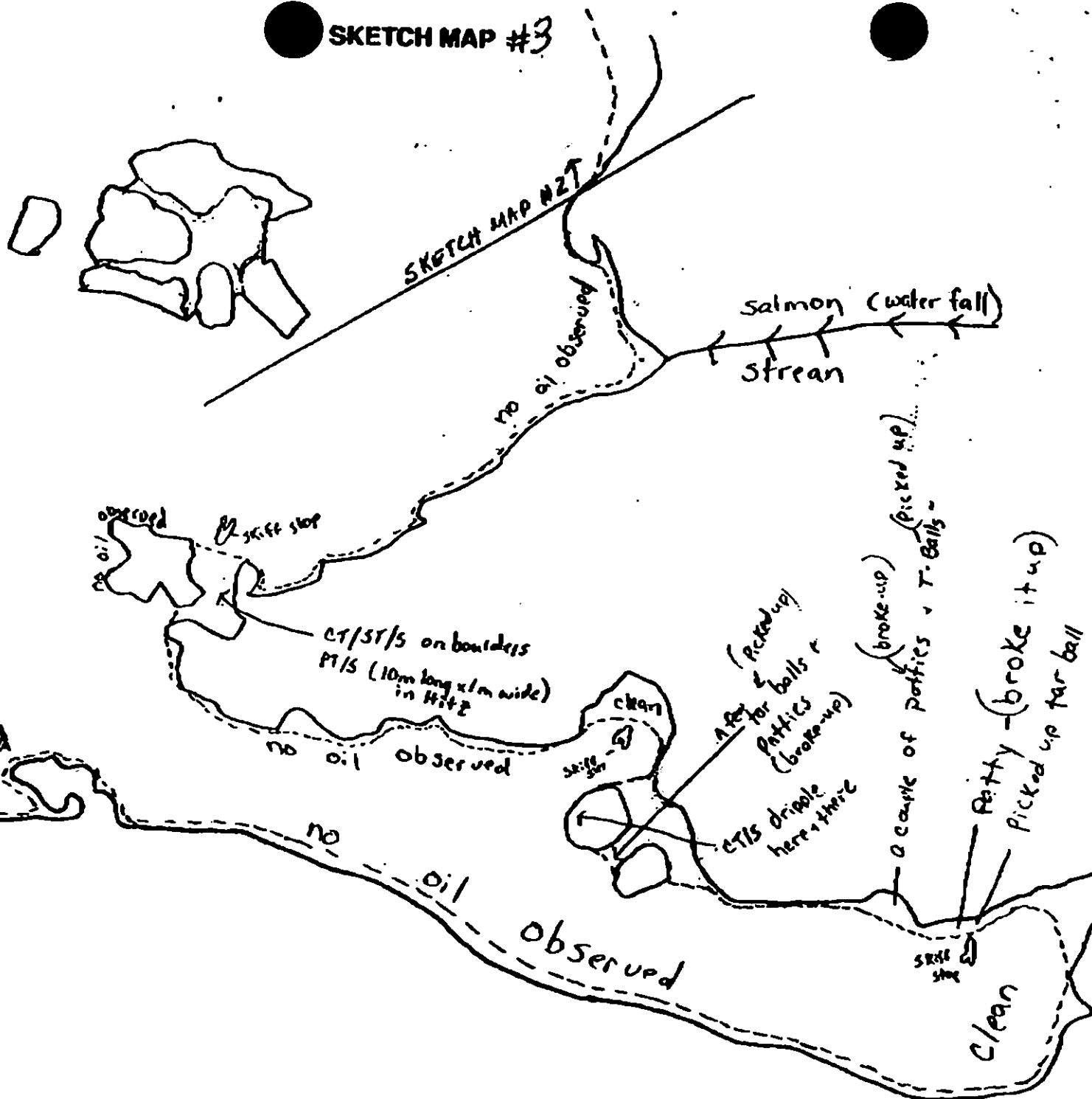
CHECKLIST

- ☐ N Answer
- ☐ Approx. Scale
- ☐ Reg. Club Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. H/W/L/V/L
- ☐ SCL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PH Location(s)
- ☐ Photo Location(s)

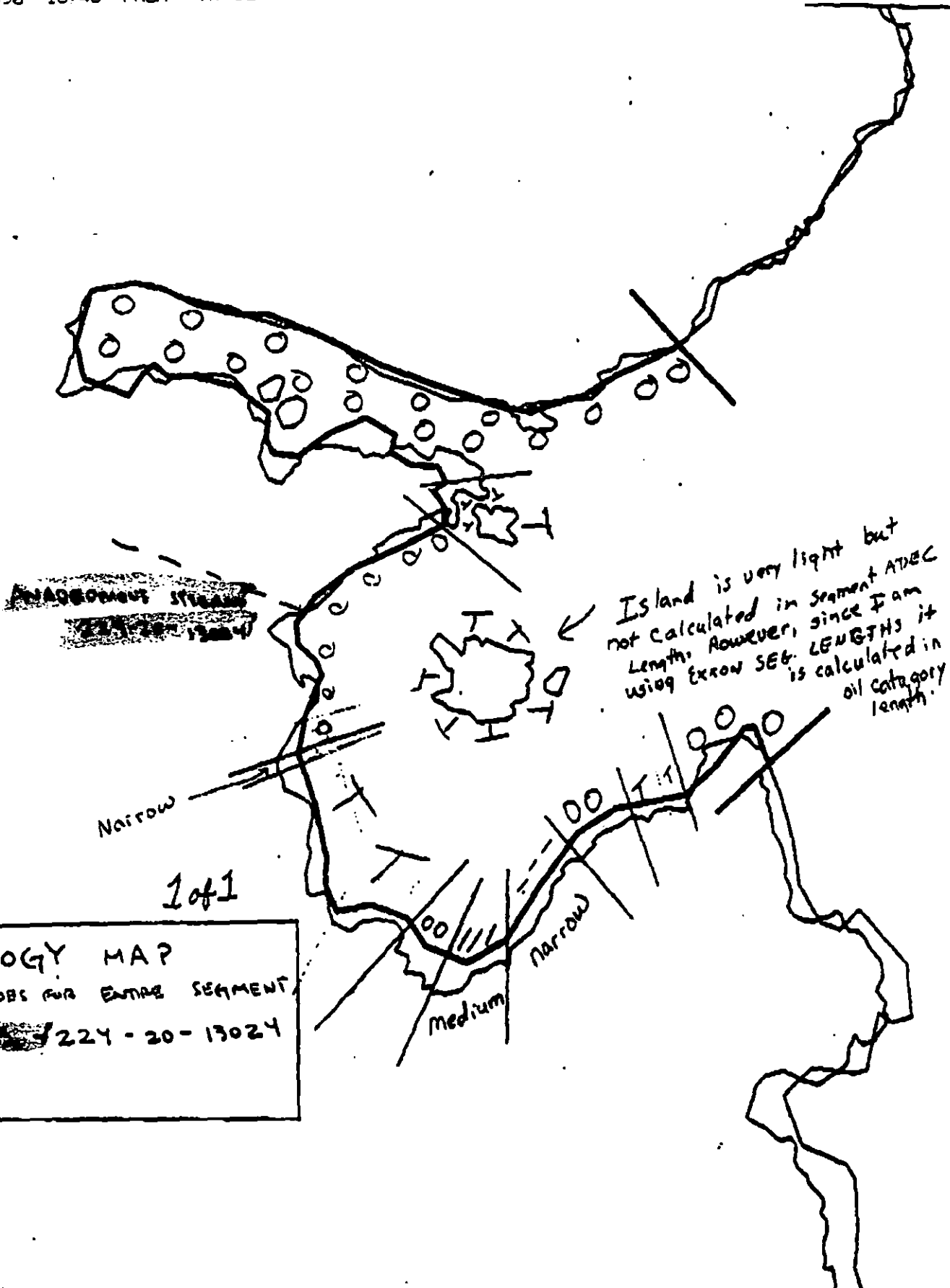
LEGEND

- 1 Δ
 PH - No Subsurface Oil
- 2 Δ
 PH - Subsurface Oil
- CT/C
 Continuous Distribution
- CT/S
 Broken Distribution
- CT/P
 Patchy Distribution
- CT/S
 Splashed Distribution
- eee
 Old Vegetation
- 1 $\Rightarrow$
 Photo location, direction, and number

SKETCH MAP #3



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



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CU-11

ADEC Segment Length: 2458m



Map Key: PWS-69

Name: K. Ramsey

Date: 4/25/90

Data Entered:

77

ANADROMOUS STREAM
224-20-13024

Narrow

medium
Narrow

Island is very light but
not calculated in segment ADEC
Length. However, since it is
using EXON SET LENGTHS it
is calculated in
oil category
length.

XXXX Wide

/// Medium

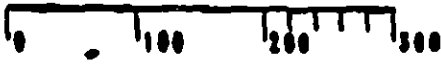
--- Narrow

TTTT Very Light

0000 No Oil

CU-11

ADEC Segment Length: 2458m



Map Key: PUS-69

Name: K. Ramsey

Date: 4/25/90

Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT CU-11 SUBDIVISION A (1 of 1)

WORK WINDOW

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

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

- 1A,1B Salmon Stream** ADF&G catalogued anadromous stream (224-20-13024) is present within Subdivision A. This subdivision is closed to bioremediation less than 100m from stream 7/10 to 8/31. Before 7/10, bioremediation is permitted less than 100m from stream with on-site ADF&G monitor or ADEC alternate present. No constraint to bioremediation more than 100m from stream. No constraint to tarmat removal or spot washing.
- 1K Purse Seine Hook-off** No constraint to tarmat removal and spot washing. Closed to bioremediation after 7/20.
- 5T Bald Eagle Nest** NO CONSTRAINT. USFWS bald eagle impact assessment was completed 5/27/90 by Mike Lockhart. The work areas are outside the buffer zone around active nests established by USFWS.

OTHER ECOLOGICAL CONSIDERATIONS

Use designated access corridor. Restrict boat and air traffic and all disturbance to essential minimum. No personnel or boat traffic within 400m of active nests. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from active nests. No disturbance to stream bed or bank. No flushing of pollutants or sediments into stream drainage; do not allow Inpol to enter stream flow. On-site examination and consultation by ADF&G monitor is required prior to bioremediation in order to authorize a setback distance from the stream during chemical application; if ADF&G monitor's presence is impossible, authorization may be given by the ADEC monitor. Avoid any unnecessary disturbance or damage to uncolled biota and substrate.

TAG ADDENDUM DATE 6/04/90

ADEC
EXXON
NOAA
USCG

Ray Morris
Andy Tom
Joseph Elliott
G.A. BEITER

FOSC

Burns

DATE

6/4/90

Prepared by:

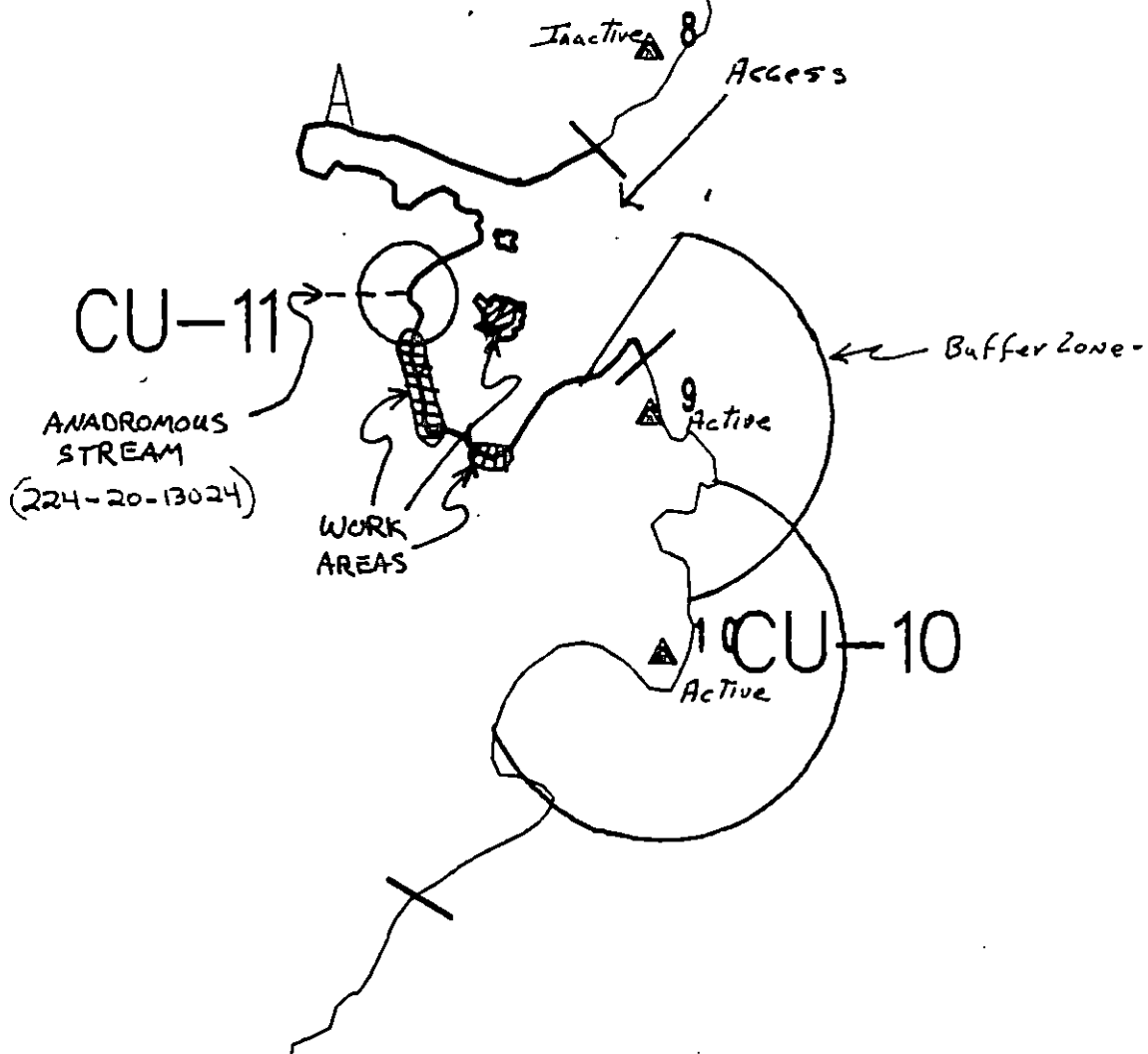
Anda May

Date:

6/2/90

CU-12

*Incorporates information from
USFWS bald eagle survey 5/27/90.*



Exxon Company, USA

Map Key: PWS-CU-11

May 11, 1990

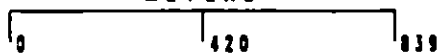


ECOLOGY MAP 5/30

SEGMENT CU-11

SUBDIVISION A (1 of 1)

METERS



Seabird Colony



Eagle Nest

1 inch = 1377 feet

SHORELINE EVALUATION

SEGMENT ST. CU-11 SUBDIVISION A (1 OF 1) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream no. 224-20-13024 (Ps, 2/90)

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

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

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.

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: *[Signature]* DATE: 5/9/90

OILING CATEGORIZATION:

Wide 0 m: Medium 66 m: Narrow 140 m: V.Light 939 m: No Oil 1890 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>X</u> Spot Washing: <u>4</u> Wands
<u>X</u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommended treatment includes 1) manual removal of tarmat in area indicated on sketch map #1, 2) spot hot water washing in areas indicated on sketch maps #1, and 2, and 3) bioremediation in areas indicated on sketch maps #1 and 2. Work should be conducted between 5/15 and 7/10 due to salmon stream constraints. See Addendum dated 6/2/90

TAG COMMENTS:

TAG APPROVAL DATE: 5/9/90
ADEC *[Signature]*
EXXON *[Signature]*
NOAA *[Signature]*
USCG *[Signature]*

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

1991 MAYSAP EVALUATION

SEGMENT: CU 011 SUB: A REGION: PWS SURVEY DATE: 5/3/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) RESTRICTED 3/1 - 9/15

Ecological/Constraints (see page two for details) **Eagle nest,**
Fish harvest area, Anadromous stream

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is
required prior to shoreline treatment.

SHPO Signature: _____ Date: _____

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other _____

Other _____

COMMENTS:

INITIAL: _____

TAG: _____

FOSC: _____

TAG APPROVAL DATE: _____

FOSC APPROVAL DATE: _____

ADEC _____

FOSC _____

EXXON _____

USCG _____

NOAA _____

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

Eagle Nest: Access restricted from 3/1 to 9/1. USF&WS authorization required. Maintain 1000' vertical and 1/4 mile horizontal buffer.

Fish Harvest Area: Unlimited treatment unless otherwise directed by ADF&G. Sheen containment/recovery procedures required for mechanical treatment.

Anadromous Stream: Unlimited treatment up to stream bank between May 15 and July 10. ADF&G approval required for work after July 10. Fish Habitat Permit required for instream work. ADF&G approval required for bioremediation within 100 meters of anadromous stream after July 10.

MARSHAL FIELD SHORELINE COMMENT SHEET

TEAM NO. 1 SEGMENT CU-11 SUBDIVISION A DATE 5/3/91

ADEC

NAME JEFF GIVARISSIGNATURE [Signature]☐ NTR ☒ TREATMENT RECOMMENDED

1. RECOMMEND MANUAL REMOVAL AT OG MAP SITES ~~#~~ A1, A3, A4, A5. OIL IS ON SURFACE WITH AMONGST ANGULAR AND FLAT COBBLES/Boulders. MANUAL CREW (3-5 PERSONS) COULD WORK AREA VERY QUICKLY AND THOROUGHLY. AREA VERY SCENIC, HIGH RECREATIONAL USE POTENTIAL (CAMP AREAS, CALM CLEAR WATER, TWO WATERFALLS). ~~PROVIDE~~ EASY ACCESS TO TREATMENT SITES, OIL READILY ACCESSIBLE. ~~PROVIDE~~ ^{SHOWERS} AND TOWERS. AS OIL ON SURFACE, SIMPLY REMOVE & SLIDE AROUND A COUPLE ROCKS. NO DAMAGE TO BIODIVERSITY.

EXXON

NAME FRANK A. BaxSIGNATURE [Signature]☒ NTR

Intermittent ~~oil~~ in the back of the segment at mid tide - in a rocky boulder. Seems to be washing away on its own. I don't believe there is enough oil to justify intensive clean up.

LANDMANAGER

NAME MARSHA HALL OF DNRSIGNATURE [Signature]☐ NTR☒ TREATMENT

MANUAL REMOVAL IN AREAS A1, A3, A4 & A5. This is a popular area, scenic. Moosé takes a while to sheen - cold maybe? AREAS ARE SMALL yet a couple of people assigned to each site could take care of it rather quickly. RECREATIONAL USE. Island is steep rock wall!

USCG/NOAA

NAME Jensen / ChildsSIGNATURE [Signature]☒ NTR

Cleanup measures would be excessively costly in view of their insignificant contribution to minimizing a threat to the public health or welfare, or the environment.

DEEP EMBANKMENT w/ RAKY STEEP SLOPES & POULTRY BOULDER - NO SUBSURFACE located. Subsurface typically MS CAP IN CRACKS & CREVICES ON SEVERAL BOULDER. oil in very degraded condition.

MAYSAP SHORELINE OILING SUMMARY

PAGE 1 of 1

TEAM NO. 1

OG G. MACDONALD

BIO M. FANCETT

SEGMENT CU-11

ADEC J. GINAWAR

LANDMANAGER M. HALL for DNR

SUBDIVISION A

EXXON F. Box

USCG/NOAA JENSEN / CHILDS

DATE 5 / 3 / 91

TIME 12 : 45 to 14 : 45

TIDE LEVEL +4 1/4 ft. to +6.1 ft.

ENERGY LEVEL ☐ H ☐ M ☒ LSURVEYED FROM: ☒ FOOT ☐ BOAT ☐ HELOWEATHER: ☐ SUN ☐ CLOUDS ☐ FOG ☒ RAIN ☐ SNOW

TOTAL LENGTH SHORELINE SURVEYED: 2475 m

NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONE

EST. OIL CATEGORY LENGTH: W 1 m M 1 m N 190 m VL 160 m NO 2,125 m US 560 m

L O C	SURFACE OIL CHARACTER										SURFACE SEDIMENT TYPE	SHORE SLOPE V H M L	AREA		ZONE				NOTES
	AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO			WIDTH m	LENGTH m	S	UI	MI	LI	
A1	S	S									BCV	H	2	12	X				peat
A2						B					RB	V	≤ 1	110	X				
A3		T									BR	H	2	25	X				
A4	S					T					BRC	H	≤ 3	100	X				
A5	S	S									RB	H	≤ 3	15	X				biodegraded oil
A6						T				VG TR	R	H	< 0.5	10	X				porcupine & branches
A7						T					R	V	1/2	60	X	X			

DISTRIBUTION: C = 91-100%; B = 51-90%; P = 11-50%; S = 1-10%; T = <1%

SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE PHOTO ROLL # MAYSAP- 1 - 16 FRAMES 8410

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE				SURFACE- SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO					S	UI	MI	LI		
1	20							X	-		-			X			CP-PGV	peat
2	25							X	-		5	N		X			CP-PGV	peat
3	20							X	-		5	N			X		CP-PGM	
4	35							X	-		10	N		X			CP-PGV	peat
5	30							X	-		20	N		X			CP-PGV	peat
6	20							X	-		5	N			X		BCP-PGR	

SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

OG COMMENTS: Cove w/ steep rocky shores and sheltered BCP pockets. Surface oil only, as remnant MS, AP/S e HTZ, ≤ 10%; plus CT/B-T @ HTZ & SUTZ. Biodegradation of oil (MS) evident - water soluble in part, v. slow to sheen, slightly sticky.

Reviewed: MC 5/1/94
ES reviewed, May 1



RAISAP BIOLOGICAL SUMMARY FORM

TEAM # 1

DATE 3 May 91

SEGMENT # CU 011

TIDAL HEIGHT(Range) +3.5 to +5.8

SUBDIVISION A

BIOLOGIST Michael Fawcett

STATE 1 ft seas

WIND SPEED/DIRECTION NE 10 knots

PHOTOGRAPHS: ROLL #

FRAME #

COMMENTS/OBSERVATIONS (to be completed in oiled subdivisions only):

This subdivision contains pocket beaches composed mostly of shale shingle, boulders, and outcrops. Low to moderate wave energy, lowest near walls on the sides of the beaches. Residual oil (MS, AP & GT) found in UTZ-SUTZ zones above +9 ft, generally near only lichen, filamentous green algae, isopods and the UTZ limpet, *Notagamea persona*. However in some sites the AP or MS lies within upper range of barnacles, Littorinids, rockweed, whelks, and other organisms. See accompanying sketch map for descriptions of biota near each oiled site.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles			
Seabirds			
Waterfowl	2 (common merganser, Harlequin duck)	4	
Gulls/Kittiwakes			
Shorebirds			
Corvids			
Other Birds			

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters			
Pinnipeds(specify)			
Whales(specify)			

Shoreline subdivision map showing important biological features attached.

REVIEWED: 5/7/94 MC
4

CIV 011A - Site 1 Fawcett
3 May 91 Arr 1345

shale shingle beach Back along
wall - protodif - dense barn
7 spat, patchy dense Fucus
MT 2 - LT 2 - mod. 1/2 Horns, 1/2
- 2 small stream cross beach
(non-aquatic) - SOR in dense
spat, sparse Fucus, whelks
litt, limp, etc ~ 7-9 ft

Site 2 1415 hours - same
type substrate as #1 -
SOR in boulders behind
1 small rock, + 8-9 ft above
- 22" x 12" rounded, barn, limp,
etc. - CT on walls above
Spat, 1/2 barn, MT 2 - dense spat
- dense spat in single - patchy
area among rocks, sparse
barn, litt, etc. - same here
in MT 2 - LT 2 - dense spat
on all larger rocks - 1 collected
- 2 common nereis
2 Hareguins

C.U. II-A (cont) Fallice H. H.

3 May 91

3rd side - same description as (2)

Finch 1445

Reviews: MC 5/7/97



U-11

A

A

CU

2 m d VL

10 m d VL

VL

VL

UNSL

UNSL

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

CU011 A
 ADEC Subsegment Length: 3035m
 METERS
 5 200 400
 AR State Plane Zone 4
 profile



Subdivision Field Map
 Map Key: PWSCU011A
 Name: G. M
 Date: 5.2.91
 Date Entered:

Reviewed: 5/7/91 AC
 Et removed, May 7

1991 MAYSAP EVALUATION

SEGMENT: CU 011 SUB: A REGION: PWS SURVEY DATE: 5/3/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) RESTRICTED 3/1 - 9/15

Ecological/Constraints (see page two for details) Eagle nest,
Fish harvest area, Anadromous stream

1 If cultural resources are uncovered during shoreline
1 treatment, stop work in the vicinity, mark the location of the
1 find, and contact Exxon's Cultural Resource Program immediately:
- 564-3276; 564-3657; (Anchorage) or 229-1514 (24 hrs.). *Ro*

SHPO Signature: Rebel Dan Dan Date: 5/12/91

RECOMMENDATIONS:

	INITIAL	TAG	FOSC
TREATMENT REQUIRED (Y or N)	<u>N</u>	<u>Y</u>	<u>Y</u>
Manual Pickup (Check as Req.)	<u>_____</u>	<u>X</u> <i>AB</i>	<u>Y</u>
Spot Washing	<u>_____</u>	<u>_____</u>	<u>_____</u>
Bio-Customblen Only	<u>_____</u>	<u>_____</u>	<u>_____</u>
Bio-Inipol/Customblen	<u>_____</u>	<u>_____</u>	<u>_____</u>
Other	<u>_____</u>	<u>_____</u>	<u>_____</u>
Other	<u>_____</u>	<u>_____</u>	<u>_____</u>

COMMENTS:

INITIAL: 1

TAG: MANUAL PICKUP OF EASILY ACCESSIBLE MOUSSE/AP *AB*
IN AREAS A1, A3, A5

FOSC: _____

TAG APPROVAL DATE: MAY 17 1991

FOSC APPROVAL DATE: 25 MAY 1991

ADEC *[Signature]*

FOSC *[Signature]*

EXXON *[Signature]*

E. E. PAGE, CDR, USCG
CHIEF OF STAFF, FOSC

USCG *[Signature]*

NOAA *[Signature]*

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

Eagle Nest: Access restricted from 3/1 to 9/1. USF&WS authorization required. Maintain 1000' vertical and 1/4 mile horizontal buffer.

Fish Harvest Area: Unlimited treatment unless otherwise directed by ADF&G. Sheen containment/recovery procedures required for mechanical treatment.

Anadromous Stream: Unlimited treatment up to stream bank between May 15 and July 10. ADF&G approval required for work after July 10. Fish Habitat Permit required for instream work. ADF&G approval required for bioremediation within 100 meters of anadromous stream after July 10.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 1 SEGMENT CU-11 SUBDIVISION A DATE 5/3/91

ADEC

NAME JEFF GIVARAS SIGNATURE [Signature]

☐ NTR ☒ TREATMENT RECOMMENDED

1. RECOMMEND MANUAL REMOVAL AT OG MAP SITES ~~2~~ A1, A3, A4, A5. OIL IS ON SURFACE UITS, AMONGST ANGULAR AND FLAT COBBLES/BOULDERS. MANUAL CREW (3-5 PERSONS) COULD WORK AREA VERY QUICKLY AND TREATED THOROUGHLY. AREA VERY SCENIC, HIGH RECREATIONAL USE POTENTIAL (CAMP AREAS, CALM CLEAR WATER, TWO WATERFALLS). ~~REASON~~ EASY ACCESS TO TREATMENT SITES, OIL READILY ACCESSIBLE. ~~SHOULD~~ AND TOWERS. AS OIL ON SURFACE, SIMPLY REMOVE & SLIDE AROUND A COUPLE ROCKS. NO DAMAGE TO BLOOM.

EXXON

NAME FRANK A. Box SIGNATURE [Signature]

☒ NTR Intermittant for p... is the back of the segment at mid tide - among boulders - Seems to be washing away on its own. I don't believe there is enough oil to justify intensive clean up.

LANDMANAGER

NAME MARSHA HALL OF DNR SIGNATURE Marsha Hall

☐ NTR ☒ treatment
MANUAL REMOVAL in AREAS A1, A3, A4 & A5. This is a popular area, scenic. Mousse takes a while to shear - cold maybe? AREAS are small yet a couple of people assigned to each site could take care of it rather quickly. RECREATIONAL use. Island is steep rock wall!

USCG/NOAA

NAME Jensen / Childs SIGNATURE [Signature]

☒ NTR Cleanup measures would be excessively costly in view of their insignificant contribution to minimizing a threat to the public health or welfare, or the environment.

See Embayment w/ Rocky Steep shores & Point Beach - No subsurface oil located. Subsurface typically has EAP in cracks & crevices on Bottom Bar C. oil in very degraded condition.

MAYSAP SHORELINE OILING SUMMARY

PAGE 1 OF 1

TEAM NO. 1

OG G. MACDONALD

BIO M. FAWCETT

SEGMENT CU-11

ADEC J. GINALAR

LANDMANAGER M. HALL for DNR

SUBDIVISION A

EXXON F. Box

USCG/NOAA JENSEN/CHILDS

DATE 5/3/91

TIME 13:45 to 14:45

TIDE LEVEL +4 1/4 ft. to +6.1 ft.

ENERGY LEVEL: ☐ H ☐ M ☒ LSURVEYED FROM: ☒ FOOT ☐ BOAT ☐ HELOWEATHER: ☐ SUN ☐ CLOUDS ☐ FOG ☒ RAIN ☐ SNOW

TOTAL LENGTH SHORELINE SURVEYED: 1475 m

NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONE

EST. OIL CATEGORY LENGTH: W 1 m M 1 m N 190 m VL 160 m NO 2,125 m US 560 m

L O C	SURFACE OIL CHARACTER										SURFACE SEDIMENT TYPE	SHORE SLOPE VHML	AREA		ZONE				NOTES
	AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO			WIDTH m	LENGTH m	S	UI	MI	LI	
A1	S	S									BCV	H	2	12	X				peat
A2						B					RB	V	≤1	110	X				
A3		T									BR	H	2	25	X				
A4	S					T					BRC	H	≤3	100	X				
A5	S	S									RB	H	≤3	15	X				biodegraded oil
A6						T				VG TR	R	H	<0.5	10	X				porous & branched
A7						T					R	V	1/2	60	X	X			

DISTRIBUTION: C = 91-100%; B = 51-90%; P = 11-50%; S = 1-10%; T = <1%

SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE

PHOTO ROLL # MAYSAP-

1-16 FRAMES 8-10

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE				SURFACE- SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO					S	UI	MI	LI		
1	20							X	-		-			X			CP-PGV	peat
2	25							X	-		5	N		X			CP-PGV	peat
3	20							X	-		5	N			X		CP-PGM	
4	35							X	-		10	N		X			CP-PGV	peat
5	30							X	-		20	N		X			CP-PGV	peat
6	20							X	-		5	N			X		BCP-PGR	

SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

OG COMMENTS: Cove w/ steep rocky shores and sheltered BCP pockets. Surface oil only, as remnant MS, AP/S & HTZ, ≤10%; plus CT/B-T @ HTZ & SUTZ. Biodegradation of oil (MS) evident - water soluble in part, v. slow to sheen, only slightly sticky.

 Reviewed: MC 5/2/94.
 ES reviewed, May/94



REVIEWS. MC 5/7/91
E. revised, May 7

NAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 1 DATE 3 May 91
 SEGMENT # CU 011 TIDAL HEIGHT (Range) +3.5 to +5.8
 SUBDIVISION A BIOLOGIST Michael Fawcett
 STATE 1 ft Seas WIND SPEED/DIRECTION NE 10 knots
 PHOTOGRAPHS: ROLL # FRAME #

COMMENTS/OBSERVATIONS (to be completed in oiled subdivisions only):

This subdivision contains pocket beaches composed mostly of shale shingle, boulders, and outcrops. Low to moderate wave energy, lowest near walls on the sides of the beaches. Residual oil (MS, AP & CT) found in VTZ-SVTZ zones above +9 ft, generally near only lichen, filamentous green algae, isopods and the VTZ limpet, *Notacmea personata*. However, in some sites the AP or MS lies within upper range of barnacles, Littorinids, rockweed, whelks, and other organisms. See accompanying sketch map for descriptions of biota near each oiled site.

WILDLIFE OBSERVATIONS TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles			
Seabirds			
Waterfowl	2 (common merganser, Harlequin duck)	4	
Gulls/kiptiwakes			
Shorebirds			
Corvids			
Other Birds			

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters			
Pinnipeds (specify)			
Whales (specify)			

Shoreline subdivision map showing important biological features attached.

Reviewed: 5/7/54 MC
 4

CIV 011A - SITE 1 Fawcett #
3 May 91 Arr 1345

shale change head Back along
wall - protected - dense barn
+ spat, patchy dense Fucus
MT 2 - LT 2 - mod. 1/2 Horns in
- 2 small stream cross beach
(Non-anad) - SOR in dense
spat, sparse Fucus, whelks
litt, limp, etc. n + 7-8 ft

Site 2 1415 hours - same
type substrate as #1 -
SOR in Boulders behind
1.5 m. 0.5 m. + 8-9 ft above
- dense rockweed barn, limp,
V.H. - CT on walls above
spat to barn MT 2 dense
more sparse litt, but bedrock
- buried oil in Skingle - patchy
area among no block, sparse
barn, litt, Fucus, limp, etc.
in MT 2 - LT 2 - dense spat
on all large rocks - collect
- 2 common nereis
2 Hareguins

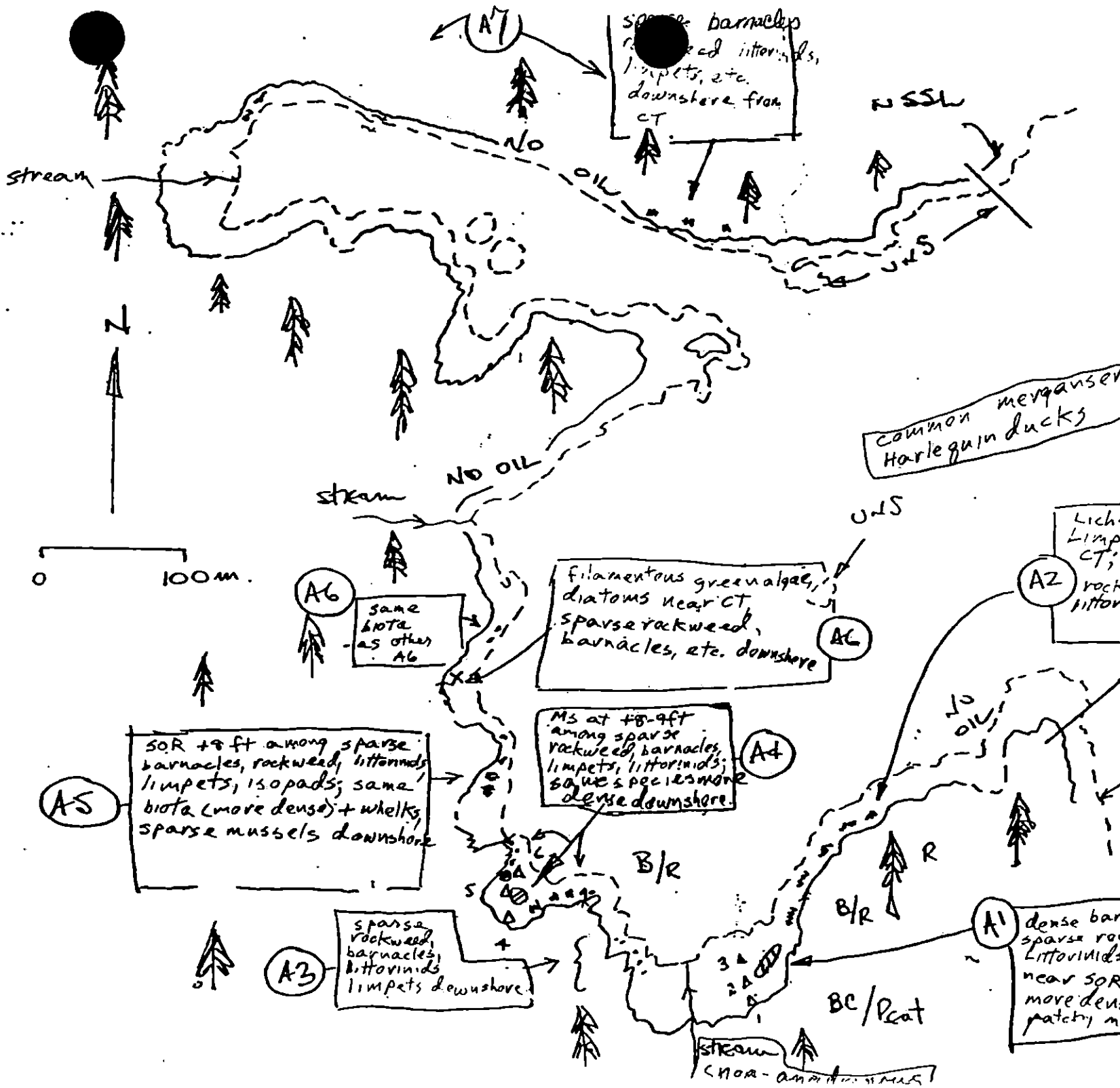
C.U. II-A (cont) Fawcett

3 May 91

3rd site - same description as (2)

Final 1445

Sketch Map
CU 011-A
3 May 91
M. H. Fawcett



Reviewed: MC 5/7/91
D. J. ...

U-11

A

A

CU

2 m d VL

10 m d VL

VL

VL



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

CU011 A
 ADEC Subsegment Length: 3035m
 METERS
 0 200 400
 AK State Plane Zone 4
 pcu011a

Subdivision Field Map
 Map Key: PWSCU011A
 Name: G. M
 Date: 5.2.91
 Date Entered:

Reviewed: 5/7/91 AC
 ET reviewed, May 7

REGION: PRINCE WILLIAM SOUND

SEGMENT: CU-12

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

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

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Gill net area (1I) - 6/7 to 8/31; Purse seine area (1J) - 7/21 to 9/30; bald eagle nests (5T) - 3/1 to 6/1; Recreation special use destination (6Y) - 6/1 to 9/15.

SUBDIVISION ECOLOGICAL CONSTRAINTS: (1I, 1J) Contact ADF&G for dates, locations, constraints. (5T) Restrict air traffic to essential minimum. Air approach and takeoff from and to seaward only. Contact USFWS prior to treatment for confirmation dates and avoidance minimums.

ARCHAEOLOGICAL CONSTRAINTS: If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 1767 m
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: _____ Breakup	_____ Beach Cleaner
_____ Removal	_____ Other (see comments)

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / CU-12 SUBDIVISION: A-1 of 1 DATE 04/04/90

SCG

NAME David S. Thomas

SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADEC

NAME Clara Crosby

SIGNATURE Clara S. Crosby

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

No oil observed - unable to land on any
part of Segment - rock face & surf limited
Accessed at

LAND MANAGER

NAME MARSHA MARTIN / DNR

SIGNATURE Marsha Martin

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY

REVISION NO. 02/22/90

OG Rick Gillie USCG bm 1 Thomas SEGMENT ST/ CU-12
 BIO DAVE Lohse LAND REP Marsha Martin SUBDIVISION A-10F1
 EXXON FRANK Dwy ADEC Clara Crosby (ADNR) TIME 15:45 to 16:00
 TEAM NO.: 13 TIDE LEVEL: +1 10 +1 DATE 04/04/90
 EST. SUBDIVISION LENGTH: 2,167 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock Snow
 SURVEYED FROM: ☐ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 95 % B 5 % C 0 % P 0 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Lang 0 % Hang 10 % Vert 90 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 2,167 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	C	R	P	B	SP	BR	OR	GR	BL	LR	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 _____ cmPATTIES / TARBALLS N/A BAGSNEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☐ NO

TYPE _____

#BAGS _____

Photographs:

Roll No. N/AFrames N/A

SUBSURFACE OIL

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

COMMENTS

- ① SURVEYED BY BOAT. UNABLE TO LAND BECAUSE OF STEEP BEDROCK SHORELINE. NO BEACHES. HIGH WAVE
 ② PREVIOUS SURVEYS INDICATED NO OIL.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03-22-90

Segment ST / CU012 Subdivision A Date (mo / day / yr) 4-4-90Time (24 hr) 15:45 Biologist David Lohr(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 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. 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. This segment was censused by boat due to difficult landing conditions. Only those organisms evident from the boat were recorded.

2. low intertidal not seen.

Ecological Considerations: 3. Ulva/Enteromorpha present in mid zone

4. Ducks seen in area

14, 15, 64- no comment

ST- none observed

OG RIC GILLIE

SEGMENT ST/ CU-12

SUBDIVISION A-1 of 1

DATE 04/04/90

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 ▲

Pit - No Subsurface Oil

2 ▲

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

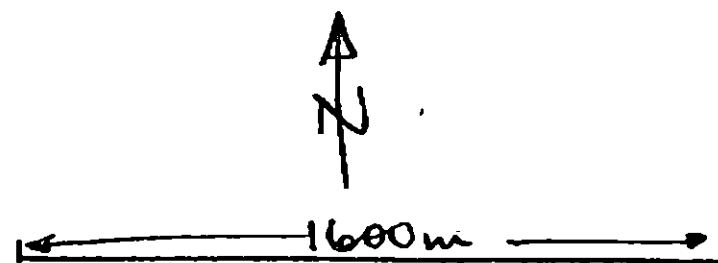
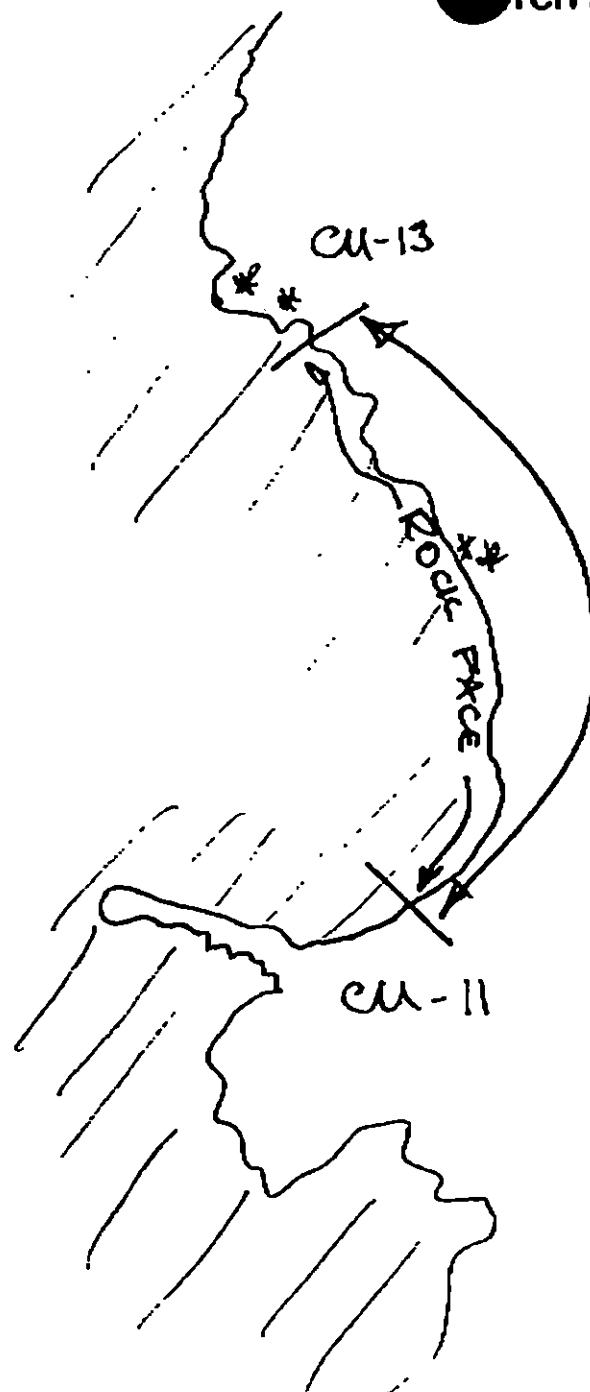
Splashed Distribution

Oiled Vegetation

1 ➡

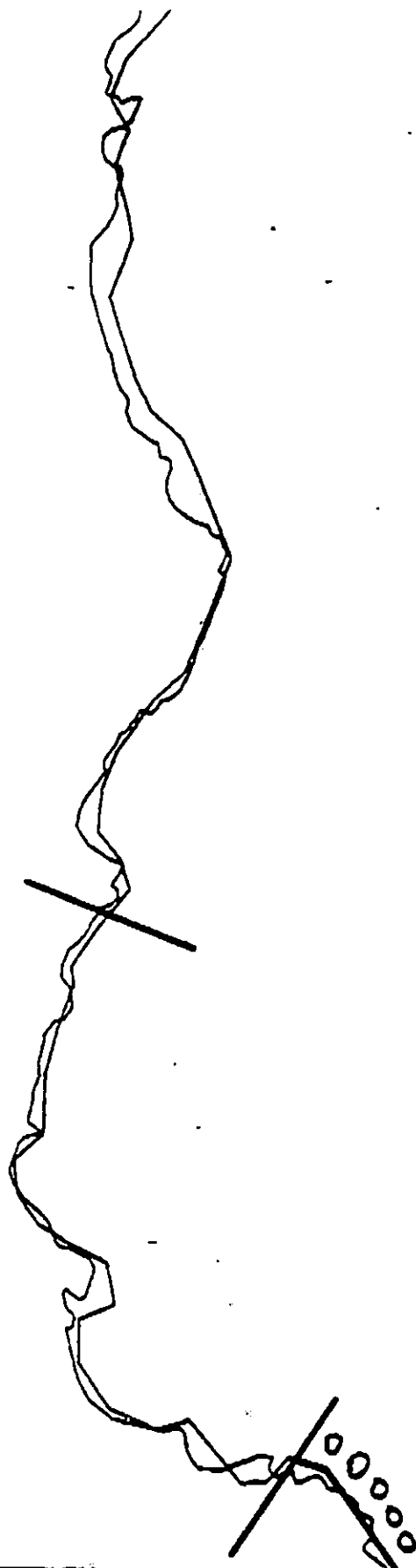
Photo location, direction,
and number

TCH MAP



Oil Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 0 PT 0 TB 0 FL 0 NO 2,167

REVISION: 03/24/90



CULEBRAS ISLAND

SEGMENT: CU-~~12~~ 12
SUBDIVISION: A-1 of 1

NORTH PART

↓ PWS 70A

XXXX Wide

//// Medium

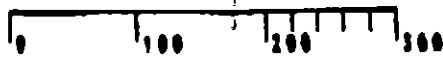
--- Narrow

TTTT Very Light

OOOO M. 0:1

CU-12

ADEC Segment Length: 1767m



Map Key: PWS-70b

Name: GILLIE

Date: 4-4-90

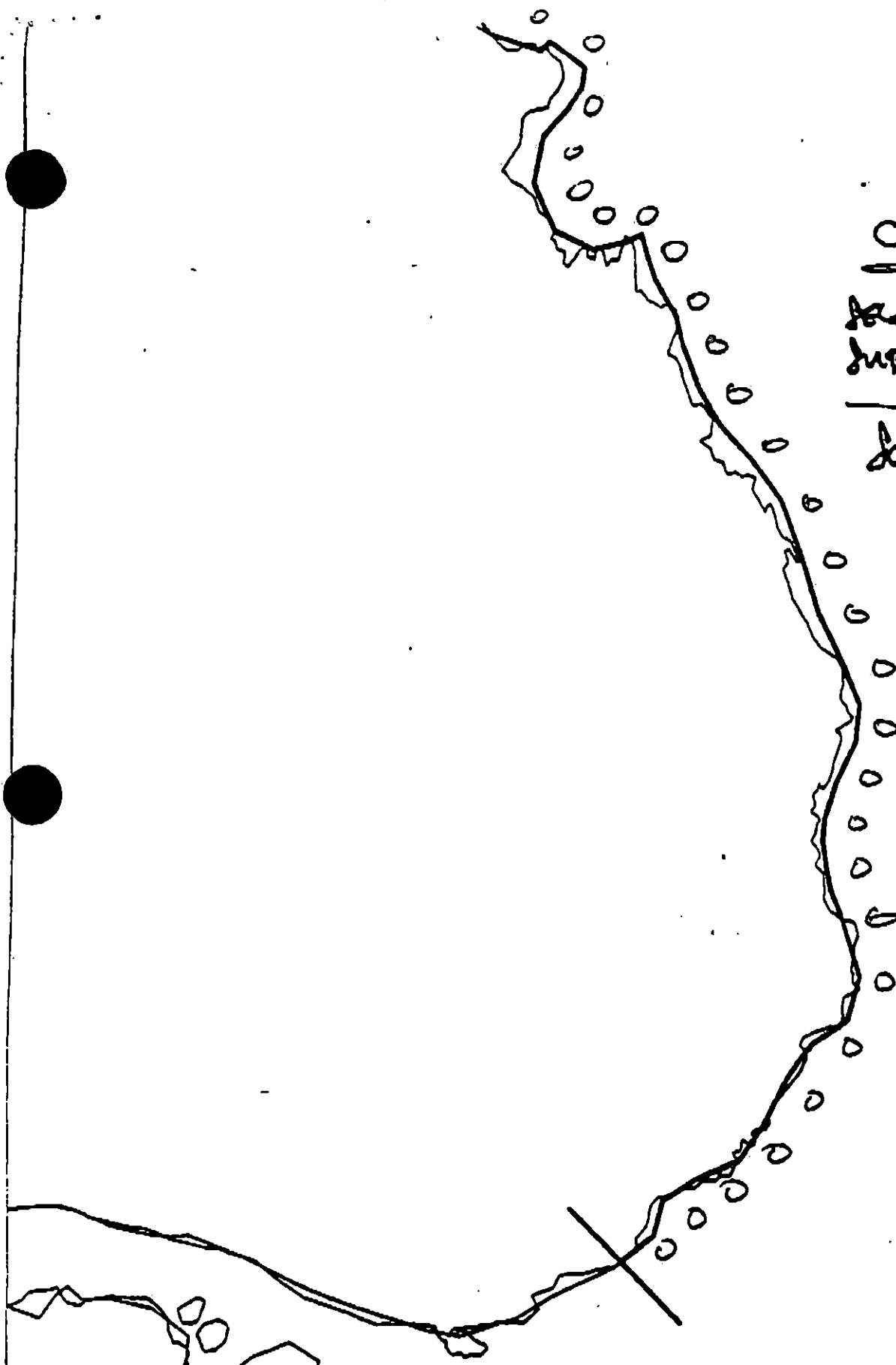
Date Entered:

↑ PWS 708

CULEROY ISLAND

SEGMENT: CU-12
SUBDIVISION: A, 1 of 1

SOUTH PART



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

OOOO No Data

CU-12

ADEC Segment Length: 1767m



Map Key: PWS-70a

Name: GILLIE

Date: 4-4-90

Data Entered:

SHORELINE EVALUATION

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

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Gill net area (1I) - 6/7 to 8/31; Purse seine area (1J) - 7/21 to 9/30; bald eagle nests (5T) - 3/1 to 6/1; Recreation special use destination (6Y) - 6/1 to 9/15.

SUBDIVISION ECOLOGICAL CONSTRAINTS: (1I, 1J) Contact ADF&G for dates, locations, constraints. (5T) Restrict air traffic to essential minimum. Air approach and takeoff from and to seaward only. Contact USFWS prior to treatment for confirmation dates and avoidance minimums.

ARCHAEOLOGICAL CONSTRAINTS: If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

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

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 1767 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/14/90

ADEC JOHN BAUER John Bauer
EXXON ANDY TOL Andy Tol FOSC: DATE: 4-20-90
NOAA Burt Wescott Burt Wescott
USCG G.A. REITER G.A. Reiter

OG RIC GILLIE

SEGMENT ST/ CU-12

SUBDIVISION A-1 of 1

DATE 04/04/90

CHECKLIST

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

LEGEND

1 Δ

Pil - No Subsurface Oil

2 Δ

Pil - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

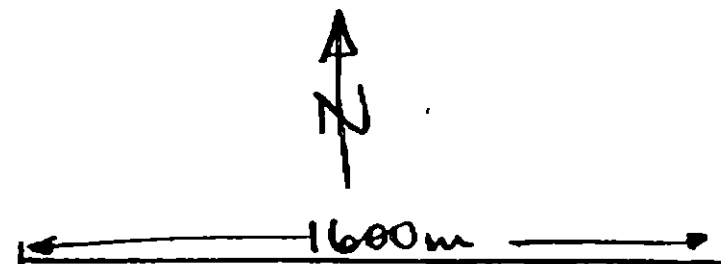
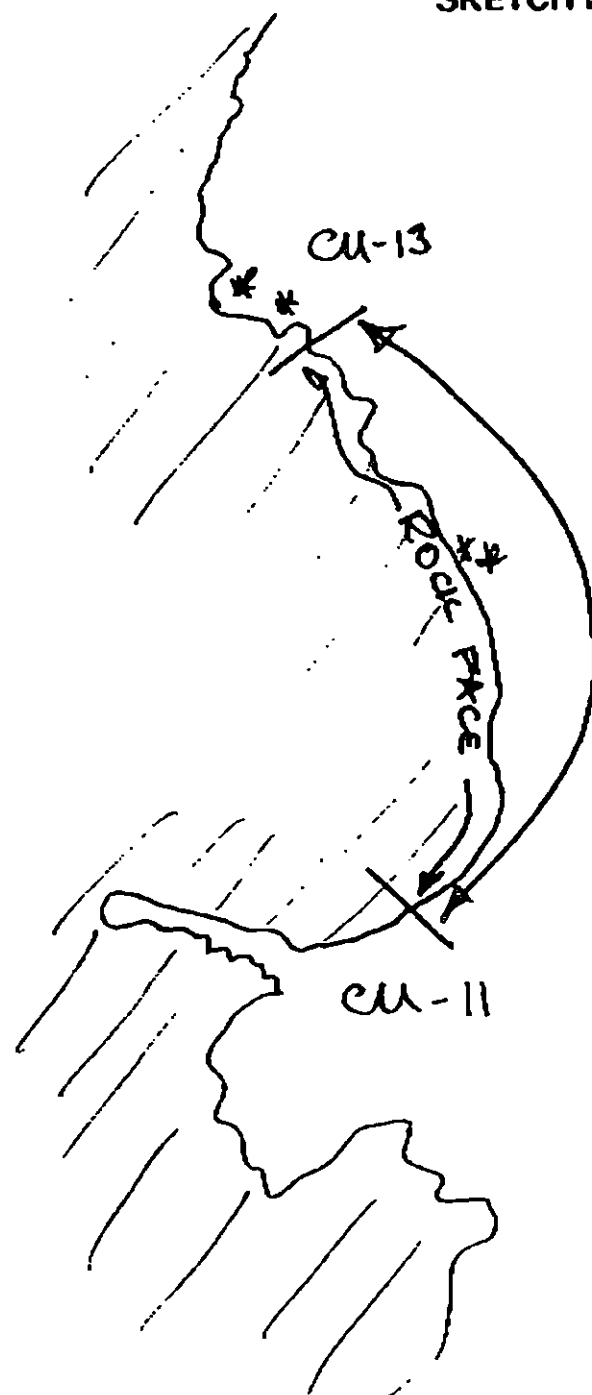
Spashed Distribution

Oilied Vegetation

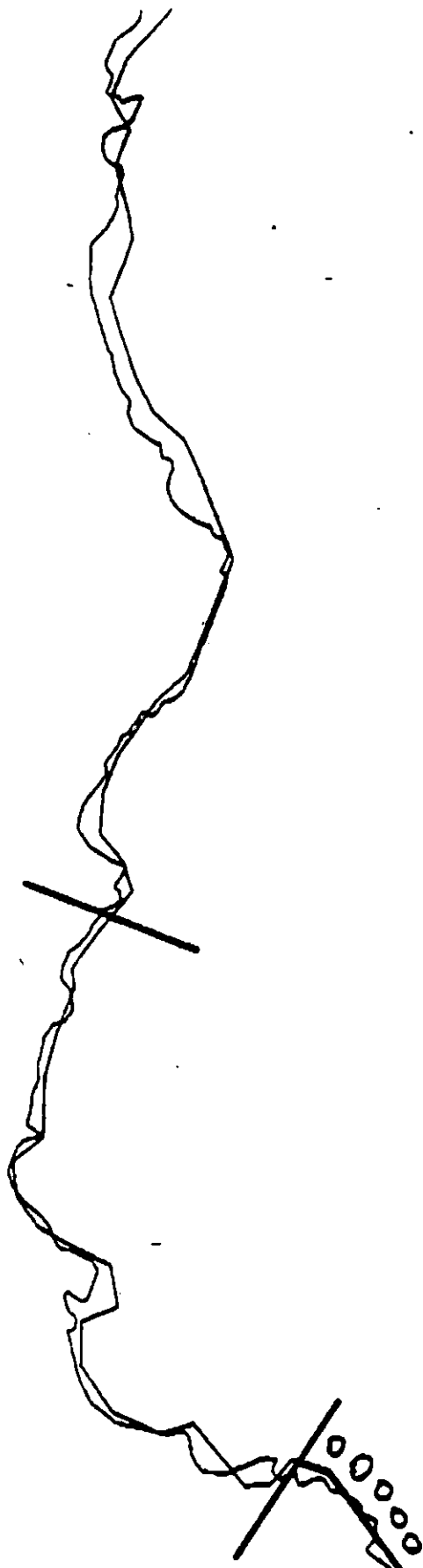
1 $\Rightarrow$

Photo location, direction,
and number

SKETCH MAP



Oil Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 0 PT 0 TB 0 FL 0 NO 2,167



CURPOS ISLAND

SEGMENT: CU-~~11~~12
SUBDIVISION: A-1 of 1

NORTH PART

↓ PWS 70A

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

CU-12

ADEC Segment Length: 1787m



Map Key: PWS-70b

Name: GILLIE

Date: 4-4-90

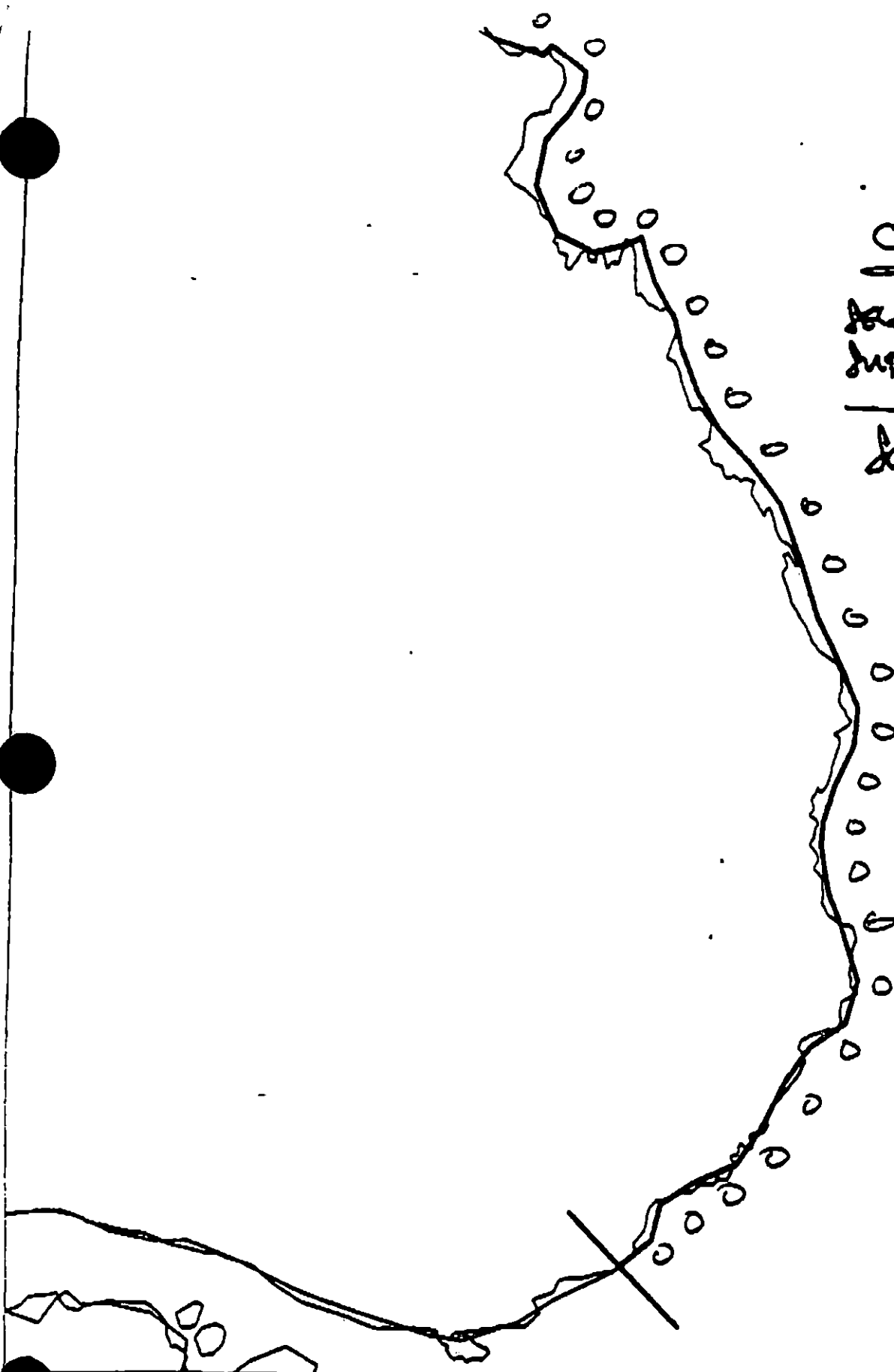
Map Entered:

↑ PWS 708

CULROBY ISLAND

SEGMENT: CU-12
SUBDIVISION: A, 1 of 1

South Part



XXX Wide

//// Medium

--- Narrow

TTTT Very Light

CU-12

ADEC Segment Length: 1767m



Map Key: PWS-70a

Name: GILLIE

Date: 4-4-90

REGION: PRINCE WILLIAM SOUND

SEGMENT: CU-13

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ CU-13 SUBDIVISION A (1 OF 1) DATE 4/4/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream mouth (ADF&G catalogue 224-20-13030) - fry out migration (1A) - 3/1 to 5/15 and spawning (1B) 7/10 to 8/31; Gill net area (1I) - 6/7 to 8/31; Purse seine area (1J) - 7/21 to 9/30; Recreation special use ^{destination} designation (6Y)

SUBDIVISION ECOLOGICAL CONSTRAINTS: (1A, 1B) No disturbance of stream bed or banks unless authorized by ADF&G. Contact ADF&G Habitat Division prior to treatment for permits. (1I, 1J) Contact ADF&G for dates, locations, constraints.

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 45 m: Medium 38 m: Narrow 0 m: V.Light 650 m: No Oil 0 m
Subsurface Oil Observed: Yes X No _____ Maximum Depth 10cm

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: Treatment activities are recommended as follows: 1) Manual pickup of mousse and tar patties, 2) tarmat removal and 3) bioremediation of areas shown on attached sketch map. Work should be conducted between 5/15 and 6/7 based on above constraints.

TAG COMMENTS:

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

SHORELINE OILING SUMMARY

REVISION NO. 02/22/90

OG Rick GILLIE USCG bm 1 Thomas SEGMENT ST/ CU-13
 BIO DAVE Lohr LAND REP Marsha Martin SUBDIVISION A-1 of 1
 EXXON FRANK ADEC Clara Crosby (ADNR) TIME 14:25 to 1830
 TEAM NO.: 13 TIDE LEVEL: +3 10 +2 DATE 04/04/90
 EST. SUBDIVISION LENGTH: 778 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock Snow
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo 10 WORKING DIRECTION: S to N 5
 SURFACE SEDIMENTS: R 50 % B 30 % C 10 % P 5 % G 0 % S 0 % M 0 % V 5 %
 SLOPE: Long 30 % Hang 30 % Vert 40 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 20 m M 20 m N 0 m VL 738 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	IC	IB	IP	IS	SB BR	OB BW	OT	ST DBR	TL LBR	SU	UI	ME	U	
ASPHALT PAVEMENT			X					X			X			
POOLED		X							X		X			
COVER				X				X			X			
COAT			X					X			X	X		
STAIN														
MOUSSE		X							X		X			
PATTIES														
TARBALLS				X		X					X			
FILM														
NO OIL										X			X	

PAVEMENT: H F (S) 5 sq. m by 4 cmPATTIES / TARBALLS 0.5 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

Photographs:

Roll No. ST-13-2Frames 12-17

SUBSURFACE OIL * OILED INTERVAL < 5 cm IN PIT NOS. 5 AND 6 DO NOT CONSTITUTE 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	SO BR	OR RW	OL SL	OF TL	NO BR	SU	UI	ME	U					
1	20					X	.								X							G, S	
2	30					X	.								X							P, G	
3	30					X	.								X							P, G	
4	20			X			5-10		X			X			X							P	
* 5	10	X					0-5		X				X	X								V, S	
* 6	10	X					0-5		X				X	X								V, S	

COMMENTS (GENERAL)

① OIL: "WIDE" AND "MEDIUM" OIL CATEGORY AT STE 1 AND 2. OTHERWISE "V. LIGHT"

② GEOMORPHOLOGY: ROCK SHORELINE (VERT.) EXCEPT FOR TWO OILED BEACHES

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / CU-13 SUBDIVISION: A-1 of 1 DATE 04/04/9

USCG

NAME David S. Thomas SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

ADEC

NAME Clara Crosby SIGNATURE Clara S. Crosby

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

SITE #1 & 2 - Bedrock Base-wash site - or - manual removal of mussels?
saturated peat - (pooled mussels to 7.5cm) in AP/P - manual removal
No specific treatment technique recommended for the
rest of the segment.

LAND MANAGER

NAME MARSHA MARTIN/DNR SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST/12013 Subdivision A Date (mo / day / yr) 4-4-90

Time (24 hr) 14:25 Biologist David Lohr

- (A) Substrate type and % of segments:
 (1) Bedrock 50 (2) Boulder 30 (3) Cobble 10 (4) Pebble 5 (5) Sand (6) Silt 5
- (B) Overall % cover of biota (% of segment): Dense 20 Moderate 45 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 (O)

Photographs:
 Roll No. ST-13-2
 Frames 12-17

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	<u>2</u>	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	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	<u>2</u>	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	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	<u>2</u>	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	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:

7, 13, 64 - no comment

13 - several small running streams found in segment

Segment ST-CU013

Subdivision A

4-4-90

Biologist David White

Wildlife Observations / General Comments

1. present in low intertidal - Enteromorpha, Ulva, Halosaccus, coralline algae
mid intertidal - Ralfsia, Anthopleura, sculpins, coralline algae, Enteromorpha, unidentified "branching" red alga
high intertidal - Enteromorpha
2. Patches of just byssal threads found in mid-intertidal on bedrock and boulders
3. Cormorants spotted in area
4. Enteromorpha is dense on mid- and high-intertidal boulders in some areas.
5. One mature bald eagle sited in area.

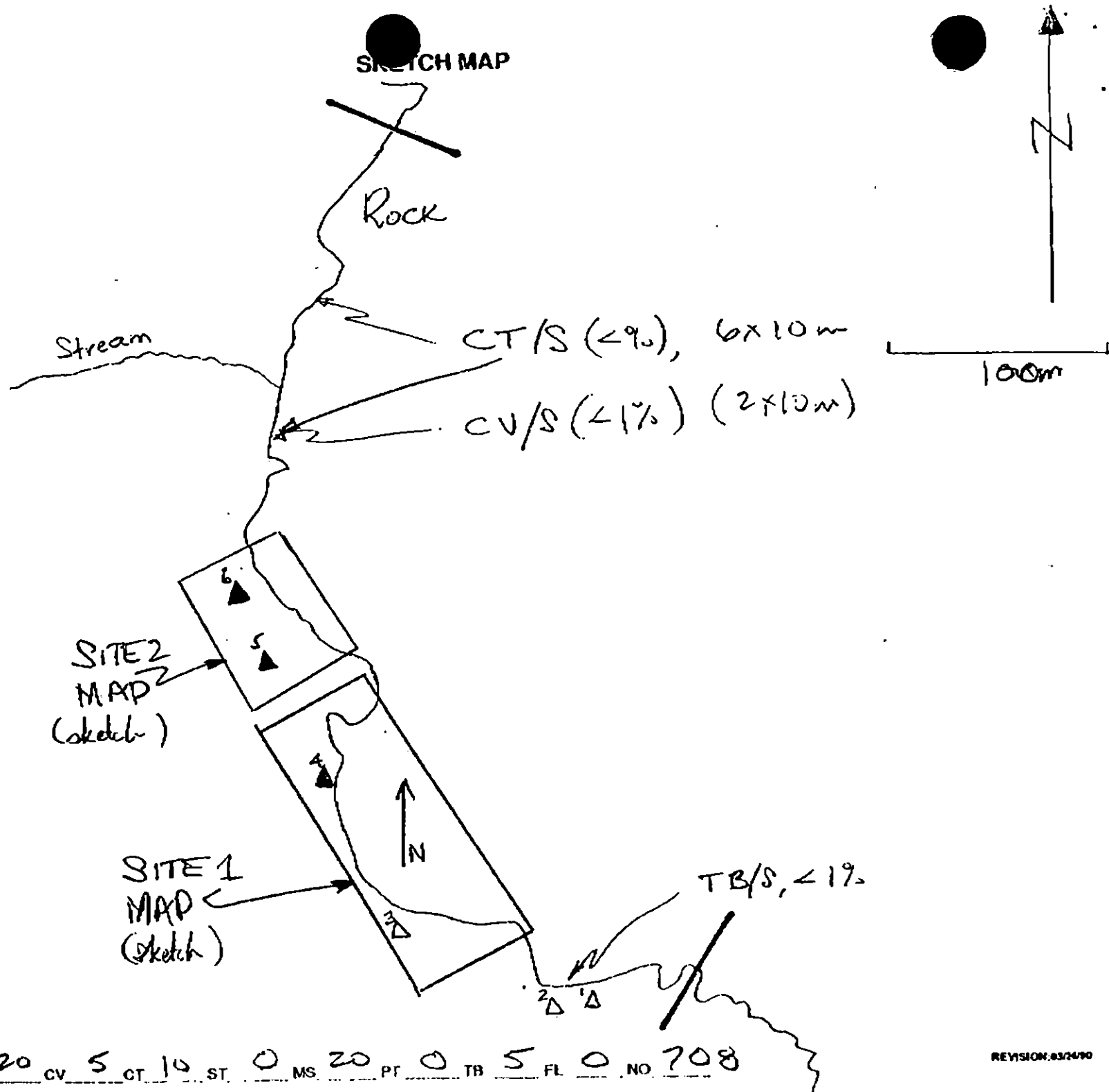
OG RIC GILLIE
 SEGMENT ST/ CU-13
 SUBDIVISION A-1 of 1
 DATE 04/04/90

CHECKLIST

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

LEGEND

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



Oil Character Length (m): AP 10 PO 20 CV 5 CT 10 ST 0 MS 20 PT 0 TB 5 FL 0 NO 708

06 RICH BLUE

SKETCH MAP

SEGMENT ST/ CU013

SUBDIVISION A, 1 of 1

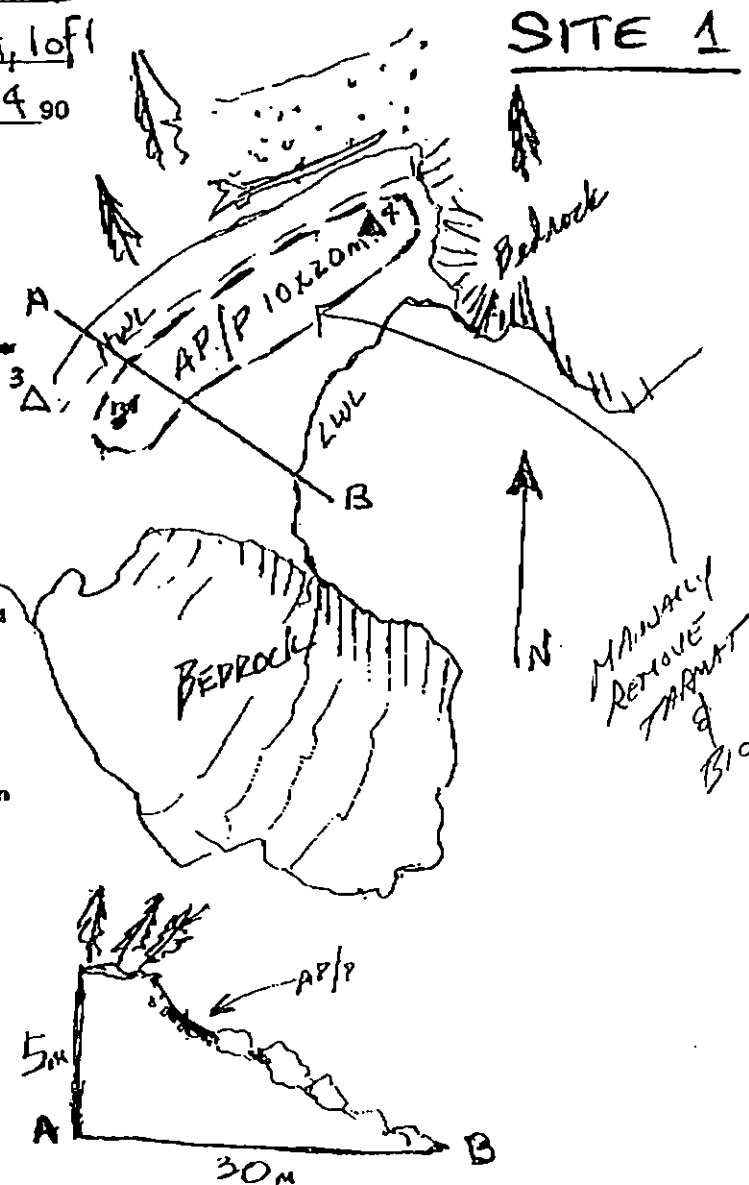
DATE 04/04/90

CHECKLIST

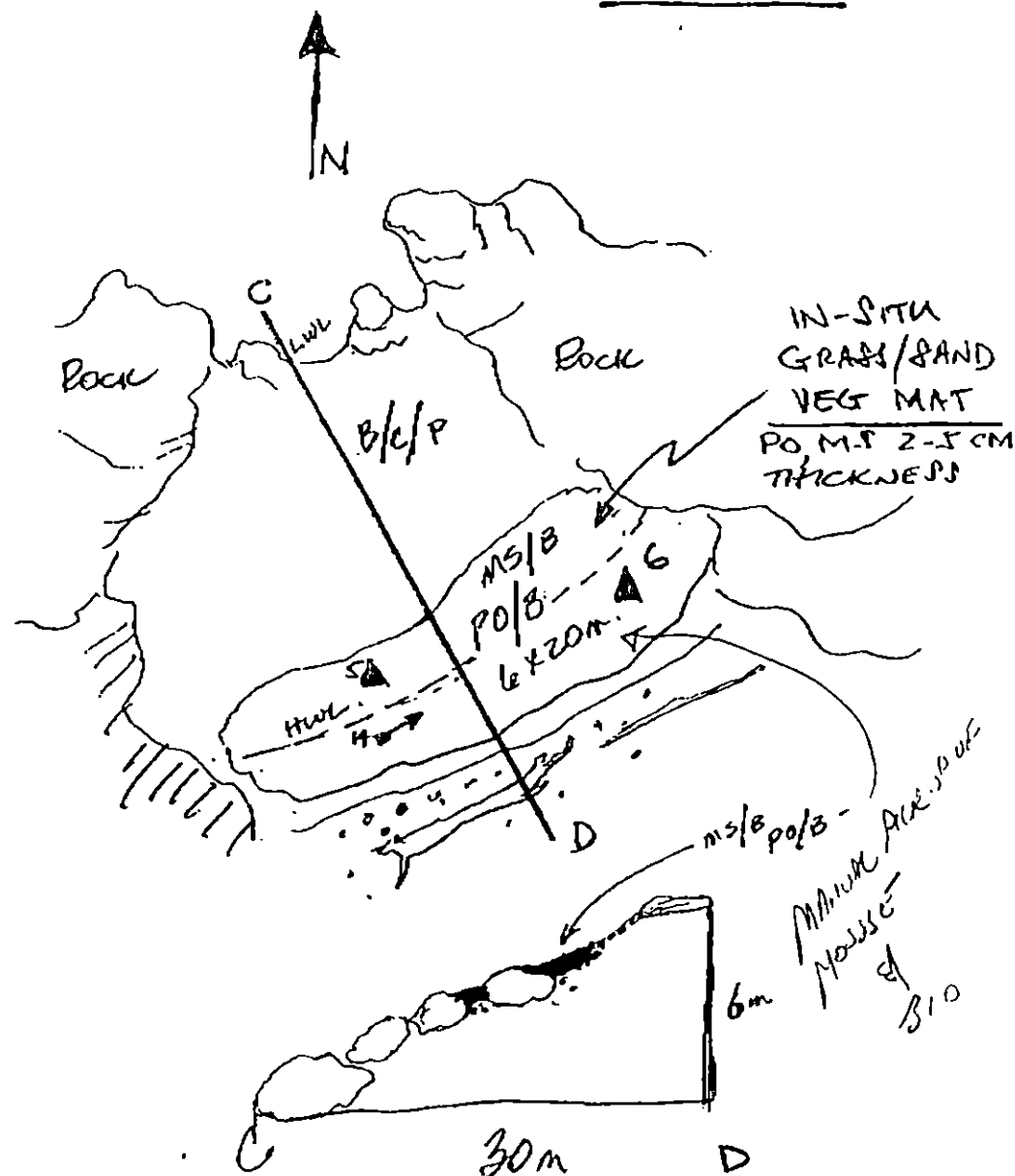
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- ✓ Approx. Scale
- ✓ Seg/Sub Bndry
- ✓ Oil Dist.
- ✓ Width
- ✓ Length
- ✓ % Cover
- Substrate Character
- Est. HW/LWL
- SSL
- Profile Location(s)
- Profile(s)
- Pit Location(s)
- Photo Location(s)

LEGEND

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

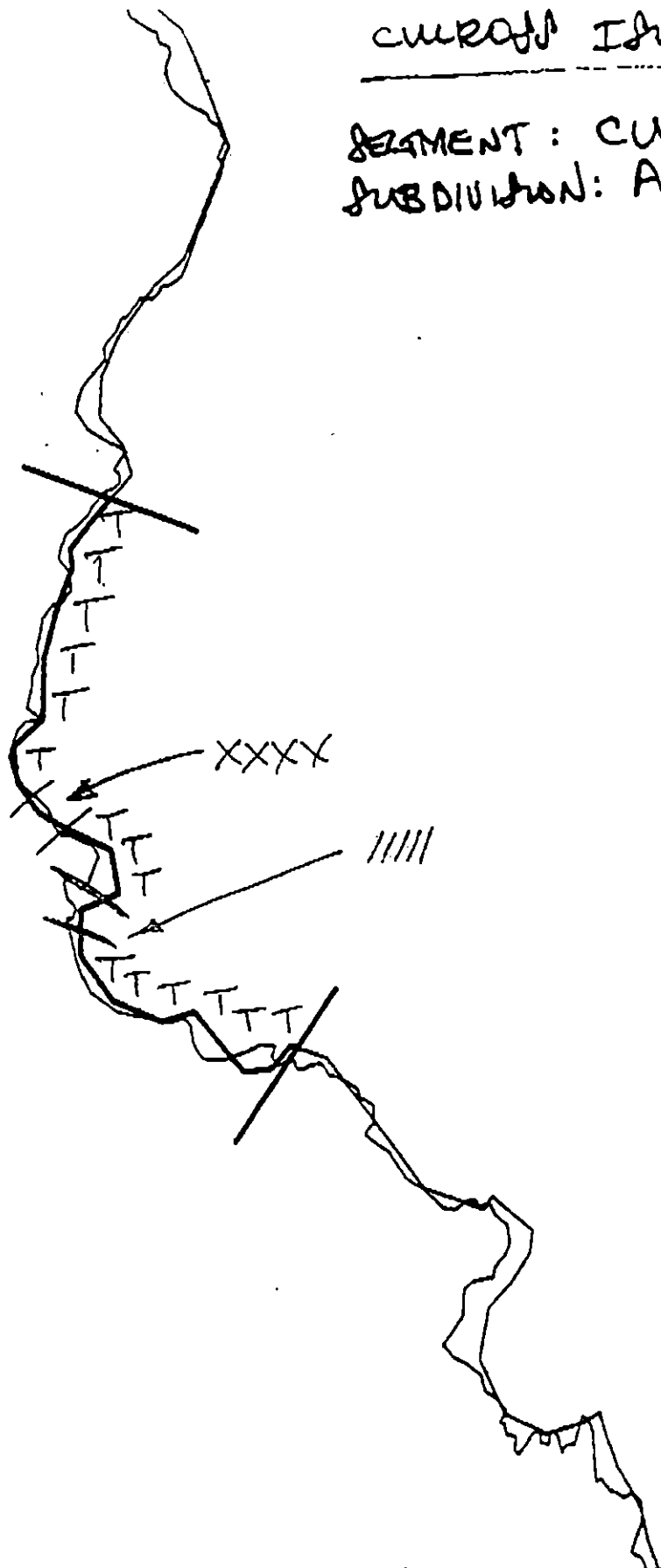


SITE 2



CURROJ ISLAND

SEGMENT: CU-13
SUBDIVISION: A-1 of 1



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

CU-13

ADEC Segment Length: 732m

0 100 200 300

Map Key: PWS-71

Name: GILLIE

Date: 4-4-90

Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT CU-13 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN
Bioremediation	WORK PRIOR TO 6/7

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 (224-20-13030) is more than 100m from recommended treatment areas. |
| 1I | Gill Net Area | No constraint to manual pickup and tarmat removal; Subdivision A is closed to bioremediation from 6/7 to 8/31. |
| 1K | Purse Seine Hook-off | No constraint to manual pickup and tarmat removal; closed to bioremediation after 7/20. |
| 1J | Purse Seine Area | No constraint to manual pickup and tarmat removal; closed to bioremediation after 7/20. |

OTHER ECOLOGICAL CONSIDERATIONS

Restrict boat and air traffic to essential minimum. Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

TAG ADDENDUM DATE

ADEC Art Weiner
EXXON Amy
NOAA Joseph Talbot
USCG G.A. Reiter

FOSC

DATE 5-18-90

Prepared by:

Condu May WKS

Date:

5/17/90

CU-14

ANADROMOUS STREAM
224-20-13030

CU-13

WORK
AREAS

CU-12

8



Exxon Company, USA
Map Key: PWS-CU-13



ECOLOGY MAP
SEGMENT CU-13
SUBDIVISION A (1 of 1)
METERS



Seabird Colony



Eagle Nest

SHORELINE EVALUATION

SEGMENT ST/ CU-13 SUBDIVISION A (1 OF 1) DATE 4/4/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream mouth (ADF&G catalogue 224-20-13030) - fry out migration (1A) - 3/1 to 5/15 and spawning (1B) 7/10 to 8/31; Gill net area (1I) - 6/7 to 8/31; Purse seine area (1J) - 7/21 to 9/30; Recreation special use ^{destination} designation (6Y)

SUBDIVISION ECOLOGICAL CONSTRAINTS: (1A, 1B) No disturbance of stream bed or banks unless authorized by ADF&G. Contact ADF&G Habitat Division prior to treatment for permits. (1I, 1J) Contact ADF&G for dates, locations, constraints.

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

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

OILING CATEGORIZATION:

Wide 45 m: Medium 38 m: Narrow 0 m: V.Light 650 m: No Oil 0 m
Subsurface Oil Observed: Yes X No Maximum Depth 10cm

RECOMMENDATIONS:

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

COMMENTS: Treatment activities are recommended as follows: 1) Manual pickup of mousse and tar patties, 2) tarmat removal and 3) bioremediation of areas shown on attached sketch map. Work should be conducted between 5/15 and 6/7 based on above constraints.

→ See Addendum Dated 5/17/90, WTK

TAG COMMENTS:

TAG APPROVAL DATE: 4/16/90

ADEC [Signature]

EXXON [Signature]

NOAA [Signature]

USCG [Signature]

FOSC: [Signature]

DATE:

SHORELINE EVALUATION

SEGMENT ST/ CU-13 SUBDIVISION A (1 OF 1) DATE 4/4/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream mouth (ADF&G catalogue 224-20-13030) - fry out migration
(1A) - 3/1 to 5/15 and spawning (1B) 7/10 to 8/31; Gill net area (1I)
- 6/7 to 8/31; Purse seine area (1J) - 7/21 to 9/30; Recreation special
use designation (6Y)
destination

SUBDIVISION ECOLOGICAL CONSTRAINTS: (1A, 1B) No disturbance of stream bed or banks unless authorized by ADF&G. Contact ADF&G Habitat Division prior to treatment for permits. (1I, 1J) Contact ADF&G for dates, locations, constraints.

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

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

OILING CATEGORIZATION:

Wide 45 m: Medium 38 m: Narrow 0 m: V.Light 650 m: No Oil 0 m
Subsurface Oil Observed: Yes X No _____ Maximum Depth 10cm

RECOMMENDATIONS:

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

COMMENTS: Treatment activities are recommended as follows: 1) Manual pickup of mousse and tar patties, 2) tarmat removal and 3) bioremediation of areas shown on attached sketch map. Work should be conducted between 5/15 and 6/7 based on above constraints.

TAG COMMENTS:

TAG APPROVAL DATE: 4/16/90
ADEC AL KOSLER
EXXON ANDY TEAL FOSC: Y L DATE: 4-20-90
NOAA Burl Wesscott
USCG G.A. MEIER

OG RIC GILLIE
 SEGMENT ST/ CU-13
 SUBDIVISION A-1 of 1
 DATE 04, 04 90

CHECKLIST

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

LEGEND

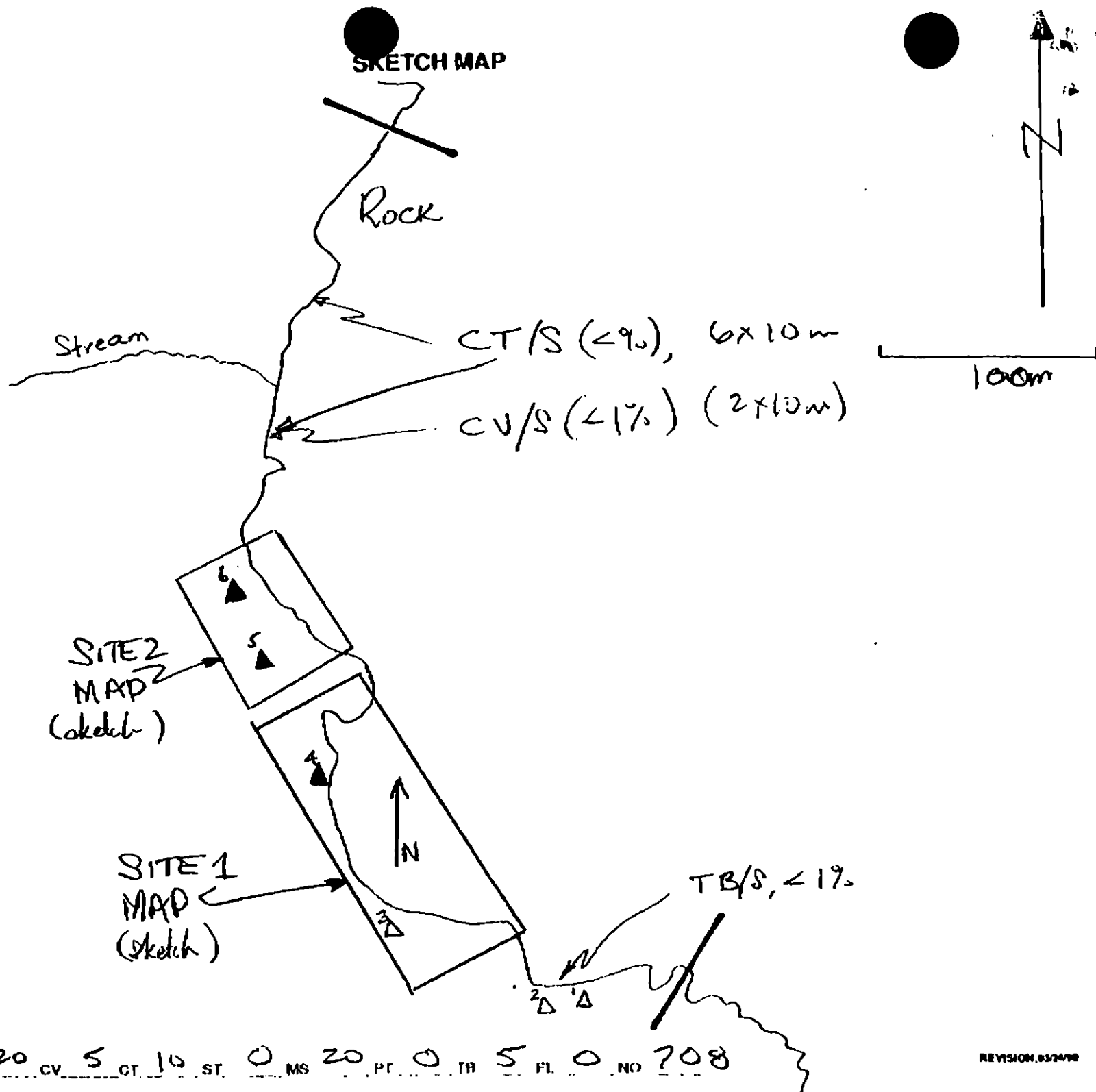
- 1 Δ
 P1 - No Subsurface Oil
- 2 Δ
 P1 - Subsurface Oil
- CT/C

 Continuous Distribution
- CT/B

 Broken Distribution
- CT/P

 Patchy Distribution
- CT/S

 Splashed Distribution
- Oiled Vegetation
- 1 $\rightarrow$
 Photo location, direction, and number



06 RICHIE

SKETCH MAP

SEGMENT ST/ CV013

SUBDIVISION A, 1 of 1

DATE 04/04/90

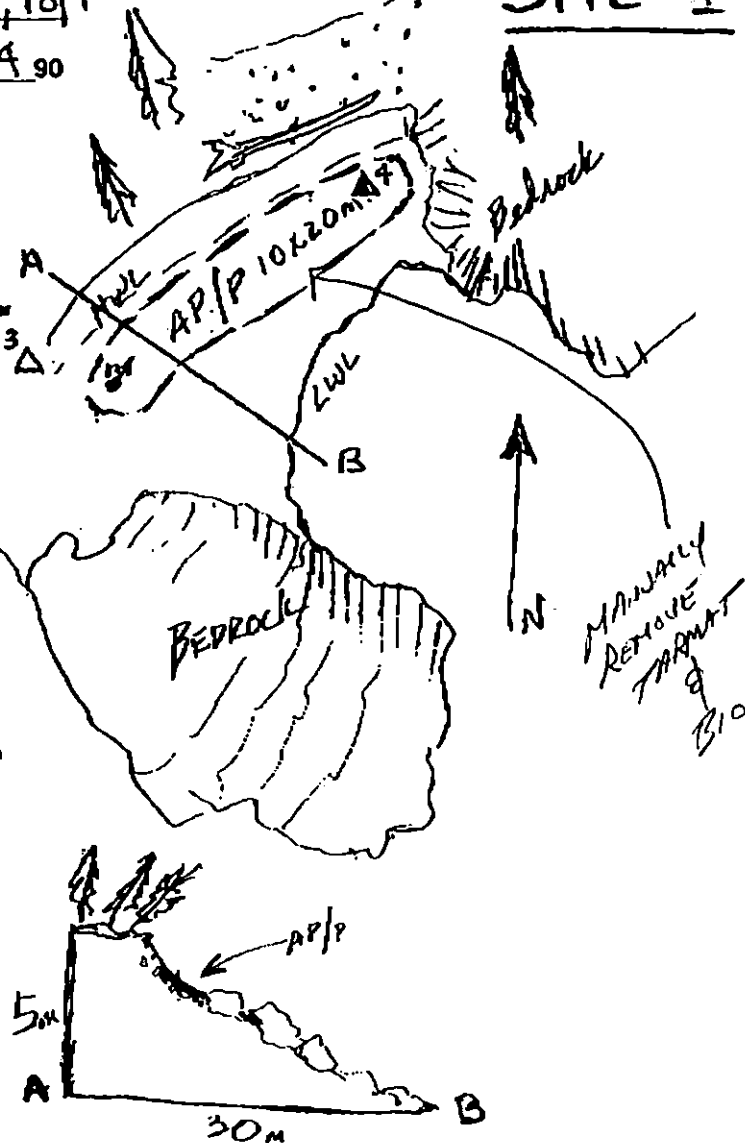
CHECKLIST

- ✓ 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)

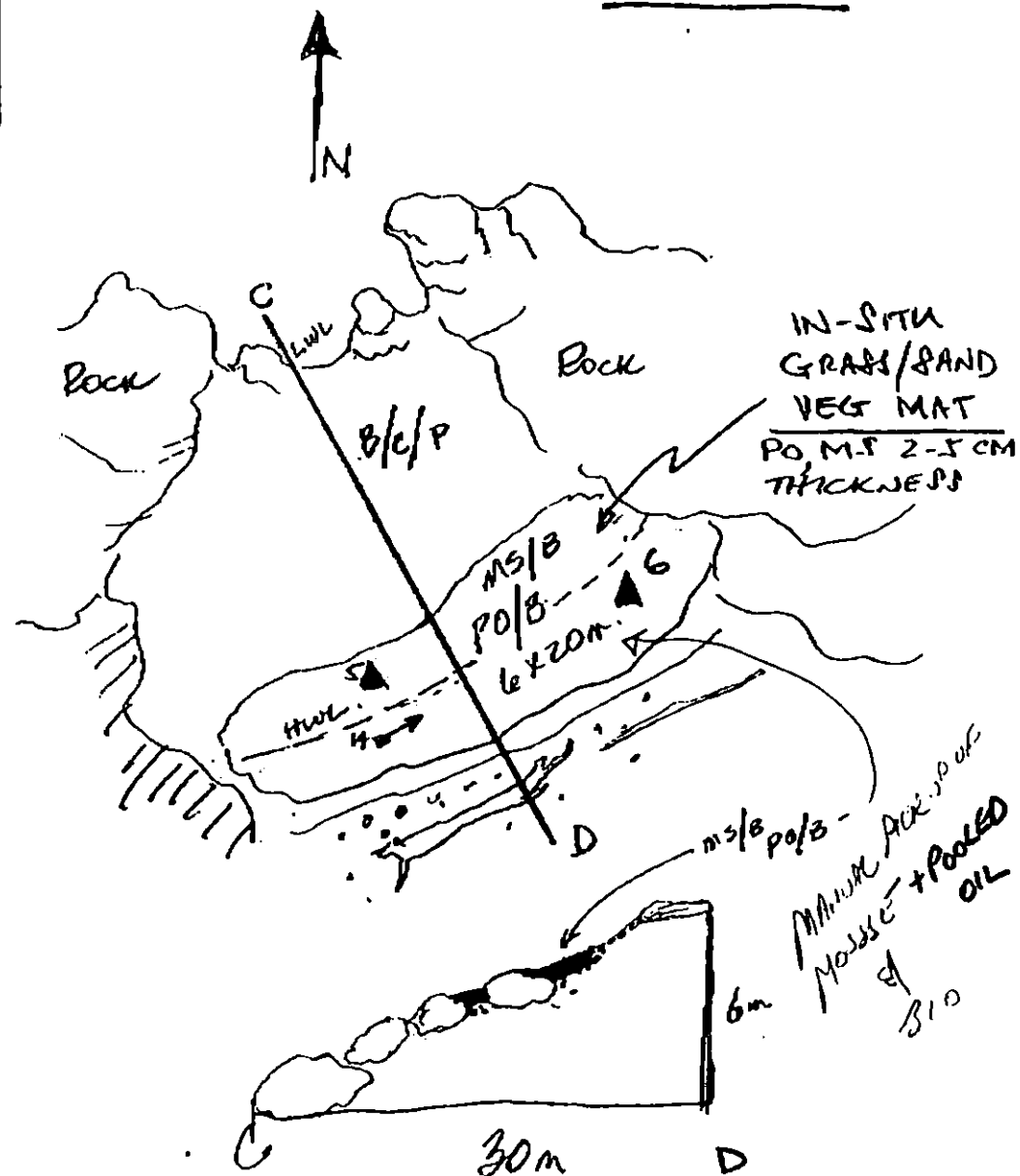
LEGEND

- 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

SITE 1

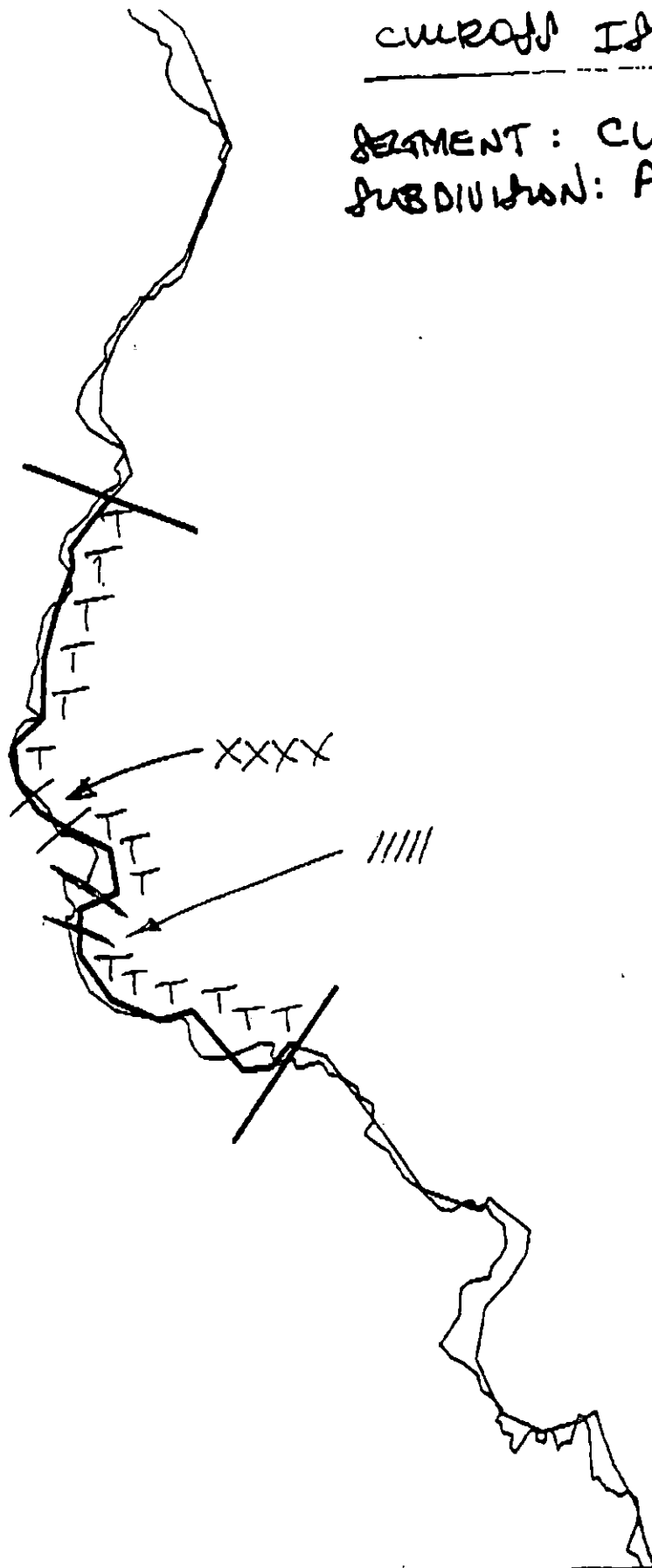


SITE 2



CURROJ ISLAND

SEGMENT: CU-13
SUBDIVISION: A-1 of 1



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

CU-13

ADEC Segment Length: 732m



Map Key: PWS-71

Name: GILLIE

Date: 4-4-90

Data Entered:

1991 MAYSAP EVALUATION

SEGMENT: CU 013 SUB: A REGION: PWS SURVEY DATE: 5/15/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) RESTRICTED 3/1 - 9/15

Ecological/Constraints (see page two for details) Eagle nest,
Fish harvest area, Anadromous stream

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is
required prior to shoreline treatment.

SHPO Signature: _____ Date: _____

RECOMMENDATIONS:

	<u>INITIAL</u>	<u>TAG</u>	<u>FOSC</u>
TREATMENT REQUIRED (Y or N)	<u>N</u>	_____	_____
Manual Pickup (Check as Req.)	_____	_____	_____
Spot Washing	_____	_____	_____
Bio-Customblen Only	_____	_____	_____
Bio-Inipol/Customblen	_____	_____	_____
Other _____	_____	_____	_____
Other _____	_____	_____	_____

COMMENTS:

INITIAL: _____

TAG: _____

FOSC: _____

TAG APPROVAL DATE: _____ FOSC APPROVAL DATE: _____

ADEC _____ FOSC _____

EXXON _____

USCG _____

NOAA _____

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

Eagle Nest: Access restricted from 3/1 to 9/1. USF&WS authorization required. Maintain 1000' vertical and 1/4 mile horizontal buffer.

Fish Harvest Area: Unlimited treatment unless otherwise directed by ADF&G. Sheen containment/recovery procedures required for mechanical treatment.

Anadromous Stream: Unlimited treatment up to stream bank between May 15 and July 10. ADF&G approval required for work after July 10. Fish Habitat Permit required for instream work. ADF&G approval required for bioremediation within 100 meters of anadromous stream after July 10.

MAYSAP FIELD SHORELINE COMMENT SHEET

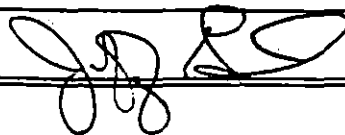
TEAM NO. 1 SEGMENT C0013 SUBDIVISION A DATE 5/15/91

ADEC

NAME

JEFF GWALIAS

SIGNATURE

☒ NTR

ONLY OIL IS OCCASIONAL COAT OR ISOLATED RESIDUAL
BETWEEN BOULDERS. VERY SPORADIC.

EXXON

NAME

RANDALL E. BOVEL

SIGNATURE

Randall E. Bovel☒ NTR

NO TREATABLE OILING CONDITIONS WERE FOUND ON C0013A.
SEVERAL TAR BALLS WERE PICKED UP BY THE SURVEYORS. THE AP
LAYER LOCATED IN THE MIDDLE OF THE SUBDIVISION THAT WAS
TREATED BY SQUAD 6 IN 1990 WAS UNDETECTABLE ON THIS SURVEY.
NO FURTHER REASSESSMENT IS WARRANTED. BEAUTIFUL BEACH.

LANDMANAGER

NAME

MARSHA HALL OF DNR

SIGNATURE

Marsha Hall☒ NTR

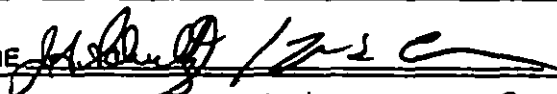
surface stain occasional CT.

USCG/NOAA

NAME

SCHOLTZ

SIGNATURE



☒ NTR WHAT LITTLE OILING FOUND WAS OF NO SIGNIFICANCE. FURTHER
INTRUSION IS NOT WARRANTED

HI ANGLE BEDROCK OUTCROP SHORELINE W/ POORLY SORTED POCKET BEACHES.
SURFACE OILING OBSERVED AT CT & ST AT UI ZONE. A FEW TAR BALLS
WERE DETECTED. ONLY MINOR AMOUNTS. NO SUBSURFACE OIL OBSERVED

MAYSAP SHORELINE OILING SUMMARY

PAGE 1 OF 1

TEAM NO. 1

OG G. MACDONALD

BIO M. FAWCETT

SEGMENT CU-13

ADEC J. GINARAS

LANDMANAGER M. HALL for DNR

SUBDIVISION A

EXXON R. BOYER

USCG/NOAA SCHULTZ/CHILDS

DATE 5/15/91

TIME 12:20 to 13:05

TIDE LEVEL +5 1/2 ft. to +7 ft.

ENERGY LEVEL: ☐ H ☒ M ☐ L

SURVEYED FROM: ☒ FOOT ☐ BOAT ☐ HELO

WEATHER: ☐ SUN ☐ CLOUDS ☐ FOG ☒ RAIN ☐ SNOW

TOTAL LENGTH SHORELINE SURVEYED: 405 m

NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONE

EST. OIL CATEGORY LENGTH: W — m M — m N — m VL 300 m NO 105 m US 330 m

L O C	SURFACE OIL CHARACTER										SURFACE SEDIMENT TYPE	SHORE SLOPE VHML	AREA		ZONE				NOTES
	AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO			WIDTH m	LENGTH m	S	UI	MI	LI	
A			S		T	S	S				RBC	H	2	40	X	X			
B				S		T	T				VBC	L	10	15	X	X			to soil
C						S	S				RCPG	H	1/2	8	X	X			
D			T	T		T					RPG	M	2	10		X			to soil

DISTRIBUTION: C = 91-100%; B = 51-90%; P = 11-50%; S = 1-10%; T = <1%

SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE PHOTO ROLL # MAYSAP- 1-23 FRAMES 9-10

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO					S	UI	MI	LI		
								X	-									
1	20							X	10-20	Y	1			X				P-PG
2	10							X	-		0	N		X				VGM-GL
3	15							X	-		1			X				CP-GL
4	20							X	-		2	N		X				PC-PCA
5	20							X	-		1			X				G-GMV
									-									
									-									
									-									

SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

OG COMMENTS: steep rocky shore w/ massive B, CP over bedrock in embayment.

Surface oil only as (i) trace CV below massive B, w/ assoc. CT & ST ^{up. H-} SUTZ.
(ii) CT, ST, TB & to soil C HITZ, on grassy bench, R, B & C.

A trace of subsurface oil was detected in PG born @ pit. 1 - this was a local occurrence.

REVIEWED 1/7
REVIEWED 1/7

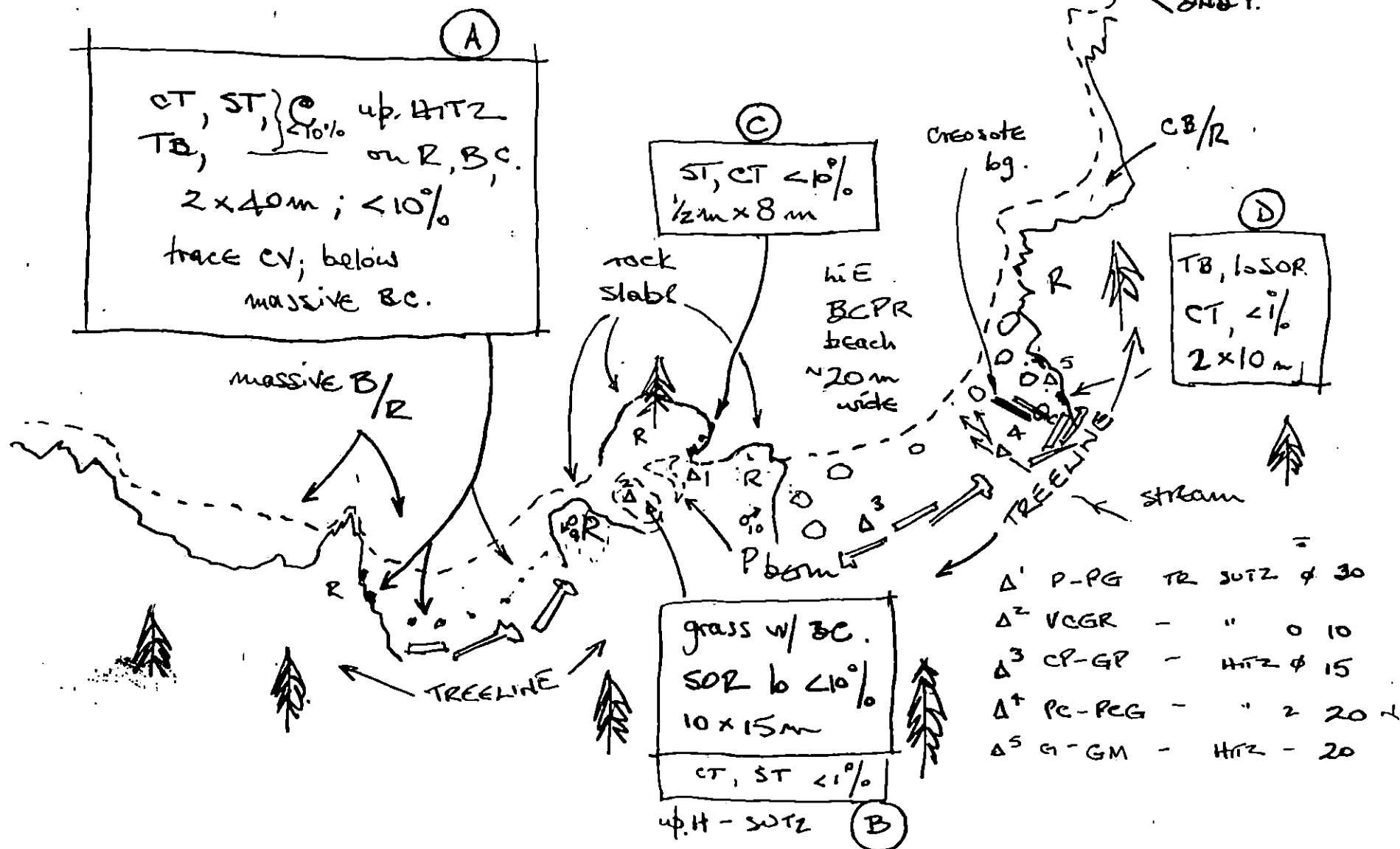
CU-13A

G. MACDONALD

5.16.91



0 55 110m



MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 1 DATE 15 May 91
 SEGMENT # CU013 TIDAL HEIGHT(Range) +2.0 to +4.6 ft MLLW
 SUBDIVISION A BIOLOGIST Michael Fawcett
 AREA STATE 1 ft swell, 1 ft seas WIND SPEED/DIRECTION NE 15 knots
 PHOTOGRAPHS: ROLL # _____ FRAME # _____

COMMENTS/OBSERVATIONS (to be completed in oiled subdivisions only):

This subdivision contains two pocket beaches separated by a rock platform with a few trees on top. The beach on north side consists of large boulders and cobbles. Residual oil at mostly in semi-protected Vtz area at north end of beach. Beach on south side of rock platform has smaller, polished B/C/A sediments & BR. See accompanying sketch map for descriptions of biota near residual oil deposits.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	1 (immature)	
Seabirds			
Waterfowl	1 (Charlequin duck)	2	
Gulls/kittiwakes	2 (black-legged kittiwake)	3	
Shorebirds	2 (Arctic tern)		
Corvids	2 (Black oystercatcher)	8	
Other Birds	2 (unidentified shorebird)		

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters			
Pinnipeds (specify)			
Whales (specify)			

Shoreline subdivision map showing important biological features attached.

CU 13 5/15/91 Fawcett

A-v 1220 wind 15 NE, rain

swell 1 ft, seas 5 ft

- 1 imm eagle flew by

- 2 harlequin ducks

Site (A) CT @ CV VTZ - EUTZ + 10 ft

- small nm-avad s track

large boulders, cattle, & R
outcrops at ends

- at N end of pocket - semi-
protected by outcrop

- sparse barn, limp, litt in lower
edge of oiled area, more dense
3-4m downshore

- denser barn. 5m downshore at
+ 4-7 ft - patchy Fucus,
Rhodo, mod. litt, whelks
pr scattered small patches
young mussels

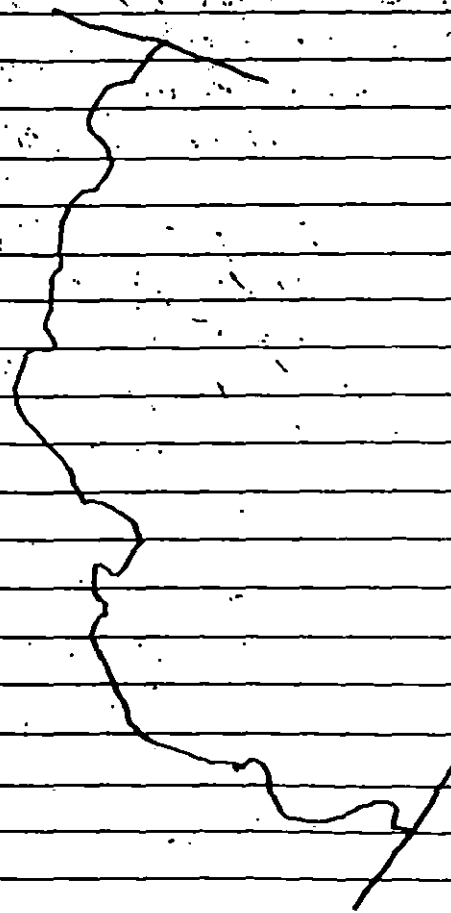
2nd little ~~side~~ side w grassy turf
in S. pool - sheer - amphipods
downs - barnacles etc 10m
downshore - ~~rest~~ t

- Tombolo of rock w/ trees
10m South -

CT in lee side + 10 ft - no biota

CU 13

N



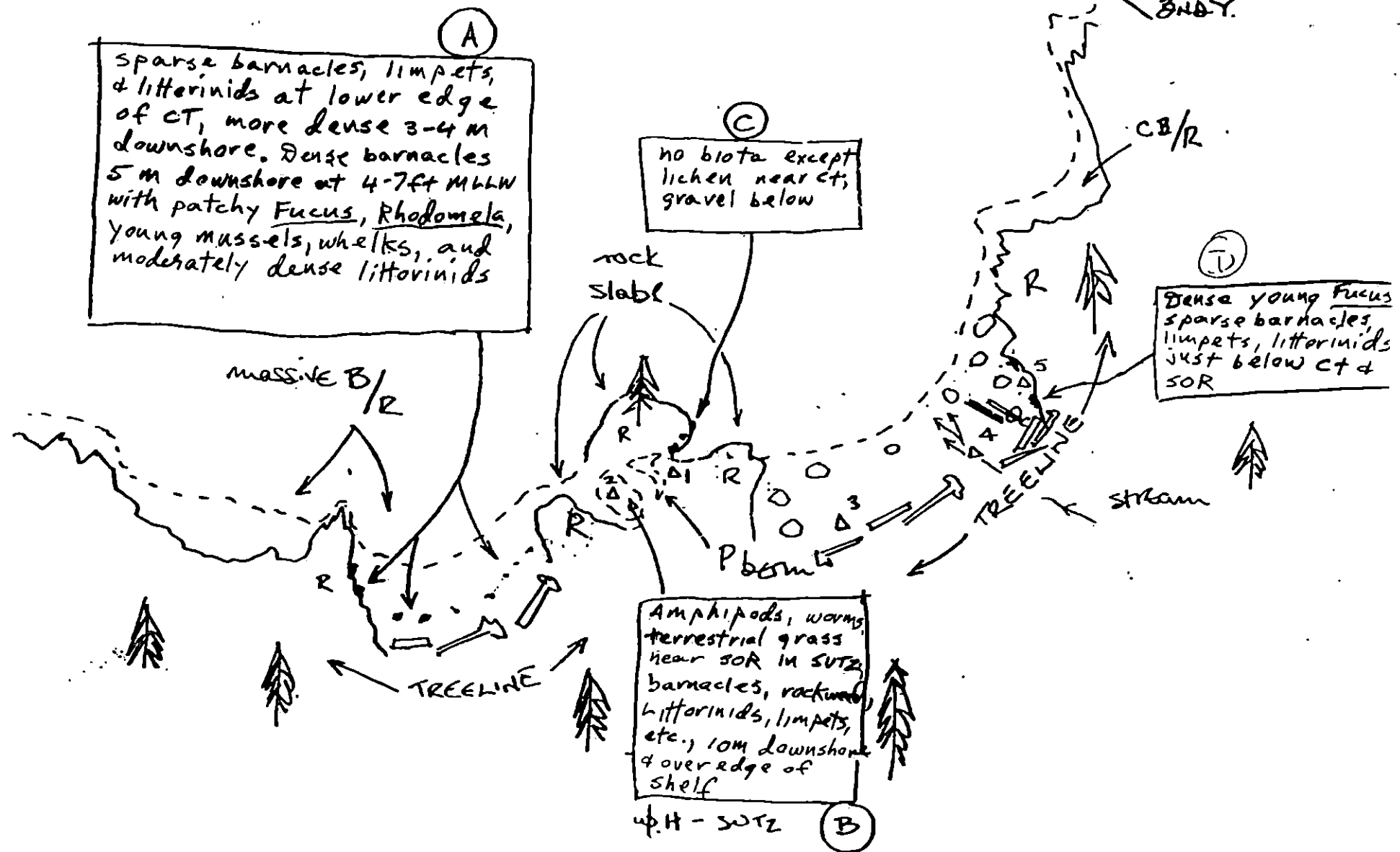
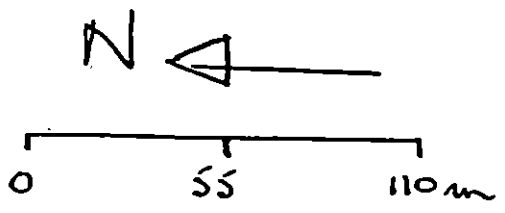
C.V. 13 (cont) 5/15/91 Fawcett

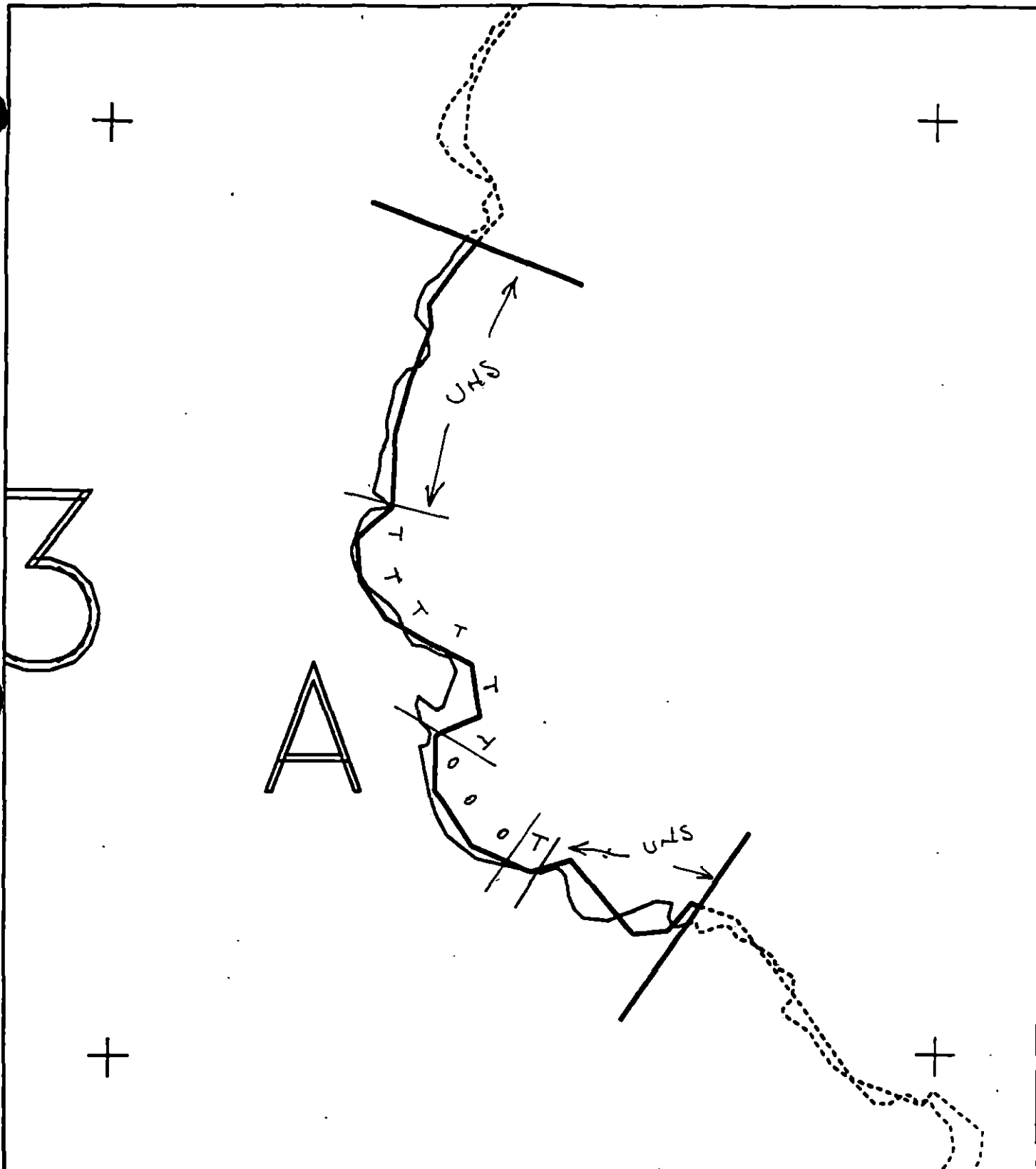
- sparse barns, Eucalypt 1st 5m
- downflow of CT on BR - surrounded
by loose pebbles & cobbles
- 2 oystercatchers
- 2 Arctic terns
- 5-6 mud. shorebirds (sandpipers)

- Trace CT at South end of
beach +10 ft just above
dense young Eucalypt - sparse
barn, 1st 1st
1 Kittiwake

Finish 1305

Sketch Map
 CU 13-A
 15 May 91
 M.H. Fawcett

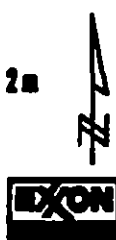




XXXX Wide
 //// Medium
 ---- Narrow
 TTTT Very Light
 0000 No Oil

CU013 A
 ADEC Subsegment Length: 732m
 METERS

0 100 200
 AK State Plane Zone 4
 pcu013a



Subdivision Field Map
 Map Key: PWSCU013A
 Name: GM
 Date: 5.15.91
 Date Entered:

E&F reviewed 5/17
 REVIEWED CD 17 MAY
 3

1991 MAYSAP EVALUATION

SEGMENT: CH 013 SUB: A REGION: PWS SURVEY DATE: 5/1/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) RESTRICTED 3/1 - 9/15

Ecological/Constraints (see page two for details) Eagle nest, Subsistence - Deer harvesting

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO Signature: *Charles E. Holmes* Date: 5/10/91

RECOMMENDATIONS:

	INITIAL	TAG	FOSC
TREATMENT REQUIRED (Y or N)	<u>N</u>	<u> </u>	<u>N</u>
Manual Pickup (Check as Req.)	<u> </u>	<u> </u>	<u> </u>
Spot Washing	<u> </u>	<u> </u>	<u> </u>
Bio-Customblen Only	<u> </u>	<u> </u>	<u> </u>
Bio-Inipol/Customblen	<u> </u>	<u> </u>	<u> </u>
Other	<u> </u>	<u> </u>	<u> </u>
Other	<u> </u>	<u> </u>	<u> </u>

COMMENTS:

INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE: MAY 10 1991 FOSC APPROVAL DATE: 8/15/91

ADEC *John Bauer*

FOSC

EXXON *Don*

E. E. PAGE, CDR, USCG

USCG *Edmundo*

CHIEF OF STAFF FOSC

NOAA *James*

The State will evaluate the need for treatment at this subdissin

John Bauer

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

Eagle Nest: Access restricted from 3/1 to 9/1. USF&WS authorization required. Maintain 1000' vertical and 1/4 mile horizontal buffer.

Subsistence - Deer Harvesting: Unlimited treatment prior to 8/15.

TEAM NO. 4 SEGMENT CH 013 SUBDIVISION A DATE 1 MAY 91

ADEC

NAME Dianne Munson SIGNATURE Dianne Munson☐ NTR ☒ Treatment Recommended

Although some oil was removed during the survey, tar balls, tar patties and MSOR remain. Recommend C.V.C. crew for manual pickup.

EXXON

NAME LARRY D. OLSON SIGNATURE Larry D. Olson

☒ NTR Survey found patches of **MSOR**. Although weathered, an option would be to have CVC clean up crew remove patches as located on 06 sketch map.

LANDMANAGER

NAME LARRY EVANOFF OF CVC SIGNATURE LM☐ NTR ☒ TREATMENT RECOMMENDED

THIS SEGMENT STILL NEEDS TO BE WORKED ON.
TB/PATTIES NEED TO BE REMOVED. NO BIODEGRADATION
RECOMMENDED

USCG/NOAA

NAME JERRY SCHULTZ SIGNATURE Jerry Schultz☒ NTR

ALTHOUGH SOME MSOR WAS FOUND, THE PATCHES WERE WEATHERED TO THE POINT THEY WERE INERT. AS AN OPTION THE CVC WORK CREW COULD WORK THIS SUBDIVISION

PAGE 2 OF 8

revised 5.4 199
REVENUES 5/5/91 M.C.

OG Sketch Map

CH 013 A

+M Samples

MAY 1 91

217 - 1840

Legend

[+] Bedrock

[v] talus cb

[~] pb/cb

5 Fox Bails
Picked up



A1

MSOR 40%
9 x 20

around
base of
cb/Bd

A2

MSOR 5%
9 x 5

around
base of
cb/Bd?

A3

MSOR 40%
2 x 3

on cb/pb

A4

MSOR 20%
2 x 3

on Bedrock

LSOR 5%
1.0 x 2

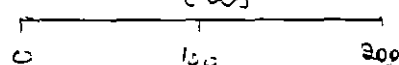
A5 on bedrock

LSOR 20%
1.5 x 4

A6 on bedrock

All units were worked
on during survey
Also picked up scattered
fox patties.
All in WITZ

Meters



REVIEWED: 5/5/91 MC

Reviewed 5.4 9/1

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM #	4	DATE/TIME	May 1, 1991 1220 => 1248
SEGMENT #	CH013	TIDAL HEIGHT (Range)	+4.0 => +5.0
DIVISION	A	BIOLOGIST	JIM BARRY
STATE	Calif	WIND SPEED/DIRECTION	Calm, Cloudy

COMMENTS / OBSERVATIONS - OILED SUBDIVISIONS

A PU Oiled site (Tar Balls) located along the drift line between the upper intertidal and supratidal zones. This is a small pocket beach with small angular cobble and pebbles. The biota at the immediate area of the oil are beach grass (moderate), a few littorines and limpets, and sparse black lichen. Below the oiled location, the beach forms a ramp to the water with moderate cover of Fucus, and barnacles, as well as sparse to moderate densities of mussels and littorines.

MANUAL PICK-UP OF OILED SEDIMENTS PERFORMED DURING SURVEY. Further clean-up, if necessary, will have little adverse effect on the intertidal biota.

A3-6 This site has oil (L/MSOR) in the upper intertidal zone on a zone of small broken cobble and pebbles. At this site there are moderate densities of littorines (adults, juveniles, eggs), limpets, and sparse barnacles. Fucus is present both above and below the oiled sediments, primarily on the bedrock outcrops where high numbers of juveniles are growing within the small crevices and cracks. The lower zones bordering the site form a medium angle cobble beach, with a small bedrock outcrop. Fucus is sparse in this lower zone beach and barnacles are present in moderate densities in the lower shore.

MANUAL PICKUP PERFORMED DURING SURVEY. Additional cleanup, if recommended, will not adversely affect the intertidal biota.

(continued)

WILDLIFE OBSERVATIONS - Completed on all subdivisions

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	Nest Marked on Map, but not Observed, 0 eagles		
Seabirds			
Waterfowl	2	6	
Gulls/Kittiwakes	2	6	
Shorebirds	1	2	
Corvids	1	3	
Other Birds			

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters		River Otter	1
Pinnipeds (specify)			
Whales (specify)			

Shoreline subdivision map showing important biological features attached.

Subdivision CH013-A, Biology Report, (continued)

QAI-2 Oiled Site (MSOR) is located in the upper zone of a cobble/boulder and scattered bedrock beach. The site has a low cover of *Fucus* on the bedrock above the oiled site, with sparse densities of barnacles, and moderate densities of limpets and littorine snails. The densities of *Fucus*, mussels, barnacles and littorines, as well as green and red algae, increase to moderate levels towards the low intertidal on this fairly narrow (ca 15 - 25 m) cobble beach.

PARTIAL MANUAL REMOVAL OF OILED SEDIMENTS PERFORMED ON THIS LOCATION. Additional clean-up operations, if performed, will have little adverse effect on the intertidal biota of the site.

Summary of Biological Features of CH013-A

This short subdivision has two major habitat types; 1) cobble beaches and 2) bedrock headlands. The beaches are mostly low to medium exposure habitats with low cover of attached biota. The most abundant species are small littorine snails, limpets, and scattered barnacles. Densities of these species increase towards the lower intertidal. The bedrock habitats have higher abundances of organisms, mainly *Fucus*, both in the low and upper intertidal zones.

Juveniles, egg masses, or spat of many species were present on the subdivision, although in generally low densities on the cobble beaches. *Fucus*, barnacles, and littorine snails are notable in their recent reproductive output.

Cleanup operations will have little impact on the beaches, due to their generally sparse abundances of biota, and due to the lack of sensitive habitats (e.g. eel grass and clam beds) in subtidal habitats contiguous with the oil-impacted beaches.

List of Common Species on Subdivision CH013-A

A. Marine Plants

1. Diatoms. Blue Greens
2. Green Algae - Chlorophyta
Acrosiphonia sp., *Enteromorpha* sp., *Ulva* sp., *Urospora* sp.
3. Brown Algae - Phaeophyta
Agarum fimbriatum, *Fucus distichus*, *Syctosiphon lomentaria*
4. Red Algae - Rhodophyta
Corallina sp., *Cumagloia andersonii*, *Membranoptera dimorpha*, *Odonthalia floccosa*, *Rhodomela larix*
5. Higher Plants
Zostera marina (eel grass), *Leymus mollis* (beach rye grass)

II. Marine Animals

2. Anemones - *Anthopleura artemesia*
5. Flatworms - Platyhelminthes - Polyclads
6. Nemertean Worms - Ribbon Worms - *Emplectonema gracile*
7. Polychaete Worms -
Nereidae - *Nereis* spp.
Serpulidae
Crucigera sp., *Eudistylia polymorpha*
Spirorbidae - *Spirorbis* sp.
9. Peanut worms - Sipunculids - *Phascolosoma agassizii* worm)

CH013-A Biology Report - (continued)

10. Crustaceans
 - a. Amphipods - *Orchestia* sp.?
 - b. Barnacles - *Balanus glandula*.
 - c. Crabs
Hemigrapsus oregonensis. Paguridae (hermit crabs)
11. Mollusca
 - a. Chitons - *Mopalia mucosa*
 - b. Snails - Gastropods
Littorina scutulata, *L. sitkana*, *Natica clausa*, *Nucella lamellosa*, *N. lima*
 - c. Limpets - *Lottia digitalis*, *L. persona*
 - d. Mussels and Clams
Clinocardium sp., *C. nuttalli*, *Macoma* sp., *Mya arenaria* (soft-shell clam), *Mytilus edulis*, *Prototheca staminea*, *Saxidomus giganteus*
12. Echinoderms
 - b. Sea stars
Dermasterias imbricata, *Evasterias truscheli*, *Leptasterias hexactis*, *Pycnopoda helianthoides*
 - c. Urchins - *Strongylocentrotus droebachiensis*
13. Bryozoans - *Schizoporella* sp.
15. Fishes
 - Cottidae - 2-3 species
 - Liparidae - *Liparis callyodon*
 - Stichaeidae - *Xiphister atropurpureus*, *X. mucosus*

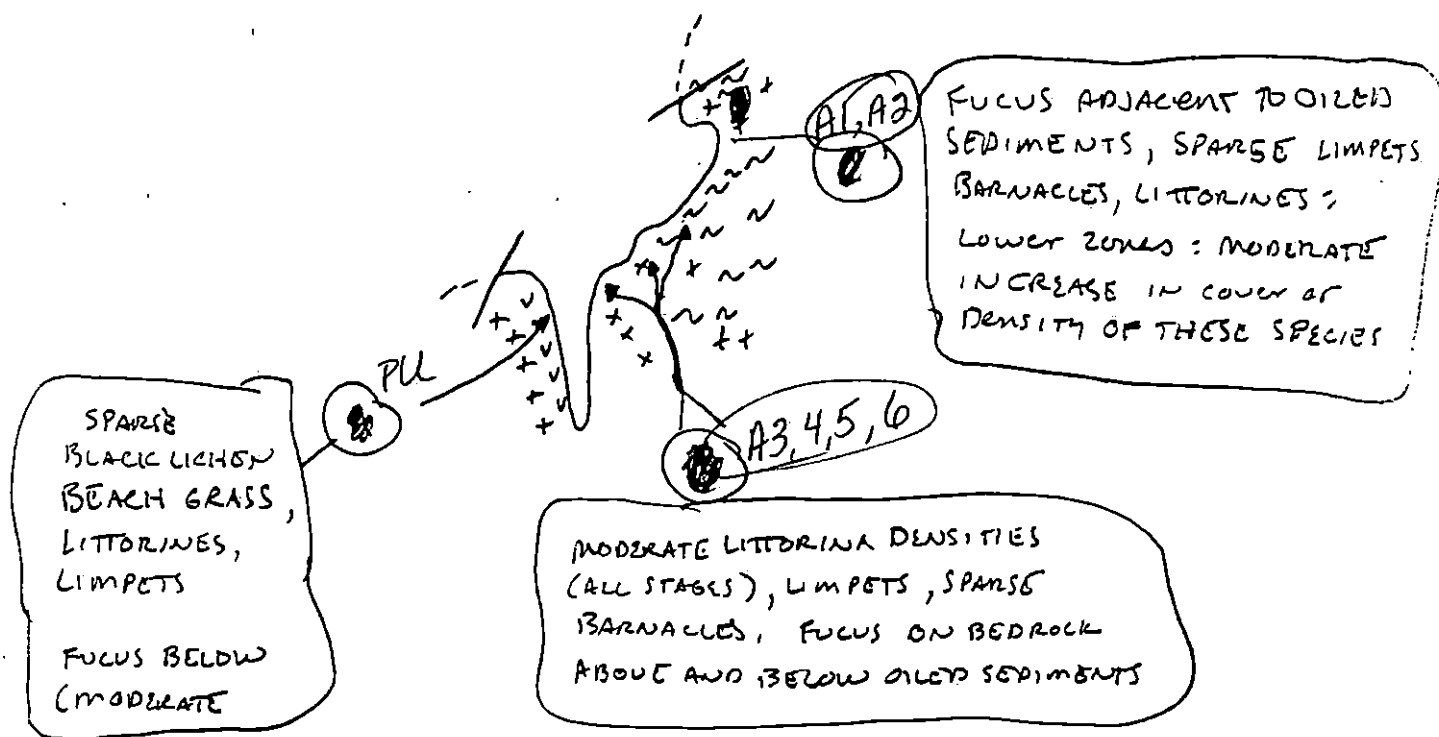
BIO SKETCH MAP

CH013-A

1 MAY 91

CH013-A

6/2



1

C

CH013 A
ADEC Subsegment Length: 587m
METERS
0 100 200
AK State Plane Zone 4
pch013a

Subdivision Field Map
Map Key: PWSCH013A
Name: J. Samples
Date: MAY 1 / 96
Date Entered:

REVISIONS: MC 5/5/91
revised 5-2 9y

1991 MAYSAP EVALUATION

SEGMENT: CU 013 SUB: A REGION: PWS SURVEY DATE: 5/15/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) **RESTRICTED 3/1 - 9/15**

Ecological/Constraints (see page two for details) Eagle nest,
Fish harvest area, Anadromous stream

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO Signature: Rachel Jean Owen Date: 5/24/91

RECOMMENDATIONS:

INITIAL**TAG**

FOSC

TREATMENT REQUIRED (Y or N)

N

2

2

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE:

TAG APPROVAL DATE: MAY 24 1991 FOSC APPROVAL DATE: 5/29/91

ADEC

FOSC

~~EXXON~~

E. E. PAGE, CDR, USCG
CHIEF OF STAFF, FOSC

USCG

NOAA

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

Eagle Nest: Access restricted from 3/1 to 9/1. USF&WS authorization required. Maintain 1000' vertical and 1/4 mile horizontal buffer.

Fish Harvest Area: Unlimited treatment unless otherwise directed by ADF&G. Sheen containment/recovery procedures required for mechanical treatment.

Anadromous Stream: Unlimited treatment up to stream bank between May 15 and July 10. ADF&G approval required for work after July 10. Fish Habitat Permit required for instream work. ADF&G approval required for bioremediation within 100 meters of anadromous stream after July 10.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 1 SEGMENT CU013 SUBDIVISION A DATE 5/15/91

ADEC

NAME

JEFF GINALIAS

SIGNATURE

[Signature]

☒ NTR

ONLY OIL IS OCCASIONAL COAT OR ISOLATED RESIDUAL
BETWEEN BOULDERS. VERY SPORADIC.

EXXON

NAME

RANDALL E. BOYER

SIGNATURE

[Signature]

☒ NTR

NO TREATABLE OILING CONDITIONS WERE FOUND ON CU013A.
SEVERAL TAR BALLS WERE PICKED UP BY THE SURVEYORS. THE AP
LAYER LOCATED IN THE MIDDLE OF THE SUBDIVISION THAT WAS
TREATED BY SQUAD 6 IN 1990 WAS UNDETECTABLE ON THIS SURVEY.
NO FURTHER REASSESSMENT IS WARRANTED. BEAUTIFUL BEACH.

LANDMANAGER

NAME

MARSHA HALL

OF

DNR

SIGNATURE

[Signature]

☒ NTR

surface stain occasional CT.

USCG/NOAA

NAME

SCHOLTZ

CHILDS

SIGNATURE

[Signature]

☒ NTR WHAT LITTLE OILING FOUND WAS OF NO SIGNIFICANCE. FURTHER
INTRUSION IS NOT WARRANTED

HIGH ANGLE BEDROCK OUTCROP SHORELINE W/ POORLY SORTED POCKET BEACHES.
SURFACE OILING OBSERVED AS CT & ST AT UI ZONE. A FEW TAR BALLS
WERE DETECTED. ONLY MINOR AMOUNTS. NO SUBSURFACE OIL OBSERVED.

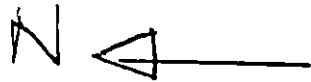
PAGE 1 OF 1

REVIEWED 5/17
REVIEWED 6/17 MAY

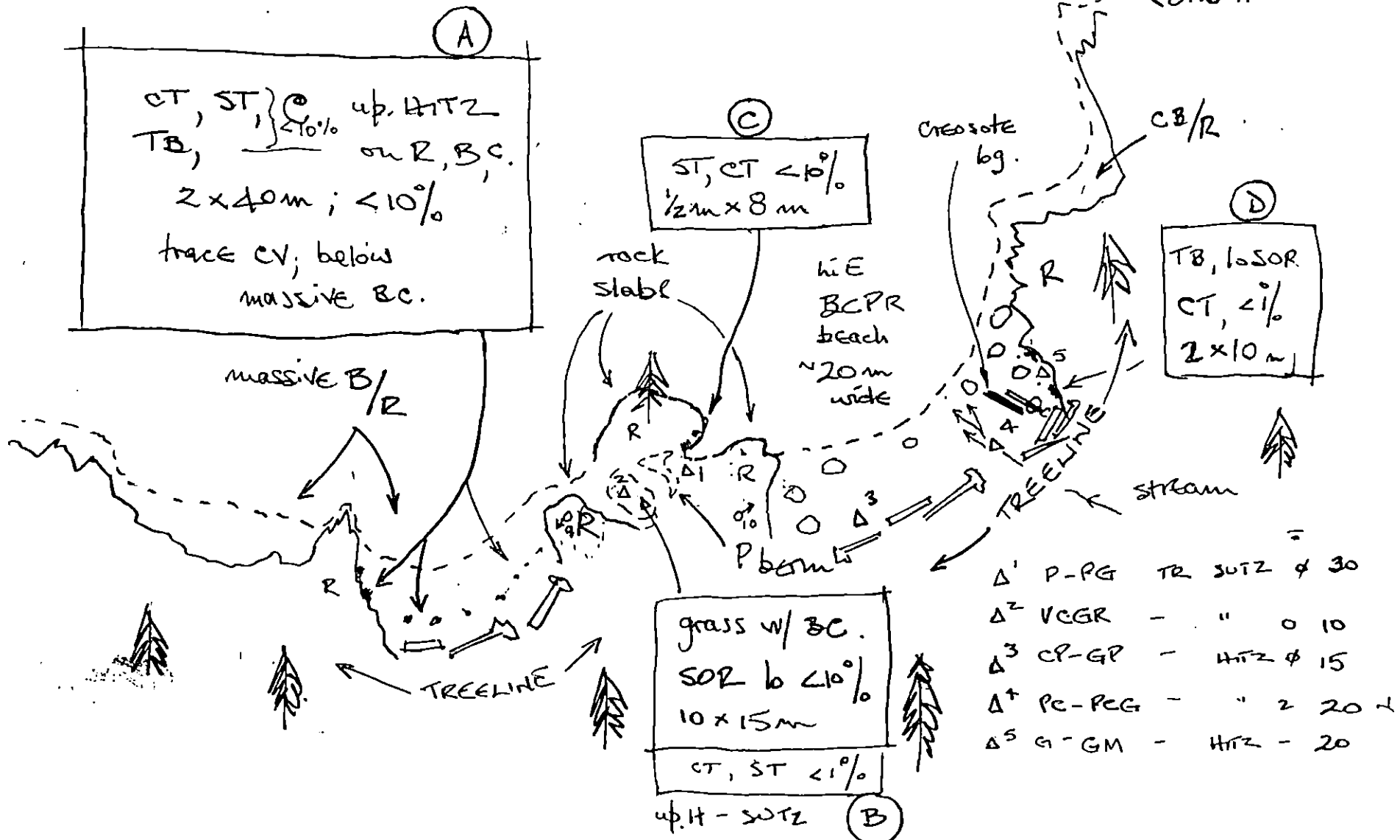
CU-13A

G. MACDONALD

5.16.91



0 55 110m



MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 1 DATE 15 May 91
 SEGMENT # CU013 TIDAL HEIGHT (Range) +2.0 to +4.6 ft MLLW
 SUBDIVISION A BIOLOGIST Michael Fawcett
 SEA STATE 1 ft swell, 1 ft seas WIND SPEED/DIRECTION NE 15 knots
 PHOTOGRAPHS: ROLL # _____ FRAME # _____

COMMENTS/OBSERVATIONS (to be completed in oiled subdivisions only):

This subdivision contains two pocket beaches separated by a rock platform with a few trees on top. The beach on north side consists of large boulders and cobble. Residual oil is mostly in semi-protected IITZ area at north end of beach. Beach on south side of rock platform has smaller, polished B/C/P sediments & BR. See accompanying sketch map for descriptions of biota near residual oil deposits.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	1 (immature)	
Seabirds			
Waterfowl	1 (Charlequin duck)	2	
Gulls/kittiwakes	2 (black-legged kittiwake)	3	
Shorebirds	2 (Arctic tern)	8	
Corvids	2 (Black oystercatchers)		
Other Birds	2 (unidentified shorebirds)		

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters			
Pinnipeds (specify)			
Whales (specify)			

Shoreline subdivision map showing important biological features attached.

CU 13 5/15/91 Fawcett

Arr 1220 wind 15 NE, rain

Small. Hft, seas 2.5 ft

- 1 imm eagle flew by
- 2 harlequin ducks

Site (A) CT 9 CV VTZ - 5VTZ + 10 ft

- small nm ahead 5 trnm
- large boulders, cobbles, BR
- outcrops at ends
- CT at N end of pocket - semi-protected by outcrop
- sparse barn, limp, litt in lower edge of oiled area, more dense 3-4m downshore
- dense barn. 5m downshore at + 4-7 ft - patchy Fucus, Rhodo, mod. litt, whelks
- scattered small patches
- young mussels

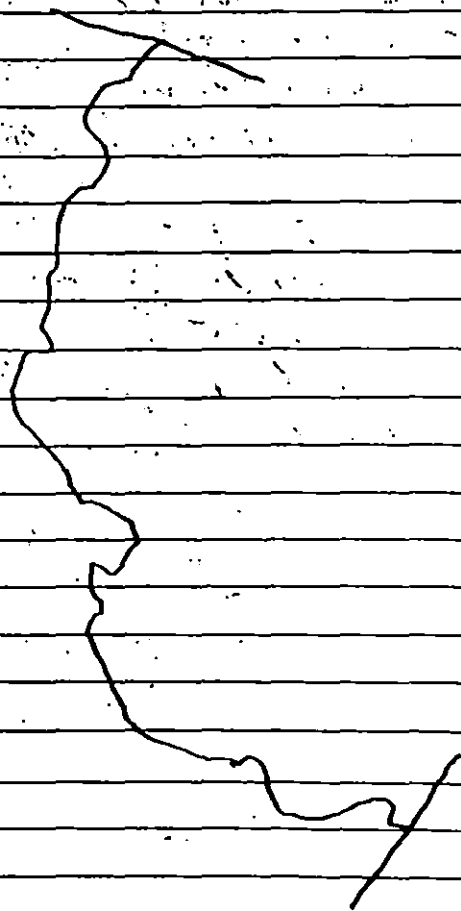
2nd little ~~left~~ side w grass & turf
in Suprae - sheen - amphipods
limp - barnacles etc 10m
downshore - ~~rock~~

- Tombolo of rock w trees
10m South -

CT in lee side + 10 ft - no biota

CU 13

N



4 C.V 13 (Cont) 5/15/91 Fawcett

- sparse bare; Eucaly 1H 5m

downside of CT on BR - surrounded
by loose pebbles & cobbles

2 cyclocatkins

- 2 Acacia trees

- 5-6 mnd. shorebirds (sandy plover)

- Trace CT at South end of

beach + 10 ft just above

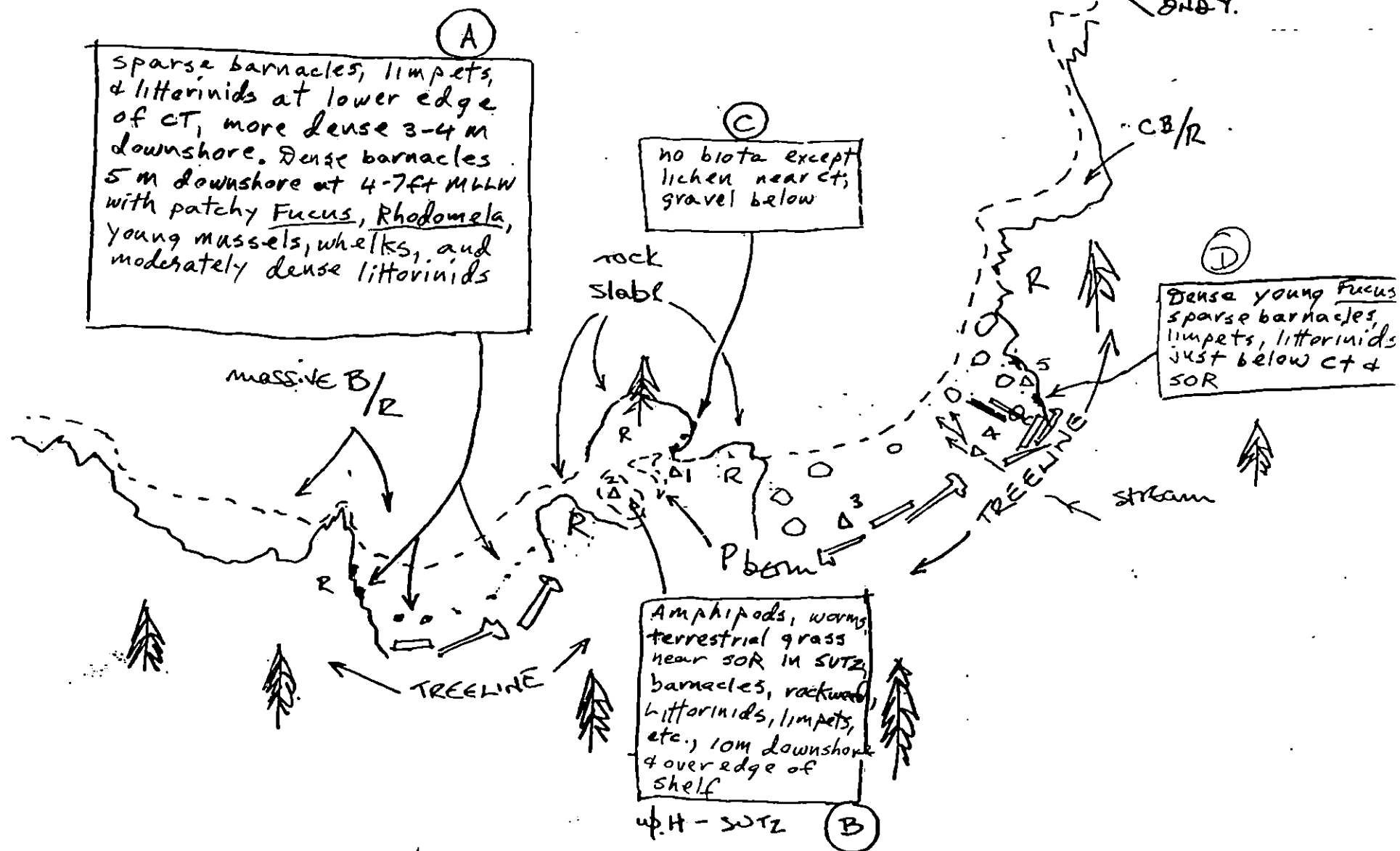
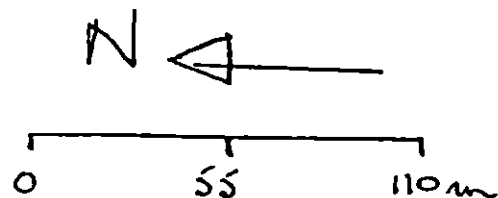
dense young Eucaly - 5 pairs

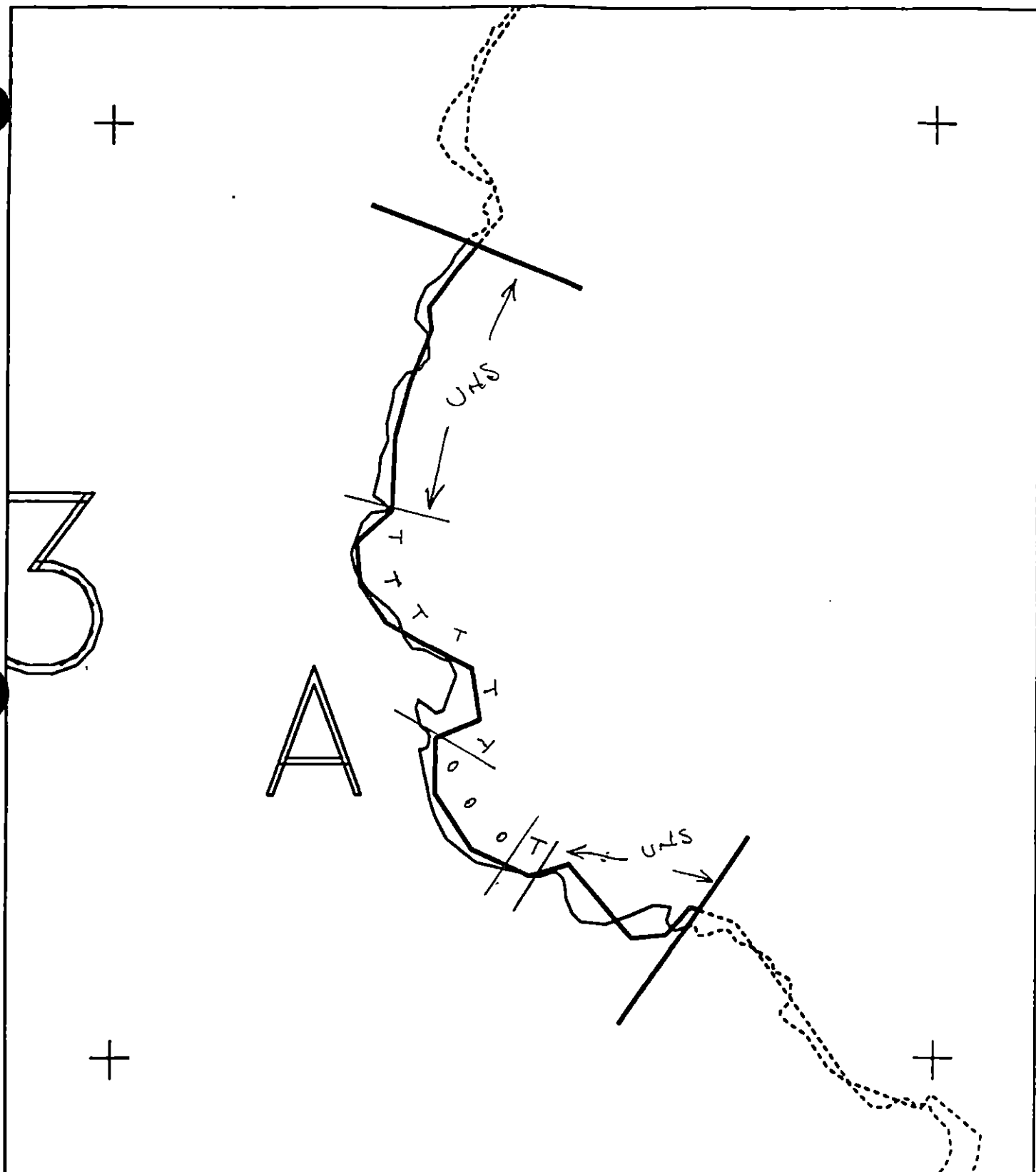
1 K, 1 H, 1 W

1 K, 1 H, 1 W

Fin 154 130.5

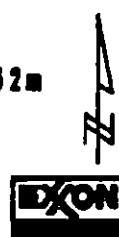
Sketch Map
 20 13-A
 15 May 91
 M.H. Fawcett





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

CU013 A
 ADEC Subsegment Length: 732m
 METERS
 0 100 200
 AK State Plane Zone 4
 pcu013a



Subdivision Field Map
 Map Key: PU SCU013A
 Name: GM
 Date: 5-15-91
 Date Entered:

EG reviewed 5/17
 REVIEWED CD 17 MAY
 3

1991 MAYSAP EVALUATION

SEGMENT: CU 013 SUB: A REGION: PWS SURVEY DATE: 5/15/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) RESTRICTED 3/1 - 9/15

Ecological/Constraints (see page two for details) Eagle nest,
Fish harvest area, Anadromous stream

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is
required prior to shoreline treatment.

SHPO Signature: Rachel Jean Owen Date: 5/24/91

RECOMMENDATIONS:

	INITIAL	TAG	FOSC
TREATMENT REQUIRED (Y or N)	<u>N</u>	<u>N</u>	<u>N</u>
Manual Pickup (Check as Req.)	<u> </u>	<u> </u>	<u> </u>
Spot Washing	<u> </u>	<u> </u>	<u> </u>
Bio-Customblen Only	<u> </u>	<u> </u>	<u> </u>
Bio-Inipol/Customblen	<u> </u>	<u> </u>	<u> </u>
Other <u> </u>	<u> </u>	<u> </u>	<u> </u>
Other <u> </u>	<u> </u>	<u> </u>	<u> </u>

COMMENTS:

INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE: MAY 24 1991 FOSC APPROVAL DATE: 5/29/91

ADEC [Signature]

FOSC [Signature]

EXXON [Signature]

E. E. PAGE, CDR, USCG
CHIEF OF STAFF, FOSC

USCG [Signature]

NOAA [Signature]

ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES

Eagle Nest: Access restricted from 3/1 to 9/1. USF&WS authorization required. Maintain 1000' vertical and 1/4 mile horizontal buffer.

Fish Harvest Area: Unlimited treatment unless otherwise directed by ADF&G. Sheen containment/recovery procedures required for mechanical treatment.

Anadromous Stream: Unlimited treatment up to stream bank between May 15 and July 10. ADF&G approval required for work after July 10. Fish Habitat Permit required for instream work. ADF&G approval required for bioremediation within 100 meters of anadromous stream after July 10.

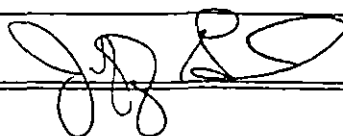
TEAM NO. 1 SEGMENT C0013 SUBDIVISION A DATE 5/15/91

ADEC

NAME

JEFF GWALLAS

SIGNATURE



NTR

ONLY OIL IS OCCASIONAL COAT OR ISOLATED RESIDUAL
BETWEEN BOULDERS. VERY SPORADIC.

EXXON

NAME

RANDALL E. BOYER

SIGNATURE

Randall E. Boyer



NTR

NO TREATABLE OILING CONDITIONS WERE FOUND ON C0013A.
SEVERAL TAR BALLS WERE PICKED UP BY THE SURVEYORS. THE AP
LAYER LOCATED IN THE MIDDLE OF THE SUBDIVISION THAT WAS
TREATED BY SQUAD 6 IN 1990 WAS UNDETECTABLE ON THIS SURVEY.
NO FURTHER REASSESSMENT IS WARRANTED. BEAUTIFUL BEACH.

LANDMANAGER

NAME

MARSHA HALL

OF

DNR

SIGNATURE

Marsha Hall



NTR

surface stain occasional CT.

USCG/NOAA

NAME

SCHOLTZ

/CHILDS

SIGNATURE



NTR

WHAT LITTLE OILING FOUND WAS OF NO SIGNIFICANCE. FURTHER
INTRUSION IS NOT WARRANTED

HI ANGLE BEDROCK OUTCROP SHORELINE W/ POORLY SORTED POCKET BEACHES.
SURFACE OILING OBSERVED AS CT & ST AT UI. ZONE. A FEW TAR BALLS
WERE DETECTED. ONLY MINOR AMOUNTS. NO SUBSURFACE OIL OBSERVED

PAGE 1 OF 1

SEGMENT CU-13

SUBDIVISION A

DATE 5 / 15 / 91

ENERGY LEVEL: ☐ H ☒ M ☐ L

NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONE

EST. OIL CATEGORY LENGTH: W 1 m M 1 m N 1 m VL 300 m NO 105 m US 330 m

SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE PHOTO ROLL # MAYSAP- 1 - 23 FRAMES 9-10

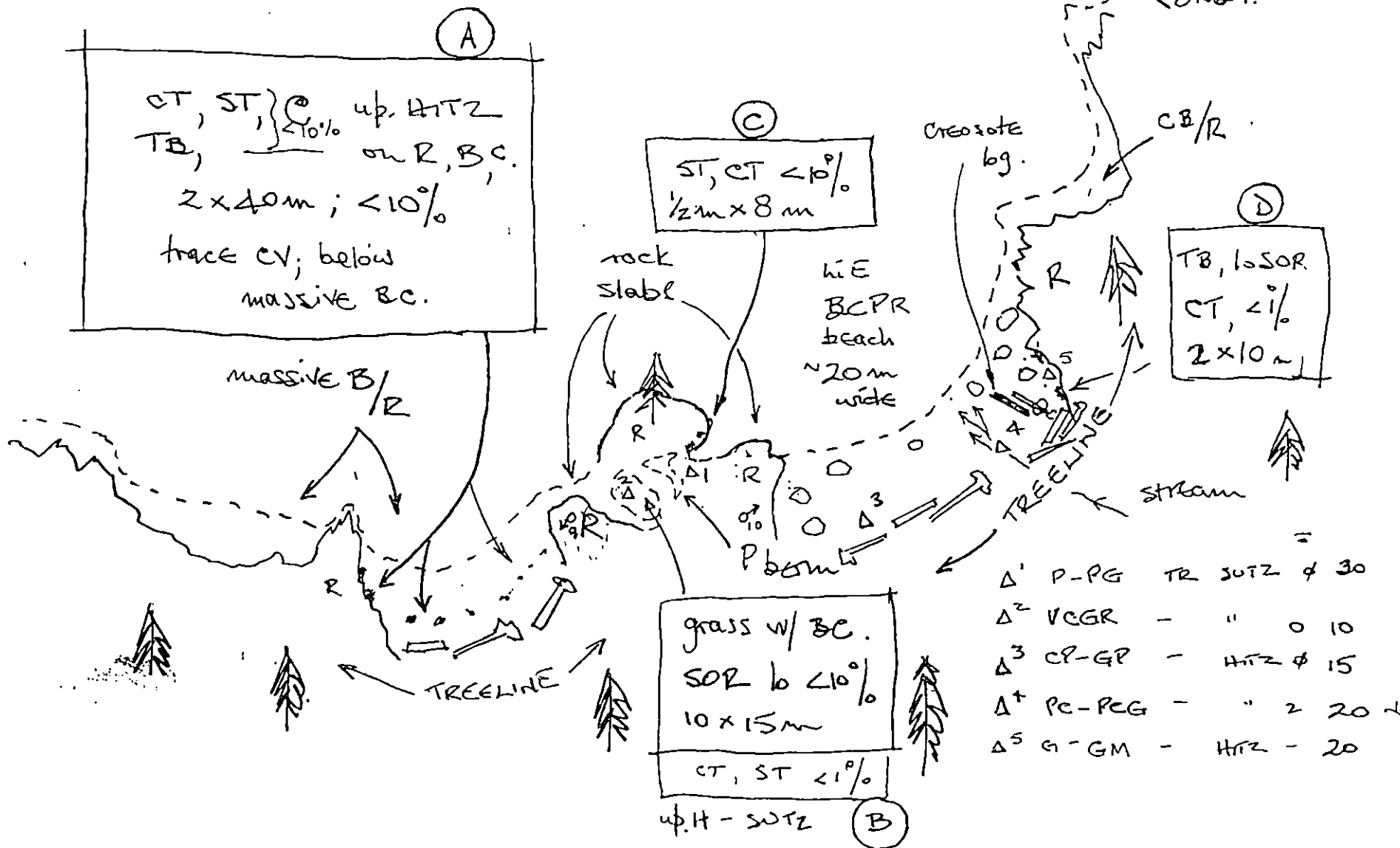
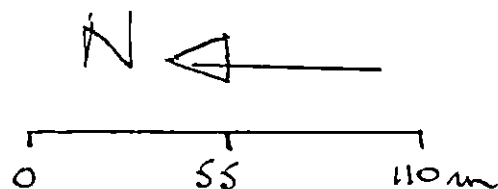
SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

EC reviewed 5/17
REVIEWED CE 17

CU-13A

G. MACDONALD

S. 16. 91



MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 1 DATE 15 May 91
 SEGMENT # CU013 TIDAL HEIGHT(Range) +2.0 to +4.6 ft mll
 SUBDIVISION A BIOLOGIST Michael Fawcett
 SEA STATE 1 ft swell, 1 ft seas WIND SPEED/DIRECTION NE 15 knots
 PHOTOGRAPHS: ROLL # _____ FRAME # _____

COMMENTS/OBSERVATIONS (to be completed in oiled subdivisions only):

This subdivision contains two pocket beaches separated by a rock platform with a few trees on top. The beach on north side consists of large boulders and cobble. Residual oil is mostly in semi-protected VIZ area at north end of beach. Beach on south side of rock platform has smaller, polished B/C/P sediments & BR. See accompanying sketch map for descriptions of biota near residual oil deposits.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	1 (immature)	
Seabirds			
Waterfowl	1 (charlequin duck)	2	
Gulls/kittiwakes	2 (black-legged kittiwake)	3	
Shorebirds	2 (Arctic tern)		
Corvids	2 (Black oystercatchers)	8	
Other Birds	2 (unidentified shorebirds)		

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters			
Pinnipeds (specify)			
Whales (specify)			

Shoreline subdivision map showing important biological features attached.

REVIEWED CB 17 MAY 91

CU 13 5/15/91 Fawcett

Air 1220 wind 15 NE, rain

swell. 1 ft, seas 5 ft

- 1 imm eagle flew by

- 2 harlequin ducks

Site (A) CT & CU VIZ - SUTZ + 10 ft

- small non-anad stream

large boulders, cobbles, BR

outcrops at ends

- at N end of pocket - semi-
protected by outcrop

- sparse barn, limp, litt in lower
edge of oiled area, more dense
3-4m downshore

- dense barn. 5m downshore at
+ 4-7 ft - patchy Fucus,
Rhodo, mod. litt, mussels
for scattered small patches
young mussels

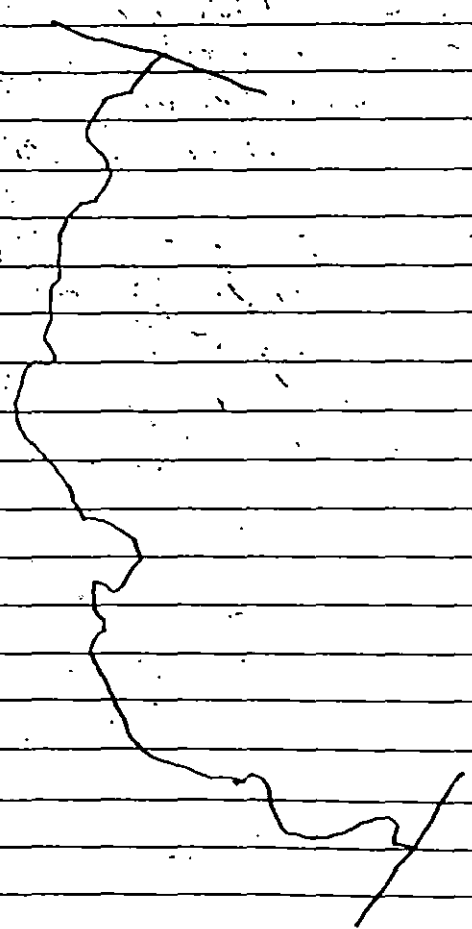
2nd little ~~side~~ side w grass & turf
in S. pool - sheen - amphipods
downshore - barnacles etc 10m
downshore - ~~rest~~

- Tombolo at rock w/ trees
10m South -

CT in lee side + 10 ft - no biota

CU 13

N



CU 13 (cont) 5/15/91 Fawcett
- sparse barn, Fucus litt 5m
glomeration of CT on BR - surrounded
by loose pebbles & cobbles
- 2 oystercatchers
- 2 Arctic terns
- 5-6 und. shorebirds (sandpipers)

- Trace CT at South end of
beach +10 ft just on shore
dense young Fucus - sparse
barn, litt 1m
1 Kittiwake

Fin 154 1305

Bio Sketch Map

CU 13-A

15 May 91

M.H. Fawcett

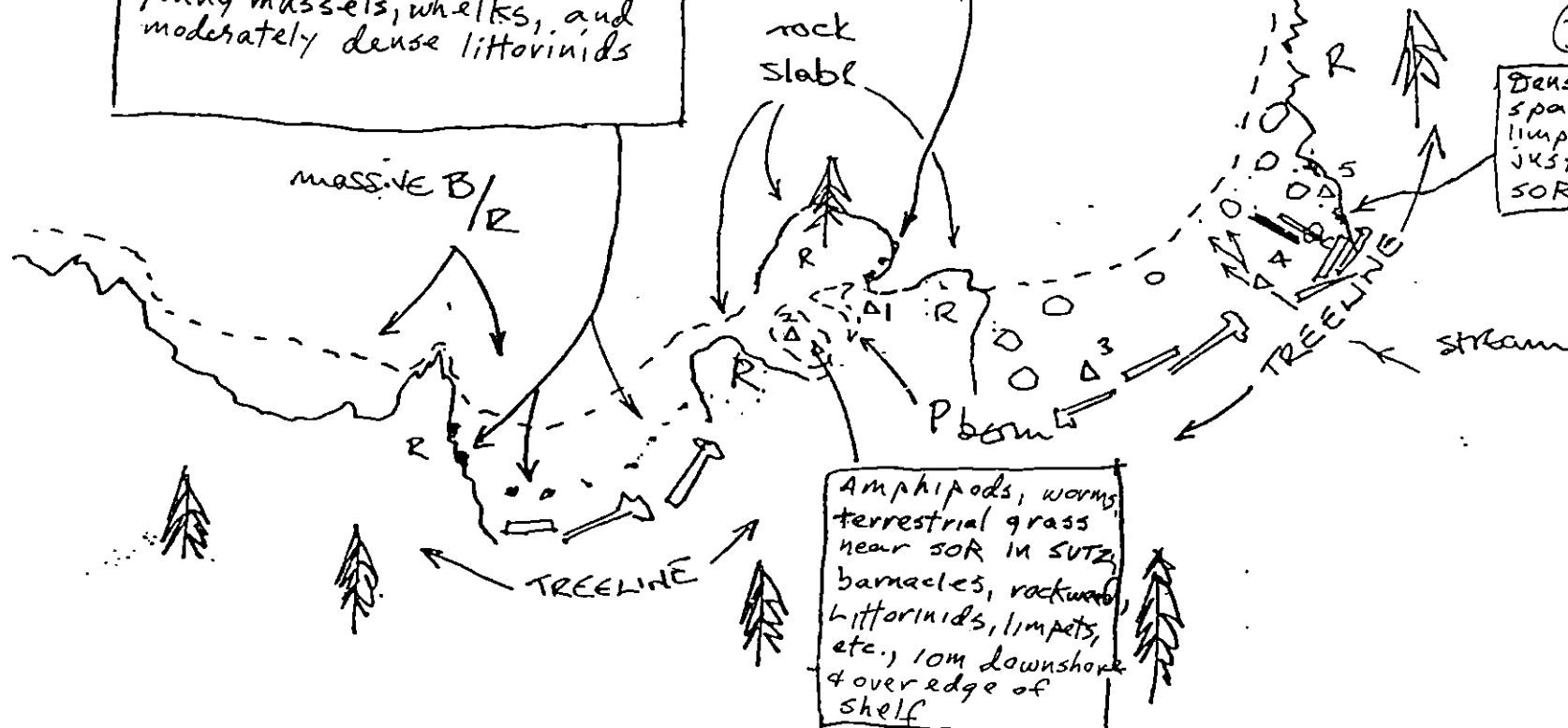


0 55 110m

(A)
sparse barnacles, limpets,
& littorinids at lower edge
of CT, more dense 3-4 m
downshore. Dense barnacles
5 m downshore at 4-7 ft MLLW
with patchy Fucus, Rhodomela,
young mussels, whelks, and
moderately dense littorinids

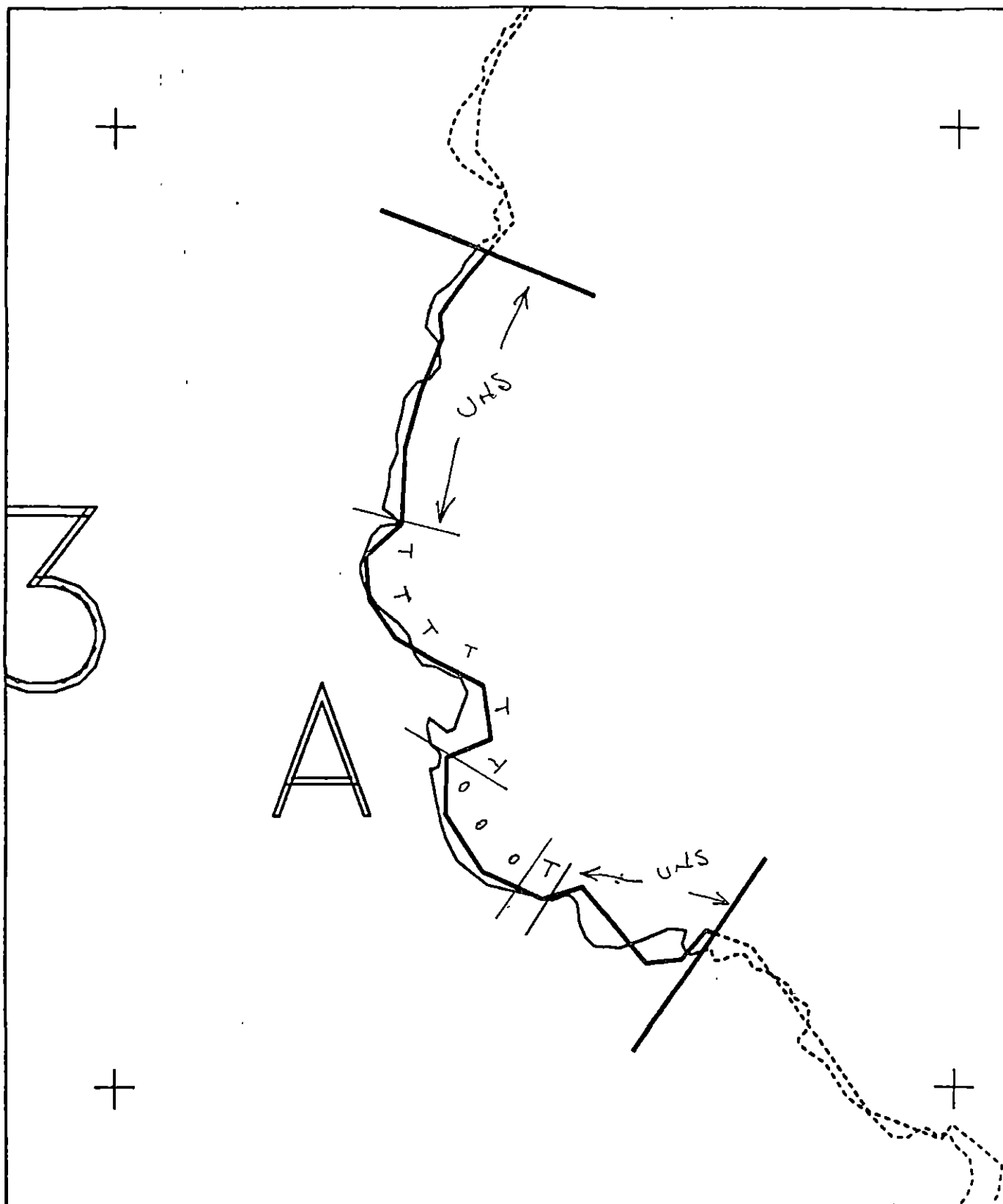
(C)
no biota except
lichen near CT,
gravel below

(D)
Dense young Fucus
sparse barnacles,
limpets, littorinid
just below CT &
SOR



(B)
Amphipods, worms,
terrestrial grass
near SOR in SWTZ,
barnacles, rockwrens,
littorinids, limpets,
etc., 10m downshore
& over edge of
shelf

up.H - SWTZ (B)



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

CU013 A
 ADEC Subsegment Length: 732m
 METERS

AK State Plane Zone 4
 pcn013a



Subdivision Field Map
 Map Key: PWSCU013A
 Name: GM
 Date: 5.15.91
 Date Entered:

EF reviewed 5/17
 REVIEWED CD 17 MAY
 3

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ CU-13 STREAM NO: 224-20-13030 DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
- 1B Salmon stream mouth - spawning (7/10 to 8/31)
- 1I Gill net area (6/7 to 8/31)
- 1J Purse seine area (7/20 to 9/30)
- 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 uncoiled biota and substrate. Subject stream is located within Subdivision A (1 of 1).

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: [Signature] DATE: 5/10/90

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual pickup of tar patties and tar balls in areas indicated on sketch map, 2) manual removal of tarmat in area indicated on sketch map, and 3) bioremediation of broken chain in area indicated on sketch map. Work should be conducted between 5/15 and 6/7 due to salmon and gill net constraints.

TAG COMMENTS: No. BIO OF STAINS.

TAG APPROVAL DATE: 5/10/90

ADEC Art Weimer
EXXON Andy Tate
NOAA Burt Wescott
USCG D.D. Romf

FOSC: [Signature] DATE: 5-18-90

NOTIFY PCVC 24 HRS PRIOR TO WORK.

OG CARL ARSON

SEGMENT ST 12015

STREAM 2242019090

DATE 4/25/00

CHECKLIST

- N Arrow
- Approx. Scale
- Seg/Sub Body
- Of Dist.
- Width
- Length
- % Cover
- Substrate Character
- Est. HW/LW/LVL
- SSL
- Profile Location(s)
- Profile(s)
- PR 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 24 PO CV CT ST 120 MS PT TB FL NO

ETCH MAP

EST. COVERAGE
OF BROKEN STAIN
120x4M

PT/TB/P
1X1M

SMALL
POCKET BEACH

24x2x3CM
GAP

BOG

MANUALLY REMOVED
TARMAT, TAR PATTIES &
TAR BALLS

SMALL
STREAM

PT/TB/P 1X1M

ST/B

POCKET BEACH

WATER LINE

BEDROCK SHELF/OUTCROP

180M

REVISION 03/2000

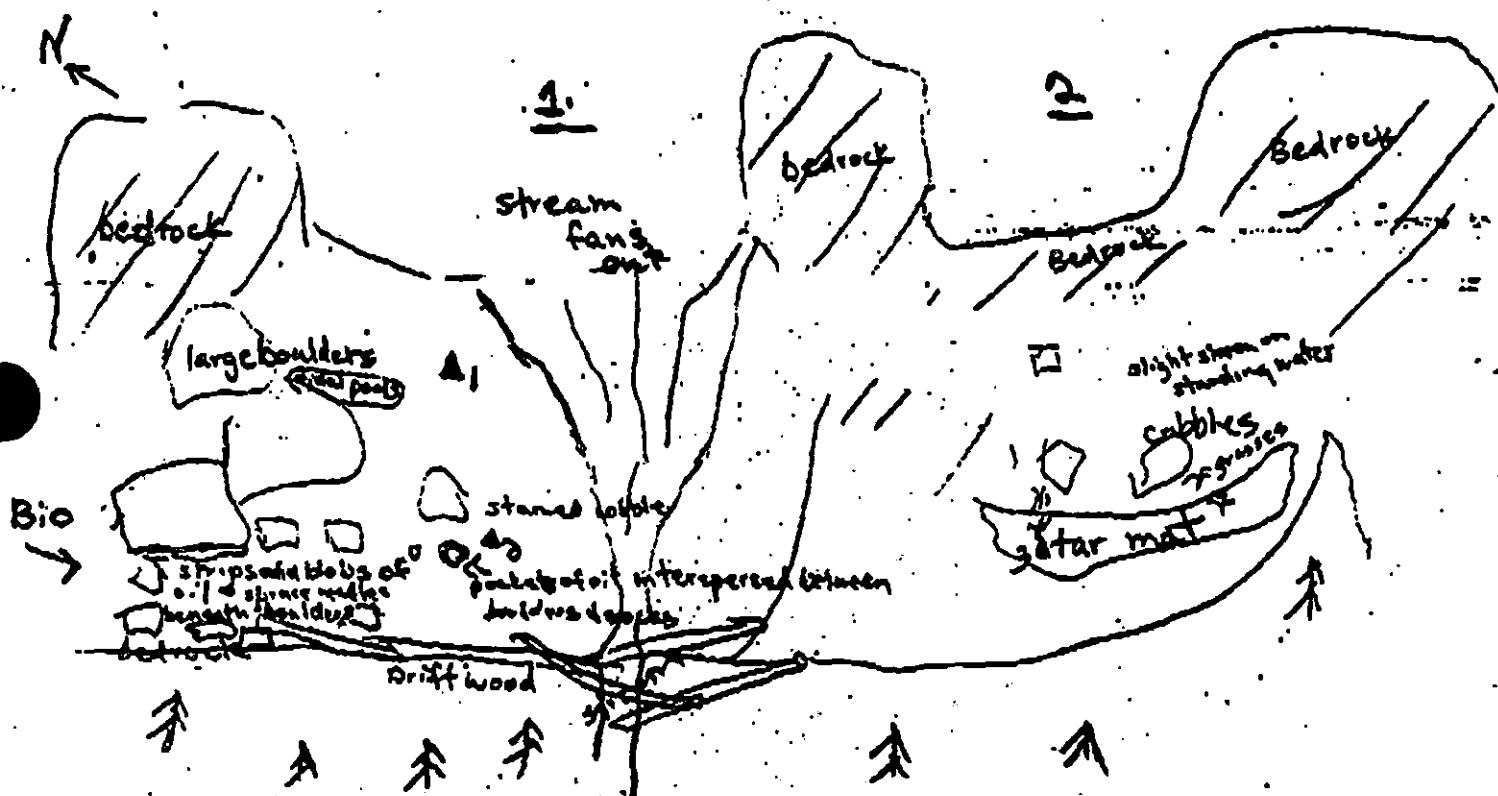
tar mats & patties. Some oil was trapped in boulder²
interstices in UITZ
as photo log

FRAME(S)

DESCRIPTION

pit 1 - 24" deep no noticeable oil
pit 2 - 34cm - no oil UITZ
pit 3 - 10cm 12cm oil per mobile oil

40 OIL DISTRIBUTION DIAGRAM



treatment recommendations -

Manually remove tar mat (24+2x3cm) in UITZ of 2nd pocket beach by pit 3.

Manually remove scattered tar balls & oiled spruce needles in UITZ of 1st pocket beach

Bio remediate oil trapped in boulder interstices in UITZ - in areas unreachable by shovel & trowel

ECCOLOGICAL MAP

148°07'30" 439000m E.
60°45'

5

250 000 FEET ZONE 41

6735000m N.

1A, 1B

1I, 1J

64

2 460 000 FEET
(ZONE 4)

13042

SUBJECT
NADROMOUS
STREAM

224-20-13030
(P₃, 2/90)



ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 224-20-13030

SEGMENT CU-13 SUBDIVISION A

WORK WINDOW

Manual Pickup & Tarmat Removal
More Than 400m From Eagle Nest

OPEN

Manual Pickup & Tarmat Removal
Less Than 400m From Eagle Nest

CLOSED

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

ADF&G catalogued anadromous stream (224-20-13030) is present in Subdivision A. No constraint to manual pickup and tarmat removal.

1I Gill Net Area

No constraint to manual pickup and tarmat removal.

1J Purse Seine Area

No constraint to manual pickup and tarmat removal.

5T Bald Eagle Nest

Closed to manual pickup and tarmat removal less than 400m from nest. Open to manual pickup and tarmat removal more than 400m from nest.

OTHER ECOLOGICAL CONSIDERATIONS

No disturbance to stream bed or banks. When set net sites are present, restrict beach operations to essential minimum. Restrict road and 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 uncoiled biota and substrate.

SEE SUBDIVISION CONSTRAINT ADDENDUM CU-13
FOR ADDITIONAL CONSTRAINT INFORMATION.

TAG APPROVAL DATE _____

ADEC

EXXON

NOAA

USCG

FOSC

Date

6-8-90

INACTIVE
NEST

CU-14

ACTIVE
NEST

CU-13

TREATMENT
AREAS

ANADROMOUS
STREAM
224-20-13030

CU-12

Incorporates USFWS 611190 map of Active bald eagle nests.

ANADROMOUS FISH STREAM EVALUATION
(224-20-13030)

INACTIVE
NEST →



Exxon Company, USA
Map Key: PWS-CU-13
May 11, 1990



ECOLOGY MAP SEGMENT CU-13

SUBDIVISION A (1 of 1)

METERS



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

1 inch = 1147 feet

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ CU-13 STREAM NO: 224-20-13030 DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
- 1B Salmon stream mouth - spawning (7/10 to 8/31)
- 1I Gill net area (6/7 to 8/31)
- 1J Purse seine area (7/20 to 9/30)
- 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 uncoiled biota and substrate. Subject stream is located within Subdivision A (1 of 1).

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: [Signature] DATE: 5/10/90

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual pickup of tar patties and tar balls in areas indicated on sketch map, 2) manual removal of tarmat in area indicated on sketch map, and 3) bioremediation of broken stain in area indicated on sketch map. Work should be conducted between 5/15 and 6/7 due to salmon and gill net constraints.

TAG COMMENTS: No BIO OF STAINS.

TAG APPROVAL DATE: 5/10/90

ADEC [Signature] [Signature]

EXXON [Signature] [Signature]

NOAA [Signature] [Signature]

USCG D.D. Romf [Signature]

FOSC: [Signature] DATE: 5-14-90

NOTIFY [Signature] 24 HRS PRIOR TO

ANADROMOUS FISH STREAM ASSESSMENT

REGION: PRINCE WILLIAM SOUND

SEGMENT: CU-13

STREAM NO: 224-20-13030

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ CU-13 STREAM NO: 224-20-13030 DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
- 1B Salmon stream mouth - spawning (7/10 to 8/31)
- 1I Gill net area (6/7 to 8/31)
- 1J Purse seine area (7/20 to 9/30)
- 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 uncoiled biota and substrate. Subject stream is located within Subdivision A (1 of 1).

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

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: Recommended treatment includes 1) manual pickup of tar patties and tar balls in areas indicated on sketch map, 2) manual removal of tarmat in area indicated on sketch map, and 3) bioremediation of broken stain in area indicated on sketch map. Work should be conducted between 5/15 and 6/7 due to salmon and gill net constraints.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 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
- 1J Gill net area (6/7 to 8/31)
 1K Purse seine area (7/20 to 9/30)
 1L Purse seine hook-off (7/20 to 9/30)
 Set net sites (6/11 to 7/25)
 Contact ADF&G for specific dates, locations and constraints. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G James Brady 424-3212
- 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 unholed 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)
 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

22/28

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / CU-013 SUBDIVISION: ^{ASC# 13088 HRO} 224-20-13036 DATE 25 APR 90

USCG

NAME Kerwin L. Dreher SIGNATURE cwo K. L. Dreher

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Agree

ADEC ^{ADFG}

NAME Aimee Weseman SIGNATURE Aimee Weseman

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

A pocket beach salmon spawning area with a small stream/sprir running through it.

- manually remove tar mat (24x2x3cm) in UITZ cobbles of southern beach

- manually remove scattered tar balls & patties in UITZ & SITZ of northern cove - intersperced between rocks/boulders/gravels

- Bioremediate oil pockets on northern cove, unreachable by shovel & trowel

LAND MANAGER ^{NONE}

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

SUMMARY (ANNU)

REVISION NO. 0

OG: CAL LARSON USCG: DREHER, CWE SEGMENT ST/ CL 013 9/25
 BIO: KEN CRITCHLOW LAND REP: STREAM 22A 10 17000 OF
 EXXON: DARL YL YOE ADFG: 20 K. DREYER - AIMEE WESEMAN TIME: 08:10 to 09:15
 TEAM NO. 18 TIDE LEVEL: DATE 4/25/90
 EST. SUBDIVISION LENGTH: 100 m/ ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☐ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 20 % B 50 % C 10 % P 10 % G 10 % S 0 % M 0 % V 0
 SLOPE: Long 0 % Hang 100 % Vert 0 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 24 m M 0 m N 120 m VL 0 m NO 36

SURFACE OIL

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

PAVEMENT H F (S) 48 sq. m by 3PATTIES / TARBALLS 1 BANEAR SHORE SHEEN? ☒ NO BR RW SL T

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

Did you COLLECT DEBRIS
☐ YES ☒ NO

TYPE _____

#BAGS _____

Photographs:

Roll No. 7Frames 19-37

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 SUBSURFA SEDIMENT
		OP	OR	OL	OF	NO		NO	UC	1	2	3	4	SU	U	M	U				
1	20					L	.										✓				CB/PB/CB
2	34					L	.								✓						PB/CB/CB
3	10					L	.								✓			✓			CB, PB/CB
							.														
							.														
							.														

COMMENTS TO POCKET BEACHES AT THIS SITE. NO MAJOR STREAMS AT THIS SITE. RUN OFF FROM SNOW MELT/BOB AND LARGE SEDIMENT HOLD FRESH WATER, MAKING FOR PINK SALMON BREEDING AREA

REVIEWED JW DATE 4-28-90

OG CALIFORNIA

SEGMENT ST/0015

STREAM 224 2013090

DATE 4/25/00

CHECKLIST

- ☐ N Arrow
- ☐ Apprx. Scale
- ☐ Seg/Sub Study
- ☐ Off Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HW/LVL
- ☐ SCL
- ☐ Profile Location(s)
- ☐ Photo(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
Patched Distribution

lll
Red Vegetation

1 →
Ind location, direction,
and number

Character Length (m): AP 24 PO CV CT ST 120 MS PT 1 TB 1 FL NO

REVISION 03/2000

4/20

SCRT TEAM P.05

TO EXON CND CORDON FROM 13:13 APR-25-1990

ST/0015

180M

N

WATER LINE

POCKET BEACH

BEDROCK SHELF/OUTCROP

PT/TB/P 1X1M

SMALL STREAM

MANUALLY REMOVED TARMAT, TAR PATTIES & TAR BALLS

BUG

ST/B

PT/TB/P 1X1M

SMALL POCKET BEACH

24X2X3CM 4/AP

EST. COVERAGE OF BROKEN STAIN 120X4M

BIOREMEDIATE BROKEN STAIN

ST/0015

4/20

SCRT TEAM P.05

TO EXON CND CORDON FROM 13:13 APR-25-1990

ST/0015

180M

N

WATER LINE

POCKET BEACH

BEDROCK SHELF/OUTCROP

PT/TB/P 1X1M

SMALL STREAM

MANUALLY REMOVED TARMAT, TAR PATTIES & TAR BALLS

BUG

ST/B

PT/TB/P 1X1M

SMALL POCKET BEACH

24X2X3CM 4/AP

EST. COVERAGE OF BROKEN STAIN 120X4M

BIOREMEDIATE BROKEN STAIN

ST/0015

4/20

SCRT TEAM P.05

TO EXON CND CORDON FROM 13:13 APR-25-1990

ST/0015

180M

N

WATER LINE

POCKET BEACH

BEDROCK SHELF/OUTCROP

PT/TB/P 1X1M

SMALL STREAM

MANUALLY REMOVED TARMAT, TAR PATTIES & TAR BALLS

BUG

ST/B

PT/TB/P 1X1M

SMALL POCKET BEACH

24X2X3CM 4/AP

EST. COVERAGE OF BROKEN STAIN 120X4M

BIOREMEDIATE BROKEN STAIN

ST/0015

4/20

SCRT TEAM P.05

TO EXON CND CORDON FROM 13:13 APR-25-1990

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4/20

SCRT TEAM P.05

TO EXON CND CORDON FROM 13:13 APR-25-1990

ST/0015

180M

N

WATER LINE

POCKET BEACH

BEDROCK SHELF/OUTCROP

PT/TB/P 1X1M

SMALL STREAM

7/22

Seg ID: CU-013 Subdiv: 224-20-13030

Survey Date: 4/25/90

Comments by: Ken Critchlow

At first appraisal, this site doesn't appear to be an "anadromous fish stream" in that it isn't characterized by a defined channel. The "stream" is comprised of numerous spring flows across and through the beach sediments. At high water much of the freshwater is probably discharged through cobble and boulder as up-welling, providing suitable spawning habitat for pink salmon.

Virtually all oil observed on this site was confined to the UITZ and STZ. Asphalt pavement, tarballs and patties can be removed by a small crew using shovels and trowels. Only surface sediments will need removal since pits indicate that subsurface oil isn't present. In locations where large boulders / bedrock preclude ready access to oil, and thus removal, use of Inipol may be advisable. This is a diverse and productive inter-tidal region; it is also very difficult to traverse safely. Therefore, foot traffic should be limited to the UITZ and STZ for worker safety and to minimize impact of cleanup on the biota.

20/26

ADPAC MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: ES CS TS AVS SCH MOVS PTA2 REGION: FW KP, CI K, APMETHOD: Aerial Ground Boat3 DATE: 4-25-9015 HIGH TIDE TIMES: 121 TEAM RECORDER: Aimee Wkema4 START TIME: 081516 HIGH TIDE HTS: 122 OBSERVERS: Rick Gustin5 STOP TIME: 091517 LOW TIDE TIMES: 123 AGENCY: ADF466 SEGMENT #: CU01318 LOW TIDE HTS: 124 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: 90ATW-0c

9 STAT AREA:

20 USCS QUAD: SC3Starts: 464 Ends: 585

10 LAT:

11 LONG:

26 SAMPLES TAKEN Y (N) Number12 SOURCE: Map Loran

Oil

13 LOCATION: se side Culross I coastline

Sediment

14 DESCRIPTION:

Biological

Water

EXTENT OF OIL

	SHORELINE				STREAM			
	L	W	H	S	L	W	H	S
27 SURFACE COVERAGE								
28 SURFACE THICKNESS								
29 PENETRATION	1-2cm							

36 CATALOGED ANAD. FISH STREAM (Y) N37 CATALOG #: 224-20-1303C

38 STREAM NAME:

39 OIL IN STREAM BED? Y N

40 OIL ON STREAM BANKS? Y N

30 OVERALL OIL IMPACT: N VL (C) M H41 OIL ON BEACH ADJACENT TO MOUTH? Y N
(within 50 meters)

42 OIL WITHIN 1 MILE OF STREAM? Y N

31 OIL TYPE: Pooled Housse Tar Asphalt Sticky Stain

Where:

32 OILED DEBRIS Y N

33 SHORELINE TYPES: Mudland Low-lying Rocks Beach Cove
Lagoon Marsh

43 ANADROMOUS FISH PRESENT? Y N

34 WAVE EXPOSURE: High Moderate Low

44 ANADROMOUS FISH OBSERVATION

35 SUBSTRATE TYPE: Bedrock 10 Boulder 40 Cobble 35

Species Aerial Ground

Gravel 10 Sand 5 Mud/silt

Species	Aerial	Ground

REMARKS: Salmon spawning area fed by small stream/springs
salmon seen spawning in cobble/pebble substrate with rocks &
boulders interspersed throughout (last fall)
Area consists of 2 steeply inclined pocket beaches surrounded

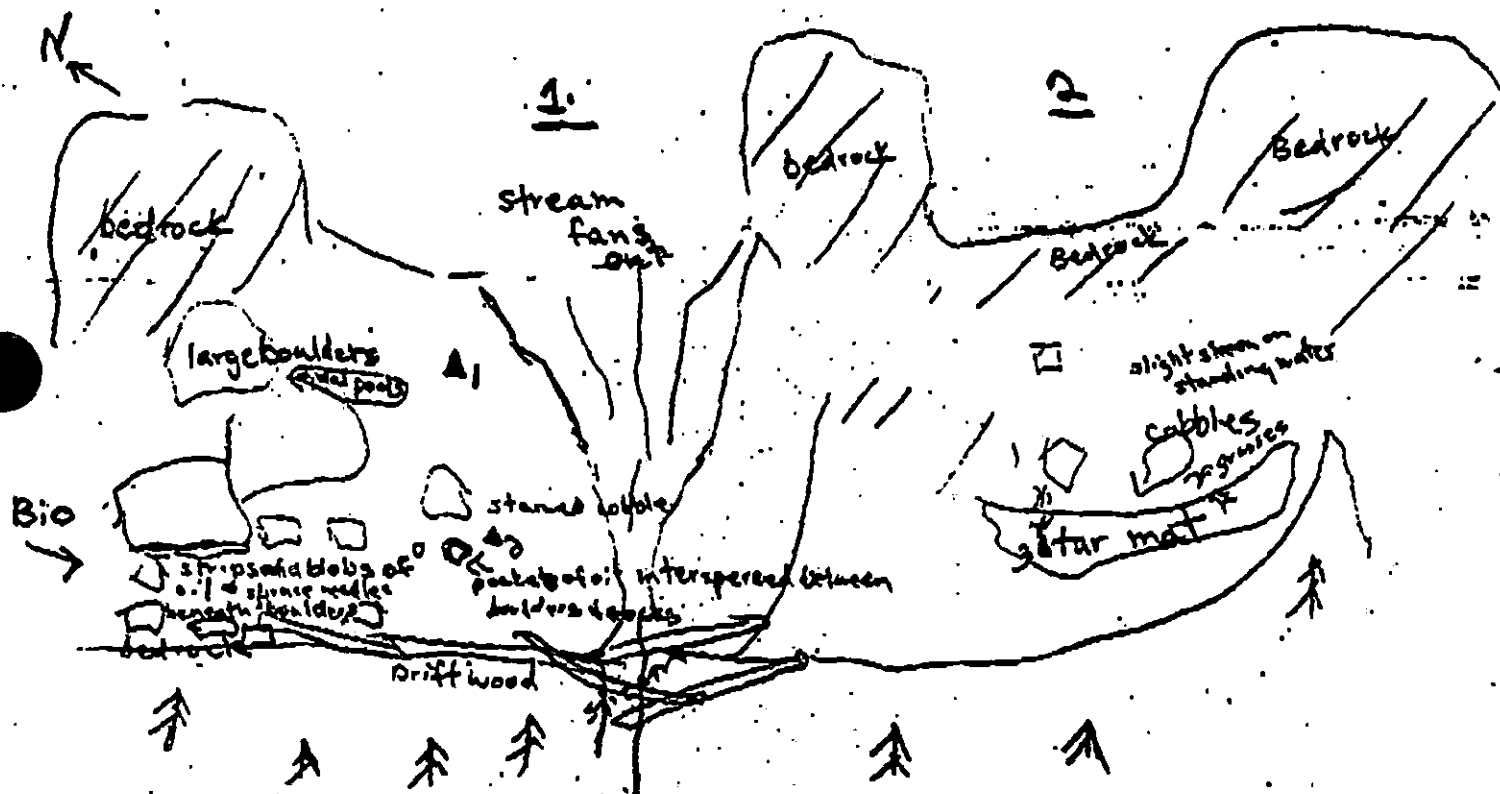
tar mats & patties. Some oil was trapped in boulders²
interstices in UITZ
as PHOTOLOG

TIME(S)

DESCRIPTION

pit 1-24" deep no noticeable oil
pit 2-34" deep - no oil uitz
pit 3-10cm (2cm oil per visible oil)

48 OIL DISTRIBUTION DIAGRAM



treatment recommendations-

Manually remove tar mat (24x2x3cm) in UITZ of 2nd pocket beach by pit 3.

Manually remove scattered tar balls & oiled spruce needles in UITZ of 1st pocket beach

Bioremediate oil trapped in boulder interstices in UITZ - in areas unreachable by shovel & trowel

ECCOLOGICAL MAP

148°07'30" 439000m E.
60°45'

5

850 000 FEET ZONE 4

6735000m N.

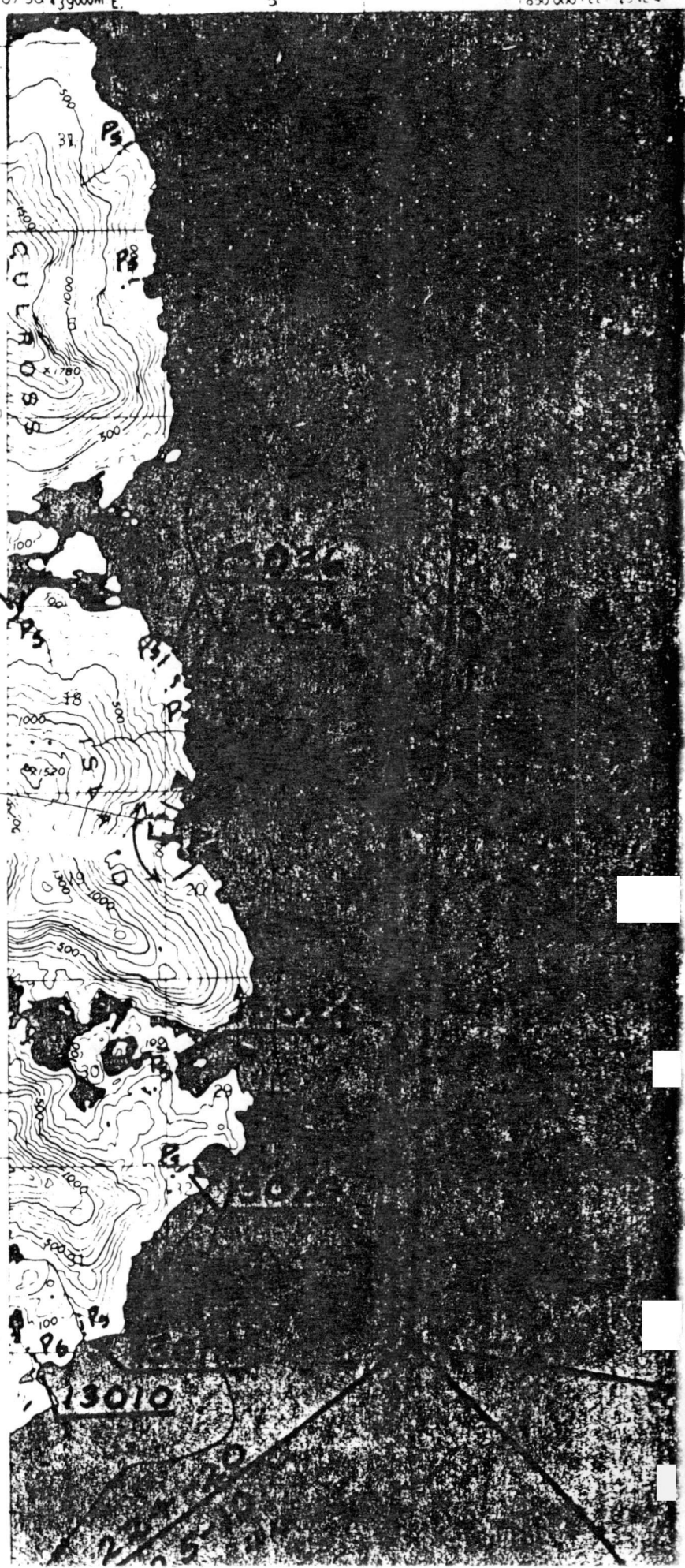
1A, 1B
1I, 1J
6Y

2 460 000 FEET
ZONE 41

13042

SUBJECT
ANADROMOUS
STREAM

224-20-13030
(P₃, 2/90)



REGION: PRINCE WILLIAM SOUND

SEGMENT: CU-14

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ CU-14 SUBDIVISION A (1 OF 1) DATE 4/2/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream mouth (no. 13036, 13034) Salmon fry outmigration (1A) - 3/1 to 5/15 and spawning (1B) - 7/10 to 8/31; Bald eagle nest (5T) - 3/1 to 6/1; Gill net area (1I) - 6/1 to 8/31 (contact ADF&G for exact dates and locations); Purse seine area (1J) - 7/20 to 9/30 (contact ADF&G for exact dates and locations). Special use designation (6Y) - 6/1 to 9/15. Restrict boat and air traffic to a minimum essential. Air approach and takeoff from and to seaward only.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Do not disturb stream bed or banks unless authorized by ADF&G. Contact ADF&G prior to treatment for permit and USFWS re: eagle nests. Avoid unnecessary disturbance /damage to uncoiled substrate and biota.

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 580 m: Narrow 64 m: V.Light 0 m: No Oil 1649 m
Subsurface Oil Observed: Yes X No _____ Maximum Depth 20 cm

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: Spot wash area where pooled mousse found with wands and absorbents. Manual pickup of any debris. Tarmat removal as indicated on sketch map. Bioremediation of areas where cover and coat found. Work between 6/1 and 7/10 based on constraints.

TAG COMMENTS: _____

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

FOSC: _____ DATE: _____

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / CU-14 SUBDIVISION: A-1 of 1 DATE 4/2/90

USCG

NAME David S. Thomas SIGNATURE Bm' [Signature]

☐ NO TREATMENT RECOMMENDED

COMMENTS

☒ TREATMENT SUGGESTED

Agree with Below Comments

ADEC

NAME Clara S. Crosby SIGNATURE Clara S. Crosby

☐ NO TREATMENT RECOMMENDED

COMMENTS

☒ TREATMENT SUGGESTED

SITE #1 - MODERATE OILING - BEDROCK BASE - SHALLOW BEDIMENTS - SUGGEST WASH/FLUSH -

SITE #2 - ANADROMOUS FISH STREAM - RECOMMEND MANUAL REMOVAL OF ASPHALT MATS -

SITE #3 - SUGGEST TREATMENT AT SITE - BEDROCK. BASE - DISAGREE W/H /S DISTRIBUTION FOR CT CV. CONSIDER COVERAGE CT/P, CV/P.

LAND MANAGER

NAME MARSHA MARTIN / DNR SIGNATURE Marsha Martin

☐ NO TREATMENT RECOMMENDED

COMMENTS

☒ TREATMENT SUGGESTED

SEE comments FROM ADEC for site #2 AND site #3.

SHORELINE OILING SUMMARY

REVISION NO. 03-22-90

OG Rick Gillie USCG BM 1 Thomas SEGMENT ST/ CU-14
 BIO DAVE Lohse LAND REP Marsha Martin SUBDIVISION A 1 of 1
 XON FRANK Dwy ADEC Clara Crosby TIME 13:30 to 15:00
 TEAM NO.: 13 TIDE LEVEL: +1 to +2 DATE 4/2 / 90
 EST. SUBDIVISION LENGTH: 2,883 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock SNOW
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 40 % B 30 % C 20 % P 10 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Lang 10 % Hang 60 % Vert 30 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 700 m N 83 m VL 0 m NO 2,100 m

SURFACE OIL

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

PAVEMENT: H F S 20 sq. m by 5 cmPATTIES / TARBALLS N/A BAGSNEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash	X		
Debris			

DEBRIS COLLECTED

☐ YES ☒ NOTYPE T#BAGS 1

Photographs:

Roll No. ST-13-2Frames 1-10

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	BR	OR	OL	OF	NO	SU	U	M	L		
1	10					X	.								X					P
2	10	X					5-10	X				X			X					P
* 3	10	X					2-5	X				X			X					P
* 4	10	X					2-5	X				X			X					P
5	20		X				5-15	X				X			X					P/S
6	20		X				10-20	X				X			X					P

COMMENTS * OILED INTERVAL < 5 cm IN PIT NOS. 3 AND 4 DOES NOT CONSTITUTE SUBSURFACE OIL

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / CU 014 Subdivision A Date (mo / day / yr) 4-2-90Time (24 hr) 13:30 Biologist David Lohr

(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 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-13-2Frames 1-10

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:

15, 64 - no comment- One running stream found in segment, O.I is present in the area of the stream mouthST-1 mature bald eagle was observed1. There are dense barnacles and mussels in mid-intertidal at site 1 (see O.G map),

Shoreline Ecological Summary

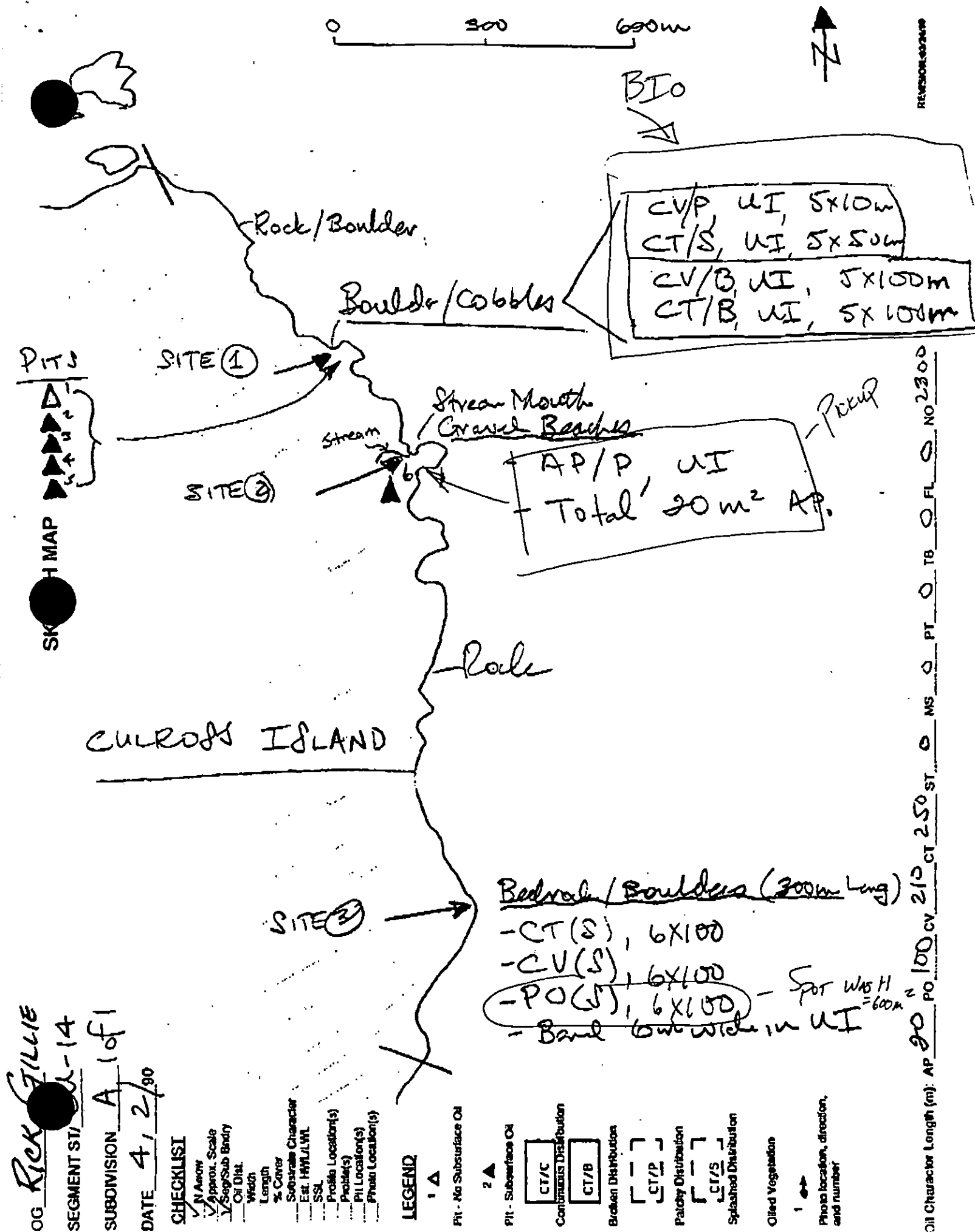
Lot C

Segment ST-CU014 Subdivision A 4-2-90

Biologist David White

Wildlife Observations/General Comments

1. present in low intertidal - Scytosiphon, coralline algae, Halosaccion, Ulva, Enteromorpha, Ectocarpus, Ceramium, unidentified red algal "bleb", unidentified "branching" red algae
mid intertidal - Ectocarpus, Enteromorpha, Ulva, Scytosiphon, Endocladia, Katharina tunicata, coralline algae, Nueella, Ralfsia
2. In some areas of mid-intertidal on bedrock there were patches of byssal ~~threads~~ threads where mussels were previously attached.
3. Some of this segment was surveyed by boat due to the impassability of the cliff faces. The abundances of Fucus and Mytilus (the only obvious species from the boat) appeared comparable to those areas visited on foot.

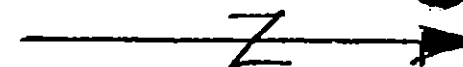


OG RICK LLIE
 SEGMENT ST/ CU-014
 SUBDIVISION A, 1 of 1
 DATE 4/2/90

SKETCH MAP

SITE 1

50m



CHECKLIST

- ☒ Arrow
- ☒ Approx. Scale
- ☒ Seg/Sub Bndry
- ☒ Oil Dist
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☒ Substrate Character
- ☐ Est. HHH/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

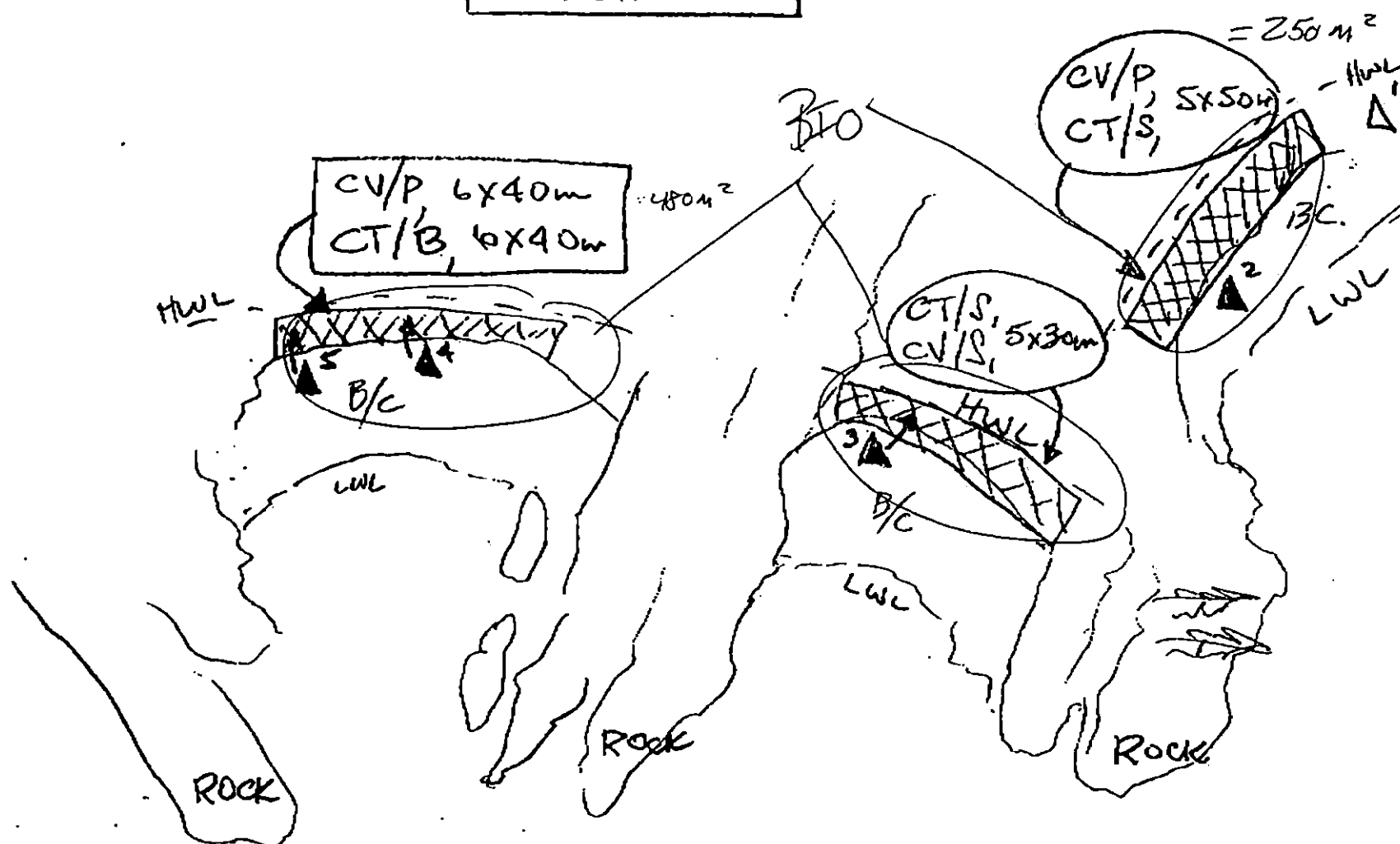
CT/S

Splashed Distribution

Oil Vegetation

1 $\Rightarrow$

Photo location, direction, and number



APR-03-1990 07:51 FROM SEA TRUER

TO 1#-----0019075643771#

P.04

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

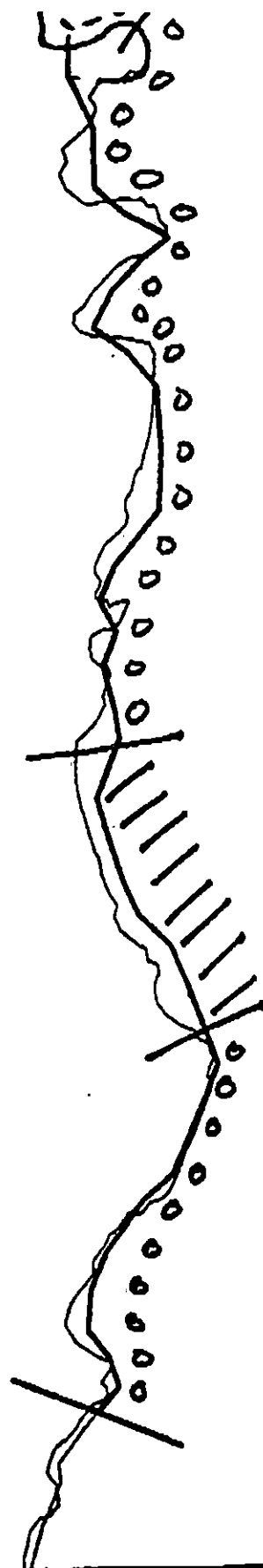
REVISION: 02/24/90

SITE (2)

PWS
728

SEGMENT: ST/CU-14
SOUTH PART

SITE (3)



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CU-14

ADEC Segment Length: 2293m



Map Key: PWS-72a

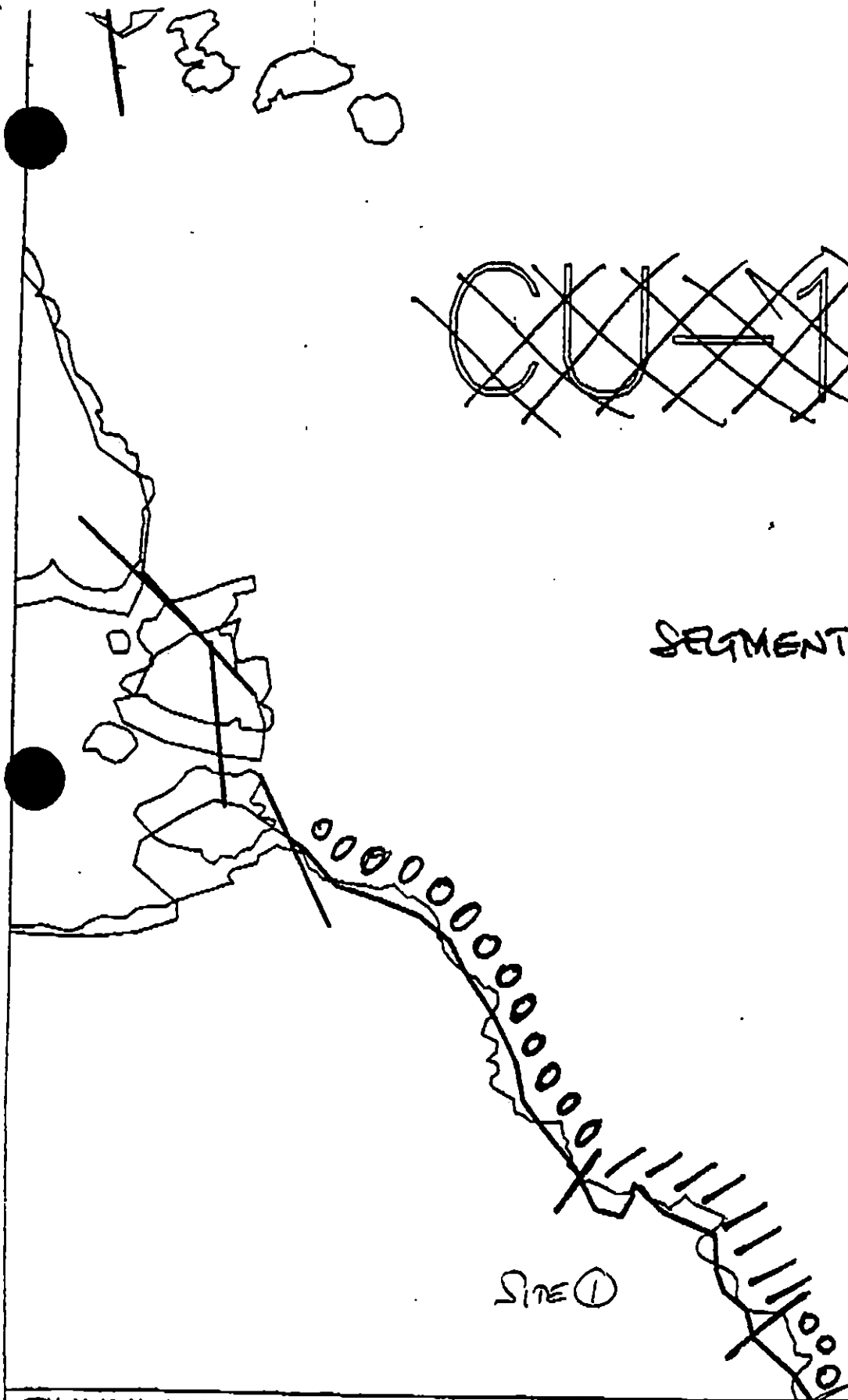
Name: GILLIE

Date: 4-2-90

Data Entered:

~~CU-15~~

ST/
SEGMENT : CU-14.
NORTH PART



Site ①

↓ PWS
72A

CU-14

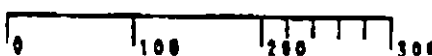
XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

ADEC Segment Length: 2293m



Map Key: PWS-72b

Name: GILLIE

Date: 4-2-90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT CU-14 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup and Tarmat Removal More Than 400m From Active Nest	OPEN
Manual Pickup and Tarmat Removal Less Than 400m From Active Nest	CLOSED
Bioremediation, Manual Raking, Spot Washing & Other Approved Treatment More Than 100m From Stream Less Than 100m From Stream	WORK PRIOR TO 6/11 WORK PRIOR TO 6/11 (ADF&G MONITOR REQ.)
More Than 400m From Active Nest Less Than 400m From Active Nest	WORK PRIOR TO 6/11 CLOSED

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream	ADF&G catalogued anadromous streams (224-20-13036 and 244-20-13034) are present in Subdivision A. Subdivision is closed to bioremediation, manual raking, spot washing, and other approved treatment less than 100m from stream from 7/10 to 8/31. Prior to 7/10, bioremediation, manual raking, spot washing, and other approved treatment is permitted less than 100m from stream with on-site ADF&G monitor or ADEC alternate present. No constraint to these activities more than 100m from stream. No constraint to manual pickup and tarmat removal.
1I Gill Net Area	No constraint to manual pickup and tarmat removal; closed to bioremediation, manual raking, spot washing, and other approved treatment after 6/11 without ADF&G approval.
1J Purse Seine Area	No constraint to manual pickup and tarmat removal; closed to bioremediation, manual raking, spot washing, and other approved treatment after 7/20.

1K Purse Seine

No constraint to manual pickup and tartrat removal, closed to bioremediation manual raking, spot washing, and other approved treatment after 7/20

5T Bald Eagle Nest

USFWS 6/1/90 map indicates an active nest in Subdivision B Closed to manual pickup, tartrat removal, bioremediation, manual raking, spot washing and other approved treatment within 400m of active nest

OTHER ECOLOGICAL CONSIDERATIONS

No disturbance to stream bed or bank No flushing of pollutants or sediments into stream drainage, do not allow Inipol to enter stream flow On-site examination and consultation by ADF&G monitor is required prior to bioremediation in order to authorize a setback distance from the stream during chemical application, if ADF&G monitor's presence is impossible, authorization may be given by the ADEC monitor Restrict air traffic and all disturbance to essential minimum No personnel or boat traffic within 400m of active nests Air approach and takeoff from and to seaward only, maintain 400m horizontal, 300m vertical distance from active nests Avoid any unnecessary disturbance or damage to unrolled biota and substrate

FOSC

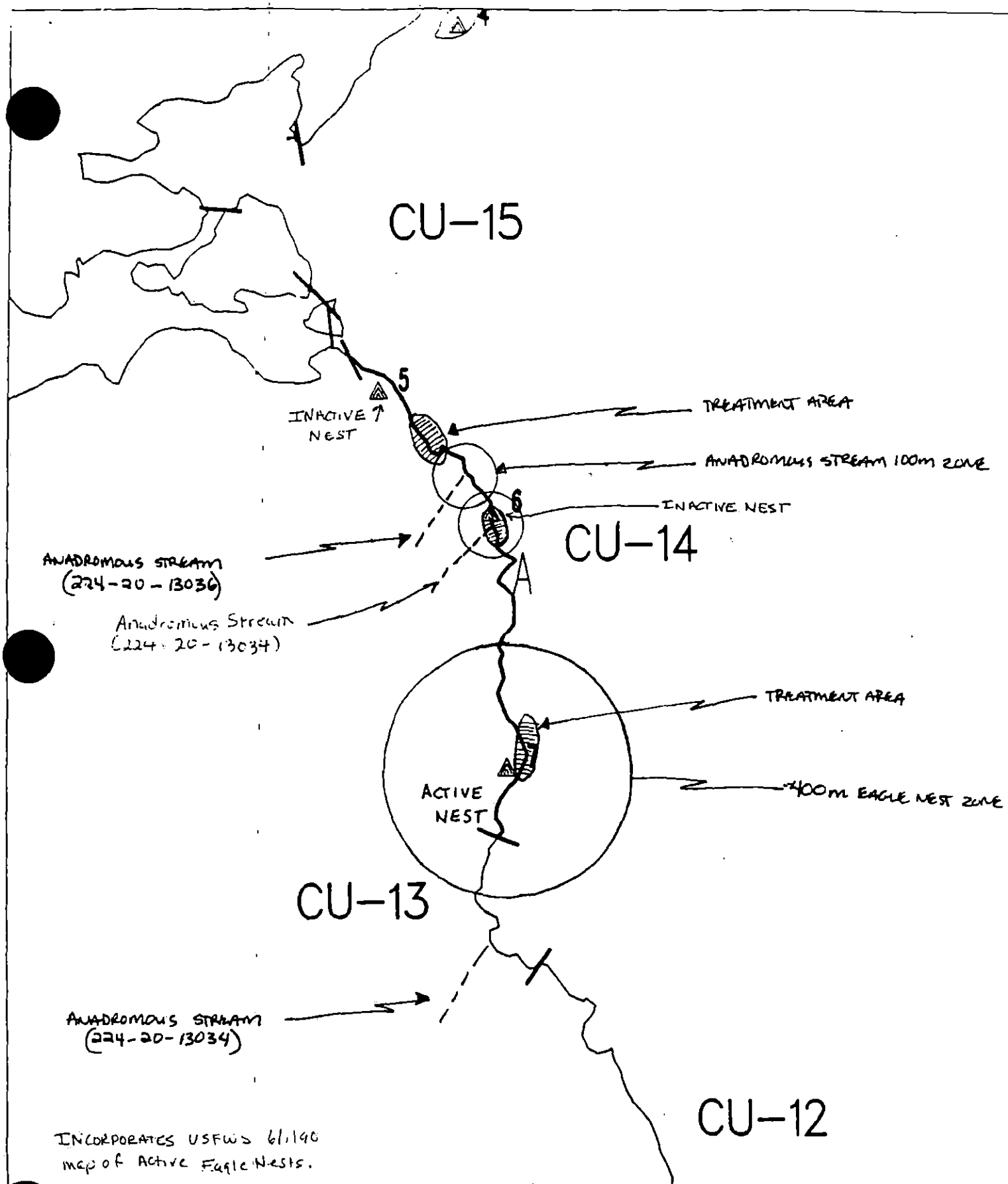
Date 6-10-90

Prepared by

W. Kelly

Date

6/9/90



Exxon Company, USA
M. K. P. 05-114

ECOLOGY MAP SEGMENT CU-14 SUBDIVISION A (1 of 1) METERS



Seabird Colony



Eagle Nest

1991 MAYSAP EVALUATION

SEGMENT: CU 014 SUB: A REGION: PWS SURVEY DATE: 5/14/91ENVIRONMENTAL SENSITIVITIES:Work Window(s) RESTRICTED 3/1 - 9/15Ecological/Constraints (see page two for details) Eagle nest,
Anadromous stream, Fish harvest areaARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find, and contact Exxon's Cultural Resource Program immediately: 564-3276; 564-3657; (Anchorage) or 229-1514 (24 hrs.). *EH*

for SIPO Charles E. Hansen 5/30/91

<u>RECOMMENDATIONS:</u>	<u>INITIAL</u>	<u>TAG</u>	<u>FOSC</u>
TREATMENT REQUIRED (Y or N)	<u>Y</u>	<u>Y</u>	<u>Y</u>
Manual Pickup (Check as Req.)	<u>X</u>	<u>X</u>	<u>X</u>
Spot Washing	<u> </u>	<u> </u>	<u> </u>
Bio-Customblen Only	<u>X</u>	<u>X</u>	<u>X</u>
Bio-Inipol/Customblen	<u> </u>	<u> </u>	<u> </u>
Other	<u> </u>	<u> </u>	<u> </u>
Other	<u> </u>	<u> </u>	<u> </u>

COMMENTS:

INITIAL: Remove easily accessible mousse and high SOR at
locations F1, F2 and G. Apply Customblen at locations F1, F2,
and G.

TAG: _____

FOSC: _____

TAG APPROVAL DATE: MAY 29 1991 FOSC APPROVAL DATE: 6/3/91ADEC [Signature] FOSC [Signature]EXXON [Signature]USCG [Signature]NOAA [Signature]

E. E. PAGE, CDR, USCG
CHIEF OF STAFF, FOSC

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

Eagle Nest: Access restricted from 3/1 to 9/1. USF&WS authorization required. Maintain 1000' vertical and 1/4 mile horizontal buffer.

Anadromous Stream: Unlimited treatment up to stream bank between May 15 and July 10. ADF&G approval required for work after July 10. Fish Habitat Permit required for instream work. ADF&G approval required for bioremediation within 100 meters of anadromous stream after July 10.

Fish Harvest Area: Unlimited treatment unless otherwise directed by ADF&G. Sheen containment/recovery procedures required for mechanical treatment.

ADEC
NAME JEFF Gwathas SIGNATURE [Signature] Tom CAWJE ADF14
(ANADROMOUS STREAM SEGMENT)
☐ NTR ADF14 VERY LITTLE OILING REMAINING AT STREAM SITE 224-20-13036 ALL REMAINING VISIBLE AP/SOR OILING WAS PICKED UP AND REMOVED AT THE TIME OF THE SURVEY. RECOMMEND NO TREATMENT FOR THIS STREAM. ONLY TRACE CV/CT DEPOSITS FOUND AT STREAM # 224-20-13034 IN BOULDER BEDROCK AREAS. TREATMENT HERE IS NOT RECOMMENDED. Tom Cawje
☒ TREATMENT RECOMMENDED AT OG MAP SITES F₁, F₂, & G. MOSS/High SOR LOCATED JUST BELOW SURFACE ARMOR. WILL REQUIRE MANUAL WORK, ROCK & ROLL BOULDERS. EASY ACCESS BY SKIFF. FULL CREW, ONE DAY. ~~SITE~~ SITE LOOKS LIKE TREATMENT MISSED LAST YEAR, ALTHOUGH CUSTOMER OBSERVED IN OIL. AT HEAVY IMPACT AREA (F₁) OIL COVERAGE EXCEEDS 50% OF 5x20m AREA. AREA IN VICINITY OF FISHING SITS, KAYAKERS (PER KEN MILLER, WHETHER LOCAL RESIDENT)

EXXON
NAME RANDALL K. BOYER SIGNATURE Randall K. Boyer
☐ NTR AREA F₁, F₂ & G CONTAINED A BAND OF TREATABLE OILING IN THE UPPER INTER TIDE ZONE. IN THE SMALLER SEDIMENTS AP CONSISTENCY OF 1m² PATCHES WERE PRESENT. THE SURVEY TEAM DID NOT HAVE THE TIME TO PICK UP ALL THE TREATABLE OIL. AREAS SURROUNDING THE ANADROMOUS FISH STREAMS LOOKED IN GOOD SHAPE WITH NO FURTHER TREATMENT RECOMMENDED. IN AREA F₁, F₂ AND G₁, I WOULD NOT RECOMMEND REMOVING THE BOULDER ARMOR TO ACCESS OIL.

LANDMANAGER
NAME MARSHA HALL OF DNR SIGNATURE Marsha Hall
☐ NTR ☒ Treatment Stream sites are fine.
MANUAL labor → remove surface cobble boulder take out lens, leave treated area exposed for tide come back in to put armor layer back at site F₁. Manual removal of MS at location F₂ and G₁. Attempted to remove oil at F₁ but too much there for this team to deal with.

USCG/NOAA
NAME SCHULTZ CHILDS SIGNATURE [Signature]
☐ NTR TREATABLE OILING EXISTED IN F₁ F₂-G (SEG MAP) AND SHOULD BE ADDRESSED HOWEVER NO TREATMENT AT ANY OTHER LOCATION

High Angle BEDROCK OUTCROP & SHORELINE w/ ISOLATED POCKET BEACHES. BEACHES CONSIST OF SUBANGULAR TO SUB-ROUNDED POORLY SORTED BCP'S - AND 1 PEAR UNDERLAY BCP'S IN SEVERAL LOCATIONS. TWO ANAD. STREAMS IN SUBDIV. OILING OBSERVED WAS TYPICAL REMNANTS - LOW SOR VERY DEGRADED, CT & AS IN PROTECTED SPOTS. A NON CONTINUOUS LAYER OF SUB-SURFACE OIL OBSERVED IN N'LY PART SITE "A".

MAYSAP SHORELINE OILING SUMMARY

PAGE 1 OF 2

TEAM NO. 1

OG G. MACDONALD

BIO M. FAWCETT

SEGMENT CU-14

ADEC J. G. NALAS

LANDMANAGER M. HALL for JNR

SUBDIVISION A

EXXON R. BOYER

USCG/NOAA SCHULTZ/CHILDS

DATE 5 / 14 / 91

TIME 17:15 to 19:45

TIDE LEVEL +6.2 ft. to +2.0 ft.

ENERGY LEVEL: ☐ H ☒ M ☒ X

SURVEYED FROM: ☒ FOOT ☐ BOAT ☐ HELO

WEATHER: ☐ SUN ☐ CLOUDS ☐ FOG ☒ RAIN ☐ SNOW

TOTAL LENGTH SHORELINE SURVEYED: 1090 m

NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONE

EST. OIL CATEGORY LENGTH: W — m M 30 m N — m VL 310 m NO 750 m US 1203 m

L O C	SURFACE OIL CHARACTER										SURFACE SEDIMENT TYPE	SHORE SLOPE VHML	AREA		ZONE				NOTES
	AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO			WIDTH m	LENGTH m	S	UI	MI	LI	
A1				T							PC	L	1	100		X			after PU. 10 SOR
A2						T					PC		1	100		X			
B1		S											1/2	1	X				interstices
B2				S							BCV	L	5	10	X				LSOR
C1							S				RV	M	1/2	3	X				on log
C2						T					RB	H	5	10		X			
C3		T									R	H	0.1	0.1	X				
I		S				S	T				BPR	H	1 1/2	65	X	X			surveyed 5.15.91
D			T			T					RB	H	1	50		X			
E				T		T					CPB	M	8	5	X	X	X		10 SOR
F1		P									CPG	L	5	20		X			
F2		P		P		P					RBC	M	3	10	X	X			hi sol
G		S									CPB	M	1	6					partly treated - PU
H				S		T					RBC	H	6	15	X	X			hi sol

DISTRIBUTION: C = 81-100%; B = 51-80%; P = 11-50%; S = 1-10%; T = <1%

SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE PHOTO ROLL # MAYSAP- 1-22 FRAMES 17-2

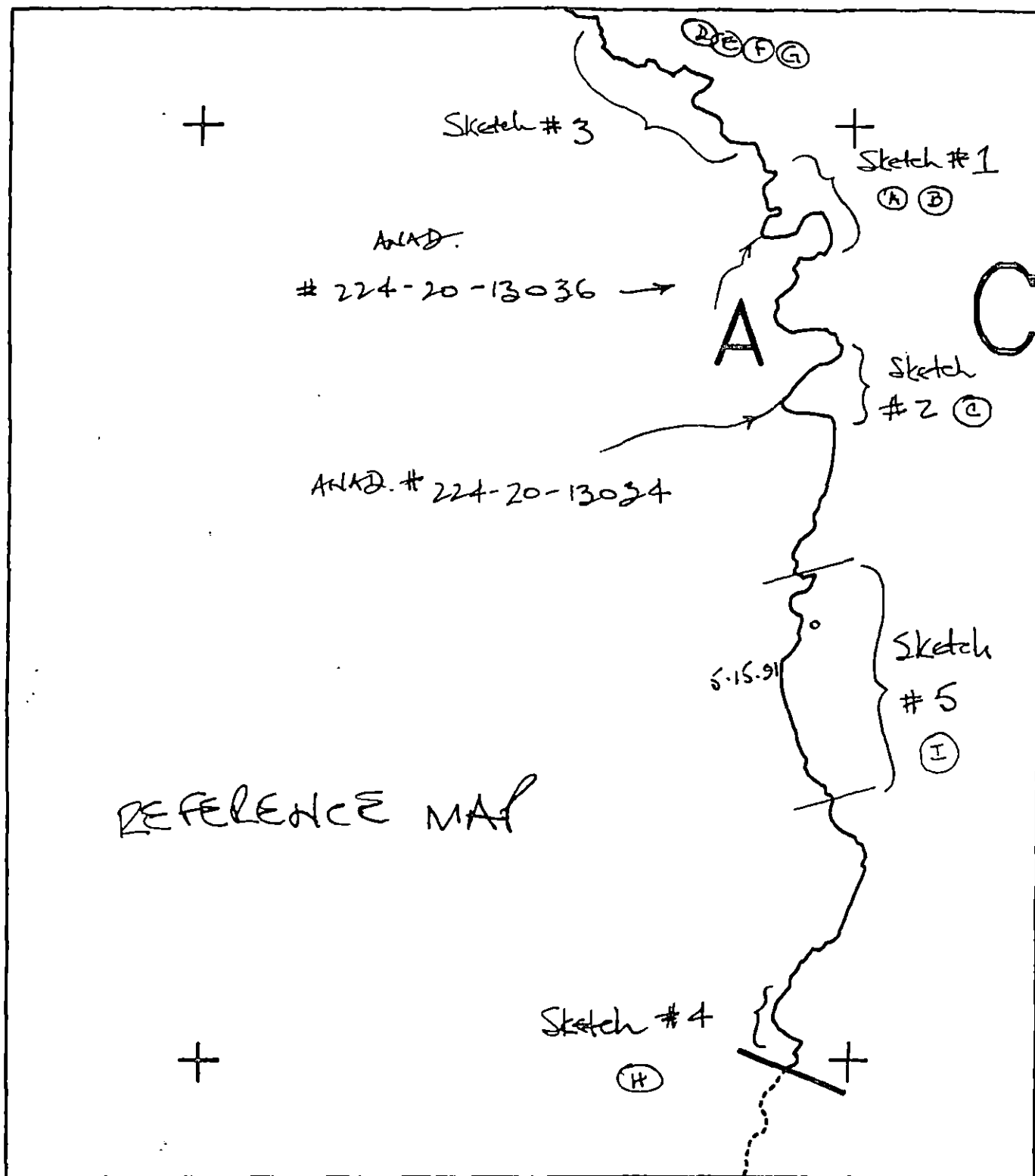
PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE				SURFACE- SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO					S	UI	MI	LI		
1	15					X			10-12	Y	—			X			CG-GPMV	
2	15							X	10-13	Y	—			X			" "	
3	20							X	12-15	Y	—			X			PCB-GPM	
4	15							X	—		—				X		BC-CC	
5	15							X	—		—			X			PC-GP	
6	15							X	8-10	Y	—			X			CP-GPMV	
7	12							X	—		—			X			BC-CCP	
8	10							X	—		—			X			" "	
9	15							X	—		10	N			X		BC-PGR	

SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

OG COMMENTS:

Steep rocky shore w/ some coarse-grained beaches on breacher in the rock wall. Two ANAD. fish streams were surveyed w/ TOM CRAWLE - ADF's G. Sketches 1 & 2 show remnant low SOR & traces of CT & MS associated w/ past AL. A thin, sporadic layer of subsurface oil

reviewed 5/10/91 KG
sketches 5/17



CU014 A

METERS



AK State Plane Zone 4
published

Subdivision Field Map

Map Key: PWSCU014Aa

Name: GM

Date: 5.14.91

Reviewed 5/15

CU-14A

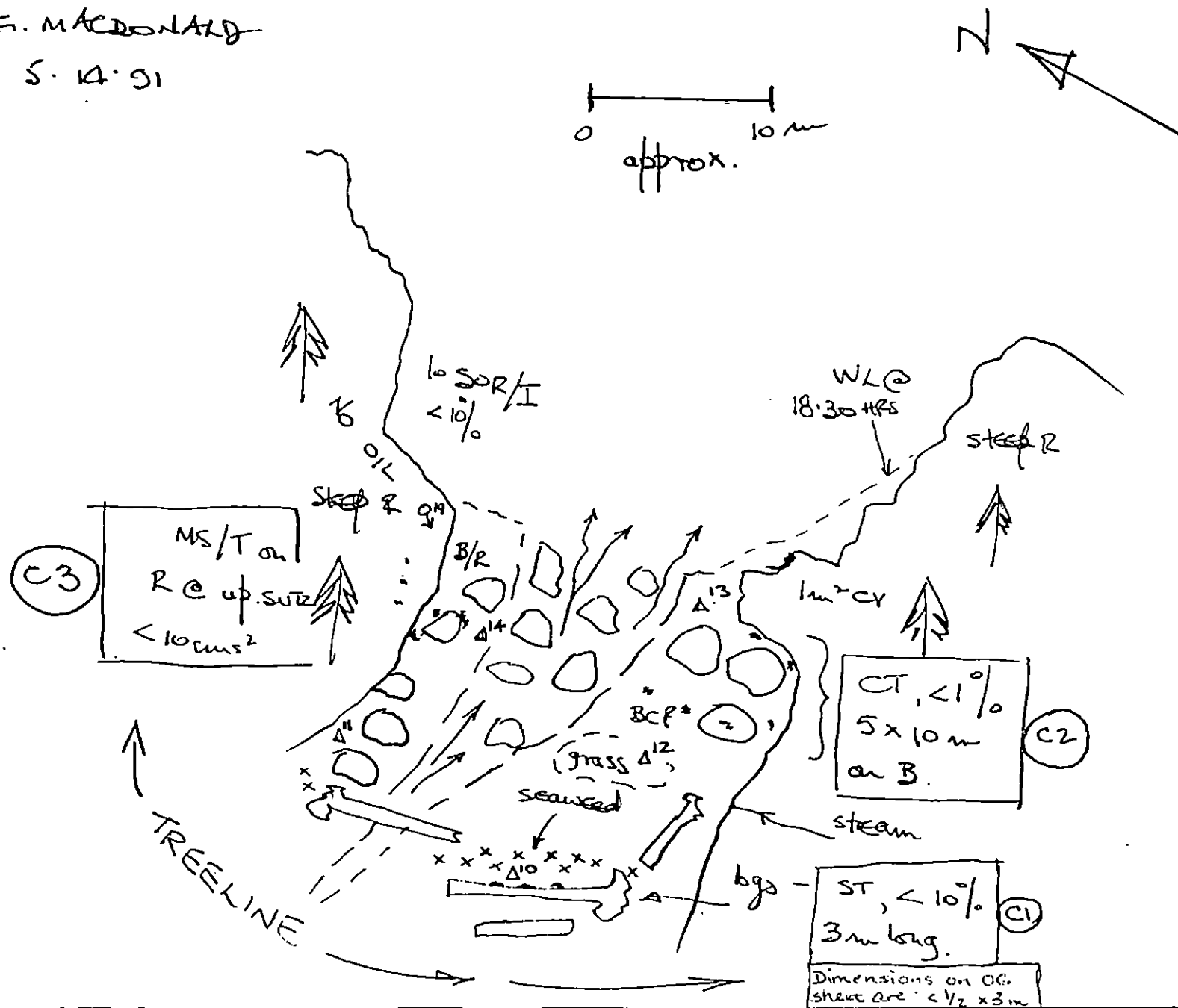
ASC # 2242013034

G. MACDONALD

S. 14.91

Sketch # 2

revised
5/16/91 K6



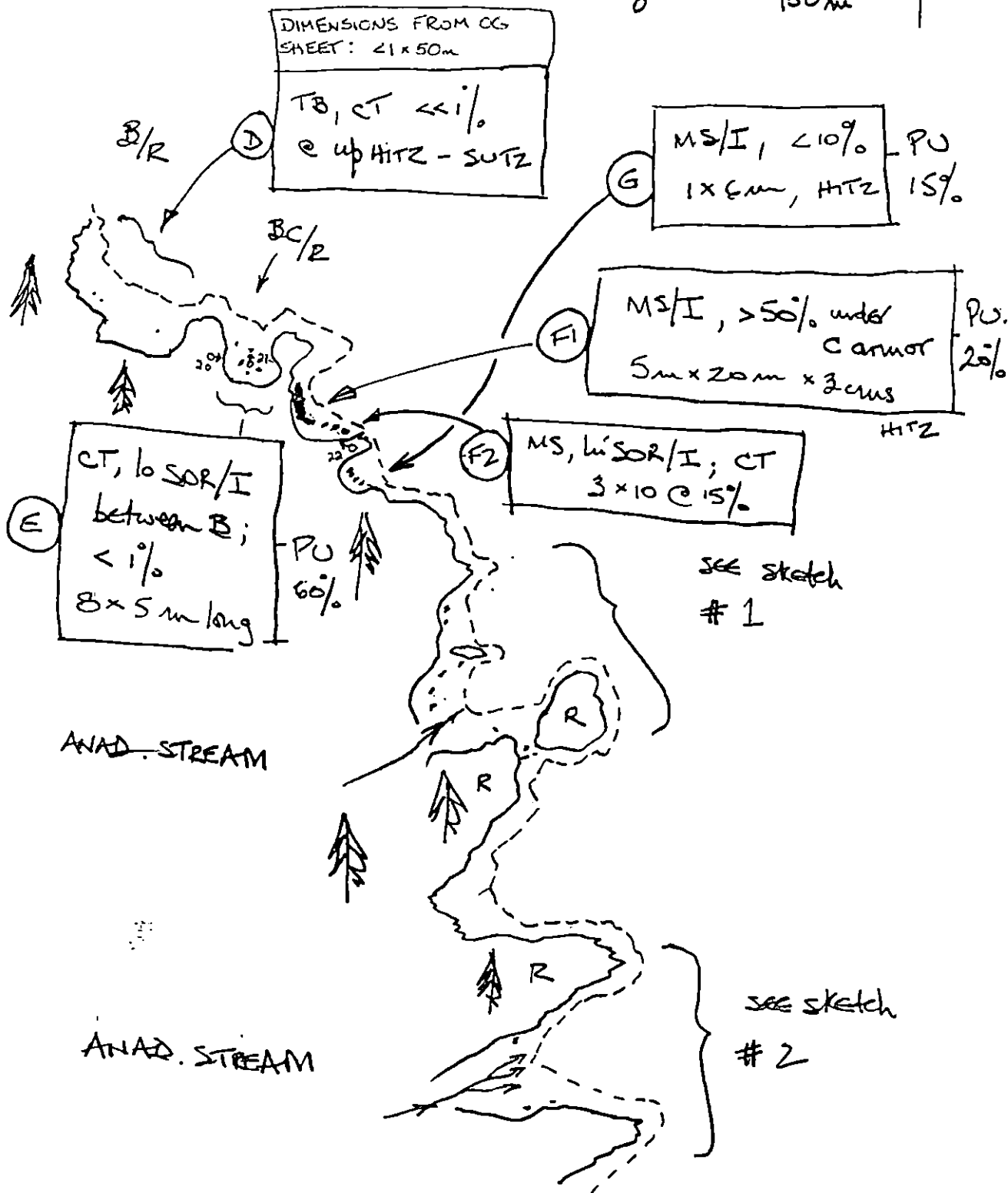
CU-14 A

Sketch #3

G. MACDONALD

5-14-91

approx.
0 100m



revised 5/16/91 KCo
revised 5/7

H-V. R. = 1975

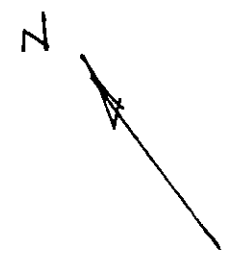
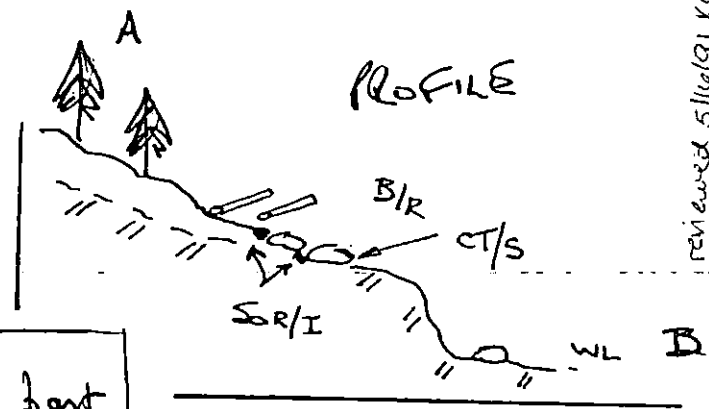
(H)

hi SOR/I, biodegraded in part
below & between B. < 3 %
CT/T on R, B. < 1 %
6m x 15m

massive B
over R

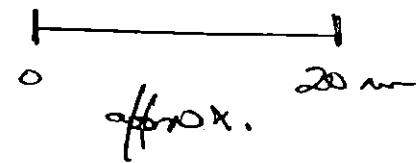
Bedrock bench
w/ massive B.

18 24 & 25
steep
R



CU-14A
G. MACDONALD
S. 14.91

Sketch #4



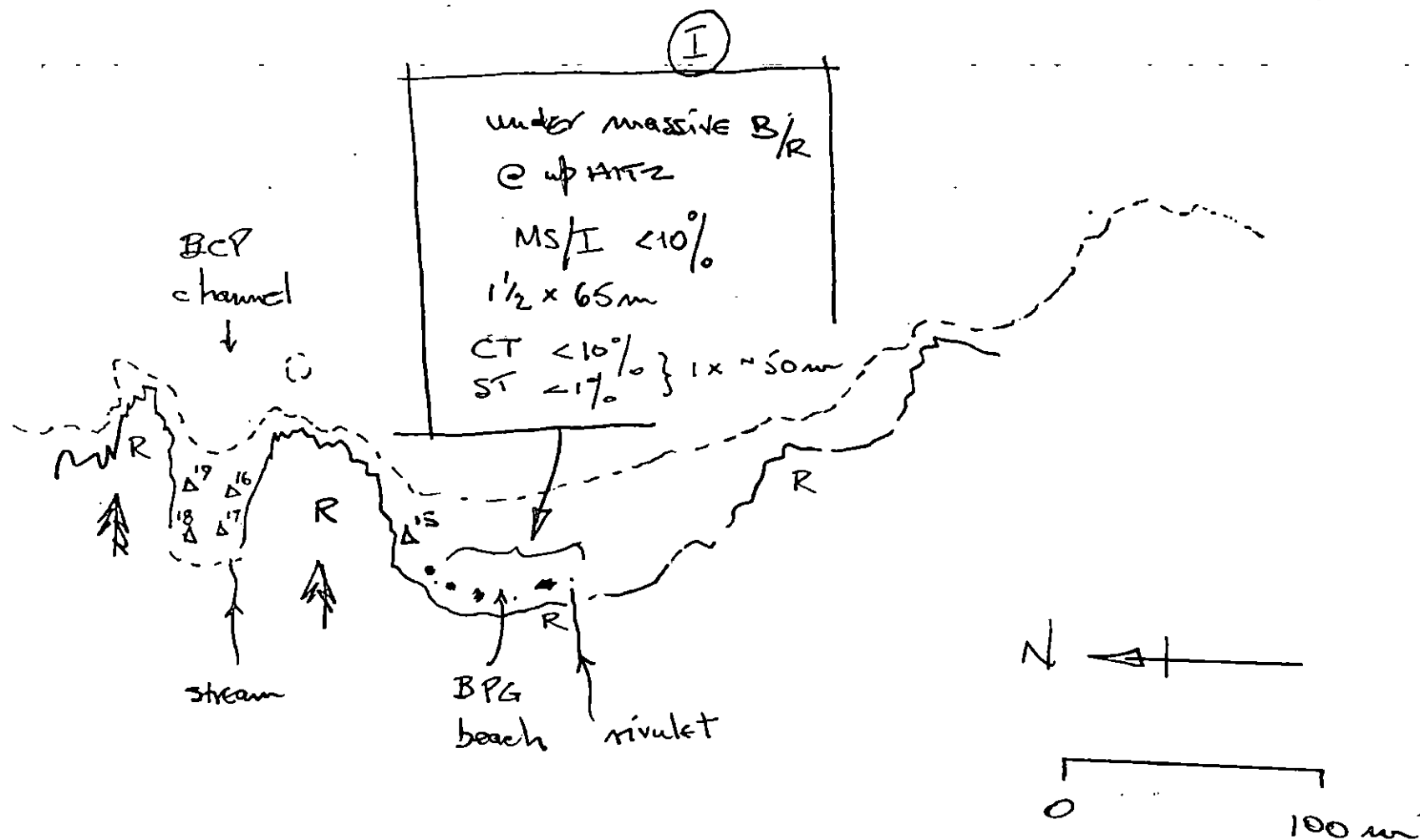
revised 5/16/91 KG

CU-14A

G. MACDONALD

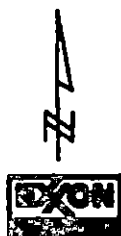
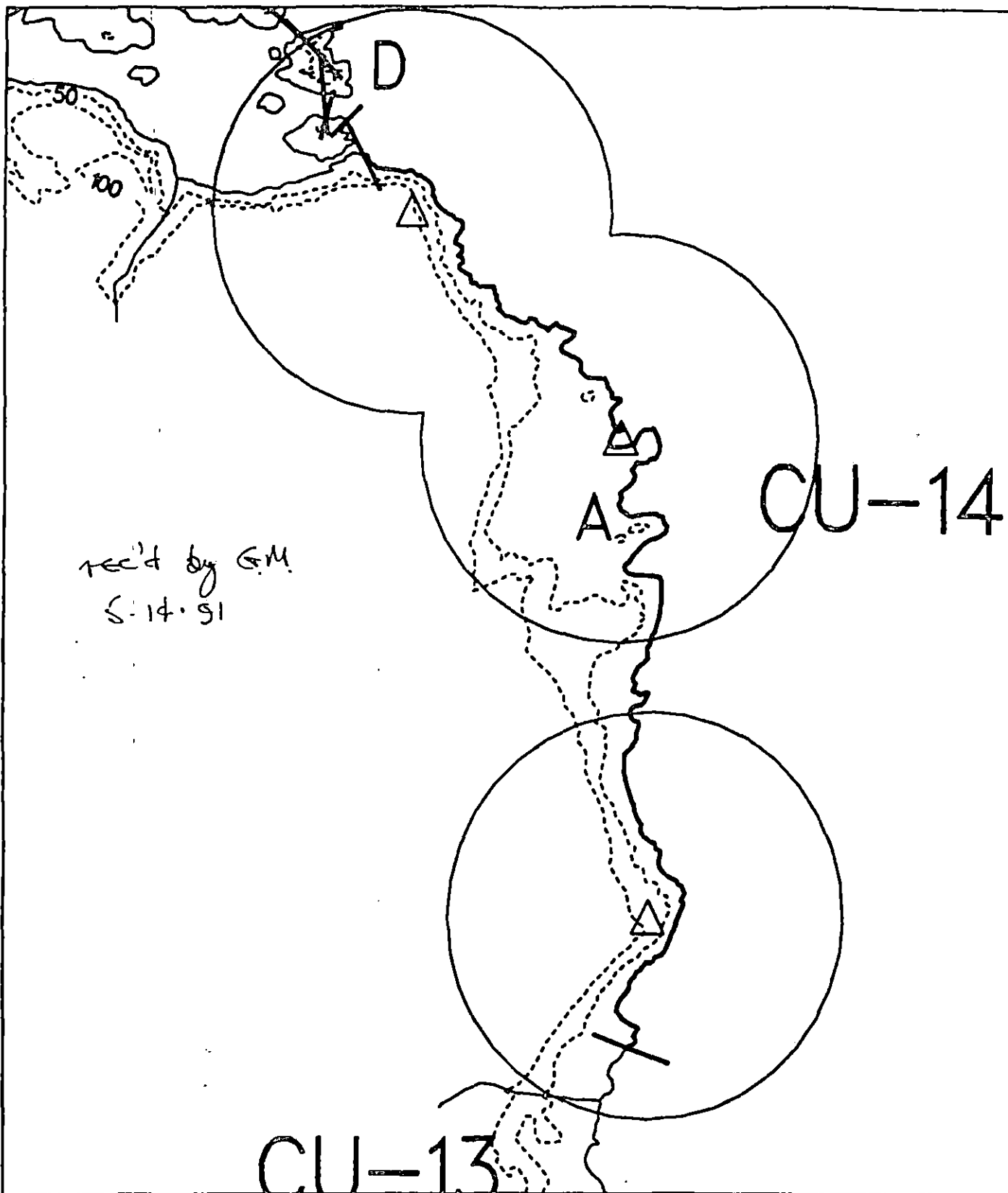
5.15.91

Sketch #5.



11.45 - 12.15 HCS
+ 4.0' - + 5 1/2' tide.

ES reviewed 5/17



CU014

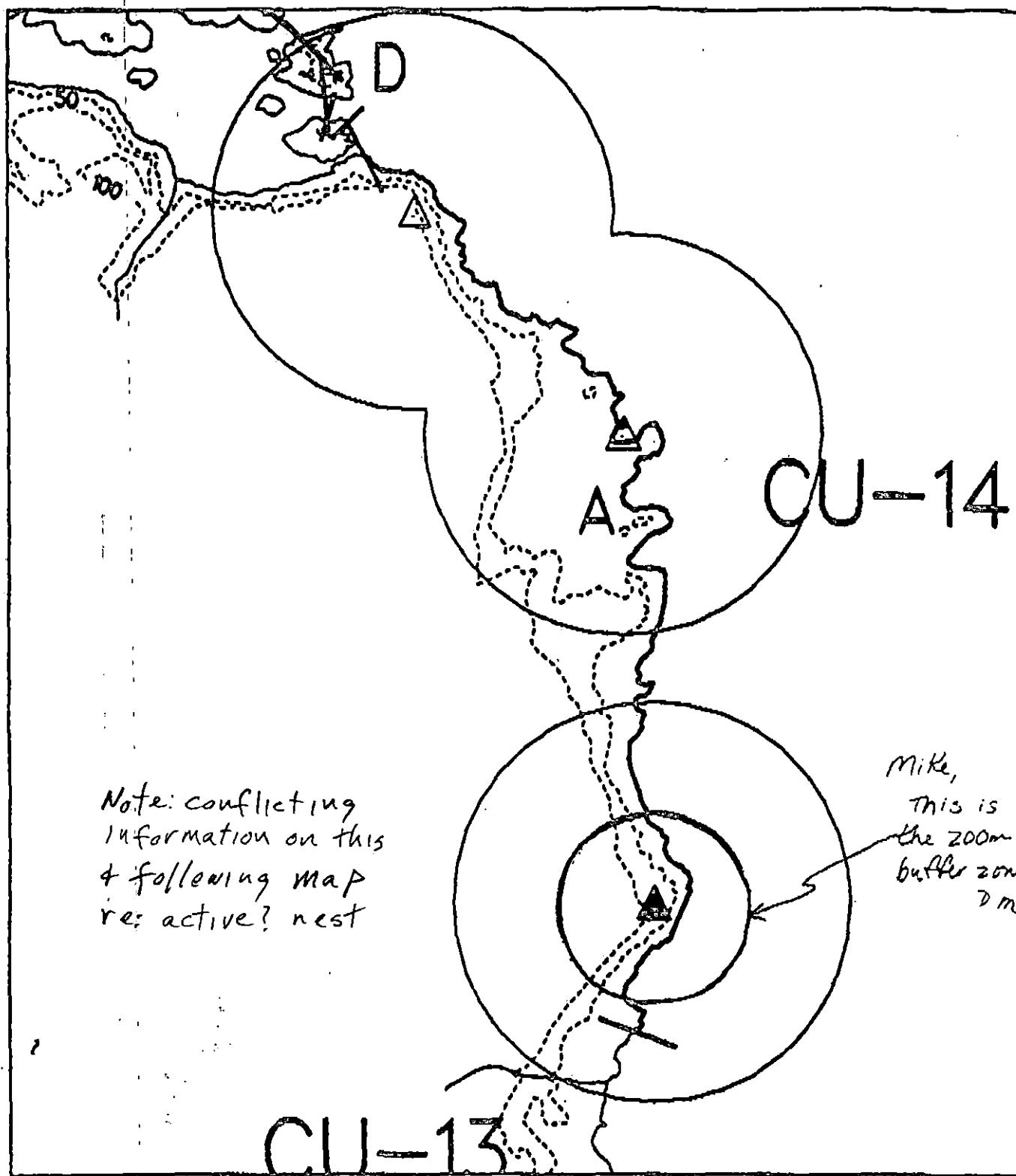
Segment Reference Map
Map Key: PWSCU014



AK State Plane Zone 4
psu014

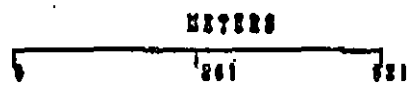
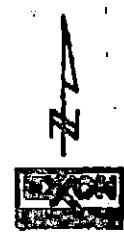


EAGLE NEST



Note: conflicting information on this & following map re: active? nest

Mike,
This is
the 200m
buffer zone
7m



AK State Plane Zone 4
ps0014

CU014

Segment Reference Map
Map Key: PVSCU014



EAGLE NEST

Reviewed M.B. 5/17/61

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 1 DATE 14 & 15 May 91
 SEGMENT # CV 014 TIDAL HEIGHT (Range) 2.0-+7ft, 3.0-4.2 ft
 SUBDIVISION A BIOLOGIST Michael Fawcett
 SEA STATE 1 ft swell WIND SPEED/DIRECTION NE 10-15 knots
 PHOTOGRAPHS: ROLL # FRAME #

COMMENTS/OBSERVATIONS (to be completed in oiled subdivisions only):

Completed anadromous stream sites and two other sites with Tom Crowe (ADF&G monitor) on May 14; returned May 15 to survey 5th site (sketch #5). See sketches 1-5 for descriptions of biota near each oiled site. Salmon fry were observed in the intertidal zone near the mouth of the smaller stream (#224-20-13034). SOR & CT Typically found in VTZ-SVTZ areas at +10-12ft MLLW, above most biota except lichen, limpets, Amphipods & oligochaete worms. MTZ areas below oil typically have dense Rockweed and barnacle spat, and variable densities of Littorinids, mussels, limpets, Rhodomele, etc. Whelks (*Nucella emarginata*) are abundant in MTZ-LTZ throughout the subdivision, *N. lamellosa* sparse.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	1	Salmon fry
Seabirds			black prickleback
Waterfowl			
Gulls/Kittiwakes	1 (G-W Gull)	3	
Shorebirds			
Corvids			
Other Birds			

LAND MAMMALS

MARINE MAMMALS	# OBSERVED	SPECIES	# OBSERVED
Sea Otters			
Pinnipeds (specify)			
Whales (specify)			

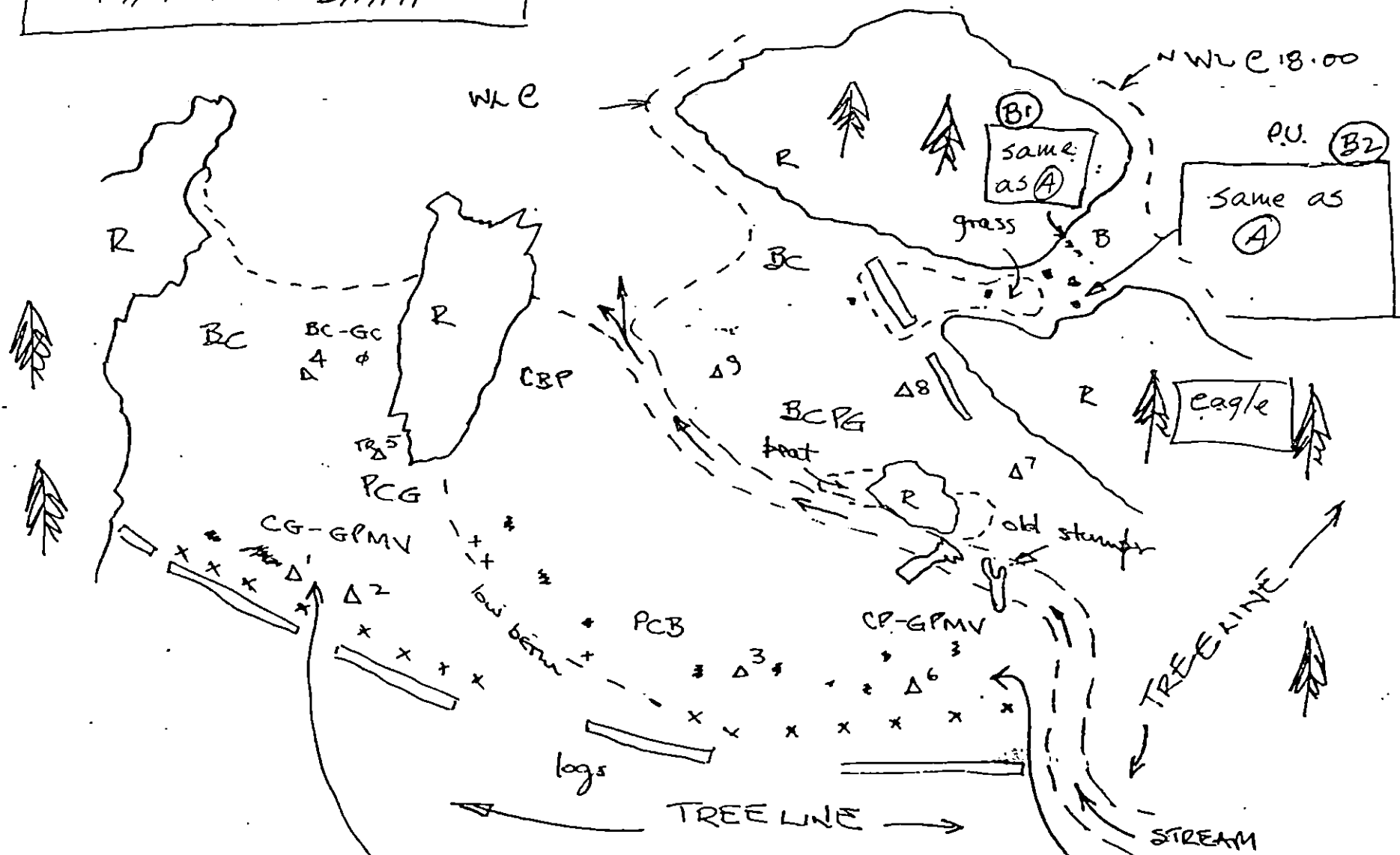
Shoreline subdivision map showing important biological features attached.

Reviewed M.B. ¹³ 5/17/91

CU 014 A
 Bio Sketch Map
 ASC # 2242013036
 M.H. Fawcett 5/14/91



Sketch #1



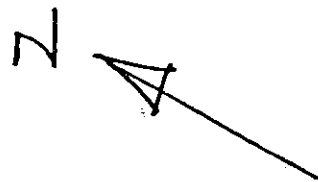
No biota near SOR at +10ft; sparse barnacles, rockweed, mussels, limpets, Littorinids, Ulva, Enteromorpha, and dense barnacle spat about 5m

Revised M.B. 5/14/91

Bio Sketch Map M. Fauxett
 ASC # 2242013034
 CU 014-A 5/14/91

Sketch #2

0 10 m
 approx.

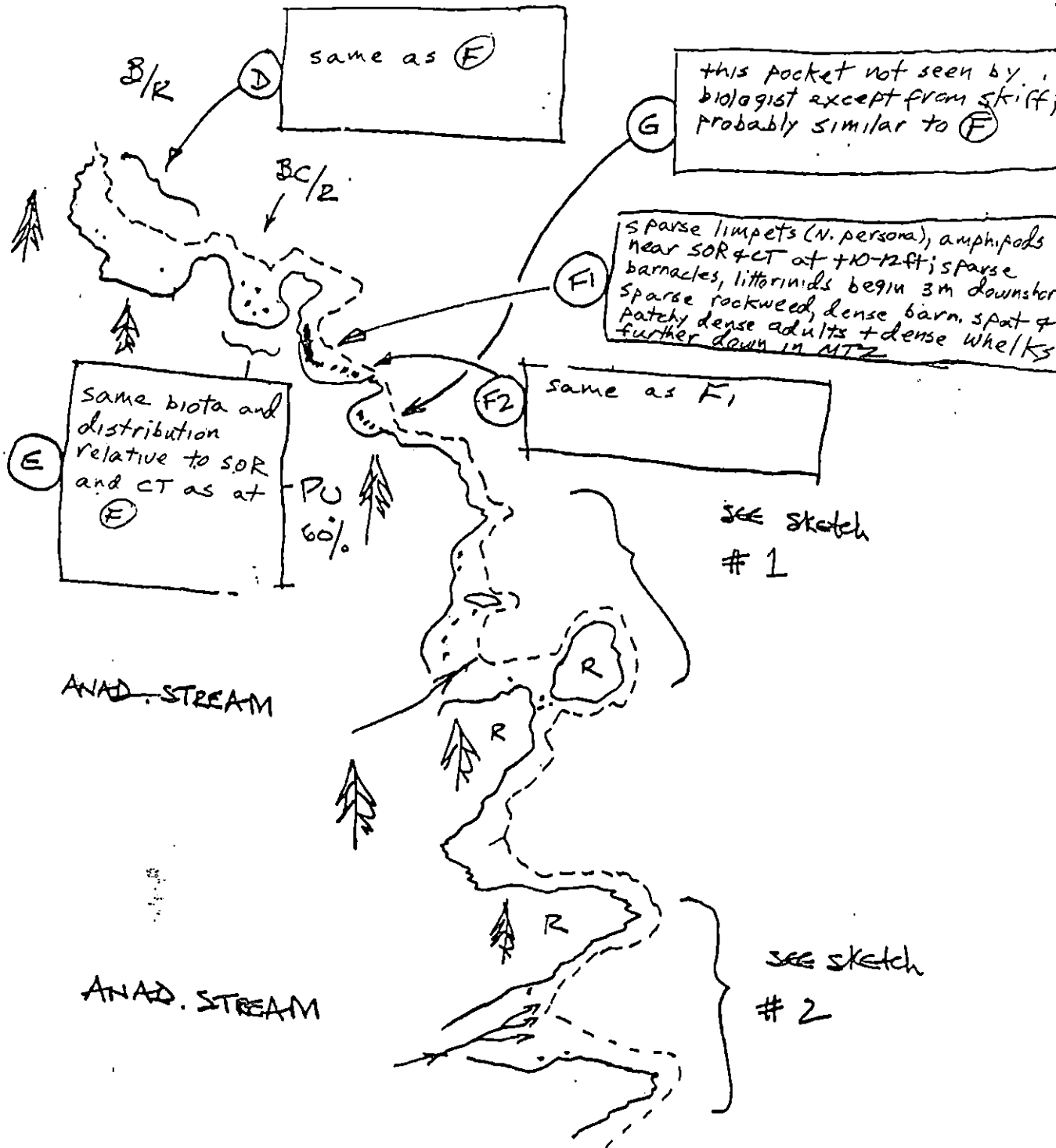


Revised 5/19/91

BIO. sketch Map
CU-14 A
14 May 91
M. Fawcett

Sketch #3

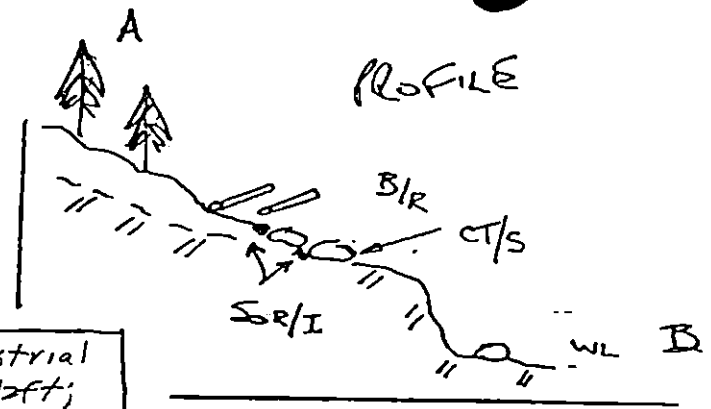
approx.
0 100m



H-V. R. cliffs

(H)

No biota except lichen, terrestrial grass near SOR + CT at 10-12ft;
Tidepools 2m downshore with dense littorinids, plus hermit crabs, and coralline algae; rockweed, limpets, littorinids, sparse barnacles around pools on BR; LTZ-MTZ tidepools with typical diverse biota



massive B over R

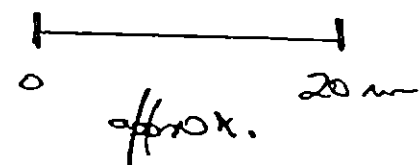


Bedrock bench w/ massive B.



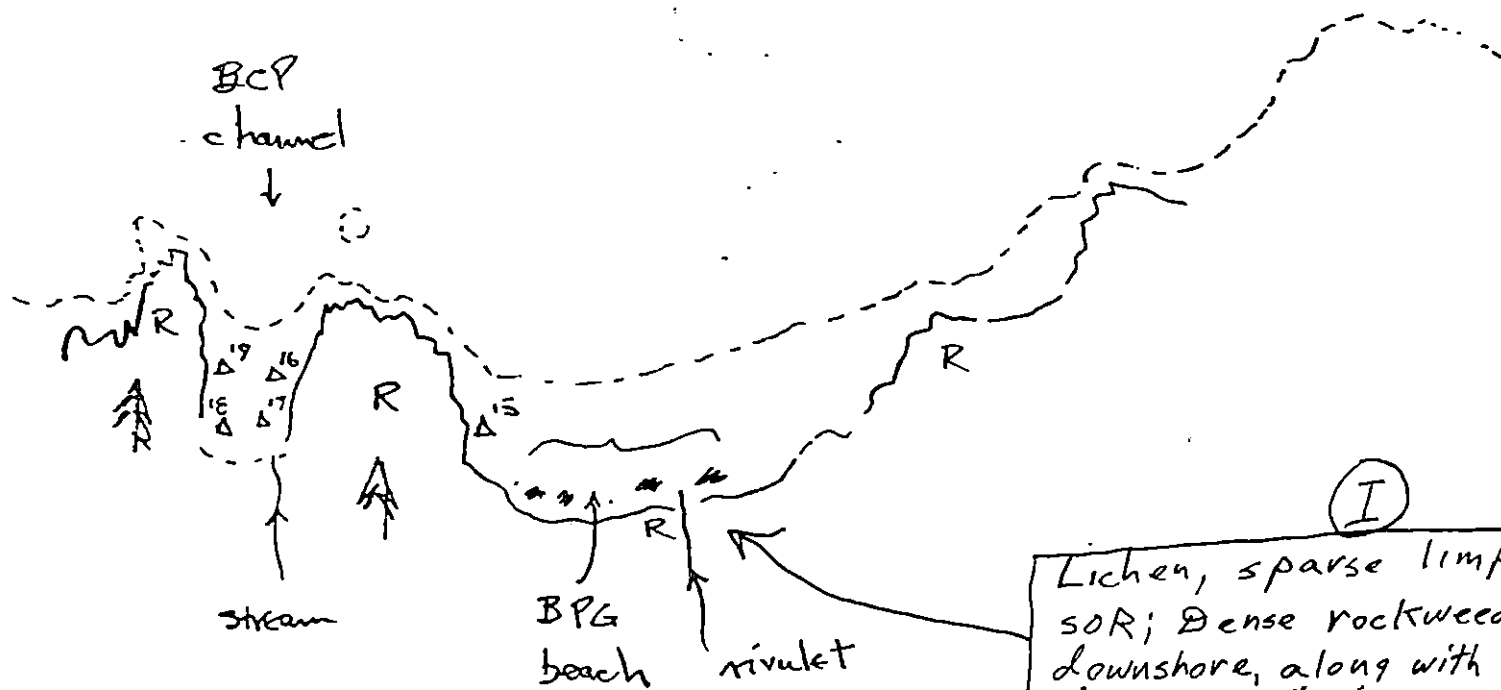
Sketch #4

Bio Sketch Map
CU 14A, 14 May 91
M.H. Fauzett



BIO Sketch Map
CU-14A
15 May 91.
M. Fawcett

Sketch #5.



(I)
Lichen, sparse limpets near
SOR; Dense rockweed 5m
downshore, along with moderately
dense littorinids & limpets, patches
of dense barnacles, sparse patches
of young mussels

CU 14A Arr 1715 Fawcett
5/14/91 wind NE 5-10, rain

sub A/P pink salmon stream
1 eagle flew over
1 gull

Site 9 1800 hrs

smaller than stream (a)

steep shore, no

sparse vegetation + 4-8 ft on boulders
+ BR - very dense barn, which
no water in stream

salmon fry at mouth

18 ft
75 ft

gravel/p

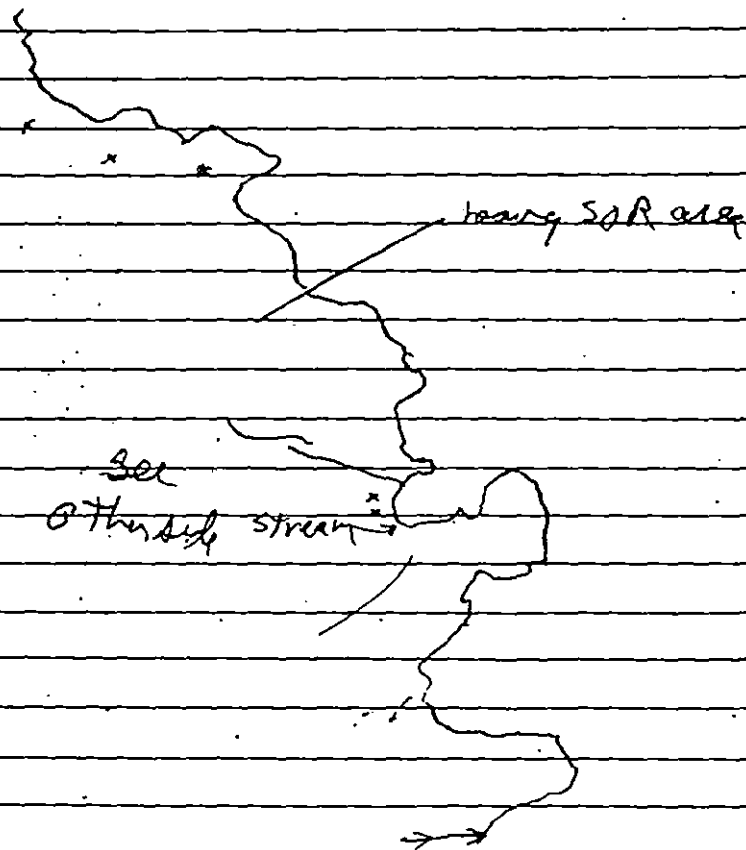
BR

BR

defrost 1820, went north

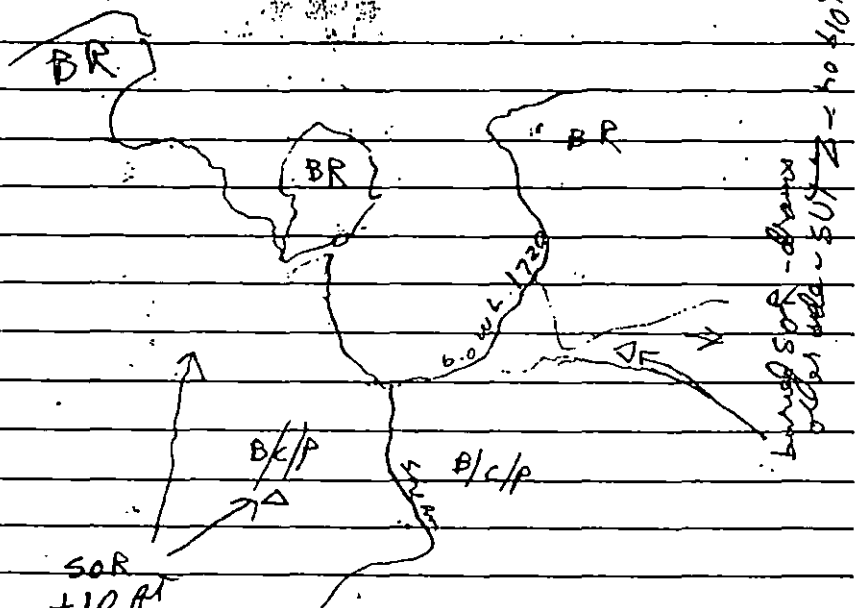
CU 14A

N
↑



C^V 14a (cont) 5/14/91 Faircott

Site (A) 1715



SOR
+10 ft
no biota
sparse barn, limp, litt, ulva, Enteromorpha, Fucus downshore - also dense spa +
5m at 18 ft

14 May (cont)

Site C - no SOR
plates SOR + CT UTZ +10-14 ft. in
lee of outcrop - B/c/p - no biota
near upper end in SUTZ, but
3 dense Fucus & limps near
SOR (picked up) at +10 ft,
dense Fucus, barn, fil. reds
whelps, etc downshore, starting
2m below at +8-9 ft - walked
north to end of subdunoon -
same rel. dist. of biota &
traces of CT at 10 ft -
of *N. lamellosa* breeding under
ledge at +3 ft. near end of segment

1900 hrs - nearest SOR side of
Graham's map - 50% cover 14
UTZ - SUTZ +10-12 feet - only
biota are sparse *N. persiana*, amph,
worms
- sparse barnacles, Litt begin 3m
downshore, mod. sparse
Fucus further down at +4-5 ft
w/ dense barn spot, patchy dense
adults, dense *N. lamellosa*
a few *N. lamellosa*

CU 14A (cont) 14 May, Fawcett

175 1930 hrs

last side, south end of
signed - SOR, CT in VTZ-SUTZ
10-12 ft boulders above biota - 2m

down shore on BR bench are
pools w/ Litho, hermits, Litt,
but sparse algae ^(too highly lithorinity) mod-
dense Fucus on BR around pools -
Litt, limp, - sparse barn

- pools in LTZ-MTZ w/ rich
Lida - very dense N among
all over the subdivision

gulls

Finish 1945

15 May 91 Returned to CU 14A

11.45-11.55 - area mussel
yesterday -

- shallow B/c core - SOR SUTZ
in crevices of core - no biota except
sparse limp 5m down shore at ~8 ft - dense
Fucus - sparse barn (some dense
patches, mod. Litt, limp,
sparse mussels

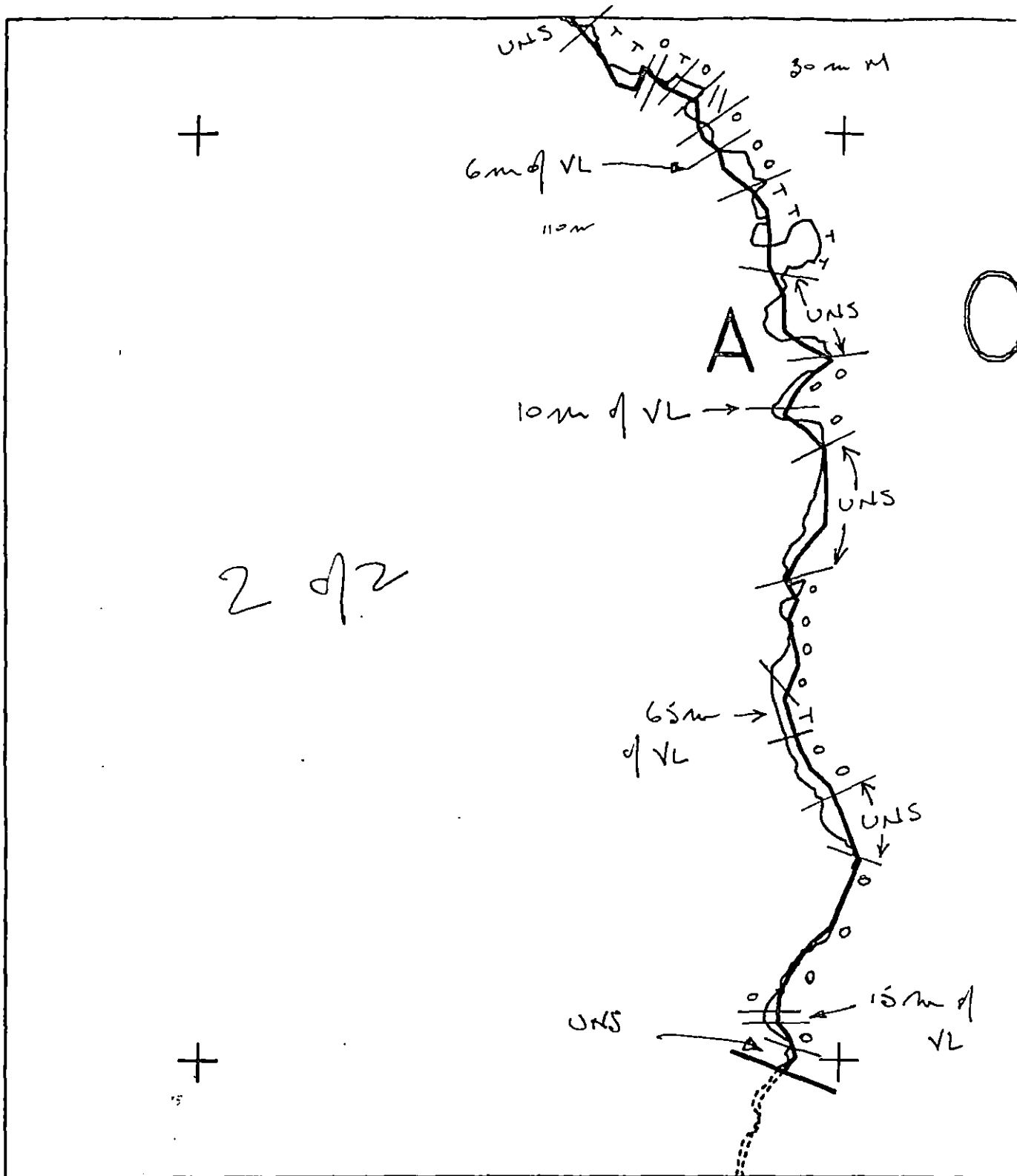
sparse Rhode, Urosalpinx, U/VA

LTZ - purple backs, breeding

Litt, dense spat

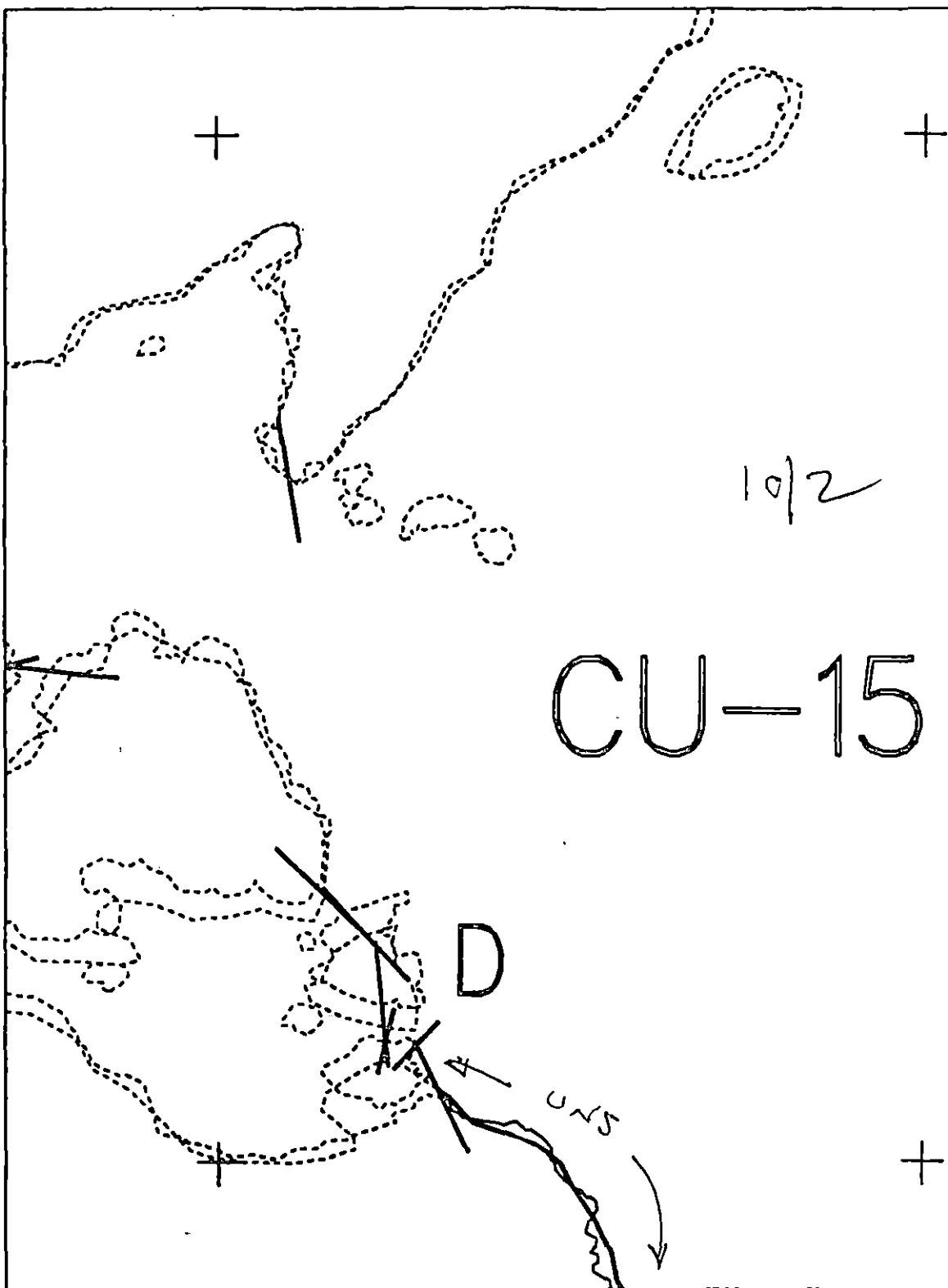
Band of SOR just at edge of
N peninsula & Litt. - limpets
very dense (10-20 per boulder)
just below and (+8-10 ft)

Finish 1215 hrs



XXXX	Wide	CU014 A ADEC Subsegment Length: 2293m METERS AK State Plane Zone 4 projection	Subdivision Field Map
////	Medium		Map Key: PWSCU014Aa
----	Narrow		Name: <u>GM</u>
TTTT	Very Light		Date: <u>5-15-91</u>
0000	No Oil		Data Entered:

revised 5/16/91 K6
10
EG reviewed 5/17



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

CU014 A
 ADEC Subsegment Length: 2293m
 METERS
 0 100 200
 AK State Plane Zone 4
 pcu014ab



Subdivision Field Map
 Map Key: PWSCU014Ab
 Name: GM
 Date: 5-15-91
 Data Entered:

reviewed 5/16/91 KG
 25 revised 5/17

SHORELINE EVALUATION

SEGMENT ST/ CU-14 SUBDIVISION A (1 OF 1) DATE 4/2/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream mouth (no. 13036, 13034) Salmon fry outmigration
(1A) - 3/1 to 5/15 and spawning (1B) - 7/10 to 8/31; Bald eagle
nest (5T) - 3/1 to 6/1; Gill net area (1I) - 6/1 to 8/31 (contact
ADF&G for exact dates and locations); Purse seine area (1J) - 7/20
to 9/30 (contact ADF&G for exact dates and locations). Special use
designation (6Y) - 6/1 to 9/15. Restrict boat and air traffic to
a minimum essential. Air approach and takeoff from and to seaward
only.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Do not disturb stream bed or banks unless authorized by ADF&G. Contact ADF&G prior to treatment for permit and USFWS re: eagle nests. Avoid unnecessary disturbance/damage to uncoiled substrate and biota.

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

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

OILING CATEGORIZATION:

Wide 0 m: Medium 580 m: Narrow 64 m: V.Light 0 m: No Oil 1649 m
Subsurface Oil Observed: Yes X No Maximum Depth 20 cm

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: Spot wash area where pooled mousse found with wands and absorbents. Manual pickup of any debris. Tarmat removal as indicated on sketch map. Bioremediation of areas where cover and coat found. Work between 6/1 and 7/10 based on constraints.

RAKE CURED GRAVEL AREA AT SITE TWO - PIT 6 - PRIOR TO BIOREMEDIATION

TAG COMMENTS:

TAG APPROVAL DATE:

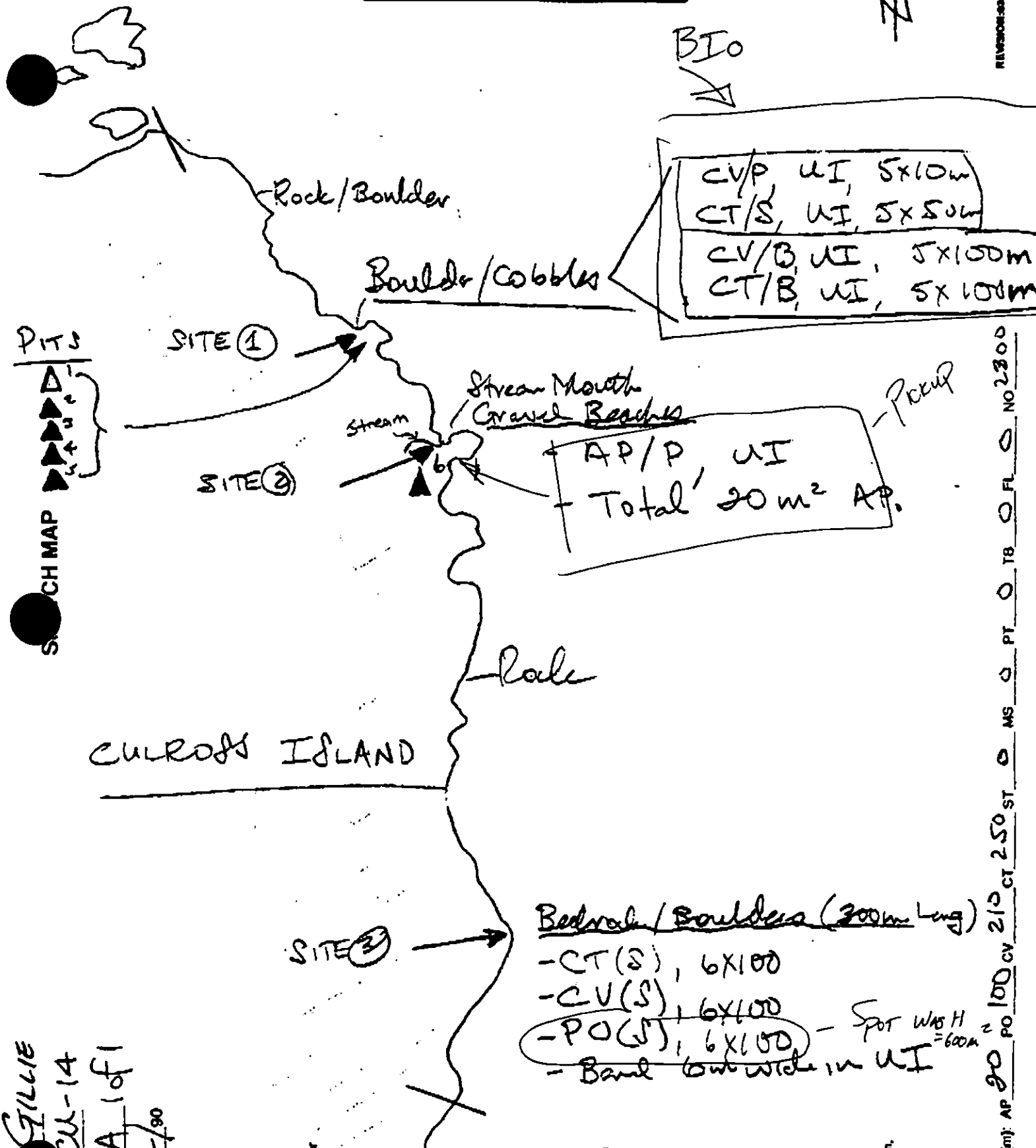
ADEC JOHN BAUER John Bauer
 EXXON ANDY TETZ Andy Tetz FC
 NOAA Burl Wescott Burl Wescott
 USCG G.A. BEITER G.A. Beiter

FOSC:

DATE: 4-20-90

REVISION: 000000

0 300 600m



OG Ric Gillie
SEGMENT ST/ CU-14
SUBDIVISION A 1 of 1
DATE 4, 2/90

BIO

CV/P, UI, 5x10m
CT/S, UI, 5x50m
CV/B, UI, 5x100m
CT/B, UI, 5x100m

AP/P, UI
Total 20m² AP.

Bedrock/Boulders (300m Long)

- CT(S), 6x100
- CV(S), 6x100
- PO(S), 6x100
- Band 6m wide in UI

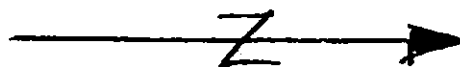
Spot WASH = 600m²

OG RICK MILLIE
 SEGMENT ST/ CU-014
 SUBDIVISION A, 1 of 1
 DATE 4/2/90

SKETCH MAP

SITE 1

50m



CHECKLIST

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

LEGEND

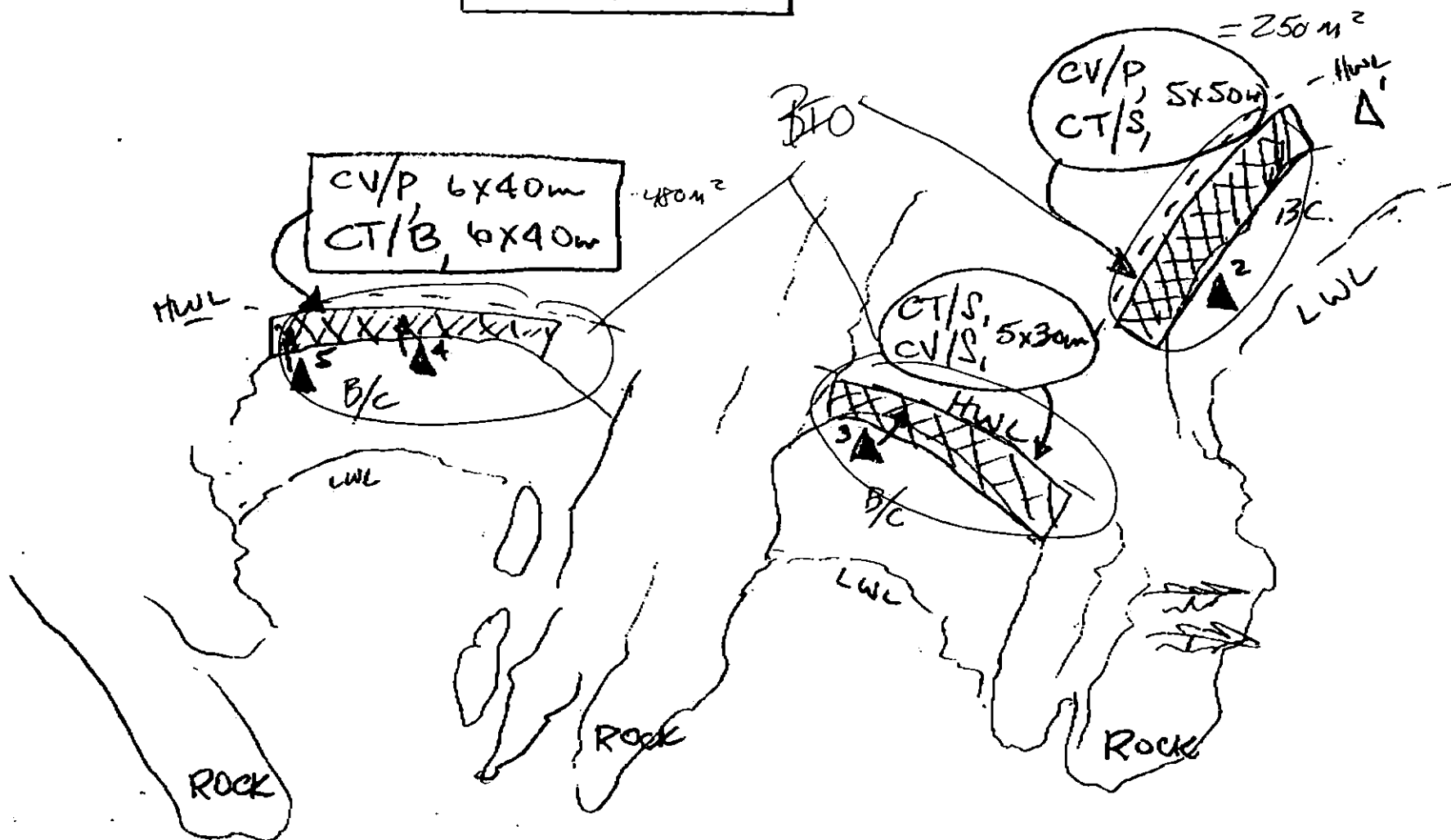
- 1 Δ
Pk - No Subsurface Oil
- 2 $\blacktriangle$
Pk - Subsurface Oil
- CT/C

Continuous Distribution
- CT/B

Broken Distribution
- CT/P

Patchy Distribution
- CT/S

Splashed Distribution
- Oiled Vegetation
- 1 $\Rightarrow$
Photo location, direction, and number



APR-03-1990 07:51 FROM SEA TRADER TO 18-----0013075643771# P.04

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

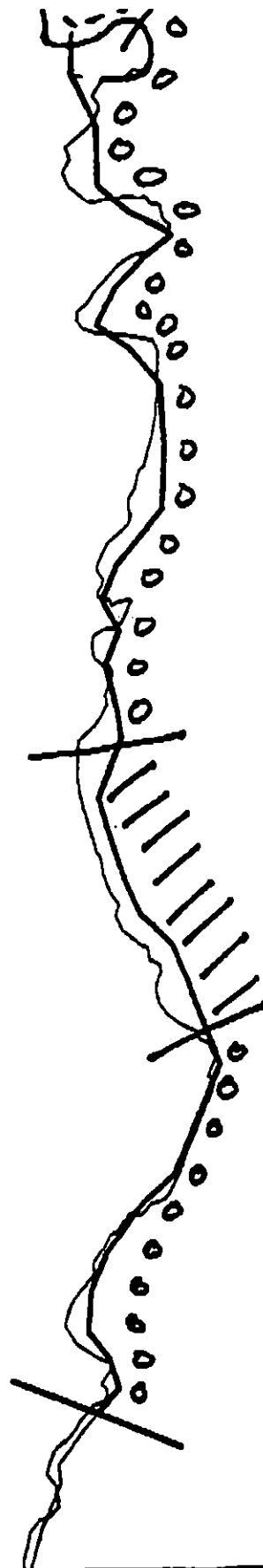
REVISION: 02/24/90

SITE (2)

PWS
728

SEGMENT: ST/CU-14
SOUTH PART

SITE (3)



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CU-14

ADEC Segment Length: 2293m



Map Key: PWS-72a

Name: GILLIE

Date: 4-2-90

Data Entered:

~~CU-15~~

ST/
SEGMENT : CU-14.
NORTH PART

SITE ①

↓ PWS
72A

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CU-14

ADEC Segment Length: 2293m

0 100 200 300

Map Key: PWS-72b

Name: GILLIEDate: 4-2-90

Data Entered:

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ CU-14 STREAM NO: 224-20-13034 DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Subject stream and one additional stream 224-20-13036, Ps, 2/90

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

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

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

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

5T-3 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. Subject stream exists within Subdivision A (1 of 1).

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: J. David McManis DATE: 5/10/90

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)

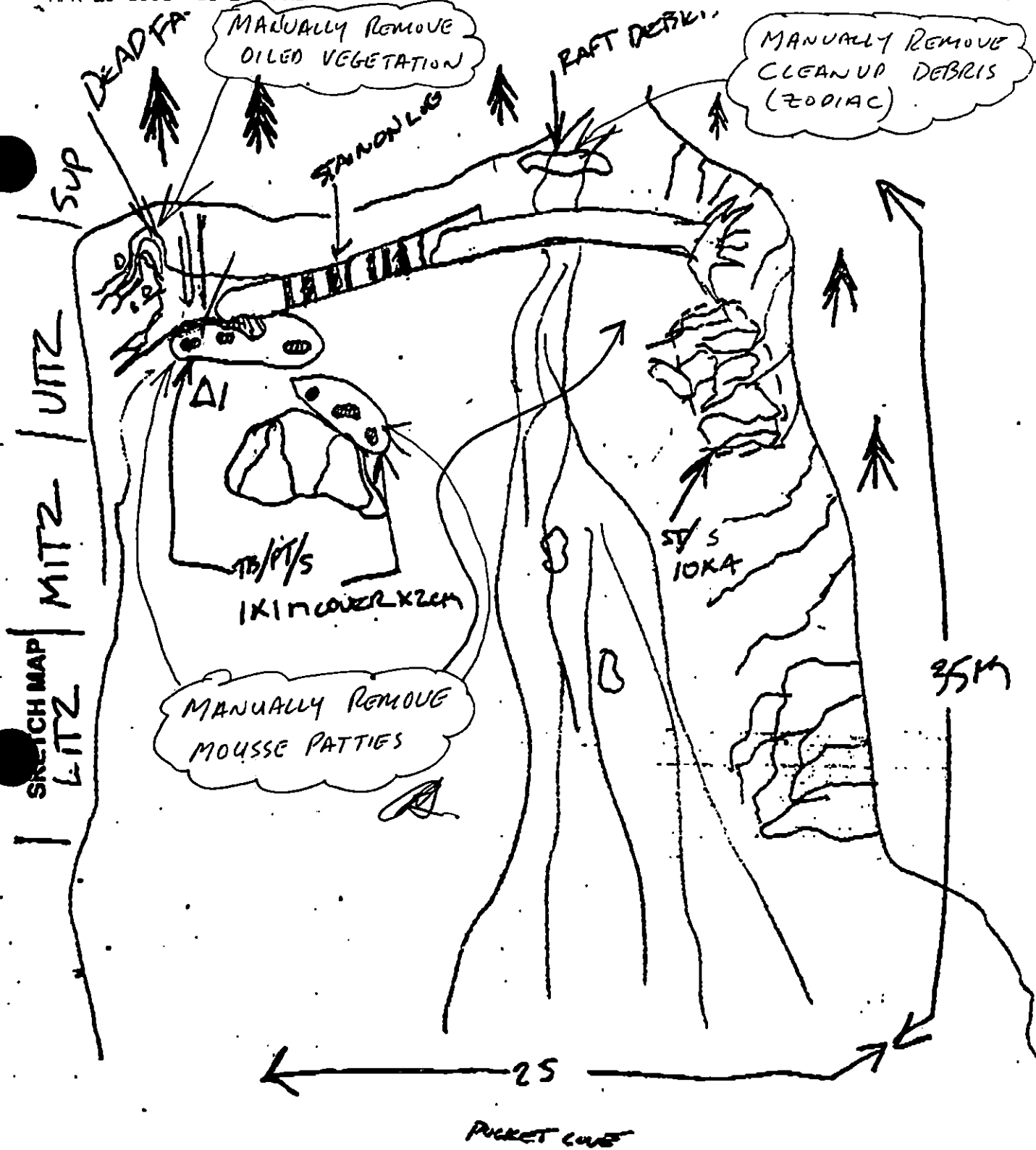
COMMENTS: Recommended treatment includes manual pickup of oiled vegetation, cleanup debris (zodiac), and mousse patties in areas indicated on sketch map. Work should be conducted after 6/1 with approval of USFWS regarding eagle nest.

TAG COMMENTS:

TAG APPROVAL DATE: 5/10/90
ADEC ART WEINER
EXXON ARMY TBA
NOAA Bur. (Wescott)
USCG D. D. ROWE

FOSC: W L DATE: 5-15-90

NOTIFY CVC 24 HRS PRIOR TO WORK.



OG CAL RESOLN
SEGMENT STICU 014 N

STRENGTH 224-2013034

DATE 4 125 90

CHECKLIST

- ☐ N Area
- ☐ Approx. Size
- ☐ Shape/Color
- ☐ On Deck
- ☐ White
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ E.g. INHABIT
- ☐ SCL
- ☐ Profile Location(s)
- ☐ Position(s)
- ☐ PT Location(s)
- ☐ Photo Location(s)

LEGEND

1 A

PT - No Subsurface Oil

2 A

PT - Subsurface Oil

CT/C
Confined Distribution

CT/B
Broken Distribution

CT/P
Partial Distribution

CT/S
Scattered Distribution

CT/L
Oiled Vegetation

CT/R
Oiled Vegetation

CT/T
Oiled Vegetation

CT/B
Oiled Vegetation

CT/L
Oiled Vegetation

CT/R
Oiled Vegetation

CT/T
Oiled Vegetation

CT/B
Oiled Vegetation

CT/L
Oiled Vegetation

CT/R
Oiled Vegetation

CT/T
Oiled Vegetation

CT/B
Oiled Vegetation

CT/L
Oiled Vegetation

CT/R
Oiled Vegetation

CT/T
Oiled Vegetation

CT/B
Oiled Vegetation

Oil Character Length (m): AP _____ FO _____ CU _____ CT _____ ST 10 MS _____ PT .5 TB .5 FL _____ NO _____

REVISION 2/2/88

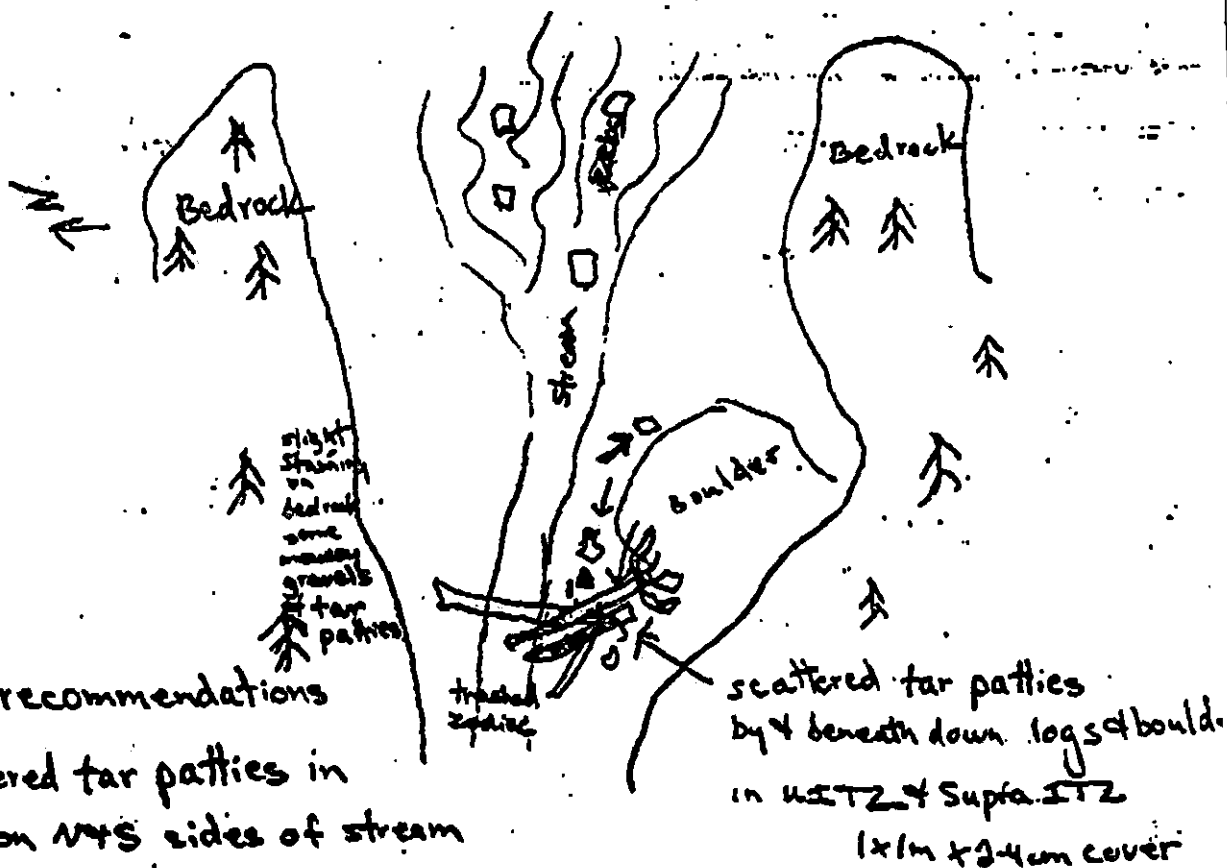
19/26

2/24/20

45 PHOTOLOG

TIME(S)	DESCRIPTION
	pit 1 - 54cm no noticeable oil

46 OIL DISTRIBUTION DIAGRAM



treatment recommendations
 Remove scattered tar patties in the U+STZ on N+S sides of stream
 Remove oiled parts of log on south bank
 If possible - remove trashed zodiac

13042

ECCOLOGICAL MAP

1-014-A (1 of 1)

1A, 1B

ST(3)

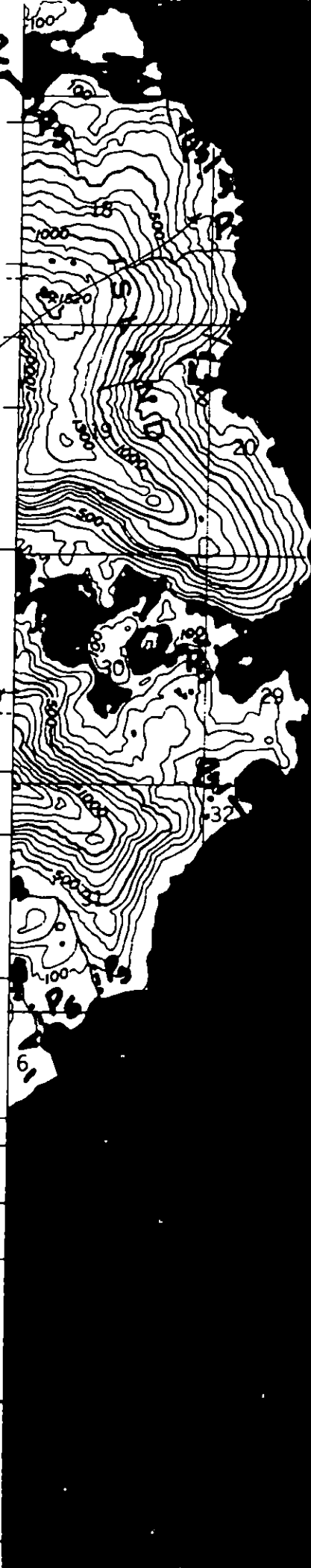
1I, 1S

6Y

SUBJECT ANADELMANS
STREAM

#224-20-13034
(1s, 2/40)

(SEWARD C-4)



ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 224-20-13034

SEGMENT CU-14 SUBDIVISION A

WORK WINDOW	
Manual Pickup	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B	Salmon Stream	ADF&G catalogued anadromous streams (224-20-13036 and 224-20-13034) are present in Subdivision A. No constraint to manual pickup.
1I	Gill Net Area	No constraint to manual pickup.
2K	Purse Seine Hook-off	No constraint to manual pickup
5T	Bald Eagle Nest	NO CONSTRAINT. USFWS 6/1/90 map indicates no active nest within 400m of Subdivision A work site.

OTHER ECOLOGICAL CONSIDERATIONS

No disturbance to stream bed or banks. Restrict boat and 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.

SEE SUBDIVISION CONSTRAINT ADDENDUM CU-14A
FOR ADDITIONAL CONSTRAINT INFORMATION.

TAG APPROVAL DATE _____

ADEC

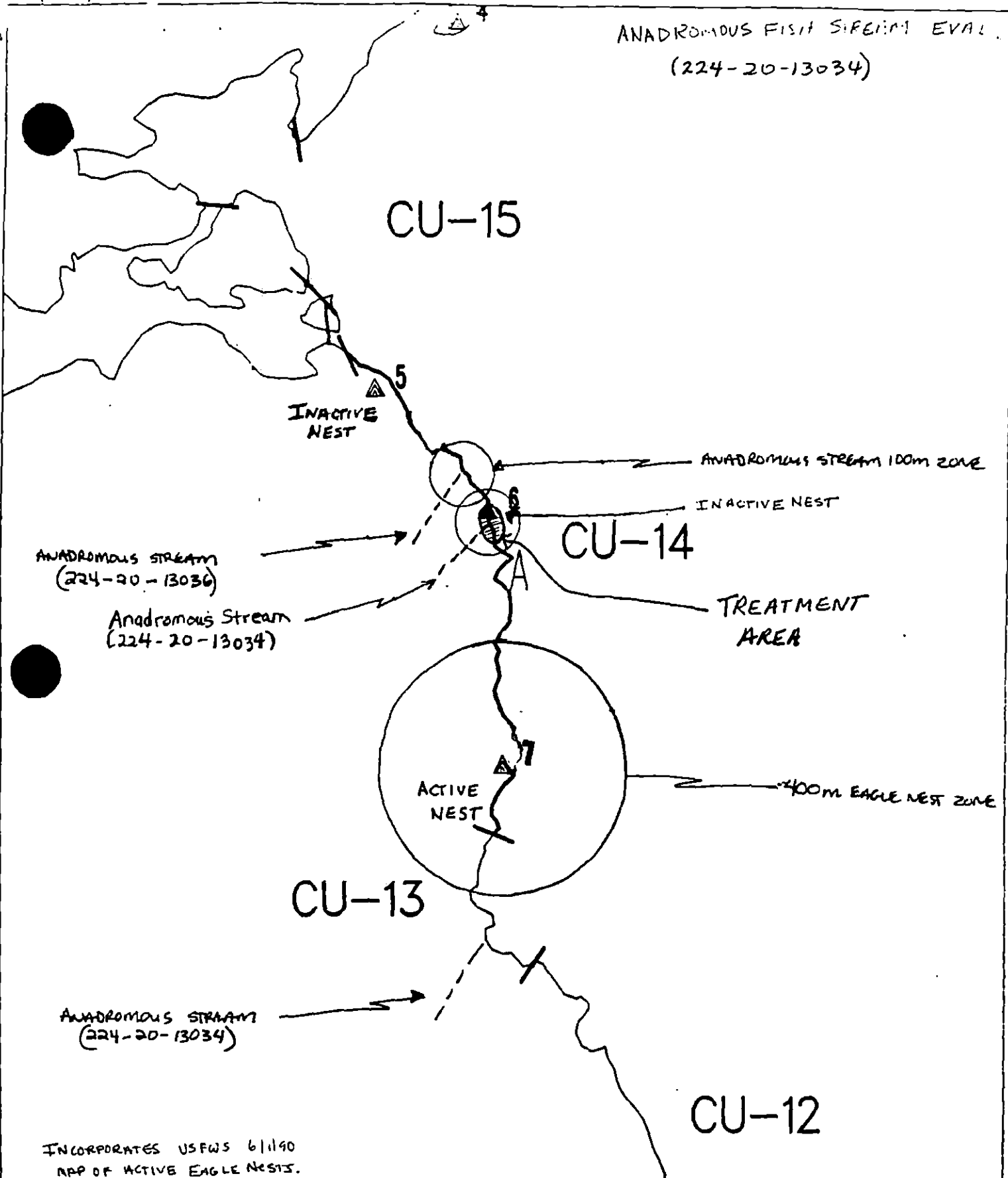
EXXON

NOAA

USCG

_____ FOSC _____ Date 6-8-90

ANADROMOUS FISH SITE EVAL.
(224-20-13034)

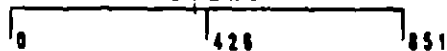


Exxon Company, USA
Map Key: PWS-CU-14
May 11, 1990

ECOLOGY MAP SEGMENT CU-14

SUBDIVISION A (1 of 1)

METERS



Seabird Colony



Eagle Nest

1 inch = 1397 feet

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ CU-14 STREAM NO: 224-20-13034 DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Subject stream and one additional stream 224-20-13036, Ps, 2/90

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
- 1B Salmon stream mouth - spawning (7/10 to 8/31)
- 1I Gill net area (6/7 to 8/31)
- 1J Purse seine area (7/20 to 9/30)
- 5T-3 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. Subject stream exists within Subdivision A (1 of 1).

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: [Signature] DATE: 5/10/90

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes manual pickup of oiled vegetation, cleanup debris (zodiac), and mousse patties in areas indicated on sketch map. Work should be conducted after 6/1 with approval of USFWS regarding eagle nest.

TAG COMMENTS:

TAG APPROVAL DATE: 5/10/90
ADEC Art Weiner
EXXON Andy Teal
NOAA Bruce Wescott
USCG D.D. Rome

FOSC: [Signature] DATE: 5-15-90
NOTIFY CVC 24 HRS PRIOR TO WORK.

ANADROMOUS FISH STREAM ASSESSMENT

REGION: PRINCE WILLIAM SOUND

SEGMENT: CU-14

STREAM NO: 224-20-13034

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ CU-14 STREAM NO: 224-20-13034 DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Subject stream and one additional stream 224-20-13036, Ps, 2/90

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

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

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

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

5T-3 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. Subject stream exists within Subdivision A (1 of 1).

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

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 includes manual pickup of oiled vegetation, cleanup debris (zodiac), and mousse patties in areas indicated on sketch map. Work should be conducted after 6/1 with approval of USFWS regarding eagle nest.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

✓ 1A
✓ 1B

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

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

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

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

1C

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

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

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

1D
1E
1F
1G
1H

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

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

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

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

Remote release site

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

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

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

✓ 1J
✓ 1J
1K
1L

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

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

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

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

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

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

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

3I
3O, 3Q

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

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

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

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

ADF&G Don Calkins 267-2403

5R

Seabird colony (5/1 to 9/1)

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

5S

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

ADF&G Tom Roth 267-2206

✓ 5T

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

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

6U
6V
6W
6X
✓ 6Y

Recreation:

Tent sites (6/1 to 9/15)

Anchorage (6/1 to 9/15)

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

Lodge (6/1 to 9/15)

Special use destination

7Z
7HH
7II

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

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

25/20

FIELD SHORELINE COMMENT SHEET

 SEGMENT ST / CU-014 SUBDIVISION: ASC# 13034 224-20-13054 DATE 25 APR 9

 USCG
 NAME Kerwin L. Dreher SIGNATURE CWO R. L. Dreher
☐ NO TREATMENT RECOMMENDED
 COMMENTS

☒ TREATMENT SUGGESTED

~~ADEC~~ → ~~ADP&B~~

 NAME RICK Gustin SIGNATURE Richard J. Gustin
☐ NO TREATMENT RECOMMENDED
 COMMENTS

☒ TREATMENT SUGGESTED

Remove scattered far patches in the upper+supra ITZ
 on north and south sides of stream

Remove oiled parts of log on south bank
 If possible remove trashed zodiac:

~~LAND MANAGER~~ → NONE

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
 COMMENTS

☐ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY (ANAD)

REVISION NO. 01

OG CAL LARSEN USCG DREHER, CWE SEGMENT ST/ C0014N 18/1
 BIO REN CRITCHLOW LAND REP STREAM 22A-20.13021 OF
 EXXON DALLAS YES ADFG RAK GUSTIN-AIMEE WEISMAN TIME 10:00 to 10:25
 TEAM NO. 14 TIDE LEVEL -0-FT DATE 4/25/90
 EST. SUBDIVISION LENGTH: 25 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 20 % B 40 % C 30 % P 5 % G 5 % S 5 % M 5 % V 5
 SLOPE: Long 40 % Hang 60 % Vert 5 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 5 m M 5 m N 5 m VL 5 m NO 20

SURFACE OIL

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

PAVEMENT H F S 3 sq. m by 3PATTIES / TARBALLS 3 BNEAR SHORE SHEEN? ☒ BR RW SL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	✓		
Vegetation			
Trash			
Debris			

Did You Col
 DEBRIS 5
☐ YES ☒ NO

TYPE 5#BAGS 5

Photographs:

Roll No. 8Frames 11-17

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (Y/N)	↓	SURF. SUBSURF SEDIMENT
		OP	OR	OL	OF	NO		NO	NO	1	2	3	4	5	SU	M	M	U				
1	24					✓	•											✓		N		LS, BG2
							•															
							•															
							•															
							•															
							•															

COMMENTS

VERY LITTLE OIL FOUND ON THIS BEACH -

REVIEWED JWDATE 4-28-90

OG CA ARSON

SEGMENT STICUOIA N

STRENA 22A-2013034

DATE 4/25/90

CHECKLIST

M Area
Apprent, Scale
Species Entry
On Unit
Whole
Length
% Cover
Substrate Character
Est. HUM/LUM
SSL
Profile Location(s)
Photo(s)
Pit Location(s)
Photo Location(s)

LEGEND

1 Δ

PI - No Substrate CG

2 Δ

PI - Substrate CG

CT/C
Continuous Distribution

CT/B
Broken Distribution

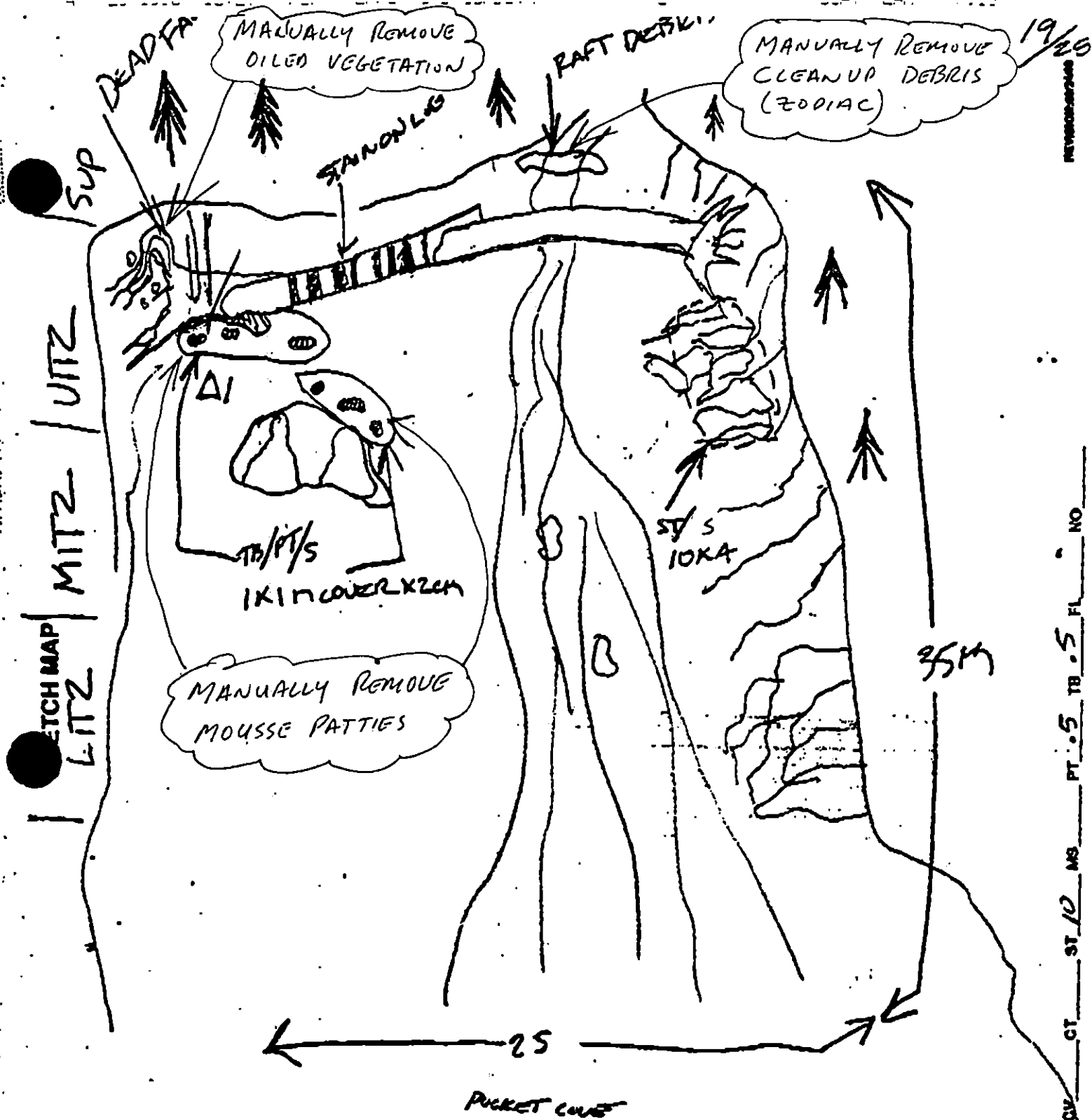
CT/P
Patchy Distribution

CT/S
Sporadic Distribution

CT/V
Oiled Vegetation

1 ●●

Photo location, direction,
and number



15/28

Seg ID: CU-014 Subdiv: 224-20-13034
Survey Date: 4/25/90
Comments by: Ken Critchlow

Very little oil was observed in the vicinity of the stream at this site. Scattered tarballs and patties were present in the upper MITZ and lower STZ on the south side, some distance from the stream. A log in this vicinity was stained sporadically. Stain was also observed on boulders and bedrock at the same elevation on the opposite side of the stream. An unholed Avon raft/boat was stranded as debris in the STZ channel.

I suggest that the tarballs and patties be removed by a small crew using shovels and trowels. This should be sufficient since a pit in this location didn't indicate the presence of subsurface oil. The oil stained log could be scraped and shouldn't be removed. Bio-remediation isn't required.

KR Critchlow

23/28

ADPAC MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS 25 ES TS AVS SCHA MMS PTA2 REGION: PR KP, CI K, APMETHOD: Aerial Ground Boat3 DATE: 4-25-9019 HIGH TIDE TIMES: 121 TEAM RECORDER: Aimee Wesemo4 START TIME: 100016 HIGH TIDE HTS: 122 OBSERVERS: Rick Gustin5 STOP TIME: 102017 LOW TIDE TIMES: 123 AGENCY: ADFYG6 SEGMENT #: C401418 LOW TIDE HTS: 124 PHOTOS TAKEN: Y (N)

7 STATION #:

10 TIDE HT AT SURVEY:

Roll #: Frame:

8 K-UNIT:

Ebb Slack Flood Slack

25 VIDEO TAKEN: (Y) H TAPES: 90-ADW-01

9 STAT AREA:

20 USCG QUAD: SC3Starts: 643 Ends: 698

10 LAT:

11 LONG:

26 SAMPLES TAKEN Y (N) Number12 SOURCE: Map Loran

Oil

13 LOCATION: se Culross I coastline-south of

Sediment

14 DESCRIPTION: hidden bay

Biological

Water

EXTENT OF OIL

	SHORELINE				STREAM			
	L	W	H	S	L	W	H	S
27 SURFACE COVERAGE	1	1						

36 CATALOGED ANAD. FISH STREAM? (Y) H

	SHORELINE				STREAM			
	L	W	H	S	L	W	H	S
28 SURFACE THICKNESS	1	1						
29 PENETRATION	0							

37 CATALOG #1: 224-20-13034

38 STREAM NAME:

30 OVERALL OIL IMPACT: N VL (L) H H39 OIL IN STREAM BED? Y (N)31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain

40 OIL ON STREAM BANKS? Y H

32 OILED DEBRIS? (Y) H41 OIL ON BEACH ADJACENT TO MOUTH? (Y) H
(within 50 meters)42 OIL WITHIN 1 MILE OF STREAM? (Y) H33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cove

Where:

43 ANADROMOUS FISH PRESENT? Y H

34 WAVE EXPOSURE: High Moderate Low44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground35 SUBSTRATE TYPE: Bedrock 20 Boulder 10 Cobble 25Gravel 40 Sand 5 Mud/silt

Species	Aerial	Ground

COMMENTS: this stream runs through a small pebble/gravel pocket beach which is between bedrock headlands. The oiling we found consisted of scattered mousse & tar patties in the UTZ & supra ITZ on the south side of the stream, and staining tar patties on the north side in the same zone.

24/28

/

APPENDIX

DESCRIPTION

Remove oiled parts of log on south bank

If possible - remove trashed zodiac

ECOLOGICAL MAP

1A, 1B

15T(3)

11, 15

64.

SUBJECT ANADROMOUS
STREAM

#224-20-13034

(i's, 2/90)

(SEWARD C-4)

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ CU-14 STREAM NO: 224-20-13036 DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Subject stream and additional stream 224-20-13034

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
- 1B Salmon stream mouth - spawning (7/10 to 8/31)
- 1I Gill net area (6/7 to 8/31)
- 1J Purse seine area (7/20 to 9/30)
- 5T-3 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 uncoiled biota and substrate. Subject stream exists within Subdivision A (1 of 1).

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: [Signature] DATE: 5/10/90

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes removal of tarmats in areas indicated on sketch map. Work should be conducted between 6/1 and 6/7 with approval of USFWS regarding eagle nest.

TAG COMMENTS:

TAG APPROVAL DATE: 5/10/90

ADEC Art Weimer
EXXON Andy Bost
NOAA Burt Wescott
USCG D.D. Rome

FOSC: [Signature] DATE: 5-18-90

NOTIFY CUE 24 HRS PRIOR TO WORK.

SKETCH MAP

SEGMENT ST/00145

STREAM 22A-2013036

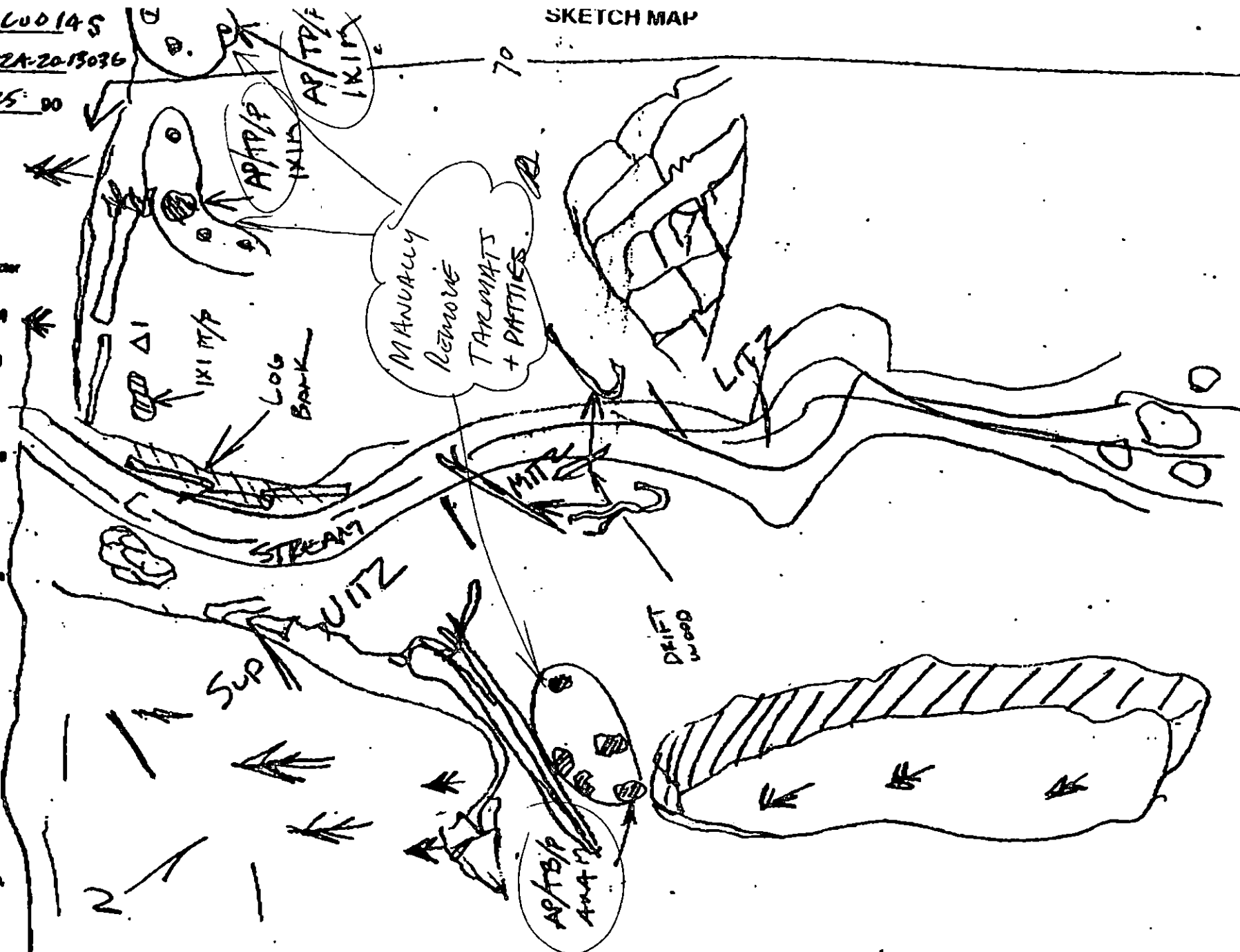
DATE 4/25/90

CHECKLIST

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

LEGEND

- 1 Δ
PI - No Subsurface Oil
- 2 Δ
PI - Subsurface Oil
- CT/C
Continuous Distribution
- CT/D
Broken Distribution
- [CT/P]
Patchy Distribution
- [CT/S]
Splashed Distribution
- eee
Oiled Vegetation
- 1 →
Flow location, direction, and number



Oil Character Length (ft): AP 4 PO CV CT ST MS PT 2 TD FL NO

REVISED 02/90

27/28

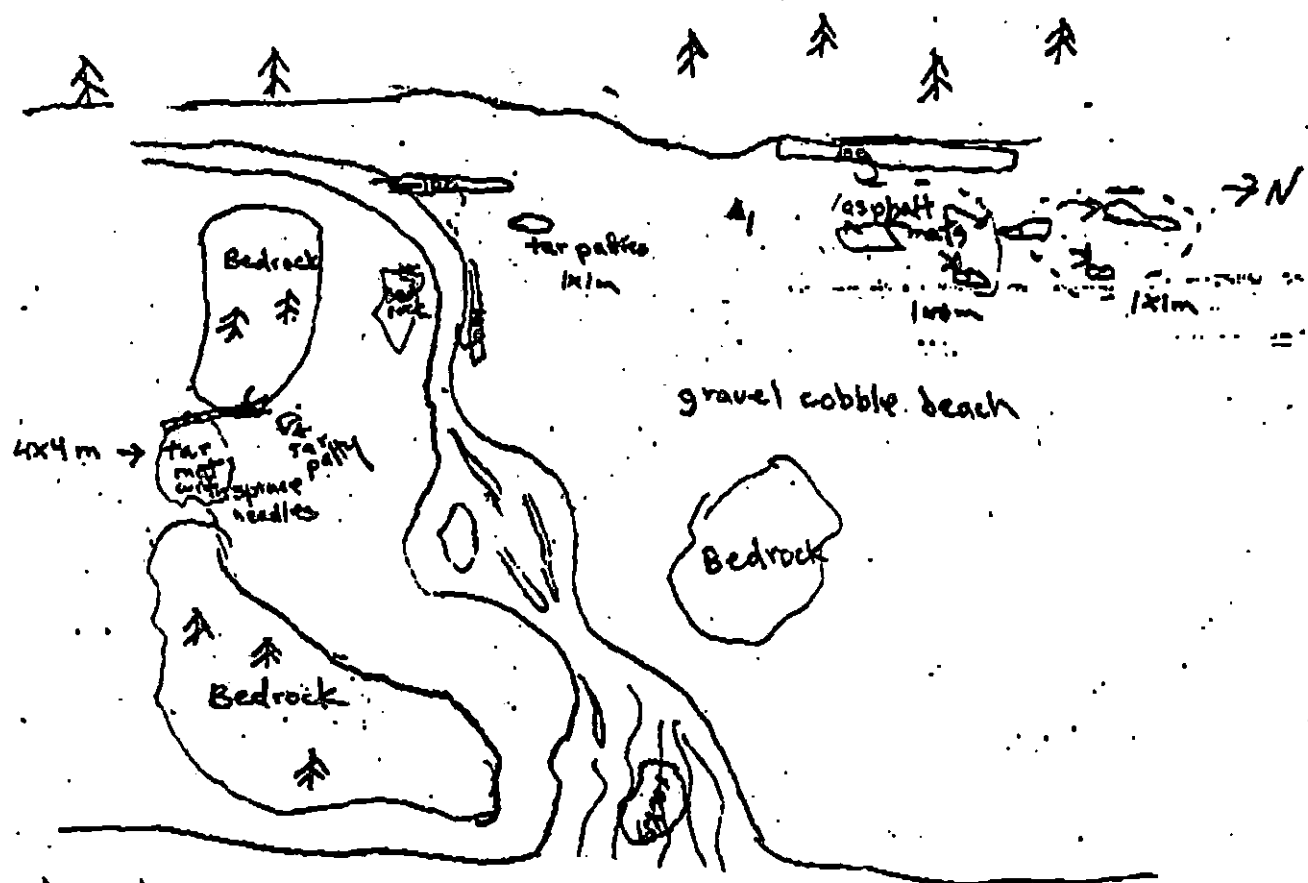
45 PHOTOLOG

FRAME(S)

DESCRIPTION

pit 1-25cm no oil visible

46 OIL DISTRIBUTION DIAGRAM



Treatment recommendations -

- Remove tar mat patches in UITZ on north side of stream
2 - 1x1m areas where enca
- Remove 4x4m tar mat in UITZ on south side of stream between bedrock outcrops.

148°07'30" 439000m. E.
60°45'

850 000 FEET (ZONE 4)

148°

6735000m. N.

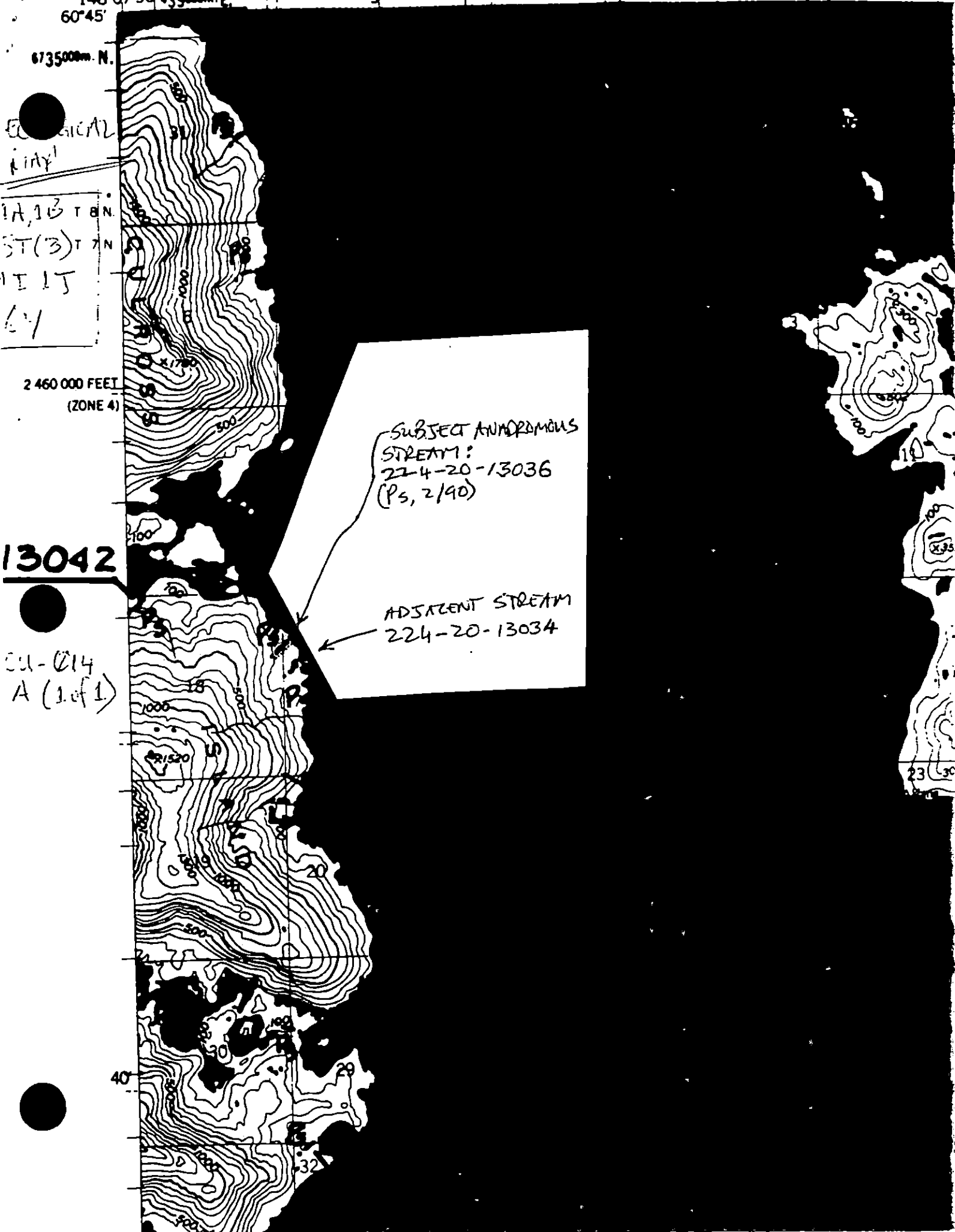
ECOLOGICAL
MAP

1A, 1B T 8 N
5T(3) T 7 N
1E 1T
64

2 460 000 FEET
(ZONE 4)

13042

CU-014
A (1 of 1)



ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 224-20-13036

SEGMENT CU-14 SUBDIVISION A

WORK WINDOW	
Tarmat Removal	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B	Salmon Stream	ADF&G catalogued anadromous streams (224-20-13036 and 224-20-13034) are present in Subdivision A. No constraint to tarmat removal.
1I	Gill Net Area	No constraint to tarmat removal.
1J	Purse Seine Area	No constraint to tarmat removal.
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

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

SEE SUBDIVISION CONSTRAINT ADDENDUM CU-14A
FOR ADDITIONAL CONSTRAINT INFORMATION

TAG APPROVAL DATE _____

ADEC _____

EXXON HANS O. JAHNS _____

NOAA _____

USCG _____

FOSC [Signature] _____

Date 6-8-90

Prepared by _____ Date _____

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ CU-14 STREAM NO: 224-20-13036 DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Subject stream and additional stream 224-20-13034

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

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

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

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

5T-3 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 uncoiled biota and substrate. Subject stream exists within Subdivision A (1 of 1).

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: [Signature] DATE: 5/10/90

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

 No Treatment Recommended

X Treatment Recommended

 Manual Pickup

 Bioremediation

X Tarmat Removal

 Snare/Absorbent Booms

 Oil Snare (pom poms)

 Absorbents (pads, rolls, etc)

 Spot Washing: Wands

 Beach Cleaner

 Other (see comments)

COMMENTS: Recommended treatment includes removal of tarmats in areas indicated on sketch map. Work should be conducted between 6/1 and 6/7 with approval of USFWS regarding eagle nest.

TAG COMMENTS:

TAG APPROVAL DATE: 5/10/90

ADEC Art Weimer [Signature]

EXXON [Signature] [Signature]

FOSC: [Signature] DATE: 5-18-90

ANADROMOUS FISH STREAM ASSESSMENT

REGION: PRINCE WILLIAM SOUND

SEGMENT: CU-14

STREAM NO: 224-20-13036

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ CU-14 STREAM NO: 224-20-13036 DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Subject stream and additional stream 224-20-13034

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

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

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

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

5T-3 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 unholed biota and substrate. Subject stream exists within Subdivision A (1 of 1).

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

☐ No Treatment Recommended

☒ Treatment Recommended

☐ Manual Pickup

☐ Bioremediation

☒ Tarmat Removal

☐ Snare/Absorbent Booms

☐ Oil Snares (pom poms)

☐ Absorbents (pads, rolls, etc)

☐ Spot Washing: _____ Wands

☐ Beach Cleaner

☐ Other (see comments)

COMMENTS: Recommended treatment includes removal of tarmats in areas indicated on sketch map. Work should be conducted between 6/1 and 6/7 with approval of USFWS regarding eagle nest.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- ✓ 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
✓ 1B Salmon stream mouth - spawning (7/10 to 8/31)
No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream 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
- ✓ 1J Gill net area (6/7 to 8/31)
✓ 1K Purse seine area (7/20 to 9/30)
1L Purse seine hook-off (7/20 to 9/30)
Set net sites (6/11 to 7/25)
Contact ADF&G for specific dates, locations and constraints. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G James Brady 424-3212
- 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)
71-74 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

28/28

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / CV-014 SUBDIVISION: ^{ASC#} 224-20-12036 DATE 25 APR 90

USCG

NAME

Kerwin L. Dreher

SIGNATURE

CWO K. L. Dreher

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

ADEC → ADF & G

NAME

RICK GUSTIN

SIGNATURE

Richard Gustin

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Remove farmat patches in Upper I.T. 3 on north side of stream. 2 → 1x1 meter areas were encountered.

Remove 4x4 meter farmat in Upper I.T. 3 on south side of stream between bed rock outcrops.

LAND MANAGER → NONE

NAME

SIGNATURE

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

SUMMELINE OILING SUMMARY (ANAD)

REVISION NO. 01

OG CAL LARSON USCG DREMER, CWE SEGMENT ST/ CV 01/5 11/2E
 BIO REN CRITCHLOW LAND REP STREAM 22A-20-130% OF
 EXXON DALLAS YVES ADFG RAK BETH-AIMEE WESEMAN TIME 09:30 to 9:45
 TEAM NO. 14 TIDE LEVEL DATE 4/25/90
 EST. SUBDIVISION LENGTH: 40 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 10 % B 36 % C 20 % P 30 % G 5 % S 5 % M 5 % V 5
 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 7 m NO 33

SURFACE OIL

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

PAVEMENT H F 27 sq. m by 3PATTIES / TARBALLS 5 BANEAR SHORE SHEEN? NO BR RW SL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

Did You Coll
DEBRIS
☐ YES ☒ NO

TYPE

#BAGS

Photographs:

Roll No. 8Frames 1-10

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (Y/N)	V	SURFAC SUBSURF/ SEDIMENT
		OP	OR	OL	OF	NO		NO	NO	1	2	3	4	5	SU	M	VL	NO				
1	22					✓	•								✓					N		62,58,16%
							•															
							•															
							•															
							•															
							•															
							•															
							•															

COMMENTS LONG BEACH FETCH. LITTLE OILING. NO OIL IN STREAMREVIEWED JWDATE 4-28-9

1/4/11 SEGMENT ST/00145

STREAM ZZA-2013036

SKETCH MAP

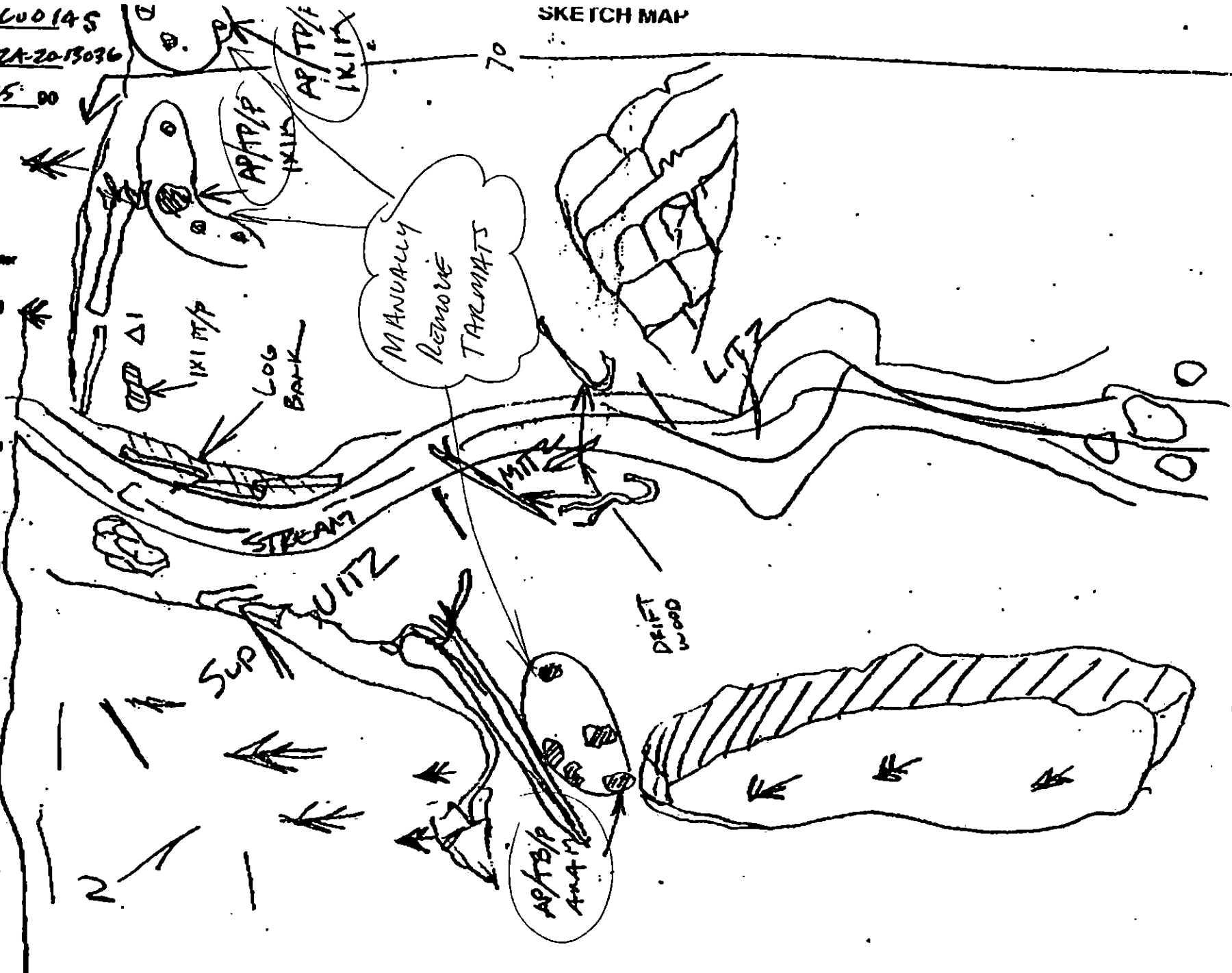
DATE 4/25/00

CHECKLIST

- Map Area
- Approx. Scale
- Seq/Sub Seq
- Of Dist
- Width
- Length
- % Cover
- Substrate Character
- Est. HML/VL
- SSL
- Profile Location(s)
- Photo(s)
- Photo Location(s)

LEGEND

- 1 A
- PR - No Subsurface Oil
- 2 A
- PR - Subsurface Oil
- CT/C
- Continuous Distribution
- CT/B
- Broken Distribution
- CT/P
- Patchy Distribution
- CT/S
- Splashed Distribution
- eee
- Old Vegetation
- 1 00
- Photo location, direction, and number



Oil Character Length (m): AP 4 PO CV CT ST MS PT 2 TB 1 FL NO

Seq ID: CU-014

Subdiv: 224-20-13036

Survey Date: 4/25/90

Comments by: Ken Critchlow

Oiling on this stream site was limited essentially to three small areas of patchily distributed asphalt pavement, patties and tarballs in the UITZ on both sides of the stream.

Oiled sediments can be readily removed by a small crew using shovels and trowels. No additional treatment should be required as subsurface oil wasn't evident in the one pit excavated in the UITZ.

KR Critchlow

26/28

ADP&C MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS (S) DS TS AVS SCVA MMS PTA2 REGION: (PNS) KP, CI K, APMETHOD: Aerial (GROUND) Boat3 DATE: 4-25-9015 HIGH TIDE TIMES: 121 TEAM RECORDER: Aimee Wesemar4 START TIME: 093016 HIGH TIDE HTS: 122 OBSERVERS: Rick Gustin5 STOP TIME: 095017 LOW TIDE TIMES: 123 AGENCY: ADFG6 SEGMENT #: C401418 LOW TIDE HTS: 124 PHOTOS TAKEN: Y (H)

7 STATION #:

19 TIDE HT AT SURVEY:

Roll #: Frames:

8 K-UNIT:

Ebb Slack Flood Slack

25 VIDEO TAKEN: (H) N TAPES: 90-ADW-00

9 STAT AREA:

20 USCG QUAD: SC3Start: 585 End: 644

10 LAT:

11 LONG:

26 SAMPLES TAKEN: Y (H) Number12 SOURCE: (Hsp) Loren

Oil

13 LOCATION: Se Culross I coastline-south

Sediment

14 DESCRIPTION: of hidden bay

Biological

Water

EXTENT OF OIL

	SHORELINE				STREAM			
	L	Y	H	N	L	Y	H	N
27 SURFACE COVERAGE								

36 CATALOGED ANAD. FISH SKEIN? (Y) N37 CATALOG #: 224-20-1-3036

38 STREAM NAME:

	SURFACE THICKNESS				PENETRATION			
28 SURFACE THICKNESS	<u>2cm-intar mats</u>							
29 PENETRATION	<u>(H)</u>							

39 OIL IN STREAM BED? Y (H)40 OIL ON STREAM BANKS? Y (H)30 OVERALL OIL IMPACT: N VL (L) H H41 OIL ON BEACH ADJACENT TO MOUTH? (H) N
(within 50 meters)31 OIL TYPE: Pooled Mousse Tar (Asphalt) Sticky Stain42 OIL WITHIN 1 MILE OF STREAM? (H) N32 OILED DEBRIS? Y (H)

Where:

33 SHORELINE TYPE: Headland Low-lying Rocks (Beach) Cove
Lagoon Marsh

43 ANADROMOUS FISH PRESENT? Y N

34 WAVE EXPOSURE: (High) Moderate Low44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground35 SUBSTRATE TYPE: Bedrock 10 Boulder 10 Cobble 30Gravel 45 Sand 15 Mud/silt

Species	Aerial	Ground

COMMENTS: visible oiling on this beach occurs in the LITZ's on north & south sides of the stream & is restricted to tar mats and patties.

27/28

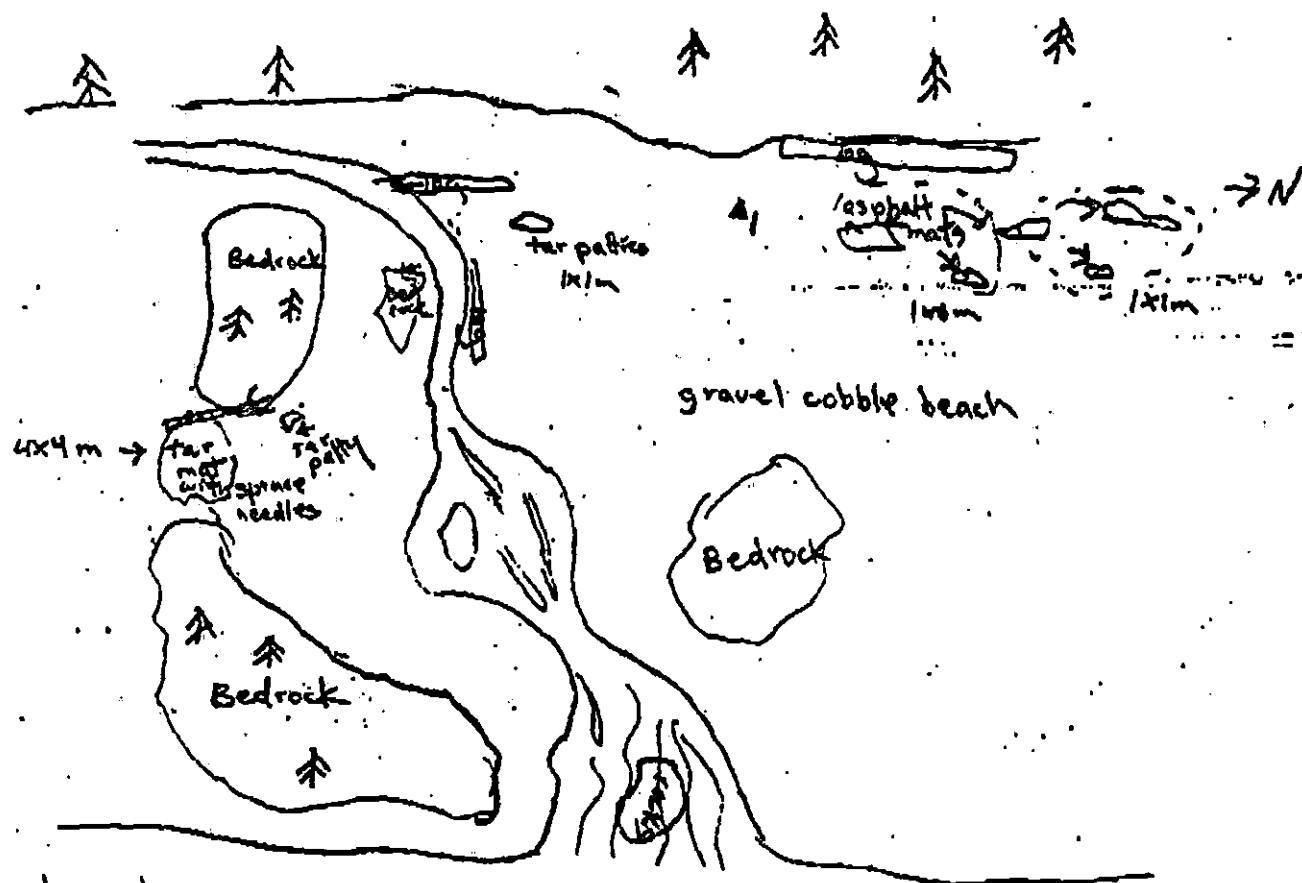
45 PHOTOLOG

45(S)

DESCRIPTION

pit 1-25cm and oil visible

46 OIL DISTRIBUTION DIAGRAM



Treatment recommendations -

Remove tar mat patches in UITZ on north side of stream

2 - 1x1m areas where encountered

Remove 4x4m tar mat in UITZ on south side of stream between bedrock outcrops.

GEOLOGICAL SURVEY

148°07'30" 439000m E
60°45'

5

850 000 FEET (ZONE 4)

148°

6735000m. N.

5000000

1000000

1A13 T8N

5T(3) T7N

1T15

1/

2 460 000 FEET
(ZONE 4)

13042

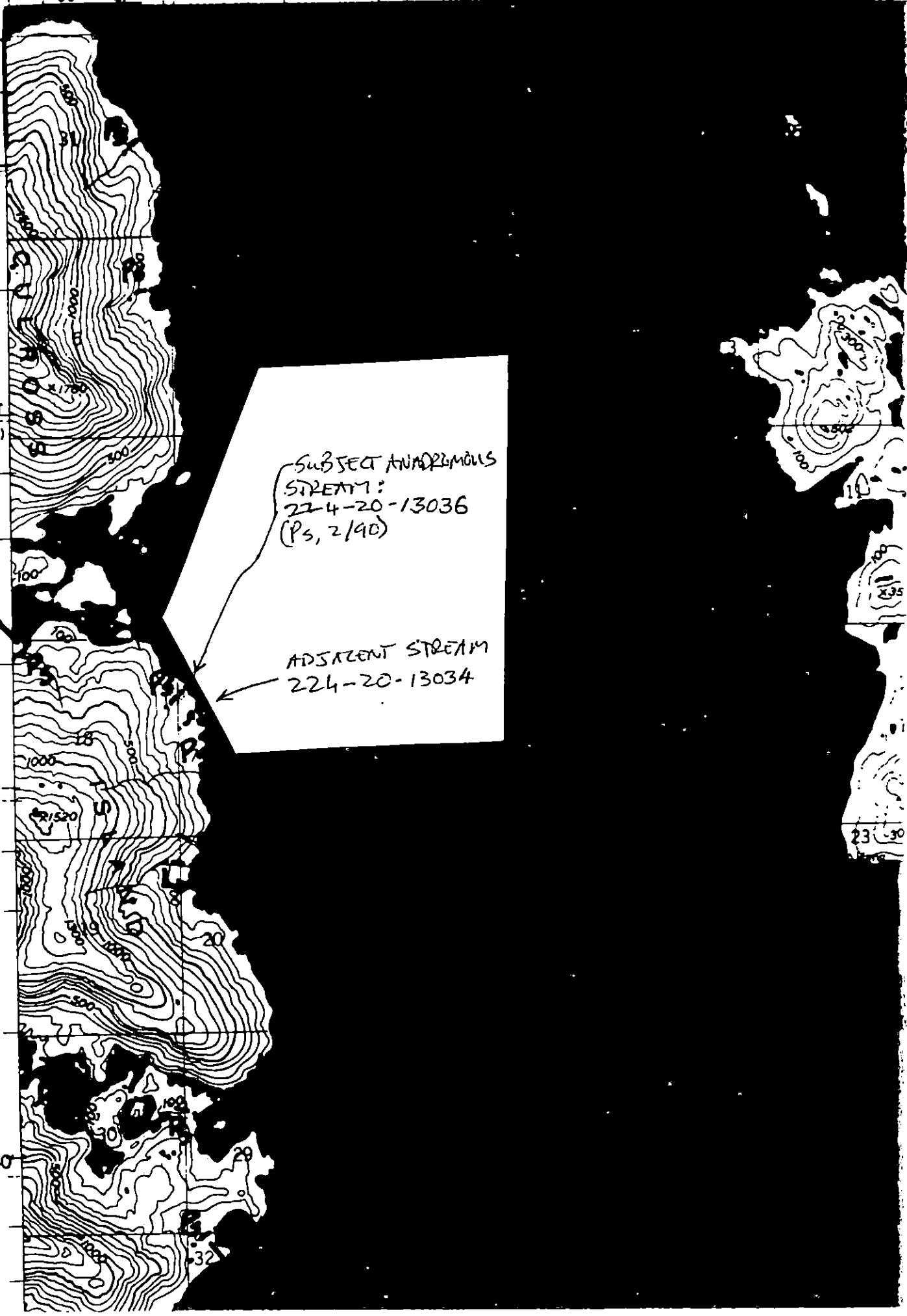
21-014
A(191)

40

32

28

23



SUBJECT ANADROMOUS
STREAM:
224-20-13036
(Ps, 2/40)

ADJACENT STREAM
224-20-13034

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/CU-15

SUBDIVISIONS: A (1 OF 4)

SHORELINE EVALUATION

SEGMENT ST/ CU-15 SUBDIVISION A (1 OF 4) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. (224-20-13076, Ps, 2/90 and 224-20-13042, Ps, 2/90)

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

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

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

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.

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 29 m: No Oil 6467 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: Recommended treatment includes 1) manual removal of cleanup debris and oiled sediments in area indicated on sketch map. Work should be conducted after 6/1 and with approval of USFWS regarding eagle nest.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A** Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream 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 unrolled 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, 3O, 3Q** Harbor seal and sea lion pupping (5/15 to 7/1)
 Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R** Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S** Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2208
- 5T** All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U** Recreation: Tent sites (5/1 to 9/15)
6V Anchorages (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
 Deer harvesting (5/15 to 2/28)
 Invertebrate harvesting
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ CU-015 SUBDIVISION: A DATE 4/25/90

US NAME SCOTT RAINSEDER SIGNATURE Scott Rainseder MST1

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

ADEC NAME Lori J. Stratton SIGNATURE Lori J. Stratton

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

The surveyed segment consists of high angle bedrock shoreline. One location (see OG sketch), patches of pooled splashes and coat splashes were observed on rock channels and walls. Dark brown + dull black oil penetrate to 3 cm into gravel and average $\approx$ 30 cm diameter, over an area of approx. 0.3 m x 10 m. Oil category is very light.

An oiled pompon and oiled net could not be disentangled. They need to be picked up; See location on OG map. No other treatment is recommended.

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

A small patch of oil found at south entrance to Bay (mapped). Oil is between rocks and on vertical face. Some very light sheering in possible or water. Could be treated. Biologist enhancement crew is already in the area - but does not warrant sending a crew in for on its own. Continue National Cleaning.

REVISION NO. 000000

SHORELINE OILING SUMMARY

REVISION NO. 04/13/90

OG G. MACDONALD USCG S. RAINFORD SEGMENT ST/ CU-15
 BIO MA. SCOTT LAND REP L. KEPLER NFS SUBDIVISION A (1 OF 4)
 EXXON J. BUTLER ADEC LOBI STRATTON TIME 08:05:10:40
 TEAM NO. 3 TIDE LEVEL -3.5 to +4 FT DATE 4/25/90
 SUBDIVISION LENGTH: 16.450 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 LANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 95 % B 4 % C 1 % P 0 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long <1 % Hang 4 % Vert 95 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 10 m NO 11,340 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	N	S	E	W	1	2	3	4	SW	SE	NE	NW
ASPHALT PAVEMENT												
POOLED				X				X	X			
COVER												
COAT				X	X	X			X			
STAIN												
MOUSSE												
PATTIES												
TARBALLS												
OIL									X		X	X

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris	X		

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒

TYPE _____

#BAGS _____

Photographs:

Roll No. ST-2-3

Frames _____

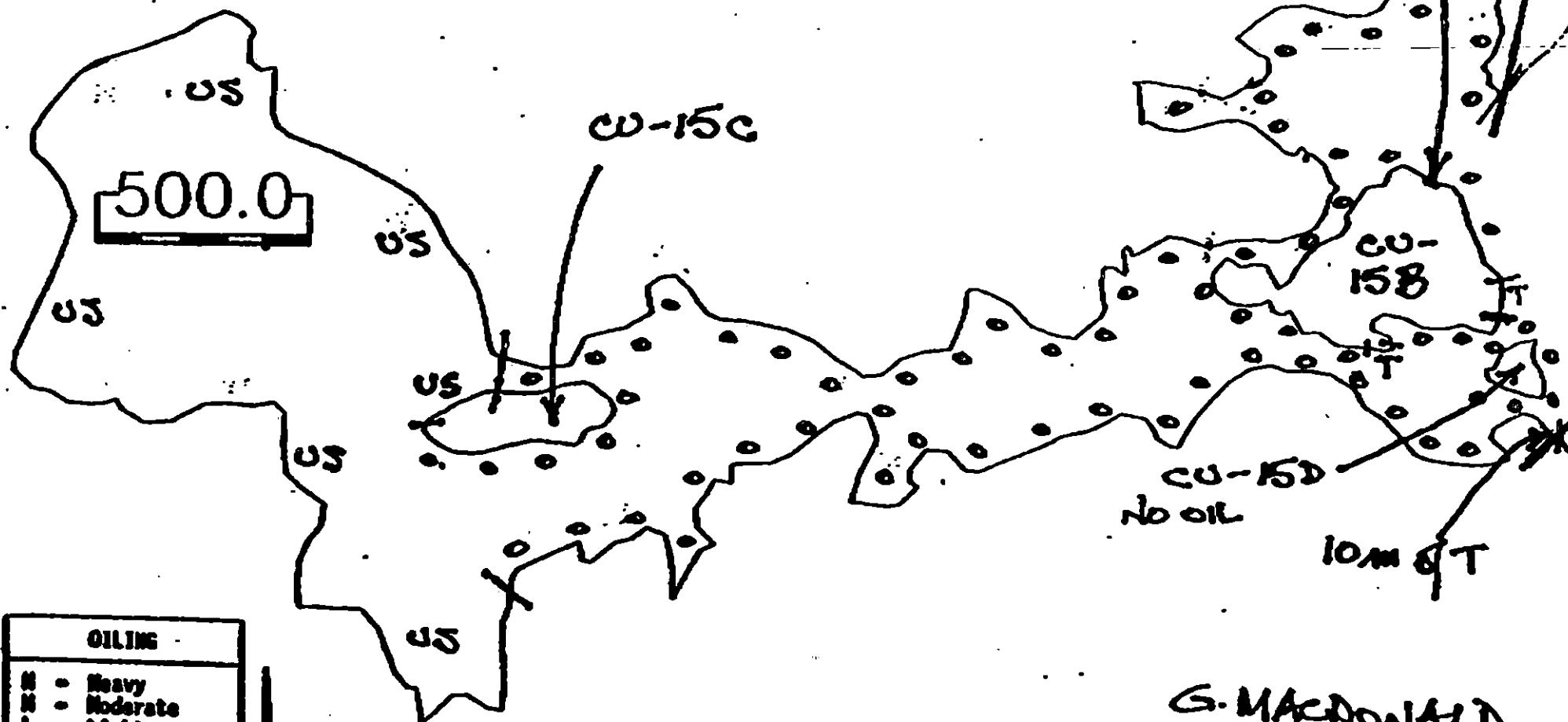
SUBSURFACE OIL Rock ONLY - NO SUITABLE SUBSTRATE FOR PITS.

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (%)	SURFACE - SUBSURFACE SEDIMENTS
		OF	OR	OL	OP	NO		UO	UO	1	2	3	4	5	SW	SE	NE	NW			

COMMENTS

Deep, sheltered bay w/ occasional muddy coves which are exposed at very low tide. The steep rock walls harbor a rich, diverse intertidal biota. Surface oil only @ a single location at the segment's south boundary ~ here, CT/S & PO/S has some oiled debris cover a 10m long rocky channel @ upper HITZ, <5% cover; PO ≤ 30 cm dia. REVIEWED 7/10 DATE 9/24/90

CU015 ~~15~~ A, B, C, D.



OILING	
H	Heavy
M	Moderate
L	Light
VL	Very Light
NI	None
US	Not Surveyed
Distance in Meters	

AMC Sep/Oct 1990 Survey

G. MACDONALD

4-25-90

Data Enter: _____

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST/CU-15 Subdivision A (B, C, & D)* Date (mo / day / yr) 4/3/90Time (24 hr) 745-1005 Biologist MA Scott(A) Substrate type and % of segments:
(1) Bedrock 95 (2) Boulder 4 (3) Cobble 1 (4) Pebble — (5) Sand — (6) Silt —(B) Overall % cover of biota (% of segment): Dense 80 Moderate 15 Low 5

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

Photographs:
Roll No. 57-3-3Frames 8

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			- few small beds, only, in outer (eastern) part of bay 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			(reproductive) 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: (observations mostly by boat)

6 golden eyes
1 geal
3 Canadian geese- very low tide (-3.5')
- western third of bay (west of cut-off) not accessible due to ice; patches of intertidal still covered by thin sheet of ice

Ecological Considerations:

extreme low tide exposed a lush, diverse intertidal community; high density and diversity in mid- & LTB with decreasing diversity in the inner bay (decrease in diversity occurs west of narrow neck in the mid-bay area); extensive ~~extensive~~ beds (low & subtidal) in small coves w/ mud bottom and in inner bay; Mytilus found only in low densities in outer (eastern) part of bay; no disturbance/mortality observed; diverse, well established rock/bed community; no barnacle spot observed, some near of town

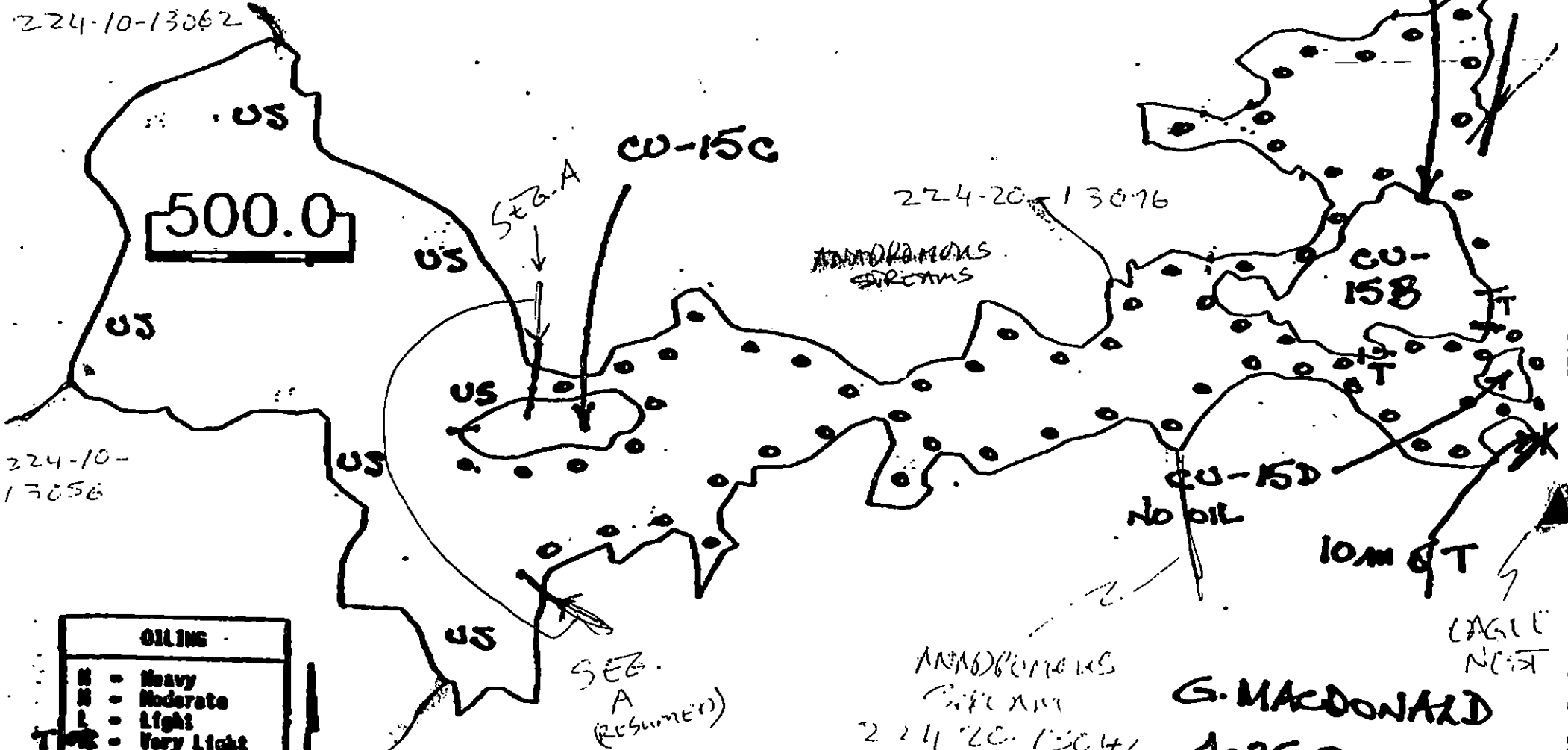
[* islands (subdivisions B, C, & D) similar to adjacent mainland coast (surveyed together)]

ECOLOGICAL MAP

CU015, B, C, D.

-15B; 20m dT

224-10-13062



OILING	
H	Heavy
M	Moderate
L	Light
VL	Very Light
N	None
US	Not Surveyed
Distance in Meters	

AMC Sep/Oct 2000 Survey

ANADROMOUS STREAMS

224-20-13042

G. MACDONALD

4.25.90

Data Enter: _____

ST/CU-15A

1d2

ICE
500.0
UNSURVEYED

ICE
(thick & white)

NOT SURVEYED

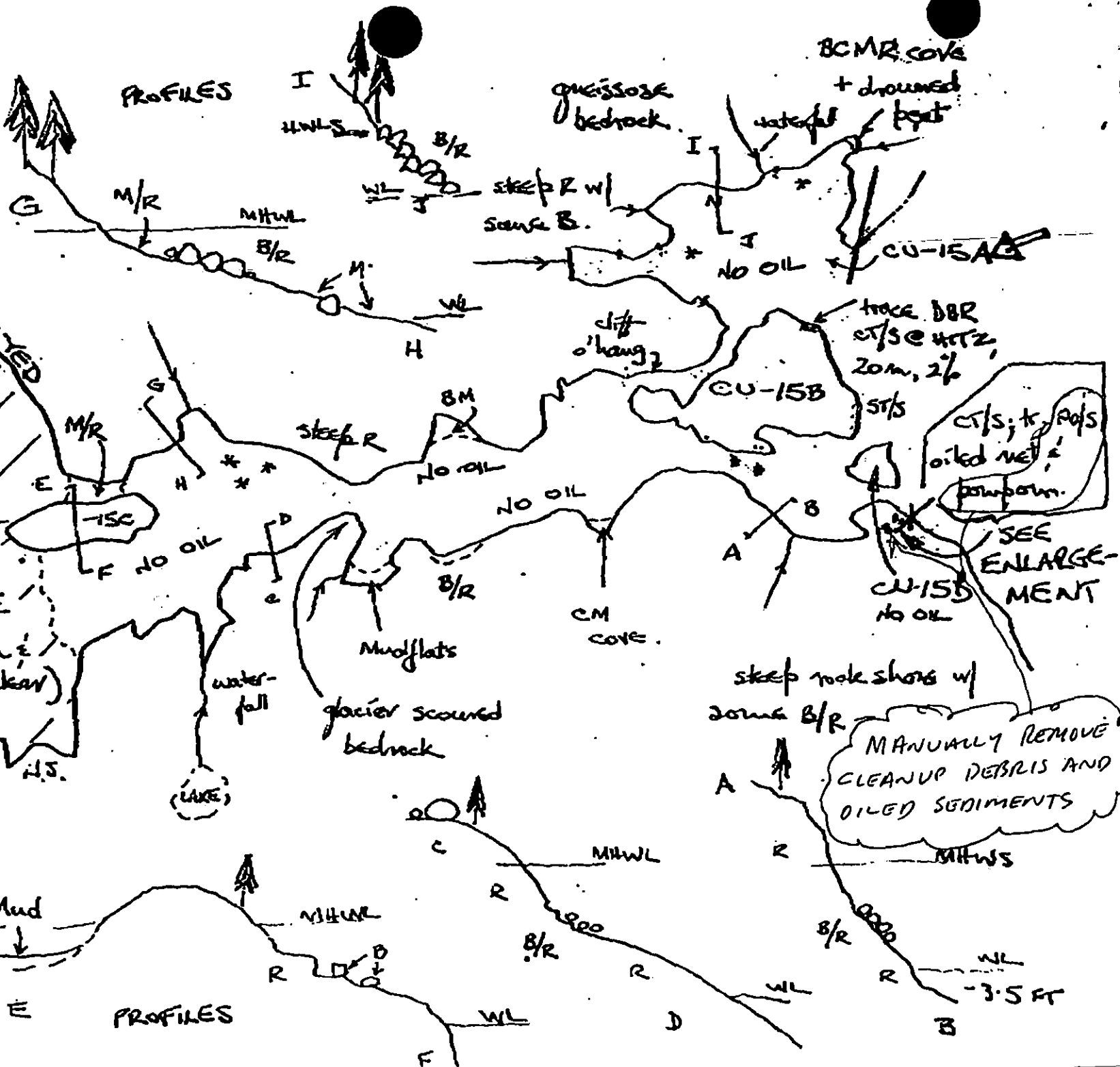
ICE
(thin & clear)

MAP BASE N
by ADEC.

G.M.
4.25.90

PROFILES

PROFILES



↑
PWS 73H

CU-15D
NO OIL

OILED NET &
POMPOM

ENLARGEMENT
of small scale map.

Sketch 2 of 2

DBR-DBL tax as
CT/s and trace PO/s
@ up. HITZ; on rock
channels & gap walls.

< 5% cover, $\leq 0.3m$ wide x $10m$
x $\leq 3cm$ penetration in
granules over bedrock;
PO/s patches $\leq 30cm$ dia

MANUALLY REMOVE
CLEANUP DEBRIS &
OILED SEDIMENTS

CU-14

CU-15A

VL 10m

NO 11,340m

US 5,100m

← PWS
73C

CU

3

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CU-15A/D

ADEC Segment Length: 17535m

0 100 200 300
METERS

Map Key: PWS-73d

Name: G.M.

Date: 4.25.90

Date Entered:

CU-16

CU-15B

CU-14

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CU-15

Approx. Segment Length: 19062m

0 300 600 900

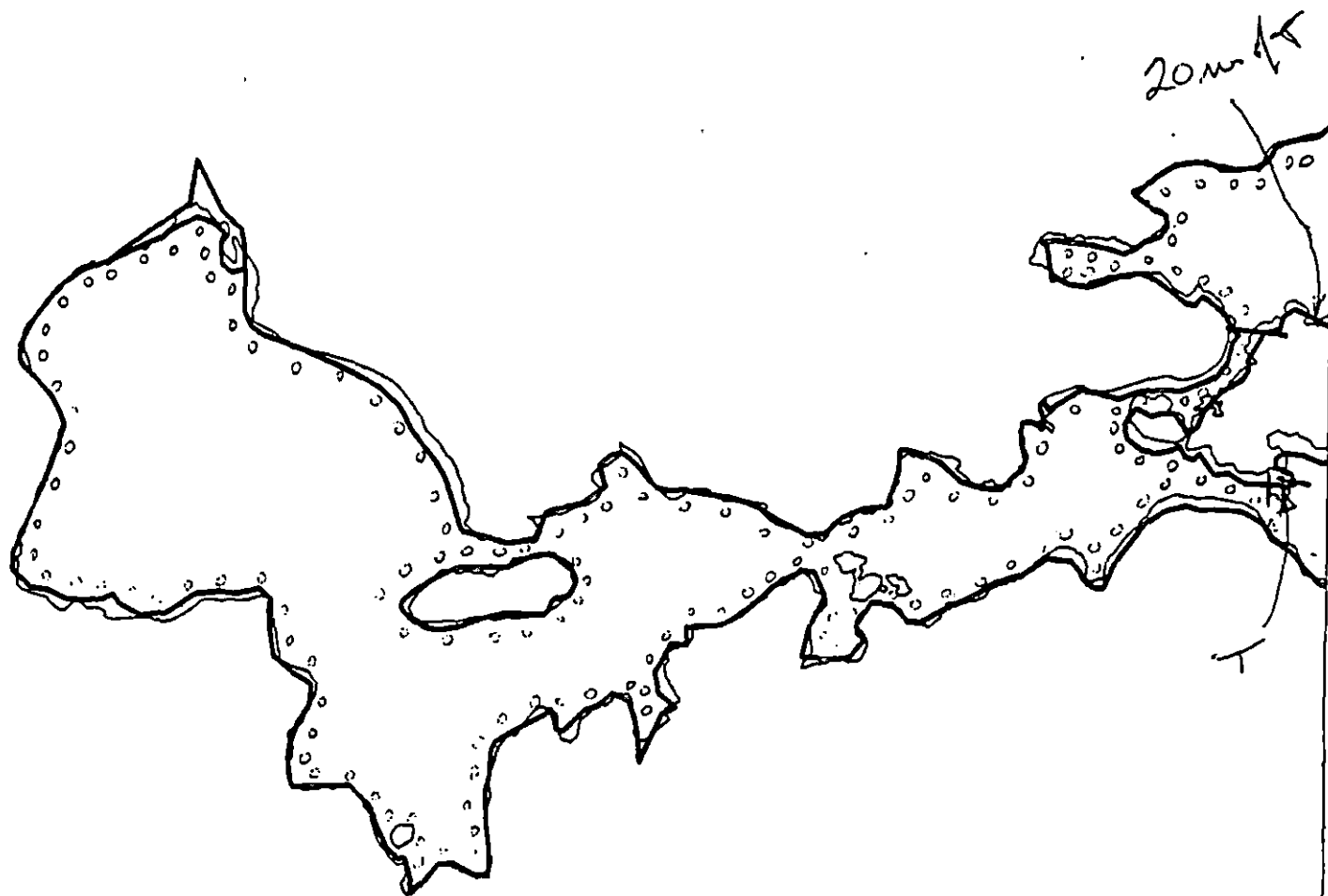
METERS

Map Key: PWS-CU-15b

Name: _____

Date: _____

Data Entered: _____



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CU-15

Approx. Segment Length: 19062m



Map Key: PWS-CU-15a

Name: _____

Date: _____

Data Entered: _____

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/CU-15

SUBDIVISIONS: B (2 OF 4)

SHORELINE EVALUATION

SEGMENT ST/ CU-15 SUBDIVISION B (2 OF 4) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
Eagle nest in adjacent segment.
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.

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 165 m: No Oil 1919 m
Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream 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 unrolled 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 (6/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31).
 Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 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)
 7H Finfish harvesting
 Deer harvesting (8/15 to 2/26)
 Invertebrate harvesting
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of 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 / CU-015 SUBDIVISION: B DATE 4-25-90

USCG SCOTT RAINSFORD SIGNATURE Scott Rainford MSTI

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

ADEC NAME Lori J. Stratton SIGNATURE Lori J. Stratton

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

The segment consisted of an island of high angle bedrock and boulders. On one beach, very light coat ^{of fuel oil} was splashed on boulders with a band 1/2 meter wide along a 20-meter length. Along vertical bedrock, a very light stain was splashed along a "drip line" at U.I.

No treatment is recommended due to insignificant oiling.

LAND MANAGER NAME U.S. Forest Service SIGNATURE Lee Taylor

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

Trace of oil on outside, vertical faces. Is not treatable.

No Treatment Recommended.

SHORELINE OILING SUMMARY

REVISION NO. 04/13/88

OG G. MACDONALD USCG S. RAINSFORD SEGMENT ST/ CU-15
 BIO MA. SCOTT LAND REP L. KEELED NPS SUBDIVISION B (2 OF 4)
 EXXON J. BUTLER ADEC LOBI STRATION TIME 10:07 to 10:30
 TEAM NO. 3 TIDE LEVEL +1 + +2 FT DATE 4 / 25 / 90
 EST. SUBDIVISION LENGTH: 2,500 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☐ Foot ☒ Boat ☐ Helo WORKING DIRECTION: _____ to _____
 SURFACE SEDIMENTS: R 85 % B 15 % C 0 % P 0 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 2 % Hang 20 % Vert 78 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 100 m NO 2,400 m

SURFACE OIL

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

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE 0#BAGS 0

Photographs:

Roll No. —Frames —

SUBSURFACE OIL NO SUITABLE SUBSTRATE FOR PITS.

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEER (Y/N)	↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	30	35	40	45	50	SU	U	M	U				

COMMENTS Steep rock island at the entrance to Hidden Bay.
 Trace of surface oil is CT/S & ST/S @ upper H.T.Z., < 10 cm.
 Width < 5% cover, on exposed east side of island.
 No subsurface oil.

REVIEWED 7w DATE 4/26/90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 12/22/88

Segment ST / CU-15 Subdivision A (B, C, + D)* Date (mo / day / yr) 7/25/90

Time (24 hr) 745-1005 Biologist MA Scott

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

(B) Overall % cover of biota (% of segment): Dense 80 Moderate 15 Low 5

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

Photographs:
Roll No. 57-3-3

Frames 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	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	- few small rocks, owl in outer (eastern) part of bay 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	(reproductive) 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: (observations made by boat)

6 golden eyes
1 gull
3 canadian geese
- very low tide (-3.5")
- western third of bay (west of CU-15C) not accessible due to ice; patches of intertidal shell covered by thin sheet of ice

Ecological Considerations:

extreme low tide exposed a lush, diverse intertidal community; high density and diversity in mid-bay with decreasing diversity in the inner bay (decrease in diversity occurs west of narrow neck in the mid-bay area); extensive ~~extensive~~ beds (low subtidal) in small coves w/ mud bottom and in inner bay; Mytilus found only in low densities in outer (eastern) part of bay; no disturbance/mortality observed; diverse, well established comm./bdr community; no barnacle spot observed on islands (subdivisions B, C, + D) similar to adjacent mainland coast (surveyed together)

ECOLOGICAL MAP

CU015 A, B, C, D.

-15B; 20m dT

224-10-13062

CU-15C

224-20-13076

ANADROMOUS
STREAMS

CU-15B

CU-15D

No OR

10m dT

CHALK
NEST

ANADROMOUS
STREAM

G. MACDONALD

224-20-13042

4-25-90

Date Enter: _____

224-10
13050

500.0

SCALE

- Heavy
- Moderate
- Light
- Very Light
- None
- Not Surveyed

Distance in Meters

ARC Sep/Oct 2000 Survey

ST/CU-15B

PROFILES

I

BCMR cove

+ drowned

port

gneissose
bedrock

waterfall

steep R w/
some B.

NO OIL

CU-15A

ICE
500.0

UNSURVEYED

ICE
(thick & white)

M/R

steep R

BM

NO OIL

CU-15B

trace DBR
CT/S @ 412
20m, 2 1/2
ST/S

CT/S; tr. Pds
oiled net &
pumpdown.

SEE
ENLARGE-
MENT

CU-15D
NO OIL

CM
COVE.

steep rock shore w/
some B/R -

Mudflats

glacier scoured
bedrock

waterfall

(LAKES)

Mud

MHWL

MHWL

MHWL

MHWS

R

R

B/R

WL

-3.5 FT

B

D

WL

C

R

E

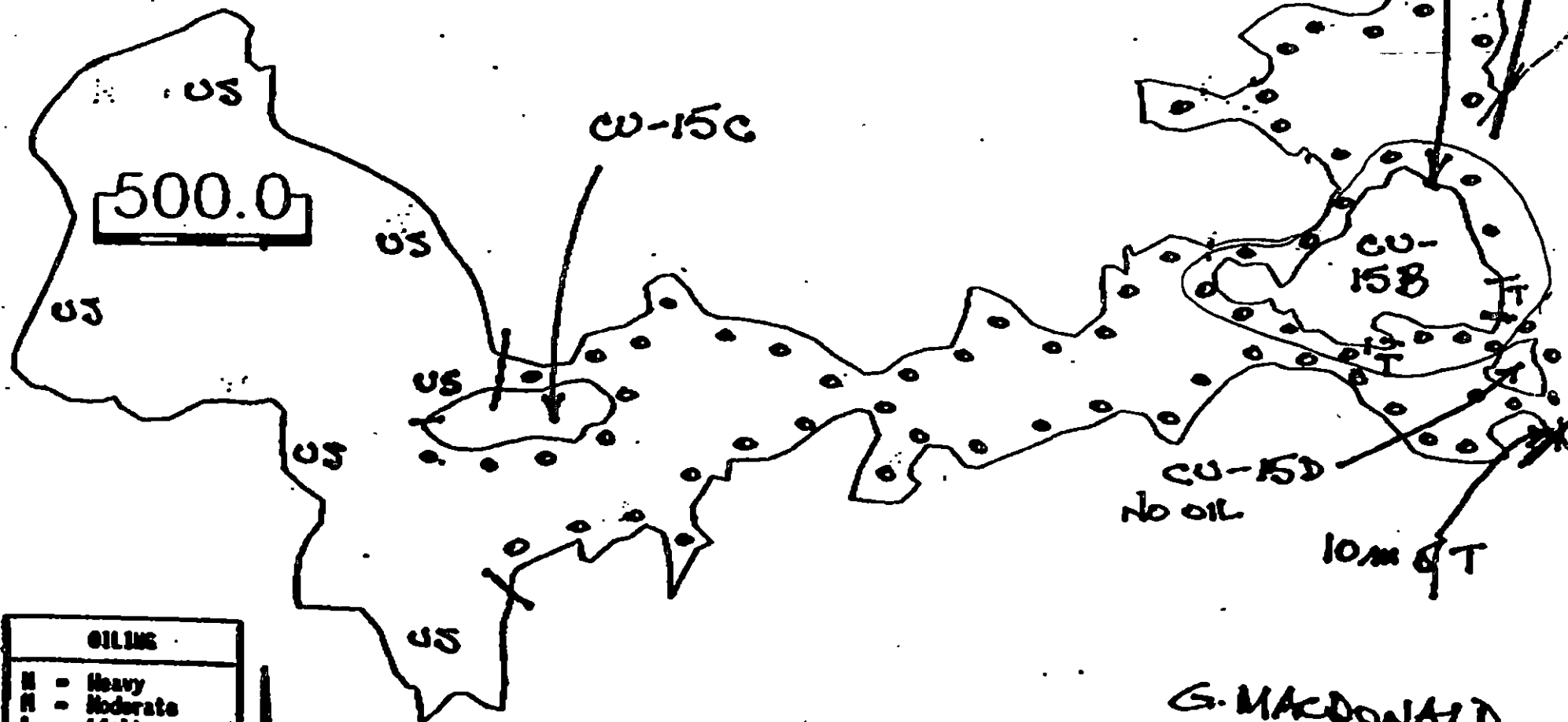
PROFILES

G.M.
4-25-90

NAP BASE N
& ADEC.

SI

CU015 ~~A~~ (B) C, D.



OILING	
H	Heavy
M	Moderate
L	Light
V	Very Light
N	None
US	Not Surveyed
Distance in Meters	

ARCC Sep/Oct 1990 Survey

G. MACDONALD
4-25-90

Data Entry: _____

CU-16

CU-15B

CU-14

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CU-15

Approx. Segment Length: 19062m

0 300 600 900
METERS

Map Key: PWS-CU-15b

Name: _____

Date: _____

Data Entered: _____



XXXX Wide

CU-15

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

Approx. Segment Length: 19062m



METERS

Map Key: PWS-CU-15a

Name: _____

Date: _____

Data Entered: _____

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/CU-15

SUBDIVISIONS: C (3 OF 4)

SHORELINE EVALUATION

SEGMENT ST/ CU-15 SUBDIVISION C (3 OF 4) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-1 All bald eagle nests (3/1 to 6/1) - Active eagle nests (3/1 to 9/1)
Eagle nest in adjacent segment.
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.

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 811 m
Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

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

No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream 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 unrolled 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, Harbor seal and sea lion pupping (5/15 to 7/1)

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

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

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

ADF&G Don Calkins 267-2403

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

ADF&G Tom Roth 267-2206

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

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

6U Recreation:

Tent sites (8/1 to 9/15)

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

6W Forest Service cabins (8/1 to 9/15)

6X Lodge (8/1 to 9/15)

6Y Special use destination

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

Finfish harvesting

Deer harvesting (8/15 to 2/28)

Invertebrate harvesting

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

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ CU-015 SUBDIVISION: C DATE 4/25/90

IS SCOTT RAINSTOCK SIGNATURE Scott Rainstock MSTI

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADDEC Lori J. Stratton SIGNATURE Lori J. Stratton

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Due to ice on the water, 15% of the segment could not be surveyed. The island was high angle bedrock.

No oil was observed.

No treatment recommended due to no oil presents.

AND MANAGER Theresa Kuler SIGNATURE Theresa Kuler

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

No oil

No Treatment Recommended

SHORELINE OILING SUMMARY

REVISION NO. 04/12/90

OG G. Macdonald USCG S. Rainford SEGMENT ST/ CU-15
 BIO MA. Scott LAND REP L. Keefer NFs SUBDIVISION C (3 OF 4)
 EXXON J. Butler ADEC LORI STRATTON TIME 08:46:00 50
 TAM NO. 3 TIDE LEVEL 0 - 0 DATE 4 / 25 / 90
 ST. SUBDIVISION LENGTH: 1100 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☐ Foot ☒ Boat ☐ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 70 % B 3 % C 2 % P 10 % G 10 % S 0 % M 5 % V 0 %
 SLOPE: Long 15 % Hang 10 % Vert 75 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 935 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												
STAIN												
MOUSSE												
PATTIES												
TARBALLS												
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			DID YOU COLLECT DEBRIS?
	SM	MD	LG	
Logs				YES ☐ NO ☒
Vegetation				
Trash				
Debris				
				TYPE <u>Q</u>
				#BAGS <u>0</u>

Photographs:

Roll No. —

Frames —

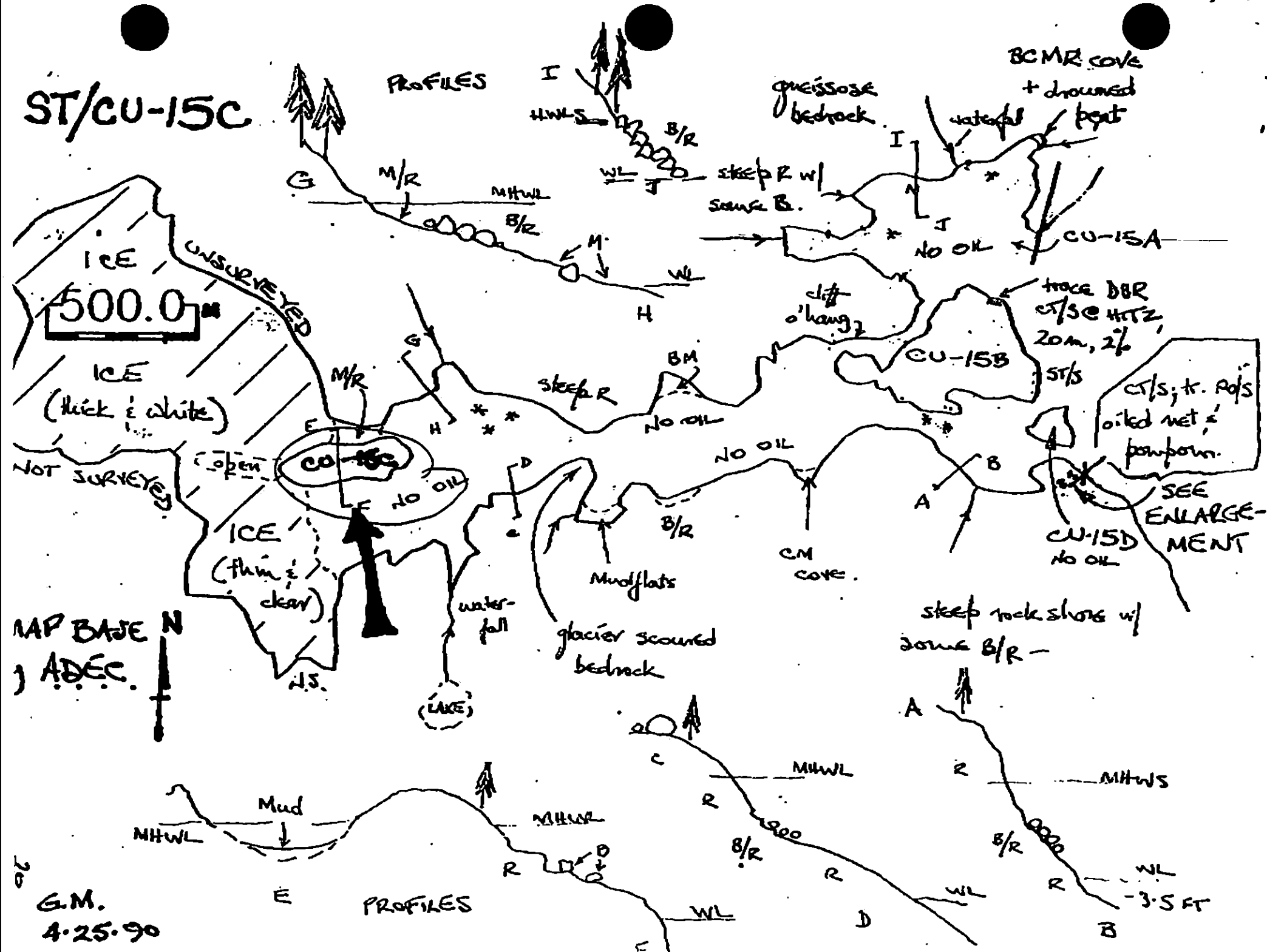
SUBSURFACE OIL NO PITS — ROCK SHORE

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

COMMENTS Small isle in Hidden Bay, with shore bound ice @ west end. No oil here, nor within 1 mile radius.

REVIEWED /w DATE 4/24/90

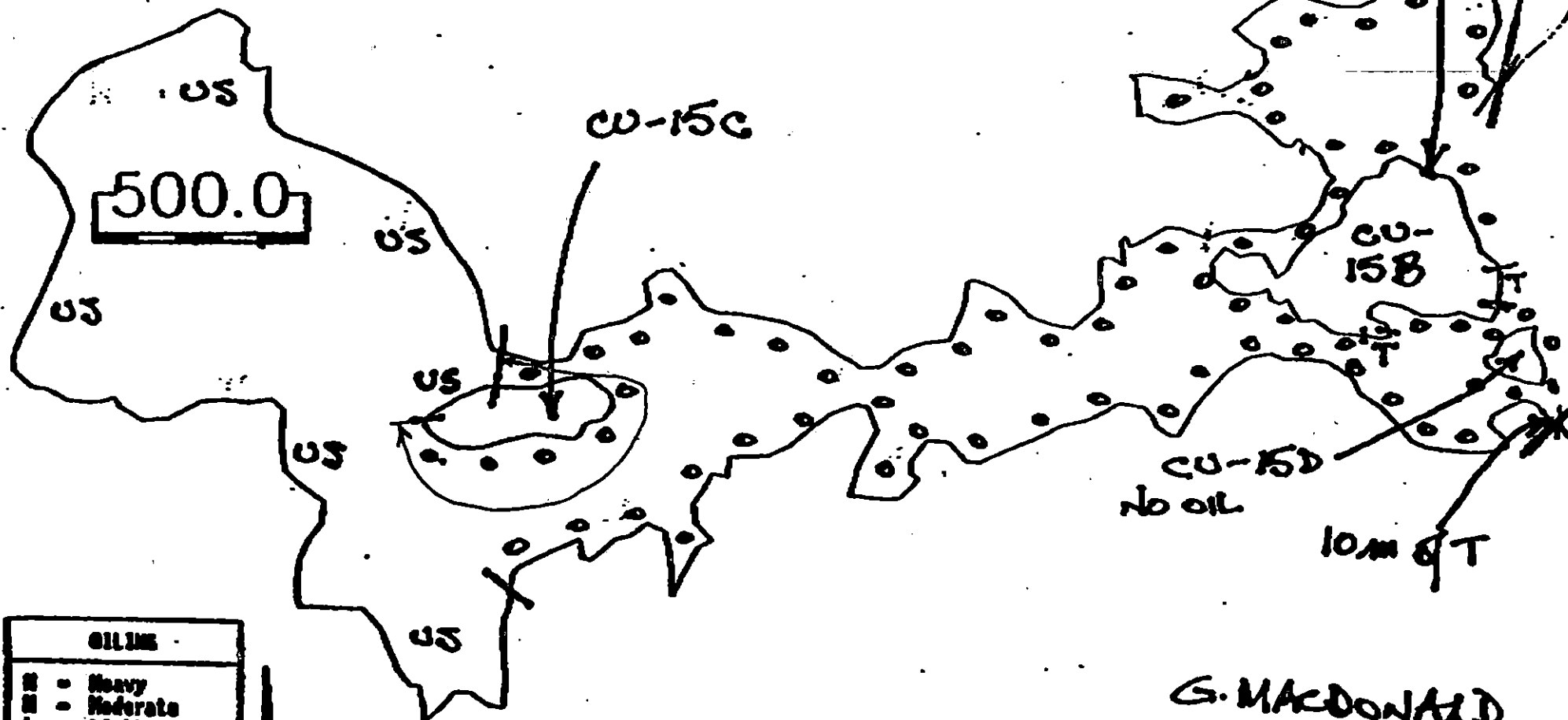
ST/CU-15C



G.M.
4.25.90

CU015 ~~A~~, B, (C) D.

-15B; 20m dT



OILLINE	
H	Heavy
M	Moderate
L	Light
VL	Very Light
NS	None
US	Not Surveyed
Distance in Meters	

NOCC Sep/Oct 1990 Survey

G. MACDONALD

4.25.90

Data Enter: _____

REVISION: 02/2008

Time (24 hr) 745-1005 Biologist in A Scott

- Photographs:
Roll No. 57-3-3
Frames 8

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

NOT PRESENT

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

- few small birds, only in outer (western) part of bay
NOT PRESENT

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

NOT PRESENT

Dense			Moderate			Sparse			Rare			(reproductive)
1U	1M	1L	79	78	1L	1U	1M	1L	1U	1M	76	
2	2	2	3	3	2	2	2	2	2	2	3	
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

NOT PRESENT

6 golden eyes
1 teal
3 canadian geese

extreme low tide exposed a lush, diverse intertidal community; high density and diversity in mid- & LTB with decreasing diversity in the inner bay (decrease in diversity occurs west of narrow neck in the mid-bay area); extensive ~~extensive~~ extensive beds (low & subtidal) in small coves w/ mud bottom and in inner bay; Mytilus found only in low densities in outer (eastern) part of bay; no disturbance/mortality observed; diverse, well established rock/bdr community; no barnacle spot observed, ^{seen near of small} islands (subdivisions B, C, & D) similar to adjacent mainland coast (surveyed together)

ECOLOGICAL MAP

CU015 A, B, C, D.

-15B; 20m dT

224-10-13062

500.0

CU-15C

224-20-13076

ANADROMOUS
STREAMS

CU-15B

CU-15D

No OR

10m dT

ANADROMOUS
STREAM

224-20-13042

G. MACDONALD

4-25-90

Data Enter: _____

224-10-13050

SCALE	
■	Heavy
■	Moderate
■	Light
■	Very Light
■	None
US	Not Surveyed
Distance in Meters	

NEC Sep/Oct 2000 Survey

CU-16

CU-15B

CU-14

XXXX Wide

CU-15

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

Approx. Segment Length: 19062m

0 300 600 900

METERS

Map Key: PWS-CU-15b

Name: _____

Date: _____

Data Entered: _____



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CU-15

Approx. Segment Length: 19062m



Map Key: PWS-CU-15a

Name: _____

Date: _____

Data Entered: _____

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/CU-15

SUBDIVISIONS: D (4 OF 4)

SHORELINE EVALUATION

SEGMENT ST/ CU-15 SUBDIVISION D (4 OF 4) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
Eagle nest in adjacent segment.
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.

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 470 m
Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- ✓ 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inpol application, prior to at least July 1 unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G Habitat Division prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G John Morison 267-2324
- 1C Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inpol application, prior to July 31 unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Esther Hatchery release (4/15 to 6/15)
 1E Main Bay Hatchery release (4/20 to 6/15)
 1F Sawmill Bay Hatchery release (4/15 to 6/1)
 1G Cannery Creek Hatchery release (4/21 to 6/1)
 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inpol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G or PWS Aquaculture Association for confirmation and authorization.
 AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
 1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I Gill net area (8/7 to 8/31)
 1J Purse seine area (7/20 to 9/30)
 1K Purse seine hook-off (7/20 to 9/30)
 1L Set net sites (8/11 to 7/25)
 Contact ADF&G for specific dates, locations and constraints. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inpol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G James Brady 424-3212
- 2M Herring spawning (4/1 to 6/15)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unrolled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inpol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Evelyn Biggs 424-3235
- 3N 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 Inpol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2206
- ✓ 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (8/1 to 9/15)
 6V Anchorages (8/1 to 9/15)
 6W Forest Service cabins (8/1 to 9/15)
 6X Lodge (8/1 to 9/15)
 ✓ 6Y Special use destination
- 7Z Subistence 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 Inpol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2356

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ CW-015 SUBDIVISION: D DATE 4/25/90U.S. NAME SCOTT RAINSFORD SIGNATURE Scott Rainsford☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDADEC NAME Lori J. Stratton SIGNATURE Lori J. Stratton☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

No oil was observed on this high angle bedrock/boulder segment. Therefore, no treatment is recommended.

LAND MANAGER NAME U.S. Forest Service SIGNATURE Des Taylor☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

No oil
No treatment needed.

SHORELINE OILING SUMMARY

REVISION NO. 04/12/90

OG G. MACDONALD USCG S. RAINSFORD SEGMENT ST/ CU-15
 BIO MA. JSCOTT LAND REP L. KEELER NPS SUBDIVISION D (4 OF 4)
 EXXON J. BUTLER ADEC LODI SITUATION TIME 10:35 to 10:40
 TAM NO. 3 TIDE LEVEL +2 to +4 DATE 4 / 25 / 90
 ST. SUBDIVISION LENGTH: 600 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 100% B 0% C 0% P 0% G 0% S 0% M 0% V 0%
 SLOPE: Long — % Hang — % Vert 100% WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 600 m

SURFACE OIL

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

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE 0#BAGS 0

Photographs:

Roll No. —Frames —

SUBSURFACE OIL All Rock - NO PTS.

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

COMMENTS

Small rock island guarding the entrance to Hidden Bay. No oil present this survey.

REVIEWED 7WDATE 4/26/90

26

SHORELINE ECOLOGICAL SUMMARY

REVISION: 12/22/80

Segment ST/CU-15 Subdivision A(B, C, + D)* Date (mo / day / yr) 4/25/90

Time (24 hr) 745-1005 Biologist M. A. Scott

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

(B) Overall % cover of biota (% of segment): Dense 80 Moderate 15 Low 5

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

Photographs:
Roll No. 57-3-3

Frames 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

- few small "beds", only in outer (eastern) part of bay
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

(reproductive)

NOT PRESENT

Wildlife Observations/ General Comments: (observations mainly by boat)

6 golden eyes
1 geal
3 Canadian geese
- very low tide (-3.5')
- western third of bay (west of CU-15C) not accessible due to ice; patches of intertidal still covered by thin sheet of ice

Ecological Considerations:

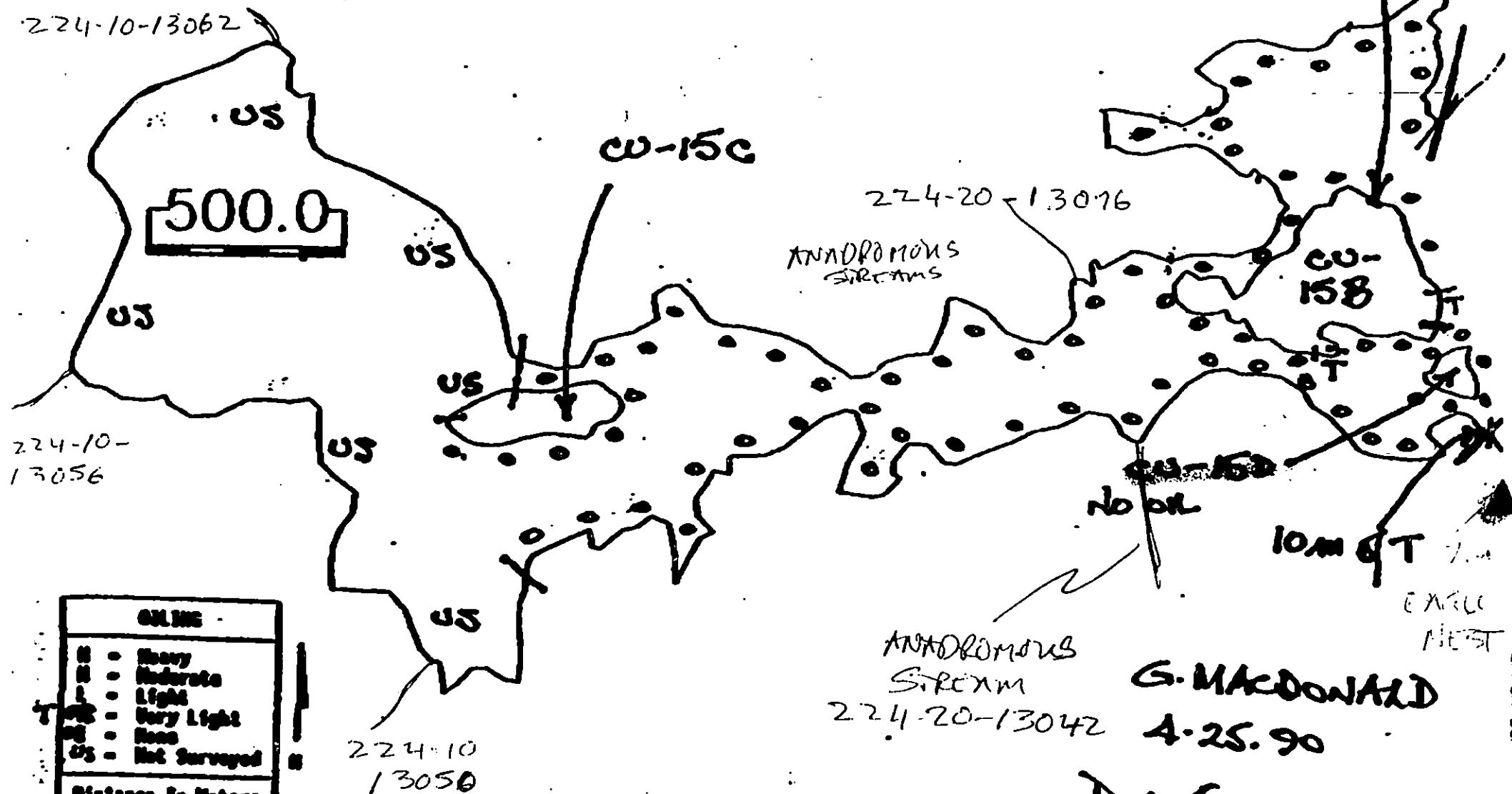
extreme low tide exposed a lush, diverse intertidal community; high density and diversity in mid- & LTB with decreasing diversity in the inner bay (decrease in diversity occurs west of narrow neck in the mid-bay area); extensive *Enteromorpha* beds (low subtidal) in small coves w/ mud bottom and in inner bay; *Mytilus* found only in low densities in outer (eastern) part of bay; no disturbance/mortality observed; diverse, well established comm/bldr community; no barnacle spot observed, some new growth.
* islands (subdivisions B, C, + D) similar to adjacent mainland coast (surveyed together)

ECHOLOGICAL MAP

CU015 A, B, C, D.

-15B; 20m dT

224-10-13062



ONLINE	
H	Heavy
M	Moderate
L	Light
VL	Very Light
N	None
US	Not Surveyed
Distance in Meters	

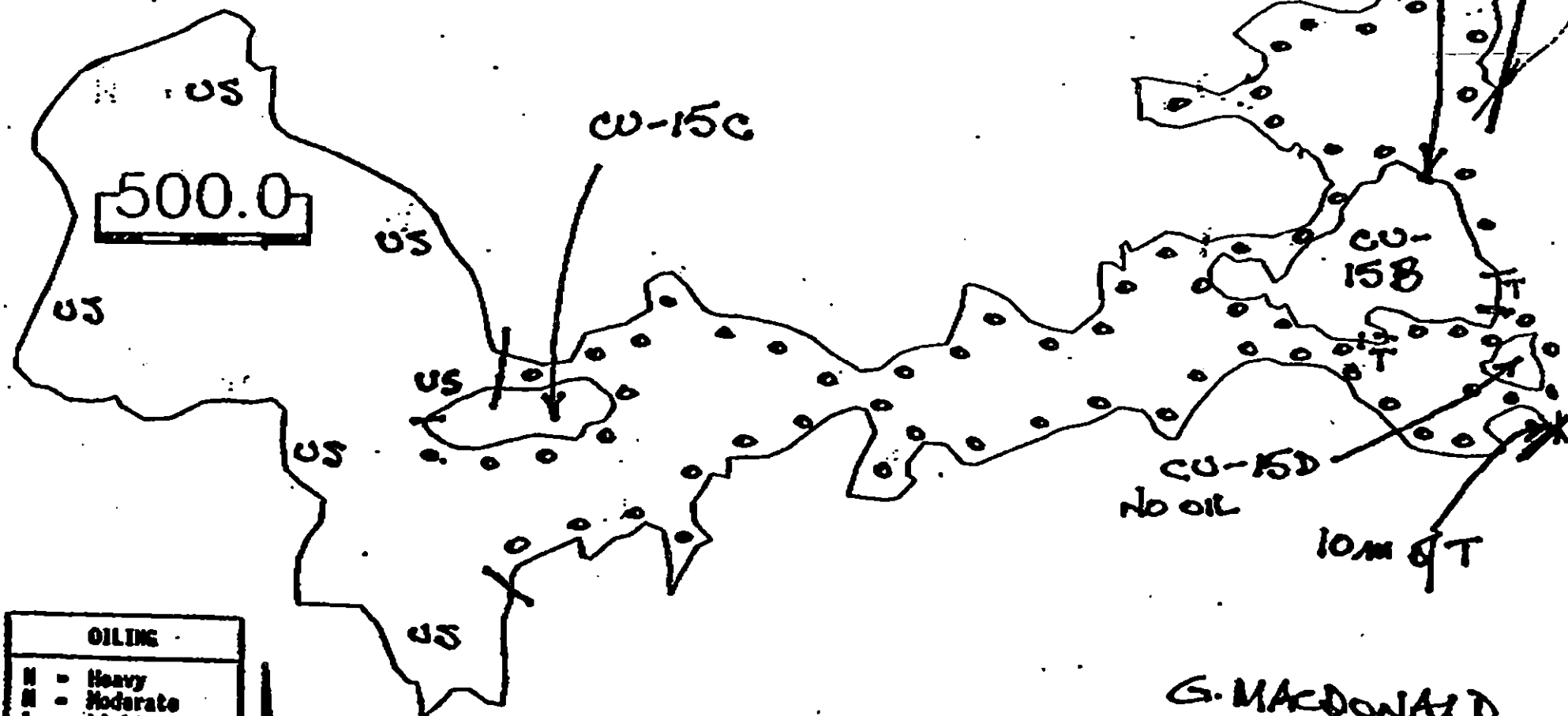
ARC Sep/Oct 2000 Survey

G. MACDONALD

4-25-90

Data Enter: _____

CU015 ~~A~~, B, C (D)



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

AMC Sep/Oct 1988 Survey

G. MACDONALD
4.25.90

Data Enter: _____



XXXX Wide

CU-15

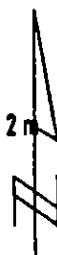
/// Medium

--- Narrow

Approx. Segment Length: 19062m

TTTT Very Light

0000 No Oil



Map Key: PWS-CU-15a

Name: _____

Date: _____

Data Entered: _____

CU-16

CU-15B

CU-14

XXXX Wide

CU-15

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

Approx. Segment Length: 19062m

0 300 600 900

METERS

Map Key: PWS-CU-15b

Name: _____

Date: _____

Data Entered: _____

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT CU-15 SUBDIVISION A (1 of 4)

WORK WINDOW

Manual Pickup

OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

Two anadromous streams (224-20-13042 and 224-20-13036) are in Subdivision A. No constraint to manual pickup.

1K Purse Seine Hook-off

No constraint to manual pickup.

5T Bald Eagle Nest

No constraint to manual pickup.

OTHER ECOLOGICAL CONSIDERATIONS

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

TAG APPROVAL DATE

ADEC Ran Morris RCB

EXXON ANDY TEAL W. Kelly

NOAA _____

USCG _____

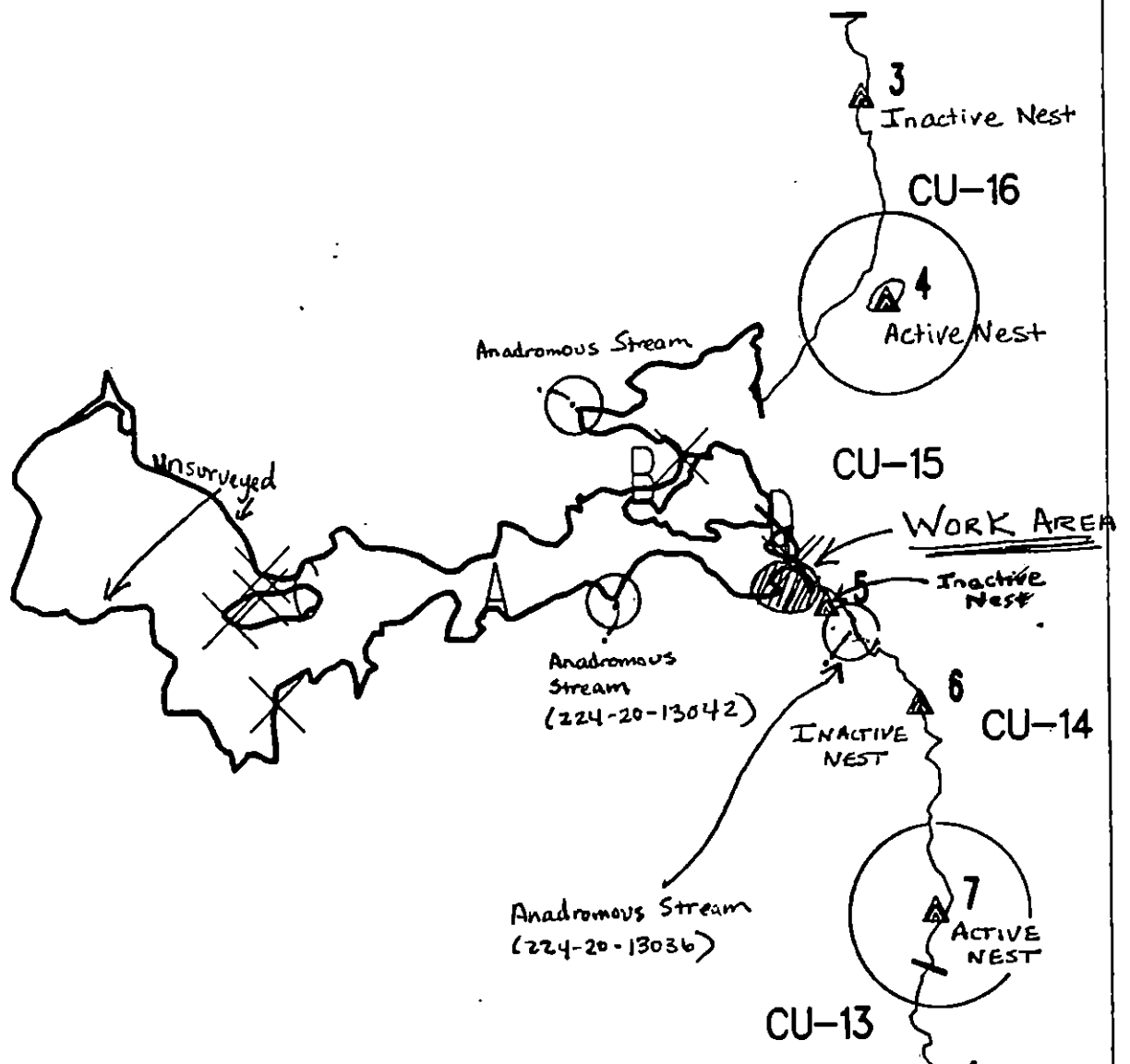
FOSC _____

DATE 8 June 90

Prepared By: Andy Teal RP

Date 6/6/90

Incorporates USFWS data
from survey of bald
eagle nest map (6/1/90)



Exxon Company, USA
Map Key: PWS-CU-15



ECOLOGY MAP
SEGMENT CU-15
SUBDIVISION A (1 of 4)
METERS

★ Seabird Colony
▲ Eagle Nest

SHORELINE EVALUATION

SEGMENT ST/ CU-15 SUBDIVISION A (1 OF 4) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. (224-20-13076, Ps, 2/90 and 224-20-13042, Ps, 2/90)

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

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

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

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.

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Charles J. H. Jones DATE: 5/5/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 29 m: No Oil 6467 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual removal of cleanup debris and oiled sediments in area indicated on sketch map. Work should be conducted after 6/1 and with approval of USFWS regarding eagle nest.
See ADDENDUM dated 6/6/90 VPP

TAG COMMENTS:

TAG APPROVAL DATE: May 5, 1990

ADEC Art Weaver D. Williams

EXXON Mark N. Wheat Mark N. Silbert

NOAA Gary Petros Gary Petros

USCG G.A. REITER G.A. Reiter

FOSC: my L DATE: 5-15-90

NOTIFY CUE 24 HRS PRIOR TO WORK.

SHORELINE EVALUATION

SEGMENT ST/ CU-15 SUBDIVISION A (1 OF 4) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. (224-20-13076, Ps, 2/90 and 224-20-13042, Ps, 2/90)

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

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

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

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.

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Charles J. H. Jones DATE: 5/5/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 29 m: No Oil 6467 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

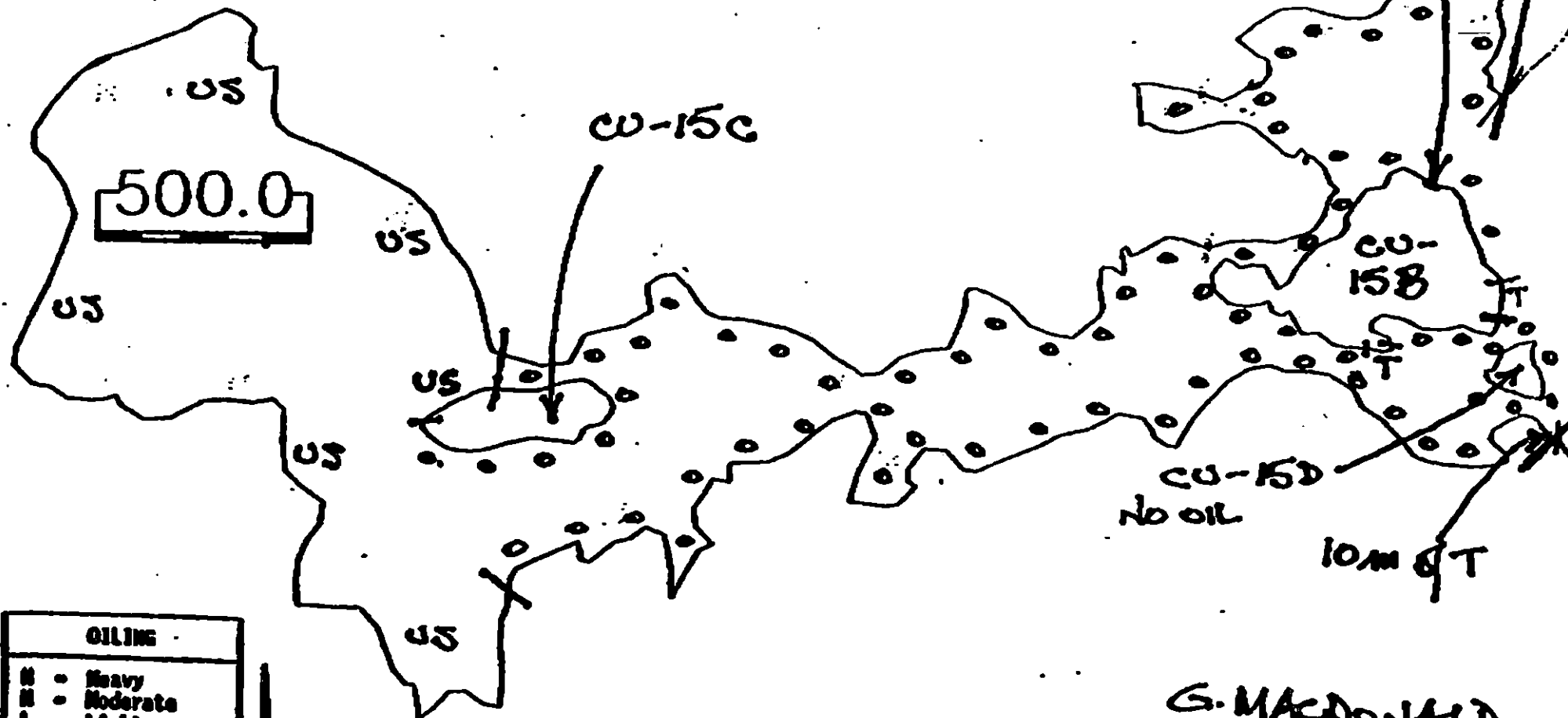
COMMENTS: Recommended treatment includes 1) manual removal of cleanup debris and oiled sediments in area indicated on sketch map. Work should be conducted after 6/1 and with approval of USFWS regarding eagle nest.

TAG COMMENTS:

TAG APPROVAL DATE: May 5, 1990
ADEC Art Weaver DATE: 5-15-90
EXXON Mark N. Silbert FOSC: my L
NOAA Gary Petros
USCG G.A. REITER NOTICE CUE 24 HRS PRIOR TO WORK.

CU015 ~~15A~~ A, B, C, D.

-15B; 20m dT



OILING	
H	Heavy
M	Moderate
L	Light
VL	Very Light
ND	None
US	Not Surveyed
Distance in Meters	

AMC Sep/Oct 2000 Survey

G. MACDONALD

4-25-90

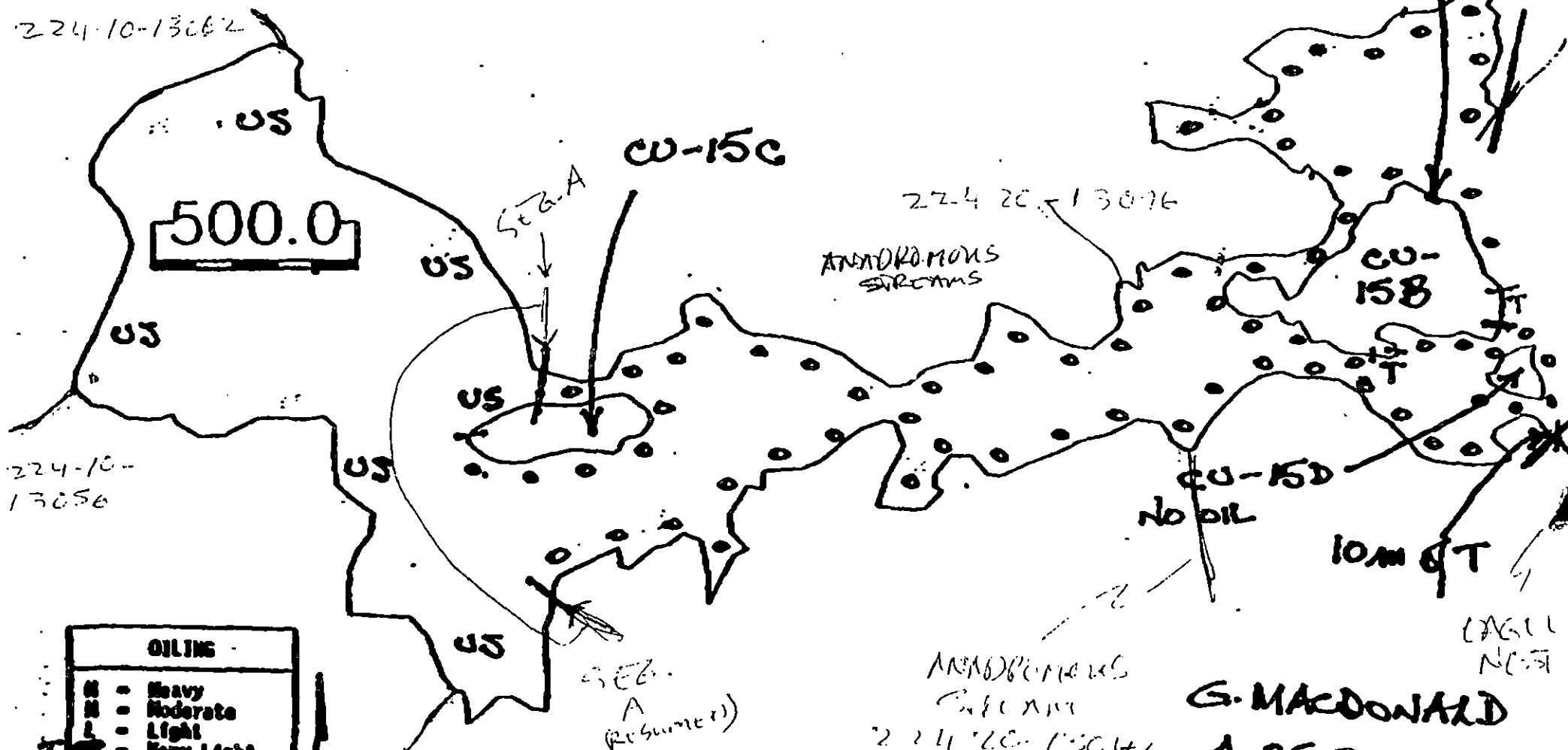
Data Enter: _____

ECOLOGICAL MAP

CU015 A, B, C, D.

-15B; 20m dT

224-10-13062



224-10-13056

OILING	
H	Heavy
M	Moderate
L	Light
LL	Very Light
NS	None
US	Not Surveyed
Distance in Meters	

ABEC Sep/Oct 2000 Survey

ANADROMOUS STREAMS

224-20-13076

NO OIL

10m dT

ANADROMOUS STREAMS

224-20-13046

G. MACDONALD

4-25-90

Data Enter: _____

ST/CU-15A
142

PROFILES

I

HWLS

B/R

gneissose
bedrock

BCMR cove
+ drowned
port

waterfall

steep R w/
some B.

NO OIL

CU-15A

UNSURVEYED

ICE
500.0m

ICE
(thick & white)

NOT SURVEYED

ICE
(thin & clear)

MAP BASE N
by ADEC.

M/R

ISC

NO OIL

H.S.

F

(LAKE)

waterfall

steep R

NO OIL

NO OIL

B/R

Mudflats

glacier scoured
bedrock

CM
cove.

steep rock shore w/
some B/R

MANUALLY REMOVE
CLEANUP DEBRIS AND
OILED SEDIMENTS

CU-15B
No OIL

SEE
ENLARGE-
MENT

CT/S; tr, P/S
oiled net &
pumpdown.

trace DBR
CT/SC H/TZ,
20m, 2 1/2
ST/S

A

R

R

B/R

B

B

WL

-3.5 FT

G.M.
4.25.90

PROFILES

E

R

MHWL

WL

B/R

R

C

tree

tree

N

MHWL

Mud

tree

↑
PWS 73H

ENRICH SURF P. 24

CU-15D
NO OILOILED NET &
POMPOMENLARGEMENT
of small scale map.

Sketch 2 of 2

DBR-DBL tax as
CT/s and trace PO/s
@ up. HITZ; on rock
channels & gap walls.

< 5% cover, $\leq 0.3m$ wide $\times 10m$
 $\times \leq 3cm$ penetration in
granulats over bedrock;
PO/s patches $\leq 30cm$ dia

MANUALLY REMOVE
CLEANUP DEBRIS &
OILED SEDIMENTS

CU-14

CU-15A

VL 10m

No 11,340m

US 5,100m

← PWS
73C

CU

3

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CU-15A/D

ADEC Segment Length: 17535m

0 100 200 300
METERS

Map Key: PWS-73d

Name: G.M.

Date: 4.25.90

Data Entered:

CU-16

CU-15B

CU-14

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CU-15

Approx. Segment Length: 19062m

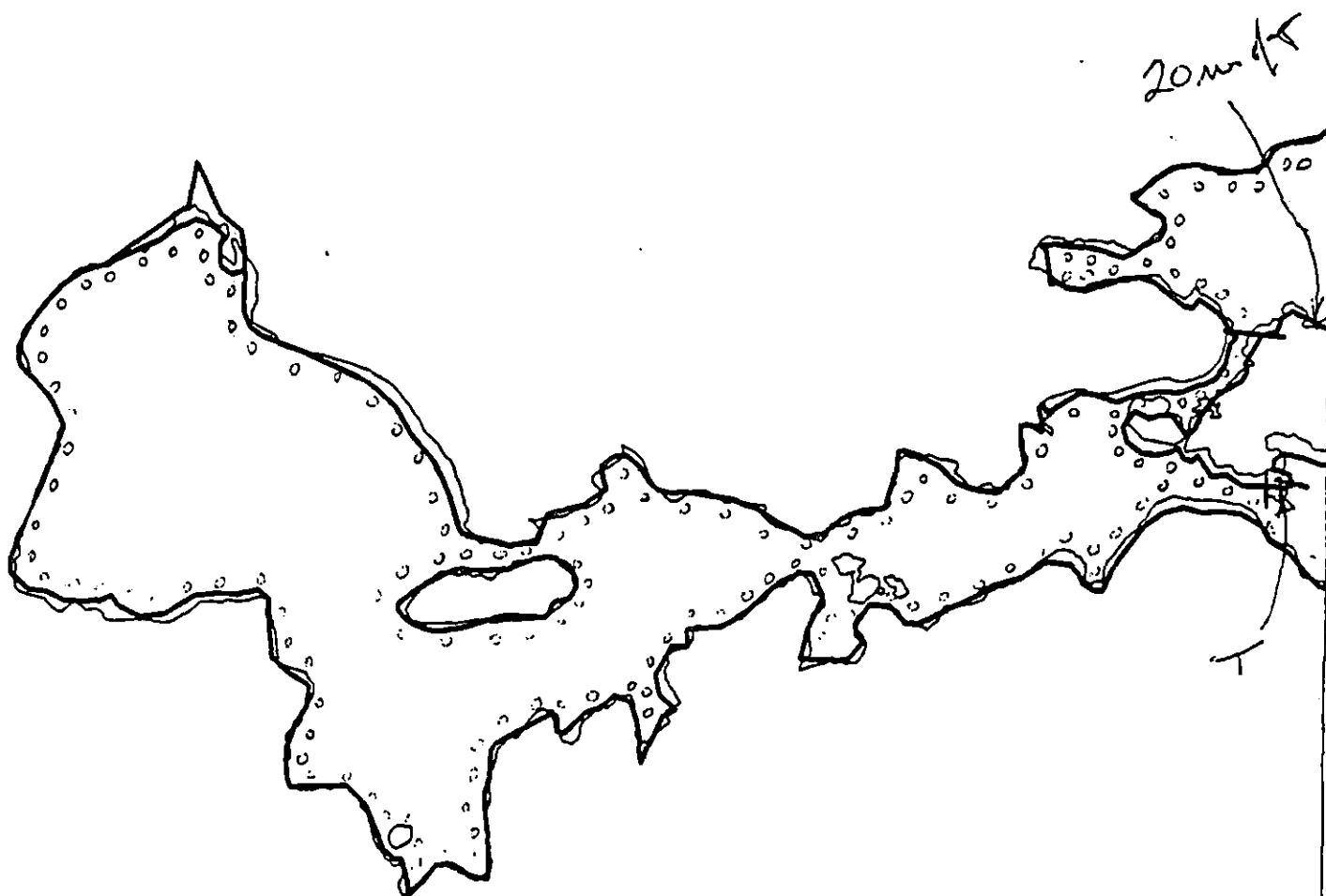
0 300 600 900
METERS

Map Key: PWS-CU-15b

Name: _____

Date: _____

Data Entered: _____



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CU-15

Approx. Segment Length: 19062m



Map Key: PWS-CU-15a

Name: _____

Date: _____

Data Entered: _____

SHORELINE EVALUATION

SEGMENT ST/ CU-15 SUBDIVISION B (2 OF 4) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-1 All bald eagle nests (3/1 to 6/1) - Active eagle nests (3/1 to 9/1)
Eagle nest in adjacent segment.
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.

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: Charles E. H. [Signature] DATE: 5/5/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V. Light 165 m: No Oil 1919 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 Art Weiner

EXXON Mark N. Silbert Mark N. Silbert

NOAA Gary Petras Gary Petras

USCG G.A. KEITZ G.A. Keitz

FOSC: W L

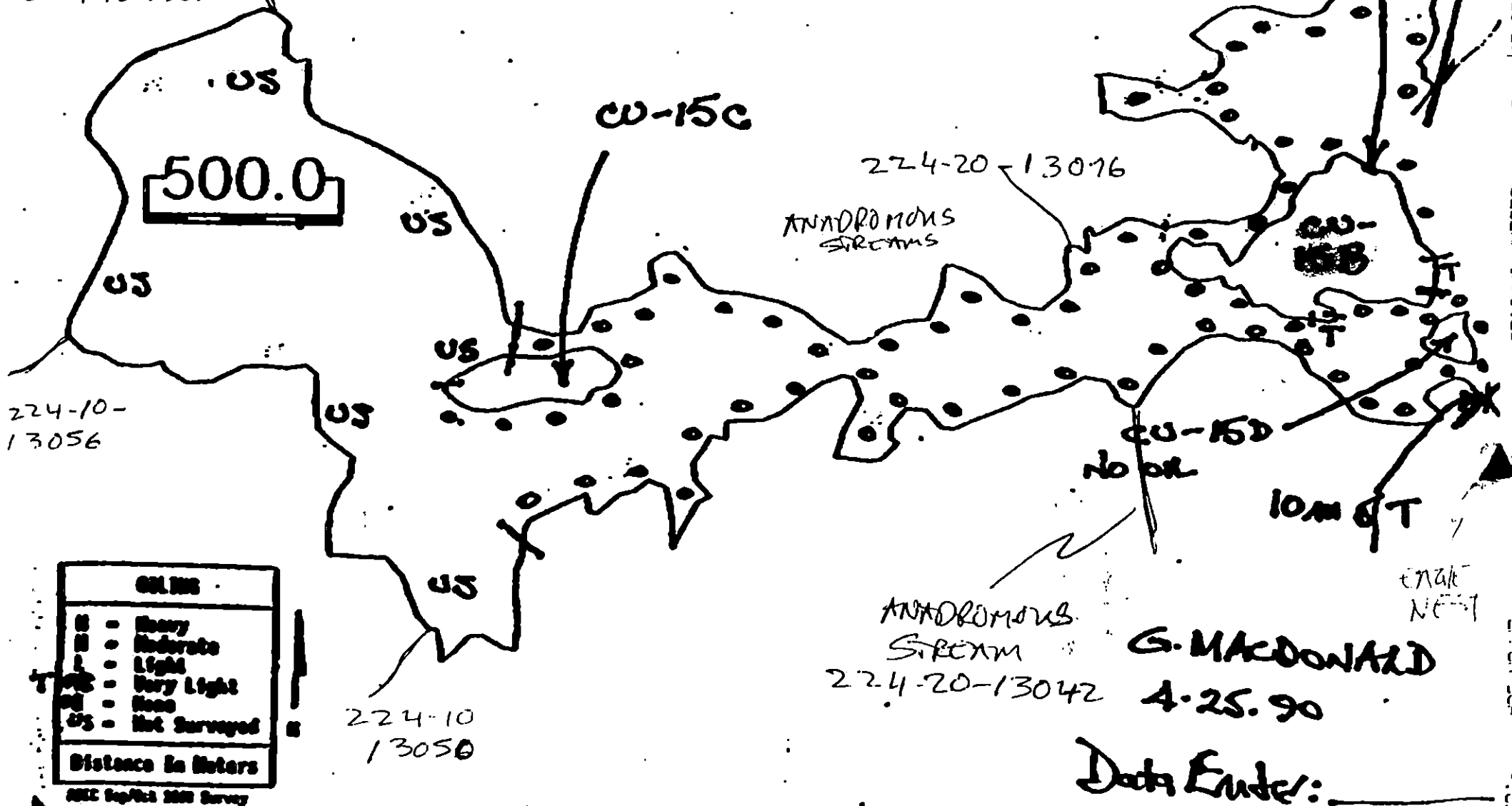
DATE: 5-15-90

ECOLOGICAL MAP

CU015 A, B, C, D.

-15B; 20m dT

224-10-13062



ST/CU-15B

PROFILES

I

UNWS

B/R

gneissose
bedrock

BCMR cove
+ drowned
port

waterfall

steep R w/
some B.

NO OIL

CU-15A

ICE
500.0

UNSURVEYED

ICE
(thick & white)

NOT SURVEYED

ICE
(thin & clear)

MAP BASE N
y ADEC.

M/R

G

H

*

*

steep R

BM

NO OIL

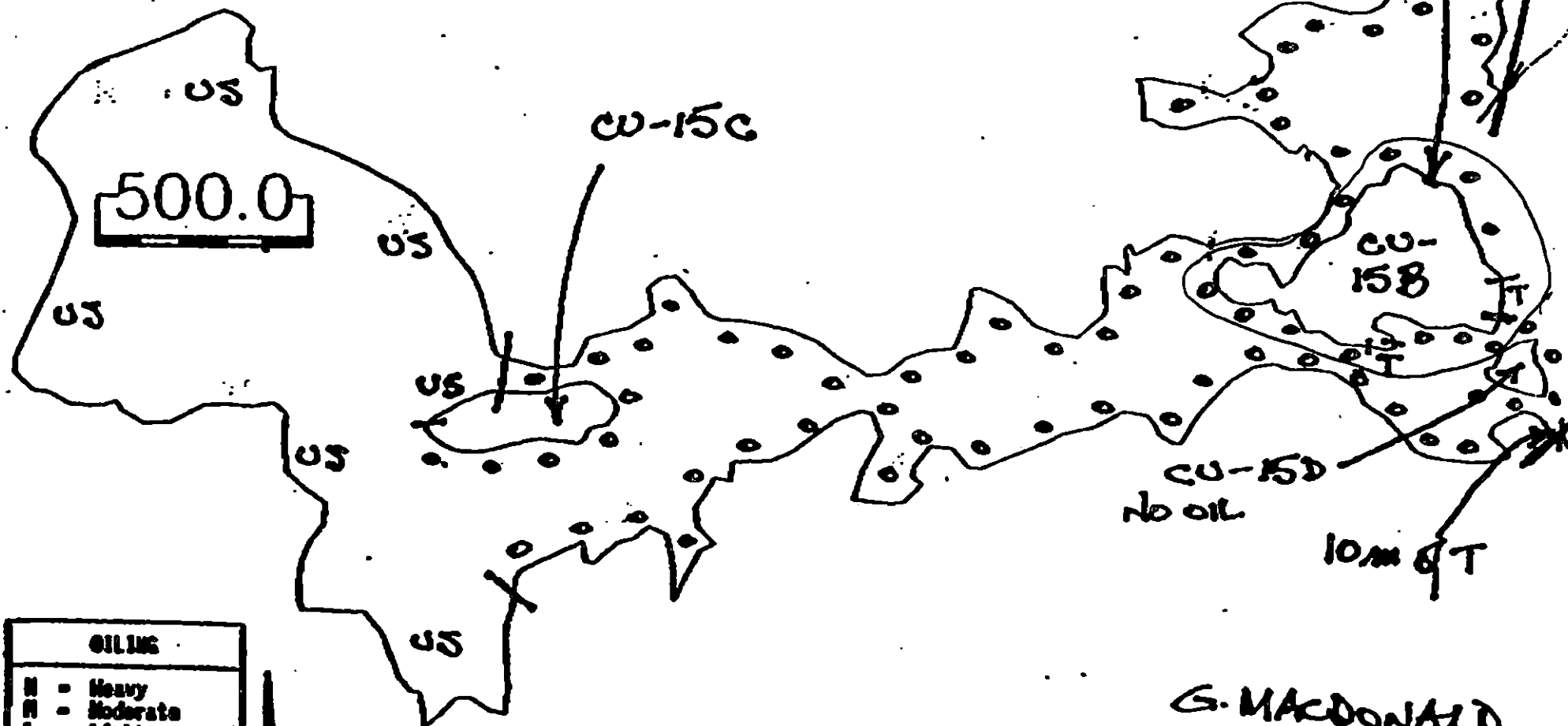
NO OIL

B/R

Mudflats

glacier scoured
bedrock

CU015 ~~A~~ (B) C, D.



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

ADIC Sep/Oct 1988 Survey

G. MACDONALD

4-25-90

Data Enter: _____

CU-16

CU-15B

CU-14

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CU-15

Approx. Segment Length: 19062m

0 300 600 900

METERS

Map Key: PWS-CU-15b

Name: _____

Date: _____

Data Entered: _____



XXXX Wide

//// Medium

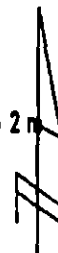
--- Narrow

TTTT Very Light

0000 No Oil

CU-15

Approx. Segment Length: 19062m



Map Key: PWS-CU-15

Name: _____

Date: _____

Data Entered: _____

SHORELINE EVALUATION

SEGMENT ST/ CU-15 SUBDIVISION C (3 OF 4) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
Eagle nest in adjacent segment.
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.

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: Charles E. H. Hines DATE: 5/5/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 811 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

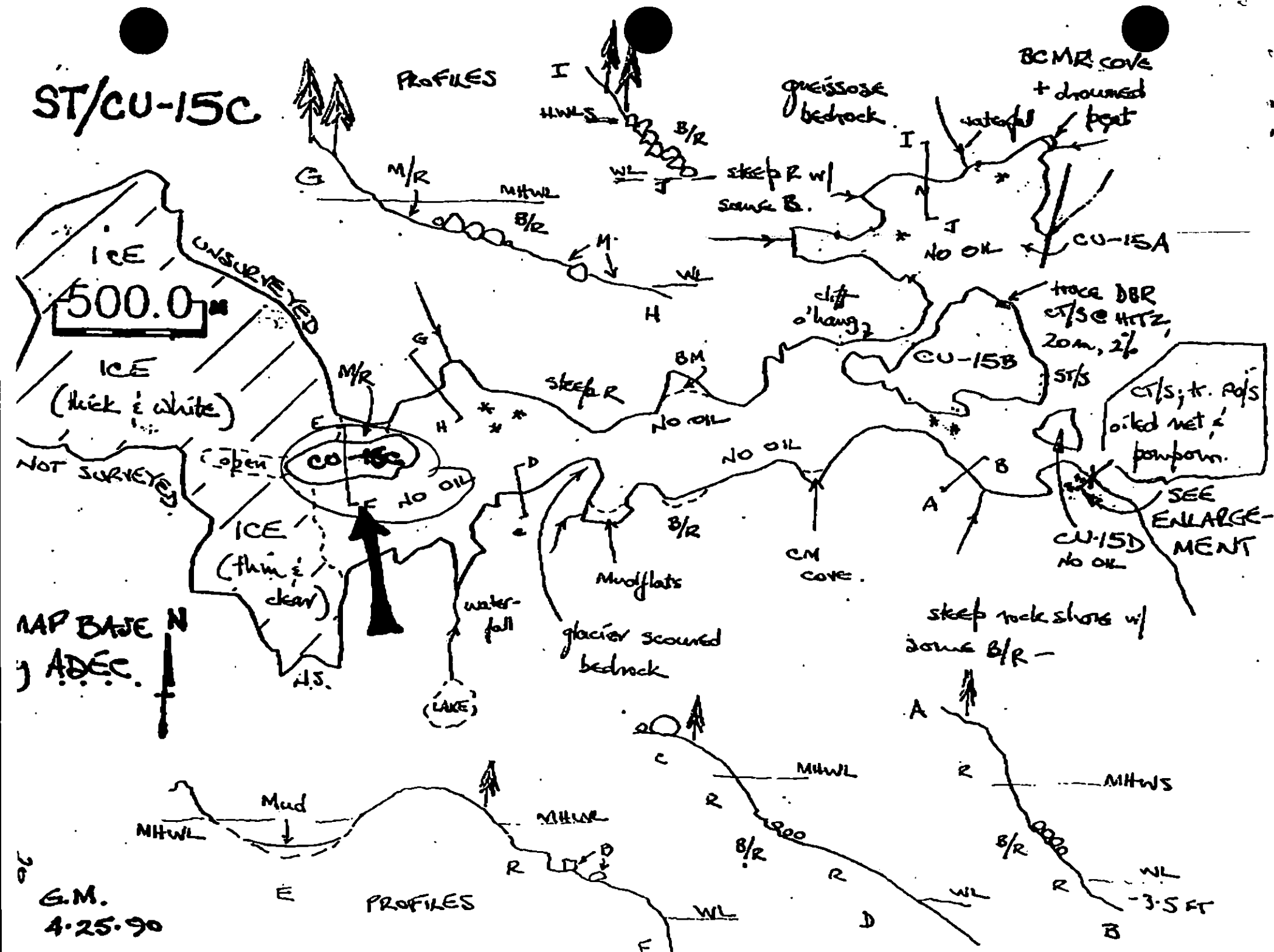
☒ No Treatment Recommended	☐ Snare/Absorbent Booms
☐ Treatment Recommended	☐ Oil Snares (pom poms)
☐ Manual Pickup	☐ Absorbents (pads, rolls, etc)
☐ Bioremediation	☐ Spot Washing: <u> </u> Wands
☐ Tarmat Removal	☐ Beach Cleaner
	☐ Other (see comments)

COMMENTS:

TAG COMMENTS:

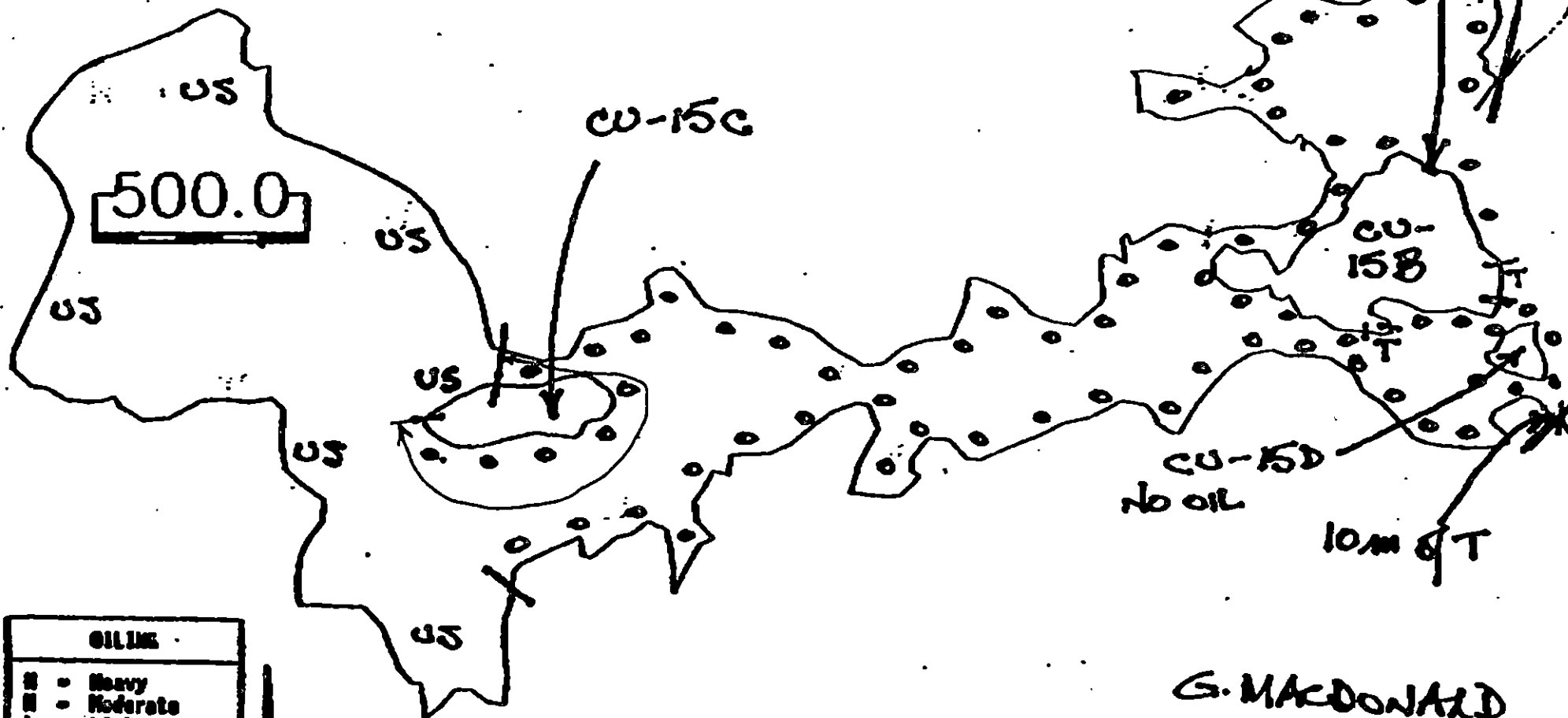
TAG APPROVAL DATE: May 5, 1990
ADEC ART WEINER Dix Weiner
EXXON Mark N. Silber Mark N. Silber FOSC: WJL DATE: 5-18-90
NOAA Gary Petrus Gary Petrus
USCG G.A. REITER G.A. Reiter

G.M.
4-25-90



CU015 ~~A~~, B, (C) D.

-15B; 20m dT



OILLINE	
■	Heavy
■	Moderate
■	Light
■	Very Light
■	None
US	Not Surveyed
Distance in Meters	

NOEC Sep/Oct 1990 Survey

G. MACDONALD

4-25-90

Data Enter: _____

ECOLOGICAL MAP

CU015: A, B, C, D.

-15B; 20 m dT.

224-10-13062

ପଞ୍ଚ

500.0

US

७३

103

45

64-15c

224-20-13076

ANADROMOUS FISHS

CV.
158

44-150

10m GT

ANADROMOUS
SPECIES

22420-13042

G. MACDONALD

4-25-90

Data Entry:

GILMS	
H	Heavy
M	Moderate
L	Light
VL	Very Light
N	None
NS	Not Surveyed

Distance in Meters

224 10
13050

ANEC Sep/Oct 2000 Survey

CU-16

CU-15B

CU-14

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CU-15

Approx. Segment Length: 19062m

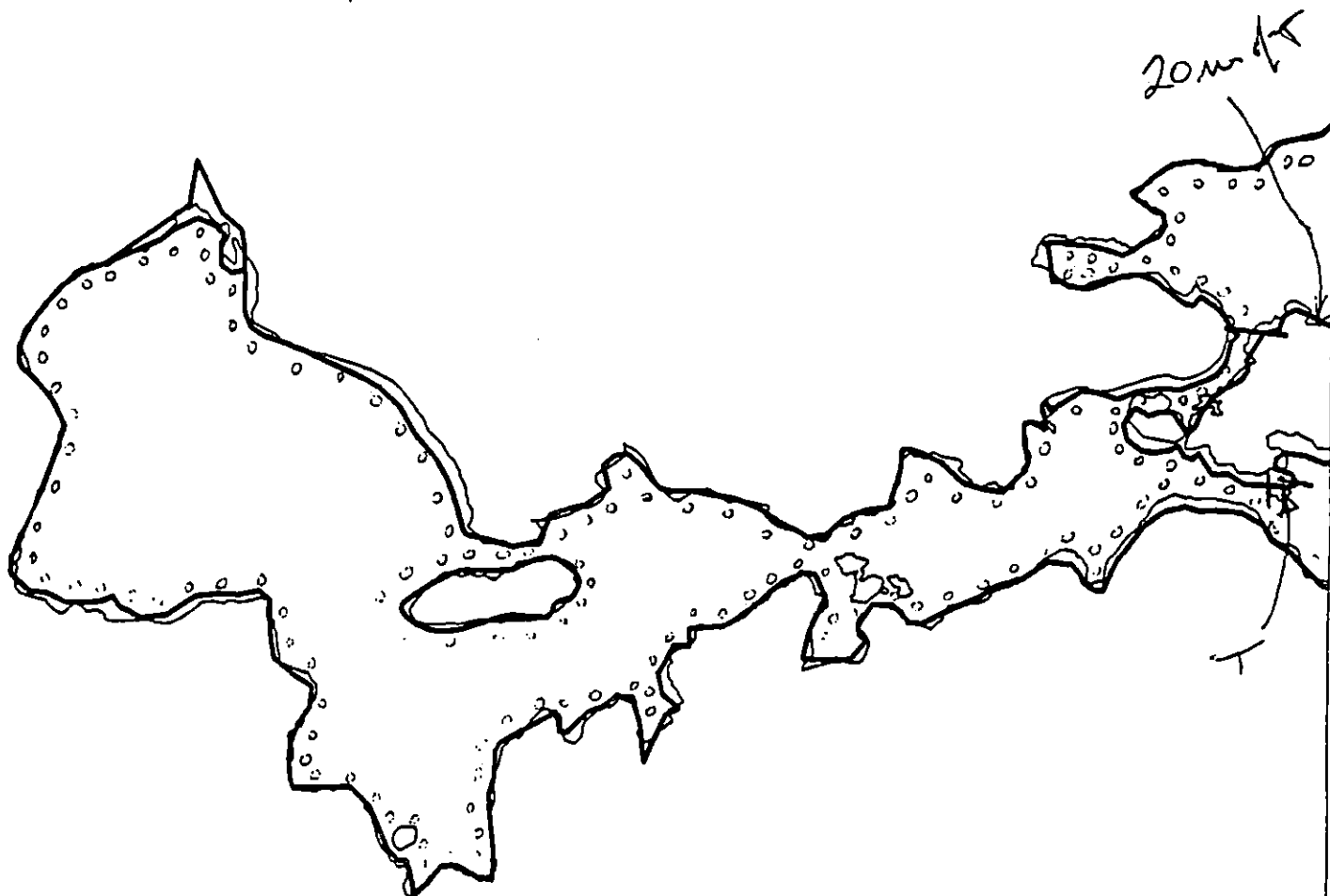


Map Key: PWS-CU-15b

Name: _____

Date: _____

Data Entered: _____



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CU-15

Approx. Segment Length: 19062m



Map Key: PWS-CU-15a

Name: _____

Date: _____

Data Entered: _____

SHORELINE EVALUATION

SEGMENT ST/ CU-15 SUBDIVISION D (4 OF 4) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
Eagle nest in adjacent segment.
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 uncoiled biota and substrate.

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: Charles E. Shiner DATE: 5/5/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 470 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: _____

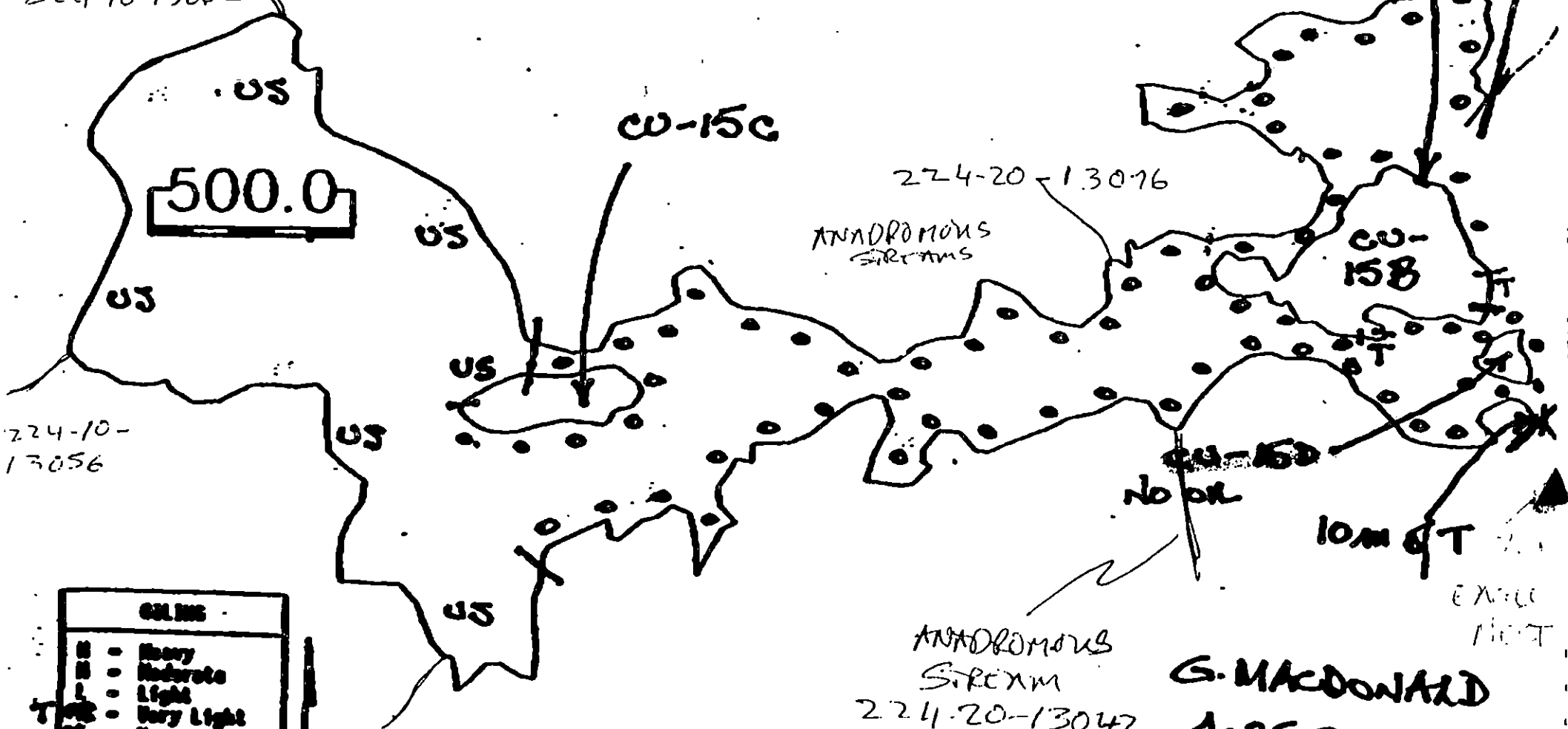
TAG APPROVAL DATE: May 5, 1990
 ADEC ART WEINER D. Weiner
 EXXON Mark N. Silbert Mark N. Silbert FOSC: W L DATE: 5-18-90
 NOAA Gary Petras Gary Petras
 USCG G.A. REITER G.A. Reiter

ECOLOGICAL MAP

CU015 A, B, C, D.

-15B; 20m dT

224-10-13062



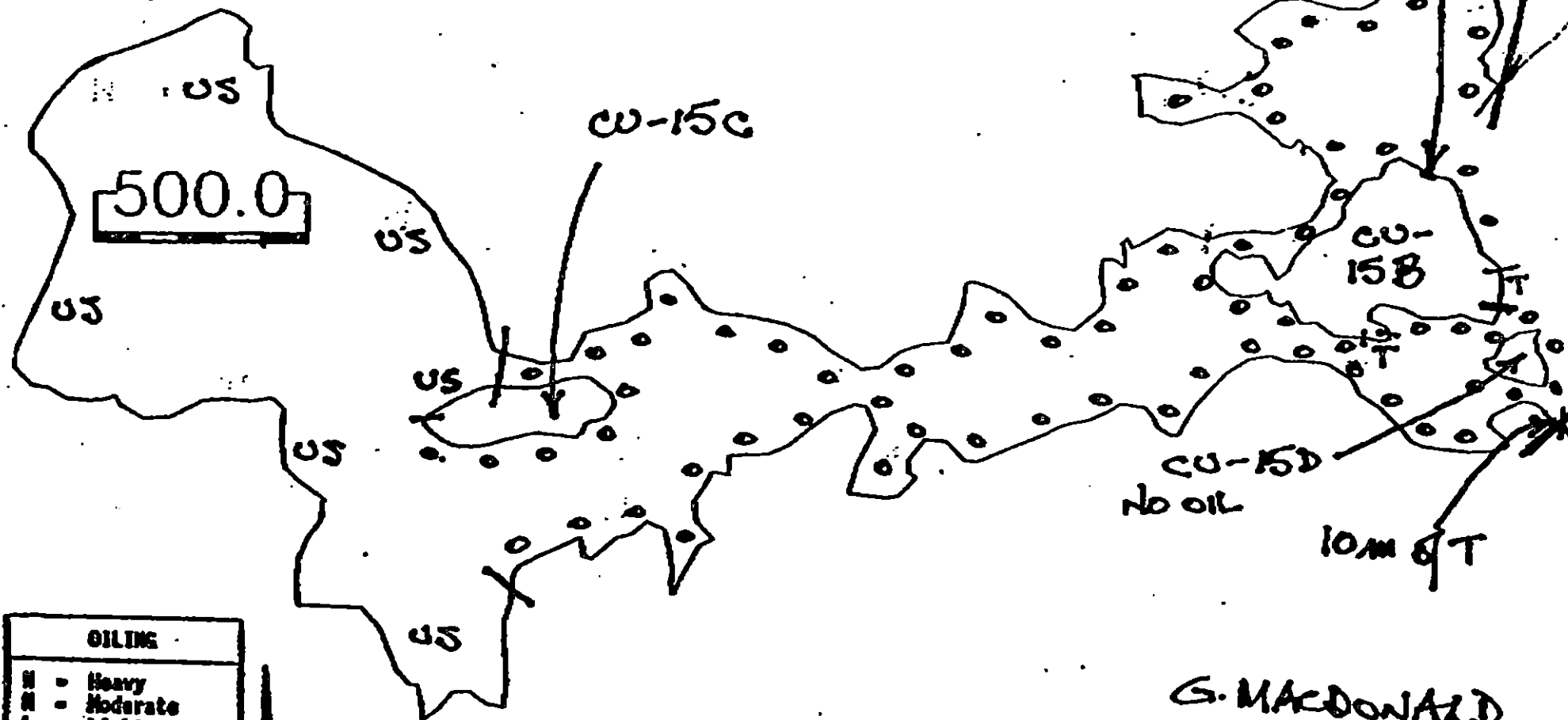
SCALE

- H - Heavy
- M - Moderate
- L - Light
- VL - Very Light
- NS - None
- US - Not Surveyed

Distance in Meters

AMC Sept 81 200 Survey

CU015 ~~A~~, B, C (D)



OILING	
H	Heavy
M	Moderate
L	Light
TL	Very Light
NS	None
US	Not Surveyed
Distance In Meters	

ABEC Sep/Oct 1990 Survey

G. MACDONALD

4-25-90

Data Enter: _____

ST/CU-15D

PROFILES

I
H/WLS

gneissose
bedrock

BCMR

+ drainage
waterfall

steep R w/
some B.

No OIL

CU-15A

trace DBR
CT/S @ HTZ,
20m, 2 1/2
ST/S

CT/S; k. Po/s
oiled net &
pumpdown.

SEE
ENLARGE-
MENT

CU-15D
No OIL

steep rock shores w/
some B/R -

CM
CORE

Mudflats

glacier scoured
bedrock

water-
fall

(LAKE)

Mud

MHWL

MHWL

MHWL

MHWS

WL

-3.5 FT

PROFILES

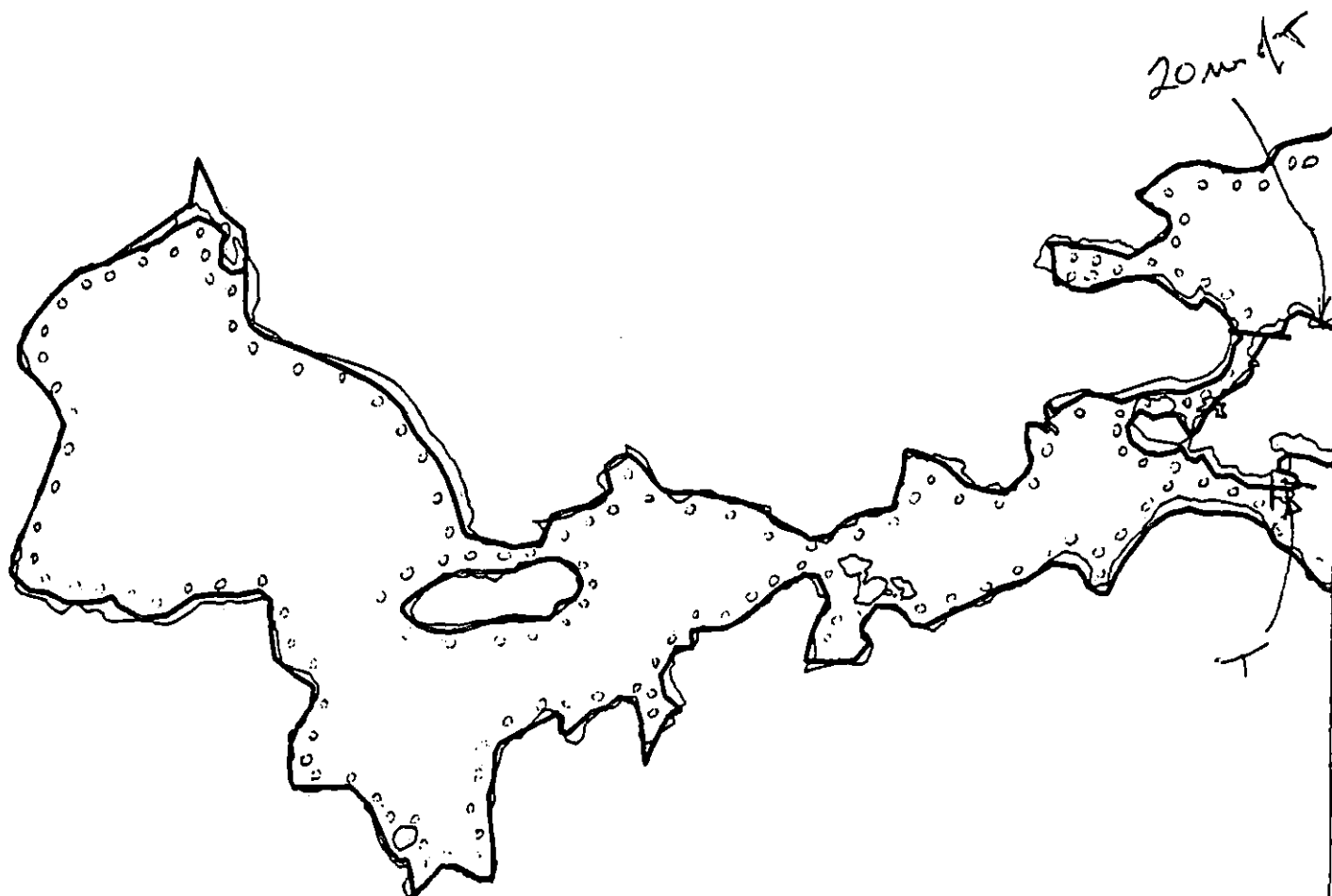
G.M.
4.25.90

MAP BASE N
by ADEC.

NOT SURVEYED

ICE
(thick & white)

ICE
500.0 M
UNSURVEYED



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CU-15

Approx. Segment Length: 19062m



Map Key: PWS-CU-15a

Name: _____

Date: _____

Data Entered: _____

CU-16

CU-15B

CU-14

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CU-15

Approx. Segment Length: 19062m

0 300 600 900

METERS

Map Key: PWS-CU-15b

Name: _____

Date: _____

Data Entered: _____

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