OIL SPILL PUBLIC INFO. CENTER
3 6653 00006429 9

EVOS
GC
1552
.P75
S42
1991
v.26

[Shoreline evaluations, 1991].

Prince William Sound CH-22 to CU-03

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REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/CH-22

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ CH-22 SUBDIVISION A (1 OF 1) DATE 4/20/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1I Gill net area (6/7 to 8/31)
1J Purse seine area (6/20 to 9/30)
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 317 m: No Oil 409 m
Subsurface Oil Observed: Yes____ No X Maximum Depth_____

RECOMMENDATIONS:

X No Treatment Recommended
_____Treatment Recommended
_____Manual Pickup
_____Bioremediation
_____Tarmat Removal
_____Snare/Absorbent Booms
_____Oil Snares (pom poms)
_____Absorbents (pads,rolls,etc)
_____Spot Washing:_____Wands
_____Beach Cleaner
_____Other (see comments)

COMMENTS: _____

TAG COMMENTS:_____

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

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / CH 22 SUBDIVISION: A (ENTIRE SEGMENT) DATE 4/20/90

USCG
NAME JERRY SCHULTZ SIGNATURE Jerry Schultz

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

ADEC
NAME MIKE EBEL SIGNATURE Michael J. Ebel

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS
CH-22-A: Due to the small amount of the splaces of: coat, covey, and stain remaining, no treatment could justify the impact to the area. — End

LAND MANAGER
NAME PAT SELANOFF (CVC) SIGNATURE [illegible]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

REVISION NO. 03/21/90

SHORELINE OILING SUMMARY

REVISION NO. 04

OG Randy Siegel USCG Jerry Schultz SEGMENT ST/ CH-22
BIO Lewis Sherman LAND REP Pat Salazar (CVC) SUBDIVISION A (1 OF 1)
EXXON Leonard Herbst ADEC Mike Ebel TIME 19:30 to 20:00
TEAM NO. 12 TIDE LEVEL 5.0' to 5.85' DATE 4 / 20 / 90
EST. SUBDIVISION LENGTH: 596 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow 45°
UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
SURFACE SEDIMENTS: R 10 % B 15 % C 30 % P 25 % G 15 % S 5 % M 0 % V 0
SLOPE: Lang 70 % Hang 30 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
OIL CATEGORY LENGTH: W Ø m M Ø m N Ø m VL 240 m NO 356 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	/C	/B	/P	/S						SU	UI	MI	LI
ASPHALT PAVEMENT													
POOLED													
COVER				X		X					X		
COAT		✓		X		X					X		
STAIN				X		X					X		
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL										X		X	X

PAVEMENT H F S Ø sq. m by Ø
PATTIES / TARBALLS Ø BAG
NEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT SM	MD	LG
Logs	X		
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS? YES ☒ NO ☐
TYPE Plastic Deb
#BAGS 3

Photographs:
Roll No. None
Frames

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR					PIT ZONE				ANA	SHEEN (Y/N)	▼	SURFACE SUBSURFAC SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC						SU	UI	MI	LI				
1	40					X	0 - 0		X							X				—	—	P, G
							-															
							-															
							-															
							-															
							-															

COMMENTS

This segment was very short (only ~600 m), consisting of a small pocket beach and a larger beach, fluted by short sections of bedrock cliff. A lot of debris (plastic) was brought back from the beaches. ~~Shining~~ Oiling was very light - staining, coating, and some cover on the rock cliffs and boulders. Dead otter observed.

REVIEWED YW DATE 4/22/90

SEGMENT S H-22

SUBDIVISION A

DATE 4 / 20 90

S CH MAP

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 ▲ Pit - No Subsurface Oil

2 ▲ Pit - Subsurface Oil

CT/C Continuous Distribution

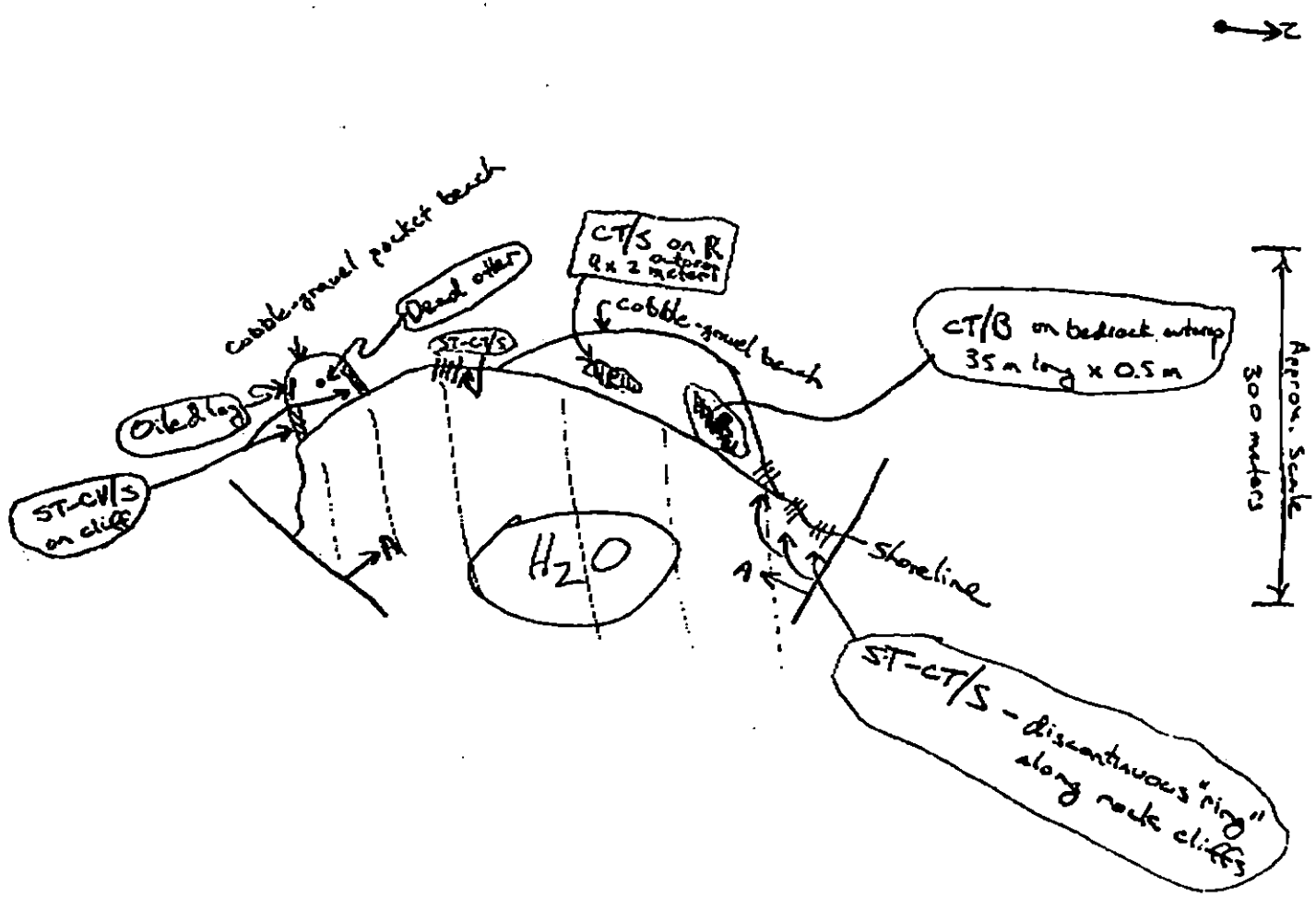
CT/B Broken Distribution

CT/P Patchy Distribution

CT/S Splashed Distribution

Oiled Vegetation

1 Photo location, direction, and number



Oil Character Length (m): AP 0 PO 0 CV 15 CT 240 ST 240 MS 0 PT 0 TB 0 FL 0 NO 356

REVISION:

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/23/

Segment ST / CH-22 Subdivision A Date (mo / day / yr) 4/20/98

Time (24 hr) 1430-2005 Biologist SHARMAN

(A) Substrate type and % of ~~segments~~ SUBDIV.
(1) Bedrock 10 (2) Boulder 15 (3) Cobble 30 (4) Pebble 25 (5) Sand 20 + granules (6) Silt ____

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

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

Photographs:
Roll No. —
Frames —

BARNACLES

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

MYTILUS

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

GASTROPODS (NUCELLA, LITTORINA, LIMPETS)

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

FUCUS

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

Wildlife Observations/ General Comments: Did not observe LTZ. Active eagle nest on segment boundary with CH-21 (see this section of CH-21 Ecol. Summary). Observed 1 (subadult) eagle not associated with nest. 1 large otter carcass UTE, bones only (no hide), provided, cause of death unknown, teeth when indicate older animal. See OG map for exact location. Normal and healthy intertidal community. Littorine eggs. Breadth boulders; good to excellent barnacle & Fucus recruitment.

Ecological Considerations:
Resource sensitivities from catalogued data for this segment include a bald eagle nest on the segment boundary with CH-21 (Code 5T - see attached map for nest location), gill net area (Code 1I), purse seine area (Code 1J), and special use destination (Code 6Y). The active eagle nest on the segment boundary is at this time probably the most sensitive ecological resource to human activity / disturbance.

SEGMENT St. 3rd-22

SUBDIVISION A

DATE 4 / 20 90

CHECKLIST

- ___ N Arrow
- ___ Approx. Scale
- ___ Seg/Sub Bndry
- ___ Oil Dist.
- Width
- Length
- % Cover
- ___ Substrate Character
- ___ Est. HWL&WL
- ___ 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

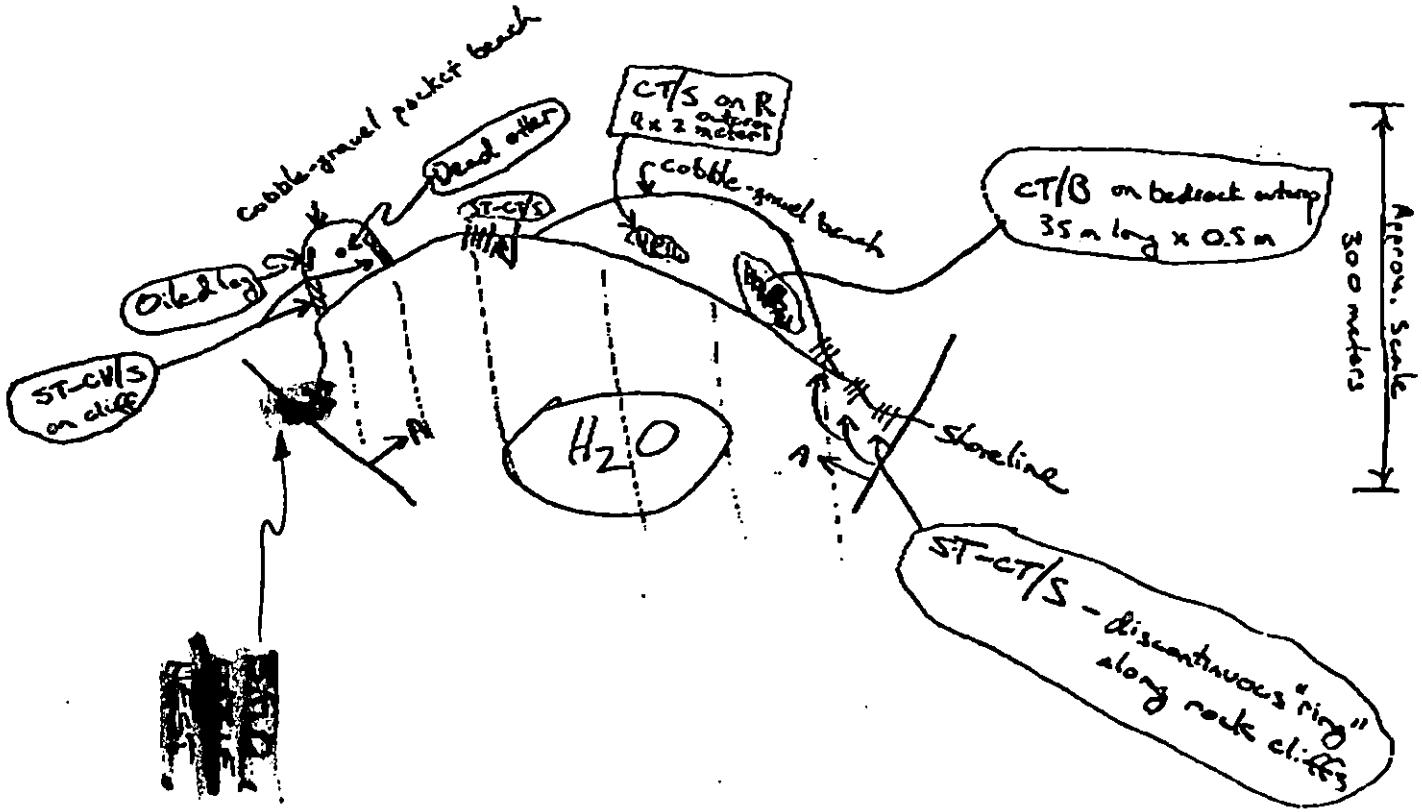
1 ⊕

Photo location, direction, and number

47/47

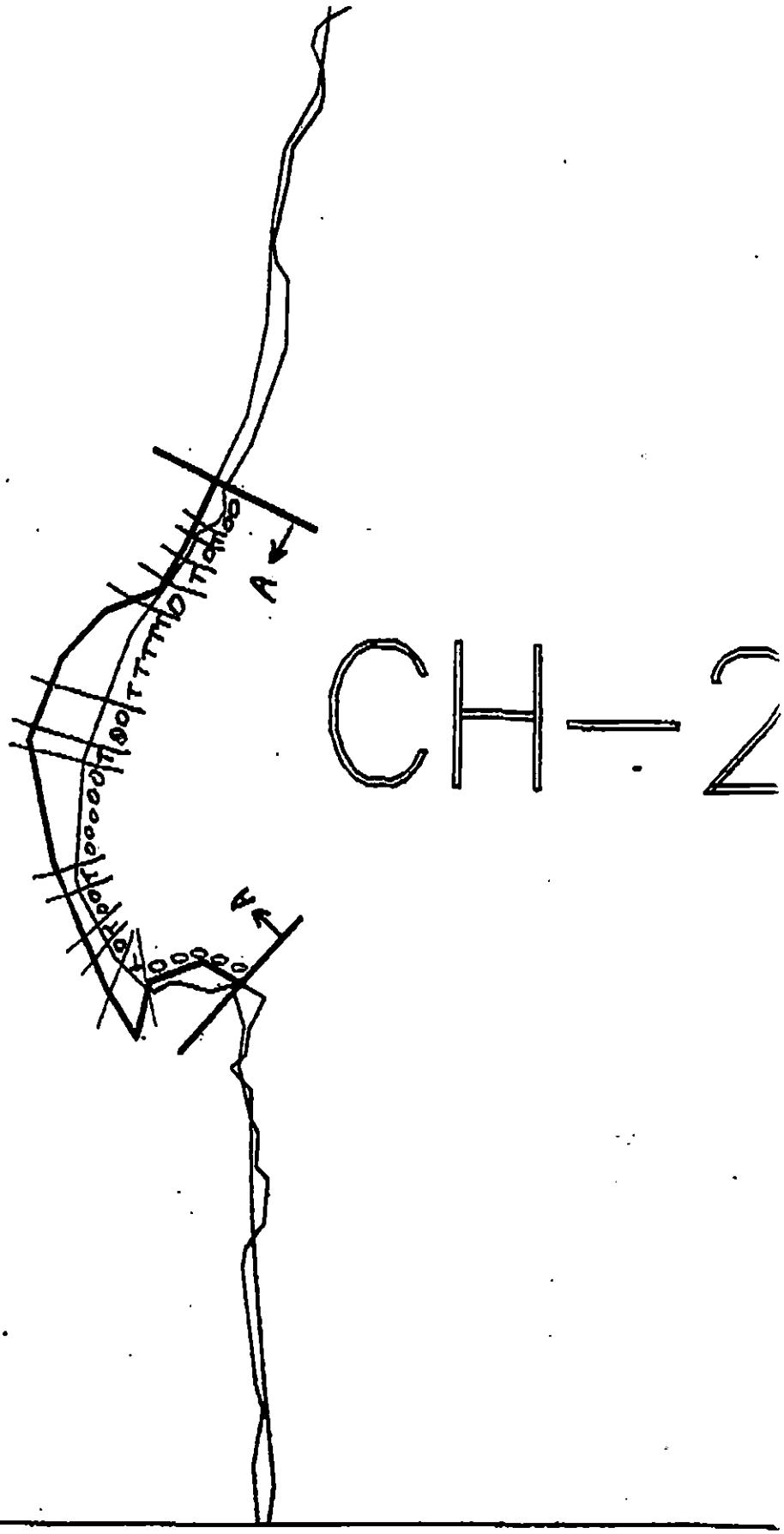
SKETCH MAP

ECOLOGICAL MAP



Oil Character Length (m): AP 0 PO 0 CV 15 CT 240 ST 240 MS 0 PT 0 TB 0 FL 0 NO 356

REVISION: 03/2/90



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

CH-22

ADEC Segment Length: 725m

0 100 200 300
METERS

Map Key: PWS-49
Name: Randy Siegel
Date: 4/20/90
Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ CH-22 SUBDIVISION A (1 OF 1) DATE 4/20/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1I Gill net area (6/7 to 8/31)
1J Purse seine area (6/20 to 9/30)
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: J. Paul McMahan DATE: 5/1/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 317 m: No Oil 409 m
Subsurface Oil Observed: Yes____ No X Maximum Depth_____

RECOMMENDATIONS:

X No Treatment Recommended
____Treatment Recommended
____Manual Pickup
____Bioremediation
____Tarmat Removal
____Snare/Absorbent Booms
____Oil Snares (pom poms)
____Absorbents (pads,rolls,etc)
____Spot Washing:____Wands
____Beach Cleaner
____Other (see comments)

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: 4/30/90
ADEC Art Weiner
EXXON AWDY Team
NOAA Gary Petrae
USCG Kenneth Keane

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

SEGMENT: H-22

SUBDIVISION A

DATE 4 / 20 90

CHECKLIST

___N Arrow
___Approx. Scale
___Seg/Sub Bndry
___Oil Dist.
Width
Length
% Cover
___Substrate Character
___Est. HWL&WL
___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

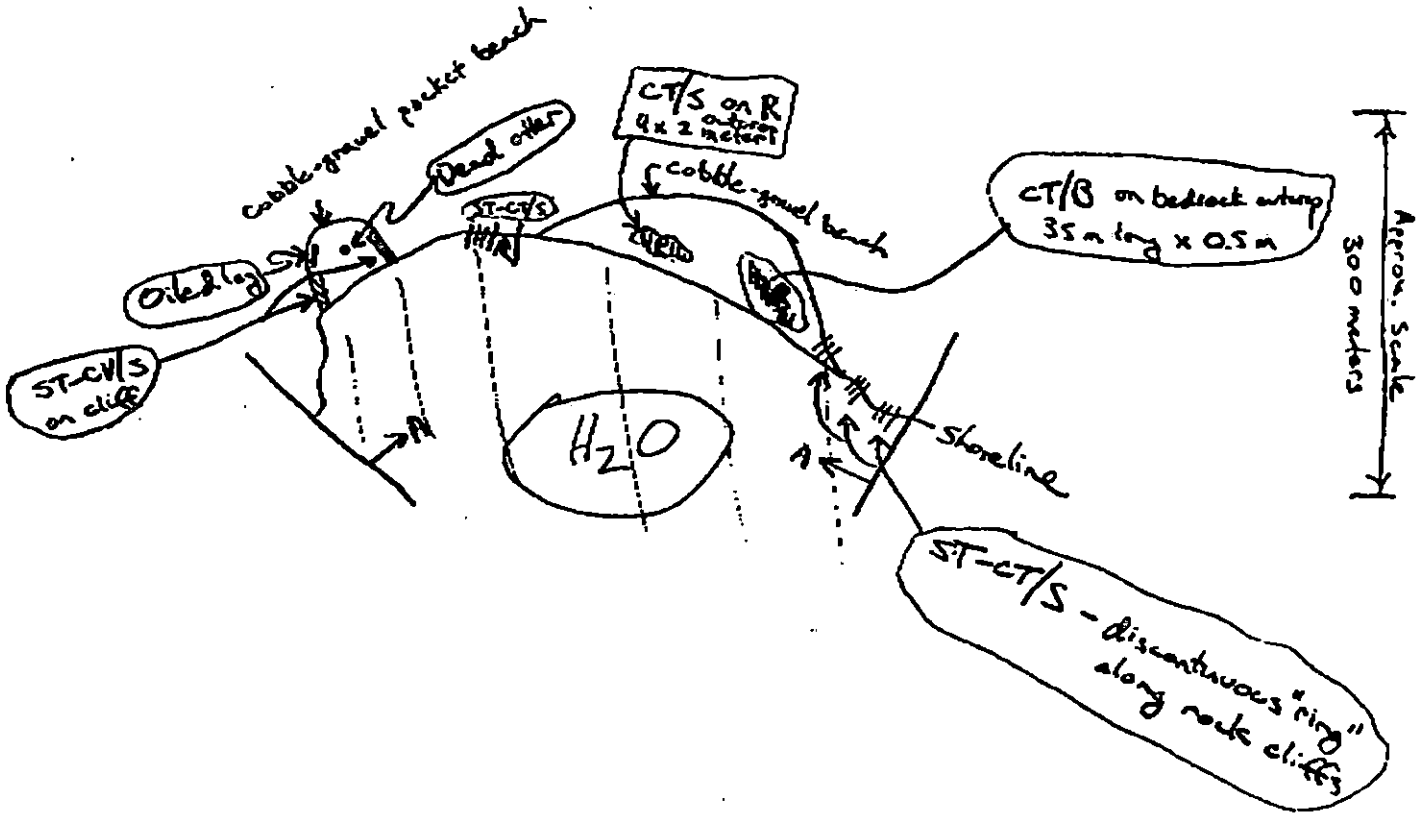
CT/P
Patchy Distribution

CT/S
Splashed Distribution

Oiled Vegetation

1
Photo location, direction, and number

SKETCH MAP



Oil Character Length (m): AP 0 PO 0 CV 15 CT 240 ST 240 MS 0 PT 0 TB 0 FL 0 NO 356

REVISION 09/09/88

SEGMENT S# CH-22

SUBDIVISION A

DATE 4 / 20 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 ▲ Pit - No Subsurface Oil

2 ▲ Pit - Subsurface Oil

CT/C Continuous Distribution

CT/B Broken Distribution

CT/P Patchy Distribution

CT/S Splashed Distribution

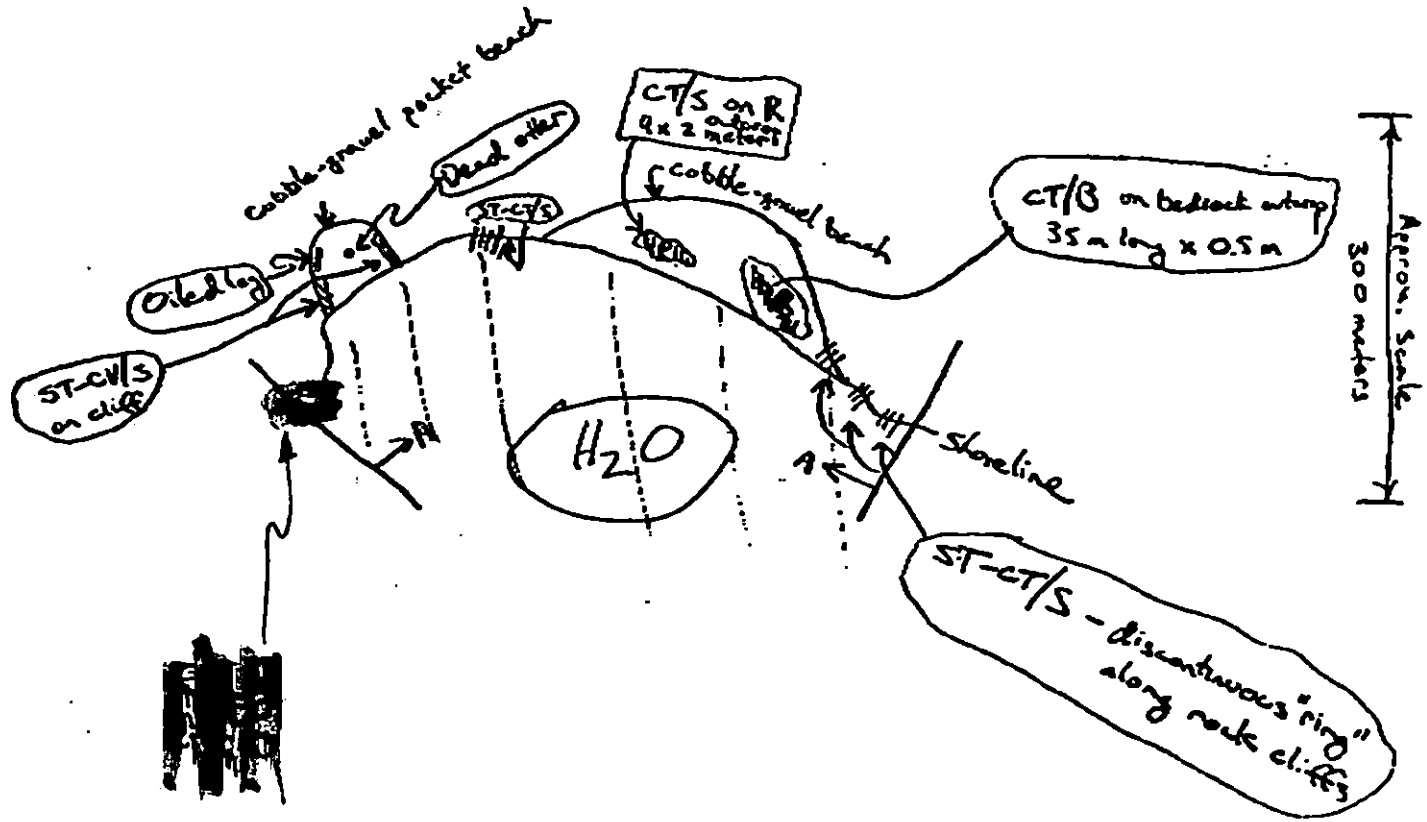
lll Oiled Vegetation

1 ●→ Photo location, direction, and number

4/4

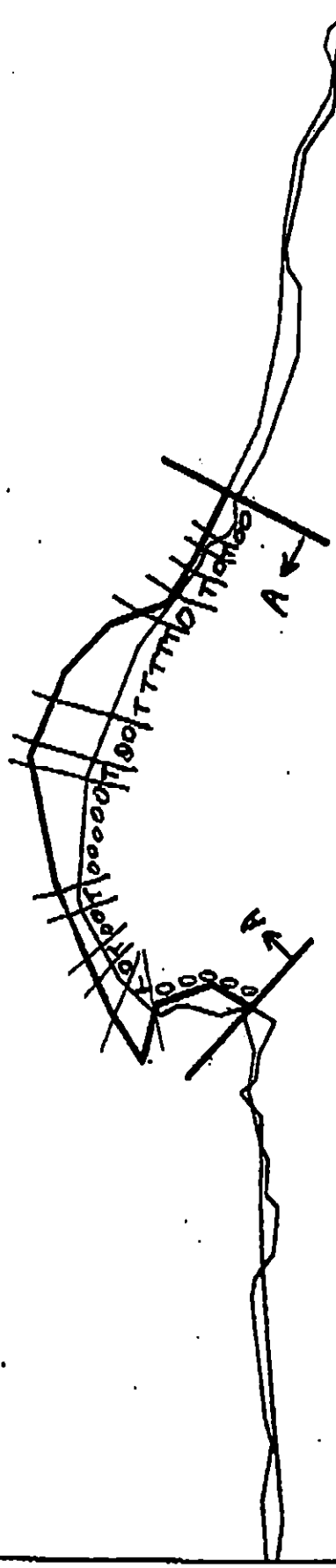
SKETCH MAP

ECOLOGICAL MAP



Oil Character Length (m): AP 0 PO 0 CV 15 CT 240 ST 240 MS 0 PT 0 TB 0 FL 0 NO 356

REVISION:


A
A
TTTT

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/CH-23

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ CH-23 SUBDIVISION A (1 OF 1) DATE 4/21/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1I Gill net area (6/7 to 8/31)
1J Purse seine area (6/20 to 9/30)
5T-2 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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 138 m: No Oil 2426 m
Subsurface Oil Observed: Yes____ No X Maximum Depth_____

RECOMMENDATIONS:

X No Treatment Recommended
_____Treatment Recommended
_____Manual Pickup
_____Bioremediation
_____Tarmat Removal

_____Snare/Absorbent Booms
_____Oil Snares (pom poms)
_____Absorbents (pads,rolls,etc)
_____Spot Washing:_____Wands
_____Beach Cleaner
_____Other (see comments)

COMMENTS: _____

TAG COMMENTS:_____

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

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 Monson 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 Suzomoto 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 unoiled intertidal and subtidal algae and seagrass If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization
AGENCY CONTACT PERSON ADF&G Evelyn Biggs 424-3235

3N, 3P **Harbor seal and sea lion pupping (5/15 to 7/1)**
3O, 3Q **Harbor seal and sea lion molting (8/15 to 9/15)**
Restrict boat and air traffic to essential minimum No personnel within 400m Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31) Contact ADF&G and USFWS prior to treatment for confirmation
AGENCY CONTACT PERSON US National Marine Fisheries Service Steve Zimmerman 586-7235
ADF&G Don Calkins 267 2403

5R **Seabird colony (5/1 to 9/1)**
Restrict air and boat traffic to essential minimum No personnel within 800m Aircraft to maintain 800m horizontal, 300m vertical distance from colony Contact USFWS prior to treatment
AGENCY CONTACT PERSON USFWS Jill Parker 786-3377

5S **Shorebird/waterfowl concentration (4/1 to 5/15)**
Restrict all activity to essential minimum, especially air traffic Contact USFWS and ADF&G for confirmation
AGENCY CONTACT PERSON USFWS Jill Parker 786-3377
ADF&G Tom Rothy 267 2206

5T **All Bald Eagle nests (3/1 to 6/1)**
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic and all disturbance to essential minimum No personnel within 400m 3/1 to 6/1 Air approach and takeoff from and to seaward only maintain 800m horizontal, 300m vertical distance from nests Contact USFWS prior to treatment for confirmation of dates
AGENCY CONTACT PERSON USFWS Jill Parker 786-3377

6U Recreation **Tent sites (6/1 to 9/15)**
6V **Anchorages (6/1 to 9/15)**
6W **Forest Service cabins (6/1 to 9/15)**
6X **Lodge (6/1 to 9/15)**
6Y **Special use destination**

7Z Subsistence area. **Salmon harvesting (5/1 to 9/30)**
7HH **Finfish harvesting**
7II **Deer harvesting (8/15 to 2/28)**
7JJ **Invertebrate harvesting**
Contact ADF&G and appropriate Native Corporation for specific dates locations and constraints Restrict boat and air traffic and beach disturbance to essential minimum If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization see Native Corporation Contact List for each Native Corporation s contact person
AGENCY CONTACT PERSON ADF&G Jim Fall 267 2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / CH 23 SUBDIVISION: A (ENTIRE SEGMENT) DATE 4/22/90

USCG
NAME JERRY SCHULTZ SIGNATURE Jerry Schultz

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS AMOUNT OF AND TYPE OF RESIDULE OIL DOES NOT SUGGEST FURTHER TREATMENT.

ADEC
NAME MIKE EBEL SIGNATURE Michael J. Ebel

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS
CH-23-A: Very occasional stains and coats with even fewer covers found mostly on the southern end of segment (one location totaling [redacted] < 5% of segment and all splashes = VL). Because of the small amount of this weathering tar left, no treatment is recommended.

LAND MANAGER
NAME PAT SELANOFF (CVC) SIGNATURE [signature]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

REVISION NO 03/21

36/36

SHORELINE OILING SUMMARY

REVISION NO 04-13-90

OG Randy Siegel USCG Jerry Schultz SEGMENT ST/ CH-23
BIO Lewis Sherman LAND REP Pat Selanoff (GVC) SUBDIVISION A (1 OF 1)
EXXON Leonard Herbst ADEC Mike Ebel TIME 14 25 to 15 20
TEAM NO 12 TIDE LEVEL 5.35' to 3.6' DATE 4 / 21 / 90
EST SUBDIVISION LENGTH 2594 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 25 % C 5 % P 0 % G 0 % S 0 % M 0 % V 0 %
SLOPE Lang 10 % Hang 75 % Vert 15 % WAVE EXPOSURE ☐ Low ☒ Med ☐ High
OIL CATEGORY LENGTH W Ø m M Ø m N Ø m VL 160 m NO 2434 m

SURFACE OIL

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

PAVEMENT H F S Ø sq m by Ø cm
PATTIES / TARBALLS Ø 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 Plastic De
#BAGS 1

Photographs None
Roll No None
Frames —

SUBSURFACE OIL

PIT NO	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR					PIT ZONE				ANA	SHEEN (Y/N)	▼	SURFACE SUBSURFAC SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC						SU	UI	MI	U				
1	40					X	0 - 0		X							X				—	—	P, G
							-															
							-															
							-															
							-															
							-															

COMMENTS Stretch of shoreline with hi-angle forested cliffs above and boulder beaches or pebble pocket beaches below. Very light oiling across segment - a few patches of stain and coat on cliffs or boulders.

27/36

REVIEWED JW DATE 4-23-90

OG Randy gel

SEGMENT ST/ CH-23

SUBDIVISION A

DATE 4 / 21 / 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 ▲ 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

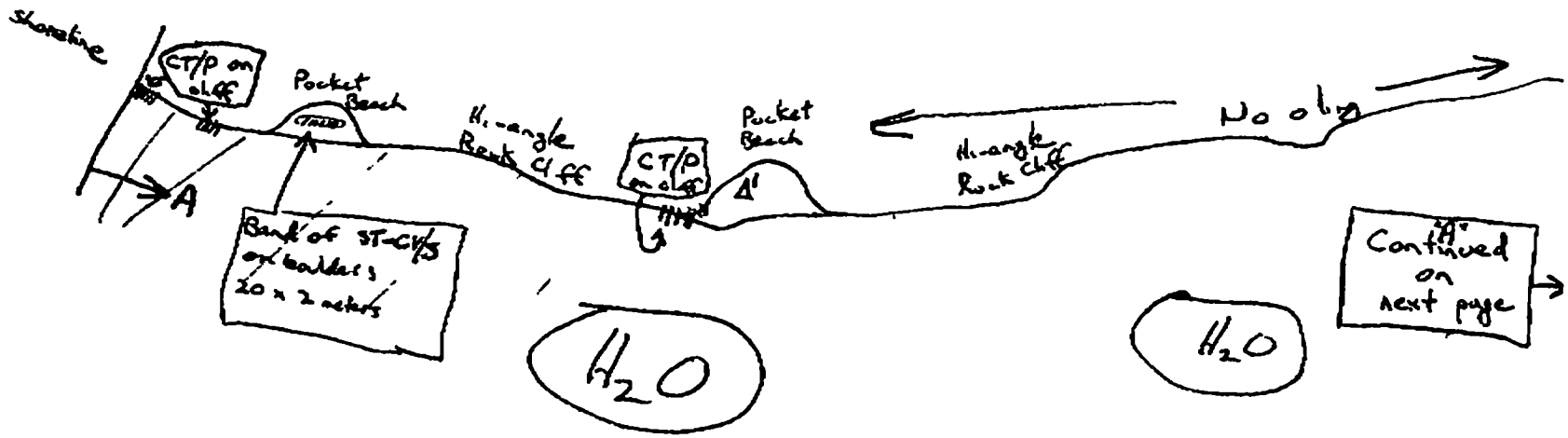
1 Photo location, direction, and number

30/36

SKETCH MAP #1

App scale 100 m

N



1-Character Length (m) AP ___ PO ___ GV ___ CT ___ ST ___ MS ___ PT ___ TB ___ PL ___ NO ___

REVISION 02/90

OG Randy Engel

SEGMENT ST/ CH-23

SUBDIVISION A

DATE 4 / 21 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 ▲ Pit - No Subsurface Oil

2 ▲ Pit - Subsurface Oil

CT/C Continuous Distribution

CT/B Broken Distribution

CT/P Patchy Distribution

CT/S Splashed Distribution

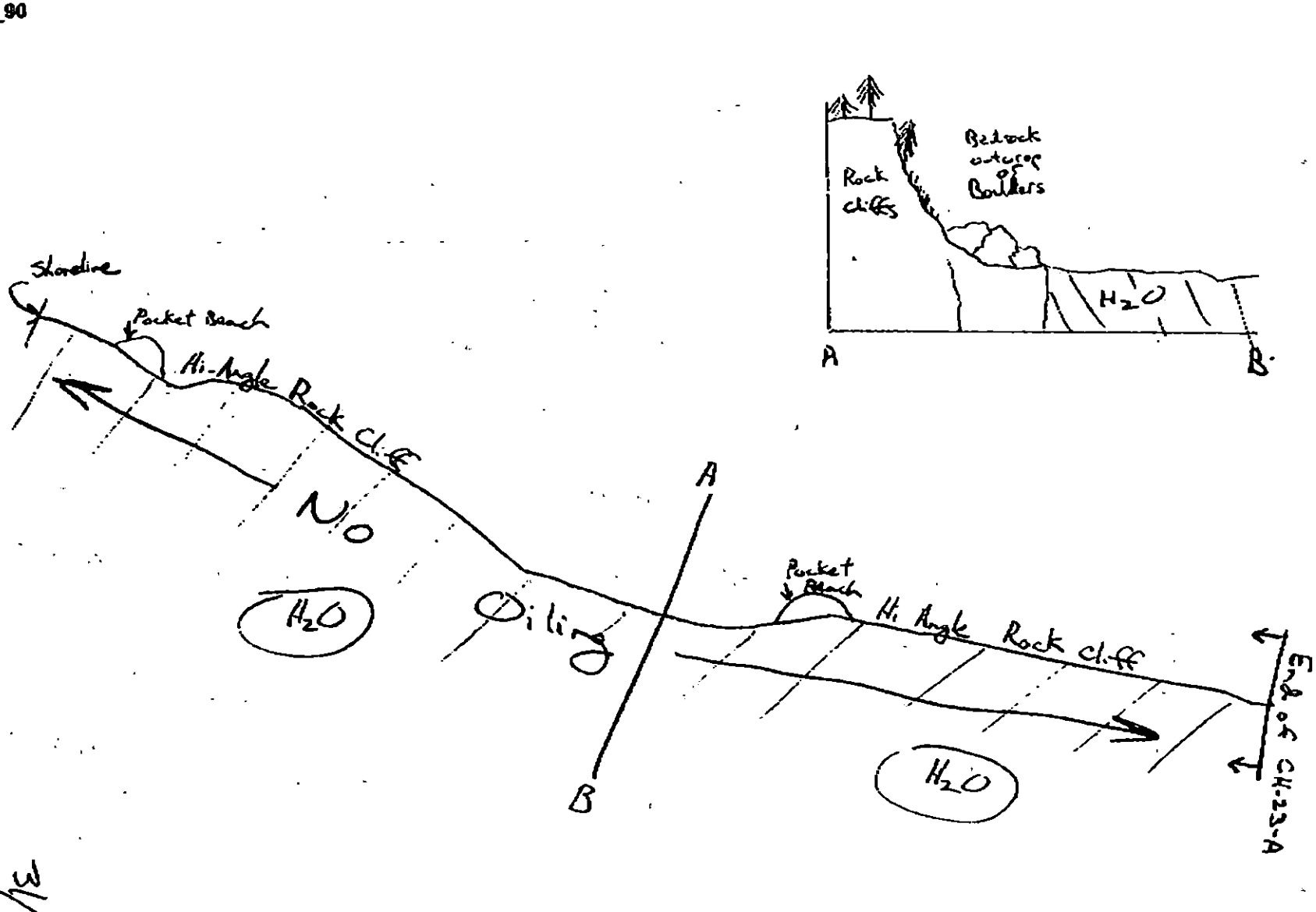
Oiled Vegetation

Photo location, direction, and number

→ N

SKETCH MAP #2

Approx. Scale 100 m



Oil Character Length (m): AP 0 PO 0 CV 50 CT 160 ST 160 MS 0 PT 0 TB 0 FL 0 NO 2434

REVISION REQUIRED

SHORELINE ECOLOGICAL SUMMARY

REVISION

Segment ST / CH-23 Subdivision A Date (mo / day / yr) 4/21/90

Time (24 hr) 1425-1520 Biologist SHARMAN

(A) Substrate type and % of ~~segments~~ SUBDIV.
(1) Bedrock 70 (2) Boulder 20 (3) Cobble 5 (4) Pebble ____ (5) Sand ____ (6) Silt ____

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

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

Photographs
Roll No —
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	X	2	X	2	2	
3	3	3	3	3	3	3	3	3	3	X	3	NOT PRES
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

MYTILUS

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

GASTROPODS (NUCELLA, LITTORINA, LIMPETS)

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

FUCUS

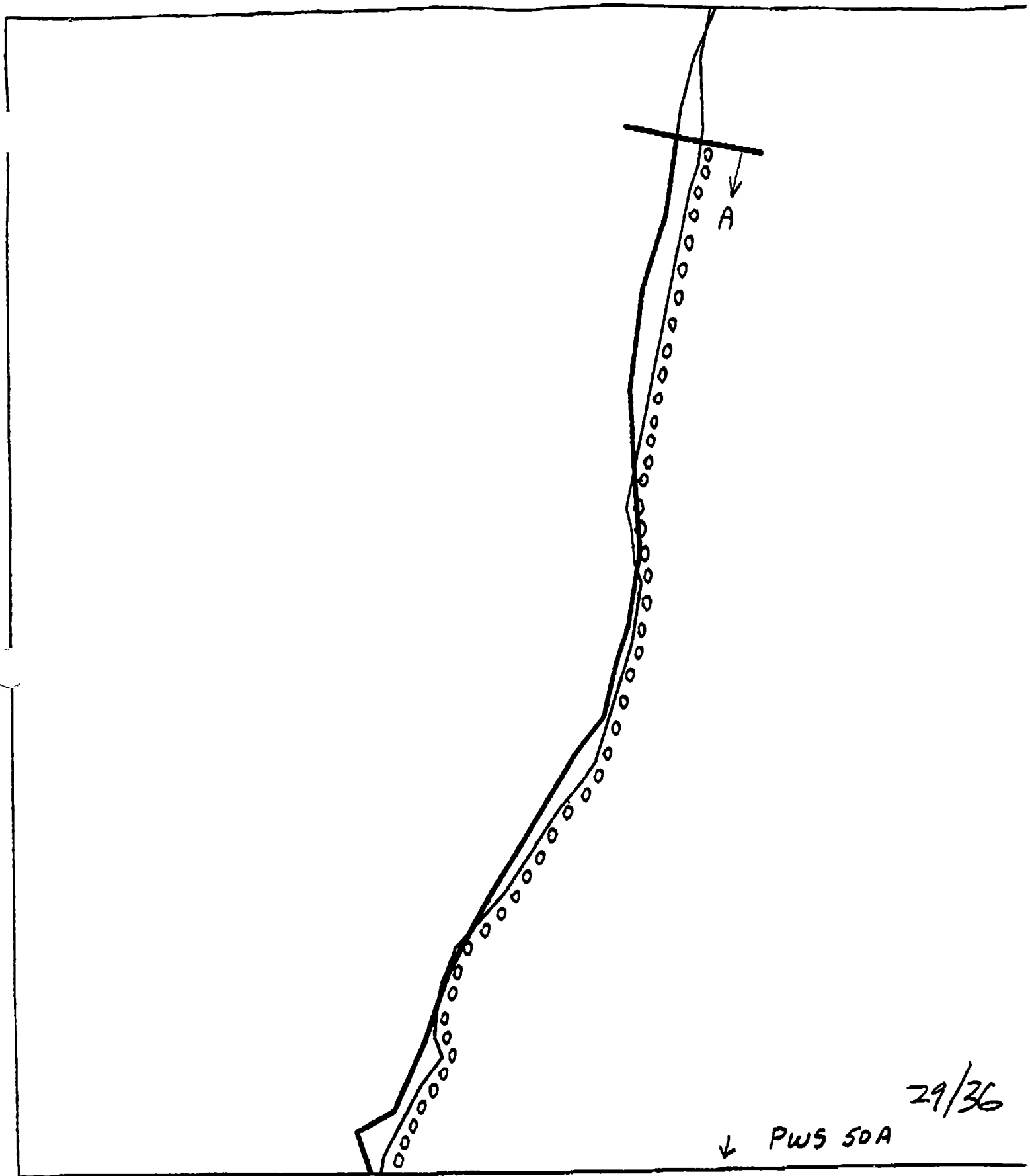
Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	X	2	X	2	2	
3	3	3	3	3	3	3	3	3	3	3	3	NOT PRES
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

Wildlife Observations/ General Comments Did not observe LTE. 1 subadult eagle, 2 unidentified gulls, 1 gull carcass in supratidal (feathers + some bones, scavenged, no oil). Nucella lamellosa extremely abundant in barnacle zone. This segment ecologically very similar to CH-21 (please see eval. comments re: intertidal for that segment). Intertidal zone very productive and healthy. Assume LTE similar to CH-21.

Ecological Considerations Very good general recruitment, normal natural mortality.

Resource characteristics previously listed for this segment include use as a gill net area (code 1 I) and as a purse seine area (code 1 J). There are, apparently, 2 bald eagle nests (code 5 T) in the central portion of the segment, but we were unable to locate either one. There is, however, an active nest 400 m or so S. of the S. segment boundary, in segment CH-22 (actually on the boundary between CH-22 + 21).

4/21



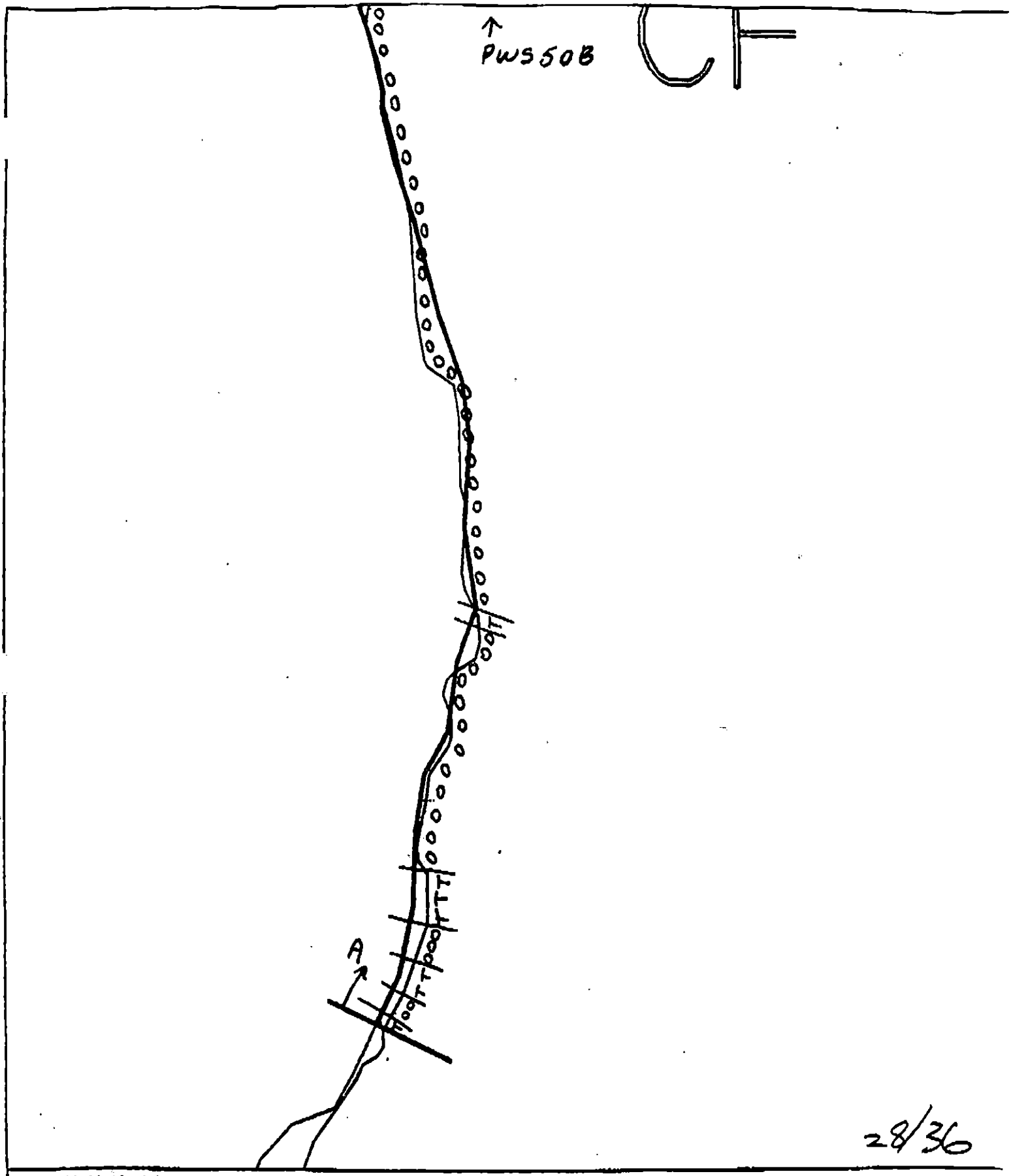
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

CH-23

ADEC Segment Length: 2563m

0 100 200 300

Map Key: PWS-50b
Name: R. L. Siegel
Date: 4/21/90
Data Entered:



28/36

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

CH-23

ADEC Segment Length: 2563m

0 100 200 300
METERS

Map Key: PWS-50a
Name: Rudy Siegel
Date: 4/21/90
Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ CH-23 SUBDIVISION A (1 OF 1) DATE 4/21/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1I Gill net area (6/7 to 8/31)
1J Purse seine area (6/20 to 9/30)
5T-2 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Charles E Holmes DATE: 5/2/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 138 m: No Oil 2426 m
Subsurface Oil Observed: Yes____ No X Maximum Depth_____

RECOMMENDATIONS:

X No Treatment Recommended
_____Treatment Recommended
_____Manual Pickup
_____Bioremediation
_____Tarmat Removal
_____Snare/Absorbent Booms
_____Oil Snares (pom poms)
_____Absorbents (pads,rolls,etc)
_____Spot Washing:_____Wands
_____Beach Cleaner
_____Other (see comments)

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: 5/2/90.
ADEC Art Weiner
EXXON Andy Tear
NOAA Gary Petroe
USCG Kenneth Keane

FOSC: _____ DATE: 6-19-90

OG Randy al

SEGMENT ST/ CH-23

SUBDIVISION A

DATE 4 / 21 / 90

CHECKLIST

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

LEGEND

1 ▲

NI - No Subsurface Oil

2 ▲

SI - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

Oiled Vegetation

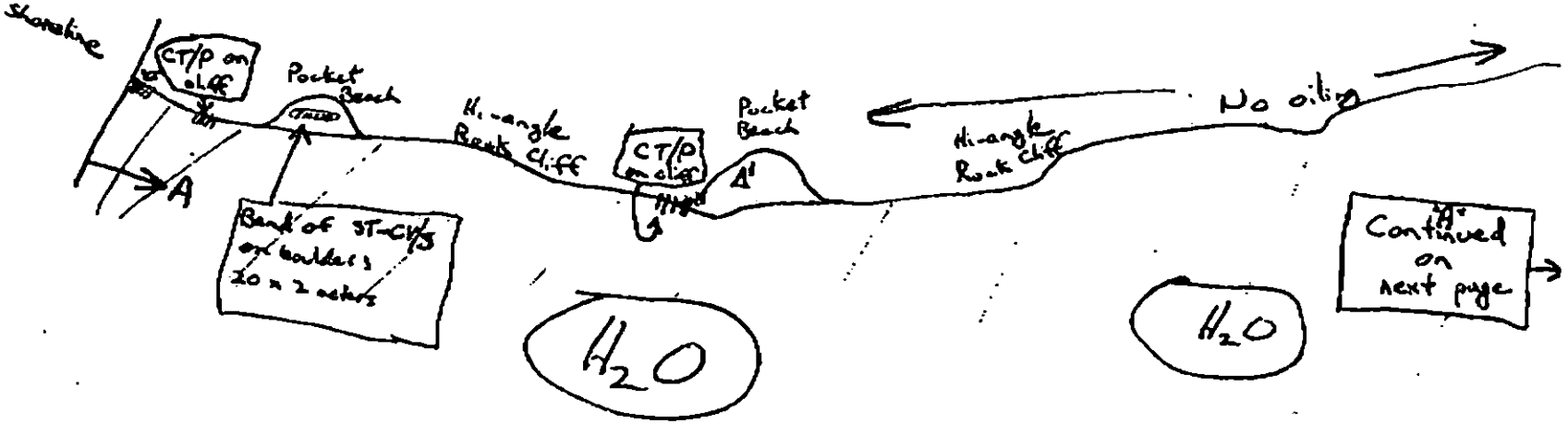
Photo location, direction, and number

30/36

SKETCH MAP #1

App. Scale 100 m

N



Character Length (m): AP___ PO___ GV___ CT___ ST___ MS___ PT___ TB___ FL___ NO___

OG Randy gal

SEGMENT ST/ CH-23

SUBDIVISION A

DATE 4 / 21 / 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 ▲ Pit - No Subsurface Oil

2 ▲ Pit - Subsurface Oil

CT/C Continuous Distribution

CT/B Broken Distribution

CT/P Patchy Distribution

CT/S Splashed Distribution

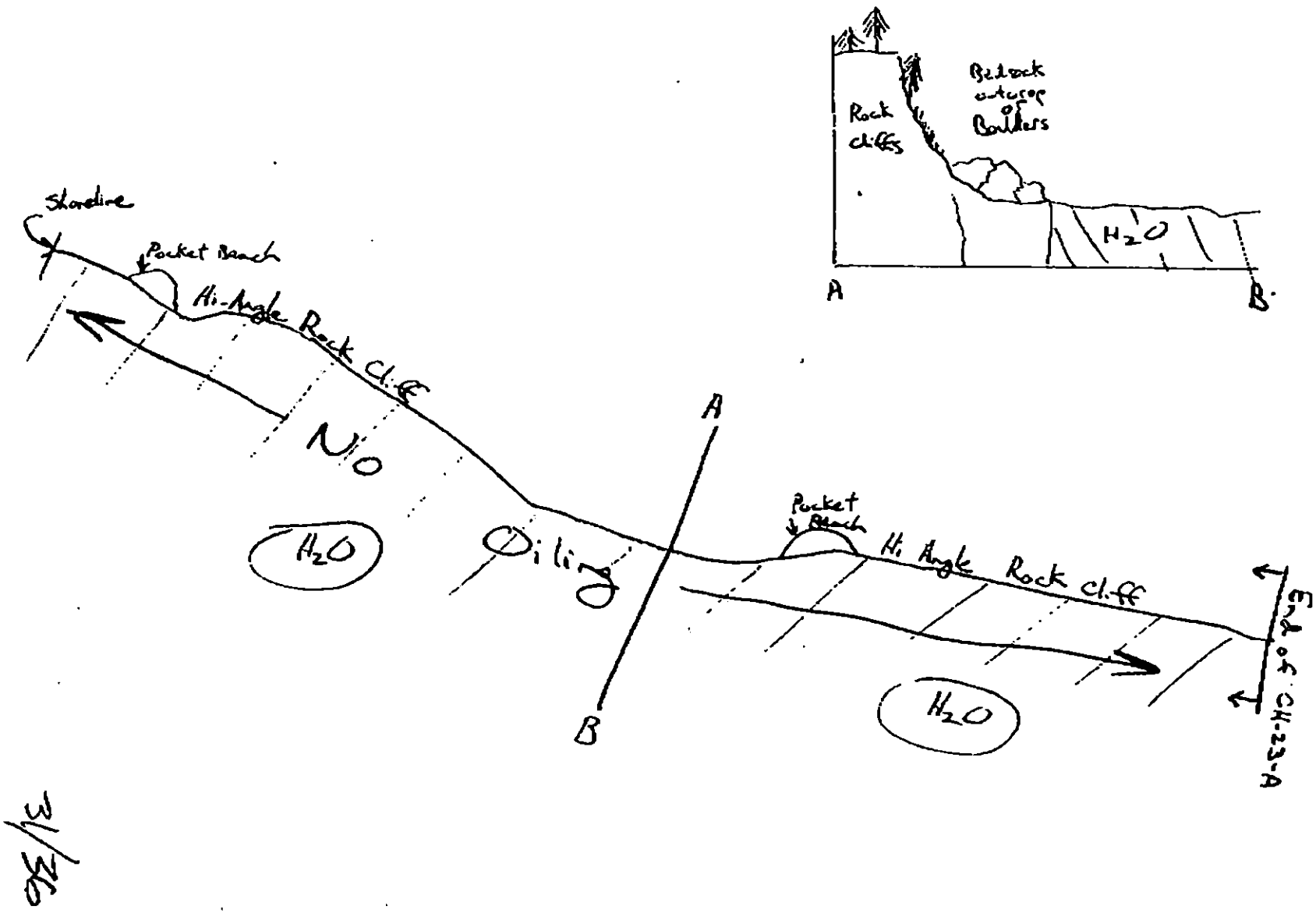
Oiled Vegetation

1 Photo location, direction, and number

→ N

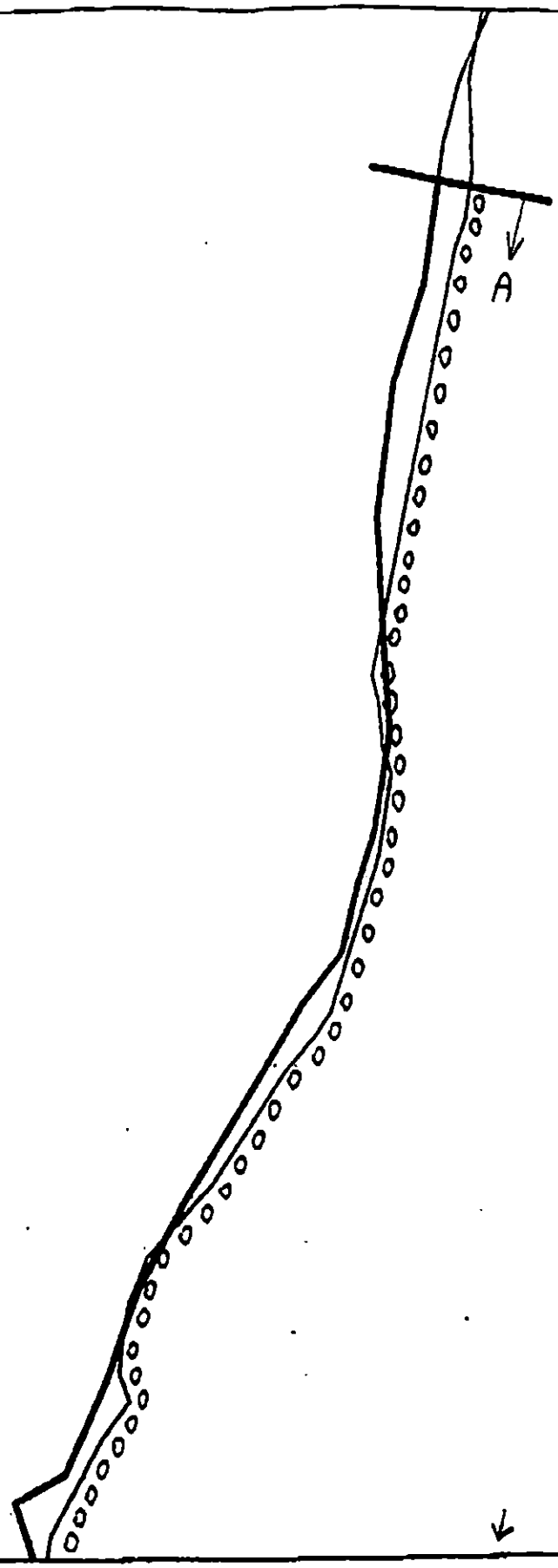
SKETCH MAP #2

Approx. Scale 100 m



Shoreline Character Length (m): AP 0 PO 0 CV 50 CT 160 ST 160 MS 0 PT 0 TB 0 FL 0 NO 2434

REVISION 6/30/90



29/36

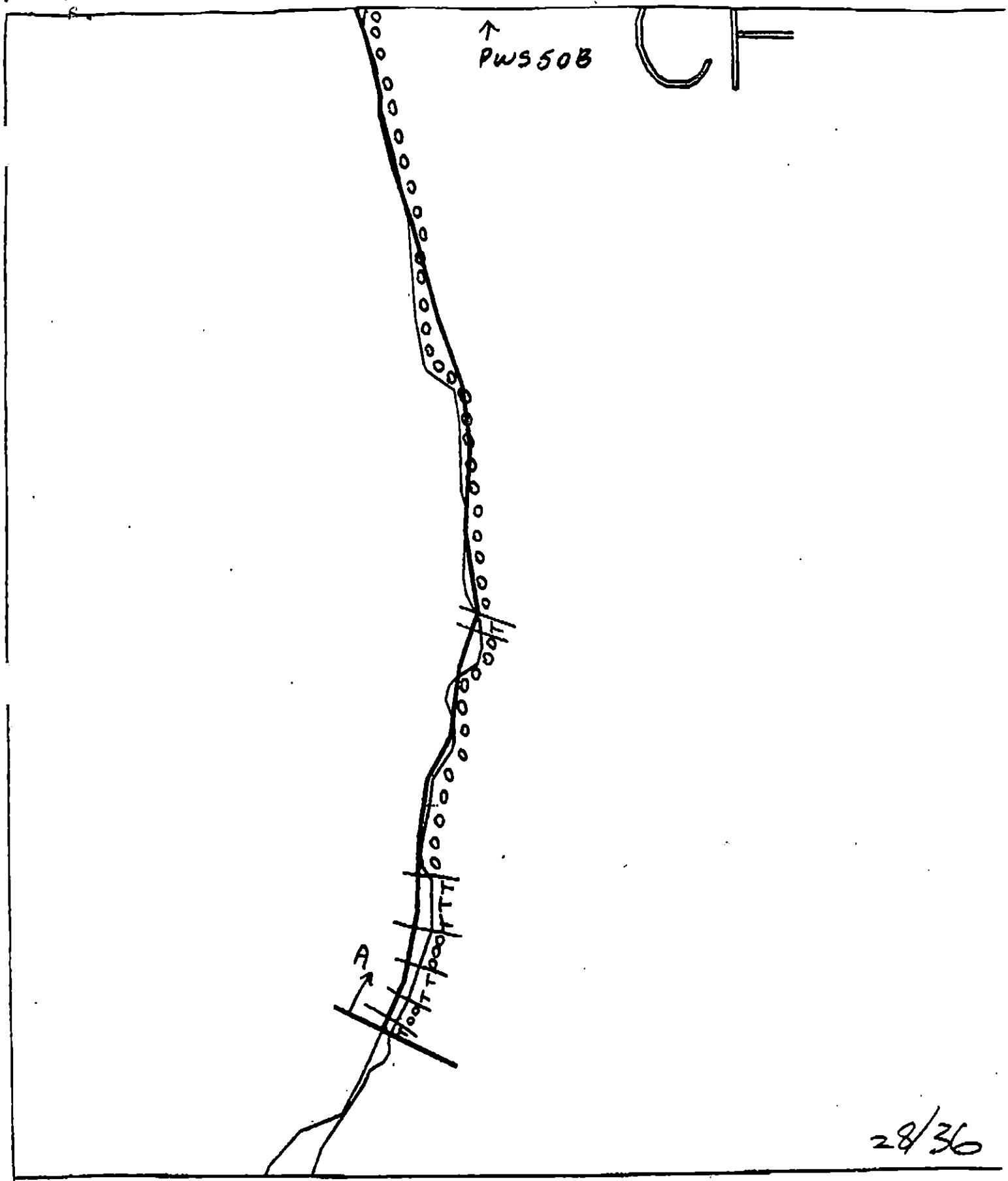
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

CH-23

ADEC Segment Length: 2583m

0 100 200 300

Map Key: PWS-50b
Name: Rob Siegel
Date: 4/21/90
Data Entered:



28/36

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

CH-23

ADEC Segment Length: 2563m

0 100 200 300
METERS

Map Key: PWS-50a
Name: R. J. Siegel
Date: 4/21/90
Date Entered:

1991 MAYSAP EVALUATION

SEGMENT: CH 023 **SUB:** A **REGION:** PWS **SURVEY DATE:** 5/2/91

ENVIRONMENTAL SENSITIVITIES:
Work Window(s) RESTRICTED 3/1 - 9/1

Ecological/Constraints (see page two for details) Eagle nest, Fish Harvest area

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.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 4 SEGMENT CH093 SUBDIVISION A DATE 2/24/91

ADEC
NAME Dianne Munson SIGNATURE Dianne Munson

☒ NTR ☐

Very Few coats on bedrock outcrops.
Entire segment was not surveyed due to previous surveys showing no oiling.

EXXON
NAME LARRY D. OLSON SIGNATURE Larry D. Olson

☒ NTR

I agree with Representatives recommendation.

LANDMANAGER
NAME LARRY EVANOFF OF CVC SIGNATURE [illegible]

☒ NTR ☐ TREATMENT RECOMMENDED
MAJORITY OF SEGMENT NOT SURVEYED BECAUSE PREVIOUS SURVEYS SHOWED NO OIL. SCATTERED COATS OF OIL FOUND.

USCG/NOAA
NAME JERRY SCHULTZ SIGNATURE Jerry Schultz

☒ NTR

I CONCUR WITH THE ABOVE REPRESENATIVES RECOMMENDATIONS.

MAYSAP SHORELINE OILING SUMMARY

TEAM NO. 4

OG J. Semple

BIO J. Barry

SEGMENT CH023

SUBDIVISION A

ADEC D. Mannon

LANDMANAGER L. Evanoff for CVC

DATE MAY 12 91

EXXON L. Olson

USCG/NOAA G. Schultz / G. Gold

TIME 07:55 to 08:22

TIDE LEVEL +3.0 ft. to +1.5 ft.

ENERGY LEVEL: [X] H [X] M [ ] L

SURVEYED FROM: [X] FOOT [ ] BOAT [ ] HELO

WEATHER: [ ] SUN [X] CLOUDS [ ] FOG [X] RAIN [ ] SNOW

TOTAL LENGTH SHORELINE SURVEYED: 400 m

NEAR SHORE SHEEN: [ ] BR [ ] RB [ ] SL [X] NONE

EST. OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 1 m NO 399 m US 2163 m

LOC	SURFACE OIL CHARACTER AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO	SURFACE SEDIMENT TYPE	SHORE SLOPE V H M L	AREA WIDTH m	AREA LENGTH m	ZONE S	UI	MI	LI	NOTES
A1						S					Bd	H	0.20	0.20		*			on bedrock fracture plane

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-_____-_____ FRAMES _____

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

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

OG COMMENTS: Verified 3 small section of talus of large angular boulders along this segment of bedrock cliffs. Oiling occurs a a small patch of coating on a sheltered bedrock surface in the upper intertidal zone. Rest of subdivision was observed from the zodiac as all previous surveys indicate no oil except in the areas visited.

reviewed 5.4 ff

REVISED: F.W. 5/5/91

Og Map Sketch

CH023-A

JM Sempch

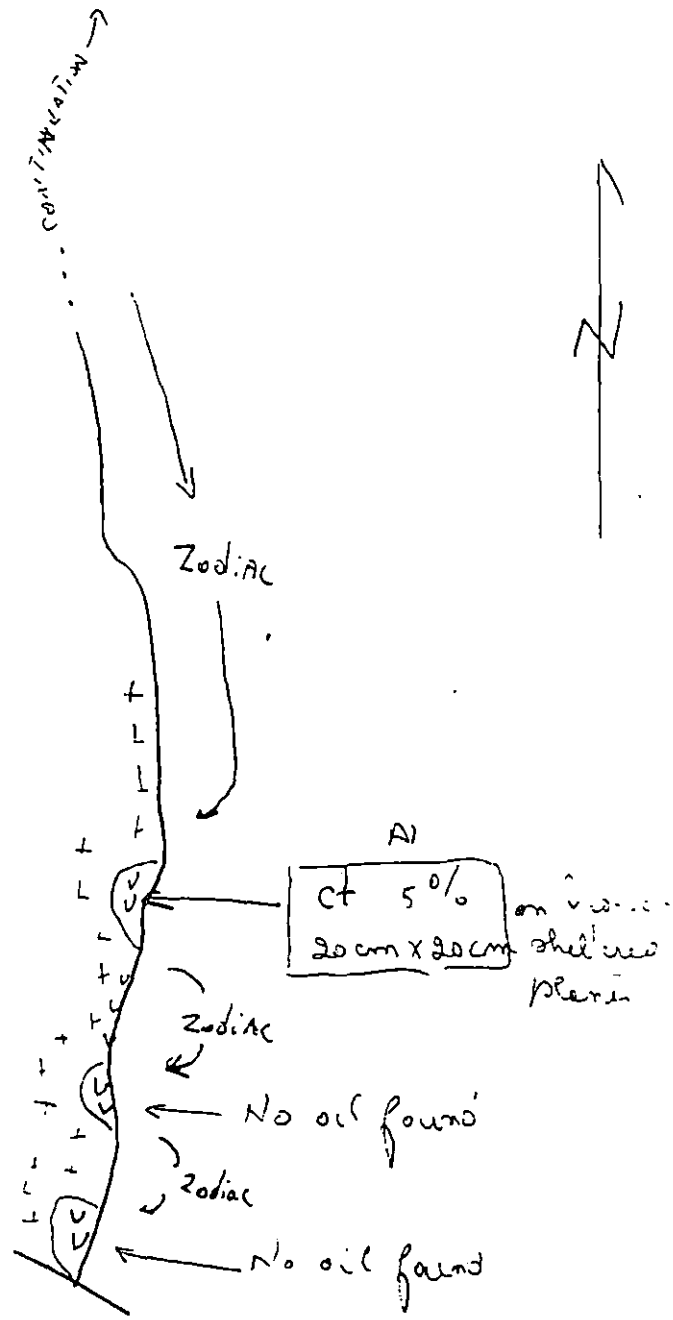
MAY 2, 91

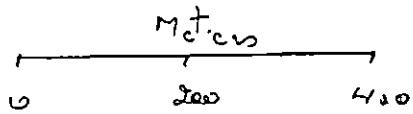
0755 - 0827

Legend

[+] Bedrock

[V] Angular large Boulders c/s talus.





reviewed 6-4 7y

REVIEWED: F.W. 5/5/91

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM #	4	DATE/TIME	May 2, 1991 0800 - 0829
SEGMENT #	CH023	TIDAL HEIGHT (Range)	+3.0 => 1.5
SUBDIVISION	A	BIOLOGIST	JIM BARRY
SEA STATE	Calm	WIND SPEED/DIRECTION	Calm, cloudy

COMMENTS / OBSERVATIONS - OILED SUBDIVISIONS

A Oiled site (CT) is located in the high upper intertidal near the supratidal zone. This location is a high angle pocket shoreline with boulders and large angular cobble. The only biota in the immediate vicinity of oil are black lichen, mosses, and a sporadic algal film. At a slightly lower tidal level (1-2 ft below the oil) the zone of barnacles begins. Barnacles densities are very high, reaching nearly 100% in the area below the oiled site. Below the barnacles, Fucus is very high in cover on the large boulders and bedrock. Brown algae are abundant in the subtidal zone.

Cleanup operations, if recommended, will not adversely affect the biota on this beach.

Summary of Subdivision CH023-A

This is a long subdivision with the only reported remaining oiling on a couple small pocket beaches located on a fairly exposed portion of the coast. The pocket beaches have exposed bedrock outcrops and headlands with very high cover of algae and invertebrates. The key species dominate the majority of space and many other species are common. Algae include several species of red, brown, and green algae and invertebrates, that are commonly found only along fairly exposed shores. A list of invertebrates and algae are ppended below. These shores have also boulders and large cobble that also have high over of algae and invertebrates.

WILDLIFE OBSERVATIONS - Completed on all subdivisions

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	2	
Seabirds	1	4	
Waterfowl	3	12	
Gulls/Kittiwakes	2	8	
Shorebirds			
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.

Reviewed MB 5/4/91

CH023-A Biology Report, (continued_)

List of Common Species from CH023-A

A. Marine Plants
1. Diatoms, Blue Greens
2. Green Algae - Chlorophyta
   Cladophora sp., Enteromorpha sp., Ulva sp., Urospora sp.
3. Brown Algae - Phaeophyta
   Agarum fimbriatum, Costaria costata, Ectocarpus spp., Fucus distichus, Hildenbrandia sp., Ralfsia sp., Syctosiphon lomentaria
4. Red Algae - Rhodophyta
   Calliarthron sp., Corallina sp., Cumagloia andersonii, Halosaccion glandiforme, Iridaea sp., Lithothamnion sp., Mastocarpus sp., Membranoptera dimorpha, Odonthalia floccosa, Palmaria palmata, Petrocelis sp., Porphyra sp., Ptilota filicina, Rhodomela larix
5. Higher Plants - Leymus mollis (beach rye grass)

II. Marine Animals
1. Sponges - Porifera - Halichondria sp.
2. Anemones
   Anthopleura artemesia, A. elegantissama, Epiactis ritteri, Metridium senile, Urticina crassicornis,
3. Hydroids - Sertularidae - Sertularella?
5. Flatworms - Platyhelminthes - Polyclads
6. Nemertean Worms - Ribbon Worms - Emplectonema gracile
8. Polychaete Worms -
   Glyceridae
   Nepthyidae
   Nereidae - Nereis spp.
   Serpulidae
   Serpula sp., Crucigera sp., Eudistylia polymorpha
   Spriorbidae - Spirorbis sp.
9. Peanut worms - Sipunculids - Phascolosoma agassizii
10. Crustaceans
    a. Amphipods - Orchestia sp.?
    b. Barnacles
       Balanus glandula, Chthamalus dalli, Semibalanus cariosus
    c. Crabs
       Haplogaster sp., Hemigrapsus oregonensis, Paguridae (hermit crabs), Oregonia gracilis
11. Mollusca
    a. Chitons
       Mopalia sp., M. mucosa, Katharina tunicata, Tonicella lineata,
    b. Snails - Gastropods
       Littorina scutulata, L. sitkana, Natica clausa, Nucella lamellosa, Margarites sp., Tachyrhynchus sp.
    c. Limpets
       Acmaea mitra, Lottia digitalis, L. persona
    d. Nudibranches - Lamellidoris fusca
    e. Mussels and Clams
       Macoma balthica, Macoma nasuta, Modiolus sp., Mytilus edulis, Pododesmus cepio, Prototheca staminea

Reviewed MK 5/4/91

CH023-A Biology Report, (continued)

12. Echinoderms
    a. Brittle Stars - Ophiolus sp., ?
    b. Sea stars
        Dermasterias imbricata. Evasterias truscheli, Henricia leviuscula, Leptasterias hexactis, Orthasterias keohleri, Pisaster ochraceus, Pycnopoida helianthoides, Solaster sp.
    c. Sea Cucumbers - Holothurians -
        Eupentacta sp., Leptosynapta sp.
    d. Urchins - Strongylocentrotus droebachiensis
13. Bryozoans - Membranipora sp., Schizoporella sp.
15. Fishes
        Cottidae - several species
        Liparidae - Liparis callyodon
        Stichaeidae - Xiphister atropurpureus, X. mucosus

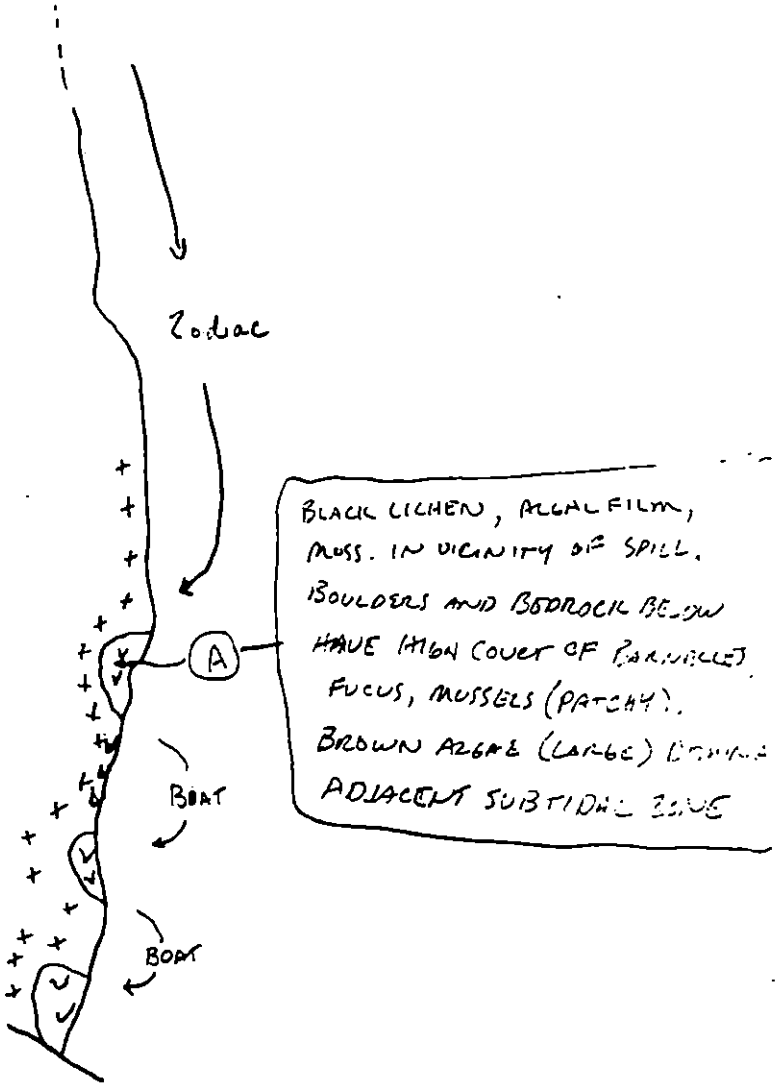
Reviewed MLE 4/91

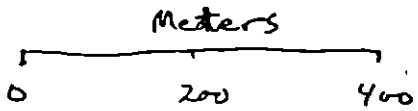
BIO SKETCH MAP

CH023-A
Jim Barley
MAY 2, 91
0755-0827

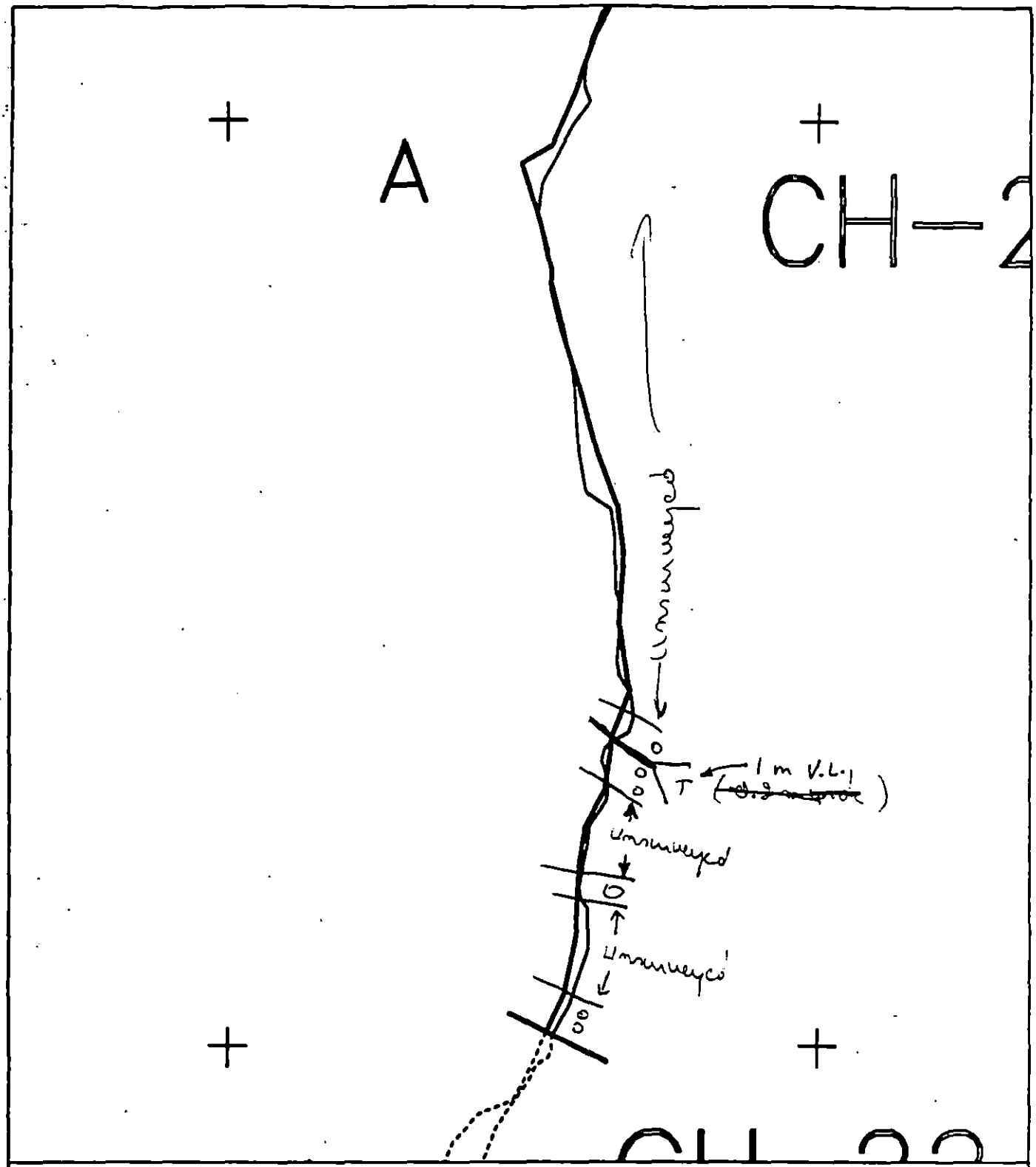
[+] Bedrock

[V] Angular large Boulders, cobble talus





REVIEWED MB 5/4/91



XXXX	Wide	CH023 A	Subdivision Field Map
////	Medium	ADEC Subsegment Length: 2583m	Map Key: PWSCH023Aa
----	Narrow	METERS	Name: SEMPELS
TTTT	Very Light	0 200 400	Date: 5/2/91
0000	No Oil	AK State Plane Zone 4 pch023aa	Date Entered:

reviewed 5.4 97

REVISED: F.W. 5/5/91

1991 MAYSAP EVALUATION

SEGMENT: CH 023 **SUB:** A **REGION:** PWS **SURVEY DATE:** 5/2/91

ENVIRONMENTAL SENSITIVITIES:
Work Window(s) RESTRICTED 3/1 - 9/1

Ecological/Constraints (see page two for details) Eagle nest, Fish Harvest area

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

SHPO Signature: [signature] Date: 5/10/91

RECOMMENDATIONS:	**INITIAL**	**TAG**	**FOSC**
TREATMENT REQUIRED (Y or 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 10 1991

ADEC [signature]

EXXON [signature]

USCG [signature]

NOAA [signature]

FOSC APPROVAL DATE: 5/15/91

FOSC [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.

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

CH023-A 1/8

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 4 SEGMENT CH023 SUBDIVISION A DATE 2/24/91

ADEC
NAME Dianne Munson SIGNATURE Dianne Munson

☒ NTR ☐

Very Few coats on bedrock outcrops.
Entire segment was not surveyed due to previous surveys showing no oiling.

EXXON
NAME LARRY D. OLSON SIGNATURE Larry D. Olson

☒ NTR

I agree with Representatives recommendation.

LANDMANAGER
NAME LARRY EVANOFF OF CVC SIGNATURE [illegible]

☒ NTR ☐ TREATMENT RECOMMENDED
MAJORITY OF SEGMENT NOT SURVEYED BECAUSE PREVIOUS SURVEYS SHOWED NO OIL. ~~BE~~ SCATTERED COATS OF OIL FOUND.

USCG/NOAA
NAME JERRY SCHULTZ SIGNATURE Jerry Schultz

☒ NTR

I CONCUR WITH THE ABOVE REPRESENATIVES RECOMMENDATIONS.

MAYSAP SHORELINE OILING SUMMARY

TEAM NO. 4

SEGMENT CH023

OG J. Semple

BIO J. Barry

SUBDIVISION A

ADEC D. Mannon

LANDMANAGER L. Evanoff for CVC

DATE MAY / 2 / 91

EXXON L. Olson

USCG/NOAA G. Schultz / G. Gold

TIME 07 : 55 to 08 : 22

TIDE LEVEL +3.0 ft. to +1.5 ft.

ENERGY LEVEL: [X] H [X] M [ ] L

SURVEYED FROM: [X] FOOT [ ] BOAT [ ] HELO

WEATHER: [ ] SUN [X] CLOUDS [ ] FOG [X] RAIN [ ] SNOW

TOTAL LENGTH SHORELINE SURVEYED: 400 m

NEAR SHORE SHEEN: [ ] BR [ ] RB [ ] SL [X] NONE

EST. OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 1 m NO 399 m US 2163 m

LOC	SURFACE OIL CHARACTER										SURFACE SEDIMENT TYPE	SHORE SLOPE	AREA		ZONE				NOTES
	AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO		V H M L	WIDTH m	LENGTH m	S	UI	MI	LI	
A1						S					Bd	H	0.30	0.20		*			on bedrock fracture plane

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-_____-_____ FRAMES _____

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

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

OG COMMENTS: Verified 3 small section of talus of large angular boulders along this segment of bedrock cliffs. Oiling occurs a a small patch of coating on a sheltered bedrock surface in the upper intertidal zone. Rest of subdivision was observed from the zodiac as all previous surveys indicate no oil except in the areas visited.

reviewed 5.4 9y

REVISED: F.W. 5/5/91

CH023-A

O.g Map Sketch

CH023-A

JM Sempch

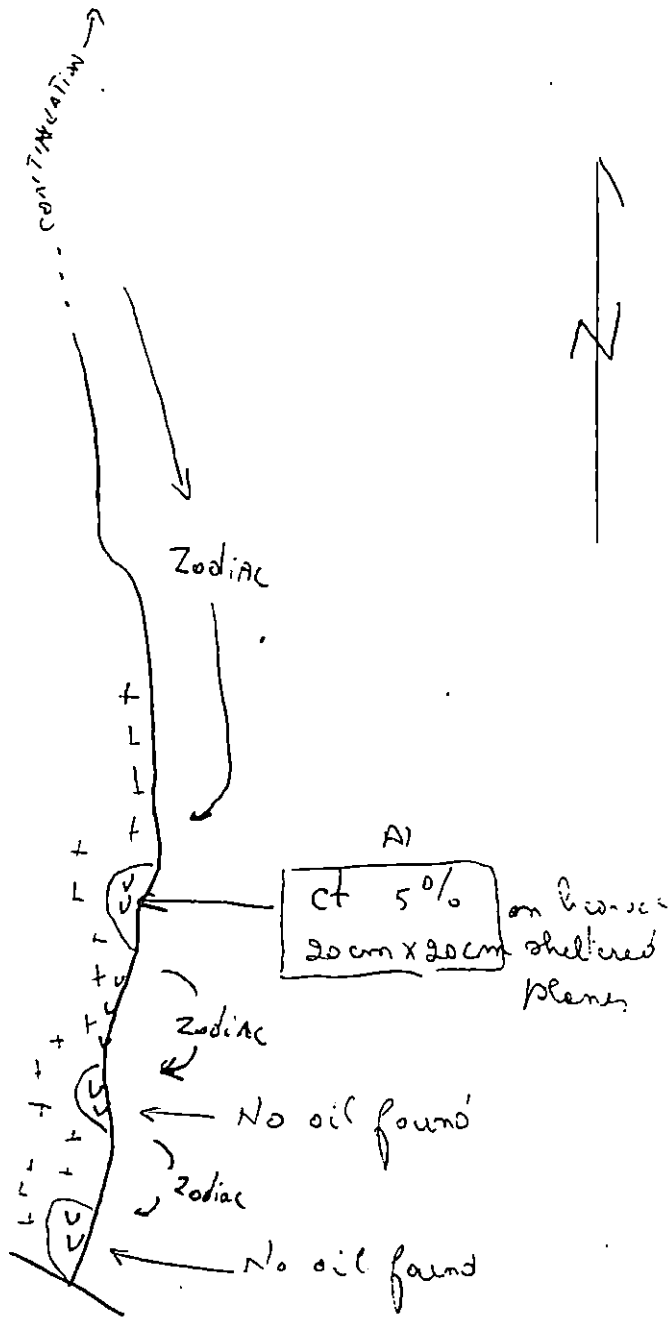
MAY 2, 91

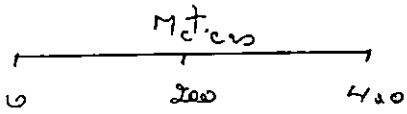
0755 - 0827

Legend

(+) Bedrock

(V) Angular large Boulders c/b talus.





reviewed 6.4 94

REVIEWED: F.W. 5/5/91

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM #	4	DATE/TIME	May 2, 1991 0800 - 0829
SEGMENT #	CH023	TIDAL HEIGHT (Range)	+3.0 => 1.5
SUBDIVISION	A	BIOLOGIST	JIM BARRY
SEA STATE	Calm	WIND SPEED/DIRECTION	Calm, cloudy

COMMENTS / OBSERVATIONS - OILED SUBDIVISIONS

A Oiled site (CT) is located in the high upper intertidal near the supratidal zone. This location is a high angle pocket shoreline with boulders and large angular cobble. The only biota in the immediate vicinity of oil are black lichen, mosses, and a sporadic algal film. At a slightly lower tidal level (1-2 ft below the oil) the zone of barnacles begins. Barnacles densities are very high, reaching nearly 100% in the area below the oiled site. Below the barnacles, Fucus is very high in cover on the large boulders and bedrock. Brown algae are abundant in the subtidal zone.

Cleanup operations, if recommended, will not adversely affect the biota on this beach.

Summary of Subdivision CH023-A

This is a long subdivision with the only reported remaining oiling on a couple small pocket beaches located on a fairly exposed portion of the coast. The pocket beaches have exposed bedrock outcrops and headlands with very high cover of algae and invertebrates. The key species dominate the majority of space and many other species are common. Algae include several species of red, brown, and green algae and invertebrates, that are commonly found only along fairly exposed shores. A list of invertebrates and algae are appended below. These shores have also boulders and large cobble that also have high cover of algae and invertebrates.

WILDLIFE OBSERVATIONS - Completed on all subdivisions

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	2	
Seabirds	1	4	
Waterfowl	3	12	
Gulls/Kittiwakes	2	8	
Shorebirds			
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.

Reviewed MB 5/4/91

CH023-A Biology Report, (continued_)

List of Common Species from CH023-A

. Marine Plants
1. Diatoms, Blue Greens
2. Green Algae - Chlorophyta
   Cladophora sp., Enteromorpha sp., Ulva sp., Urospora sp.
3. Brown Algae - Phaeophyta
   Agarum fimbriatum, Costaria costata, Ectocarpus spp., Fucus distichus, Hildenbrandia sp., Ralfsia sp., Syctosiphon lomentaria
4. Red Algae - Rhodophyta
   Calliarthron sp., Corallina sp., Cumagloia andersonii, Halosaccion glandiforme, Iridaea sp., Lithothamnion sp., Mastocarpus sp., Membranoptera dimorpha, Odonthalia floccosa, Palmaria palmata, Petrocelis sp., Porphyra sp., Ptilota filicina, Rhodomela larix
5. Higher Plants - Leymus mollis (beach rye grass)

II. Marine Animals
1. Sponges - Porifera - Halichondria sp.
2. Anemones
   Anthopleura artemesia, A. elegantissama, Epiactis ritteri, Metridium senile, Urticina crassicornis,
3. Hydroids - Sertularidae - Sertularella?
5. Flatworms - Platyhelminthes - Polyclads
6. Nemertean Worms - Ribbon Worms - Emplectonema gracile
8. Polychaete Worms -
   Glyceridae
   Nepthyidae
   Nereidae - Nereis spp.
   Serpulidae
   Serpula sp., Crucigera sp., Eudistylia polymorpha
   Spriorbidae - Spirorbis sp.
9. Peanut worms - Sipunculids - Phascolosoma agassizii
10. Crustaceans
    a. Amphipods - Orchestia sp.?
    b. Barnacles
       Balanus glandula, Chthamalus dalli, Semibalanus cariosus
    c. Crabs
       Haplogaster sp., Hemigrapsus oregonensis, Paguridae (hermit crabs), Oregonia gracilis
11. Mollusca
    a. Chitons
       Mopalia sp., M. mucosa, Katharina tunicata, Tonicella lineata,

b. Snails - Gastropods
   Littorina scutulata, L. sitkana, Natica clausa, Nucella lamellosa, Margarites sp., Tachyrhynchus sp.

c. Limpets
   Acmaea mitra, Lottia digitalis, L. persona

d. Nudibranches - Lamellidoris fusca

e. Mussels and Clams
   Macoma balthica, Macoma nasuta, Modiolus sp., Mytilus edulis, Pododesmus cepio, Prototheca staminea

Reviewed MB 5/4/91

CH023-A Biology Report, (continued)

12. Echinoderms
    a. Brittle Stars - Ophiolus sp., ?
    b. Sea stars
        Dermasterias imbricata, Evasterias truscheli, Henricia leviuscula, Leptasterias hexactis, Orthasterias keohleri, Pisaster ochraceus, Pycnopoida helianthoides, Solaster sp.
    c. Sea Cucumbers - Holothurians -
        Eupentacta sp., Leptosynapta sp.
    d. Urchins - Strongylocentrotus droebachiensis
13. Bryozoans - Membranipora sp., Schizoporella sp.
15. Fishes
        Cottidae - several species
        Liparidae - Liparis callyodon
        Stichaeidae - Xiphister atropurpureus, X. mucosus

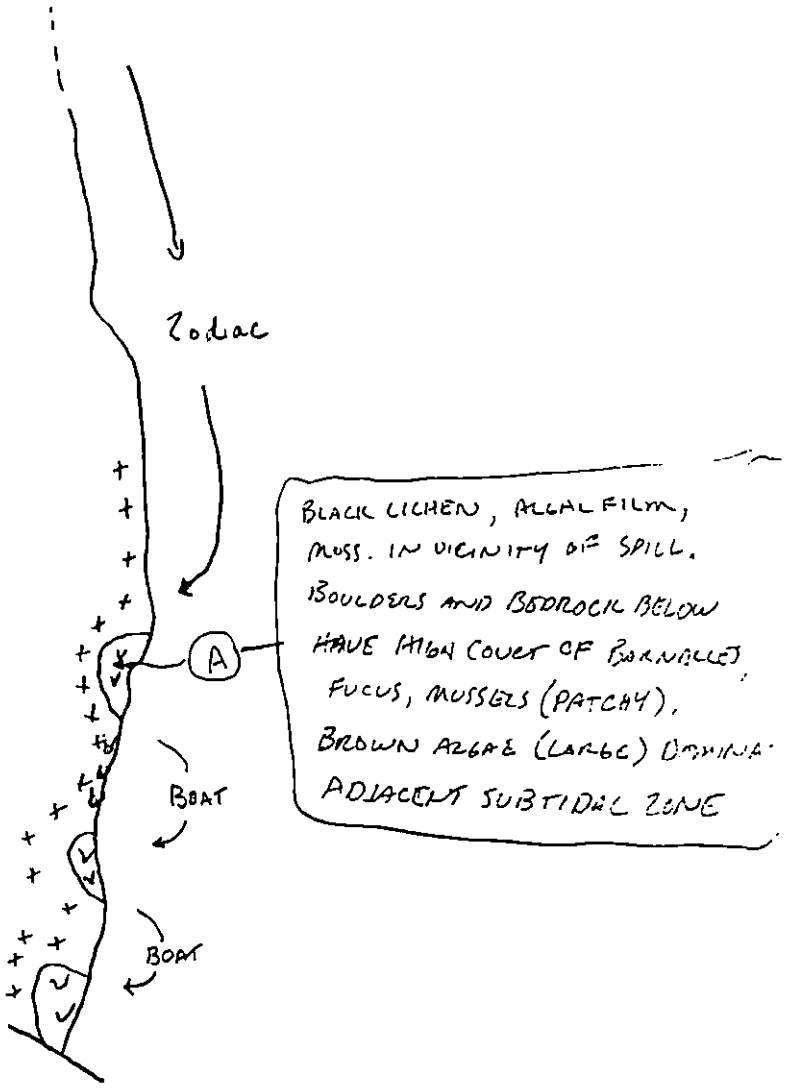
Reviewed MB 5/4/91

BIO SKETCH MAP

CH023-A
Jim Barry
MAY 2, 91
0755-0827

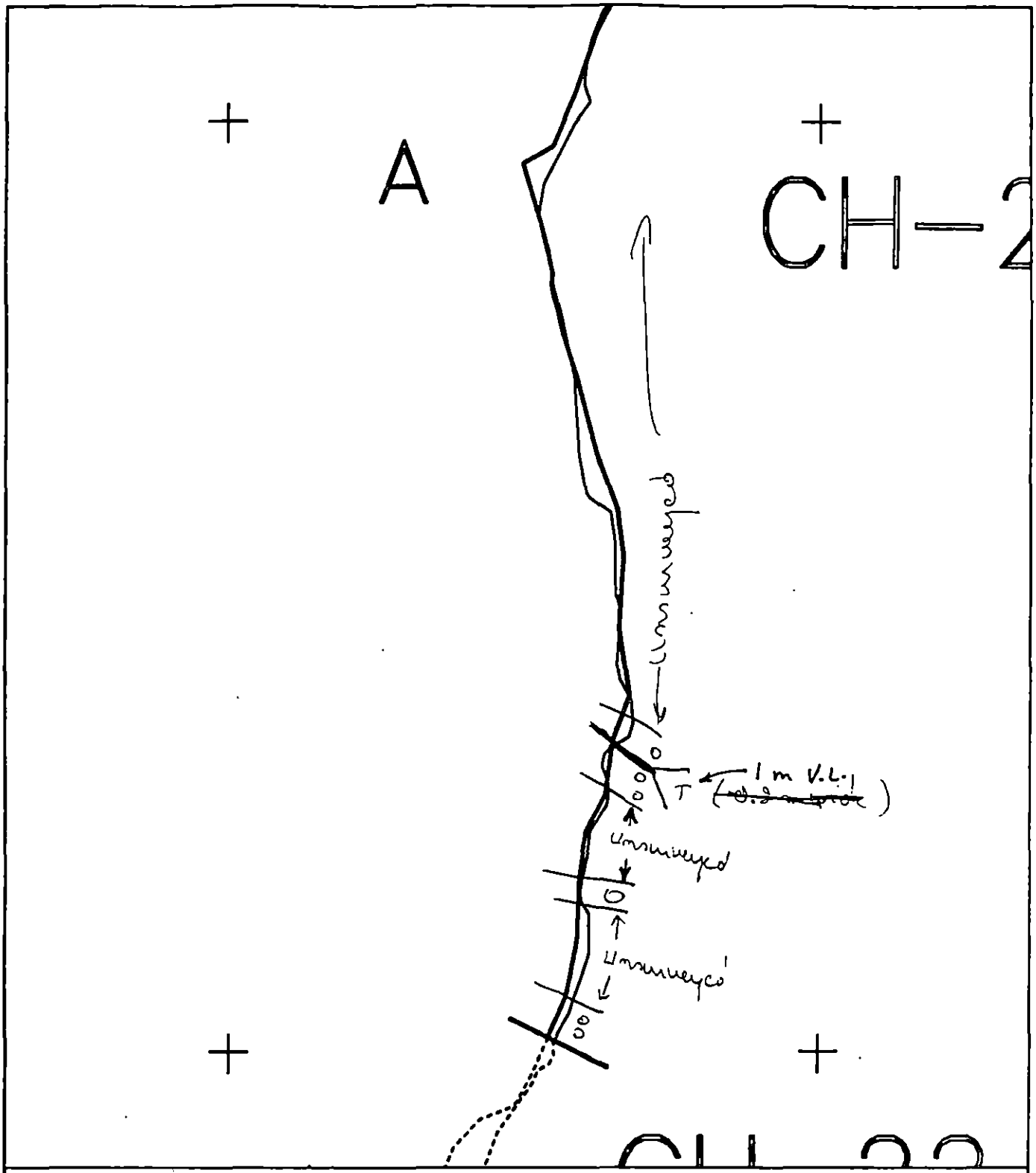
[+] Bedrock

[V] Angular large Boulders, cobble talus



Meters
0 200 400

REVIEWED MB 5/4/91



XXXX	Wide	CH023 A	Subdivision Field Map
////	Medium	ADEC Subsegment Length: 2563m	Map Key: PWSCH023Aa
----	Narrow	METERS	Name: SEMPELS
TTTT	Very Light	0 200 400	Date: 5/2/91
0000	No Oil	AK State Plane Zone 4 pch023aa	Date Entered:

reviewed 5.4 9y

REVISED: F.W. 5/5/91

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ CH-900 STREAM NO: 226-20-16200 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-3 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Subject stream is located within an unsurveyed segment (no subdivision other than U).

ARCHAEOLOGICAL CONSTRAINT: Consultation and inspection with an **Exxon archaeologist is required prior to treatment.** Specific on-site monitoring requirements will be determined at that time.
>>> PHONE 564-3274 (Anchorage) OR 229-1508 (24 hrs.) <<<

SHPO SIGNATURE: Rachel Dean DATE: 5/18/90

Subsurface Oil Observed: Yes____ No X Maximum Depth____

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS: MANUAL PICKUP OF TAR PATTIES

TAG APPROVAL DATE: 5/9/90
ADEC Art Weiner
EXXON Andy Seal
NOAA Burl Wescott
USCG D.D. Rome

FOSC: DATE: 6-8-90
Notify CYC 24 hours prior to cleanup

OG WILLIAM REID

SEGMENT ST/ CH900

STREAM 226-20-16200

DATE ___/___/90

CHECKLIST

- ___ N Arrow
- ___ Approx. Scale
- ___ Seg/Sub Bndry
- ___ Off Dist.
- ___ Width
- ___ Length
- ___ % Cover
- ___ Substrate Character
- ___ Est. HWL/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

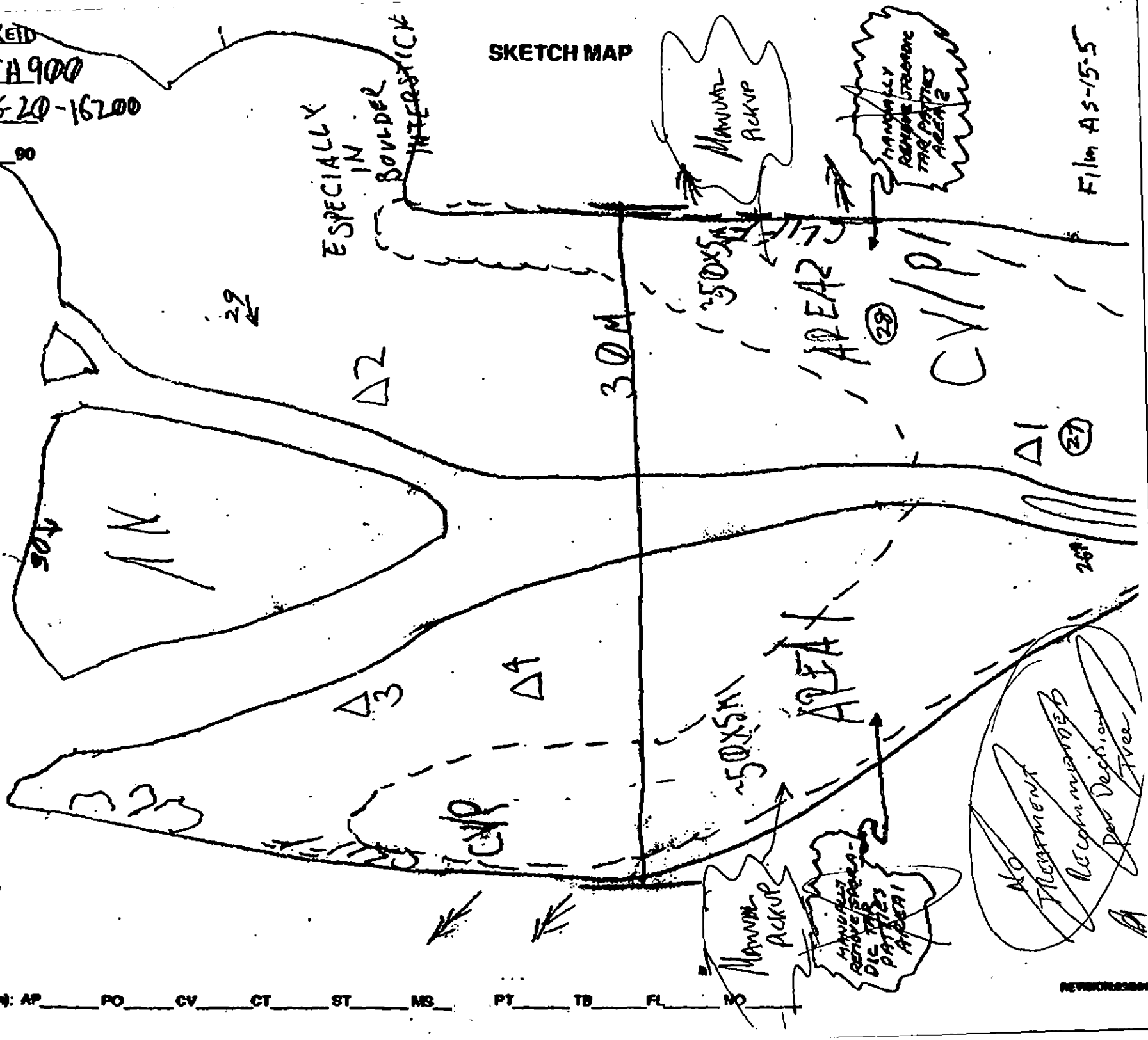
CT/P Patchy Distribution

CT/S Splashed Distribution

Oiled Vegetation

1 Photo location, direction, and number

SKETCH MAP



Oil Characte Ith (m): AP_____ PO_____ CV_____ CT_____ ST_____ MS_____ PT_____ TB_____ FL_____ NO_____

REVISION/COMM

OG WILLIAM KEID

SEGMENT ST/ CH900

STREAM 22620-162000

DATE ____/____/90

CHECKLIST

- ___ N Arrow
- ___ Approx. Scale
- ___ Seg/Sub Body
- ___ OB Dist.
- ___ Width
- ___ Length
- ___ % Cover
- ___ Substrate Character
- ___ Est. HWL/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

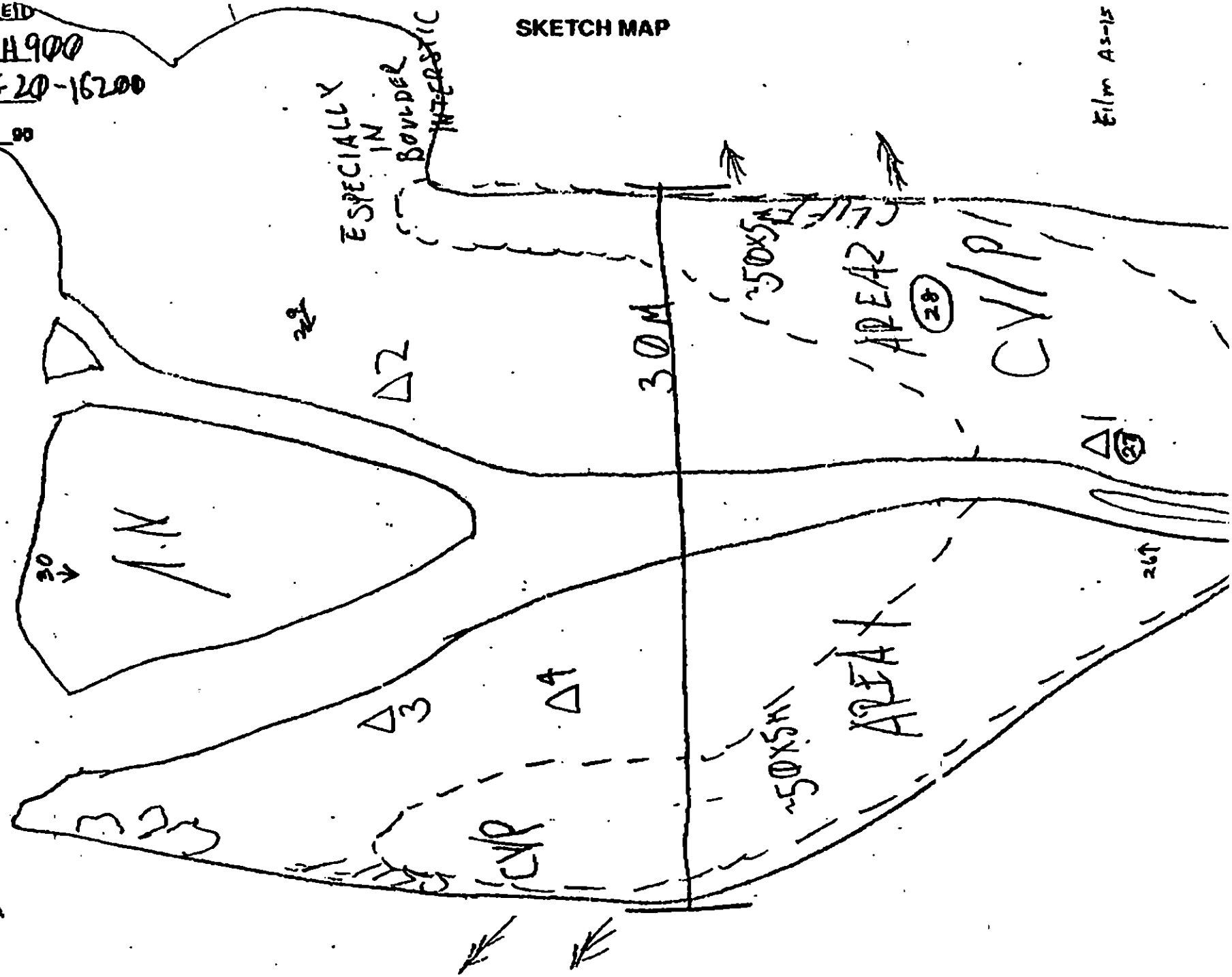
CT/P Patchy Distribution

CT/S Splashed Distribution

Oiled Vegetation

1 Photo location, direction, and number

SKETCH MAP



Film As-15

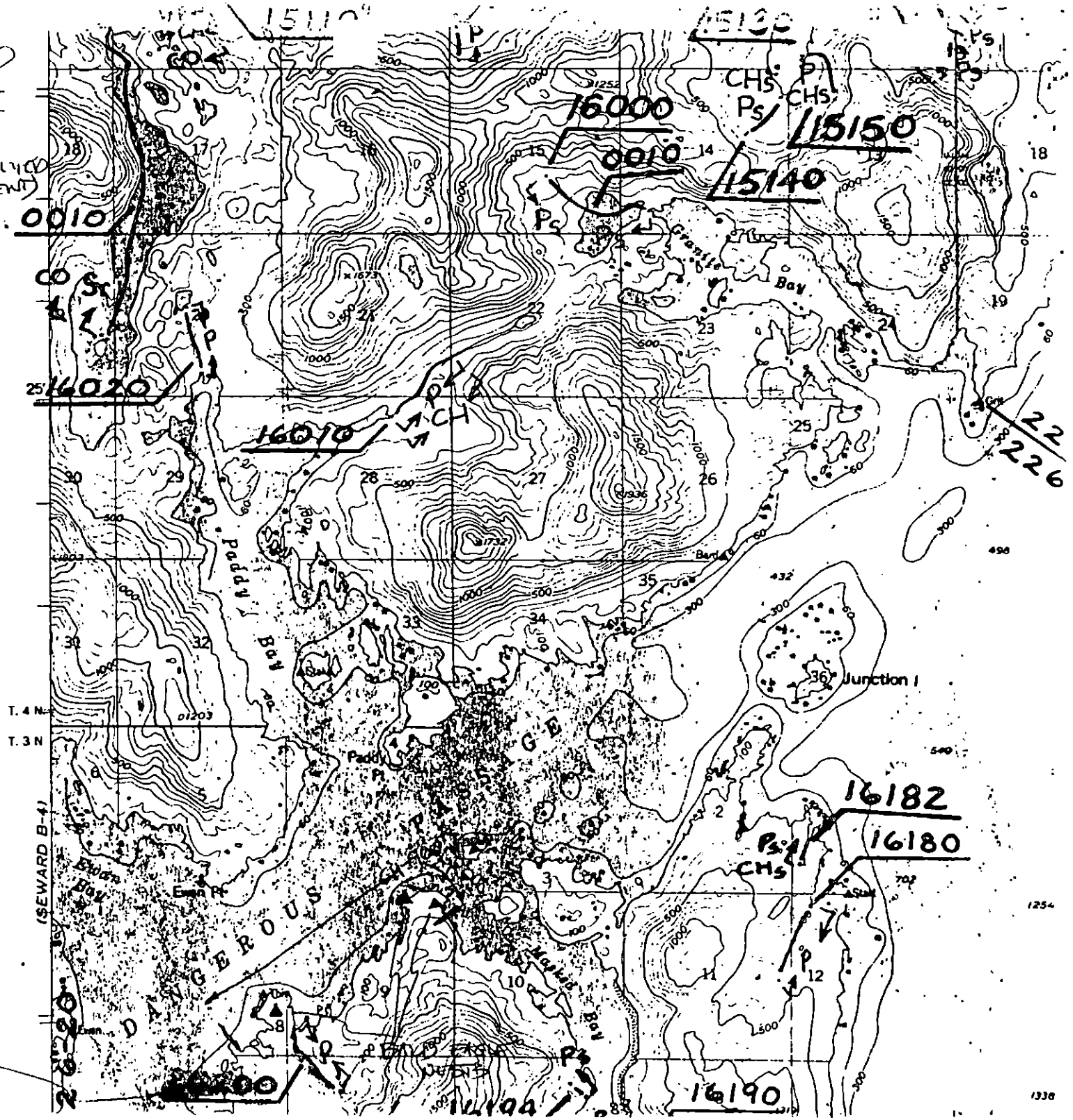
REVISION 03/94

Oil Character lb (gr): AP_____ PO_____ CV_____ CT_____ ST_____ MS__ PT_____ TB_____ FL_____ NO_____

ECOLOGICAL MAP

CH-900-U (UNSURVEYED SEGMENT)

1A, 1B
ST(3)



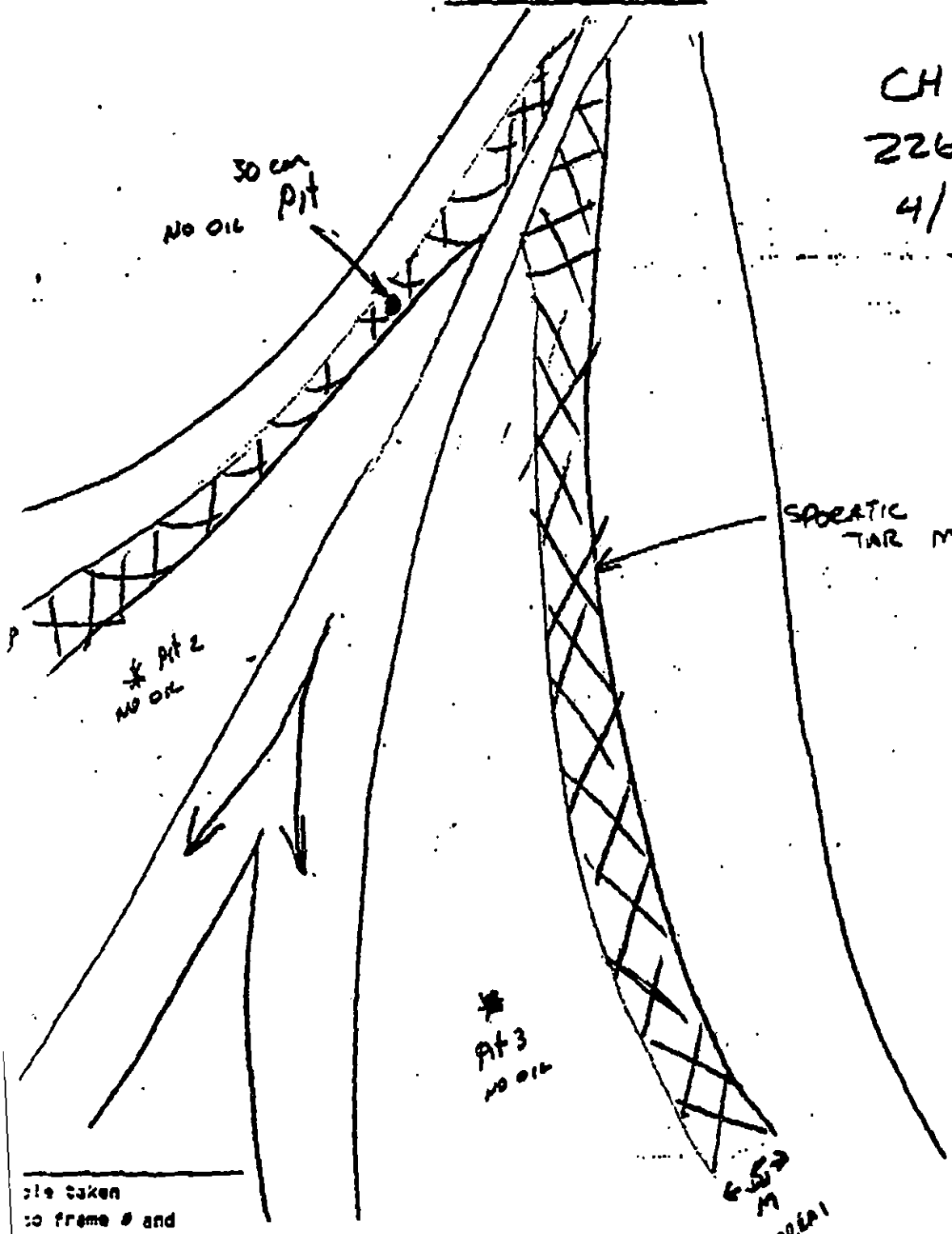
SUBJECT ANADROMOUS
(REXM #226-20-16200
P, 2/90)
WITHIN UNSURVEYED SEGMENT

6/5

48 PHOTOLOG

FRAME(S)	DESCRIPTION
	SPORATIC TAR MATS IN BAND AT MID INTERTIDAL AND UPPER INTERTIDAL
	RECOMMENDATION: MANUAL REMOVAL OF SURFACE TAR. TROWELS MAY BE NECESSARY TO GET AT TAR IN BOULDER CREVICES.
	I agree with recommendations. [illegible]

48 OIL DISTRIBUTION DIAGRAM



ole taken
to frame # and
: direction.

ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 226-20-16200

SEGMENT CH-900 SUBDIVISION A

WORK WINDOW	
Manual Pickup	OPEN

ARCHAEOLOGICAL INSPECTION/CONSULTATION REQUIRED.

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

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B	**Salmon Stream**	ADF&G catalogued anadromous stream (226-20-16200) is in Subdivision A. 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.

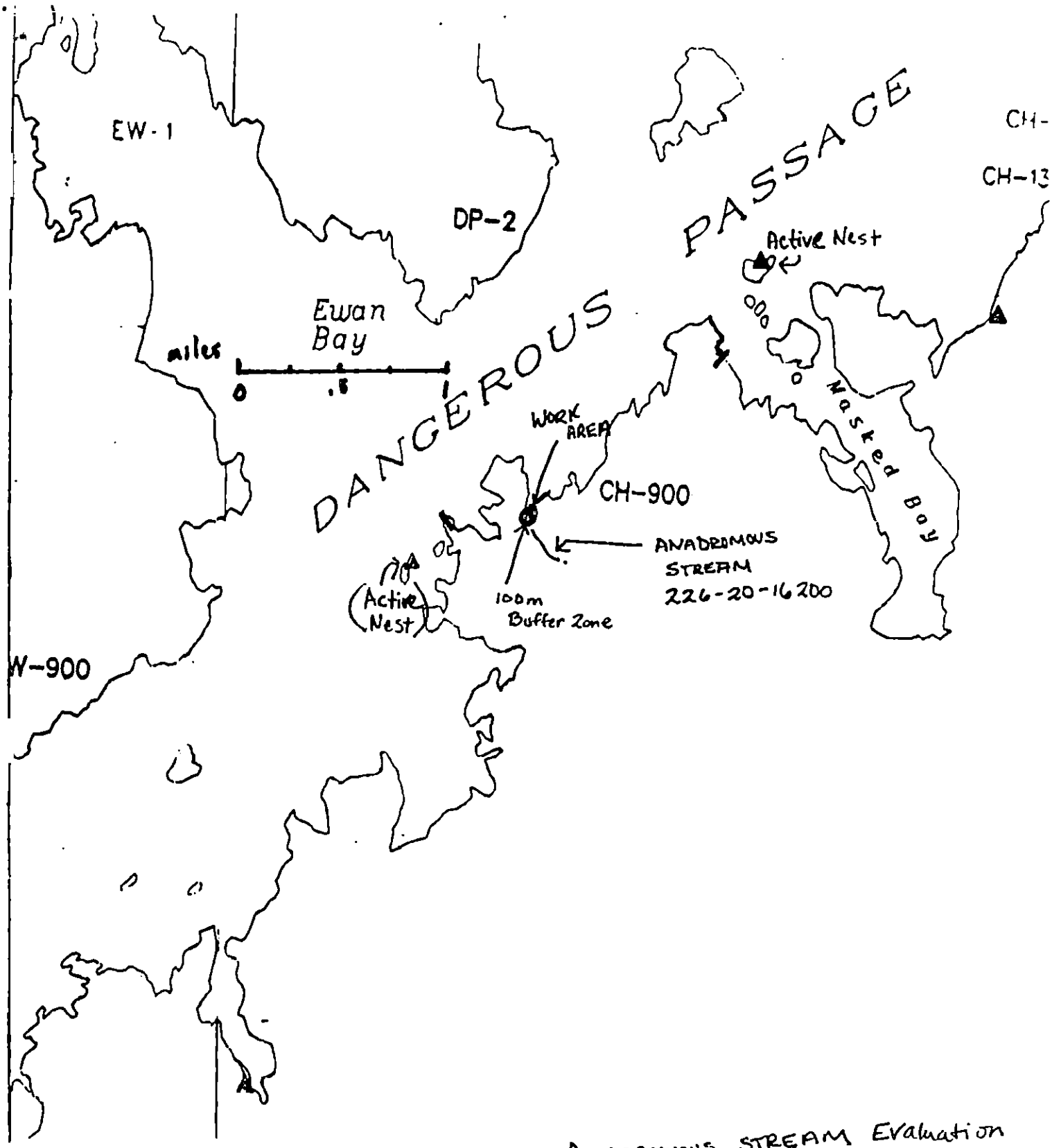
OTHER ECOLOGICAL CONSIDERATIONS

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

SEE SUBDIVISION CONSTRAINT ADDENDUM CH-900A FOR ADDITIONAL CONSTRAINT INFORMATION

FOSC _____ Date 6-20-90

Prepared by _____ Date 6/18/90



ANADROMOUS STREAM Evaluation

CH-900 A

ANADROMOUS STREAM # 226-20-16200

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ CH-900 STREAM NO: 226-20-16200 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-3 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Subject stream is located within an unsurveyed segment (no subdivision other than U).

ARCHAEOLOGICAL CONSTRAINT: Consultation and inspection with an Exxon archaeologist is required prior to treatment. Specific on-site monitoring requirements will be determined at that time.
>>> PHONE 564-3274 (Anchorage) OR 229-1508 (24 hrs.) <<<

SHPO SIGNATURE: Rachel Dean Dean DATE: 5/18/90

Subsurface Oil Observed: Yes____ No X Maximum Depth____

RECOMMENDATIONS:

- X 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: SEE CONSTRAINTS ADDENDUM DATED 6/18/90. JAP

TAG COMMENTS: MANUAL PICKUP OF TAR PATTIES

TAG APPROVAL DATE: 5/9/90
ADEC Art Weaver Art Weaver
EXXON Andy Gal
NOAA Burl Wescott
USCG D.D. Rome

FOSC: DATE: 6-8-90
Notify c/c 24 hours prior to cleanup

ANADROMOUS FISH STREAM ASSESSMENT

REGION: PRINCE WILLIAM SOUND

SEGMENT: CH-900

STREAM NO: 226-20-16200

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ CH-900 STREAM NO: 226-20-16200 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-3 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Subject stream is located within an unsurveyed segment (no subdivision other than U).

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:

X No Treatment Recommended
_____Treatment Recommended
_____Manual Pickup
_____Bioremediation
_____Tarmat Removal

_____Snare/Absorbent Booms
_____Oil Snares (pom poms)
_____Absorbents (pads,rolls,etc)
_____Spot Washing:_____Wands
_____Beach Cleaner
_____Other (see comments)

COMMENTS: _____

TAG COMMENTS:_____

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

SHORELINE OILING SUMMARY (ANAD.)

REVISION NO. 7/91

OG: William Reid USCG: McMahon SEGMENT ST/ CH900
BIO: Michael Fawcett LAND REP: STREAM 226-20-16 OF
EXXON: Gus Garcia ADFG: Mike Wiedmer TIME: 09:30 to :
TEAM NO. 15 TIDE LEVEL: -1.5 ft DATE: 25/4/90
EST. SUBDIVISION LENGTH: 30 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
SURFACE SEDIMENTS: R___ % B 5 % C 60 % P 35 % G___ % S___ % M___ % V___
SLOPE: Lang 60 % Hang 40 % Vert___ % WAVE EXPOSURE: ☐ Low ☒ Med ☐ Hig
OIL CATEGORY LENGTH: W___ m M 8 m N___ m VL___ m NO 22

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	SU	MI	MB	LI
ASPHALT PAVEMENT													
POOLED													
COVER			X			X					X		
COAT													
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL										X		X	X

PAVEMENT H F S___ sq. m by___
PATTIES / TARBALLS___ B/
NEAR SHORE SHEEN? (NO) BR RW SL

OILED DEBRIS	AMOUNT SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

Did you Col
DEBRIS
☐ YES ☐ NO
TYPE___
#BAGS___

Photographs:
Roll No.___
Frames___

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR					PIT ZONE				ANA	SHEEN (Y/N)		SURFAC SUBSURF SEDIMEN
		OP	OR	OL	OF	NO		UO	UO	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	SU	MI	MB	LI				
1	30					X	-									X				N		P/C
2	15					X	-										X			N		P/G/
3	20					X	-										X			N		P/G/
4	15					X	-									X				N		P/G/
							-															
							-															

COMMENTS

REVIEWED JW DATE 4-27-90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream 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 Suzomoto 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 unoiled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Evelyn Biggs 424-3235

3N, 3P Harbor seal and sea lion pupping (5/15 to 7/1)
3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
ADF&G Don Calkins 267-2403

5R Seabird colony (5/1 to 9/1)
Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

5S Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
ADF&G Tom Rothy 267-2206

5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

6U Recreation: Tent sites (6/1 to 9/15)
6V Anchorages (6/1 to 9/15)
6W Forest Service cabins (6/1 to 9/15)
6X Lodge (6/1 to 9/15)
6Y Special use destination

7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
7HH Finfish harvesting
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 / CH 900 SUBDIVISION: 16 200 DATE 4/25/90

USCG
NAME CWO MC MAHON SIGNATURE [signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

1. MANUAL CLEAN-UP; REMOVE TAR PATTIES LEFT + RIGHT SIDES

ADF+G
~~ADEC~~
NAME TOM CROWE SIGNATURE [signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

MANUAL REMOVAL OF SURFACE OF TAR MATS AND SPORATIC TAR PIES. USE OF HAND TROWELS MAY BE NECESSARY TO ACCESS CREVICES IN BOULDERS.

LAND MANAGER
NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

NO TREATMENT RECOMMENDED
PER DECISION TREE

9/5 OG WILLIAM REID

SEGMENT ST/ CH900

STREAM 226-20-16200

DATE ____/____/____ 90

CHECKLIST

- ___ N Arrow
- ___ Approx. Scale
- ___ Sag/Sub Bndry
- ___ Oil Dist.
- ___ Width
- ___ Length
- ___ % Cover
- ___ Substrate Character
- ___ Est. HWM/LWM
- ___ 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

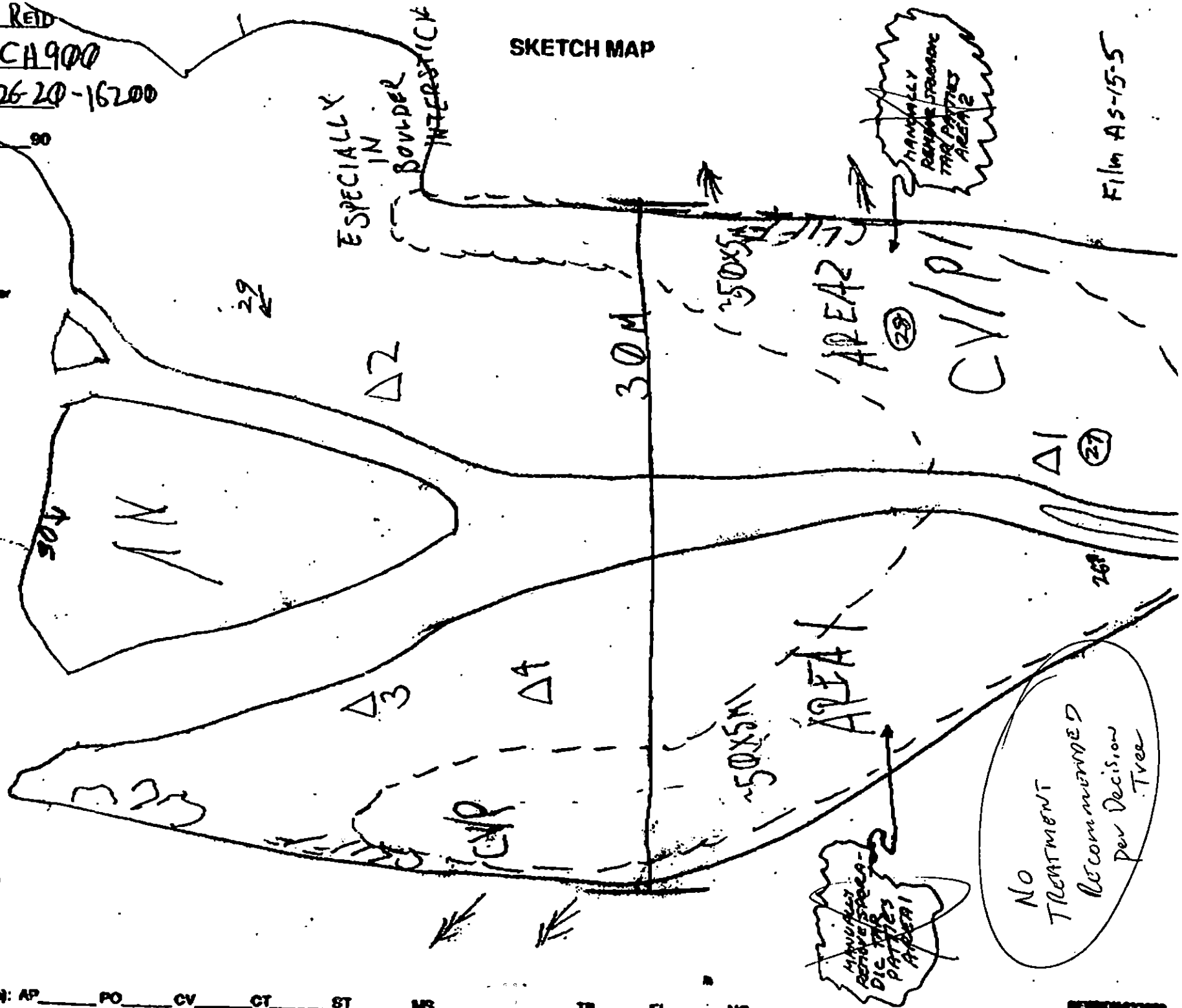
CT/P Patchy Distribution

CT/S Splashed Distribution

Oiled Vegetation

1 Photo location, direction, and number

SKETCH MAP



Oil Character Li (mi): AP____ PO____ CV____ CT____ ST____ MS____ TB____ FL____ NO____

OO WILLIAM REID

SEGMENT ST/ CH900

STREAM 226-20-16200

DATE ____/____/____ 90

CHECKLIST

- ___ Rt Arrow
- ___ Approx. Scale
- ___ Seg/Sub Body
- ___ Off Dist.
- ___ Width
- ___ Length
- ___ % Cover
- ___ Substrate Character
- ___ Est. HWL/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

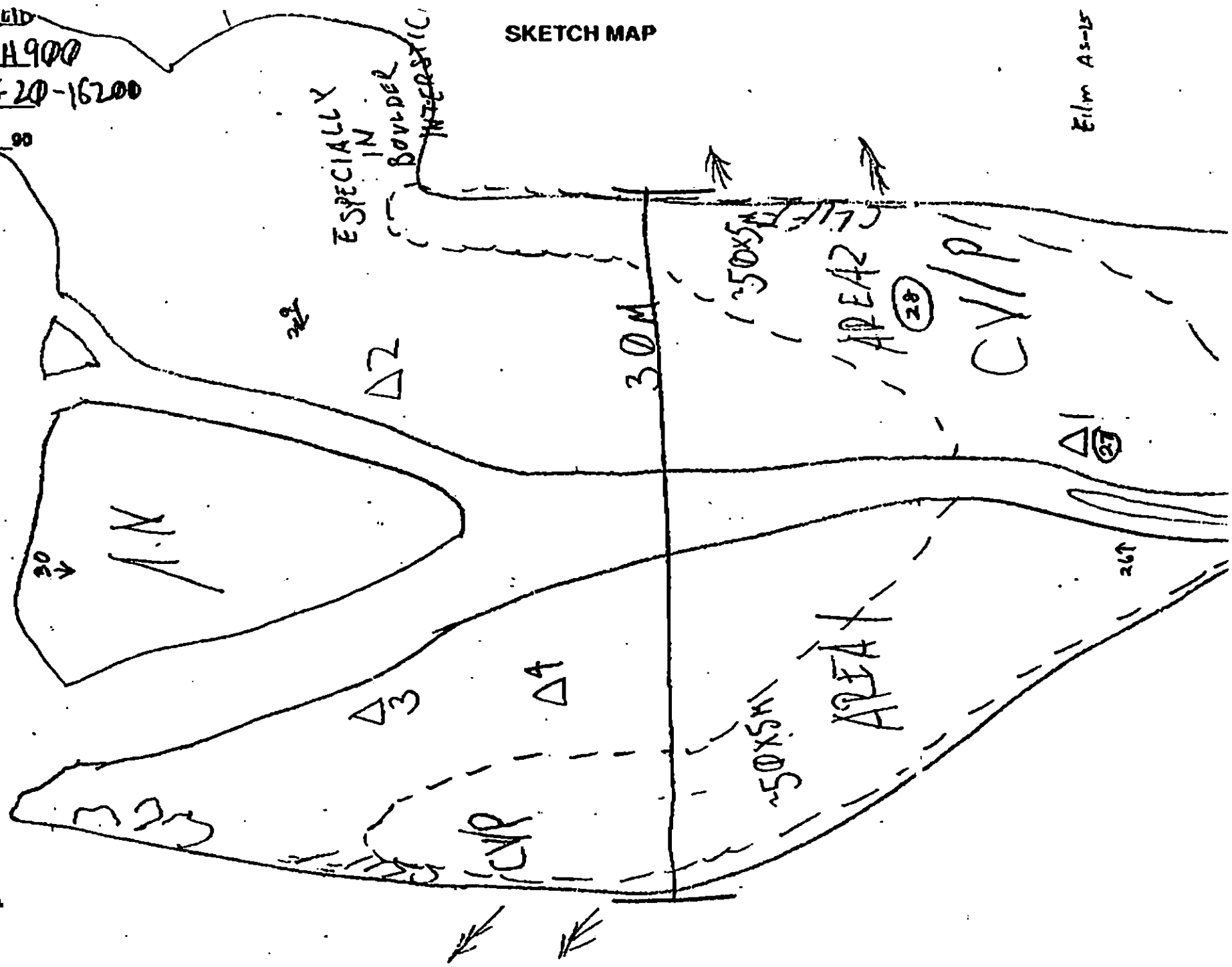
CT/P Patchy Distribution

CT/S Splashed Distribution

Oiled Vegetation

1 Photo location, direction, and number

SKETCH MAP



Oil Character List: AP_____ PO_____ CV_____ CT_____ ST_____ MS_____ ___ _____ TB_____ FL_____ NO_____

REVISION 03/2000

Alaska Department of Fish and Game

ANADSCAT Observations and Recommendations
Team 15 - Michael Wiedmer and Tom Crowe

25 April 1990

ASC # 226-20-16182

Segment CH-009

Observations The intertidal zone surrounding this channel is confined to a low energy, elongated cove bordered by bedrock walls. The substrate is composed predominantly of shale cobble and gravel. A very rich biota occurs throughout the lower intertidal zones below the oiled areas.

A wide range of oiling types and degrees exist at this site (see ADF&G Multi-Assessment Form for specific descriptions). While this site still contains significant amounts of subsurface oil, treatment of this site will be difficult. Moderate concentrations of oil have penetrated deeply into a poorly sorted shale boulder, cobble, gravel, sand matrix along the upper-intertidal zone west of the channel.

Other than complete removal of the substrate, elimination of oil will be difficult. Additionally, the very rich intertidal flora and fauna adjacent to the oiled zone will be at risk during and after extensive treatment operations.

Treatment Recommendations All surface tar mats and patties should be manually removed. See the ADF&G Multi-Assessment Data Form for additional treatment suggestions.

ASC # 226-20-16200

Segment CH-900

Observations Large shale cobbles and boulders compose the substrate of this low-exposure cove. A band of sporadic tar patties rings the high tide line on either side of the channel. No significant subsurface oil was identified.

Treatment Recommendations Manually remove tar patties. Trowels may be required to remove oil from intersticial spaces.

Segment CH 900 4/25/90
Stream 226-20-16200 Michael Fawcett
Ecological Summary

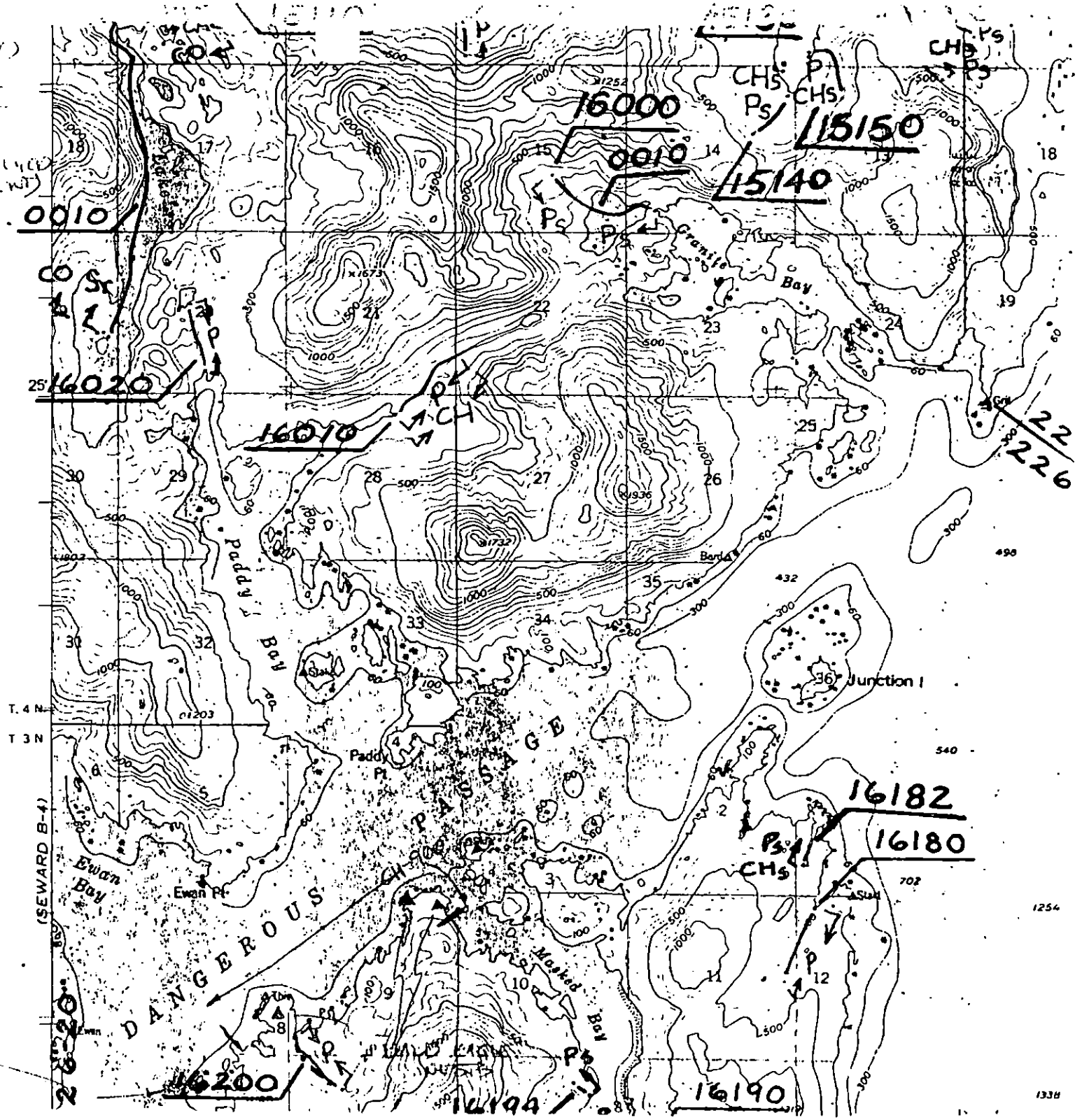
This stream crosses a shale cobble/pebble/gravel beach in a small cove. Sparse *Fucus* and barnacles occur in the streambed and along the banks. A mature bed of dense mussels exists in the MTZ near the stream mouth. Barnacle spat are dense throughout LTZ, along with patches of dense adult *Balanus gleadule*. Aside from *Fucus*, the only other algae at the site are diatoms and a film of green algae. Thousands of tiny marine fish larvae (about 2mm in length) appeared to be emerging from beneath the pebbles in LTZ as the tide rose. A few whelks (*Thais emarginata*) were seen, along with their egg capsules. Remaining oil consists of a few surface tar mats along the stream bank in UTZ. Manual removal recommended. No ecological constraints re: intertidal biota.

M H Fawcett

ECOLOGICAL MAP

CH-900-U (UNSURVEYED SEGMENT)

1A, 1B
ST(3)



SUBJECT MOAS PARCELS
[illegible] 226-70-16200
(1/2/10)
[illegible]

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS/(SS) CS TS AVS SCHA MMHS PTA 2 REGION: PWS KP,CI K,AP

METHOD: Aerial (Ground) Boat

3 DATE: 4/25/90 13 HIGH TIDE TIMES: 1500 / 21 TEAM RECORDER: TOM CROWE

4 START TIME: 0937 16 HIGH TIDE HTS: +11 FT / 22 OBSERVERS: MIKE WIGOMER

5 STOP TIME: 0956 17 LOW TIDE TIMES: 0830 / 23 AGENCY: ADF&G ANADSCAT

6 SEGMENT #: CH 900 18 LOW TIDE HTS: -4 FT / 24 PHOTOS TAKEN: Y (N)

7 STATION #: ____ 19 TIDE HT AT SURVEY: -3 FT Roll #: ____ Frame: ____

8 X-UNIT: ____ Ebb Stack Flood Stack 25 VIDEO TAKEN: Y (N) TAPE#: ____

9 STAT AREA: ____ 20 USGS QUAD: SEW B-3 Start: ____ End: ____

10 LAT: ____ 11 LONG: ____ 26 SAMPLES TAKEN? Y (N) Number

12 SOURCE: Map Loran Oil ____

13 LOCATION: WEST SIDE OMEGA ISLAND Sediment ____

14 DESCRIPTION: ____ Biological ____

EXTENT OF OIL Water ____

	SHORELINE L	W	H	%	STREAM L	W	H	%
27 SURFACE COVERAGE	50	5						
28 SURFACE THICKNESS	4CM							
29 PENETRATION	—							

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

31 OIL TYPE: Pooled Mousse Tar (Asphalt) Sticky Stain

32 OILED DEBRIS? Y (N)

33 SHORELINE TYPE: Headland Low-lying Rocks Beach (Cobble) Lagoon Marsh

34 WAVE EXPOSURE: High (Moderate) Low

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

36 CATALOGED ANAD. FISH STREAM? Y N

37 CATALOG #: 226-20-16200

38 STREAM NAME: ____

39 OIL IN STREAM BED? (Y) N

40 OIL ON STREAM BANKS? (Y) N

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

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

43 ANADROMOUS FISH PRESENT? Y N

44 ANADROMOUS FISH OBSERVATION

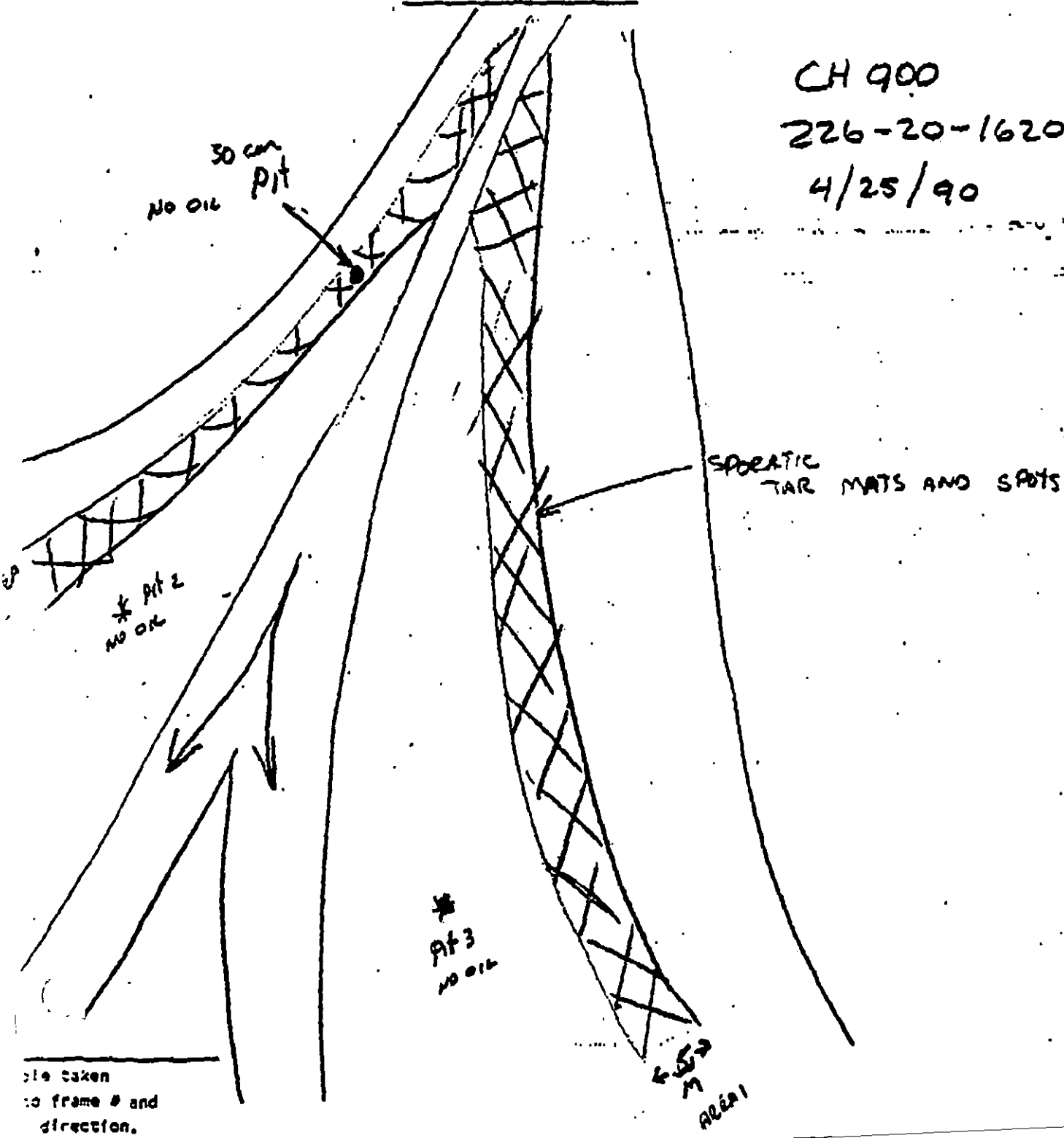
Species	Aerial	Ground

COMMENTS: SMALL V-SHAPED COVE WITH LARGE COBBLE AND FLAGSTONE BOULDERS. SMALL BAND OF INTERMITTANT TAR PIES THAT RUN ALONG UPPER/MID INTERTIDAL ALONG BANK/SHORELINE AND DEPOSITED ON STREAM BANK ADJACENT TO STREAM CHANNEL

45 PHOTOLOG

NAME(S)	DESCRIPTION
	SPORATIC TAR MATS IN BAND AT MID INTERTIDAL AND UPPER INTERTIDAL
	RECOMMENDATION: MANUAL REMOVAL OF SURFACE TAR. TROWELS MAY BE NECESSARY TO GET AT TAR IN BOULDER CREVICES.
	I agree with recommendations. M Fitzgerald

40 OIL DISTRIBUTION DIAGRAM



...ple taken
...to frame # and
direction.

SEGMENT NUMBER: CH-900

STREAM NUMBER: No ASC No.

This stream was surveyed during the Pre-ANAD survey by a cooperative effort of ADF&G and Exxon on April 11, 1990. As a result of this pre-survey, the ANAD Fish Stream Team decided NOT to survey the stream, but simply to review the results of the pre-survey. The FIELD SHORELINE COMMENT SHEET was prepared from the review of the pre-survey. Also attached is a copy of the pre-survey for your consideration.

The ANAD Fish Stream Team recommends: NO TREATMENT

TAG Concurrence Date:_____

ADEC Art Weiner

EXXON Andy Tear

NOAA Burl Westcott

USCG M. J. Hall

FOSC: _____ Date: 5-24-90

NOTE: THE FOLLOWING COMMENTS [illegible] PRESURVEY ~~DOC~~ DOCUMENTATION OF THIS STREAM BY RICK GUSTIN on 4/11/90 REVIEWED BY USCG & ADF&G. PRESURVEY DOCUMENTATION IS ATTACHED. AL SNOOK EXXON REP.

FIELD SHORELINE COMMENT SHEET

ASC#:

SEGMENT ST: CH-900 SUBDIVISION: NONE DATE 4/27/90

USCG

NAME KERWIN L. DREHER SIGNATURE CWO K. L. Dreher

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

DRAFT

~~ADEC~~ ADFG

NAME RICK GUSTIN SIGNATURE Richard J. Gustin

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS Small stream - flows intermittently depending on rainfall + snowmelt. Oiled lightly and do not recommend any treatment.

~~LAND MANAGER~~

NAME SIGNATURE

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

CH-400<
NO #

ADFG MULTI-AGENCY DATA FORM

1 SURVEY TYPE: US (SP) 38 13 AVS SCHA NMFS FTA 2 REGION: (PWS) KP,CI K,AP

METHOD: Aerial (Ground) Boat

3 DATE: 4/11/90 15 HIGH TIDE TIME: / 21 TEAM RECORDER: R. Gantz

4 START TIME: 1125 16 HIGH TIDE HT: / 22 OBSERVERS: 1

5 STOP TIME: 1147 17 LOW TIDE TIME: / 23 AGENCY: ADFG. USB

6 SEGMENT #: CH 400 18 LOW TIDE HT: / 24 PHOTOS TAKEN: Y (N)

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

8 M-UNIT: _____ Ebb Slack Flood Slack 25 VIDEO TAKEN: Y (N) TAPE #: _____

9 STAT AREA: _____ 20 USGS QUAD: _____ Start: _____ End: _____

10 LAT: _____ 11 LONG: _____ 26 SAMPLES TAKEN? Y (N) Number

12 SOURCE: (GPS) . Loran Oil _____

13 LOCATION: CACHEGA EAST SIDE Sediment _____

14 DESCRIPTION: SMALL COVE Biological _____

EXTENT OF OIL Water _____

	SHORELINE L	SHORELINE W	SHORELINE HT	SHORELINE %	STREAM L	STREAM W	STREAM HT	STREAM %
27 SURFACE COVERAGE								
28 SURFACE THICKNESS								
29 PENETRATION								

30 OVERALL OIL IMPACT: N VL L M H

31 OIL TYPE: Peeled (Fresh) Tar (Emulsified) Sticky Stain

32 OILED DEBRIS? (Y) N

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

34 WAVE EXPOSURE: High (Moderate) Low

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

36 CATALOGED ANAD. FISH STREAM? Y (N)

37 CATALOG #: NONE

38 STREAM NAME: _____

39 OIL IN STREAM MOUTH (Y) N

40 OIL ON STREAM BANKS (Y) N

41 OIL ON BEACH ADJACENT TO MOUTH: (Y) N (within 30 meters)

42 OIL WITHIN 1 MILE OF STREAM (Y) N

Where: upper intertidal

43 ANADROMOUS FISH PRESENT? Y

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

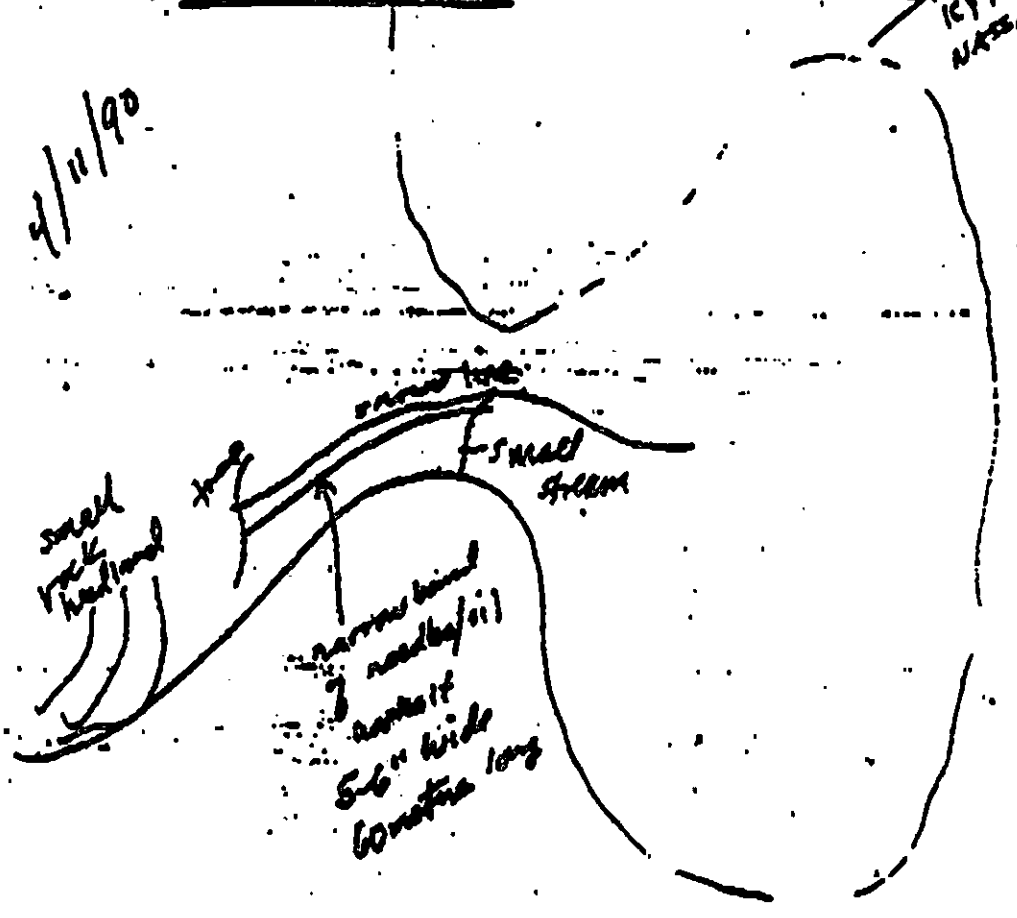
COMMENTS: Small cove near south end of Desolation passage. Narrow band of - mousse & asphalt approx. 60 meters long. Penetration approx. 1-2" located upper intertidal. Zooms down from snow line.

(Footprint for Rockport)

48 PHOTOLOG

NAME(S)	DESCRIPTION

48 OIL DISTRIBUTION DIAGRAM



Sample taken
Photo frame # and
shot direction.

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/CL-01

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ CL-01 SUBDIVISION A (1 OF 1) DATE 4/23/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

3N,3P Harbor seal and sea lion pupping (5/15 to 7/1)
3O,3Q Harbor seal and sea lion molting (8/15 to 9/15)
5R Seabird colony (5/1 to 9/1) within 400m on Now Island
5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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 13 m: V.Light 994 m: No Oil 609 m
Subsurface Oil Observed: Yes X No____ Maximum Depth 18 cm

RECOMMENDATIONS:

X No Treatment Recommended
_____Treatment Recommended
_____Manual Pickup
_____Bioremediation
_____Tarmat Removal

_____Snare/Absorbent Booms
_____Oil Snares (pom poms)
_____Absorbents (pads,rolls,etc)
_____Spot Washing:_____Wands
_____Beach Cleaner
_____Other (see comments)

COMMENTS: _____

TAG COMMENTS: _____

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

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G Habitat Division prior to treatment for consultation and/or permit application.
AGENCY CONTACT PERSON: ADF&G John Morison 267-2324

1C Salmon fry nursery area (4/31 to 7/31)
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to July 31 unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214

1D Esther Hatchery release (4/15 to 6/1)
1E Main Bay Hatchery release (4/20 to 6/10)
1F Sawmill Bay Hatchery release (4/15 to 6/1)
1G Cannery Creek Hatchery release (4/21 to 6/1)
1H Remote release site
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G or PWS Aquaculture Association for confirmation and authorization.
AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzomoto 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 unoiled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Evelyn Biggs 424-3235

3N, 3P Harbor seal and sea lion pupping (5/15 to 7/1)
3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
ADF&G Don Calkins 267-2403

✓ 5R Seabird colony (5/1 to 9/1)
Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

5S Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
ADF&G Tom Rothy 267-2206

✓ 5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

6U Recreation: Tent sites (6/1 to 9/15)
6V Anchorages (6/1 to 9/15)
6W Forest Service cabins (6/1 to 9/15)
6X Lodge (6/1 to 9/15)
6Y Special use destination

7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
7HH Finfish harvesting
7II Deer harvesting (8/15 to 2/28)
JJ Invertebrate harvesting
Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / CL-1 SUBDIVISION: A DATE 04/23/90

NAME STEPHEN STURM SIGNATURE [signature]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

THE ONLY SIGNIFICANT OIL FOUND IN THIS SEGMENT WAS IN A SMALL, COBBLE-VENEERED POCKET BEACH, SURROUNDED BY ROCKY HEADLANDS ON THE NORTH SIDE OF THE NORTHERN-MOST CLAM ISLAND. COAT, PATCHES OF WEATHERED TAR AND ASPHALT AS WELL AS SMALL AREAS OF OIL PENETRATED INTO THE UNDERLYING SUBSTRATE. LOCATION OF OIL IS PREDOMINANTLY IN ROCK CREVASES, BETWEEN BOULDERS AND DEPRESSIONS AT, AND ABOVE MEAN HIGH TIDE. THESE LOCATIONS WOULD ONLY BE NOTED AND OBSERVED BY AN INDIVIDUAL(S) TRAINED IN THESE MATTERS. CONSIDERING THE BIOLOGICAL DIVERSITY AND DENSITY (SEE NOTES) WITHIN THIS AREA AND THERE BEING NO OBVIOUS EFFECT OF REMAINING OIL ON THE BIOTA I RECOMMEND THAT THIS AREA NOT BE TREATED - AND LET NATURAL WEATHER RUN ITS COURSE.

ADEC

NAME Wesley Ghormley SIGNATURE [signature]

☐ NO TREATMENT RECOMMENDED ■ TREATMENT SUGGESTED

COMMENTS

- HAND REMOVAL OF tar balls FROM locations 1-4 on both islands. IN addition Mousse in crack at location 4 Needs to be removed using hand trowel & Sorbant pads.
  Location #3 has an area 2x4M with subsurface oil that could be w.i.c. removed with hand tools (shovels). Additional wiping/scraping might be necessary on remaining Coat/Cover in same location.

  — Also Active Eagle nest is located on South island —

LAND MANAGER

NAME Ray Burger AONR SIGNATURE [signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

- Concur with ADEC as outlined above, stressing removal of coat @ Loc. #3.
- Islands have pocket beaches for easy landing + rock platforms on shoreline are well suited for watching the numerous wildlife in the vicinity.

REVISION NO. 03/21/90

SHORELINE OILING SUMMARY

REVISION NO. 04/13/90

OG K. DEBUSSCHERE NOAA STEPHEN STURM SEGMENT ST/ CL-1
BIO D. REED LAND REP Ray Burger ADNR SUBDIVISION A (1 OF 1)
EXXON T. DIAZ ADEC Wesley Ghormley TIME 16:15 to 18:25
TEAM NO. 9 TIDE LEVEL 4-1 FT DATE 4/23/90
EST. SUBDIVISION LENGTH: 2563 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
SURFACE SEDIMENTS: R 90 % B 5 % C 3 % P 1 % G 1 % S 0 % M 0 % V 0 %
SLOPE: Lang 5 % Hang 60 % Vert 35 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
OIL CATEGORY LENGTH: W 0 m M 0 m N 7 m VL 1756 m NO 800 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	/C	/B	/P	/S						SU	UI	MI	LI
ASPHALT PAVEMENT													
POOLED													
COVER				X	X						X		
COAT	0		V	X		0					X		
STAIN													
MOUSSE				X				X			X		
PATTIES				X				X			X		
TARBALLS				X		X					X		
FILM													
NO OIL										X		X	X

PAVEMENT H F S 0 sq. m by 0 cm

PATTIES / TARBALLS 0 BAGS

NEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS? YES ☒ NO ☐

TYPE POMPOMS/OIL

#BAGS 1

Photographs:

Roll No. ST-P-3

Frames 22, 23

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR					PIT ZONE				ANA	SHEEN (Y/N)	▼	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC						SU	UI	MI	LI				
1	30		X				15-18		X	X						X				N	—	B-CaP/SdP

COMMENTS

- SEGMENT IS DOMINATED BY HIGH ANGLE & VERTICAL BEDROCK WITH SOME POCKET BEACHES.
- MOST OF THE SEGMENT HAS VERY LIGHT OILING (COAT/TARBALL
- MOST SIGNIFICANT OILING IS JUST EAST OF LOC ② ON GIS MAP
  - → COAT/C (2x4 M) ON B&C } WITH SUBSURFACE OIL
  - → COVER/S " " "
  - → COAT/C (3x0.75M) ON R-FACE
- NOTE IN LOC ② ASPHALT PAVEMENT OF 25 CM IN Ø & 3 CM THICK WAS REMOVED

REVIEWED [illegible] DATE 4/24/90

SEGMENT ST/ CL-1

SUBDIVIS A

DATE 4 /23/ 90

N

SKETCH MAP

CL-1-A
(Location #3)

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 ▲ Pit - No Subsurface Oil

2 ▲ Pit - Subsurface Oil

CT/C Continuous Distribution

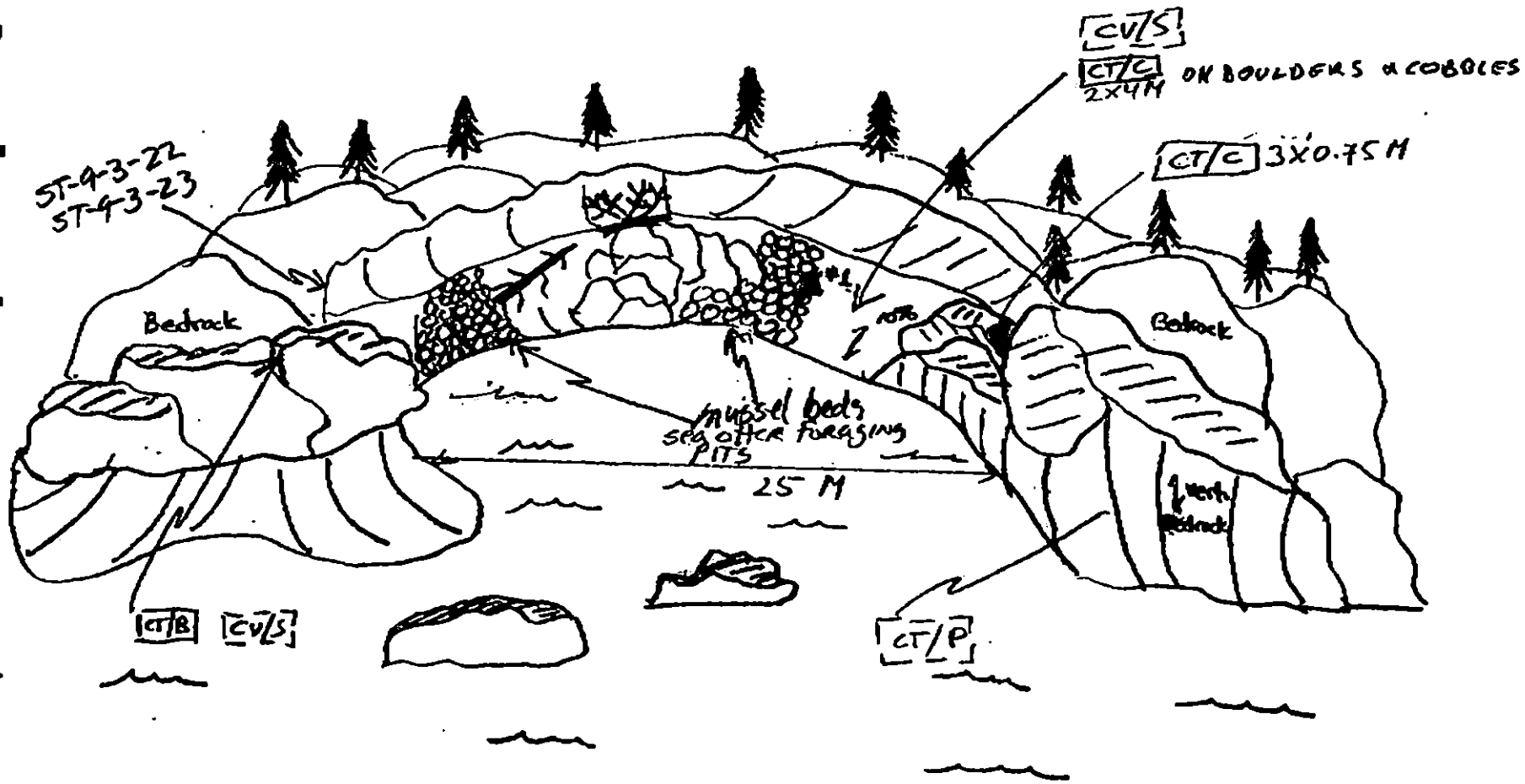
CT/B Broken Distribution

CT/P Patchy Distribution

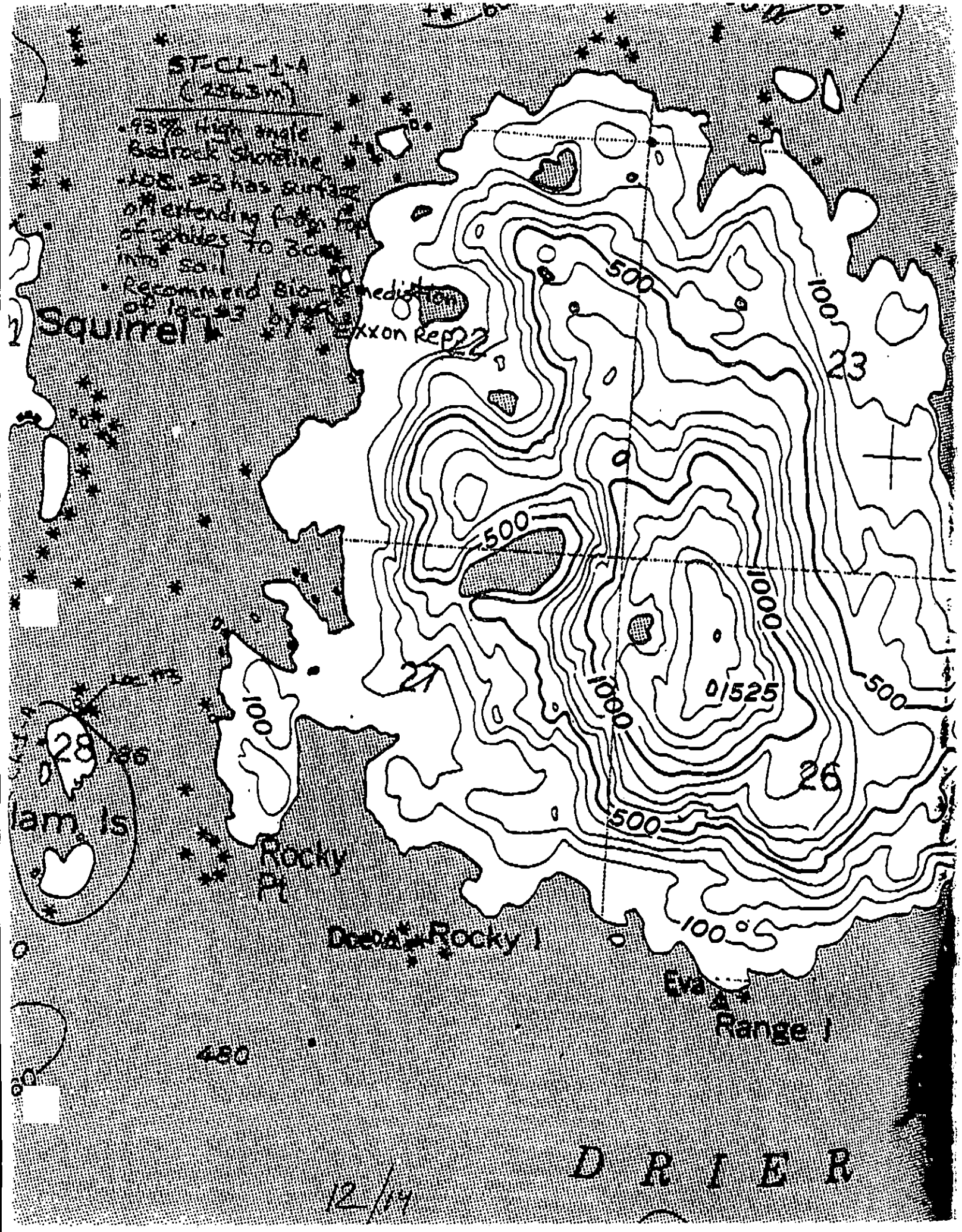
CT/S Splashed Distribution

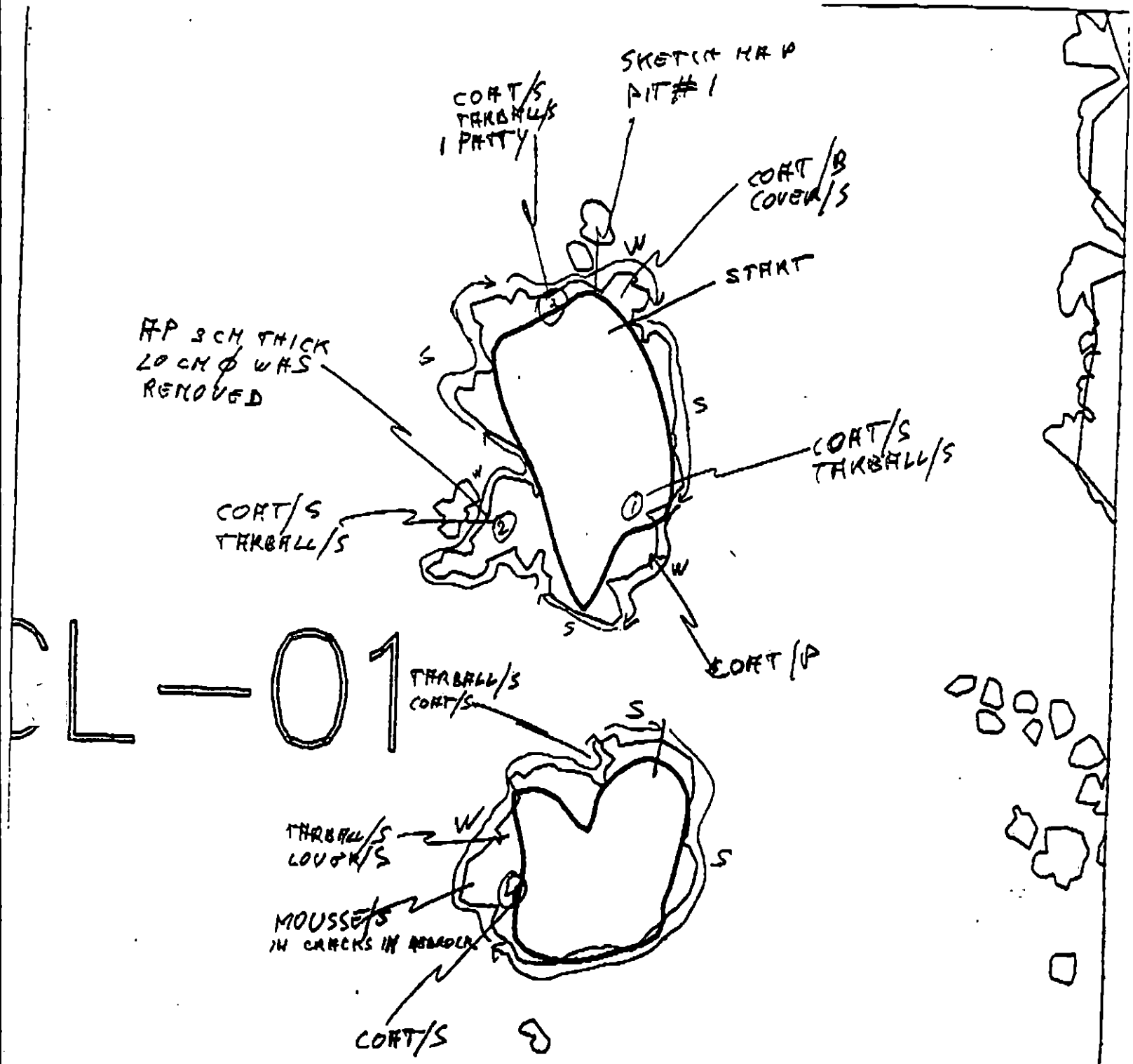
Oiled Vegetation

1 Photo location, direction, and number



Oil Character Length (m): AP 0 PO 0 CV 3 CT 30 ST 0 MS 0 PT 0 TB 0 FL 0 NO 0


ST-CL-1-A
(2363m)
93% High angle
Bedrock Shoreline
Loc. #3 has surface
oil extending from top
of pebbles to 30cm
into soil
Recommend Bio-remediation
Squirrel
Exxon Rep 22
500
100
23
500
1000
1000
1525
500
21
100
28
26
Lam. Is
Rocky
Pt
500
Deep Rocky 1
100
Eva
Range 1
480
D R I E R
12/14



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

ST-CL-1-A

ADEC Segment Length: 2563 m

0 3/4 100 200 300 METERS

Map Key: PWS-60
Name: K. DEBUSSCHERE
Date: 4/23/90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / CL-1 Subdivision A Date (mo / day / yr) 04/23/90

Time (24 hr) 1615-1820 Biologist D. REED

(A) Substrate type and % of segments:
(1) Bedrock 90 (2) Boulder 5 (3) Cobble 3 (4) Pebble 1 (5) Sand 1 (6) Silt —

(B) Overall % cover of biota (% of segment): Dense 40 Moderate 40 Low 20

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

Photographs:
Roll No. ST-9-3
Frames 22, 23

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

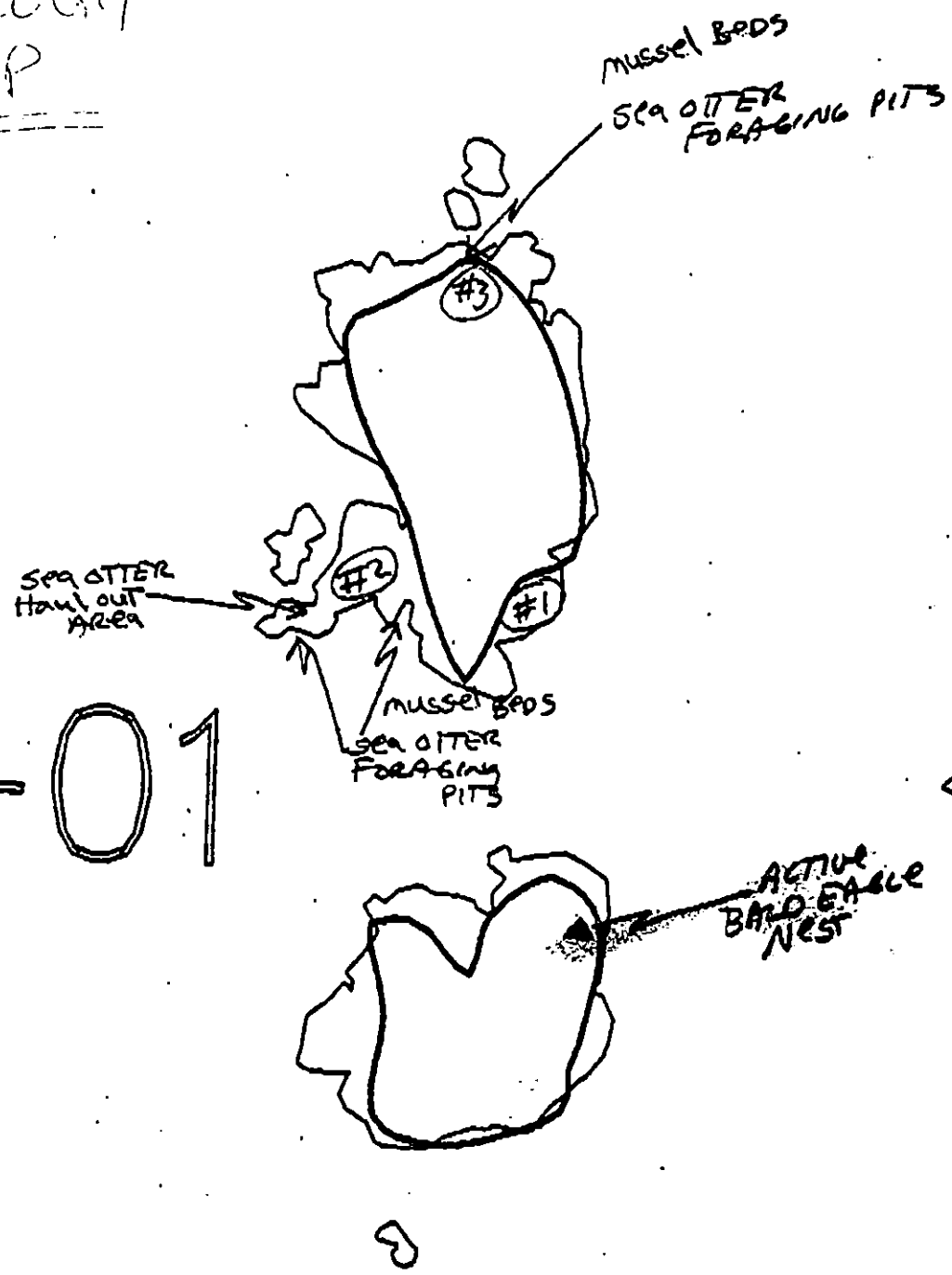
Dense			Moderate			Sparse			Rare		
1U	X	1L	1U	1M	1L	(1U)	1M	X	1U	1M	1L
2	2	2	2	X	2	2	2	2	2	2	2
3	3	3	3	3	3	3	X	X	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments:
2 SEA OTTERS, HIGH DENSITY OF SEA OTTER FORAGING PITS IN MID AND LOW ZONES SEA OTTER HAUL OUT AREA, 1 BALD EAGLE AND NEST. 1 Harbour Seal, 5 Harlequin DUCKS,

Ecological Considerations:
DENSE MUSSEL BEDS IN COBBLE and PEBBLE IN THE MID ZONE OF NARROW oiled BEACH ON NORTH SIDE OF NORTH ISLAND. HIGH DENSITY OF SEA OTTER FORAGING PITS IN THIS AREA AS WELL. EXCESSIVE FOOT TRAFFIC IN THIS AREA COULD CAUSE ADVERSE (SHORT TERM?) EFFECTS TO MUSSEL POPULATIONS AND SEA OTTER

ECOLOGY MAP



CL-01

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

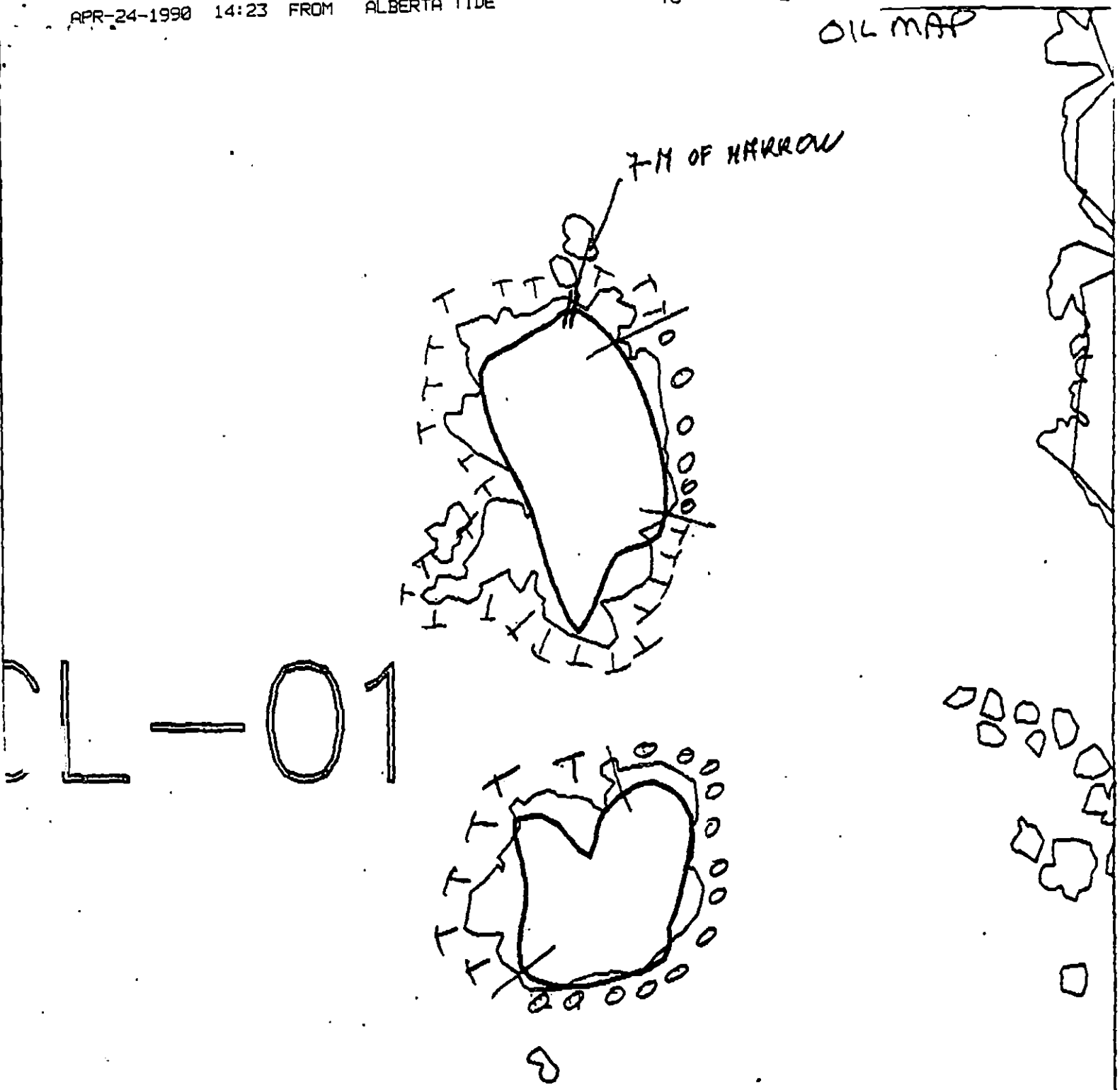
ST-CL-1-A

ADEC Segment Length: 1616m

0 8/4 100 200 300 METERS

Map Key: PWS-60
Name: DAN REED
Date: 04/23/90
Data Entered:

OIL MAP



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

ST-CL-1-A

ADEC Segment Length: 2563

0 9/14 100 200 300
METERS

Map Key: PWS-60
Name: K. DEBUSSCHERE
Date: 4/23/90

SHORELINE EVALUATION

SEGMENT ST/ CL-01 SUBDIVISION A (1 OF 1) DATE 4/23/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

3N,3P Harbor seal and sea lion pupping (5/15 to 7/1)
3O,3Q Harbor seal and sea lion molting (8/15 to 9/15)
5R Seabird colony (5/1 to 9/1) within 400m on Now Island
5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: [signature] DATE: 5/2/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 13 m: V.Light 994 m: No Oil 609 m
Subsurface Oil Observed: Yes X No ____ Maximum Depth 18 cm

RECOMMENDATIONS:

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

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: 5/2/90.
ADEC ART WEBNER [signature]
EXXON ANDY TEAL [signature]
NOAA GARY PETROE [signature]
USCG KENNETH KEHNE [signature]

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

SEGME T/CL-1

SUBDIVISION A

DATE 4 /23/ 90

N

SKETCH MAP
T-CL-1-A
(Location #3)

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 ▲ Pit - No Subsurface Oil

2 ▲ Pit - Subsurface Oil

CT/C Continuous Distribution

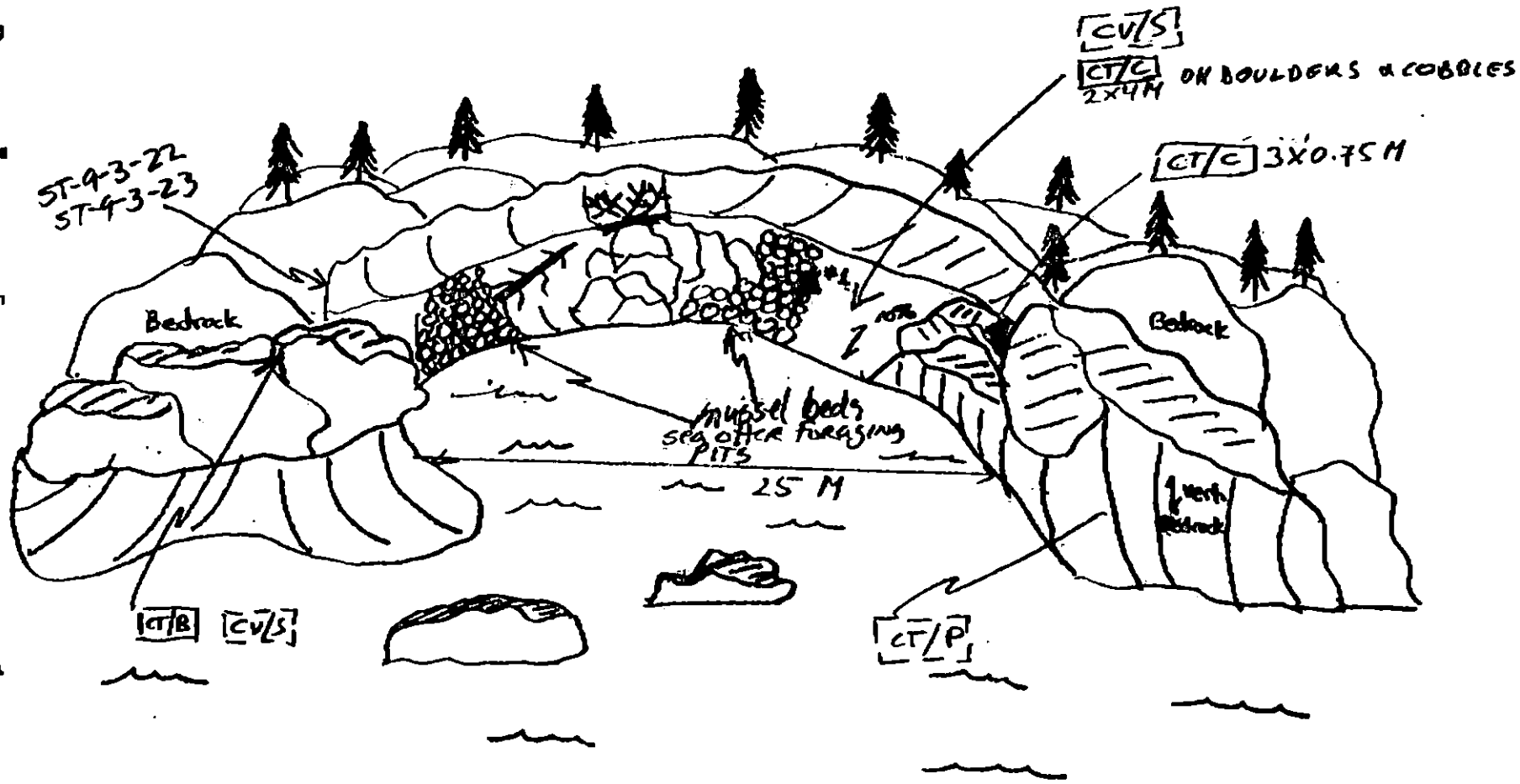
CT/B Broken Distribution

CT/P Patchy Distribution

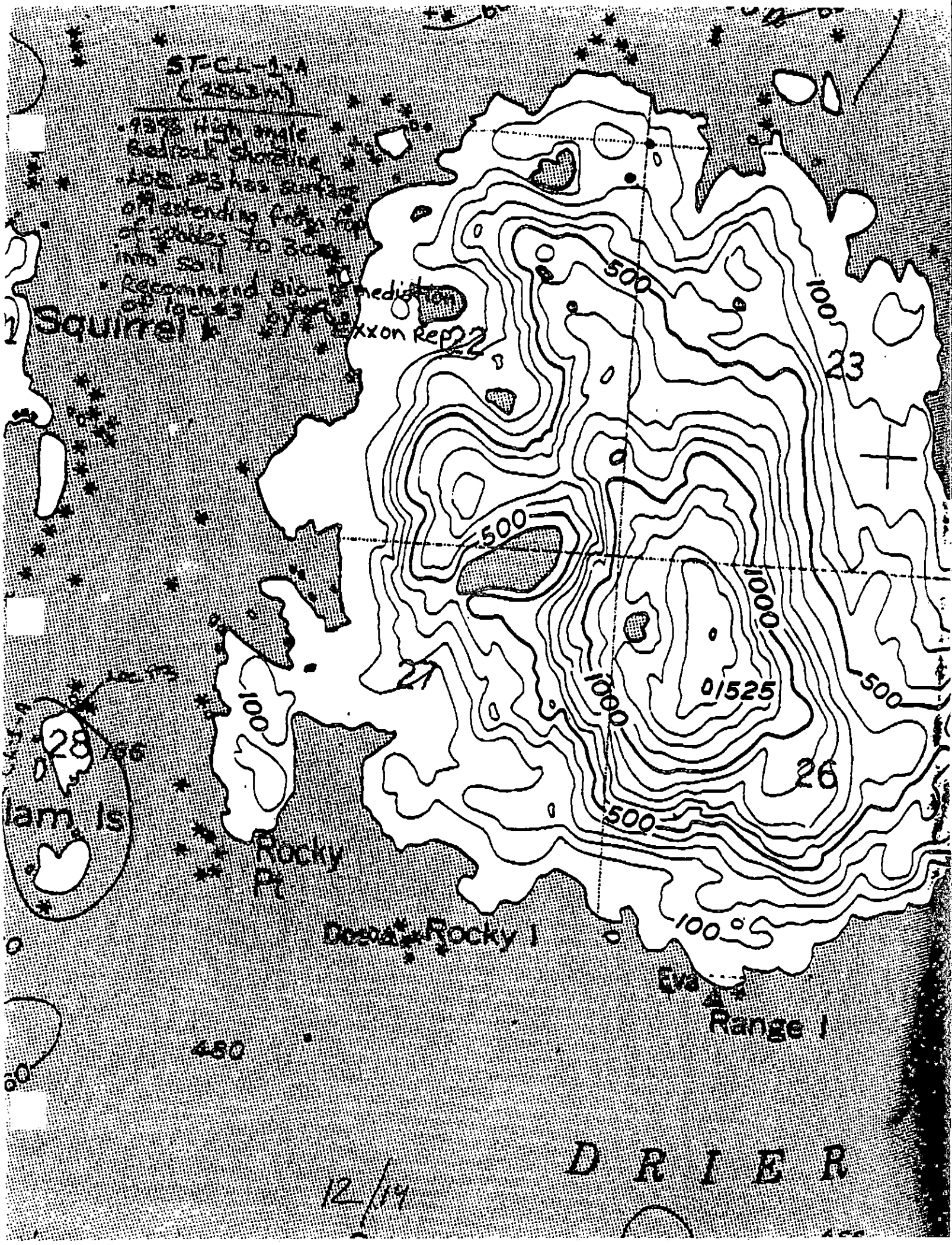
CT/S Splashed Distribution

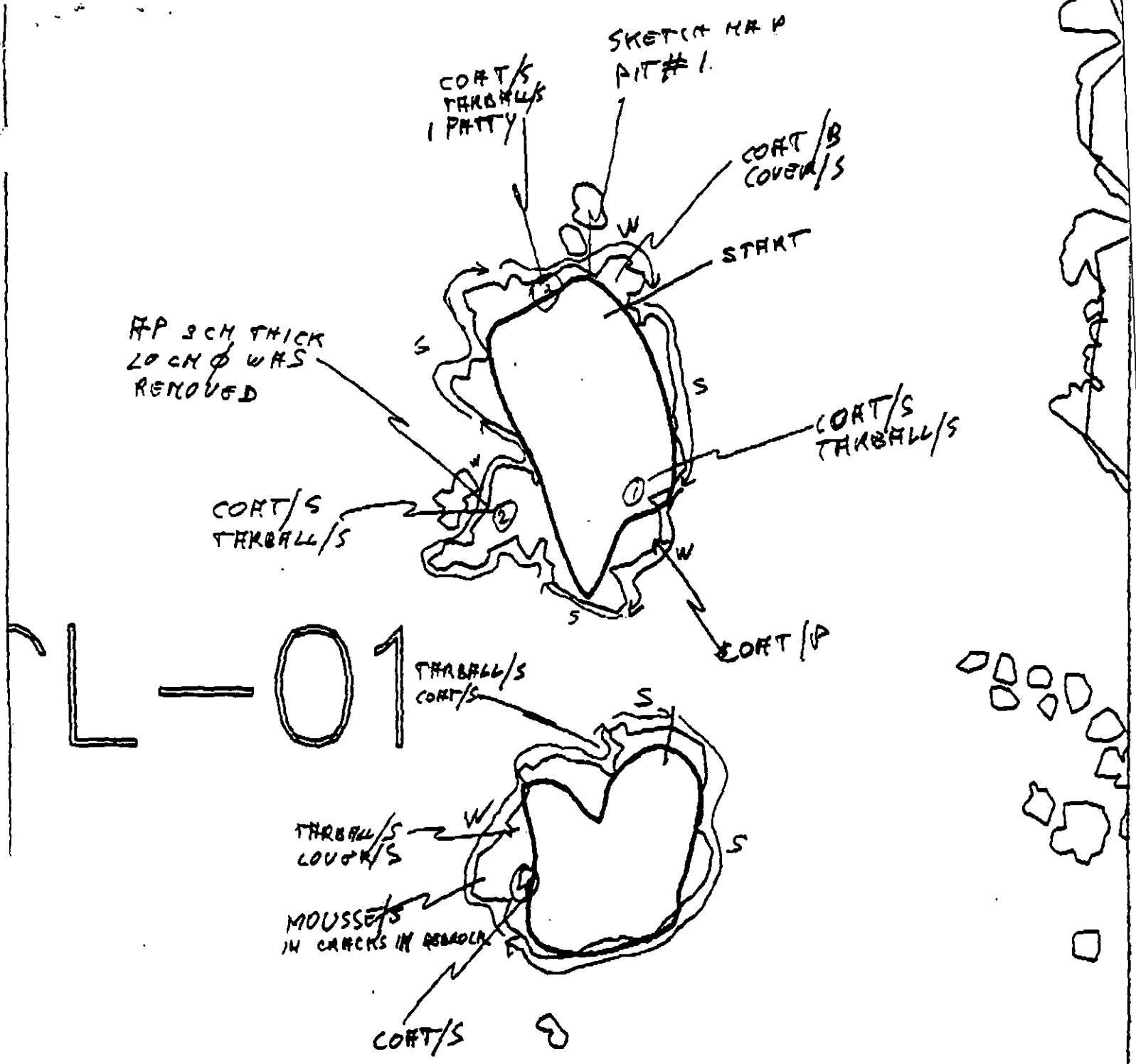
Oiled Vegetation

1 Photo location, direction, and number



Oil Character Length (m): AP 0 PO 0 CV 3 CT 30 ST 0 MS 0 PT 0 TB 0 FL 0 NO 0


ST-CL-1-A
(25-23-17)
•1996 High angle
Bedrock shoreline
•Loc. #3 has surface
of standing fresh water
•Holes 1 to 3 dry
into soil
•Recommend site reclamation
of loc. #3 by Exxon Rep.
Squirrel Pt
Exxon Rep
500
100
23
500
1000
1000
1525
500
27
26
500
100
28
29
Rocky
Pt
Rocky I
100
Eva
Range I
480
D R I E R
12/14



L-01

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

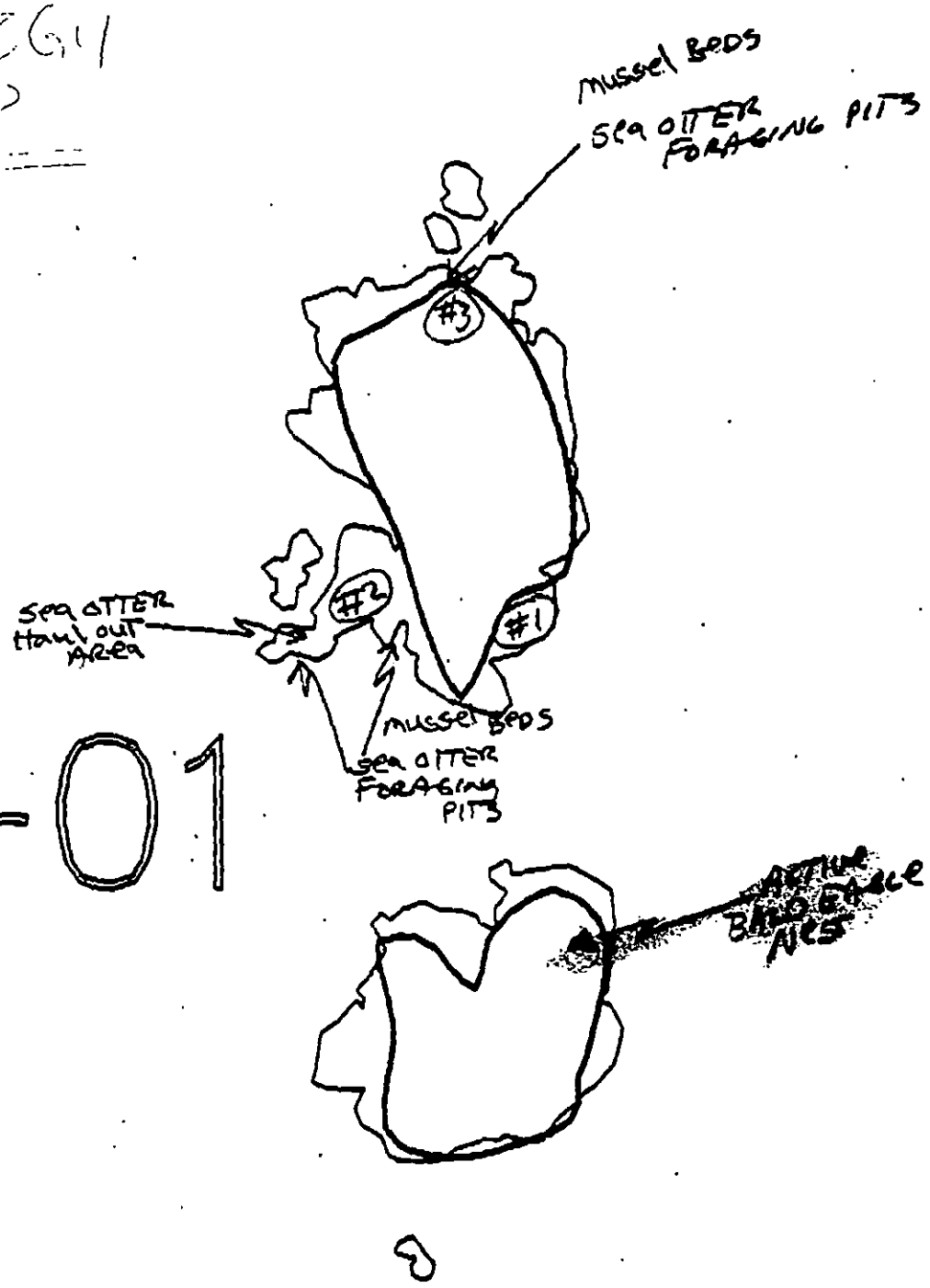
ST-CL-1-A

ADEC Segment Length: ~~[illegible]~~ 2563m

0 3/4 100 200 300
METERS

Map Key: PWS-60
Name: K. DEBUSSCHERE
Date: 4/23/90
Date Entered:

CCCCG1
MMP



CL-01

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

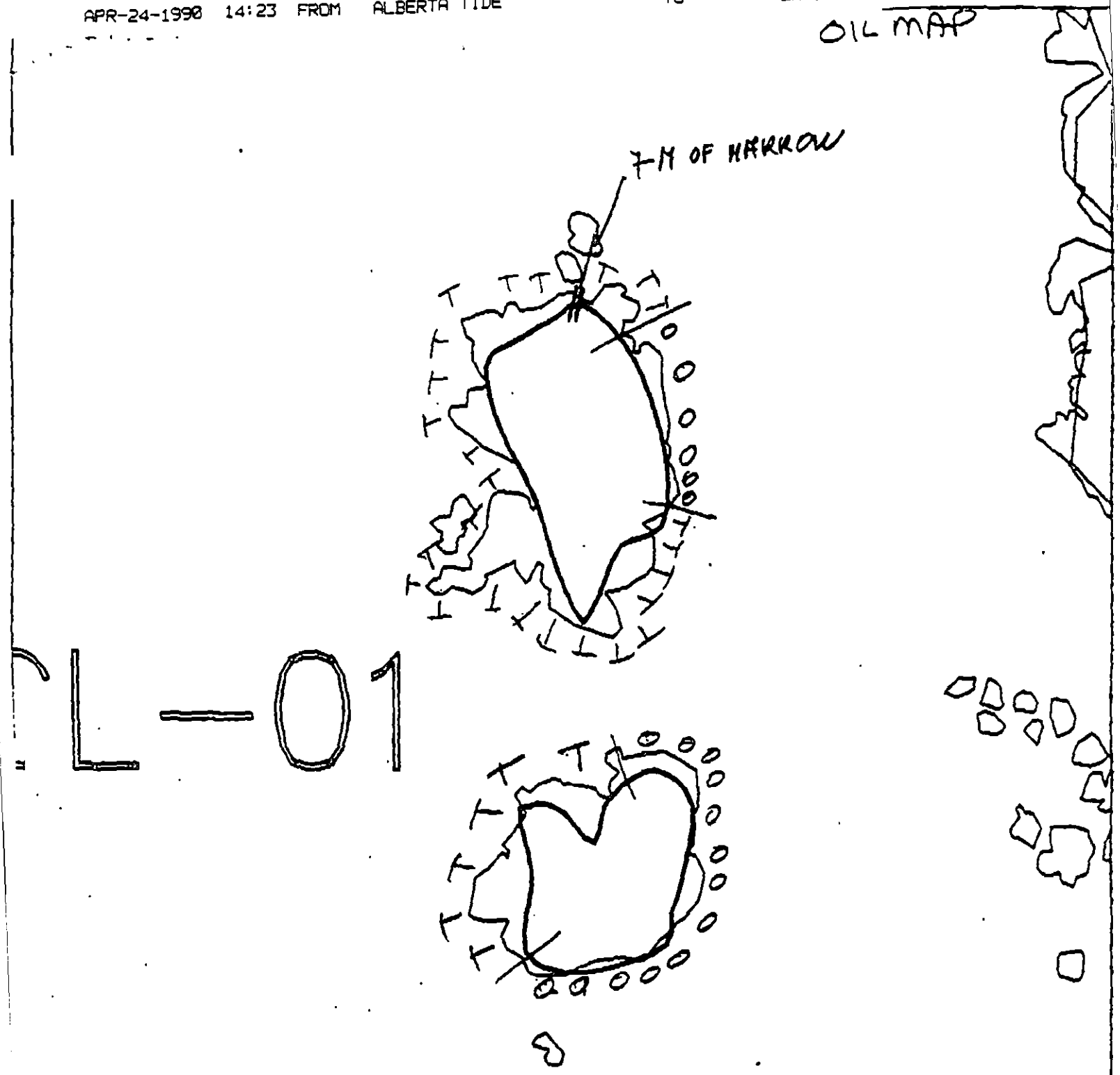
ST-CL-1-A

ADEC Segment Length: 1616m

0 8/14 100 200 300 METERS

Map Key: PWS-60
Name: DAN REED
Date: 04/23/90
Date Entered:

OIL MAP



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

ST-CL-1-A

ADEC Segment Length: 2563 ~~[illegible]~~

9/14 100 200 300 METERS

Map Key: PWS-60
Name: K. DEBUSSCHERE
Date: 4/23/90
Date Entered:

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/CP-01

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ CP-01 SUBDIVISION A (1 OF 1) DATE 4/9/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
ADF&G anadromous stream no. 224-30-14770, 14780, 14790.
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
6W Recreation: Forest Service cabins (6/1 to 9/15)
See attached Ecological Constraint sheet for specific constraints and contacts.

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

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 40 m: V.Light 344 m: No Oil 10383 m
Subsurface Oil Observed: Yes____ No X Maximum Depth_____

RECOMMENDATIONS:

X No Treatment Recommended
_____Treatment Recommended
_____Manual Pickup
_____Bioremediation
_____Tarmat: _____Breakup
_____Removal

_____Snare/Absorbent Booms
_____Oil Snares (pom poms)
_____Absorbents (pads,rolls,etc)
_____Spot Washing:_____Wands
_____ Beach Cleaner
_____Other (see comments)

COMMENTS: _____

TAG COMMENTS:_____

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / CP-01 SUBDIVISION: A-1of1 DATE 04/09/90

USCG
NAME David S. Thomas SIGNATURE [signature]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

ADEC
NAME Clara S. Crosby SIGNATURE Clara S. Crosby

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

Manual removal of Asphalt - Especially AP/13 - 1x5m

LAND MANAGER
NAME MARSHA MARTIN/DNR SIGNATURE Marsha Martin

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

Suggest - Removal of Asphalt pavement NEAR pits 4 & 5.
Note the locations of oil splattered logs

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Rick GILLIE ✓ USCG BM 1 Thomas SEGMENT ST/ CP-01
BIO Dave Lobeck LAND REP Marsha Martin SUBDIVISION A-1 of 1
EXXON Frank Boy ADEC Clara Crosby (ADNR) TIME 16:44 to 20:00
TEAM NO.: 13 TIDE LEVEL: +6 to +1 DATE 04/09/90
EST. SUBDIVISION LENGTH: 12,497 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 50 % B 30 % C 10 % P 7 % G 0 % S 0 % M 0 % V 3 %
SLOPE: Lang 30 % Hang 50 % Vert 20 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
OIL CATEGORY LENGTH: W 0 m M 0 m N 5 m VL 25 m NO 12,467 m

SURFACE OIL

CHARACTER	DISTRIBUTION /C	/B	/P	/S	OIL / FILM COLOR BR	RW	SL	TL	LBR	IMPACTED ZONES SU	UI	MI	U
ASPHALT PAVEMENT		X		✓		X✓					X✓		
POOLED													
COVER													
COAT				X				X			X		
STAIN													
MOUSSE													
PATTIES				X		X					X		
TARBALLS				X				X			X		
FILM													
NO OIL										X		X	X

PAVEMENT: H F (S) 1 sq. m by 5 cm
PATTIES / TARBALLS 0.5 BAGS
NEAR SHORE SHEEN? (NO) BR RW SL TL

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

DEBRIS COLLECTED ☐ YES ☒ NO
TYPE N/A
#BAGS N/A

Photographs:
Roll No. ST-13-3
Frames 31-34

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER OP	OR	OL	OF	NO	OILED INTERVAL (CM-CM)	BELOW UO	UC	OIL / FILM COLOR BR	RW	SL	TL	LBR	PIT ZONE SU	UI	MI	U	ANA	SUBSURFACE SEDIMENTS
1	30					X	-									X				P
2	40					X	-									X				P, G
3	35					X	-										X			G, P
4	20					X	-									X				G
5	45					X	-									X				G, S
6	25					X	-									X				P

COMMENTS
① CT/S, TB/S extremely rare. One area of AP/B (at pits 4, 5)
② North half of segment is Rock/Boulder with extremely rare CT/S.
③ Only small lengths (<5m each) of Very Light oil.

REVIEWED ✓ W DATE 4/12/90

OG Rick Tillie

EGMENT ST/ CP-01

UBDIVISION A-1 of 1

ATE 04/09/90

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 △ Pit - No Subsurface Oil

2 ▲ Pit - Subsurface Oil

CT/C Continuous Distribution

CT/B Broken Distribution

CT/P Patchy Distribution

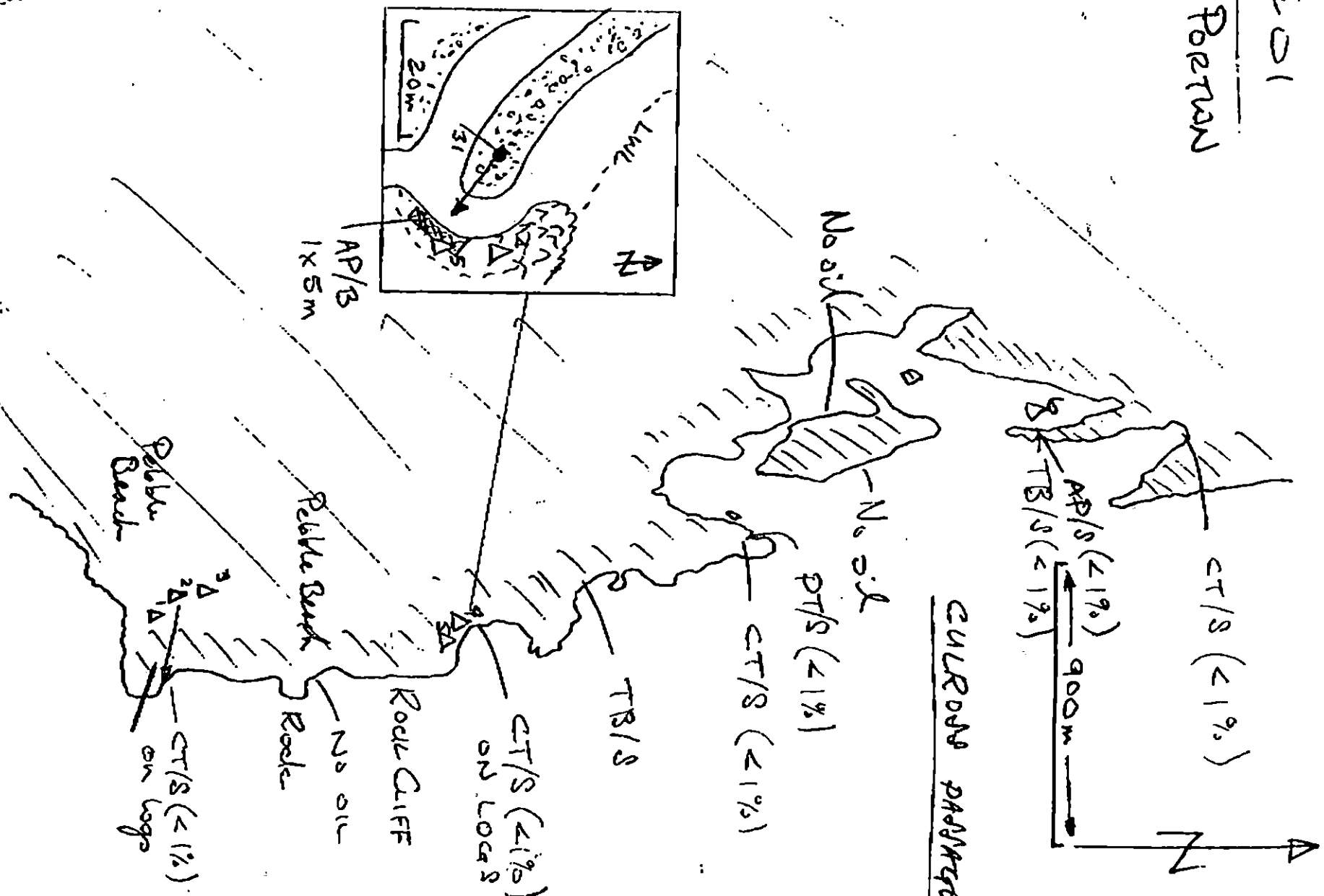
CT/S Splashed Distribution

Oiled Vegetation

1 ●→ Photo location, direction, and number

SKETCH MAP #1

ST/CP-01
South Portion



Oil Character Length (m): AP 5 PO 0 CV 0 CT 15 ST 0 MS 0 PT 5 TB 5 FL 0 NO 12,467

REVISION:03/24/90

OG Rick Tillie

SEGMENT ST/ CP01

SUBDIVISION A-1 of 1

DATE 04/09/90

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 ▲ 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

SKI H MAP #2

ST/CP01
NORTH PORTION

CURRENT PASSAGE

SHORELINE
- STEEP ROCK AND ANGULAR BOULDERS

PT/S (single patch on rock collected!)

← SOUTH PORTION (SKETCH MAP #1)

← 900 m →

N

Oil Character Length (m): AP ___ PO ___ OV ___ CT ___ ST ___ MS ___ PT ___ TB ___ FL ___ RO ___

REVISION: 03/24/88

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / CP001 Subdivision A Date (mo / day / yr) 4-10-90

Time (24 hr) 6:30 Biologist David Wm

(A) Substrate type and % of segments:
(1) Bedrock 50 (2) Boulder 30 (3) Cobble 10 (4) Pebble 7 (5) Sand ___ (6) Silt 3

(B) Overall % cover of biota (% of segment): Dense 45 Moderate 35 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-13-3
Frames 31-34

BARNACLES

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

MYTILUS

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

GASTROPODS

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

FUCUS

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

Wildlife Observations/ General Comments:

See page 2

Ecological Considerations:

2 - no comment

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

Shoreline Ecological Summary

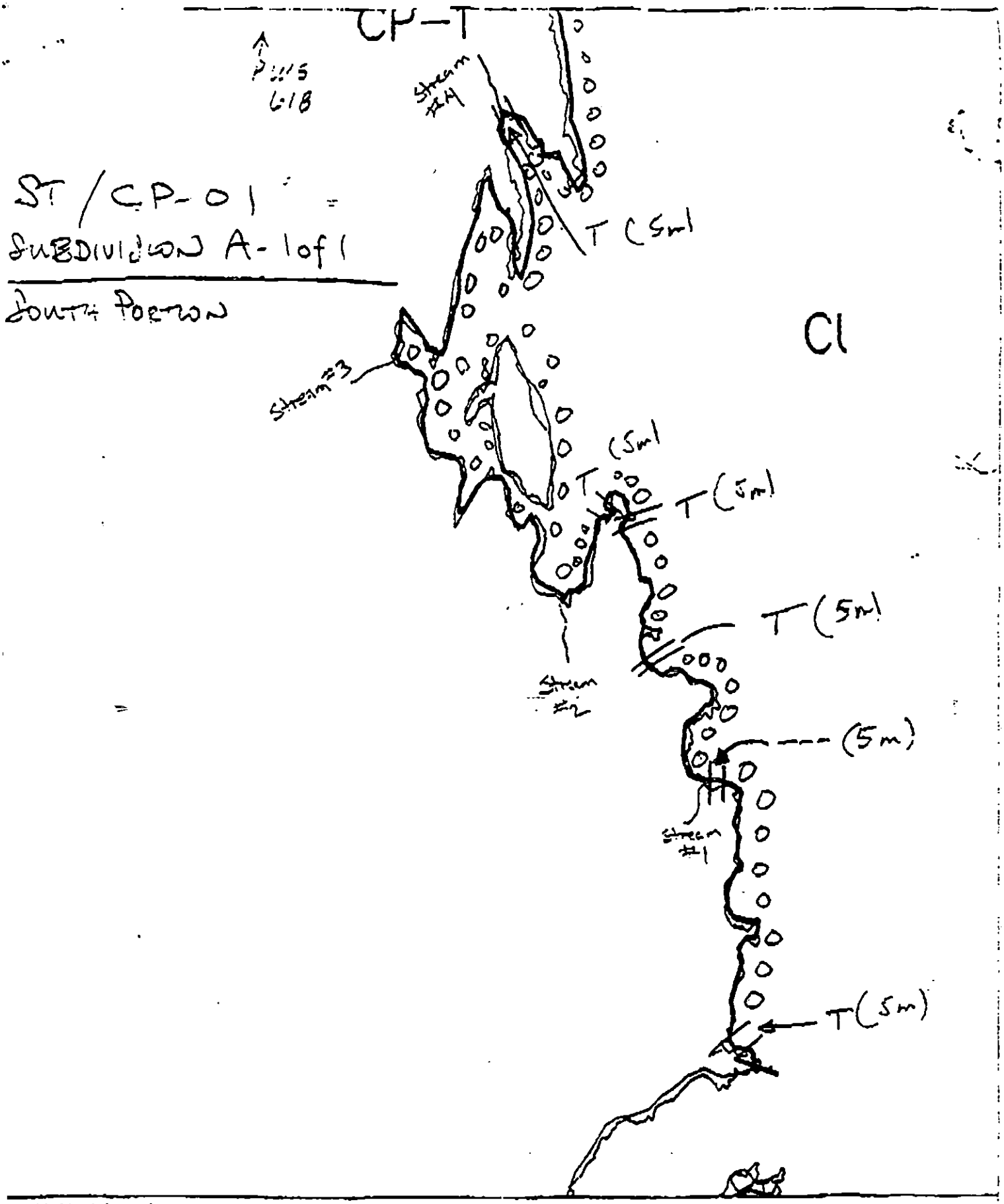
Segment ST-CP001 Subdivision A 4-10-90

Biologist: David Lohse

1. present in low intertidal: - Halosacion, Enteromorpha, Scytosiphon, Kathrina tunicata, Ulva, coralline algae, Pycnopodia, Pollinices egg cases

   mid intertidal: Ulva, Enteromorpha, Cladophora, Halosacion, Scytosiphon, Sculpins, Pycnopodia, Anthopleura, Nucella, Pagurus, Nucella egg cases

2. Steller jays, cormorants, many water fowl/shore birds, ducks, 2 river otter, 2 seals, and 2 mature bald eagles sited in area
3. lynx tracks spotted above high tide line
4. patches of byssal threads prevalent on mid-intertidal bedrock.
5. Dense barnacle settlement occurred in this segment. Both cypris and recruits present in large numbers in the low and mid-intertidal. Present in lower densities in the high intertidal
6. Otter carcass found above high tide line. No oil observed
7. Four running streams found in this segment. Streams #1 and #4 had some oil present. No oil was observed near stream #2. Stream #3 was not surveyed. No information was given on whether or not any ecologically sensitive streams were present in this segment. However, one salmon fishing regulatory sign was spotted near streams #3 and #4 (in Picturesque Cove).
8. Oiled vegetation was found in two areas (see OG data).



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

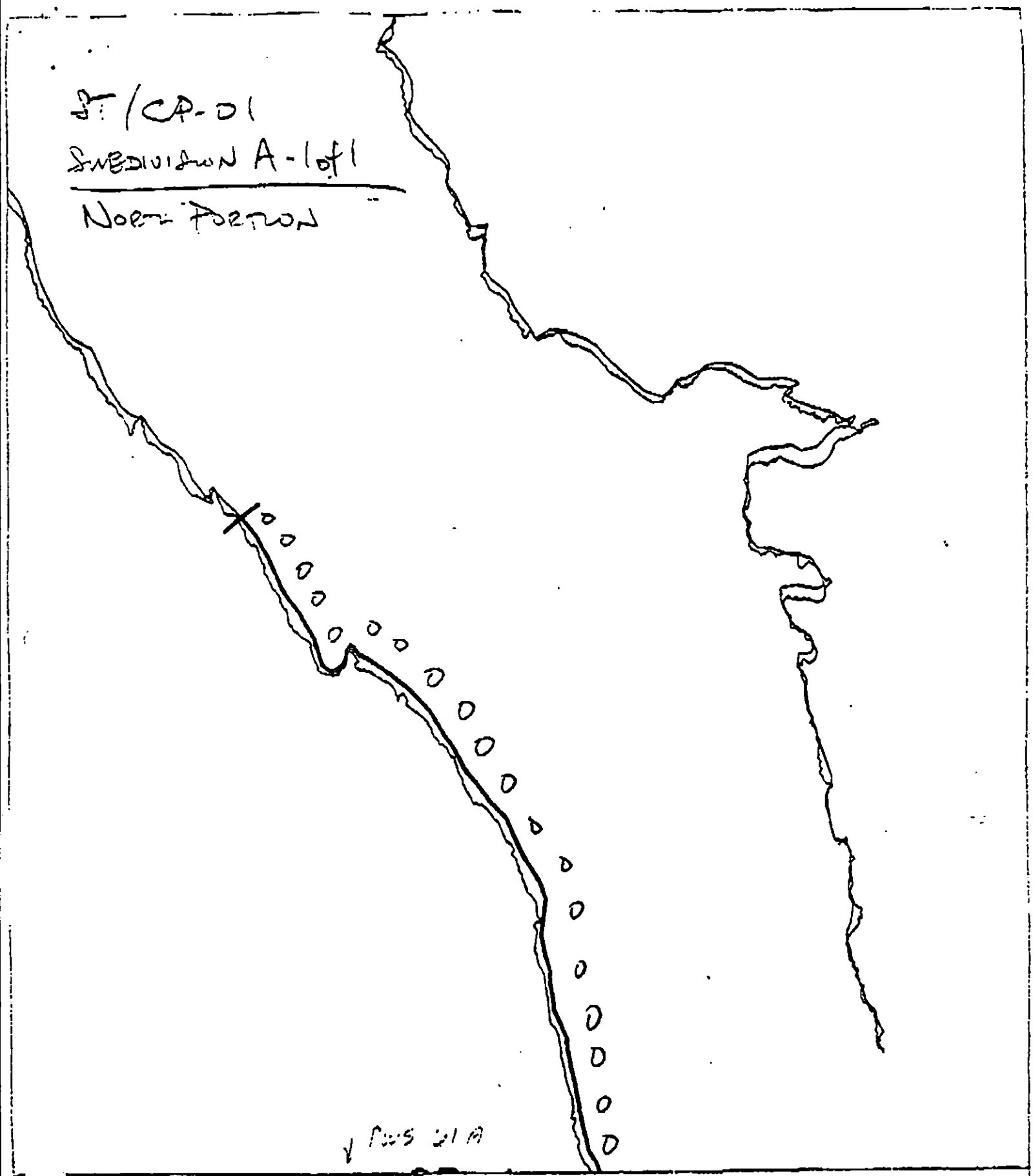
CP-1

ADEC Segment Length: 10767m

Map Key: PWS-61a

Name: _____

Date: _____



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

CP-1

ADEC Segment Length: 10767m

Map Key: PWS-61b

Name: _____

Date: _____

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT CP-1 SUBDIVISION A (1 of 1)

WORK WINDOW

Manual Pickup **OPEN**

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B	**Salmon Streams**	No constraint to Manual Pickup. Three ADF&G catalogued anadromous streams are present in Subdivision A (224-30-14770, 14780, 14790).
1E	**Main Bay Hatchery Release**	No constraint to manual pickup.
1L	**Set Net Sites**	No constraint to manual pickup.

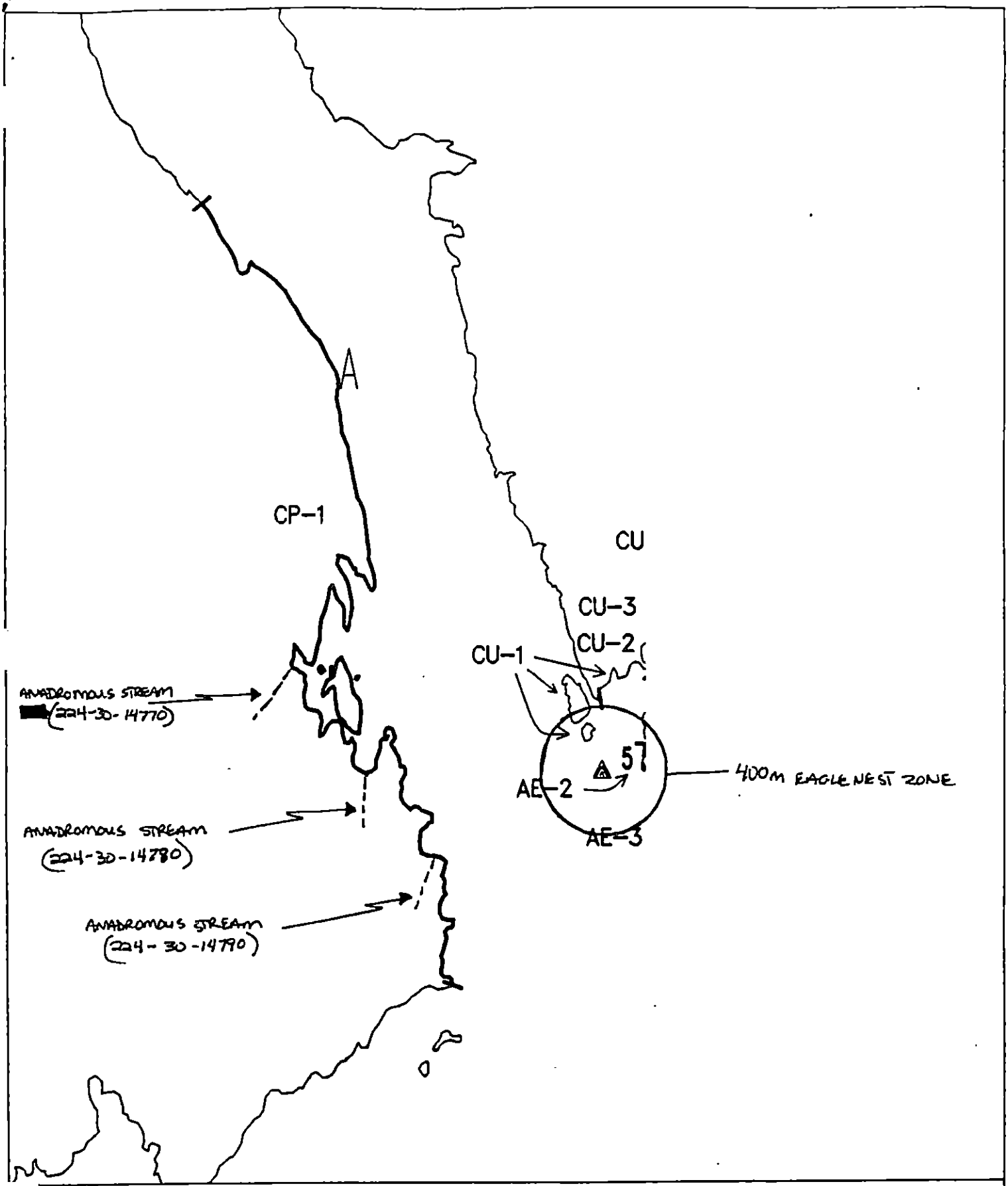
OTHER ECOLOGICAL CONSIDERATIONS

When set net sites are present, restrict beach operations to essential minimum. Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

TAG ADDENDUM DATE 5/18/90
ADEC Art Weiner Art Weiner
EXXON Andy Tsai
NOAA Joseph Talbott
USCG G. A. Reiter

FOSC _____ DATE 5-15-90

Prepared by: Andy Mann WK Date: 5/17/90



EXXON

Exxon Company, USA
Map Key: PWS-CP-1

ECOLOGY MAP
SEGMENT CP-1

SUBDIVISION A (1 of 1)

METERS

★ Seabird Colony

△ Eagle Nest

SHORELINE EVALUATION

SEGMENT ST/ CP-01 SUBDIVISION A (1 OF 1) DATE 4/9/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
ADF&G anadromous stream no. 224-30-14770, 14780, 14790.
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
6W Recreation: Forest Service cabins (6/1 to 9/15)
See attached Ecological Constraint sheet for specific constraints and contacts.

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

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). ~~; required prior~~

SHPO SIGNATURE: [signature] DATE: 5/2/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 40 m: V.Light 344 m: No Oil 10383 m
Subsurface Oil Observed: Yes____ No X Maximum Depth_____

RECOMMENDATIONS:

X No Treatment Recommended
X Treatment Recommended
____Manual Pickup
____Bioremediation
____Tarmat: ____Breakup
____Removal
____Snare/Absorbent Booms
____Oil Snares (pom poms)
____Absorbents (pads,rolls,etc)
____Spot Washing:____Wands
____ Beach Cleaner
____Other (see comments)

COMMENTS: MANUAL PICKUP OF ASPHALT, TAR PATTIES + TARBALLS

TAG COMMENTS:

TAG APPROVAL DATE: 4/25/90
ADEC [signature]
EXXON [signature]
NOAA Joseph Talbott [signature]
USCG Kenneth Keane [signature]

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

SHORELINE EVALUATION

SEGMENT ST/ CP-01 SUBDIVISION A (1 OF 1) DATE 4/9/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
ADF&G anadromous stream no. 224-30-14770, 14780, 14790.
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
6W Recreation: Forest Service cabins (6/1 to 9/15)
See attached Ecological Constraint sheet for specific constraints and contacts.

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

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). ~~s required prior~~

SHPO SIGNATURE: Charles E Holman DATE: 5/2/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 40 m: V.Light 344 m: No Oil 10383 m
Subsurface Oil Observed: Yes____ No X Maximum Depth_____

RECOMMENDATIONS:

X No Treatment Recommended	____Snare/Absorbent Booms
X 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: MANUAL PICKUP OF ASPHALT, TAR PATTIES + TAR BALLS

TAG COMMENTS:

TAG APPROVAL DATE: 4/25/90
ADEC Art Weiner
EXXON Amy Teal
NOAA Joseph Talbott
USCG Kenneth Keane

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

OG Rick Gillie

SEGMENT ST/ CP-01

SUBDIVISION A-1 of 1

DATE 04/09/90

CHECKLIST

- ✓ N Arrow
- ✓ Approx. Scale
- ✓ Seg/Seb 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 △ Pit - No Subsurface Oil

2 ▲ Pit - Subsurface Oil

CT/C Continuous Distribution

CT/B Broken Distribution

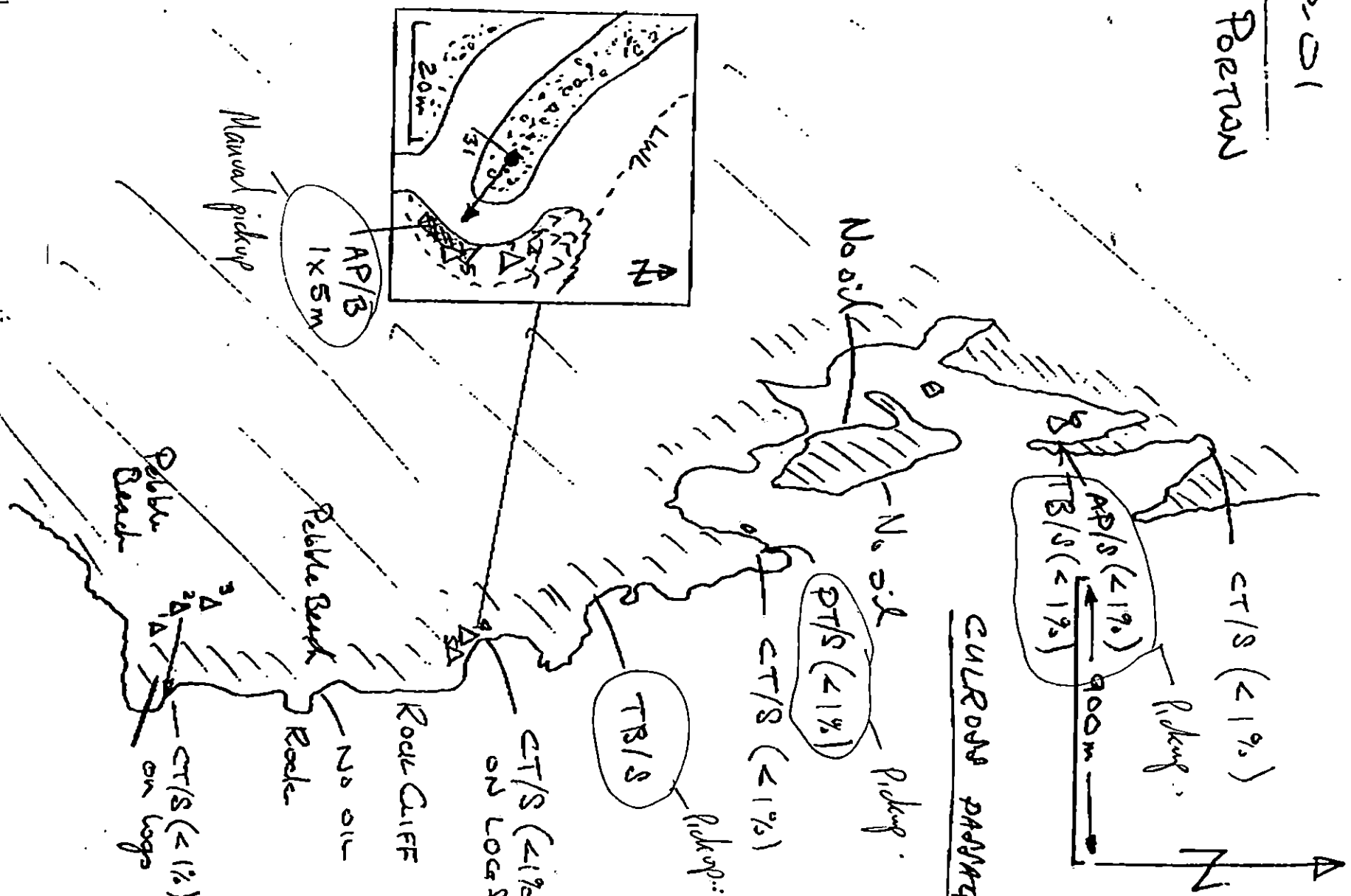
CT/P Patchy Distribution

CT/S Splashed Distribution

Oiled Vegetation

1 ●→ Photo location, direction, and number

SKETCH MAP #1



Oil Character Length (m): AP 5 PO 0 CV 0 CT 15 ST 0 MS 0 PT 5 TB 5 FL 0 NO 12,467

REVISION: 03/29/90

OG Rick Fillie

SEGMENT ST/ CP-01

SUBDIVISION A-1 of 1

DATE 04/09/90

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 ▲ Pit - No Subsurface Oil

2 ▲ Pit - Subsurface Oil

CT/C Continuous Distribution

CT/B Broken Distribution

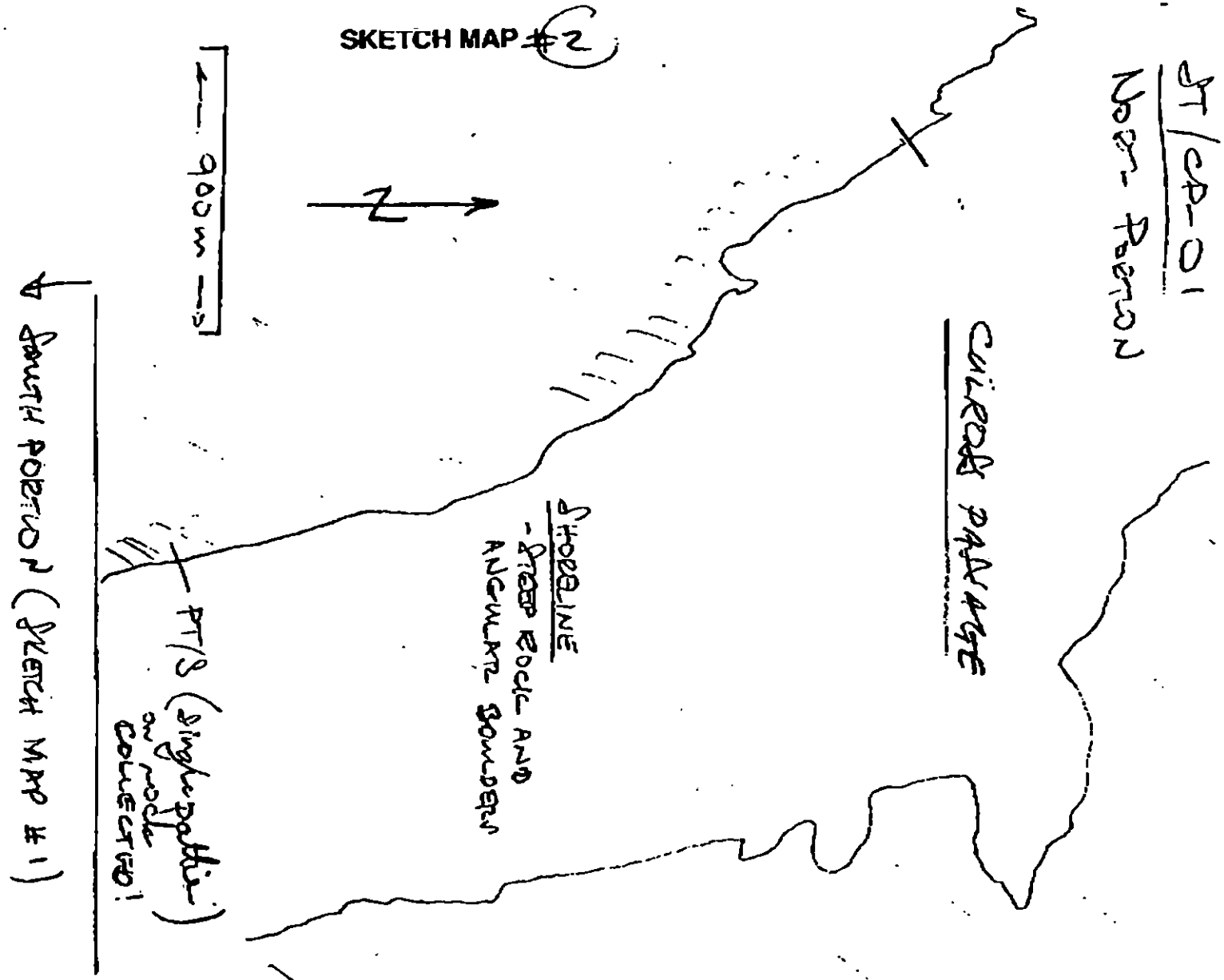
CT/P Patchy Distribution

CT/S Splashed Distribution

Oiled Vegetation

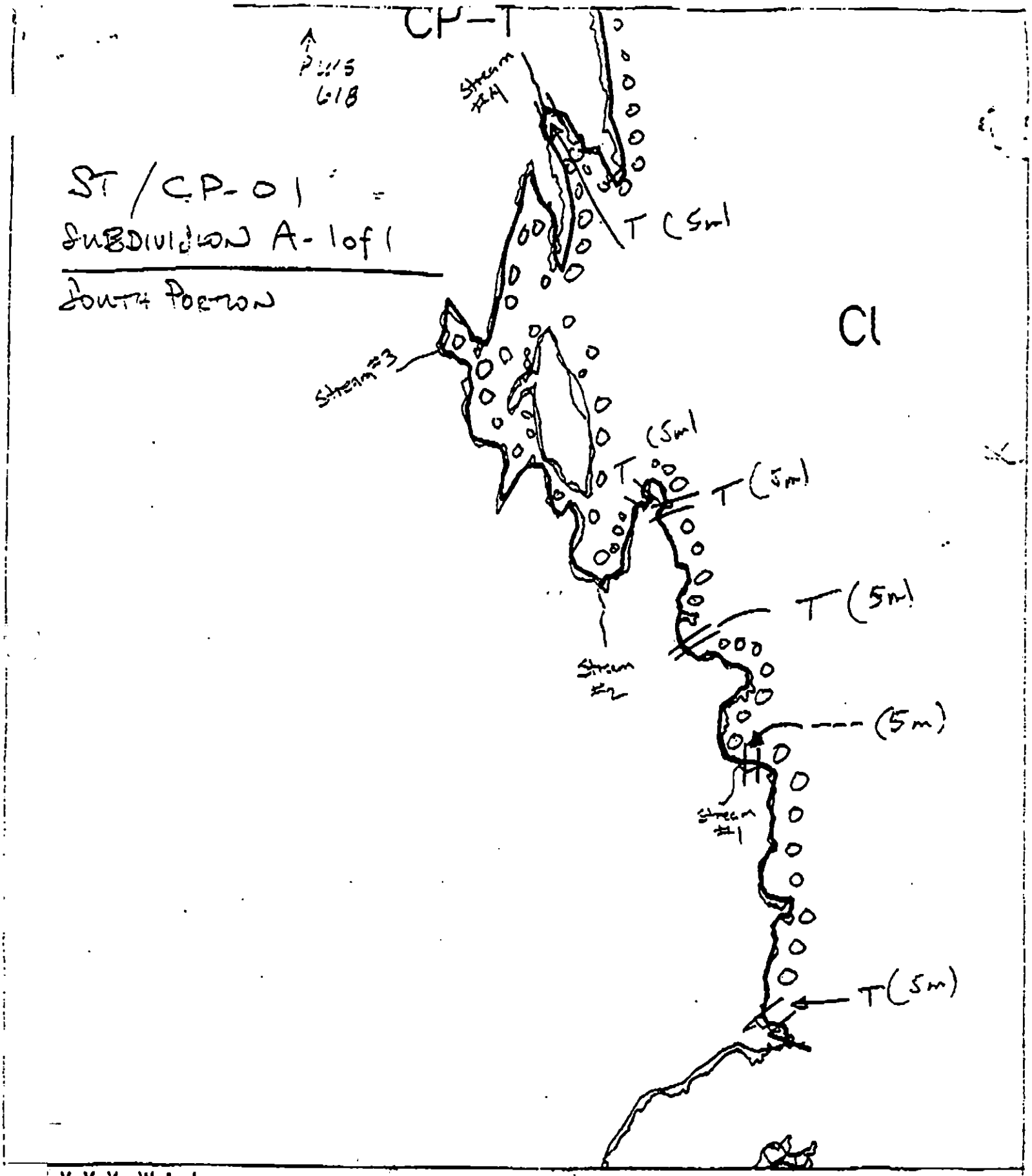
1 Photo location, direction, and number

SKETCH MAP #2



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

REVISION: 03/24/90



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//// Medium
---- Narrow
TTTT Very Light

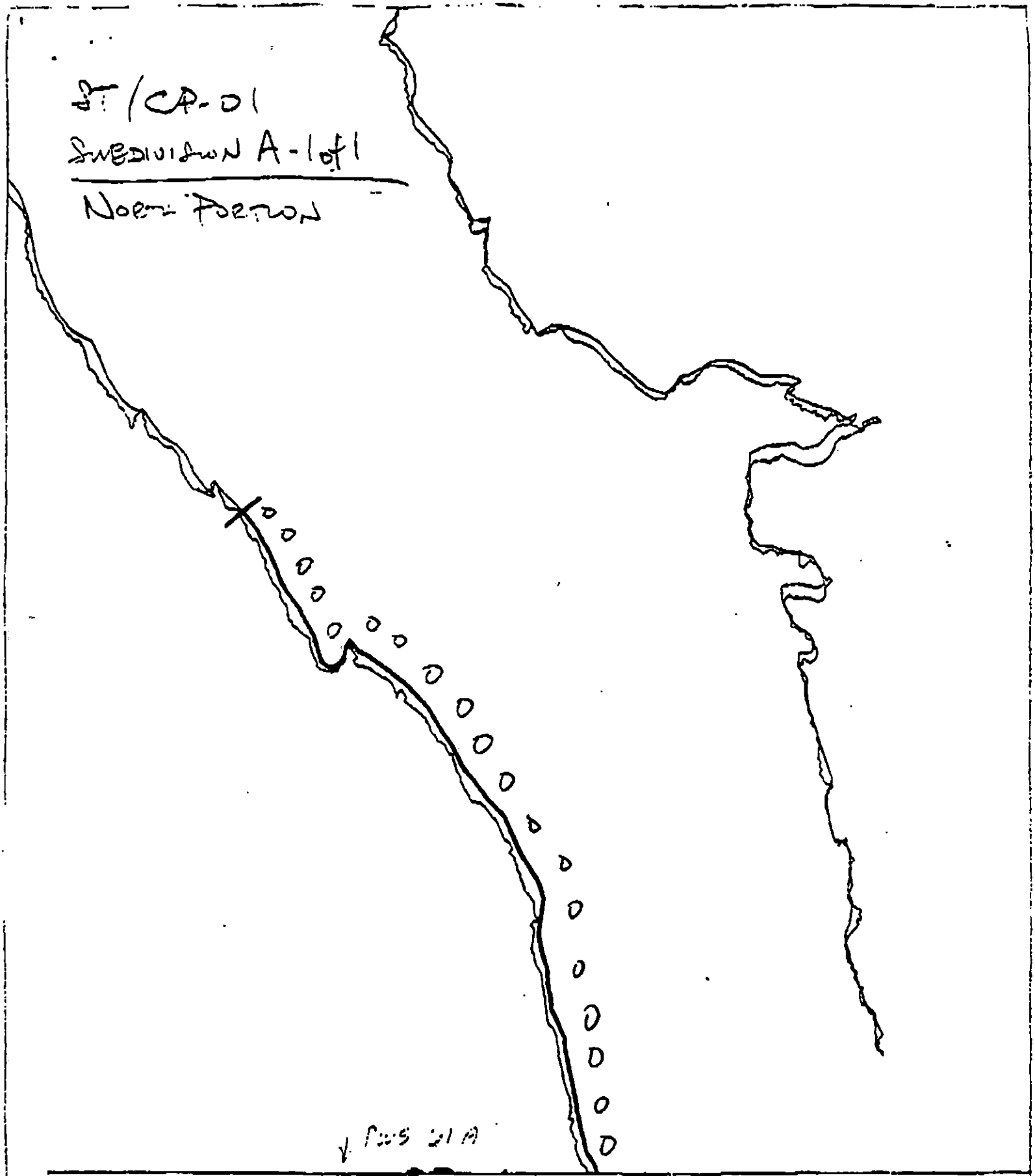
CP-1

ADEC Segment Length: 10767m

Map Key: PWS-610

Name: _____

Date: _____



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

CP-1

ADEC Segment Length: 10767m

Map Key: PWS-61b

Name: _____

Date: _____

1991 MAYSAP EVALUATION

SEGMENT: CP 001 SUB: A REGION: PWS SURVEY DATE: 5/12/91

ENVIRONMENTAL SENSITIVITIES:
Work Window(s) OPEN 5/1 - 7/10; RESTRICTED 7/10 - 9/15

Ecological/Constraints (see page two for details) Fry release, 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

Fry Release: Unlimited treatment unless otherwise directed by ADF&G. Sheen containment/recovery procedures required for mechanical treatment.

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 CP001 SUBDIVISION A DATE 5/12/91

ADEC
NAME JEFF GINALIAS SIGNATURE [signature]

☒ NTR OIL LOCATED WAS ISOLATED, RESIDUAL TRAPPED IN SHALE BEDROCK, PROTECTED BY LARGE BOULDER. RECOVERABLE OIL AT SITE ("A") REMOVED BY MAYSAP TEAM. NO FURTHER ENVIRONMENTAL DETRIMENT POSED BY REMAINING OIL

EXXON
NAME RANDALL K. BOYER SIGNATURE Randall K. Boyer

☒ NTR THE PATCHY MOUSSE ~ 1.5 m² WAS LOCATED BEHIND A LARGE BOULDER shadowing the oil from wave action. THE MAYSAP TEAM Removed THAT WHICH WAS FEASIBLE. THE OILING described IN ASAP WAS NOT FOUND IN ANY FORM. SEVERAL FLOCKS OF DUCKS WERE SEEN ALONG WITH A HARBOR SEAL. TWO CLEAN POM POMS WERE also Removed FROM THE SUBDIVISION.

LANDMANAGER
NAME MARSHA HALL OF DNR SIGNATURE Marsha Hall

☒ NTR However, in the AREA (A) where MOUSSE was SCRAPED out, REMNANTS REMAIN. This is surface oil located on A beach which Kayakers have USED And do go to. As minimal as this oiling MAY Appear, the public USERS MAY stumble upon it. Oil in bedrock crevices.

USCG/NOAA
NAME SCHULTZ / CHILDS SIGNATURE [signature] / [signature]

☒ NTR No FURTHER INTRUSSION NECESSARY. REMAINING RESIDUE APPEARS TO POSE NO ENVIRONMENTAL THREAT.

OIL OBSERVED AS SURFACE ONLY - NEAR VERTICAL ROCK FACES CONTAINED CT - CT ALSO ON BOULDERS - MS WAS FOUND IN STEEPLY DIPPING BEDROCK OUTCROPS WHERE WEATHERING HAS CREATED MANY CRACKS & CREVICES TO TRAP OIL.

MAYSAP SHORELINE OILING SUMMARY

TEAM NO. 1

SEGMENT CP-1

OG G. MACDONALD BIO M. FAWCETT

SUBDIVISION A

ADEC J. GINANAS LANDMANAGER M. HALL for DNR

DATE 5/12/91

EXXON R. BOYER USCG/NOAA SCHULTZ/CHINDS

TIME 15:45 to 17:20 TIDE LEVEL +6.0 ft. to +3.0 ft. ENERGY LEVEL: [ ] H [X] M [ ] L

SURVEYED FROM: [X] FOOT [ ] BOAT [ ] HELO WEATHER: [X] SUN! [ ] CLOUDS [ ] FOG [ ] RAIN [ ] SNOW

TOTAL LENGTH SHORELINE SURVEYED: 1564 m NEAR SHORE SHEEN: [ ] BR [ ] RB [ ] SL [X] NONE

EST. OIL CATEGORY LENGTH: W – m M – m N 4 m VL 10 m NO 1,550 m US 11144 m

LOC	SURFACE OIL CHARACTER AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO	SURFACE SEDIMENT TYPE	SHORE SLOPE V H M L	AREA WIDTH m	AREA LENGTH m	ZONE S	UI	MI	LI	NOTES
A						T					R	H	0.3	10		X			
		P									R	L	1	1/2		X			
B										X	PcR								
C						P					P	V	<1/2	3		X			
D										X	PG	M							
E										X	Pc	M							

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

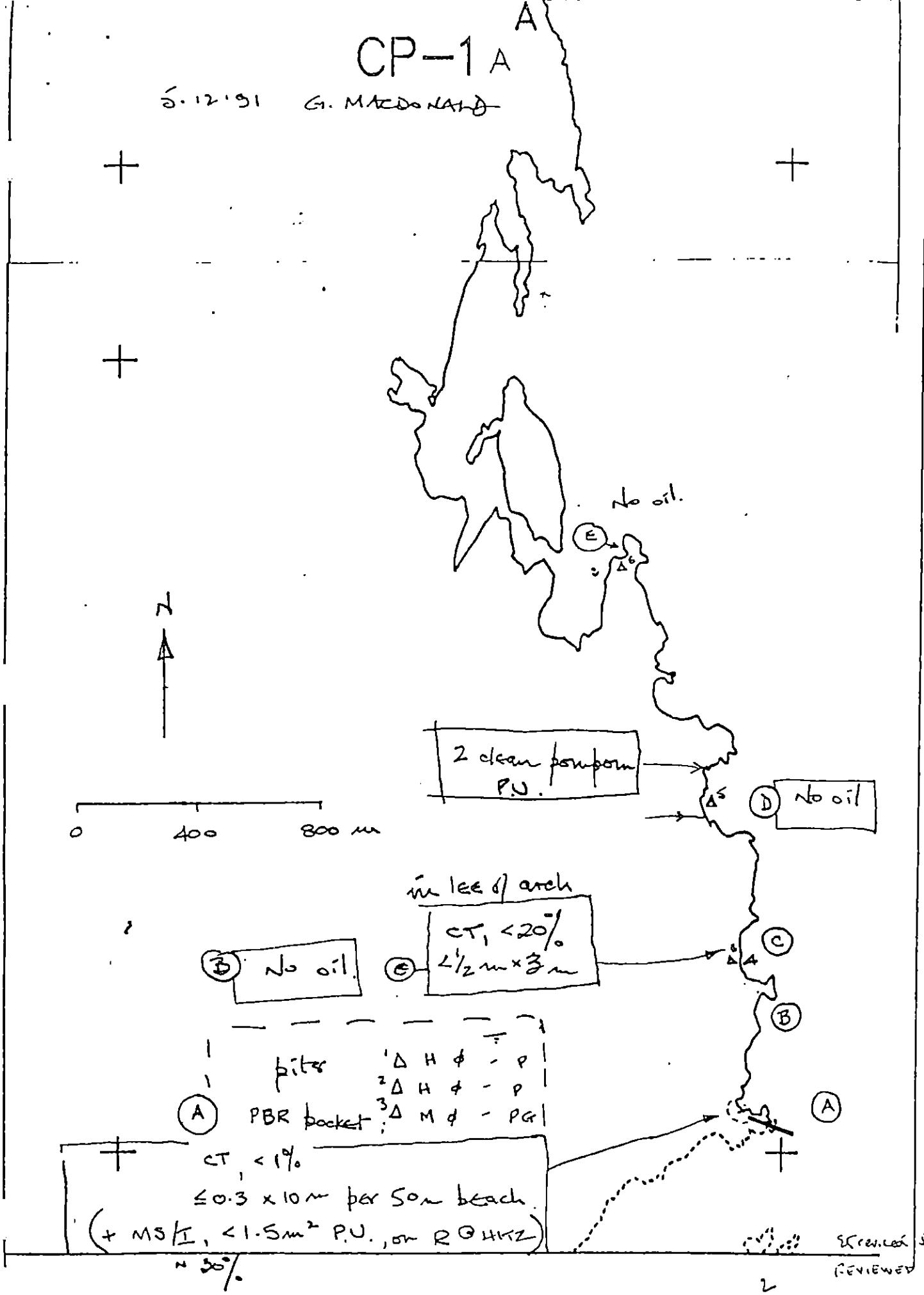
SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE PHOTO ROLL # MAYSAP- 1 - 20 FRAMES 1-1

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER OP	HOR	MOR	LOR	OF	TR	NO	OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE S	UI	MI	LI	SURFACE-SUBSURFACE SEDIMENTS	NOTES
1	30							X	-		–			X			P-P	
2	30							X	-		–			X			P-P	
3	35							X	-		–				X		PG-PGS	
4	30							X	-		–			X			Pc-Pc	
5	25							X	-		–			X			PG-G	
6	35							X	-		-			X			PG-GSC	
									-									
									-									
									-									

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

OG COMMENTS: low relief, steep rocky shore w/ shattered shaley PCG beach. Surface oil only, as MS patches on splintery bedrock & crevices, also – CT patches & sporadic on steep R wall & B facets.

REVIEWED CA 4/14
SG revised 5/14


A
CP-1 A
5.12.91 G. MACDONALD
No oil.
E
Δ6
N
2 clean pompom P.U.
Δ5
D
No oil
0
400
800 m
in lee of arch
CT, <20%
<1½ m × 3 m
C
Δ4
B
No oil.
B
B
pitter
1Δ H ϕ - P
2Δ H ϕ - P
3Δ M ϕ - PG
A
PBR pocket
A
CT, <1%
≤0.3 × 10 m per 50 m beach
(+ MS/I, <1.5 m² P.U., or R @ 4 KHZ)
~ 30%
2

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 1 DATE 12 May 91

SEGMENT # CP001 TIDAL HEIGHT(Range) +2.9 to +6.5 ft

SUBDIVISION A BIOLOGIST Michael Fawcett

SEA STATE calm WIND SPEED/DIRECTION calm

PHOTOGRAPHS: ROLL # FRAME #

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

site A: A pocket beach with pebbles and bedrock shelves and outcrops. No biota in pebbles, but BR has dense bed of rockweed in most of intertidal range up to about +9ft. MLLW. Below +7ft there are also filamentous red algae, filamentous greens (Urospora), Rhodomela, Littorinids, limpets, amphipods, + dense patches of mussels. Recent recruits of mussels, littorinids (also littorinid eggs), rockweed, and barnacles present. A patch of mousse was picked up from the +8ft level at the base of a large boulder; the mousse was near dense young rockweed, mussels, and barnacle spat, plus sparse Rhodomela and littorinids. A school of several hundred salmon fry (2-3 cm length) was observed swimming near shore in the LTZ at the north end of the beach.

WILDLIFE OBSERVATIONS
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	1	pricklebacks
Seabirds	2 (Arctic tern, red-faced cormorant)	7	tidepool sculpin
Waterfowl	2 (green winged teal, common merganser)	31	
Gulls/kittiwakes	1 (G-W gull)	3	
Shorebirds	2 (sandpipers)	10	
Corvids	1 (steller's jay)	2	
Other Birds	1 (sparrow)	10-12	

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

Shoreline subdivision map showing important biological features attached.

REVIEWED CD 14 MAY

CP-1 12 May 91 Faucett

Arrive 1545 hrs

1 red-faced cormorant } Site 1
10-12 sparrows }

Cove w/ pebble beach

2 Steller's jays

- dense Fucus covering BR below ~ +9ft

- fil red, Prostera below +7ft - abundant red. lift., mussels on BR, dense spat all over,

Amph, pods, limpets, breaking Litt under boulders

- bigger sediments near point at NE end - MTZ has dense littorines, dense mussel beds on BR humps, scattered mussels among loose c/B - (this area is below trace of CT on SUTZ bedrock) - dense Fucus directly below (+8-9ft, CT at 12 feet), - other stuff as stats 3m downshore

- Patch of monsse at base of boulder at about +8ft (picked up) - surrounded by dense new Fucus, young mussels, dense barn. spat, sparse Rhodomela, sparse littorinids

- school of 2-3cm salmon fry in intertidal area

- depart site A 1615 hrs

Site B 1620

flock of ~ 25 ducks on beach (green-winged teal) males w/ red head, white narrow ring at base of neck on grey breast, (but no green on head)

Site 3 (C) - 1/2 x 2 m band of CT on SUPER-wall, ~ 20% cover - no kelp, unstable gravel/pebbles below

20m downshore are large MTZ boulders w/ dense mussels, barn. spat - sparse littorines

- 1 mature eagle in tree

- 1 sea otter

Arrive site D (C?) 1645

3 GW gulls - 6 8" sandpipers (brown, straight bill, yellow legs, white belly + several (4) smaller sanderling-sized

- 2 merganser (common)

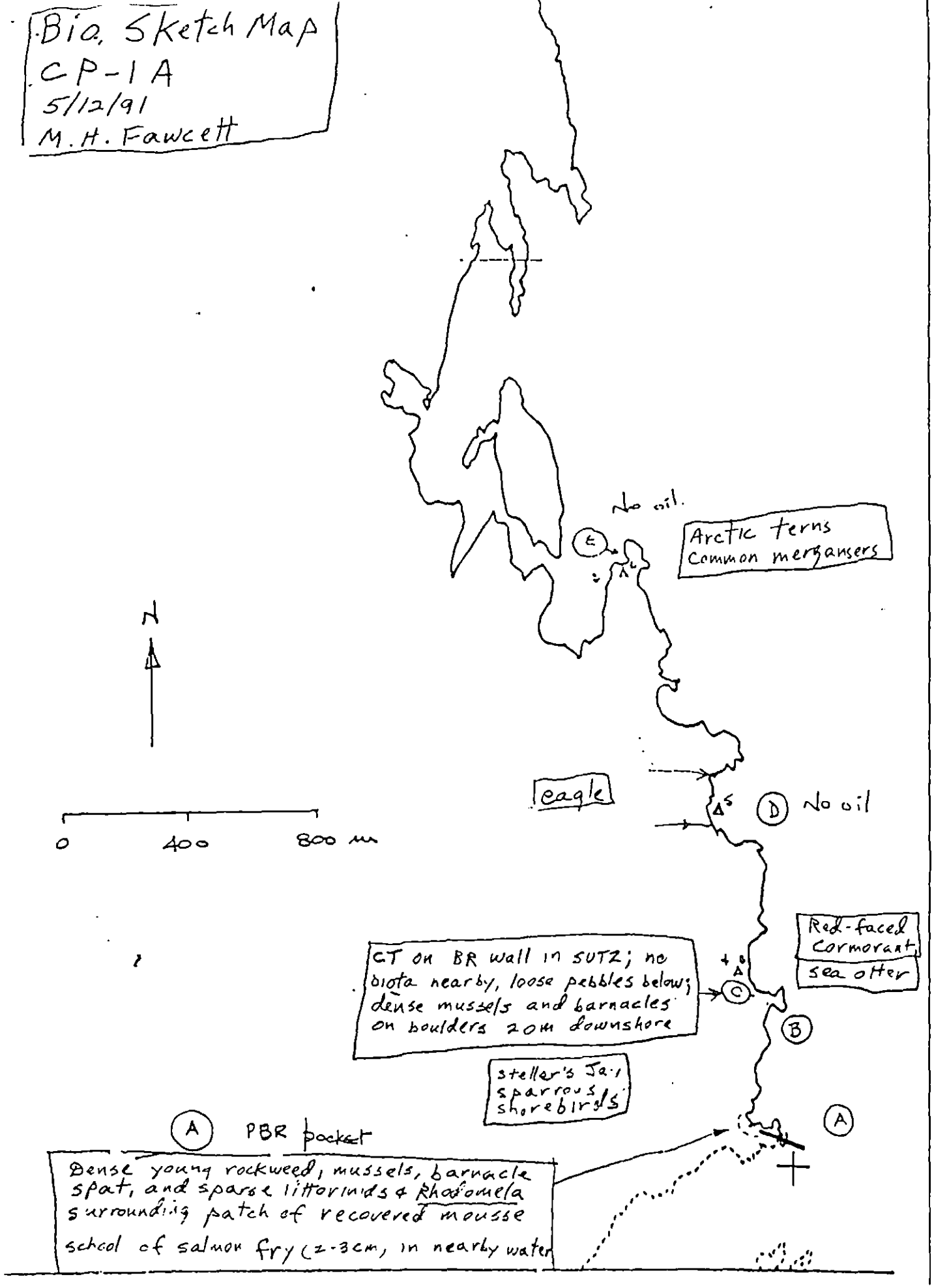
1700 hrs depart

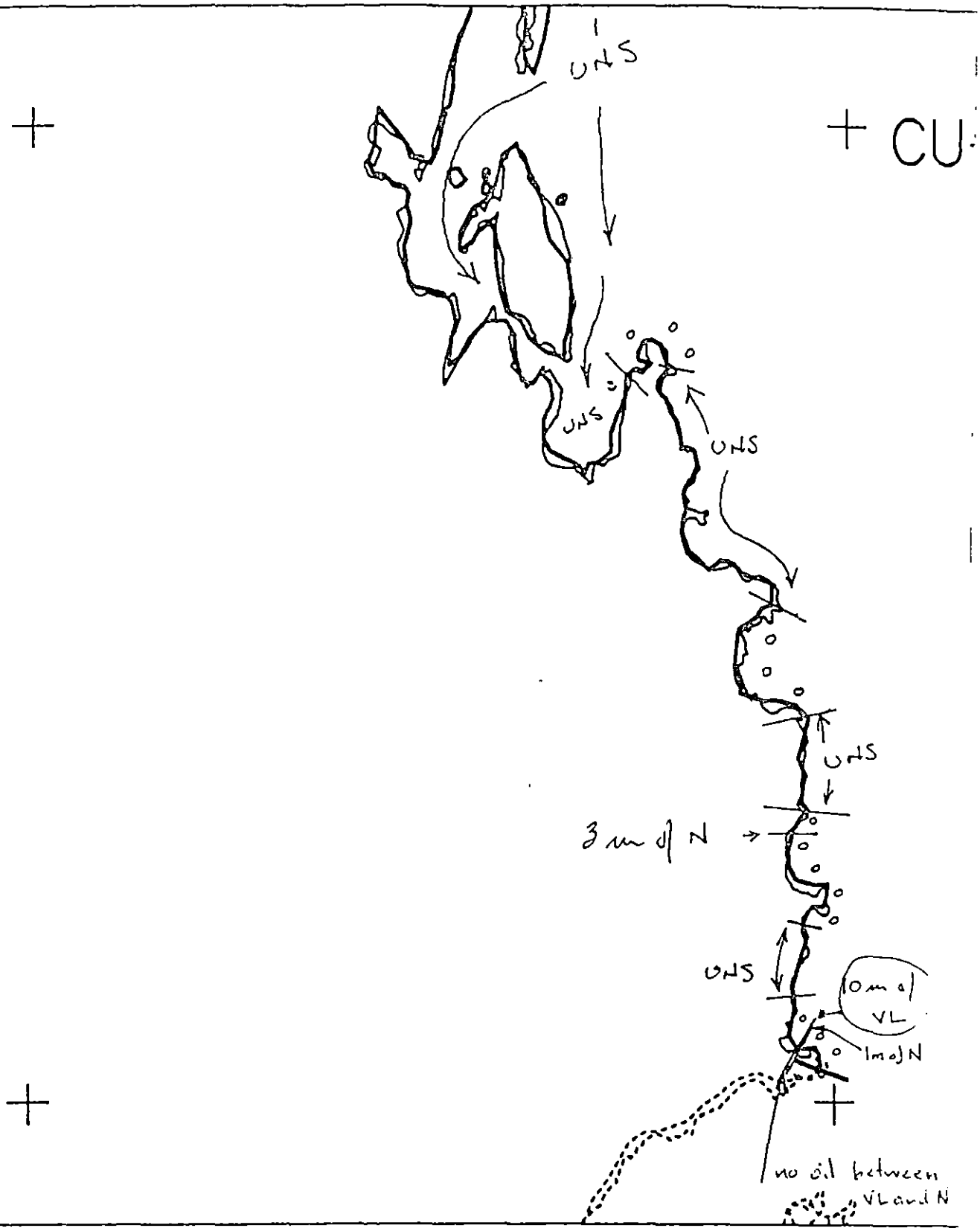
1715 site E (pickled cove
3/4 mile west of B -
5-6 terns feeding
3-4 mergansers
finally depart 1720,
head for CU-6

CP-1
Continued
12 May

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 stiff 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 awhile, then left nest
10 minutes later, flew out on
water & picked something else up
Then returned to nest, while rafting
- site B - (500 yards flew off
south of eagle nest) - picked
up mouse in SUT 2
no birds nearby except some N. parsing
c/b on top of bedrock -
patchy dense Fucus on IR

Bio. Sketch Map
CP-1A
5/12/91
M. H. Fawcett





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

CP001 A

ADEC Subsegment Length: 12708m

METERS

0 400 800

AK State Plane Zone 4
NAD83/feet

Subdivision Field Map

Map Key: PWSCP001Ae

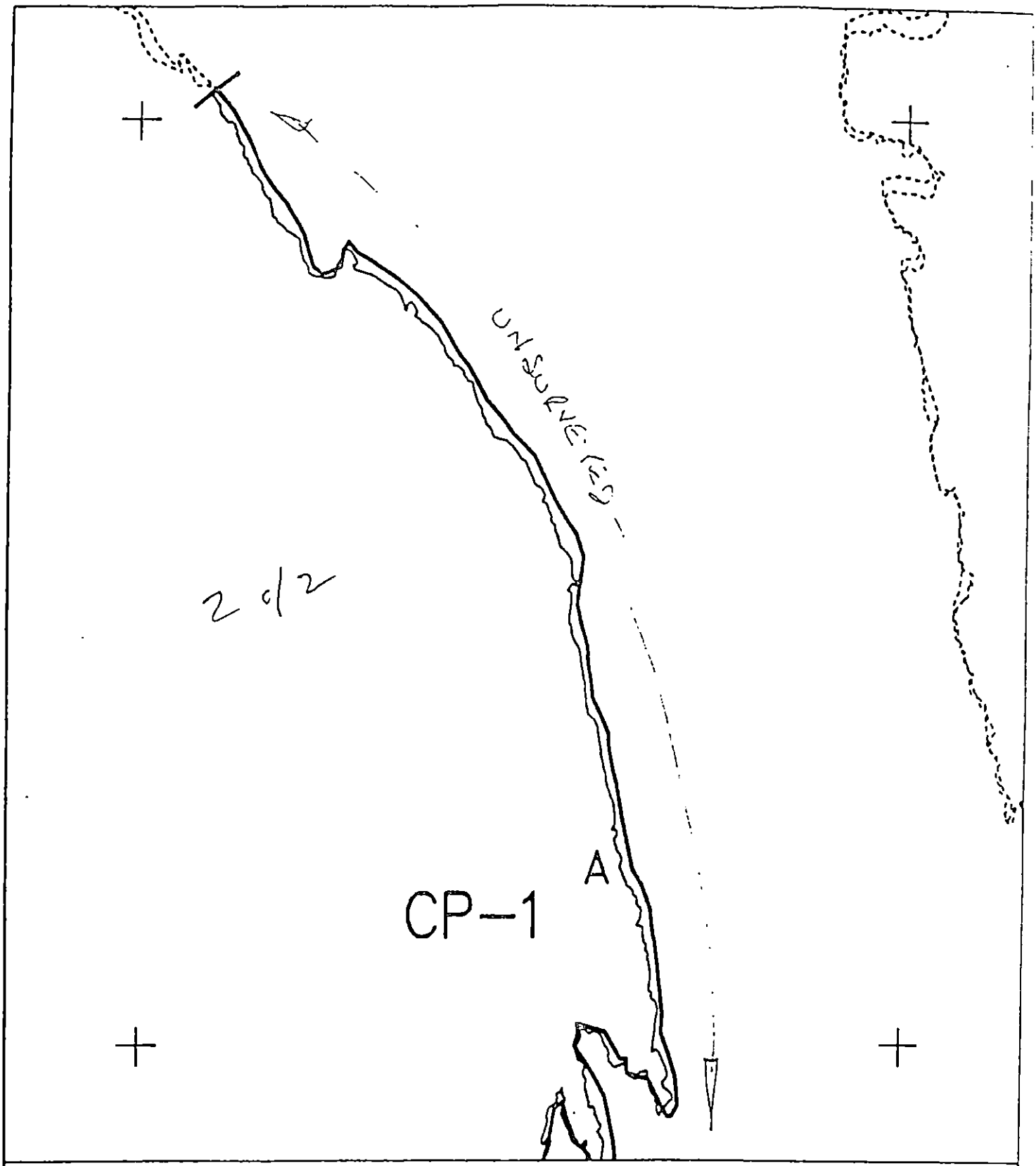
Name: GM

Date: 8.12.0

Date Entered:

Revised 3/14

3 REVENUE



XXXX	Wide	CP001 A	Subdivision Field Map
////	Medium	ADEC Subsegment Length: 12708m	Map Key: PWSCP001Ab
----	Narrow	METERS	Name: GM
TTTT	Very Light	0 400 800	Date: 5-12-91
0000	No Oil	AK State Plane Zone 4 pwp001ab	Date Entered:

EG revised JM
REVIEWED CL

1991 MAYSAP EVALUATION

SEGMENT: CP 001 **SUB:** A **REGION:** PWS **SURVEY DATE:** 5/12/91

ENVIRONMENTAL SENSITIVITIES:
Work Window(s) OPEN 5/1 - 7/10; RESTRICTED 7/10 - 9/15

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

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

SHPO Signature: Rachel Joan Dale 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

EXXON

USCG

NOAA

FOSC

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

ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES

Fry Release: Unlimited treatment unless otherwise directed by ADF&G. Sheen containment/recovery procedures required for mechanical treatment.

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 CP001 SUBDIVISION A DATE 5/12/91

ADEC
NAME JEFF GINALIAS SIGNATURE [signature]

☒ NTR OIL LOCATED WAS ISOLATED, RESIDUAL TRAPPED IN SHALE BEDROCK, PROTECTED BY LARGE BOULDER. RECOVERABLE OIL AT SITE ("A") REMOVED BY MAYSAP TEAM. NO FURTHER ENVIRONMENTAL DETRIMENT POSED BY REMAINING OIL

EXXON
NAME RANDALL K. BOYER SIGNATURE Randall K. Boyer

☒ NTR THE PATCHY MOUSSE ~ 1.5 m² WAS LOCATED BEHIND A LARGE BOULDER shadowing the oil from wave action. THE MAYSAP TEAM Removed THAT WHICH WAS FEASIBLE. THE OILING described IN ASAP WAS NOT FOUND IN ANY FORM. SEVERAL FLOCKS OF DUCKS WERE SEEN ALONG WITH A HARBOR SEAL. TWO CLEAN POM POMS WERE also Removed FROM THE SUBDIVISION.

LANDMANAGER
NAME MARSHA HALL OF DNR SIGNATURE Marsha Hall

☒ NTR However, in the AREA (A) where MOUSSE was SCRAPED out, REMNANTS REMAIN. This is surface oil located on A beach which Kayakers have USED and do go to. As minimal as this oiling MAY appear, the public USERS MAY stumble upon it. Oil in bedrock crevices.

USCG/NOAA
NAME SCHULTZ / CHILDS SIGNATURE [signature] / [signature]

☒ NTR NO FURTHER INTRUSSION NECESSARY. REMAINING RESIDUE APPEARS TO POSE NO ENVIRONMENTAL THREAT.

OIL OBSERVED AS SURFACE ONLY – NEAR VERTICAL ROCK FACES CONTAINED CT – ALSO ON BOULDERS – MS WAS FOUND IN STEEPLY DIPPING BEDROCK OUTCROPS WHERE WEATHERING HAS CREATED MANY CRACKS & CREVICES TO TRAP OIL.

MAYSAP SHORELINE OILING SUMMARY

PAGE 1 OF 1

TEAM NO. 1

SEGMENT CP-1

OG G. MACDONALD

BIO M. FAWCETT

SUBDIVISION A

ADEC J. GINANAS

LANDMANAGER M. HALL for DNR

DATE 5 / 12 / 91

EXXON R. BOYER

USCG/NOAA SCHULTZ / CHILDS

TIME 15 : 45 to 17 : 20

TIDE LEVEL +6.0 ft. to +3.0 ft.

ENERGY LEVEL: ☐ H ☒ M ☐ L

SURVEYED FROM: ☒ FOOT ☐ BOAT ☐ HELO

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

TOTAL LENGTH SHORELINE SURVEYED: 1564 m

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

EST. OIL CATEGORY LENGTH: W – m M – m N 4 m VL 10 m NO 1,550 m US 11144 m

LOC	SURFACE OIL CHARACTER										SURFACE SEDIMENT TYPE	SHORE SLOPE	AREA		ZONE				NOTES
	AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO		V H M L	WIDTH m	LENGTH m	S	UI	MI	LI	
A						T					R	H	0.3	10		X			
		P									R	L	1	1/2		X			
B										X	PcR								
C						P					P	V	<1/2	3		X			
D										X	PG	M							
E										X	Pc	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 - 20 FRAMES 11~16

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO				B R S N	S	UI	MI	LI		
1	30							X	-		–			X			P-P	
2	30							X	-		–			X			P-P	
3	35							X	-		–				X		PG-PGS	
4	30							X	-		–			X			Pc-Pc	
5	25							X	-		–			X			PG-G	
6	35							X	-		–			X			PG-GSC	
									-									
									-									
									-									

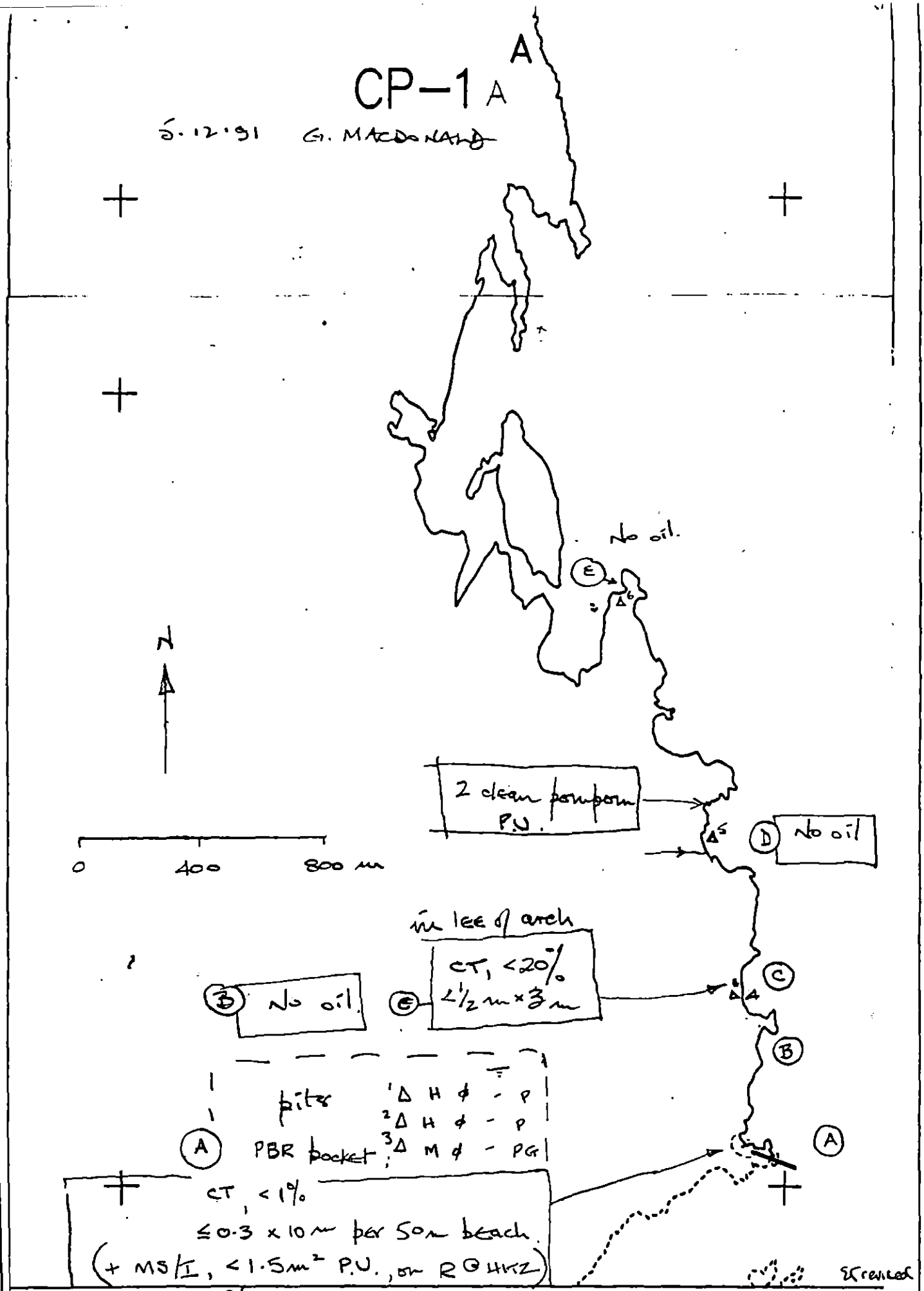
SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

OG COMMENTS: low relief, steep rocky shore w/ shattered shaley PCG beach. Surface oil only, as MS patches on splintery bedrock & crevices; also – CT patches & sporadic on steep R wall & ⊗ facets.

REVIEWED CP 14 MAY
EG reviewed 5/14

CP–1 A

5.12.91 G. MACDONALD



Screened 5/14
REVIEWED CD 14 MAY

2

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 1 DATE 12 May 91

SEGMENT # CP001 TIDAL HEIGHT(Range) +2.9 to +6.5 ft

SUBDIVISION A BIOLOGIST Michael Fawcett

SEA STATE calm WIND SPEED/DIRECTION calm

PHOTOGRAPHS: ROLL # FRAME #

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

site A: A pocket beach with pebbles and bedrock shelves and outcrops. No biota in pebbles, but BR has dense bed of rockweed in most of intertidal range up to about +9ft. MLLW. Below +7ft there are also filamentous red algae, filamentous greens (Urospora), Rhodomela, Littorinids, limpets, amphipods, + dense patches of mussels. Recent recruits of mussels, littorinids (also littorinid eggs), rockweed, and barnacles present. A patch of mousse was picked up from the +8ft level at the base of a large boulder; the mousse was near dense young rockweed, mussels, and barnacle spat, plus sparse Rhodomela and littorinids. A school of several hundred salmon fry (2-3 cm length) was observed swimming near shore in the LTZ at the north end of the beach.

WILDLIFE OBSERVATIONS
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	1	pricklebacks
Seabirds	2 (Arctic tern, red-faced cormorant)	7	tidepool sculpin
Waterfowl	2 (green winged teal, common merganser)	31	
Gulls/kittiwakes	1 (G-W gull)	3	
Shorebirds	2 (sandpipers)	10	
Corvids	1 (Steller's jay)	2	
Other Birds	1 (sparrow)	10-12	

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	1		
Pinnipeds (specify)			
W[illegible]es (specify)			

Shoreline subdivision map showing important biological features attached.

REVIEWED CD 14 MAY
[illegible]

CP-1: 12 May 91 Faucett

Arrive 1545 hrs

1 red-faced cormorant } Site 1
10-12 sparrows }

Cove w/ pebble beach

2 Steller's jays

- dense Fucus covering BR below ~ +9ft

- fil red, Iridaea below +7ft - abalone rad. left, mussels on BR, dense spat all over,

Amph, pole, limpets, breeding Lit under boulders

- bigger sediments near point at NE end - MTZ has dense littorines, dense mussel beds on BR humps, scattered mussels among base c/B - (this area is below trace of CT on SUTZ bedrock) - dense Fucus directly below (+8-9ft, CT at 12 feet), - other stuff a bit 3m downshore

- patch of mousse at base of boulder at about +8ft (picked up) - surrounded by dense new Fucus, young mussels, dense barn. spat, sparse Rhodomela, sparse littorinids

- school of 2-3cm salmon fry in intertidal area

- depart site A 1615 hrs

Site B 1620

flock of ~ 25 ducks on beach (green-winged teal) males w/ red head, white narrow ring at base of neck on grey breast, (but no green on head)

Site 3(C) - 1/2 x 2 m band of CT on SUP RR-Wall, ~ 20% cover - no barnacles, unstable gravel/pebbles below

20m downshore are large MTZ boulders w/ dense mussels, barn. spat - sparse littorines

- 1 mature eagle in tree

- 1 sea otter

Arrive site D (C?) 1645

3 GW yellows - 6 8" sandpipers (brown, straight bill, yellow legs, white belly + several (4) smaller sandpiper-sized

- 2 merganasers (common)

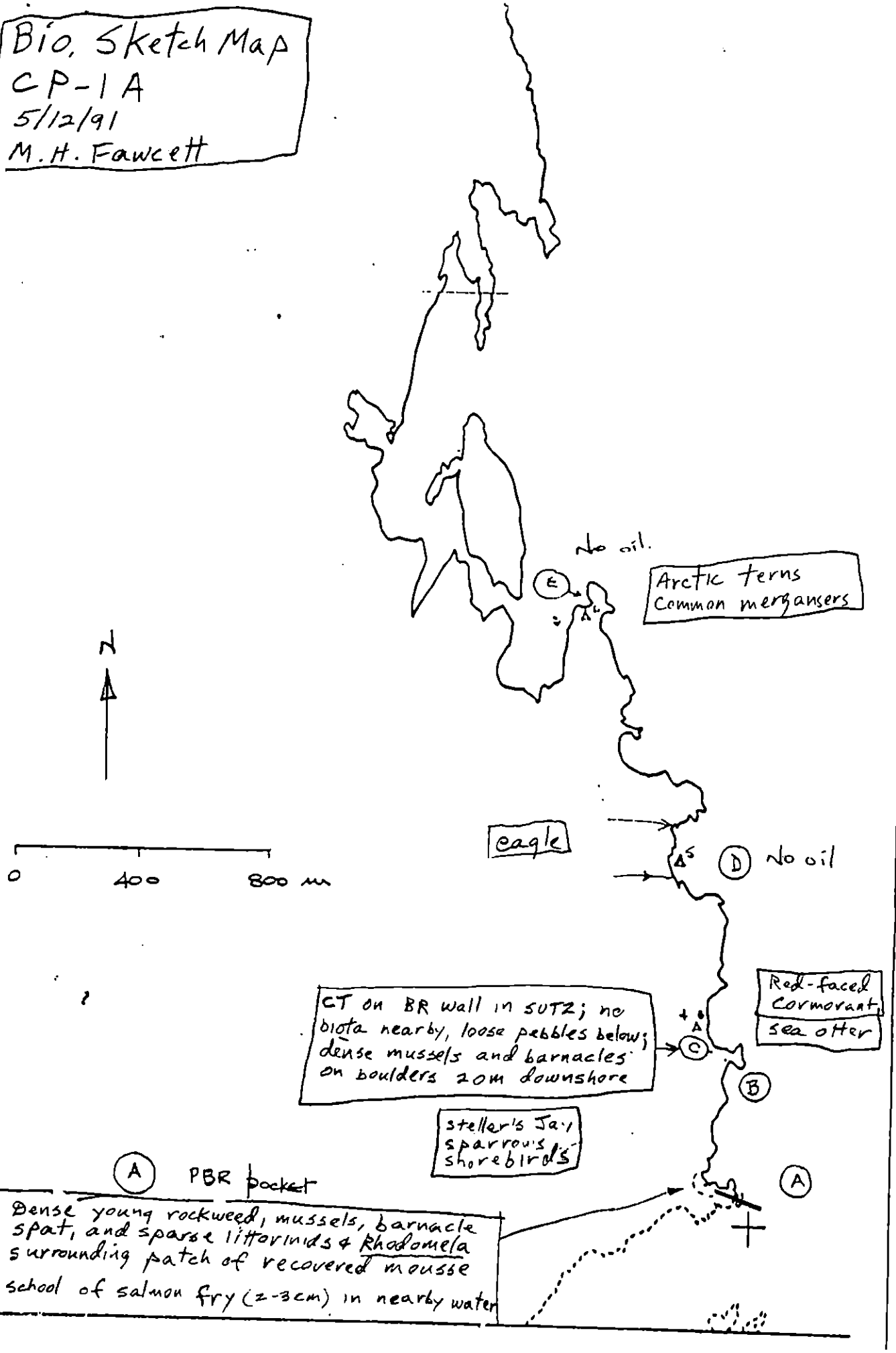
1700 hrs depart

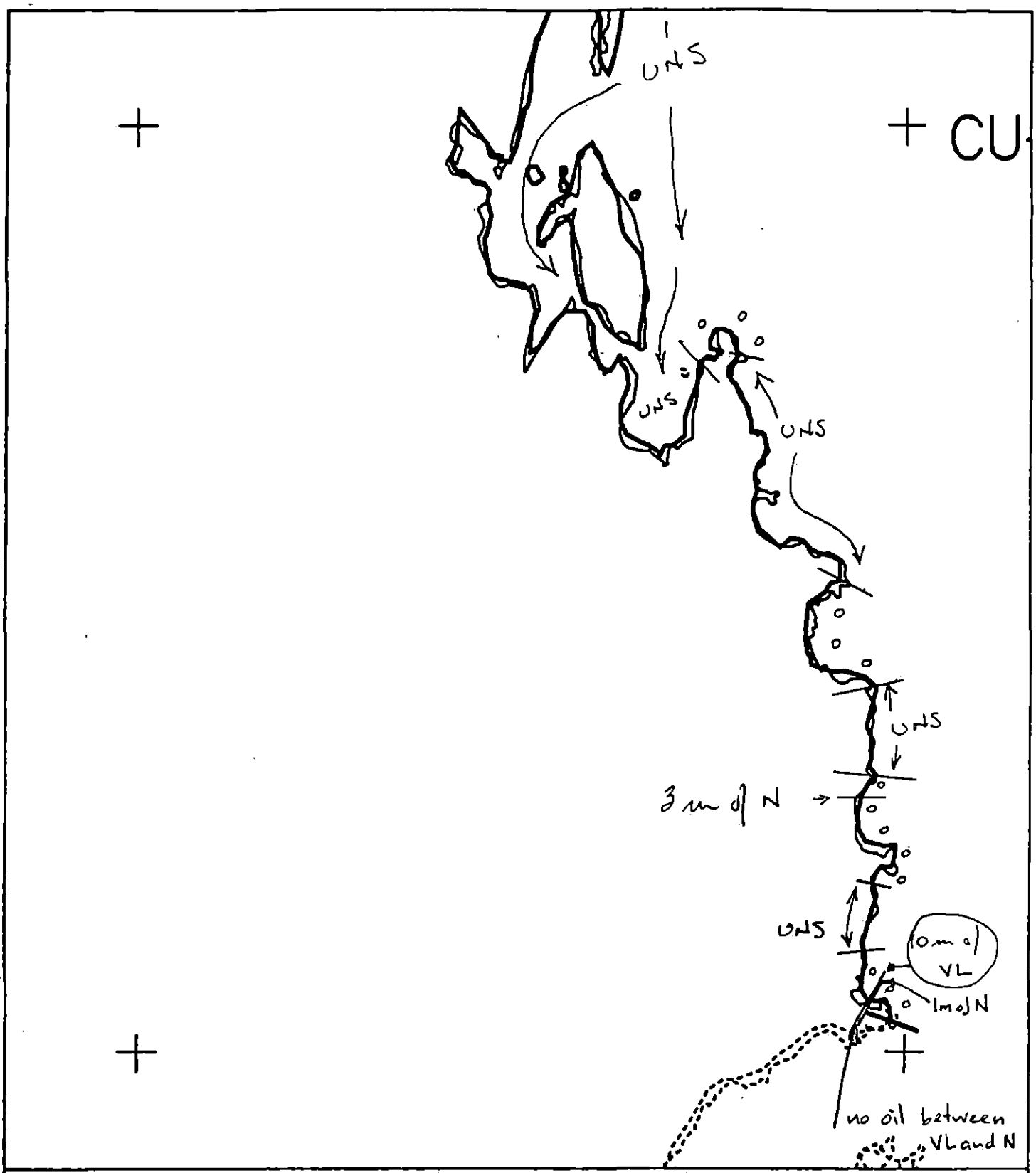
1715 site E (prickly cove
3/4 mile west of B -
5-6 terns feeding
3-4 mergansers
f, mch, depart 1720,
head for CU-6

CP-1
Continued
12 May

Arrive CU 6 1735 MS, at (marked "inactive")
and near eagle nest -
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 awhile, then left nest
10 minutes later, flew out on
water + picked something else up
Then returned to nest, while rather flew off
- site B - (500 yards
south of eagle nest) - picked
up mousse in SUT 2
no birds nearby except some N. parula
c/b on top of bedrock -
patchy dense Fucus on BR

Bio. Sketch Map
CP-1A
5/12/91
M.H. Fawcett





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

CP001 A

ADEC Subsegment Length: 12708m

METERS

0 400 800

AK State Plane Zone 4
pcp001aa

EXXON

Subdivision Field Map

Map Key: PWSCP001Aa

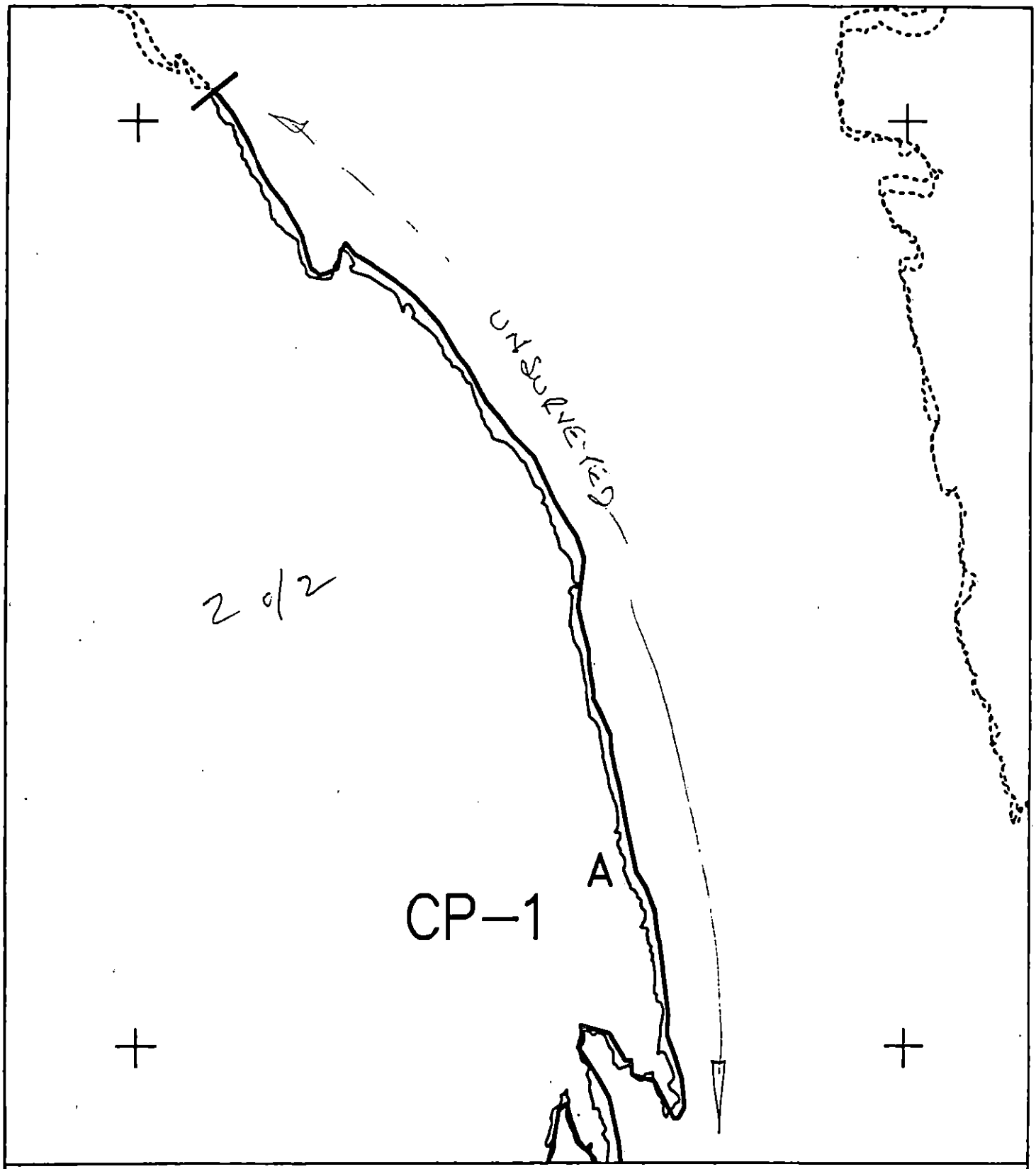
Name: GM

Date: 5.12.01

Date Entered:

EC reviewed 5/14

3 REVIEWED CO 14 MA



XXXX	Wide	CP001 A	Subdivision Field Map
////	Medium	ADEC Subsegment Length: 12708m	Map Key: PWSCP001Ab
----	Narrow	METERS	Name: GM
TTTT	Very Light	0 400 800	Date: 5·12·91
0000	No Oil	AK State Plane Zone 4 pcp001ab	Date Entered:

EXXON

EG reviewed 5/14

REVIEWED CD 14 MAY

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/CR-01

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

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

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1E Main Bay Hatchery release (4/20 to 6/10)
1L Set net sites (6/11 to 7/25)
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)
6U Recreation: Tent sites (6/1 to 9/15)
6W Recreation: Forest Service cabins (6/1 to 9/15)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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 467 m: No Oil 0 m
Subsurface Oil Observed: Yes X No____ Maximum Depth 15+ cm

RECOMMENDATIONS:

____No Treatment Recommended
X Treatment Recommended
____Manual Pickup
X 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 bioremediation of surface and subsurface oil in area shown on attached sketch map. Work should be conducted between 7/25 and 8/15 based on set net, hatchery and pinneped constraints.

TAG COMMENTS:_____

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

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / CR - 1 SUBDIVISION: A (ENTIRE SEGMENT) DATE 4/6/90

USCG
NAME GARY OTT SIGNATURE [signature]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

ADEC
NAME MICHAEL EBEL SIGNATURE [signature]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

CR-1-A: Broken and patchy coats with splashes of coat and stain were found here in the UTZ. Oil film was ranging from dark black through dark brown in only 1 of the 8 pits dug and it was not determinable from what depth of the 15c pit (#5) the film was emanating from. All of the above contaminants were located in the UTZ along this low energy shoreline. Any treatment would do more biological harm than gain in aesthetics.

LAND MANAGER - USDA FOREST SERVICE
NAME DON BREITINGER SIGNATURE [signature]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 88/02

OG Randy McBride USCG NOAA Gary Ott SEGMENT ST/ CR-1
BIO Lewis Sherman LAND REP U.S.F.S. Don Breitsger SUBDIVISION A
EXXON Leonard Hurst ADEC Michael Ebel TIME 15:20 to 16:45
TEAM NO.: 12 TIDE LEVEL: +5' to +2' DATE 4/6/90
EST. SUBDIVISION LENGTH: 482 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow 51°F
UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: North to South
SURFACE SEDIMENTS: R 40 % B 40 % C 5 % P 10 % G 4 % S 1 % M 0 % V 0
SLOPE: Lang 15 % Hang 80 % Vert 5 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 482 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	/0	/5	/P	/A						SU	UI	MI	LI
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT		●	○	X		X●					X○		
STAIN				X		X					X		
MOUSSE													
PATTIES													
TARBALLS													
FILM				X				X			X		
NO OIL										X		X	X

PAVEMENT: H F S NA sq. m by NA c
PATTIES / TARBALLS 0 BAGS
NEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED ☐ YES ☒ NO
TYPE
#BAGS

Photographs:
Roll No. ST-12-4
Frames 21-22-23-24

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm-cm)	BELOW		OIL / FILM COLOR					PIT ZONE				ANA	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC						SU	UI	MI	LI		
1	45					X	— · —		X							X				P, G, S
2	30					X	— · —		X								X			P, G, S
3	37					X	— · —		X						X					B, C, P
4	30					X	— · —		X							X				C, P, G
5	15				X●		0—15	X			X	●	+			X				B, C, P, G
6	25					X	— · —		X							X				P, G, P

COMMENTS CR-1-A is dominated by high angle rock cliffs and boulders w/ little fine sediments. Wave exposure is low to medium since the segment lies on the ~~prob~~ protected side of the island. However, winds from the N/NW have the greatest amount of fetch and would produce high wave-energy conditions along the entire segment. These waves will wash the rocks + sediments very efficiently through the year. The oiling is characterized by a coat (<1mm) ~~colored~~ with broken (50-80% coverage), patchy (≈ 10-49%), and splashed (<10%) distribution

Page 1 of 2 continued on next page REVIEWED DK DATE 4/10/90

SHORELINE OILING SUMMARY (PAGE 2 of 2)

REVISION 06/22/88

SEGMENT ST/ CR-1 SUBDIVISION A

SUBSURFACE OIL (CONTINUED)

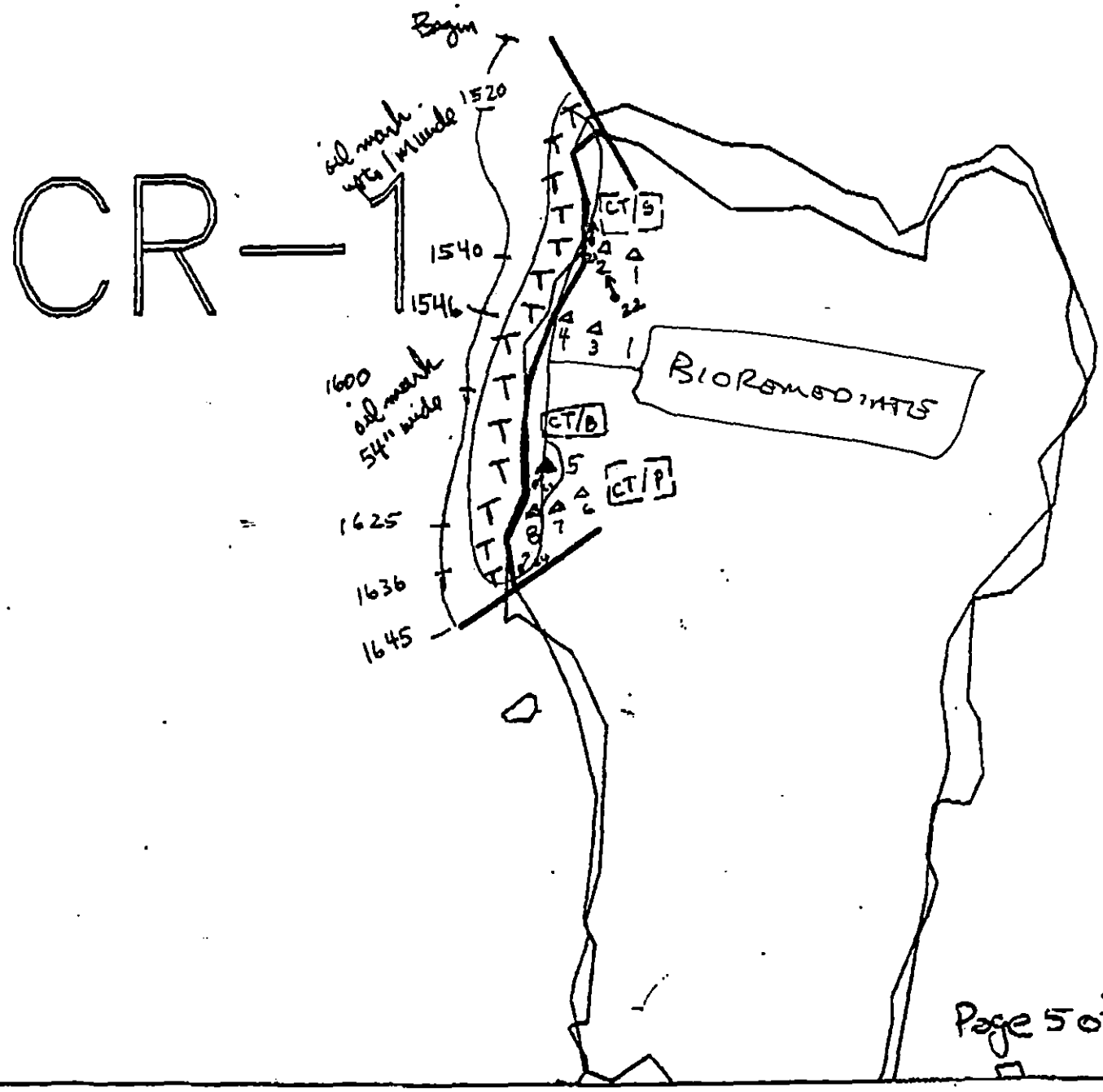
PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				ANA	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO	(CM-CM)	UO	UC						SU	UI	MI	U		
7	30					X	-		X							X				CPG
8	20					X	-		X							X				BCPG
							-													
							-													
							-													
							-													
							-													
							-													
							-													
							-													
							-													
							-													
							-													
							-													
							-													

COMMENTS

Overall, there was no subsurface oiling except pit #5 showed some rainbow, silver, and translucent sheen. CR-1-A is categorized as very light oiling.

Randy McBride
Geomorphologist
4/6/90

REVIEWED DIL DATE 4/10/90



Page 5 of 28

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

CR-1

ADEC Segment Length: 467m

0 100 200 300

Map Key: PWS-62
Name: Randy McBride
Date: 4/6/90
Date Entered:

Segment ST / CR-1 Subdivision A Date (mo / day / yr) 4/6/90

Time (24 hr) 1515-1700 Biologist SHARMAN

(A) Substrate type and % of ~~segments~~ SUBDIV.
(1) Bedrock 40 (2) Boulder 40 (3) Cobble 5 (4) Pebble 10 (5) Sand + granules 5 (6) Silt ____

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

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

Photographs:
Roll No. ST-12-4
Frames 21-24

BARNACLES

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

MYTILUS

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

GASTROPODS (NUCELLA, LITTORINA, LIMPETS)

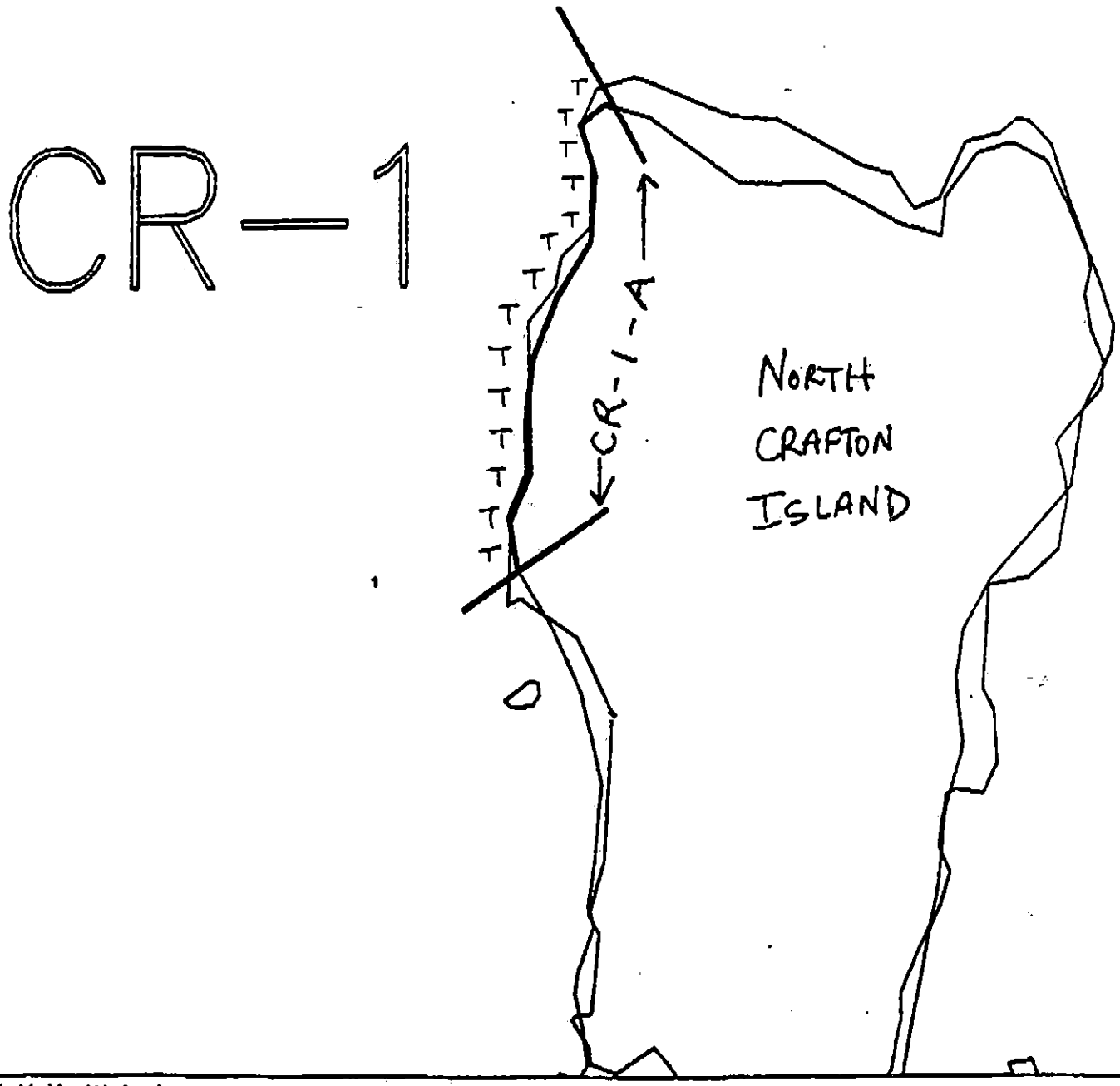
Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L				
2	2	2	2	2	2	2	2	2				NOT PRESEN
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

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	NOT PRESEN
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
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 subadult eagle, 1 loon (? sp.). This subdivision was high exposure – cobbles are extremely clean of biota as well as oil. Within the tan band a bedrock levels and large barnacles there is ≈ 30% adult barnacle mortality (vs. ≈ 5% outside the band); abundant scale within the band could be the result of oiling mortality or from high pressure spraying during treatment. Spot have settled on scars and the red bands, but alive directly on the stack. LT & bedrock tidepools very diverse and productive. Intertidal generally appear normal and healthy.

Ecological Considerations: According to the Priorities and Windows table, this segment is assigned an environmental ranked priority of 1 (work window 7/25 → 8/15 – could be revised by USFWS). Identified sensitivities are loss of the areas as a Main Bay Hatchery release site (Code 1E; constraints 1 and 2; treatment priority 2) and as haulout sites for principal pupping and molting (Codes 3N, P, O, Q; Constraint 5; treatment priority 1). Of particular importance are the offshore/rearshore rocks + islets, and exposed rocky points. This is critical habitat Sound-wide, and these animals are extremely sensitive during the time to human disturbance. LT & tidepools are very sensitive to trampling.



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

CR-1

ADEC Segment Length: 467m

0 100 200 300
METERS

N

Map Key: PWS-62
Name: Randy McBride
Date: 4/6/90
Date Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT CR-1 SUBDIVISION A (1 of 1)

WORK WINDOW

Bioremediation **WORK 6/4 - 6/7**

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1E	**Main Bay Hatchery Release**	Subdivision open to bioremediation 6/4 to 6/8 per verbal authorization from Larry Peitz/ADF&G to Tom Monihan/Exxon on 5/24/90. No constraint to bioremediation after 6/15.
1I	**Gill Net Area**	Closed to bioremediation after 6/7.
1L	**Set Net Sites**	Closed to bioremediation from 6/11 to 7/25.
3NP **3OQ**	**Harbor Seal and Sea Lion Pupping and Molting**	NO TIME CONSTRAINT. Authorized per memorandum dated 5/14/90 from Kathryn Frost/ADF&G to Mark Kuwada/ADF&G.

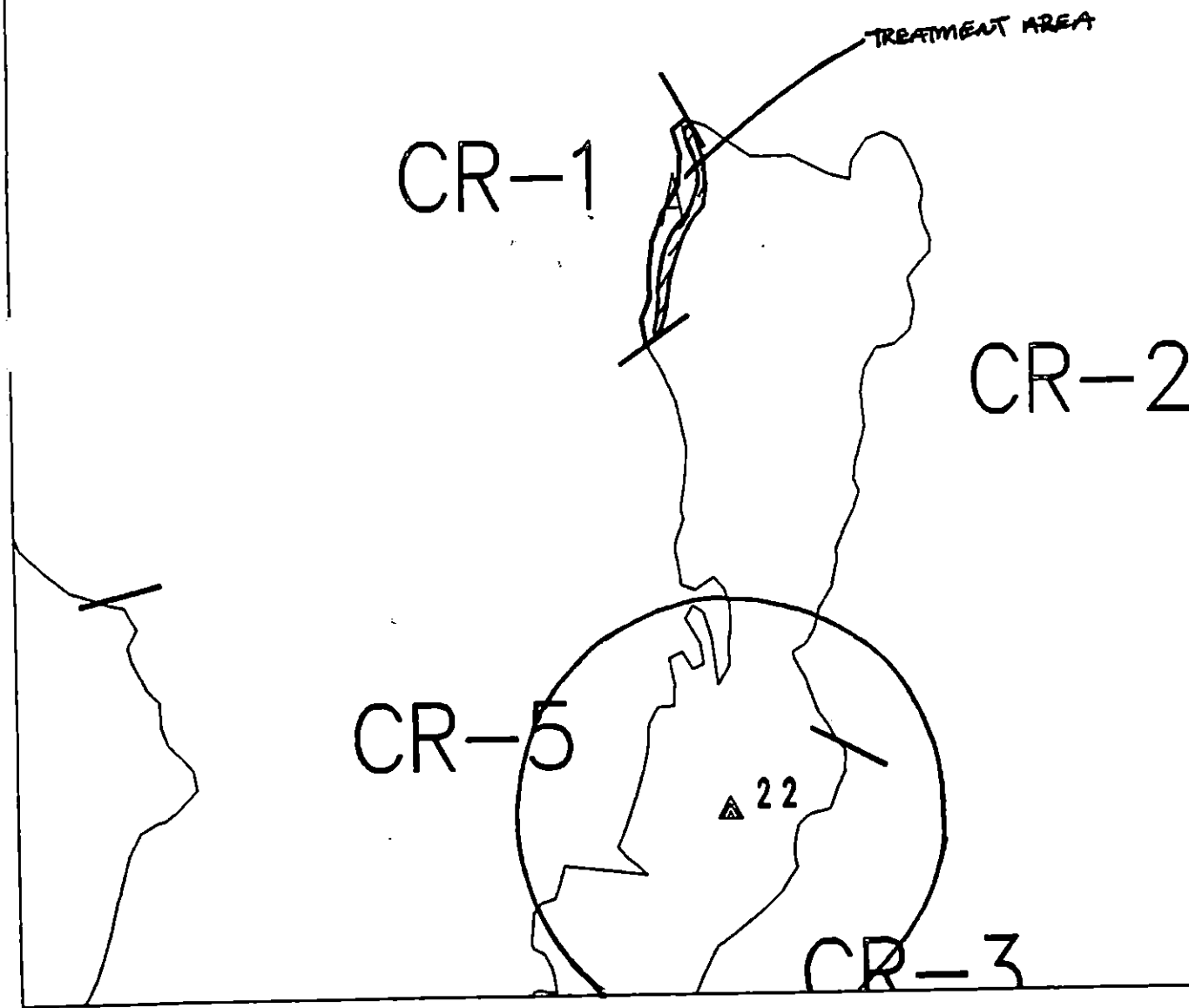
OTHER ECOLOGICAL CONSIDERATIONS

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

TAG APPROVAL DATE 6/04/90.
ADEC Ray Morris
EXXON Andy Tear
NOAA Joseph C Talbot
USCG

FOSC DATE 6/5/90

Prepared By: Date 6/2/90



EXXON

Exxon Company, USA
Map Key: PWS-CR-1
May 11, 1990

ECOLOGY MAP
SEGMENT CR-1
SUBDIVISION A (1 of 1)

METERS
0 329 659

★ Seabird Colony
▲ Eagle Nest

1 inch = 1080 feet

SHORELINE EVALUATION

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

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1E Main Bay Hatchery release (4/20 to 6/10)
1L Set net sites (6/11 to 7/25)
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)
6U Recreation: Tent sites (6/1 to 9/15)
6W Recreation: Forest Service cabins (6/1 to 9/15)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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: 4/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 467 m: No Oil 0 m
Subsurface Oil Observed: Yes X No ____ Maximum Depth 15+ cm

RECOMMENDATIONS:

____ No Treatment Recommended
X Treatment Recommended
____ Manual Pickup
X 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 bioremediation of surface and subsurface oil in area shown on attached sketch map. Work should be conducted between 7/25 and 8/15 based on set net, hatchery and pinneped constraints.

See Addendum dated 6/2/90 [illegible]

TAG COMMENTS:

TAG APPROVAL DATE: 4/25/90.
ADEC Art Weiner [signature]
EXXON Andy Tyler [signature]
NOAA Joseph Talbott [signature]
USCG Kenneth Keane [signature]

FOSC: [signature] DATE: 5-3-90

SHORELINE EVALUATION

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

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1E Main Bay Hatchery release (4/20 to 6/10)
1L Set net sites (6/11 to 7/25)
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)
6U Recreation: Tent sites (6/1 to 9/15)
6W Recreation: Forest Service cabins (6/1 to 9/15)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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: 4/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 467 m: No Oil 0 m
Subsurface Oil Observed: Yes X No ____ Maximum Depth 15+ cm

RECOMMENDATIONS:

____ No Treatment Recommended
X Treatment Recommended
____ Manual Pickup
X Bioremediation
____ Tarmat: ____ Removal

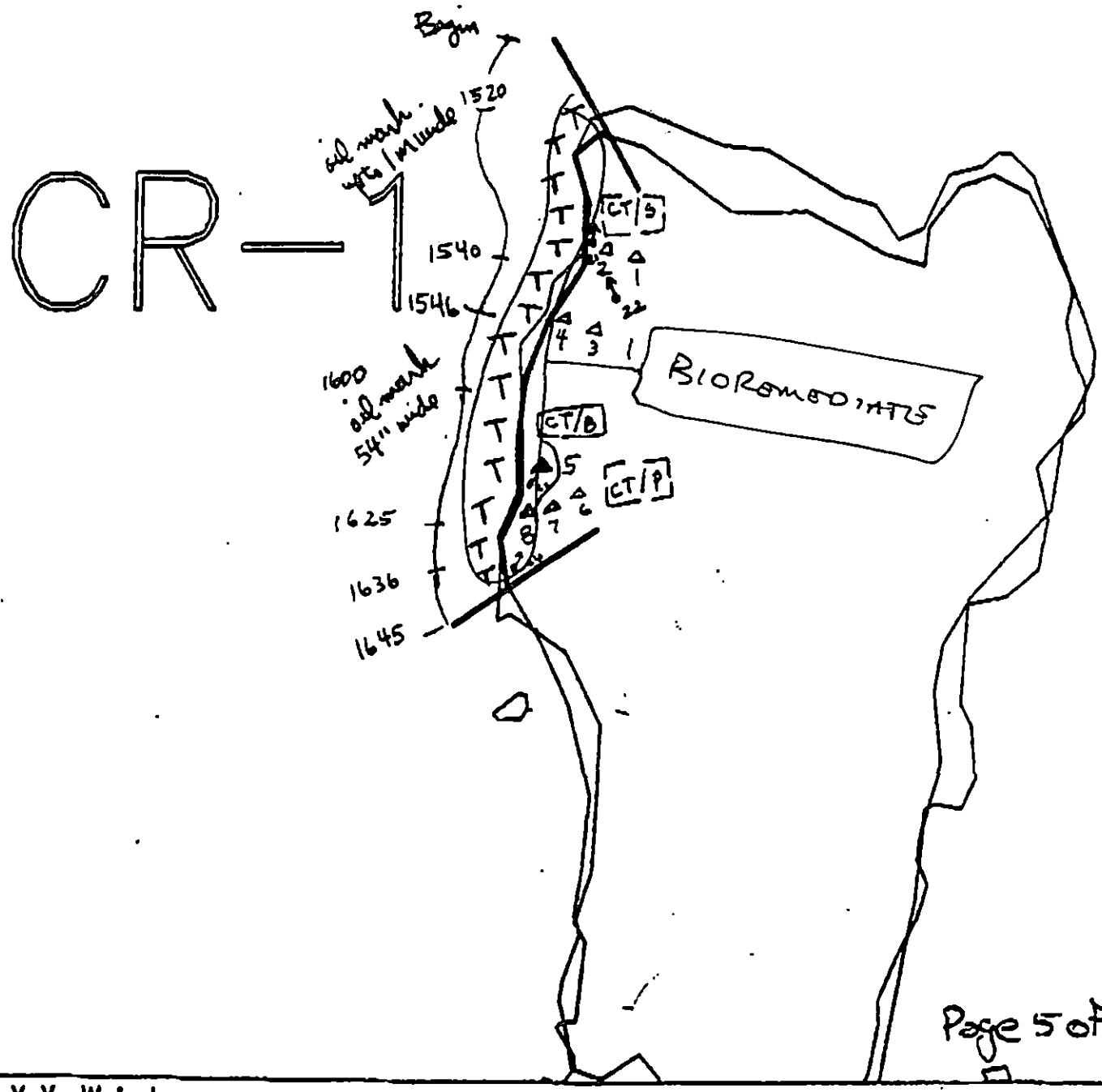
____ Snare/Absorbent Booms
____ Oil Snares (pom poms)
____ Absorbents (pads,rolls,etc)
____ Spot Washing: ____ Wands
____ Beach Cleaner
____ Other (see comments)

COMMENTS: Recommended treatment includes bioremediation of surface and subsurface oil in area shown on attached sketch map. Work should be conducted between 7/25 and 8/15 based on set net, hatchery and pinneped constraints.

TAG COMMENTS: ____

TAG APPROVAL DATE: 4/25/90.
ADEC Art Werner [signature]
EXXON Andy Tear [signature]
NOAA Joseph Talbott [signature]
USCG Kenneth Keale [signature]

FOSC: [signature] DATE: 5-3-90



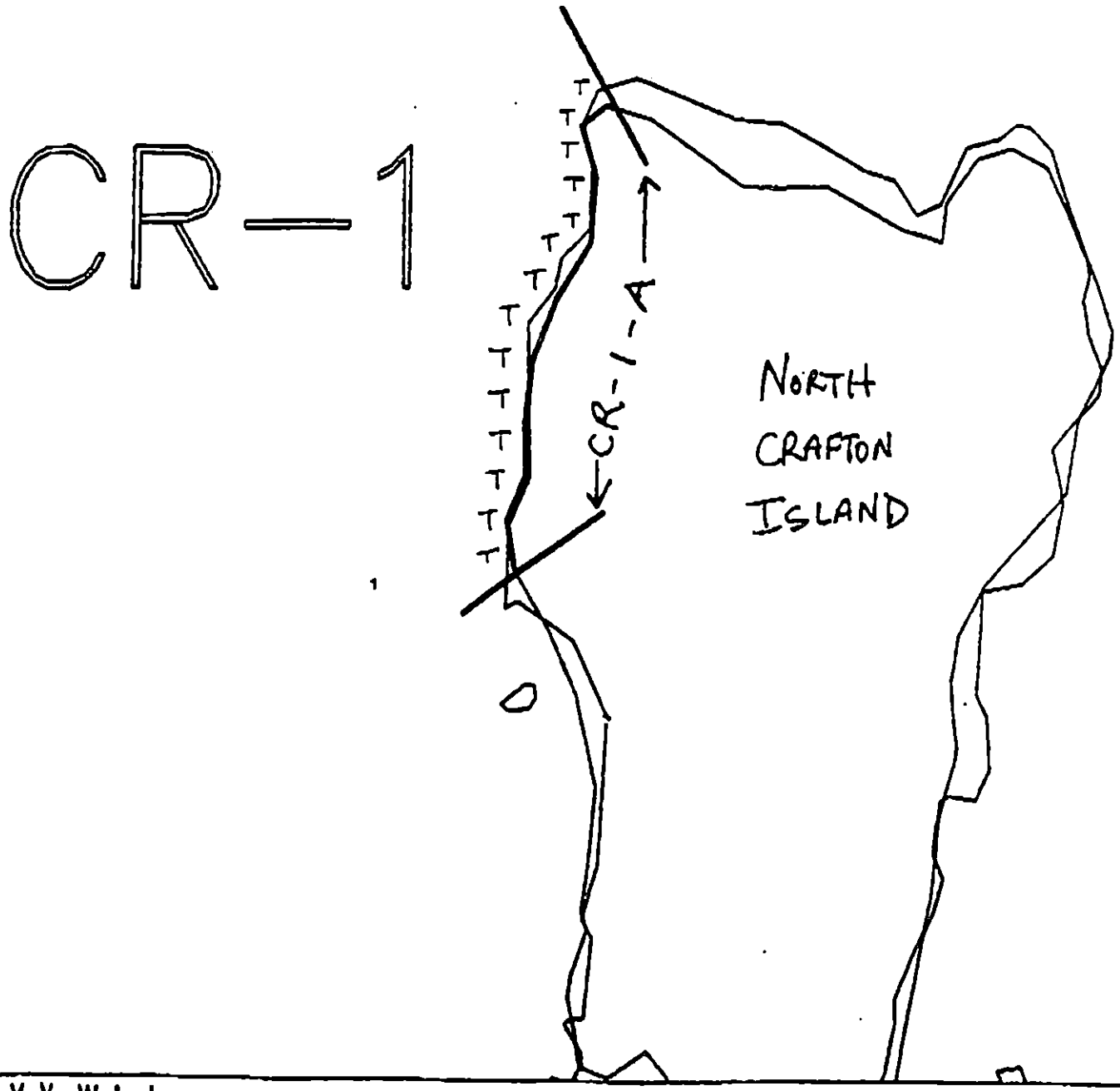
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

CR-1

ADEC Segment Length: 467m

0 100 200 300
METERS

Map Key: PWS-62
Name: Randy McBride
Date: 4/6/90
Date Entered:



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

CR-1

ADEC Segment Length: 467m

0 100 200 300
METERS

Map Key: PWS-62
Name: Randy McBride
Date: 4/6/90
Date Entered:

1991 MAYSAP EVALUATION

SEGMENT: CR 001 **SUB:** A **REGION:** PWS **SURVEY DATE:** 5/14/91

ENVIRONMENTAL SENSITIVITIES:
Work Window(s) OPEN

Ecological/Constraints (see page two for details) Fish harvest area

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

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

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 1 SEGMENT CR-001 SUBDIVISION A DATE 5/14/91

ADEC
NAME JEFF GINALLAS SIGNATURE [signature]

☒ NTR

SUBSURFACE OIL LOCATED AT OG MAP SITES A & C. AT SITE A, SUBSURFACE LENS 4X10, WITH THICK MOR AT MOST CONCENTRATED POINT. HOWEVER, OIL FAIRLY HIGH IN TIDAL ZONE AND APPEARS RELATIVELY STABLE. THUS NOT THREATENING BIOTA. OIL MAY BECOME MORE MOBILE AS BEACH WARMS OVER SUMMER. HOWEVER, EFFORT ~~INVOLVE~~ AND INTRUSION INVOLVED IN EXPOSING LENS NOT WORTH BENEFIT GAINED BY ~~EXPOSURE~~ REMOVAL (RELATIVELY LIMITED RETRIEVABLE POTENTIAL). SAME FOR SITE C, ON A SMALLER SCALE

EXXON
NAME RANDALL K. BOYER SIGNATURE Randall K. Boyer

☒ NTR THE SMALL AREA OF MEDIUM OILY RESIDUE IN THE SUBSURFACE SEDIMENTS DO NOT POSE AN ENVIRONMENTAL THREAT. AS A MATTER OF FACT, THE LOWER INTERTIDAL AREA EXIBITED NEW BARNACLE RECRUITS ON BOULDERS AND LOWER MUSSEL BEDS THAT APPEAR HEALTHY. CLEAN UP CREW FOOT TRAFFIC IN THIS AREA COULD CAUSE MORE OF AN IMPACT THAN LEAVING WHAT REMAINS IN PLACE.

LANDMANAGER
NAME MARSHA HALL OF DNR SIGNATURE Marsha Hall

☐ NTR ☒ treatment

Areas A and C should be addressed.
Accessible. Small crew → a few hours.
Recreational hot spot. Fishing. Manual removal
Custom blen
?

USCG/NOAA
NAME SCHULTZ / KALLOS SIGNATURE [signature]

☒ NTR FURTHER REMOVAL EFFORT WOULD CAUSE MORE ENVIRONMENTAL HARM THAN THE OIL TO BE REMOVED.

SURFACE OIL OBSERVED AS CT & ST on Hi Angle B-Rock & Boulders, located at UI - ALSO AS LO SOR/I in an AREA N'ly PART OF (A).
SUBSURFACE OIL AS LOR & MOR in an AREA ~4m X 10m in GP MATRIX AROUND BOULDER STREWN BEACH FACE. (C) has LOR & MOR IN AN AREA ~ 2X6m LOCATED SIMILARLY - BOULDER ARMORED BEACH WOULD BE DIFFICULT TO REMOVE ANY REMAINING OILING.

MAYSAP SHORELINE OILING SUMMARY

TEAM NO. 1

SEGMENT CR-1

OG G. MACDONALD BIO M. FANCETT

SUBDIVISION A

ADEC J. GINANAS LANDMANAGER M. HALL for DNR

DATE 5 / 14 / 91

EXXON R. BOYER USCG/NOAA SCHWITZ/CHILDS

TIME 09 : 55 to 11 : 05 TIDE LEVEL 0.0 ft. to +3.0 ft. ENERGY LEVEL: ☐ H ☒ M ☐ L

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

TOTAL LENGTH SHORELINE SURVEYED: 407 m NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONE

EST. OIL CATEGORY LENGTH: W — m M — m N — m VL 60 m NO 347 m US 60 m

LOC	SURFACE OIL CHARACTER AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO	SURFACE SEDIMENT TYPE	SHORE SLOPE V H M L	AREA WIDTH m	AREA LENGTH m	ZONE S	UI	MI	LI	NOTES
A				S			T				RB	H	<1/2	10		X			
B										X	PR	M							
C						S					R	H	1	10		X			
D						T	T				RB	H	1	0		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 - 22 FRAMES 10-12

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER OP	HOR	MOR	LOR	OF	TR	NO	OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE S	UI	MI	LI	SURFACE-SUBSURFACE SEDIMENTS	NOTES
1	17			X					5-8	Y	4	B		X			BP-GPV	organics
2	15				X				5-9	Y	10	R		X			BP-GPV	"
3	15							X	-		—			X			BP-GPV	
4	18							X	-		8	N			X		BP-GBMV	"
5	25							X	-		10	N				X	BP-GB	
6	15							X	-		—			X			BP-BGV	organics
7	16				X				5-8	Y	4	RB		X			BP-BGV	B globules
8	30							X	-		25	N				X	GB-GSP	
9	35							X	-		30	N		X			P-P	

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

OG COMMENTS: Low relief, steep rocky shore. Surface oil as CT & to SOR/I @ HTZ - sporadic.

Subsurface oil discovered @ two small pebble-filled beaches

(i) (A) 4 x 10 m LOR-MOR, ≤ 4 cms thick, buried to 8 cms deep.

(ii) (C) 2 x 6 m LOR-MOR, 2 cms thick, buried > 10 cms deep —

JS revised 5/17

REVIEWED CO 17 MAY

MAYSAP SHORELINE OILING SUMMARY (cont.)

TEAM NO. 1

SEGMENT CR-1 SUBDIVISION A DATE 5 / 14 / 91

OG COMMENTS:

Both subsurface oil layers are trapped on a bed of muddy peat, itself covering bedrock.

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER OP	HOR	MOR	LOR	OF	TR	NO	OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE S	UI	MI	LI	SURFACE-SUBSURFACE SEDIMENTS	NOTES
									-									
10	40							x	-		—		x				P–P	
11	30			x					15-17	Y	—			x			P–PGVM	peat
12	30							x	-		28	N		x			PB–PGV	"
13	25				x				10-12	Y	15	RB		x			PB–PBV	"
									-									
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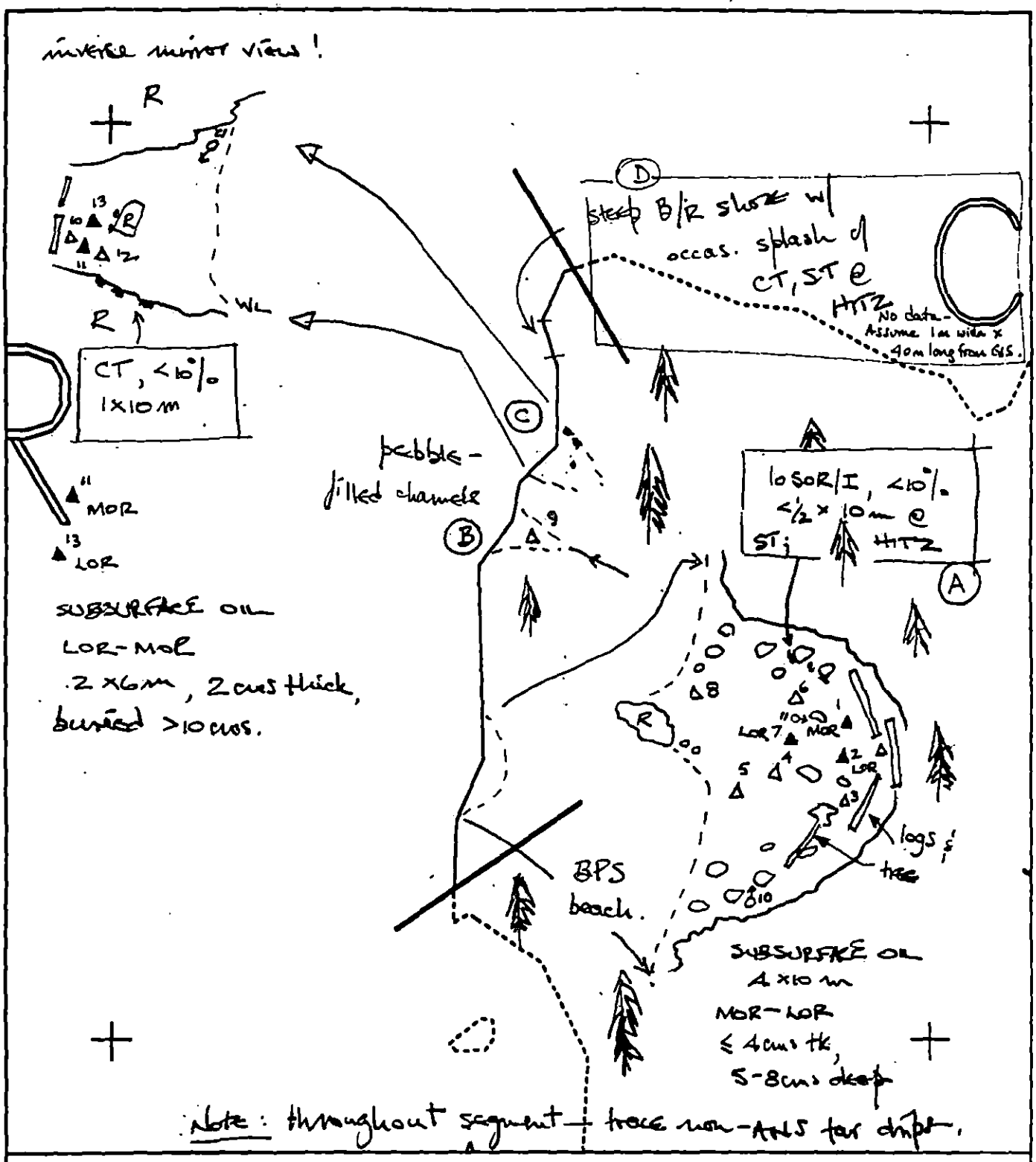
SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

ES reviewed 5/17

[illegible] reviewed [illegible]



CR001 A

Subdivision Field Map
Map Key: PUSCRUB1A
Name: G. MACDONALD
Date: 5.14.91

METERS
0 100 200
AK State Plane Zone 4
perbdg

EXXON

25 revised 5/17
REVIEWED CD 17 MAY

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 1 DATE 14 May 91

SEGMENT # CR 001 TIDAL HEIGHT(Range) 0.0 to +3.0 ft MLLW

SUBDIVISION A BIOLOGIST Michael Fawcett

SEA STATE 1.5 ft WIND SPEED/DIRECTION NE 15 Knots

PHOTOGRAPHS: ROLL # FRAME #

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

Two oiled areas in this subdivision. Site (A) (see Sketch Map) is a B/C/P/G beach, moderate wave energy (long fetch to NW), with BR outcrops and large boulders at ends of the beach. Most of the upper beach is composed of gravel overlain by scattered boulders. The unstable gravel sediment has almost no biota except oligochaete worms, but sparse juvenile mussels and some isopods occur beneath the isolated boulders in UTZ near buried oil. Sparse barnacles and mussels (and dense barnacle spat) begin on boulders 5m downshore from buried oil. Sparse rockweed occurs 5m further downshore at about +4ft MLLW. Bedrock and boulders at ends of beach have dense rockweed, barnacles & mussels, and sparse limpets, littorinids, whelks, etc. A small bed of clams near the north end of the beach is riddled with craters made by clam-digging sea otters. A rich variety of invertebrates and algae occurs among LTZ-MTZ boulders near the clam bed.

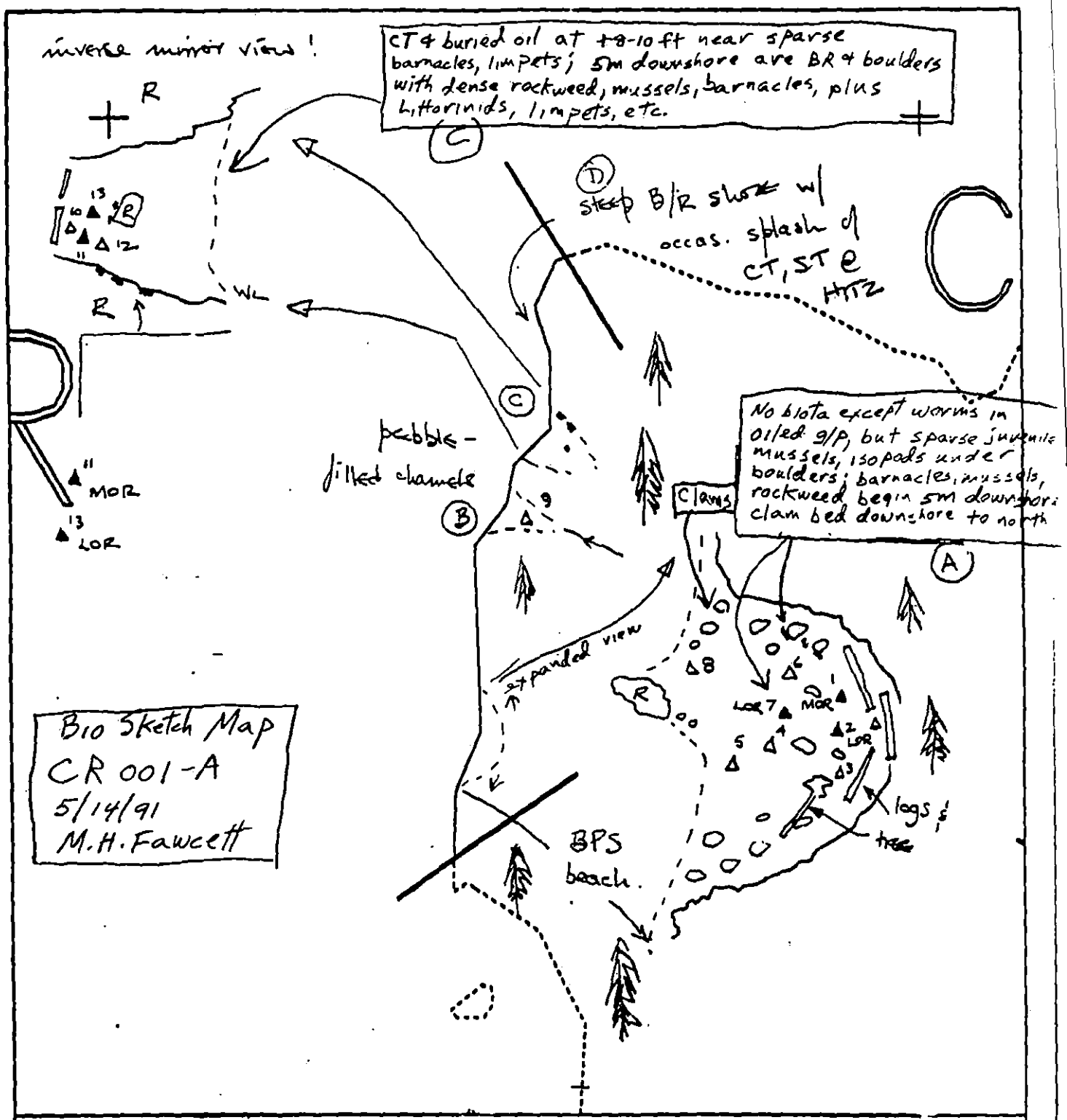
Site (C) is a small pocket beach with some coat on the lee side of a massive boulder at +8-10ft MLLW (above some sparse barnacles), and some buried oil in gravel at the same level. Little or no biota occurs near the buried oil, but 5m downshore are bedrock & boulders with dense mussels, barnacles and rockweed, plus associated animals (littorinids, limpets, whelks, chitons).

WILDLIFE OBSERVATIONS
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles			black prickleback
Seabirds			
Waterfowl			
Gulls/kittiwakes	1 GW gulls	4-5	
Shorebirds	2 (black oystercatcher) (surfbird)	4	
Corvids			
Other Birds	1 (unid. passerine)	1	

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	many craters in clam beds		
Pinnipeds (specify)	1 harbor seal		
W es (specify)			

Shoreline subdivision map showing important biological features attached.



CR001 A

Subdivision Field Map

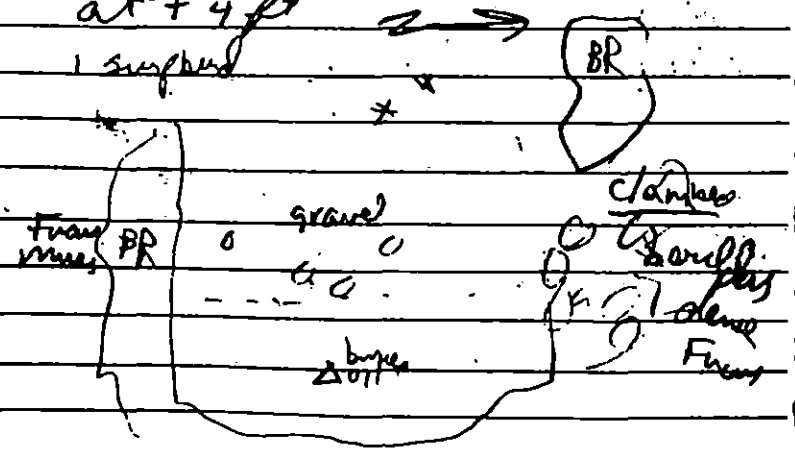
Map Key: PWSCR001A

Name: M. FAWCETT

Date: 5.14.91

EXXON

0955 CR001A Fawcett
14 May 91
C/P/G/B beach, BR outcrops
- moderate energy, long Fetch to northwest
- 3 dipsercatchers flew by
- sea otter crabbers in clam bed/mud
- mostly 0-1 yr old mussels - dense bed; clams below, +2-4 ft
- buried oil ~+10 feet SUTZ in gravel overlain b/ scalloped boulders - no biota in gravel except worms - sparse juv mussels, oligochaetes, isopods under boulders
- sparse barn (dense spat), mussels begin on boulders 5m downshore (+8 ft - sparse Fucus 5m further at +4 ft
1 surfbird

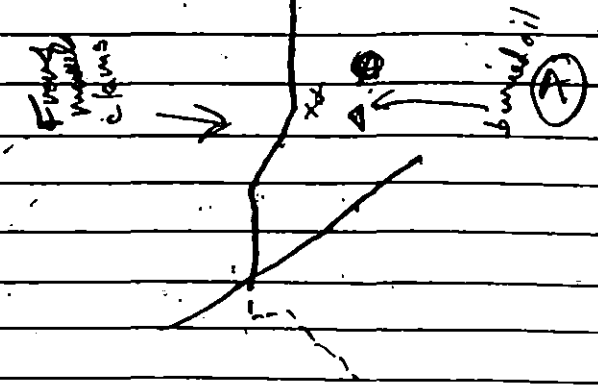


Area directly downshore unstable, sparsely populated gravel -- clam bed 10m north in lee of BR

CR001A

N

1 eagle
1 raven
prickleback, urchins, dermasterias, pycnopodia, Leptasterias, bleeding Lit, N. scalum under rocks
LTZ boulders - very few new mussels - Lamillaria, Siphonarians LTZ
- 100% spat cover on BR +4-8 ft above
dense algae - Fucus, Halosaccion, ulva, rhodo, leafy red, hemissenda, Tonicella, Tegula



CR1 (cont): 14 May 91

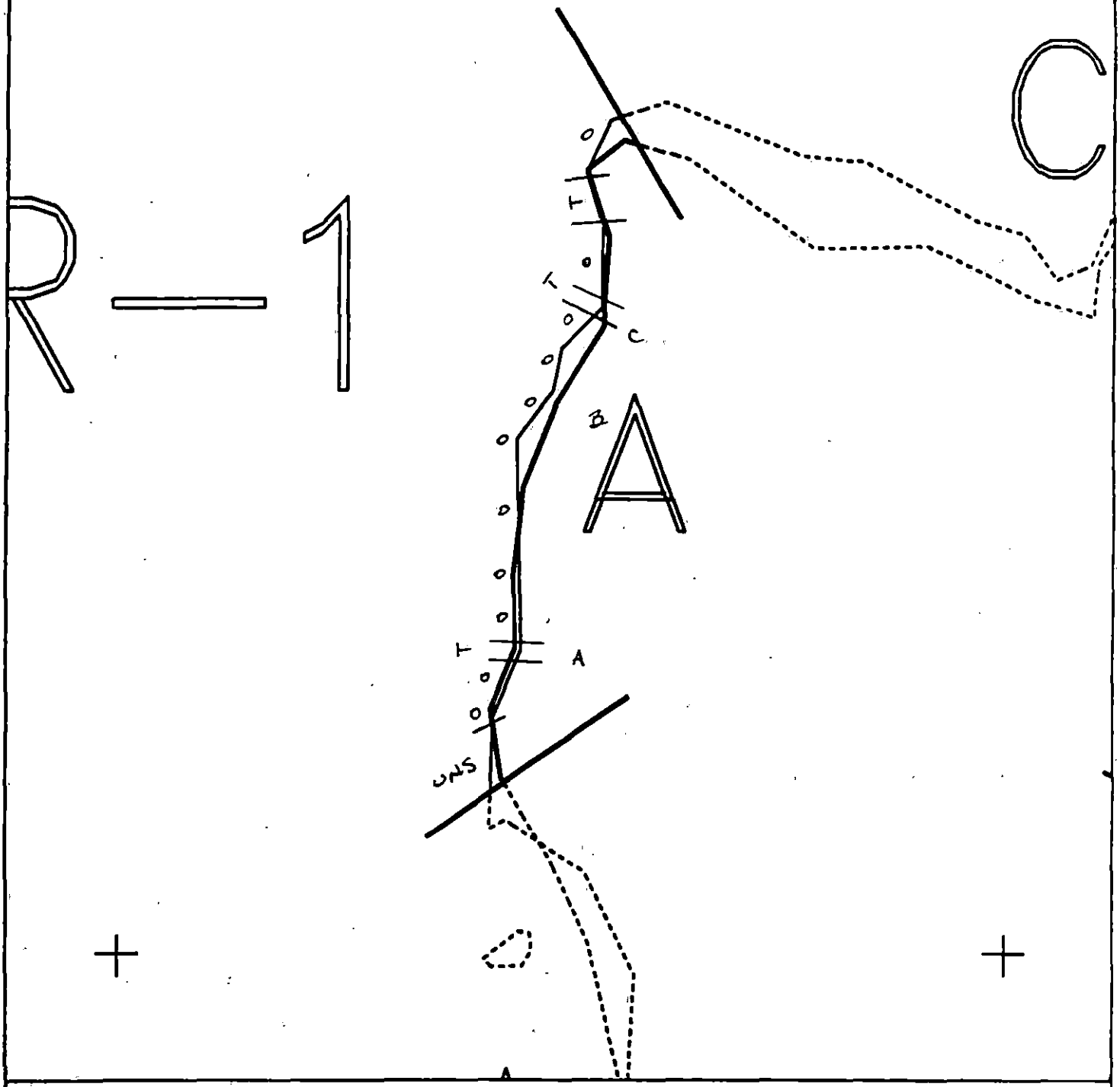
Beach (B) 1035

pocket beach - gravel, unstable
no bolo - dense mussels, barnacles,
spat, Fucus, old carcasses etc
on BR & large boulders at sides -
well developed, mature community -
moderately dense Lith, Lizz - lett
breeding in crevices - older mussels
& B. carnosus - large sculpin
Epiactis brooding - 1 harb seal

Beach (C)

CT on lee side of Massive boulder
+ 8-10 ft (above sparse barnacles
then bare gravel - MOR + 8 ft
in gravel - 5 m downshore on
BR & boulders w/ dense mussels, barn,
Fucus, etc

end 1105 hrs



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

CR001 A

ADEC Subsegment Length: 467m

METERS

0 100 200

AK State Plane Zone 4 perBBs

EXXON

Subdivision Field Map

Map Key: PWSCR001A

Name: GM

Date: 5-14-91

Date Entered:

EG reviewed 5/17

REVIEWED CD 17 MAY

1991 MAYSAP EVALUATION

SEGMENT: CR 001 SUB: A REGION: PWS SURVEY DATE: 5/14/91

ENVIRONMENTAL SENSITIVITIES:
Work Window(s) OPEN

Ecological/Constraints (see page two for details) Fish harvest area

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

SHPO Signature: [illegible] 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 [illegible]

EXXON [illegible]

USCG [illegible]

NOAA [illegible]

FOSC [illegible]
E. E. PAGE, CDR, USCG
CHIEF OF STAFF, FOSC

ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES

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

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 1 SEGMENT CR-001 SUBDIVISION A DATE 5/14/91

ADEC
NAME JEFF GINALIAS SIGNATURE [signature]

☒ NTR

SUBSURFACE OIL LOCATED AT OG MAPPED SITES A & C. AT SITE A, SUBSURFACE LENS 4X10, WITH THICK MOR AT MOST CONCENTRATED POINT. HOWEVER, OIL FAIRLY HIGH IN TIDAL ZONE AND APPEARS RELATIVELY STABLE. THUS NOT THREATENING BWTA. OIL MAY BECOME MORE MOBILE AS BEACH WARMS OVER SUMMER. HOWEVER, EFFORT ~~INVOLVE~~ AND INTRUSION INVOLVED IN EXPOSING LENS NOT WORTH BENEFIT GAINED BY ~~EXPOSURE~~ REMOVAL (RELATIVELY LIMITED RETRIEVABLE POTENTIAL). SAME FOR SITE C, ON A SMALLER SCALE

EXXON
NAME RANDALL K. BOYER SIGNATURE Randall K. Boyer

☒ NTR THE SMALL AREA OF MEDIUM OILY RESIDUE IN THE SUBSURFACE SEDIMENTS DO NOT POSE AN ENVIRONMENTAL THREAT. AS A MATTER OF FACT, THE LOWER INTERTIDAL AREA EXHIBITED NEW BARNACLE RECRUITS ON BOULDERS AND LOWER MUSSEL BEDS THAT APPEAR HEALTHY. CLEAN UP CREW FOOT TRAFFIC IN THIS AREA COULD CAUSE MORE OF AN IMPACT THAN LEAVING WHAT REMAINS IN PLACE.

LANDMANAGER
NAME MARSHA HALL OF DNR SIGNATURE Marsha Hall

☐ NTR ☒ treatment

Areas A and C should be addressed.
Accessible. Small crew → a few hours.
Recreational hot spot. Fishing. Manual removal
Custom blen
?

USCG/NOAA
NAME SCHULTZ / CHILDS SIGNATURE [signature]

☒ NTR FURTHER REMOVAL EFFORT WOULD CAUSE MORE ENVIRONMENTAL HARM THAN THE OIL TO BE REMOVED.

SURFACE OIL OBSERVED AS CT & ST on Hi Angle B-Rock & Boulders, located at UI - ALSO AS LO SOR/I IN AN AREA N'ly PART OF (A) -
SUBSURFACE OIL AS LOR & MOR IN AN AREA ~4m X 10m IN GP MATRIX AROUND BOULDER STREWN BEACH FACE. (C) HAS LOR & MOR IN AN AREA ~ 2X6m LOCATED SIMILARLY - BOULDER ARMORED BEACH WOULD BE DIFFICULT TO REMOVE ANY REMAINING OILING.

MAYSAP SHORELINE OILING SUMMARY

TEAM NO. 1

SEGMENT CR-1

OG G. MACDONALD BIO M. FAWCETT

SUBDIVISION A

ADEC J. GINATIAS LANDMANAGER M. HALL for DNR

DATE 5 / 14 / 91

EXXON R. BOYER USCG/NOAA SCHULTZ/CHILDS

TIME 09 : 55 to 11 : 05 TIDE LEVEL 0.0 ft. to +3.0 ft. ENERGY LEVEL: ☐ H ☒ M ☐ L

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

TOTAL LENGTH SHORELINE SURVEYED: 407 m NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONE

EST. OIL CATEGORY LENGTH: W — m M — m N — m VL 60 m NO 347 m US 60 m

LOC	SURFACE OIL CHARACTER										SURFACE SEDIMENT TYPE	SHORE SLOPE	AREA		ZONE				NOTES
	AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO		V H M L	WIDTH m	LENGTH m	S	UI	MI	LI	
A				S			T				RB	H	<1/2	10		X			
B										X	PR	M							
C						S					R	H	1	10		X			
D						T	T				RB	H	1	0		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 - 22 FRAMES 10-12

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	17			X					5 - 8	Y	4	B		X			BP - GPV	organics
2	15				X				5 - 9	Y	10	R		X			BP - GPV	"
3	15							X	-		—			X			BP - GPV	
4	18							X	-		8	N			X		BP - GBMV	"
5	25							X	-		10	N				X	BP - GB	
6	15							X	-		—			X			BP - BGV	organics
7	16				X				5 - 8	Y	4	RB		X			BP - BGV	B globules
8	30							X	-		25	N				X	GB - GSP	
9	35							X	-		30	N		X			P - P	

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

OG COMMENTS: Low relief, steep rocky shore. Surface oil as CT & to SOR/I @ HTZ - sporadic.

Subsurface oil discovered @ two small pebble-filled beaches

(i) (A) 4 x 10 m LOR-MOR, ≤ 4 cms thick, buried to 8 cms deep.

(ii) (C) 2 x 6 m LOR-MOR, 2 cms thick, buried > 10 cms deep —

ES revised 5/17

REVIEWED CO 17 MA

MAYSAP SHORELINE OILING SUMMARY (cont.)

TEAM NO. 1

SEGMENT CR-1 SUBDIVISION A DATE 5/14/91

OG COMMENTS:

Both subsurface oil layers are trapped on a bed of muddy peat, itself covering bedrock.

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE	CLEAN BELOW	H2O LEVEL	SHEEN COLOR	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO	cm-cm	Y/N	(cm)	B R S N	S	UI	MI	LI		
									-									
10	40							X	-		—		X				P-P	
11	80			X					15-17	Y	—			X			P-PGVM	peat
12	30							X	-		28	N		X			PB-PGV	"
13	25				X				10-12	Y	15	RB		X			PB-PBV	"
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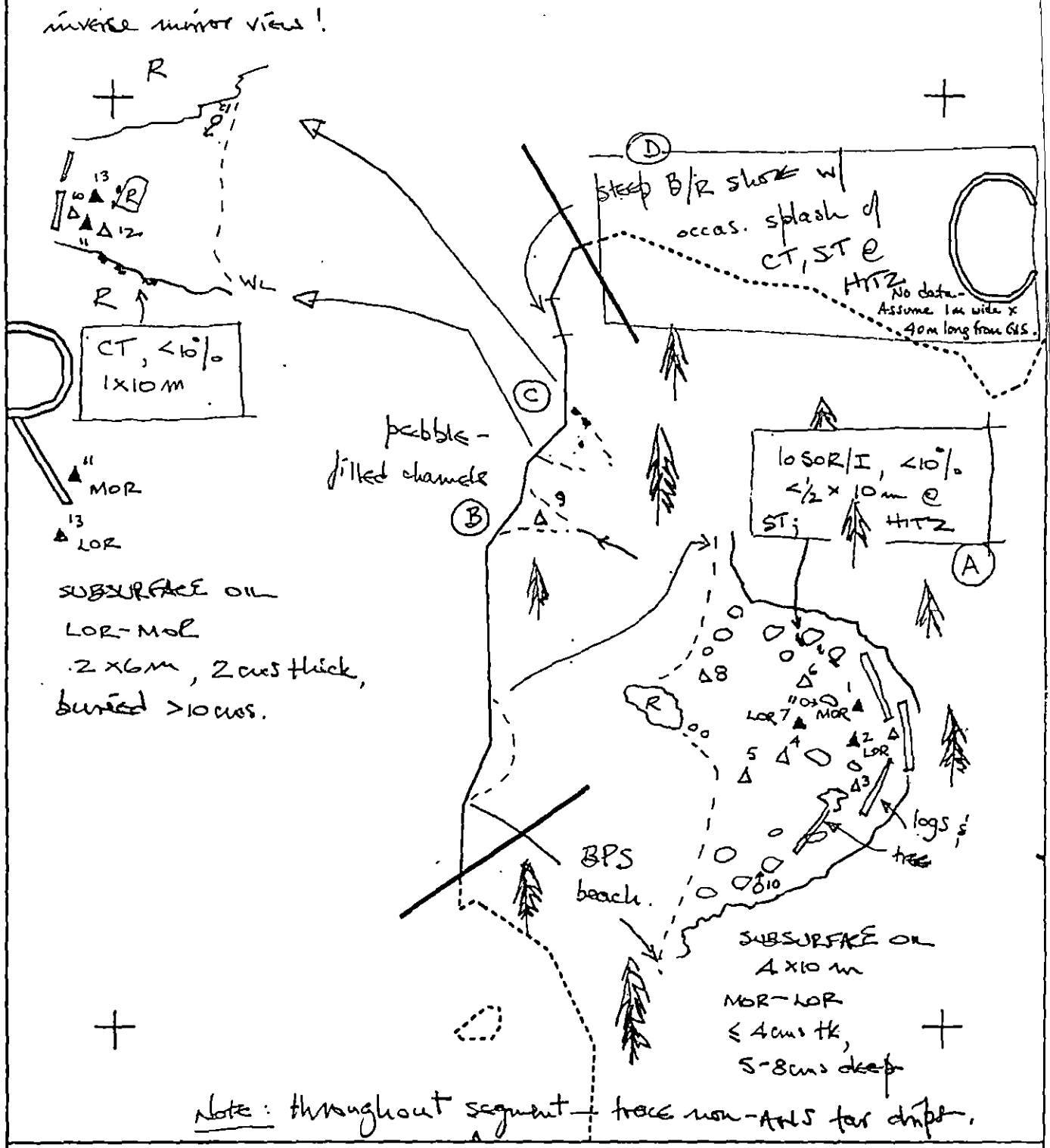
SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

EC reviewed 5/17
2 REVIEWED 6/17



CR001 A

METERS

0 100 200

AK State Plane Zone 4
perkins

Subdivision Field Map
Map Key: PWSCR001A
Name: G. MACDONALD
Date: 5.14.91

EC revised 5/17
REVIEWED CO 17MA

3

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 1 DATE 14 May 91

SEGMENT # CR 001 TIDAL HEIGHT(Range) 0.0 to +3.0 ft MLLW

SUBDIVISION A BIOLOGIST Michael Fawcett

SEA STATE 1.5 ft WIND SPEED/DIRECTION NE 15 knots

PHOTOGRAPHS: ROLL # FRAME #

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

Two oiled areas in this subdivision. Site (A) (see sketch map) is a B/C/P/G beach, moderate wave energy (long fetch to NW), with BR outcrops and large boulders at ends of the beach. Most of the upper beach is composed of gravel overlain by scattered boulders. The unstable gravel sediment has almost no biota except oligochaete worms, but sparse juvenile mussels and some isopods occur beneath the isolated boulders in UTZ near buried oil. Sparse barnacles and mussels (and dense barnacle spat) begin on boulders 5m downshore from buried oil. Sparse rockweed occurs 5m further downshore at about +4ft MLLW. Bedrock and boulders at ends of beach have dense rockweed, barnacles & mussels, and sparse limpets, littorinids, whelks, etc. A small bed of clams near the north end of the beach is riddled with craters made by clam-digging sea otters. A rich variety of invertebrates and algae occurs among LTZ-MTZ boulders near the clam bed.

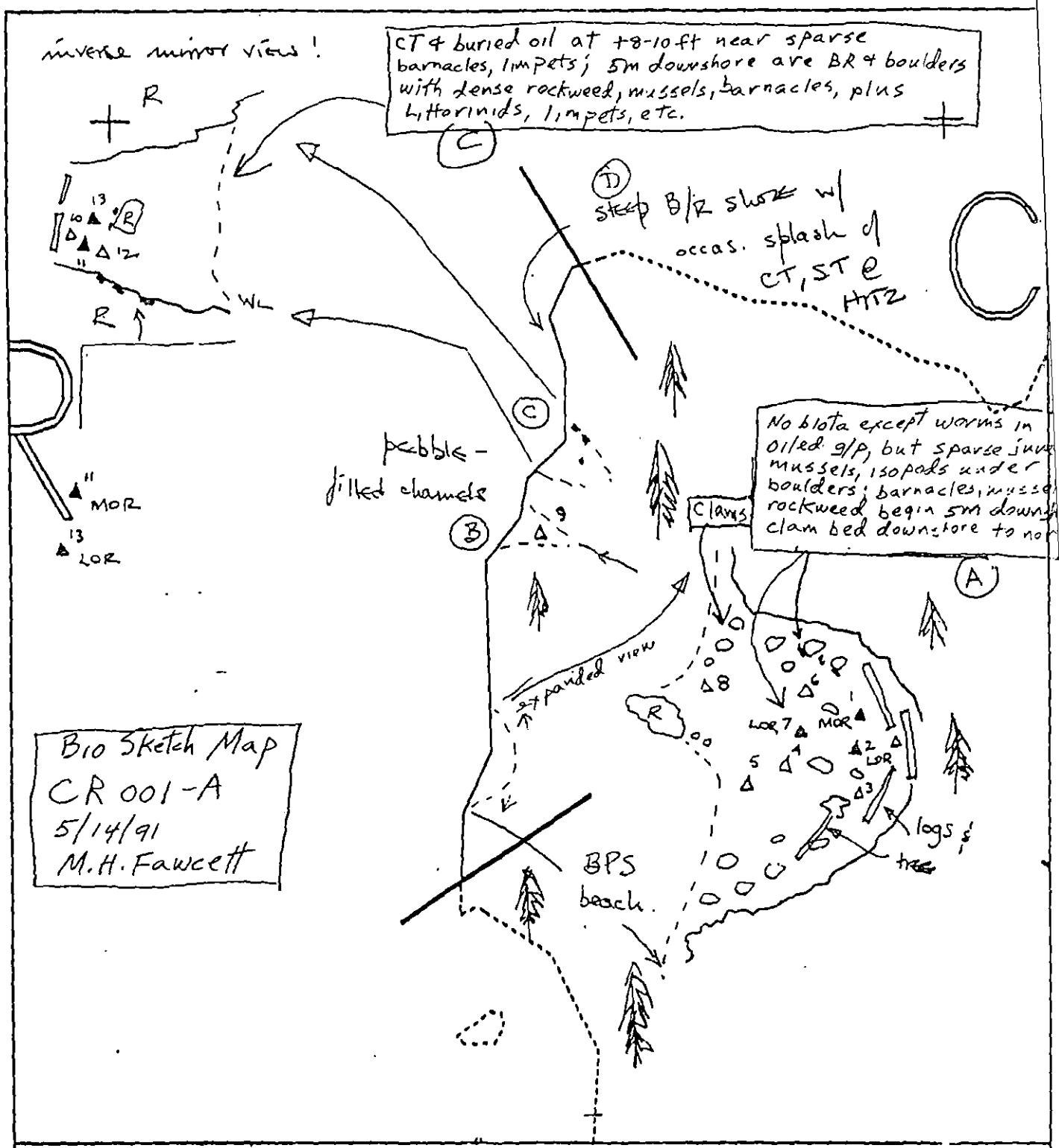
Site (C) is a small pocket beach with some coat on the lee side of a massive boulder at +8-10ft MLLW (above some sparse barnacles), and some buried oil in gravel at the same level. Little or no biota occurs near the buried oil, but 5m downshore are bedrock & boulders with dense mussels, barnacles and rockweed, plus associated animals (littorinids, limpets, whelks, chitons).

WILDLIFE OBSERVATIONS
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles			black prickleback
Seabirds			
Waterfowl			
Gulls/kittiwakes	1 GW gulls	4-5	
Shorebirds	2 (black oystercatcher) (surfbird)	4	
Corvids			
Other Birds	1 (unid. passerine)	1	

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	many craters in clam beds		
Pinnipeds (specify)	1 harbor seal		
Whales (specify)			

Shoreline subdivision map showing important biological features attached.



CR001 A

Subdivision Field Map

Map Key: PWSCR001A

Name: ~~[illegible]~~ M. FAWCETT

Date: 5.14.91

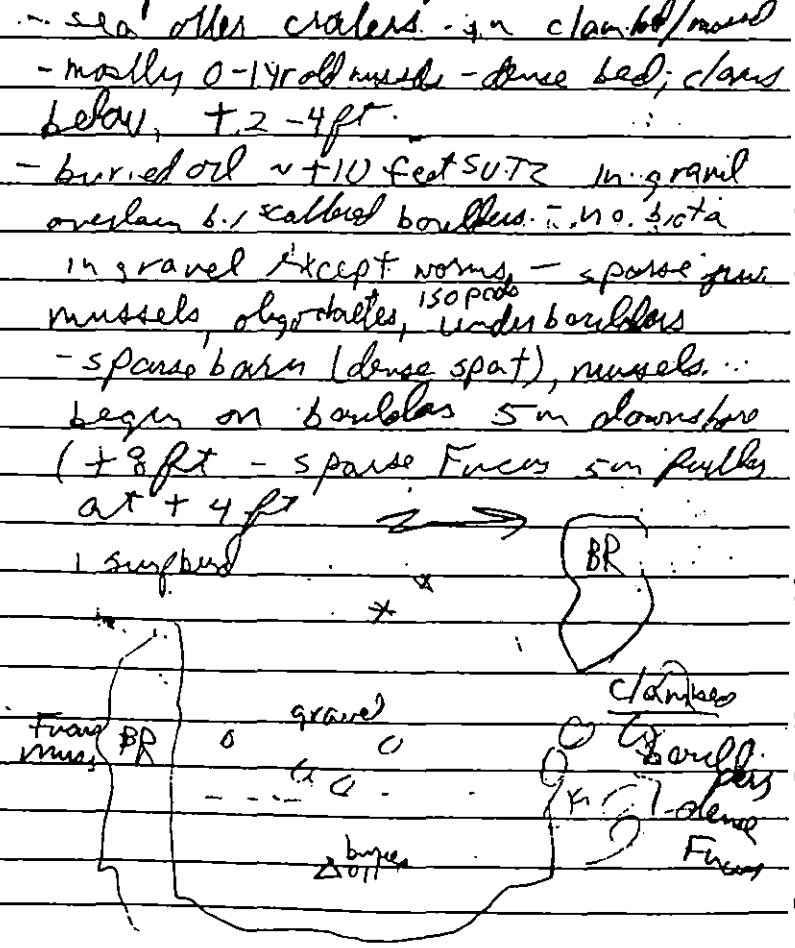
EXXON

METERS

0 100 200

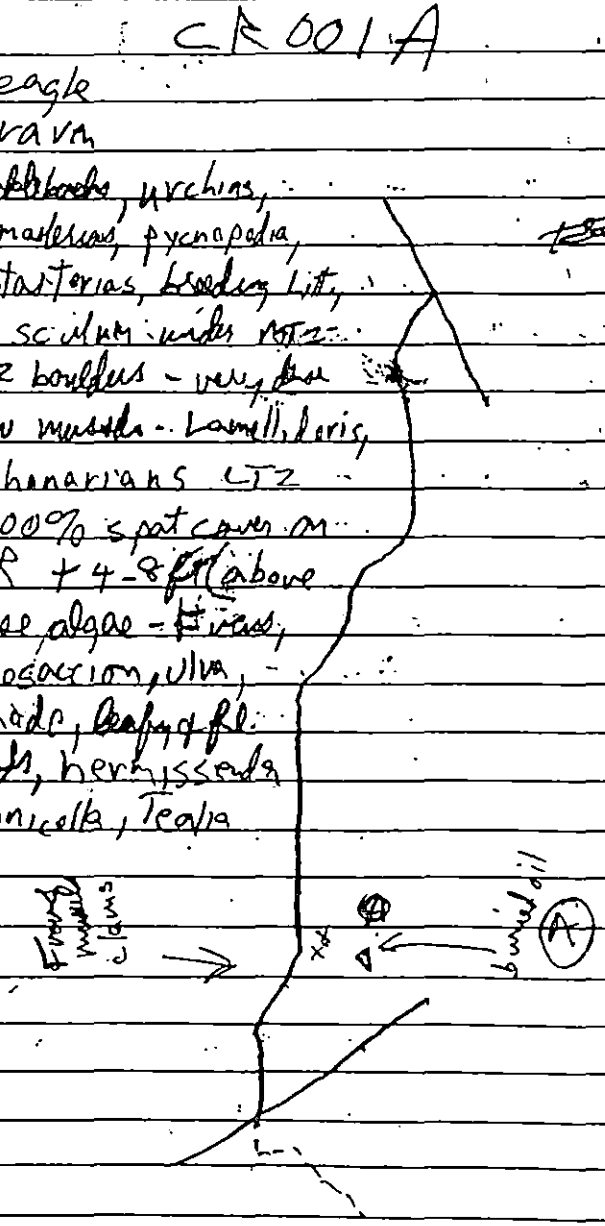
AK State Plane Zone 4

0955 CR 001A Fawcett
14 May 91
C/P/G/B beach, BR outcrops
- moderate energy, long fetch to northwest
- 3 ospreys flew by
- sea otter crabbers - in clam bed/mussel
- mostly 0-14 yr old mussels - dense bed; clams below, +2-4 ft
- buried oil ~ +10 feet SUTZ in gravel overlain by scalloped boulders - no biota in gravel except worms - sparse juv mussels, oligochaetes, isopods under boulders
- sparse barn (dense spat), mussels begin on boulders 5 m downshore (+8 ft - sparse Fucus on pulley at +4 ft
1 surfbird



Area drastically downshore unstable, sparsely populated gravel -- clam bed 10m north in lee of BR

CR 001A



1 eagle
1 raven
pricklebacks, urchins, dermasterias, pycnopodia, leptasterias, Leading Lit, N. scilum under MTZ
LTZ boulders - very dense new mussels - Lamellidoris, siphonarians LTZ
- 100% spat cover on BR +4-8 ft above
dense algae - Fucus, Halosaccion, Ulva, Rhodo, leafy red, verts, hermissenda, Tonicella, Tealia

CR1 (cont): 14 May 91

Beach (B) 1035

Pocket beach - gravel, unstable

no biota - dense mussels, barnacles, spat, Fucus, old carcasses etc

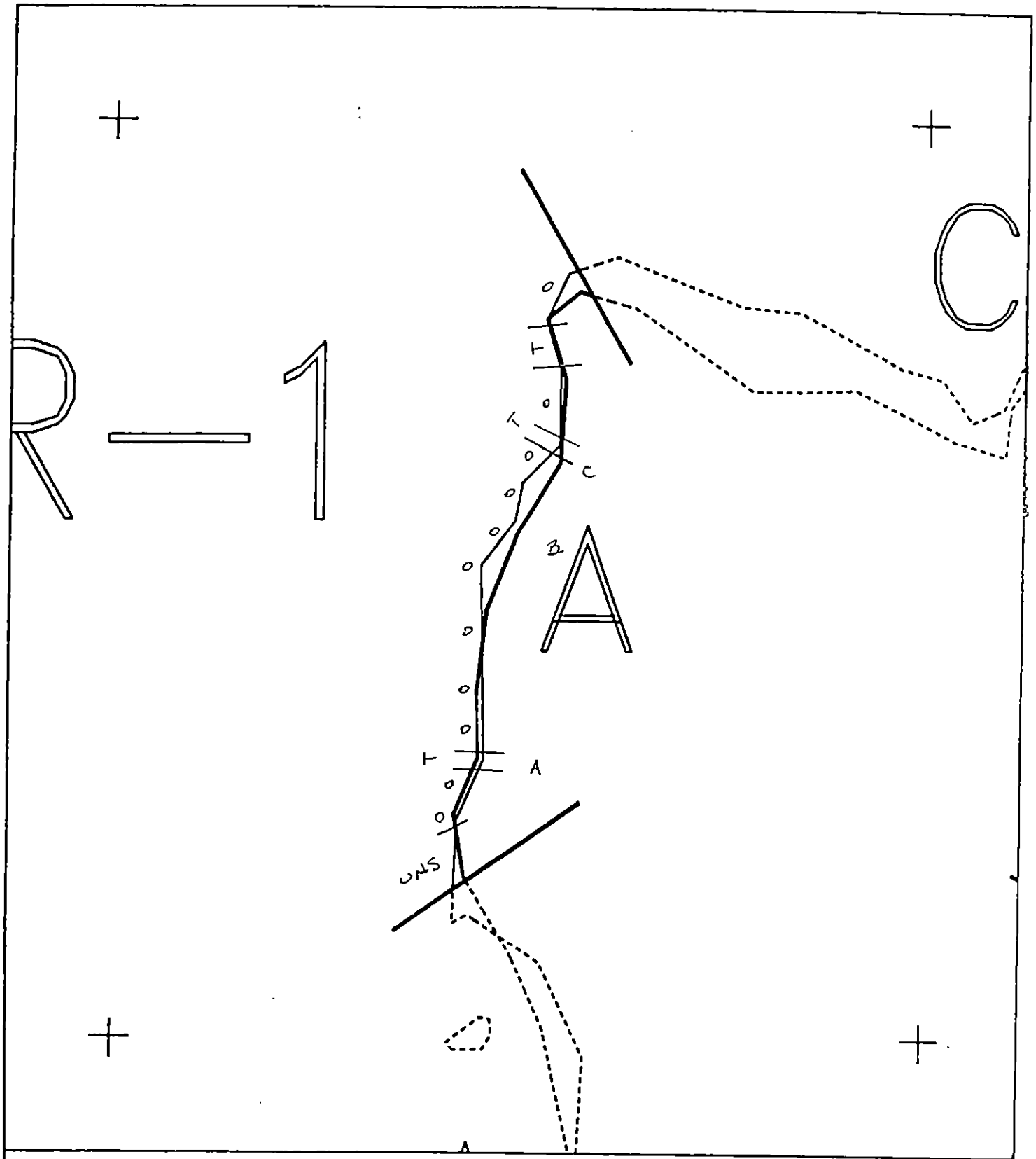
on BR & large boulders at sides - well developed, mature community - moderately dense Lith, Lim - lots crawling in crevices - older mussels & B. carcasses - large sculpin

Epiactis brooding - 1 harb seal

Beach (C)

CT on lee side of Massive boulder + 8-10 ft (above sponge barnacles) then bare gravel - MOR + 8 ft in gravel - 5 m downshore on BR & boulders w/ dense mussels, barn, Fucus, etc

end 1105 hrs



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

CR001 A

ADEC Subsegment Length: 467m

METERS

0 100 200

AK State Plane Zone 4
per0Bla

Subdivision Field Map

Map Key: PWSCR001A

Name: GM

Date: 5-14-91

Data Entered:

EG reviewed 5/17

REVIEWED CD 17 MAY

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/CR-02

SUBDIVISIONS: A (1 OF 3)

SHORELINE EVALUATION

SEGMENT ST/ CR-02 SUBDIVISION A (1 OF 3) DATE 4/5/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
1E Main Bay Hatchery release (4/20 to 5/10)
3N,3P Harbor seal and sea lion pupping (5/15 to 7/1)
3O,3Q Harbor seal and sea lion molting (8/15 to 9/15)
See attached Ecological Constraint sheet for specific constraints and contacts.

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

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 634 m: No Oil 185 m
Subsurface Oil Observed: Yes____ No X Maximum Depth_____

RECOMMENDATIONS:

X No Treatment Recommended
_____Treatment Recommended
_____Manual Pickup
_____Bioremediation
_____Tarmat: _____Breakup
_____Removal

_____Snare/Absorbent Booms
_____Oil Snares (pom poms)
_____Absorbents (pads,rolls,etc)
_____Spot Washing:_____Wands
_____ Beach Cleaner
_____Other (see comments)

COMMENTS: _____

TAG COMMENTS:_____

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

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ CR-2 SUBDIVISION: A (B&C SEPARATE) DATE 4/6/90

USCG
NAME GARY OTT SIGNATURE [signature]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

ADEC
NAME MICHAEL EBEL SIGNATURE Michael J. Ebel

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

CR-2-A: This subdivision consisted mostly of bedrock cliffs with high angle talus slopes. The oiling found was within the UTZ and weathered to a thin coat and cover — mostly splashes with occasional patches. No subsurface oil was found in any of the 5 pits. The high exposure to this shoreline will continue washing it away.

LAND MANAGER - USDA FOREST SERVICE
NAME DON BREITINGER SIGNATURE Don J. Breitinger

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Randy McBride NOAA ~~USCG~~ Gary Ott SEGMENT ST/ CR-2
BIO Lewis Sharman LAND REP. Don Breitinger SUBDIVISION A
EXXON Leonard Herbst ADEC Mike Fleed TIME 14:15 to 15:30
TEAM NO.: 12 TIDE LEVEL: +5.5 to +3.0 DATE 4/5/90 Temp. 37°F
EST. SUBDIVISION LENGTH: 1071 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☒ Snow
UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: south to north
SURFACE SEDIMENTS: R 20 % B 20 % C 30 % P 20 % G 5 % S 5 % M 0 % V 0 %
SLOPE: Lang 15 % Hang 55 % Vert 30 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 762 m NO 309 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	PC	PB	PP	PS						SU	UI	MI	LI
ASPHALT PAVEMENT													
POOLED													
COVER				X				X			X		
COAT			O	X				X			X	●	
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL										X			X

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

PATTIES / TARBALLS _____ BAGS

NEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED ☐ YES ☒ NO

TYPE _____

#BAGS _____

Photographs:

Roll No. No pictures

Frames No pictures

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR					PIT ZONE				ANA	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC						SU	UI	MI	LI		
1	45					X	— • —		X							X				CPG
2	30					X	— • —		X							X				CP
3	50					X	— • —		X							X				PGS
4	22					X	— • —		X							X				CGS
5	30					X	— • —		X							X				CGS
							•													

COMMENTS CR-2-A is dominated by very light oiling with some areas containing no oiling (see computer map). The very light oiling is characterized by coats and covers. The coat (<1mm thick) has a patchy and splashed distribution. The cover (>1 mm thick) has only a splashed distribution. All the oil is a dark brown color located mostly in the upper intertidal zone. No oil was found along the supratidal or lower intertidal zone. The subdivision was dominated by high angle rock cliffs (continued on next page)

Page 1 of 2

REVIEWED DIL DATE 4/10/90

continued Shoreline Oiling Summary (CR-2-A)

with boulders and large cobbles interspersed w/ finer-grained pocket beaches. Overall, wave exposure along CR-2-A is high due to the large fetch across the northern end of Knight Island passage. As a result, a large amount of natural washing and flushing will take place through the year from a combination of high wave energy and the large tidal range (10-14' ~4M).

Randy McBride
Oil Geomorphologist

Segment ST / CR-2 Subdivision A Date (mo / day / yr) 4/5/90

Time (24 hr) 1415-1530 Biologist SHARMAN

(A) Substrate type and % of ~~segment~~ SUBDIV.
(1) Bedrock 20 (2) Boulder 20 (3) Cobble 30 (4) Pebble 20 (5) Sand 10 + granules (6) Silt ____

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

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

Photographs:
Roll No. ST-12-4
Frames NONE

BARNACLES

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

MYTILUS

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

GASTROPODS (NUCELLA, LITTORINA, LIMPETS)

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

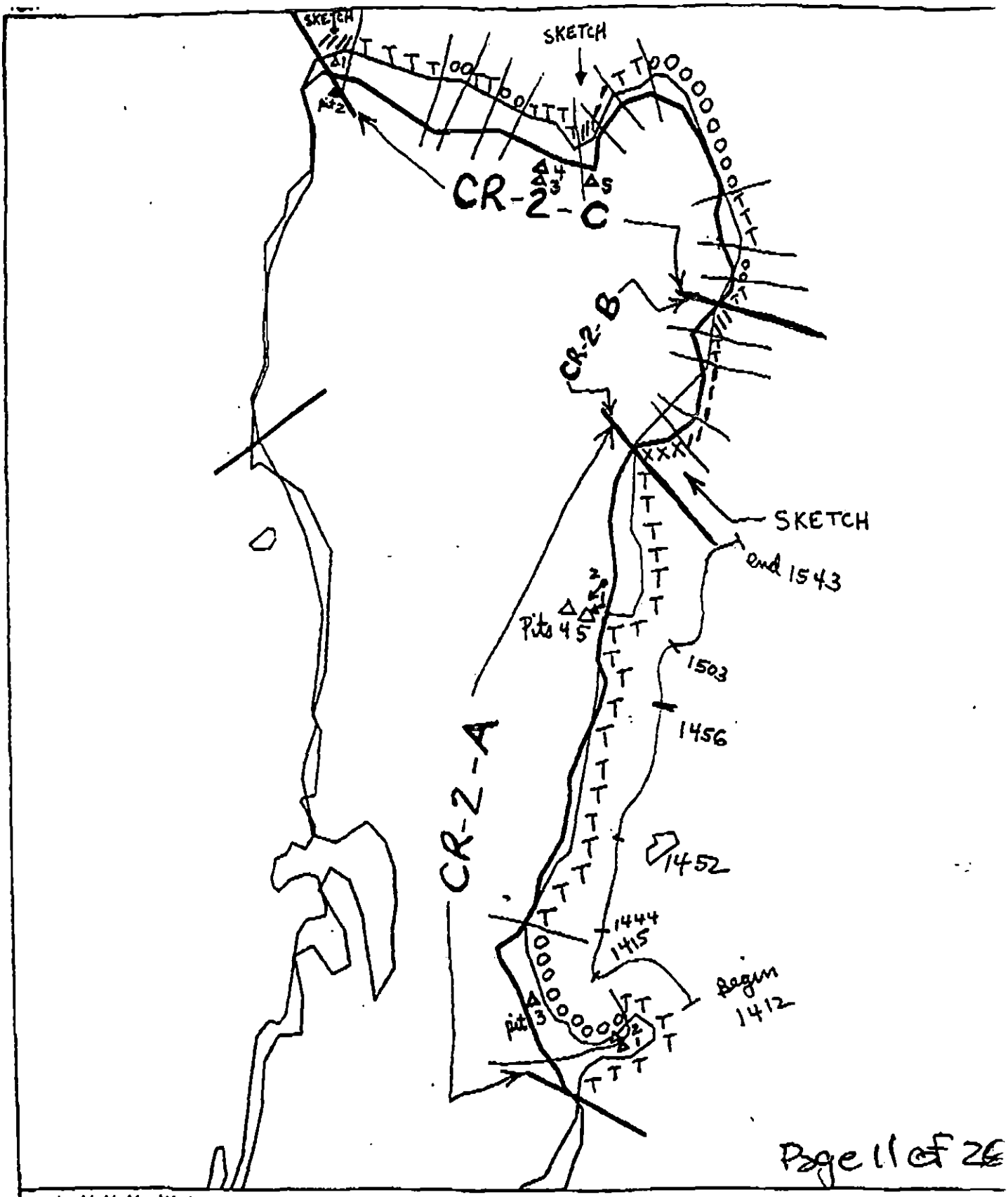
FUCUS

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

Wildlife Observations/ General Comments: 1 pelagic cormorant, 3 pairs harlequin ducks, 4 mergansers, 6 cormorants, 1 black oystercatcher. Despite discontinuous, scattered patches and blotches of weathered tar coats on MTZ boulders and bedrock exposures, the intertidal community appears normal and healthy.

Ecological Considerations:

According to the Priorities and Windows table, this segment is assigned an environmentally ranked priority of 1 (work window 7/1 - 8/15). Primary identified sensitivities are use of the area as a Main Bay Hatchery release site (code 1E) and as haulout site for pinnipeds pupping and molting (codes 3N, P, O, Q) — constraints 1+2; treatment priority 2. Of particular importance are the offshore/nearshore rocks + islets, and exposed rocky points. This is critical habitat Sand-birds, and these animals are extremely sensitive during these times to human disturbance. LTZ tidepools are very sensitive to trampling.



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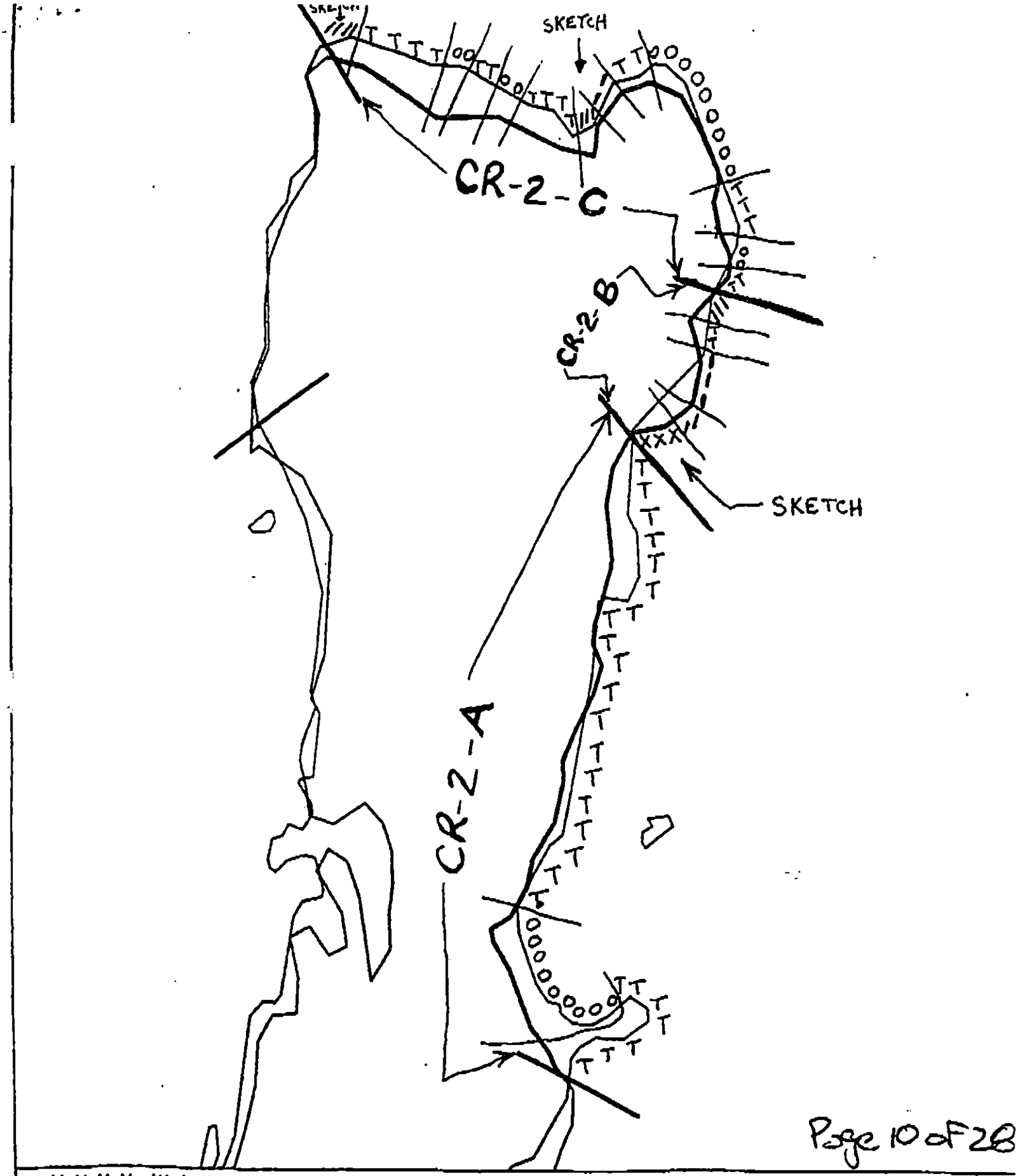
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
OOOO No Oil

CR-2

ADEC Segment Length: 1782m

0 100 200 300
METERS

Map Key: PWS-63a
Name: Randy McBride
Date: 4/6/90
Date Entered:



Page 10 of 28

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

CR-2

ADEC Segment Length: 1782m

0 100 200 300
METERS

Map Key: PWS-63a
Name: Randy McBride
Date: 4/6/90
Date Entered:

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/CR-02

SUBDIVISIONS: B (2 OF 3)

SHORELINE EVALUATION

SEGMENT ST/ CR-02 SUBDIVISION B (2 OF 3) DATE 4/6/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1E Main Bay Hatchery release (4/20 to 6/10)
3N,3P Harbor seal and sea lion pupping (5/15 to 7/1)
3O,3Q Harbor seal and sea lion molting (8/15 to 9/15)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

An Exxon archaeological monitor is required on-site during shoreline treatment.

SHPO SIGNATURE:_____ DATE:_____

OILING CATEGORIZATION:

Wide 44 m: Medium 75 m: Narrow 64 m: V.Light 36 m: No Oil 0 m
Subsurface Oil Observed: Yes X No____ Maximum Depth 20 cm

RECOMMENDATIONS:

____No Treatment Recommended	____Snare/Absorbent Booms
X Treatment Recommended	____Oil Snares (pom poms)
X Manual Pickup	____Absorbents (pads,rolls,etc)
X Bioremediation	____Spot Washing:____Wands
X Tarmat: X Breakup	____ Beach Cleaner
X Removal	____Other (see comments)

COMMENTS: Recommended treatment includes 1) manual breakup and removal of tarmat, 2) manual pick up of pooled oil, oiled debris, and trash, 3) bioremediation of surface and subsurface oil in areas shown on attached sketch map. Work should be conducted between 7/1 and 8/15 based on pinneped constraints, after approval of ADF&G concerning Main Bay Hatchery release dates. Contact Larry Peltz (ADF&G) at 424-3214 for specific dates.

TAG COMMENTS:_____

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

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / CR-2 SUBDIVISION: ~~A~~ B (A & B SEPARATE) DATE 4/6/90

USCG
NAME GARY CITT SIGNATURE [signature]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

ADEC
NAME MICHAEL EBEL SIGNATURE [signature]

Note: on reverse form ☐ NO TREATMENT RECOMMENDED ? ☐ TREATMENT SUGGESTED
COMMENTS

CR-2-B: This subdivision along a high energy shoreline had bedrock outcrops that provided a "shadow zone" for oil accumulation. Asphalt pavement patches were present but minimal, totaling an area of ≈ 1 m². Pooled oil grade from shiny black to grey was located in the MTZ in a subsurface lens from 5-10 cm thick. The lens tapered up toward the surface in the MTZ (lower) and grading to no oil in the UTZ. The approximate area of the lens is 6 m (w) x ≈ 15 m. A small pool (isolated) was located in the UTZ with dark brown residual oil in a layer from 15-20 cm depth in an area ≈ 1.5 m². Oil films were detected surrounding both areas in lenses from 2-5 cm. Scattered surface covers and coats of oil were present in [illegible] of bioremediation can be proved —

LAND MANAGER USDA FOREST SERVICE
NAME DON BREITINGER SIGNATURE [signature]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

Mike Ebel (cont.): effective, then this area would qualify for its use

REVISION NO 02/21/90

SHORELINE OILING SUMMARY

REVISION NO. 00/00/00

OG Randy McBride USCG NOAA Gary Ott SEGMENT ST/ CR-2
BIO Lewis Shatman LAND REP USFS Don Breitinger SUBDIVISION B
EXXON Leonard Herbst ADEC Michael Ebel TIME 7:15 to 08:00
TEAM NO.: 12 TIDE LEVEL: 3.1' to 4.9' DATE 4/6/90 TEM
EST. SUBDIVISION LENGTH: 245 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☒ Snow 37°F
UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: South to North
SURFACE SEDIMENTS: R 15 % B 20 % C 35 % P 20 % G 5 % S 5 % M 0 % V 0
SLOPE: Lang 45 % Hang 45 % Vert 10 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
OIL CATEGORY LENGTH: W 34 m M 51 m N 114 m VL 46 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	IC	IB	IP	IS						SU	UI	MI	LI
ASPHALT PAVEMENT				X		•		X			X		
POOLED				X				X			X		
COVER	Ø	•	+	X				+X			•X		
COAT				+X		X		+O			XO	+	
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL										X			X

PAVEMENT: H (S) 1 sq. m by 3 c

PATTIES / TARBALLS 0 BAGS

NEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT SM	MD	LG
Logs			
Vegetation			
Trash	X		
Debris			

DEBRIS COLLECTED ☒ YES ☐ NO

TYPE Sorbent boom

#BAGS

Photographs:

Roll No. ST-12-4

Frames 1 - 13

SUBSURFACE OIL Pits start w/ # 6

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR					PIT ZONE				ANA	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		BO	BC						SU	UI	MI	LI		
Pits start w/ # 6																				
6	25		X				15-20		X				X			X				C, G, P, S
7	30				X		18-20		X				X			X				C, P, G, S
8	22					X	—:—		X							X				P, G, S
9	25					X	—:—		X							X				G, S detrital organics
10	20	X			X		5-10		X			X					X			B, C, G, P, S

COMMENTS CR-2-B is dominated by several finer-grained pocket beaches interspersed w/ some higher angle bedrock w/ boulders and large cobbles. Overall, wave exposure along CR-2-B is high due to the large amount of fetch across the northern end of Knight Island passage.

(Continued on next page)

 REVIEWED DIL DATE 4/10

SHORELINE OILING SUMMARY (PAGE 2 of 2)

REVISION 03/22/90

SEGMENT ST/ CR-2 SUBDIVISION B

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO	(CM-CM)	UO	UC						SU	UI	MI	LI		
11	30	X			●O		5 - 10		X	X●	O						O X●			B, C, G, P, S
12	32				X●		CANNOT DETERMINE		X	X	●						X●			B, C, G, P, S
13	10				●X		CANNOT DETERMINE	X		X	●						X●			B, C, G, P, S
14	30				X●		CANNOT DETERMINE		X			●	X					X		B, C, G, P, S

COMMENTS (continued from previous page)

CR-2-A is characterized by wide, medium, narrow, and very light surface oiling. The wide oiling is described in the sketch map. Significant amounts of subsurface oil were ~~was~~ found in pits #6, #10, and #11 (located on sketch). These pits are located in the middle and upper intertidal zones. The medium, narrow, and very light oiling was characterized mainly by covers and coats. The ~~coat~~ coats are splashed in distribution and the covers are continuous, ~~to~~ broken, patchy, and splashed in distribution. The combination of high wave energy/exposure and tidal processes will naturally wash this subdivision effectively throughout the year.

Randy McBride
Geomorphologist

REVIEWED _____ DATE _____

Segment ST / CR-2 Subdivision B Date (mo / day / yr) 4/4/90

Time (24 hr) 07/0-0755 Biologist SHARMAN

Page 17 of 26

(A) Substrate type and % of ~~segment~~ SUBDIV.
(1) Bedrock 15 (2) Boulder 20 (3) Cobble 35 (4) Pebble 20 (5) Sand + granule 10 (6) Silt ____

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

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

Photographs:
Roll No. ST-12-4
Frames 1-13

BARNACLES

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

MYTILUS

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

GASTROPODS (NUCELLA, LITTORINA, LIMPETS)

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

FUCUS

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

Wildlife Observations/ General Comments: Fox sparrow, bear tracks in supratidal, 4 adult seals. The intertidal epifaunal community appears normal and healthy. There is significant subsurface oiling of pebbles here, however it is mainly confined to relatively small areas in the UTZ. These oiled sediments are free of macrofauna, although not conspicuously more so than in similar unoiled areas. The subsurface sediments are fairly rich in organics (likely from adjacent upland meadow). LTZ bedrock tidepools are as rich and productive as would be expected in the absence of an oilspill (eelgrass, coralline algae, anemones, etc). There has been no barnacle settlement directly onto oiled rock surfaces (although commonly on adjacent unoiled surfaces). Mortality of adult barnacles is ≈ 50% within the oiled band and ≈ 10% outside the oiled band.

Ecological Considerations:
Please see this section for CR-2-A. Environmental Priority 1. Sensitivity codes 1E, 3N, P, O, Q. Pinnipeds must not be disturbed during their critical pupping/molting periods. They are extremely vulnerable to human disturbance. LTZ tidepools are very sensitive to trampling.

OG RM Tide

SEGMENT ST/ CR-2

SUBDIVISION B

DATE 4 / 6 90

SKETCH MAP

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 ▲ Pit - No Subsurface Oil

2 ▲ Pit - Subsurface Oil

CT/C Continuous Distribution

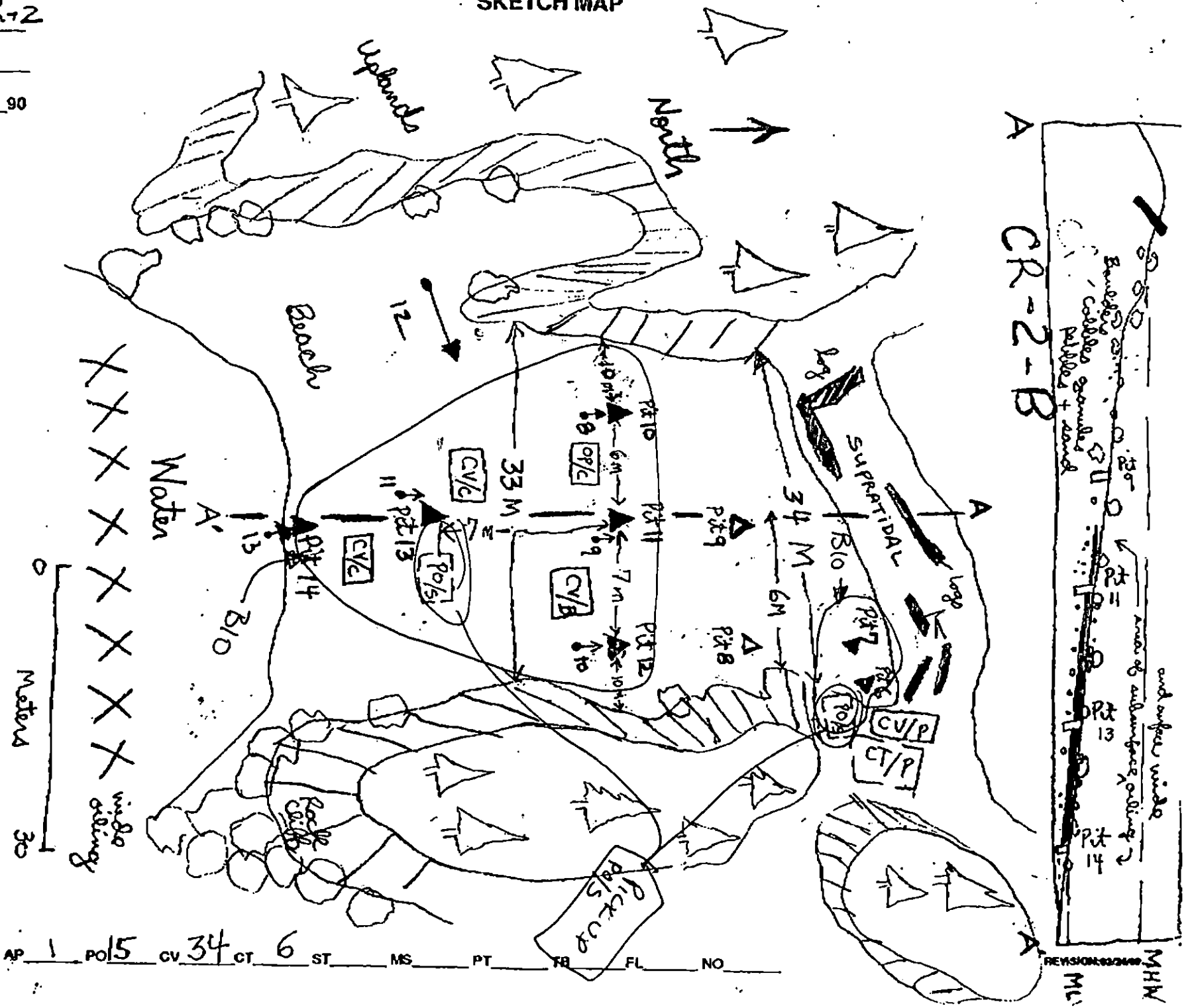
CT/B Broken Distribution

CT/P Patchy Distribution

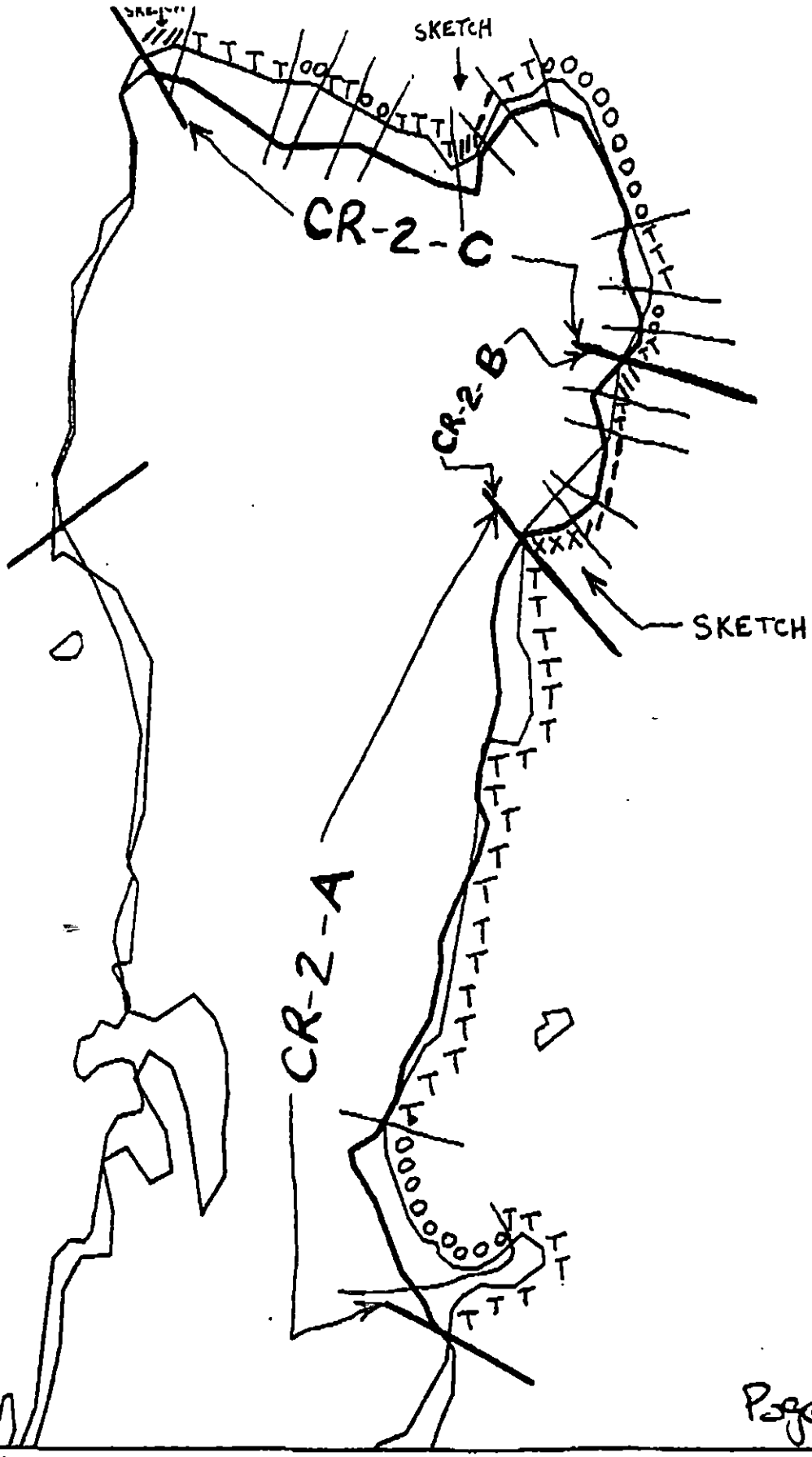
CT/S Splashed Distribution

Oiled Vegetation

1 ⊕ Photo location, direction, and number



Oil Character Length (m): AP 1 PO 15 CV 34 CT 6 ST ____ MS ____ PT ____ FB ____ FL ____ NO ____



Page 10 of 26

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

CR-2

ADEC Segment Length: 1782m

0 100 200 300
METERS

Map Key: PWS-83a
Name: Randy McBride
Date: 4/6/90
Date Entered:

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/CR-02

SUBDIVISIONS: C (3 OF 3)

SHORELINE EVALUATION

SEGMENT ST/ CR-02 SUBDIVISION C (3 OF 3) DATE 4/6/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
1E Main Bay Hatchery release (4/20 to 6/10)
3N,3P Harbor seal and sea lion pupping (5/15 to 7/1)
3O,3Q Harbor seal and sea lion molting (8/15 to 9/15)
See attached Ecological Constraint sheet for specific constraints and contacts.

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

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

SHPO SIGNATURE:_____ DATE:_____

OILING CATEGORIZATION:

Wide 0 m: Medium 92 m: Narrow 39 m: V.Light 369 m: No Oil 244 m
Subsurface Oil Observed: Yes X No____ Maximum Depth 20 cm

RECOMMENDATIONS:

____No Treatment Recommended	____Snare/Absorbent Booms
X Treatment Recommended	____Oil Snares (pom poms)
X Manual Pickup	____Absorbents (pads,rolls,etc)
X Bioremediation	____Spot Washing:____Wands
____Tarmat: ____Breakup	____ Beach Cleaner
____Removal	____Other (see comments)

COMMENTS: Recommended treatment includes 1) manual pick up of pooled oil, 2) bioremediation of surface and subsurface oil in areas shown on attached sketch maps. Work should be conducted between 7/1 and 8/15 based on pinneped constraints, after approval of ADF&G concerning Main Bay Hatchery release dates. Contact Larry Peltz (ADF&G) at 424-3214 for specific dates.

TAG COMMENTS:_____

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

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / CR - 2 SUBDIVISION: ~~B~~ C (A & C SEPARATE) DATE 4/6/90

USCG
NAME GARY CITT SIGNATURE [signature]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

Comments note: on wrong form (see CR-2-B)

ADEC
NAME MICHAEL EBEL SIGNATURE [signature]

☐ NO TREATMENT RECOMMENDED ? ☐ TREATMENT SUGGESTED
COMMENTS

CR-2-C: an area of pooled oil, saturated, (dark brown) was found to a dep of 0-13 cm; ≈ 12m²; grading to film immediately outsi This region, of a narrow width boulder tongue bounded bedrock walls. This "shadow zone" along the subdivision high exposure shoreline also had broken covers and coats, a within the UTZ. One other area on the opposite periphery (East side had a small pooled surface area ≈ .5 m(W) x 3 m(L) If bioremediation be proved effective, only the 2 pooled spots would qualify.

LAND MANAGER - USDA FOREST SERVICE
NAME DON BREITINGER SIGNATURE [signature]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS, but bioremediation may be used for appearance and improvement of rock looks. DJB

REVISION NO 60.21

SHORELINE OILING SUMMARY

REVISION NO. 03/20/90

OG Randy McBride ~~USCG~~ NOAA: Gary Ott SEGMENT ST/ CR-2
BIO Lewis Sharman LAND REP USFS: Don Breitinger SUBDIVISION C 3 of 3
EXXON Leonard Herbst ADEC Mike Ebel TIME 8 :15 to 09 :00
TEAM NO.: 12 TIDE LEVEL: +5.0 to +6.4 DATE 4 / 6 / 90
EST. SUBDIVISION LENGTH: 676 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☒ Snow 37 °F
UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: East to West
SURFACE SEDIMENTS: R 35 % B 35 % C 20 % P 5 % G 3 % S 2 % M ___ % V ___ %
SLOPE: Lang 5 % Hang 60 % Vert 35 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
OIL CATEGORY LENGTH: W 0 m M 48 m N 38 m VL ~~[illegible]~~ 322 m NO ~~[illegible]~~ 268 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	rc	rb	rp	rs	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	SU	UI	MI	LI
ASPHALT PAVEMENT													
POOLED				X				X			X		
COVER		X	O●			●1		OX			OX ●1		
COAT		O	X					XO			XO		
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM				X●		●	X				●X		
NO OIL										X		X	X

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

PATTIES / TARBALLS 0 BAGS

NEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED ☒ YES ☐ NO

TYPE pom pom not oiled

#BAGS

Photographs:

Roll No. ST-12-4

Frames 14-20

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER CP	CR	CL	CF	NO	OILED INTERVAL (cm-cm)	BELOW UO	UC	OIL / FILM COLOR [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	PIT ZONE SU	UI	MI	LI	ANA	SUBSURFACE SEDIMENTS
Sketch #2 1	32	X					0 - 13		X				X			X				B, C, P, G
2	25				X		5 - 20		X		X						X			B, C, P, G
3	17					X	— · —		X							X				C, P, G, S
4	16					X	— · —		X							X				C, P, G, S
Sketch #1 5	15					X	— · —		X							X				C, P, G, S
							-													

COMMENTS CR-2-C is dominated by high angle bedrock with boulders and cobbles with few finer-grained pocket beaches. Overall, the oiling was characterized by coats and covers with with only a few isolated areas of pooled oil. ~~[illegible]~~ The covers and coats were broken and patchy in distribution, while the pooled oiling was splashed in distribution (see sketches 1+2). The only subsurface (continue

Page 1 of 2 REVIEWED DIC DATE 4/10/90

(Continued) Shoreline Oiling Summary

oiling was found in pit # 1 (sketch #2).

Overall, the combination of high wave energy/exposure and tidal processes will naturally wash and flush this subdivision effectively throughout the year. The subdivision is located on the ~~exposed~~ unprotected northern portion of Crafton Island which is exposed to a large fetch across the northern end of Knight Island passage.

Randy McBride
Geomorphologist
4/6/90

page 2 of 2

OG Ra / McBride

SEGMENT ST/ CR-2

SUBDIVISION C

DATE 4 / 6 90

CHECKLIST

- ✓ N Arrow
- ✓ Approx. Scale
- ✓ Obj/Sub Bnlry
- ✓ Oil Dist.
  - Width
  - Length
- ✓ % Cover
- ✓ Substrate Character
- ✓ Est. HWL/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

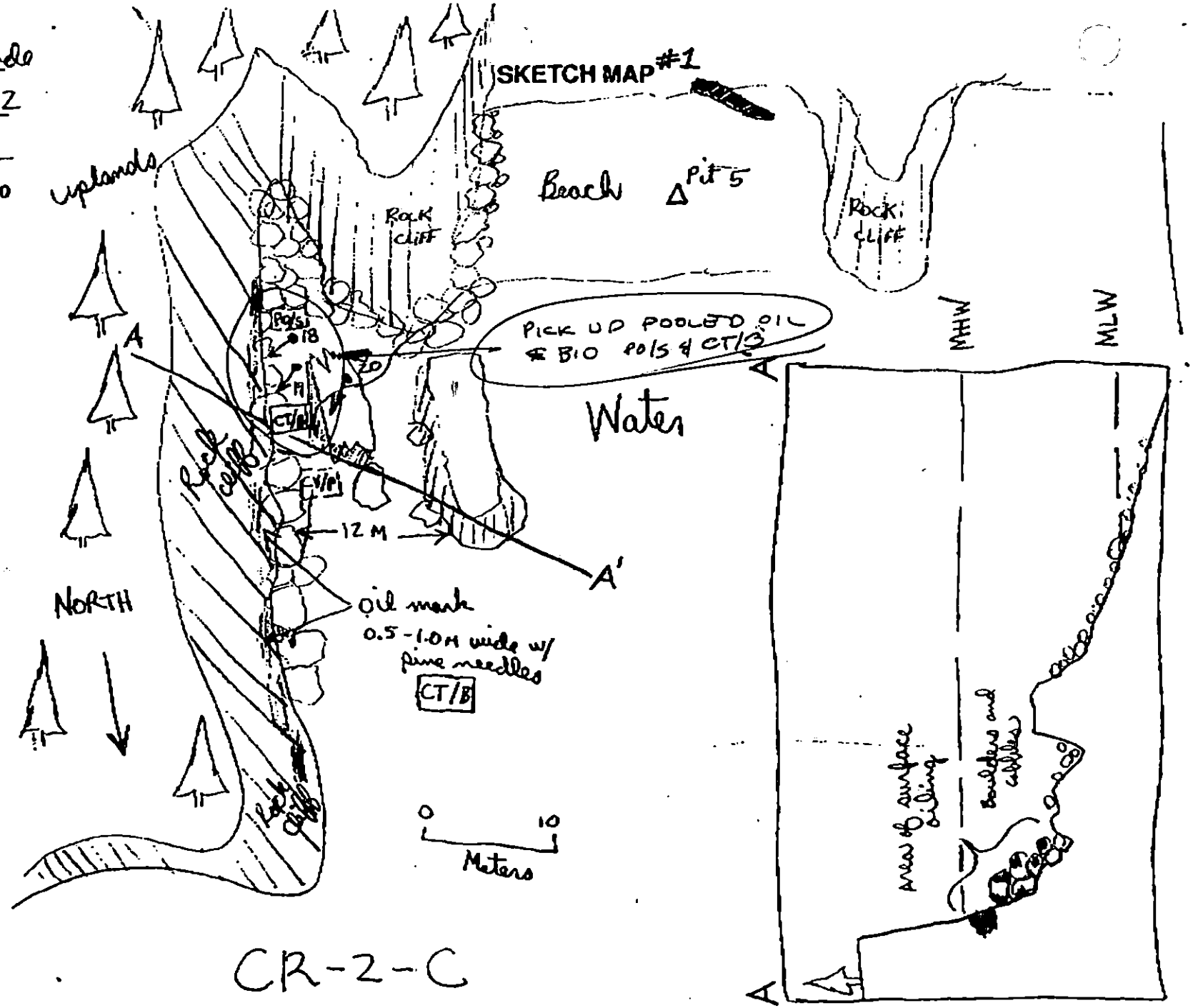
CT/B Broken Distribution

CT/P Patchy Distribution

CT/S Splashed Distribution

Oiled Vegetation

Photo location, direction, and number



CR-2-C

Page 22 of 28

Oil Character Length (m): AP____ PO 4 CV 5 CT 30 ST____ MS____ PT____ TB____ FL____ NO____

OG Ron McBride

SEGMENT ST/ CR-2

SUBDIVISION C

DATE 4 / 6 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 ▲ Pit - No Subsurface Oil

2 ▲ Pit - Subsurface Oil

CT/C Continuous Distribution

CT/B Broken Distribution

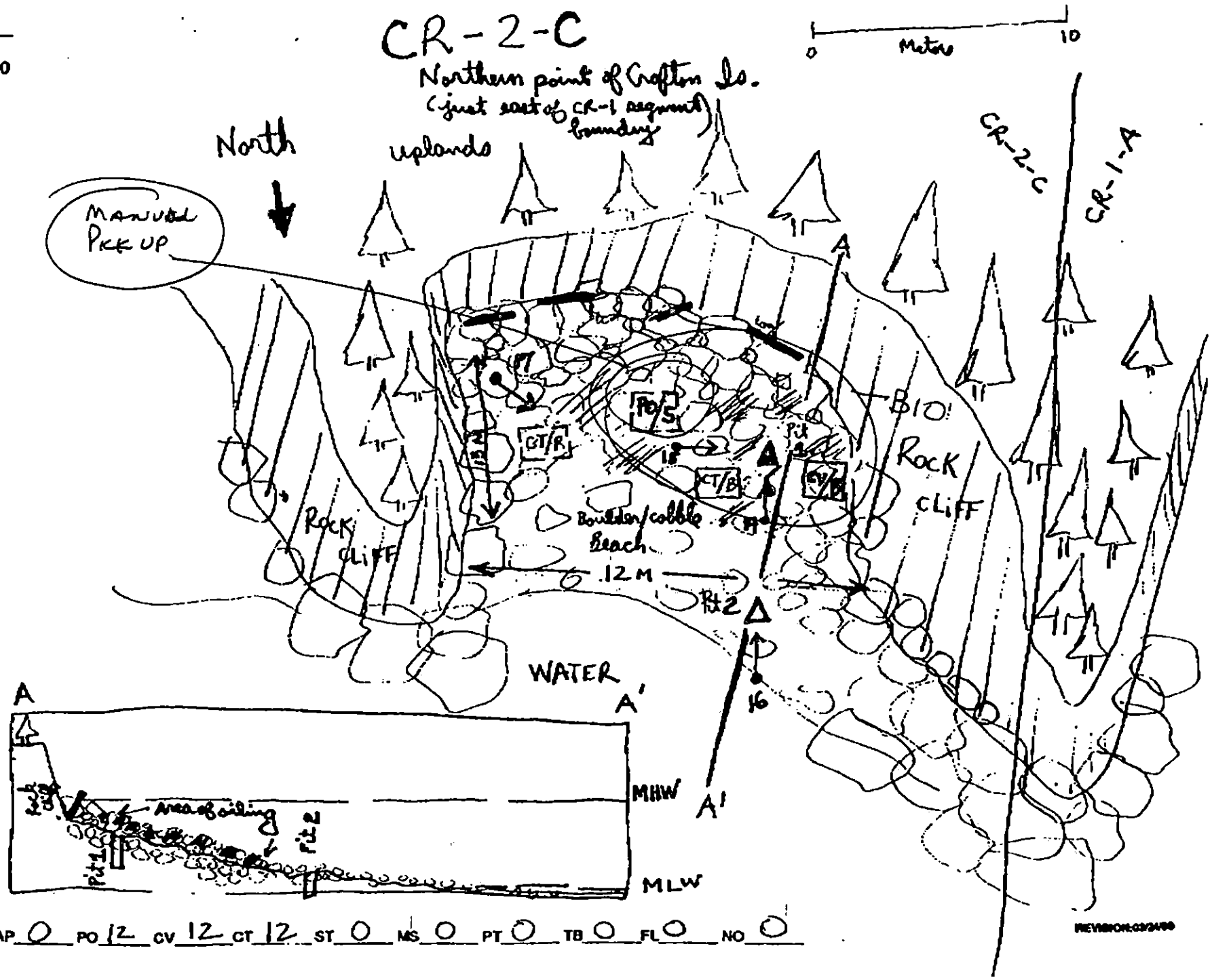
CT/P Patchy Distribution

CT/S Splashed Distribution

Oiled Vegetation

1 ⇒ Photo location, direction, and number

SKETCH MAP #2



Oil Character Length (m): AP 0 PO 12 CV 12 CT 12 ST 0 MS 0 PT 0 TB 0 FL 0 NO 0

REVISION:03/24/90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 08/23/90

Segment ST / CR-2 Subdivision C Date (mo / day / yr) 4/6/90

Time (24 hr) 0810-0900 Biologist SHARMAN

(A) Substrate type and % of ~~segments~~ SUBDIV.
(1) Bedrock 35 (2) Boulder 35 (3) Cobble 20 (4) Pebble 5 (5) Sand 5 + granules (6) Silt ____

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

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

Photographs:
Roll No. ST-12-4
Frames 14-20

BARNACLES

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

NOT PRESENT

GASTROPODS (NUCELLA, LITTORINA, LIMPETS)

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	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

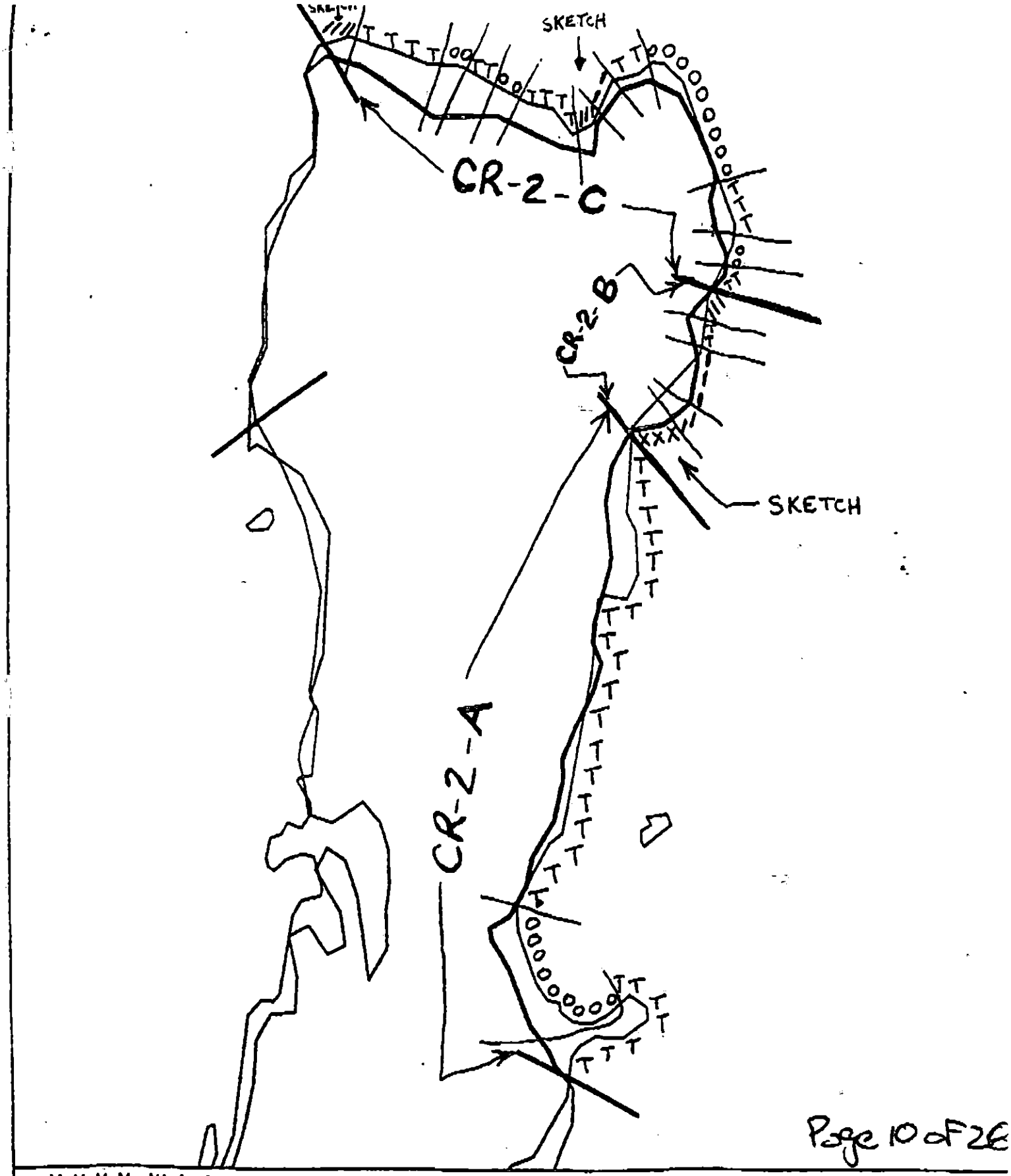
FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments: 1 pair adult eagles, 2 pelagic cormorants, 4 gulls (probably glaucous-winged), low numbers in intertidal. Extremely rich and productive intertidal communities on exposed bedrock surfaces, particularly tidepools, appear (along with other intertidal habitats in the subdivision) to be normal & healthy & unaffected by the oil spill.

Ecological Considerations:
Please see this section for CR-2-A. Environmental Priority 1. Sensitivity codes 1E, 3N, P, O, A. Pinnipeds must not be disturbed during their critical pupping/molting periods. They are extremely vulnerable to human disturbance. LT & bedrock tidepools are very sensitive to trampling.



Page 10 of 26

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

CR-2

ADEC Segment Length: 1782m

0 100 200 300
meters

Map Key: PWS-830
Name: Randy McBride
Date: 4/6/90
Date Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT CR-2 SUBDIVISION C (3 of 3)

WORK WINDOW	
Manual Pickup	OPEN
Spot Washing	OPEN
Bioremediation	WORK 6/4 - 6/7

ARCHAEOLOGICAL MONITOR REQUIRED ON SITE.

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

NO ACCESS OR TREATMENT SOUTH OF THE LIGHT DUE TO RESOURCE SENSITIVITY

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1E	**Main Bay Hatchery Release**	Subdivision open to bioremediation 6/4 to 6/8 per verbal authorization from Larry Peltz/ADF&G to Tom Monihan/Exxon on 5/24/90. No constraint to bioremediation after 6/15. No constraint to manual pickup and spot washing.
1I	**Gill Net Area**	Closed to bioremediation after 6/7. No constraint to manual pickup and spot washing.
3N,P 3O,Q	**Harbor Seal & Sea Lion Pupping and Molting**	NO TIME CONSTRAINT. Authorized per memorandum dated 5/14/90 from Kathryn Frost/ADF&G to Mark Kuwada/ADF&G.
5T	**Bald Eagle Nest**	NO CONSTRAINT. USFWS 6/1/90 map indicates an active nest in Segment CR-2. The work area is more than 400m from the active nest.

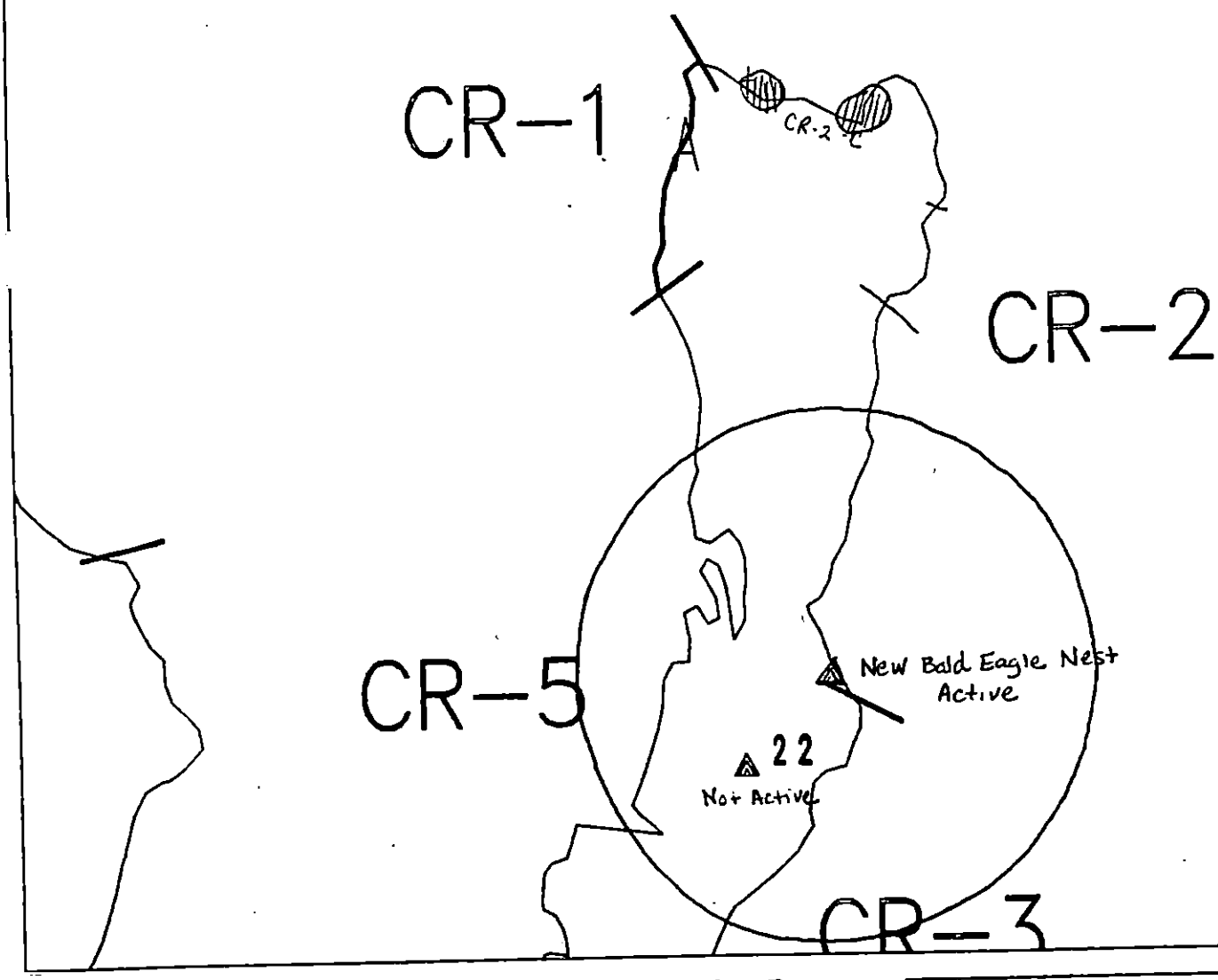
OTHER ECOLOGICAL CONSIDERATIONS

Restrict boat and air traffic to essential minimum after 6/7. Do not apply bioremediation to specific areas where seals are observed to haulout. Do not chase or harass seals or sea lions, and do not approach pups under any circumstances. When working on or near haulouts, complete the job as quickly as possible with minimum personnel, equipment, noise and disturbance. Keep boats and personnel as far from actual haulouts as is practical to do the work specified. Minimize air traffic near haulouts, maintain elevation as is practical, and avoid repeated overflights of the same haulout areas. Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

TAG APPROVAL DATE 6/04/90
ADEC Ray Morris
EXXON
NOAA Tsoon Tullastt
USCG

FOSC Date 6/5/90

* Based on USFWS 6/1/90 map showing ACTIVE eagle nests.



EXXON

Exxon Company, USA
Map Key: PWS-CR-1
May 11, 1990

ECOLOGY MAP
SEGMENT CR-2
SUBDIVISION C (3 of 3)

METERS
0 329 659

★ Seabird Colony
▲ Eagle Nest

1 inch = 1080 feet

SHORELINE EVALUATION

SEGMENT ST/ CR-02 SUBDIVISION C (3 OF 3) DATE 4/6/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
1E Main Bay Hatchery release (4/20 to 6/10)
3N,3P Harbor seal and sea lion pupping (5/15 to 7/1)
3O,3Q Harbor seal and sea lion molting (8/15 to 9/15)
See attached Ecological Constraint sheet for specific constraints and contacts.

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

ARCHAEOLOGICAL CONSTRAINTS:
An Exxon archaeological monitor is required on-site during shoreline treatment.
CTAG RECOMMENDS: NO ACCESS OR TREATMENT SOUTH OF THE LIGHT DUE TO RESOURCE SENSITIVITY.

SHPO SIGNATURE: [signature] DATE: 4/28/90

OILING CATEGORIZATION:

Wide 0 m: Medium 92 m: Narrow 39 m: V.Light 369 m: No Oil 244 m
1-5/15 Subsurface Oil Observed: Yes X No ____ Maximum Depth 20 cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual pick up of pooled oil, 2) bioremediation of surface and subsurface oil in areas shown on attached sketch maps. Work should be conducted between 7/1 and 8/15 based on pinneped constraints, after approval of ADF&G concerning Main Bay Hatchery release dates. Contact Larry Peltz (ADF&G) at 424-3214 for specific dates. SEE Addendum dated 4/26 PP

TAG COMMENTS: SPOTWASH AS REQUIRED AND INDICATED ON SKETCH PRIOR TO BIOREMEDIATION.

omit 5/15 — 4/26/90 DUE TO SITE SENSITIVITY NTR IS THE PREFERRED APPROACH

5/15/90 SITE RESTRICTION - NO TREATMENT - APPLIES TO THE AREA SOUTH OF THE LIGHT ONLY THE AREA TO THE WEST OF THE LIGHT IS OPEN FOR TREATMENT.

TAG APPROVAL DATE: 4/25/90.
ADEC Art Weiner
EXXON Scott Tea
NOAA Joseph Talbott
USCG Kenneth Keane

FOSC: [signature] DATE: 5-24-90

AHW

SHORELINE EVALUATION

SEGMENT ST/ CR-02 SUBDIVISION C (3 OF 3) DATE 4/6/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
1E Main Bay Hatchery release (4/20 to 6/10)
3N,3P Harbor seal and sea lion pupping (5/15 to 7/1)
3O,3Q Harbor seal and sea lion molting (8/15 to 9/15)
See attached Ecological Constraint sheet for specific constraints and contacts.

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

ARCHAEOLOGICAL CONSTRAINTS:
An Exxon archaeological monitor is required on-site during shoreline treatment.
CTAG RECOMMENDS: NO ACCESS OR TREATMENT SOUTH OF THE LIGHT DUE TO RESOURCE SENSITIVITY.

SHPO SIGNATURE: [signature] DATE: 4/28/90

OILING CATEGORIZATION:

Wide 0 m: Medium 92 m: Narrow 39 m: V.Light 369 m: No Oil 244 m
Subsurface Oil Observed: Yes X No ____ Maximum Depth 20 cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual pick up of pooled oil, 2) bioremediation of surface and subsurface oil in areas shown on attached sketch maps. Work should be conducted between 7/1 and 8/15 based on pinneped constraints, after approval of ADF&G concerning Main Bay Hatchery release dates. Contact Larry Peltz (ADF&G) at 424-3214 for specific dates.

TAG COMMENTS: SPOTWASH AS REQUIRED AND INDICATED ON SKETCH PRIOR TO BIOREMEDIATION.

omit – 4/26/90 DUE TO SITE SENSITIVITY NTR IS THE PREFERED APPROACH
5/15

5/15/90 SITE RESTRICTION – NO TREATMENT – APPLIES TO THE AREA SOUTH OF THE LIGHT ONLY
THE AREA TO THE WEST OF THE LIGHT IS OPEN FOR TREATMENT.

TAG APPROVAL DATE: 4/25/90.
ADEC Art Weiner [signature]
EXXON Amy Teal [signature]
NOAA Joseph Talbott [signature]
USCG Kenneth Keane [signature]

FOSC: [signature] DATE: 5-24-90

OG R. McBride

SEGMENT ST/ CR-2

SUBDIVISION C

DATE 4 / 6 90

CHECKLIST

- ✓ N Arrow
- ✓ Approx. Scale
- ✓ Orig/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 △ Pit - No Subsurface Oil

2 ▲ Pit - Subsurface Oil

CT/C Continuous Distribution

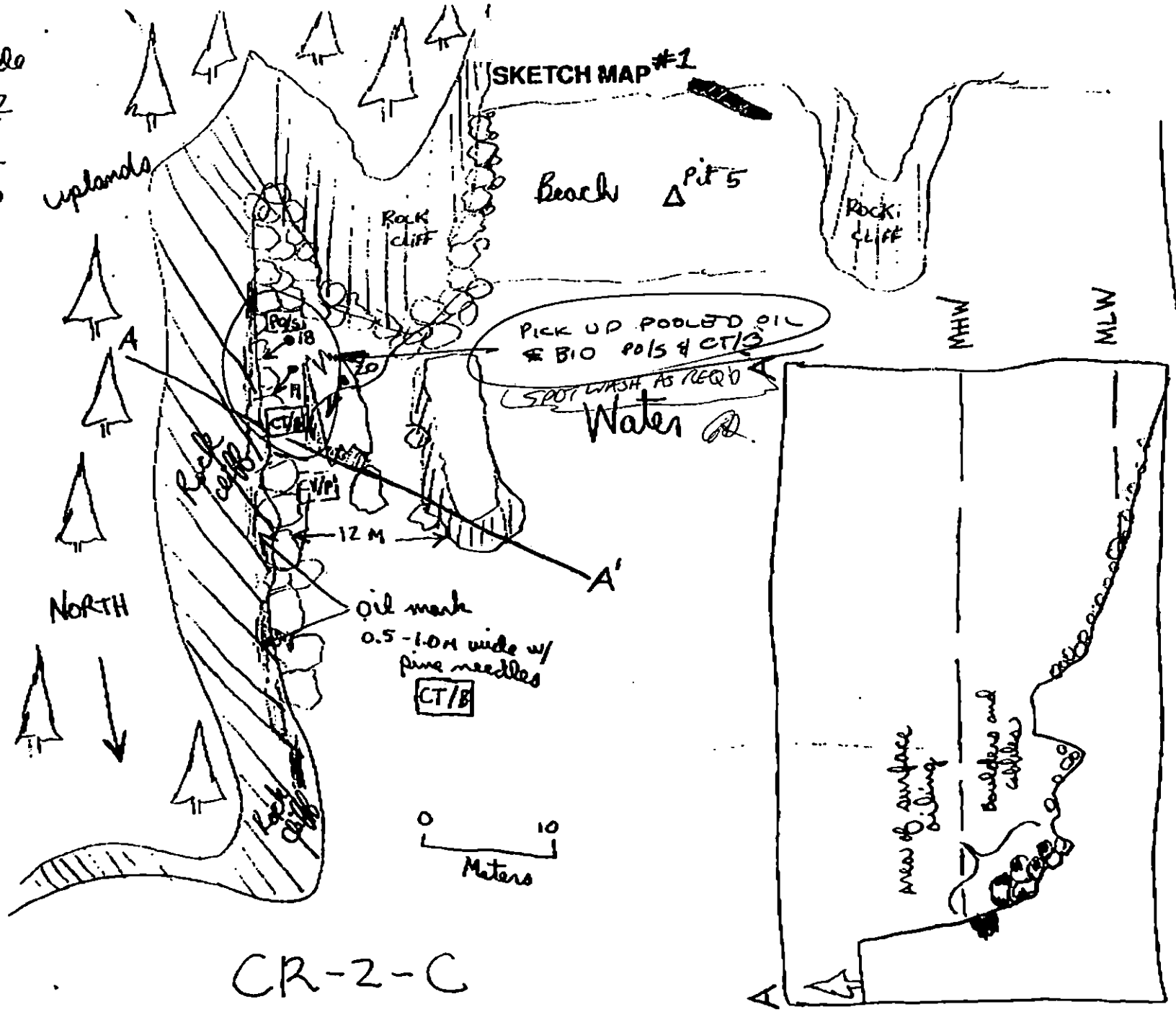
CT/B Broken Distribution

CT/P Patchy Distribution

CT/S Splashed Distribution

Oiled Vegetation

1 ◆ Photo location, direction, and number



Page 22 of 28

Oil Character Length (m): AP____ PO 4 CV 5 CT 30 ST____ MS____ PT____ TB____ FL____ NO____

REVISION 03/20/90

OG Ro y McBride

SEGMENT ST/ CR-2

SUBDIVISION C

DATE 4 / 6 90

CHECKLIST

- ✓ N Arrow
- ✓ Approx. Scale
- ✓ Bdg/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 △ Pit - No Subsurface Oil

2 ▲ Pit - Subsurface Oil

CT/C Continuous Distribution

CT/B Broken Distribution

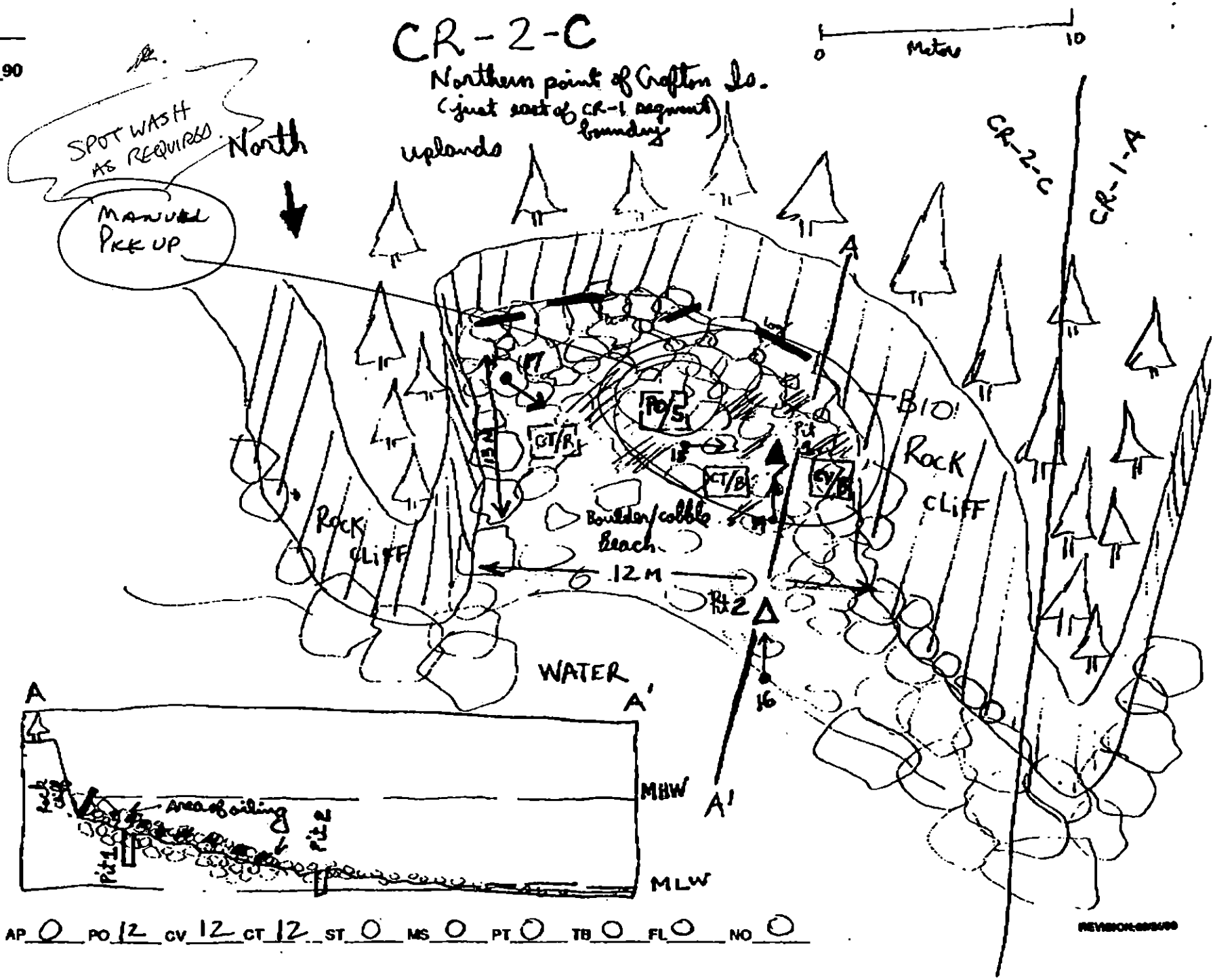
CT/P Patchy Distribution

CT/S Splashed Distribution

Oiled Vegetation

1 Photo location, direction, and number

SKETCH MAP #2



Oil Character Length (m): AP 0 PO 12 CV 12 CT 12 ST 0 MS 0 PT 0 TB 0 FL 0 NO 0

REVISION 08/08/90

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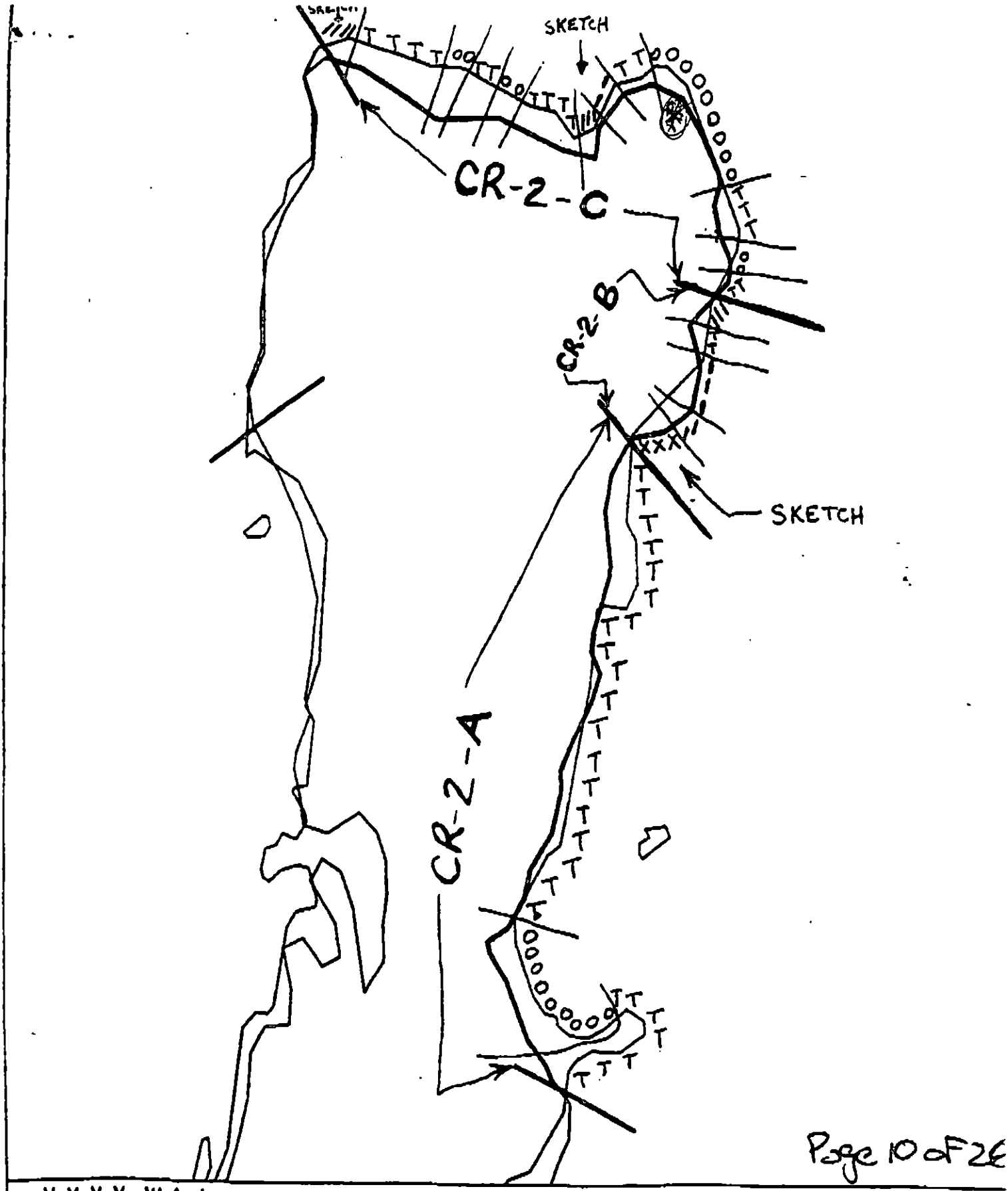


XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
OOOO No Oil

CR-2

ADEC Segment Length: 1782m

0 100 200 300
meters

Map Key: PWS-63a
Name: Randy McBride
Date: 4/6/90
Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ CR-02 SUBDIVISION B (2 OF 3) DATE 4/6/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
1E Main Bay Hatchery release (4/20 to 6/10)
3N,3P Harbor seal and sea lion pupping (5/15 to 7/1)
3O,3Q Harbor seal and sea lion molting (8/15 to 9/15)
See attached Ecological Constraint sheet for specific constraints and contacts.

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

ARCHAEOLOGICAL CONSTRAINTS:
An Exxon archaeological monitor is required on-site during shoreline treatment.
CTAG RECOMMENDS: NO ACCESS OR TREATMENT DUE TO RESOURCE SENSITIVITY.

SHPO SIGNATURE: [signature] DATE: 4/28/90

OILING CATEGORIZATION:

Wide 44 m: Medium 75 m: Narrow 64 m: V.Light 36 m: No Oil 0 m
Subsurface Oil Observed: Yes X No ____ Maximum Depth 20 cm

RECOMMENDATIONS:

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

4/26

COMMENTS: Recommended treatment includes 1) manual breakup and removal of tarmat, 2) manual pick up of pooled oil, oiled debris, and trash, 3) bioremediation of surface and subsurface oil in areas shown on attached sketch map. Work should be conducted between 7/1 and 8/15 based on pinneped constraints, after approval of ADF&G concerning Main Bay Hatchery release dates. Contact Larry Peltz (ADF&G) at 424-3214 for specific dates.

TAG COMMENTS: MANUAL TILLING IN AREA OF PITS 10+11 PRIOR TO BIO.
4/26/90 DUE TO SITE SENSITIVITIES NTR IS THE PREFERRED APPROACH

TAG APPROVAL DATE: 4/25/90.
ADEC ART WERNER [signature]
EXXON ANDY [signature]
NOAA JOSEPH [signature]
USCG KENNETH [signature]
FOSC: [signature] DATE: 5-2-90

OG R. Bride

SEGMENT ST/ CR-2

SUBDIVISION B

DATE 4 / 6 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 △ Pit - No Subsurface Oil

2 ▲ Pit - Subsurface Oil

CT/C Continuous Distribution

CT/B Broken Distribution

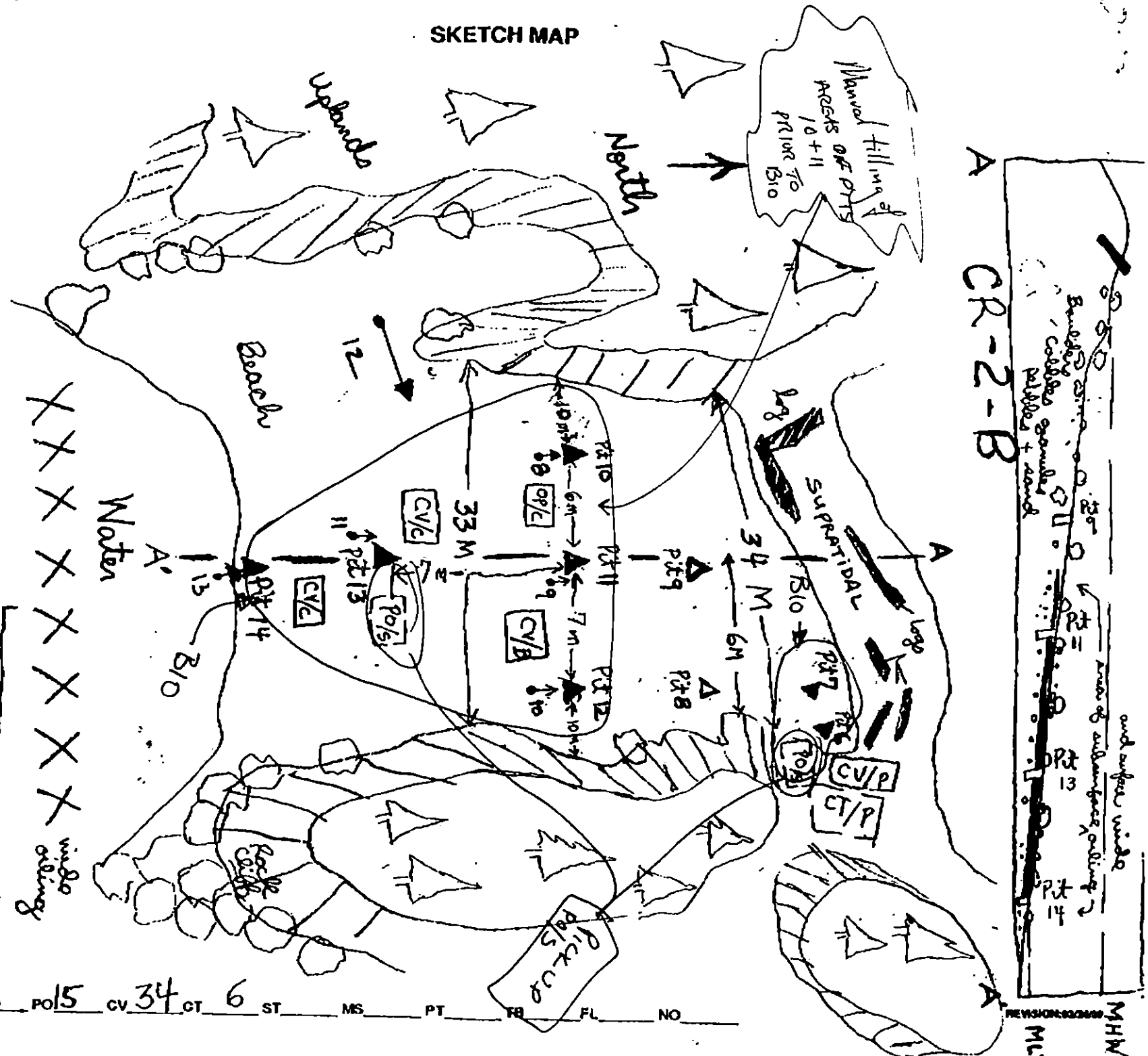
CT/P Patchy Distribution

CT/S Splashed Distribution

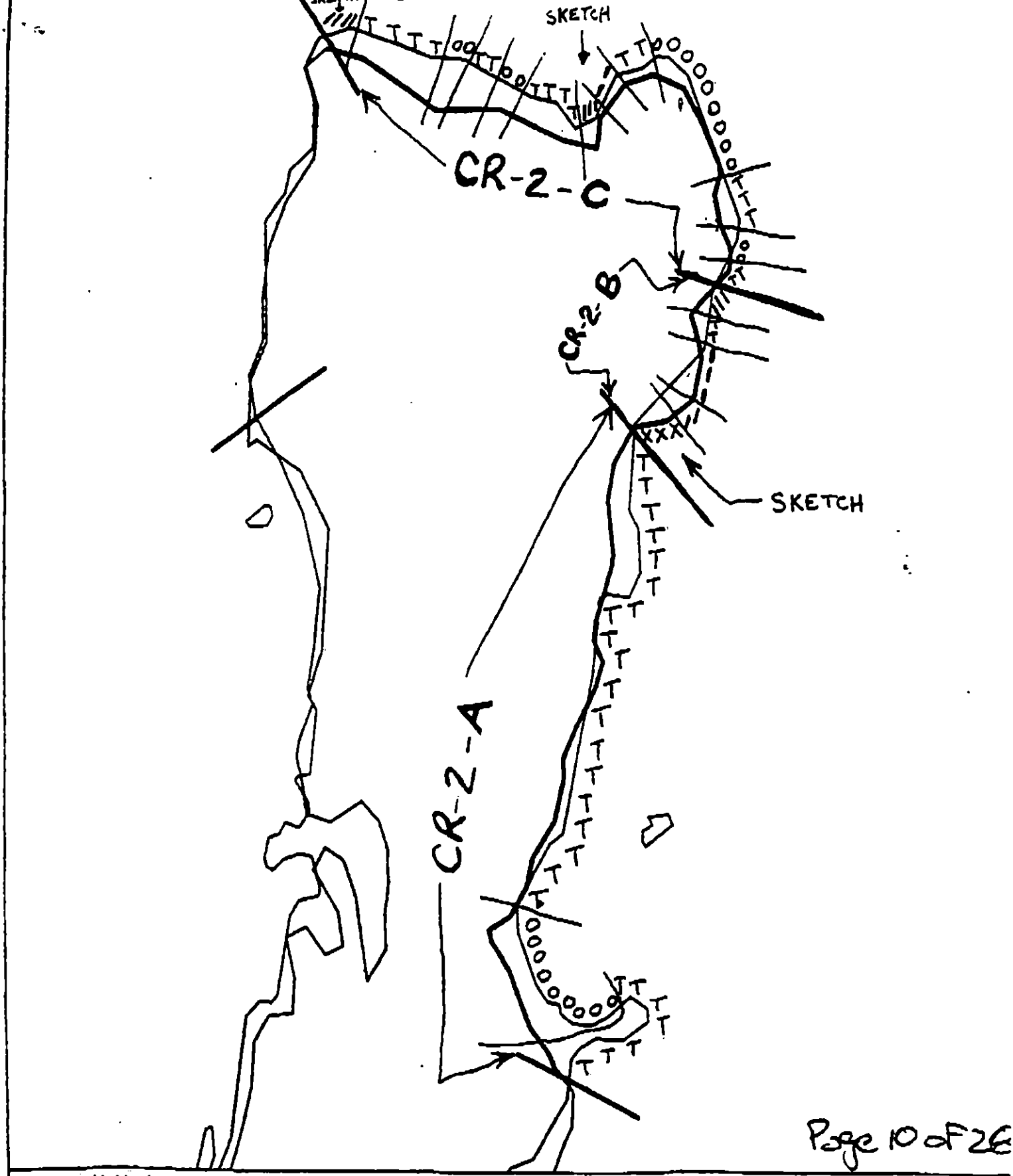
Oiled Vegetation

1 ⊕→ Photo location, direction, and number

SKETCH MAP



Oil Character Length (m): AP 1 PO 15 CV 34 CT 6 ST ____ MS ____ PT ____ FB ____ FL ____ NO ____



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

CR-2

ADEC Segment Length: 1782m

0 100 200 300
Meters

Map Key: PWS-630
Name: Randy McBride
Date: 4/6/90
Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ CR-02 SUBDIVISION A (1 OF 3) DATE 4/5/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1E Main Bay Hatchery release (4/20 to 5/10)
3N,3P Harbor seal and sea lion pupping (5/15 to 7/1)
3O,3Q Harbor seal and sea lion molting (8/15 to 9/15)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: [signature] DATE: 4/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 634 m: No Oil 185 m
Subsurface Oil Observed: Yes____ No X Maximum Depth_____

RECOMMENDATIONS:

X No Treatment Recommended
____ Treatment Recommended
____ Manual Pickup
____ Bioremediation
____ Tarmat: ____ Breakup
____ Removal

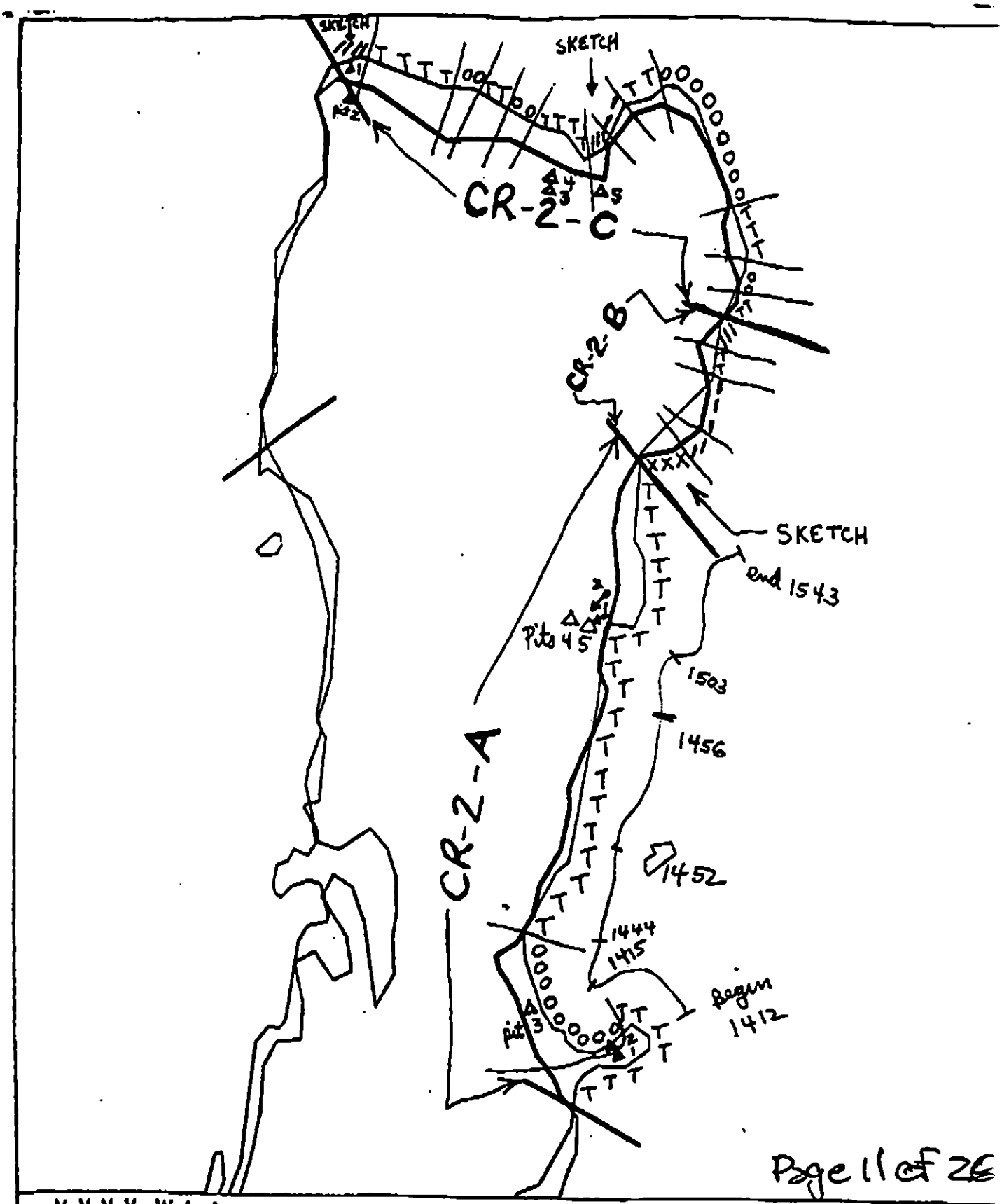
____ Snare/Absorbent Booms
____ Oil Snares (pom poms)
____ Absorbents (pads,rolls,etc)
____ Spot Washing: ____ Wands
____ Beach Cleaner
____ Other (see comments)

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/25/90.
ADEC Art Weiner [signature]
EXXON Army Tsai [signature]
NOAA Joseph C Talbott [signature]
USCG Kenneth Keane [signature]

FOSC: [signature] DATE: 5-3-90



Page 11 of 26

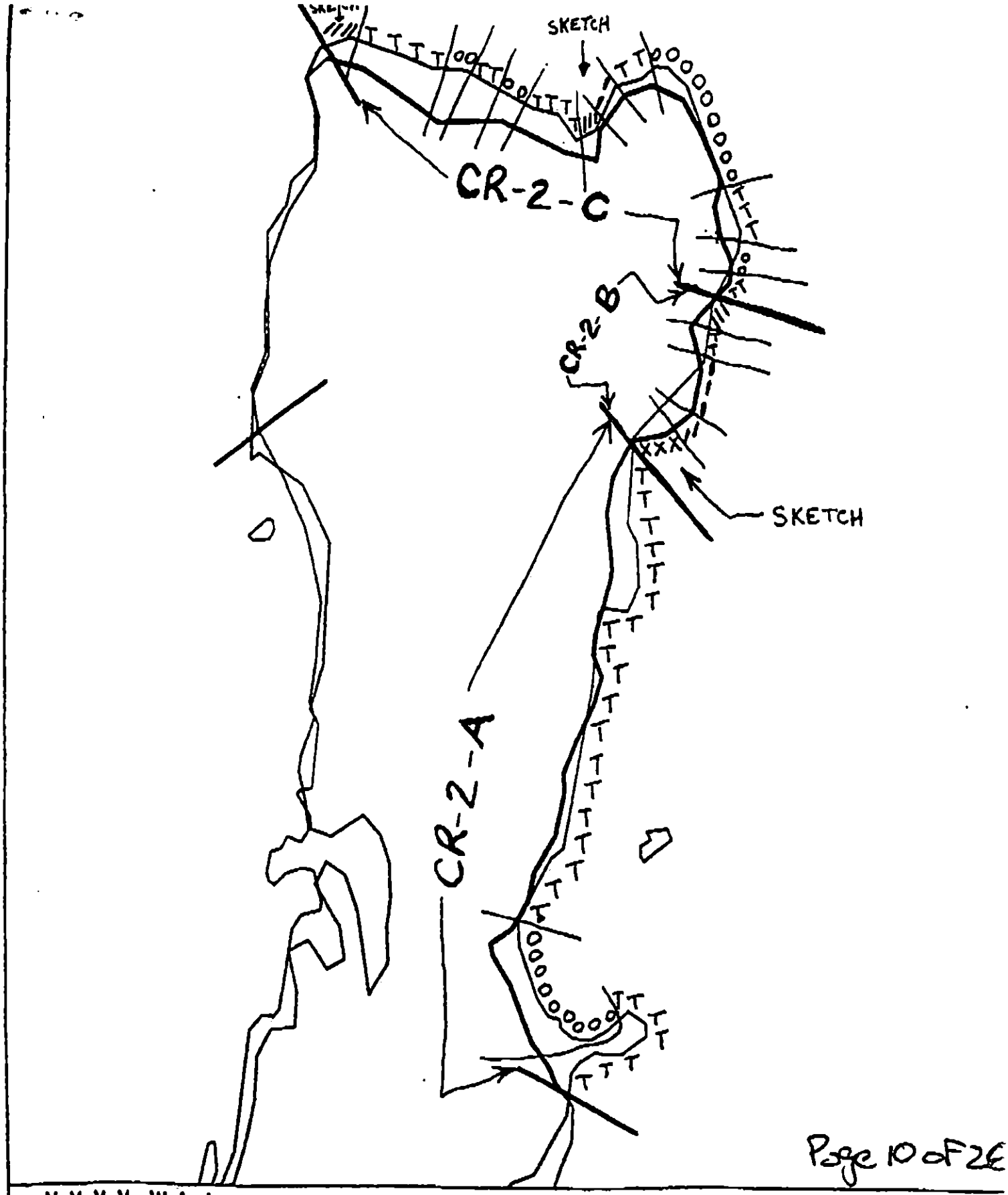
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
OOOO No Oil

CR-2

ADEC Segment Length: 1782m

0 100 200 300
METERS

Map Key: PWS-63a
Name: Randy McBride
Date: 4/6/90
Date Entered:



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

CR-2

ADEC Segment Length: 1782m

0 100 200 300
Metres

Map Key: PWS-63a
Name: Randy McBride
Date: 4/6/90
Date Entered:

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/CR-03

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

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

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1E Main Bay Hatchery release (4/20 to 5/10)
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)
5T All bald eagle nests (3/1 to 6/1)-Active eagle nest (3/1 to 9/1)
6Y Recreation: Special use destination

See attached Ecological Constraint Sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Treatment, if required, should be completed prior to 5/15 or between 7/1 and 8/15 unless otherwise approved by ADF&G and/or USFWS.

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 742 m: No Oil 101 m
Subsurface Oil Observed: Yes____ No X Maximum Depth_____

RECOMMENDATIONS:

X No Treatment Recommended
_____Treatment Recommended
_____Manual Pickup
_____Bioremediation
_____Tarmat: _____Breakup
_____Removal

_____Snare/Absorbent Booms
_____Oil Snares (pom poms)
_____Absorbents (pads,rolls,etc)
_____Spot Washing:_____Wands
_____ Beach Cleaner
_____Other (see comments)

COMMENTS:

TAG COMMENTS:

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

SHORELINE OILING SUMMARY

REVISION NO. 08/22/90

OG Randy McBride [redacted] NOAA: Gary Ott SEGMENT ST/ CR-3
BIO Lewis Sharman LAND REP USFS: Don Breitinger SUBDIVISION A
EXXON Leonard Herbst ADEC Mike Ebel TIME 19:00 to 20:11
TEAM NO.: 12 TIDE LEVEL: 3.9' to 5.95' DATE 4 / 4 / 90
EST. SUBDIVISION LENGTH: 817 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: South to North
SURFACE SEDIMENTS: R 30% B 15% C 35% P 10% G 5% S 5% M ___% V ___%
SLOPE: Lang 5% Hang 55% Vert 40% WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
OIL CATEGORY LENGTH: W ___m M ___m N ___m VL 685 m NO 132 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	/C	/B	/P	/S	BR	RW	OT	TL	LAM	SU	UI	MI	LI
ASPHALT PAVEMENT													
POOLED													
COVER		X						X			X		
COAT			O	X				X			X	O	
STAIN				X		X					X		
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL										X			X

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

PATTIES / TARBALLS ___ BAGS

NEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED ☐ YES ☒ NO

TYPE ___

#BAGS ___

Photographs:

Roll No. ST-12-3

Frames 35-36

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				ANA	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO	(CM-CM)	UO	UC	BR	RW	OT	TL	LAM	SU	UI	MI	LI		
1	35					X	—·—		X							X				S
2	30					X	—·—		X							X				P, S
3	17					X	—·—		X								X			C, P, G, S
4	50					X	—·—		X							X				C, P, S
5	34					X	—·—		X							X				C, P, G

Randy McBride · Oil Geomorphologist

COMMENTS CR-3-A is dominated by very light oiling (oil marks at MHW w/ pine needles) or no oiling. The oil marks are located predominately along the upper intertidal zone and are characterized by a dark brown coat (<1mm thick) that are patchy (10-49%) or sporadic (<10%) in distributio Due to the combination of very light oiling and high wave exposure fr Knight Island passage, no cleanup is recommended. No subsurface oil found.

 REVIEWED ___ DATE 4/7/90

22 of 27

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / CR-3 SUBDIVISION: A (ENTIRE SEGMENT) DATE 4/4/90

USCG
NAME GARY OTT SIGNATURE [signature]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

ADEC
NAME MICHAEL J. EBEL SIGNATURE [signature]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

CR-3-A: This segment had patches, splashes and stains near the high water mark in the MTZ. This intermittent oiling was mostl < 1 mm thick and degraded to a dark brown coat. With the high exposure to this shoreline no treatment is recomm

LAND MANAGER – U.S.D.A. FOREST SERVICE
NAME DON J. BREITINGER SIGNATURE [signature] 4/4/90

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

REVISION NO. 03/21/90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / CR-3 Subdivision A Date (mo / day / yr) 4/4/90

Time (24 hr) 1855-2010 Biologist SHARMAN

(A) Substrate type and % of ~~segment~~ SUBDIV.
(1) Bedrock 30 (2) Boulder 15 (3) Cobble 35 (4) Pebble 10 (5) Sand + granules 10 (6) Silt ____

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

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

Photographs:
Roll No. 57-12-3
Frames 35, 36

BARNACLES

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

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

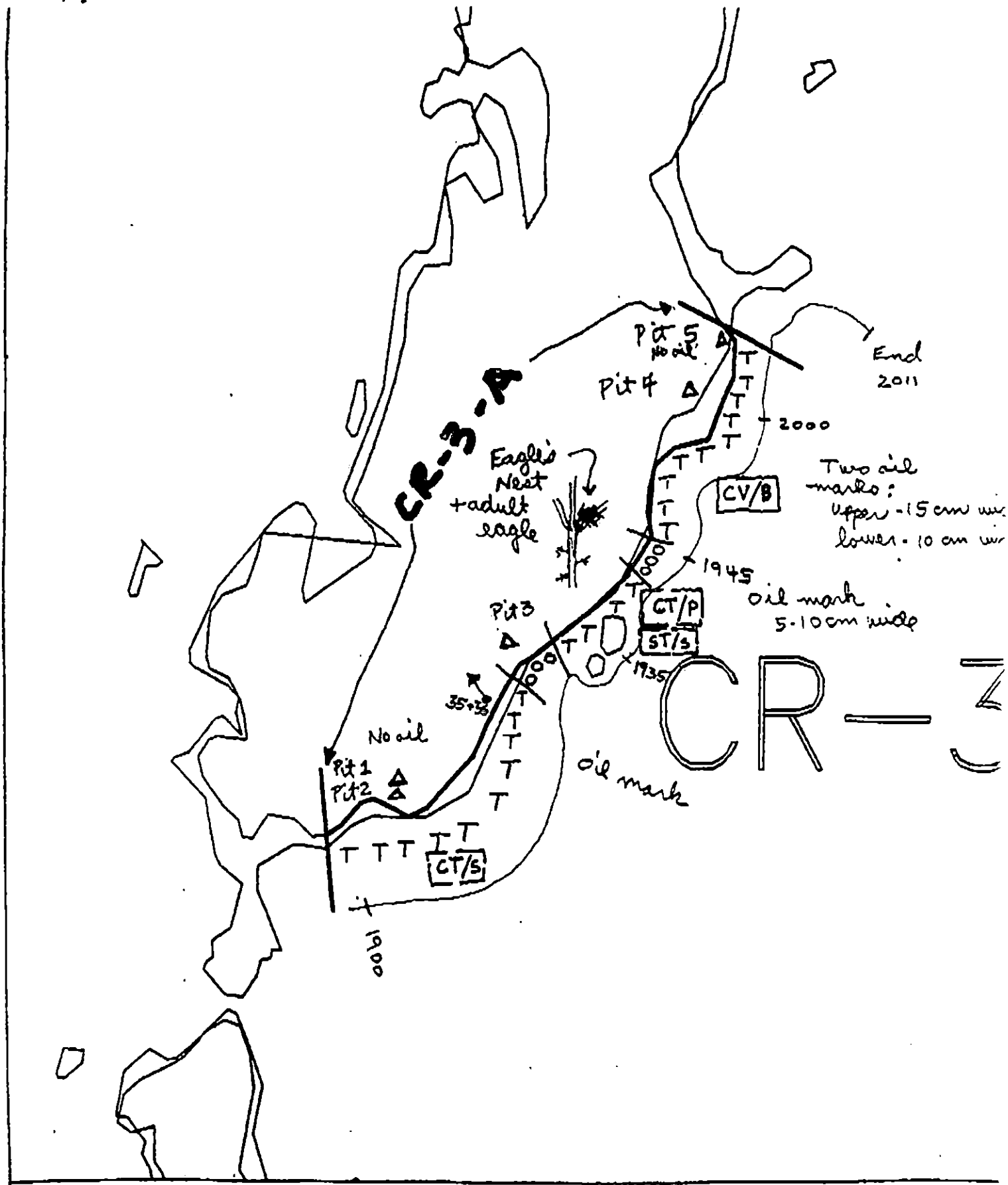
NOT PRESENT

Wildlife Observations/ General Comments: 1 sea otter, 1 pair harlequin ducks, 1 adult eagle. Fuel drift from yesterday's storm, washed. Did not observe LTE! Thin tar band 20cm wide on vertical bedrock walls in UTZ - approx. 50% barnacle mortality vs. 20% mortality outside of band. No settlement (post-spill) within tar band. Otherwise, apparently normal & healthy intertidal community.

Ecological Considerations:
The Priorities and Windows table assigns an environmental priority of 1 to this segment, primarily because of the area's use as a Main Bay Hatchery release site (code 1E, constraint 1,2) + probably mostly because of its importance to pinniped pupping and molting (codes 3N, P, O, Q ; constraint 5). For seal, a treatment priority of 1 is indicated. This segment is very similar to CR-4 in that the exposed bedrock points and the nearshore inlets offer excellent habitat for seal/sea lion pupping and molting. These activities are extremely susceptible to disruption by human disturbance.

PWS ECOLOGICAL CONSTRAINTS

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



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

CR-3

ADEC Segment Length: 843m

0 100 200 300
METERS

Map Key: PWS-64
Name: Randy McBr
Date: 4/4/90
Date Entered:

1991 MAYSAP EVALUATION

SEGMENT: CU 003 **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.

TEAM NO. 1 SEGMENT CU 3 SUBDIVISION A DATE 5/21/91

ADEC
NAME JEFF GINKUS SIGNATURE [signature]

☒ NTR No remaining recoverable oil present. At impact area of beach (OG map sites A1, A3), Mayo crew removed surface patches of mousse ~~[illegible]~~ trapped in boulder crevices and dried surface asphalt. No further treatment necessary. Impact area relatively small (2x10, broken). A bit of coat on bedrock.

EXXON
NAME LARRY D OLSON SIGNATURE [signature]

☒ NTR No retrievable oiling remains.

LANDMANAGER
NAME MARSHA HALL OF DNR SIGNATURE [signature]

☒ NTR Remaining oil at site would require hot water wash and there is not enough to justify that type treatment. Thicker patches of oil were scraped and removed leaving a greasy coat. Sunny and hot.

USCG/NOAA
NAME SCHULTZ / CHILDS SIGNATURE [signature]

☒ NTR No recoverable oil remains

Steeply dipping bedrock shore w/ large crevices along bedrock joints. Crevices follow joint weakness lines. Small island is extension of larger island w/ "washover" connecting. MS/T & asphalt patches on "washover" at hi-pu by team.

MAYSAP SHORELINE OILING SUMMARY

TEAM NO. 1

OG G. MACDONALD BIO M. FAWCETT SEGMENT CU-3

ADEC J. GINAZIAS LANDMANAGER M HALL for DNR SUBDIVISION A

EXXON L. OLSON USCG/NOAA SCHULTZ / CHILDS DATE 5 / 21 / 91

TIME 11 : 40 to 12 : 10 TIDE LEVEL ____ ft. to ____ ft. ENERGY LEVEL: ☐ H ☐ M ☒ L

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

TOTAL LENGTH SHORELINE SURVEYED: 430 m NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONE

EST. OIL CATEGORY LENGTH: W — m M — m N — m VL 20 m NO 410 m US — m

LOC	SURFACE OIL CHARACTER										SURFACE SEDIMENT TYPE	SHORE SLOPE	AREA		ZONE				NOTES
	AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO		V H M L	WIDTH m	LENGTH m	S	UI	MI	LI	
A1		T									R	L	2	5		X			
A2						T					CBR	M	<1	20		X			
A3			T								CB	L	2	10		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 FRAMES 3~4

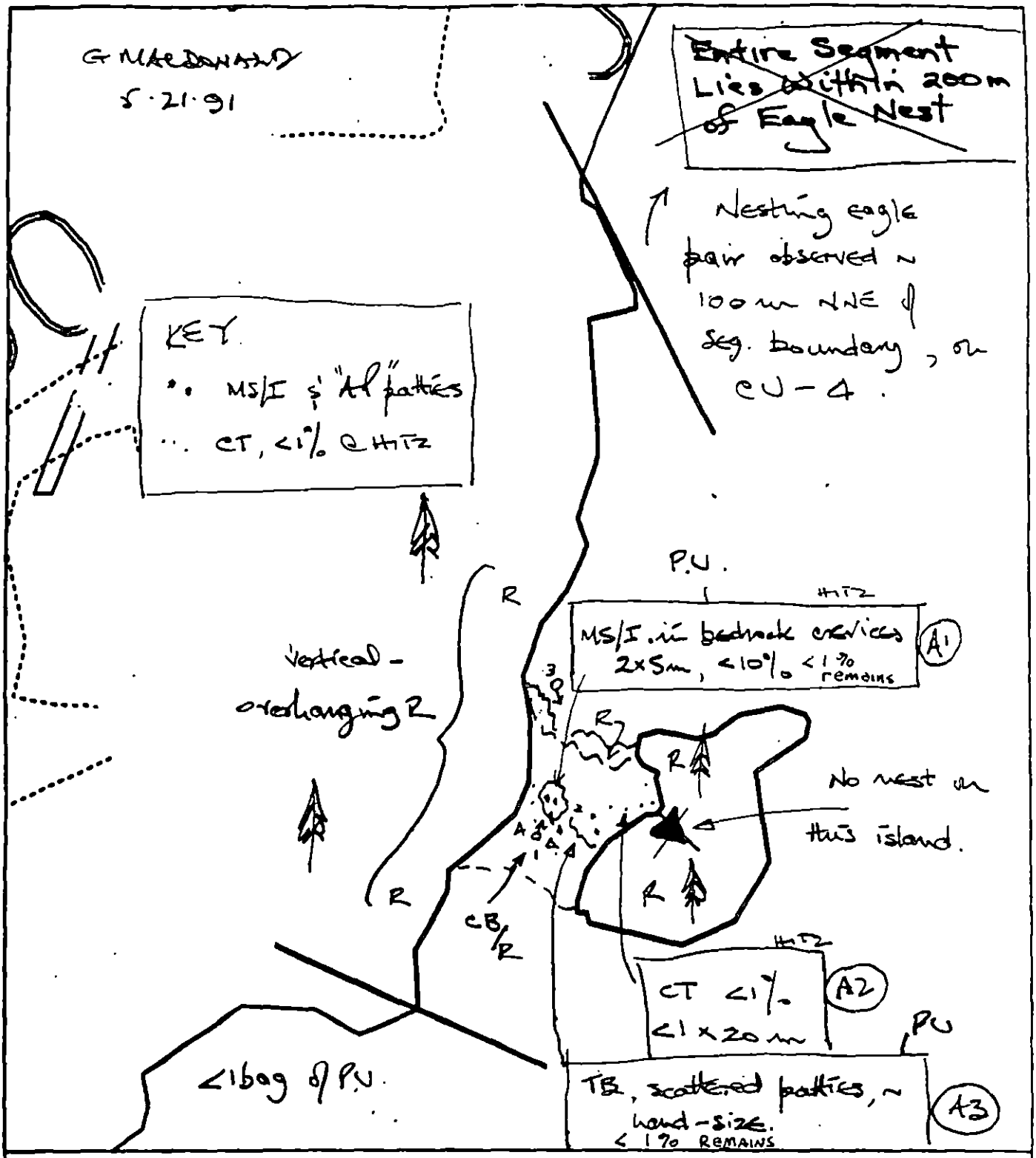
PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO					S	UI	MI	LI		
1	20							x	-		—			x			R - CPG	

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

OG COMMENTS: CB over bedrock bench which connects R islet to Cubose Island. Surface oil only, as scattered asphalt patties, MS/I in bedrock crevices and trace CT on R walls and across bench — all @ HTZ. A trace of ~~these~~ remains following P.U. activities.

The active eagle nest plotted here is actually on CU-4.

REVIEWED: F.W. 5/23/91



CU003

Segment Reference Map

Map Key: PUSCU003

METERS

0 50 100

UE State Plane Zone 4 (NAD83)

EAGLE NEST

REVIEWED: F.W. 5/23/91

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM #	1	DATE	5/21/91
SEGMENT #	CU 003	TIDAL HEIGHT(Range)	+3.5 to +4.5 ft MLLW
SUBDIVISION	A	BIOLOGIST	Michael Fawcett
SEA STATE	1/2 ft	WIND SPEED/DIRECTION	calm
PHOTOGRAPHS: ROLL #		FRAME #	

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

The residual oil in this subdivision was in a small BR/B/C intertidal neck connecting an islet to the main shore of Culross Island. USFWS rep. Doug Stine accompanied the survey team because an active eagle nest was reported to be at the islet (this was incorrect; an active nest was located by Doug in CU 004, about 300 m north of the islet in CU 003). Some mousse and tarballs were recovered from the high intertidal zone on the neck, among cobble, pebbles, and splintery bedrock. The oiled sediments were at about +9 ft MLLW, and were among or near sparse barnacles, limpets and young rockweed, with dense barnacles, mussels, rockweed and other organisms downshore. A small area of residual oil coat and cover occurred in a protected crevice behind the islet; no biota nearby.

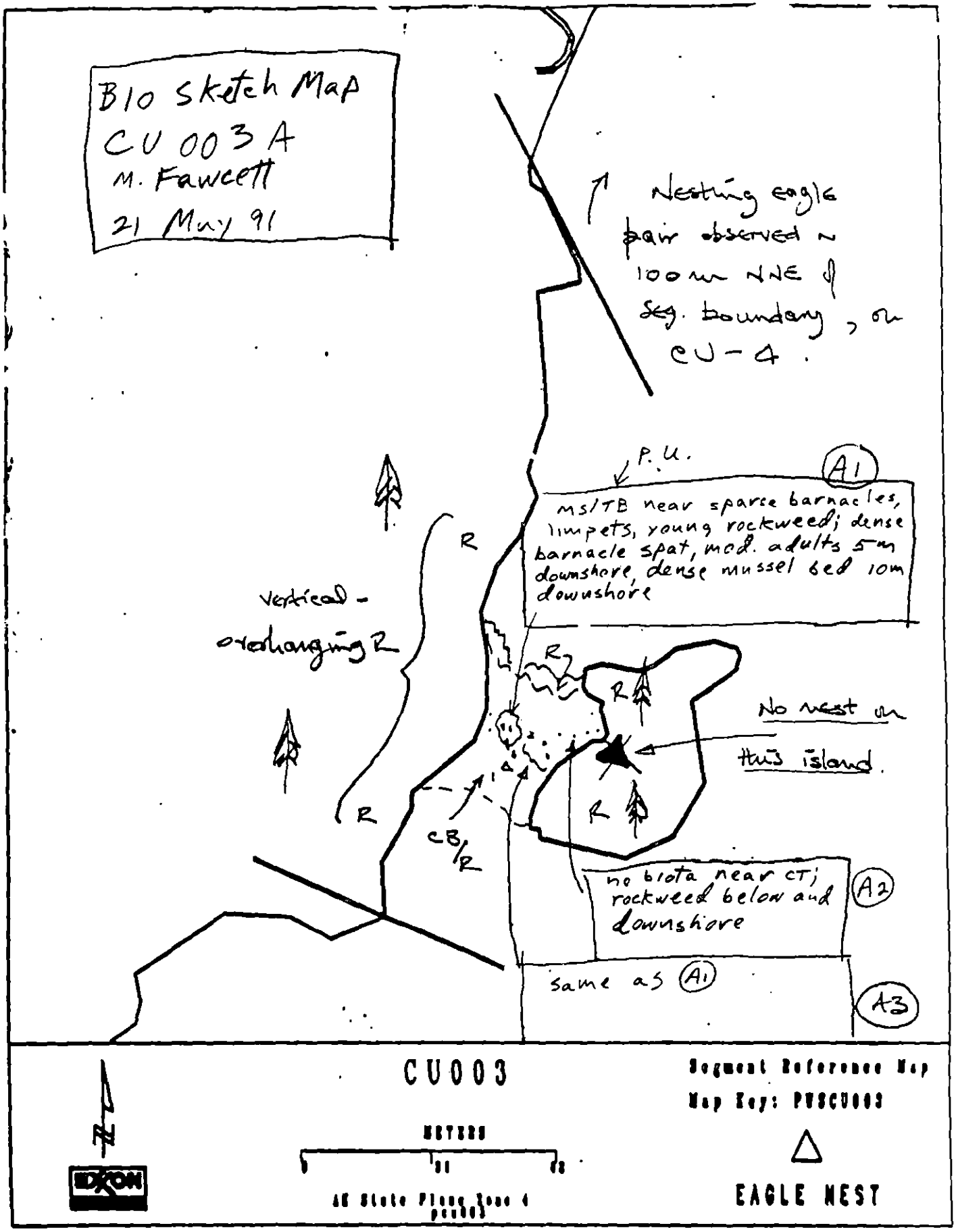
WILDLIFE OBSERVATIONS
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	2	tidepool sculpin
Seabirds			black prickleback
Waterfowl	1 (goldeneye sp.)	2	
Gulls/Kittiwakes			
Shorebirds			
Corvids	1 (crow)	1	
Other Birds			

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

Shoreline subdivision map showing important biological features attached.

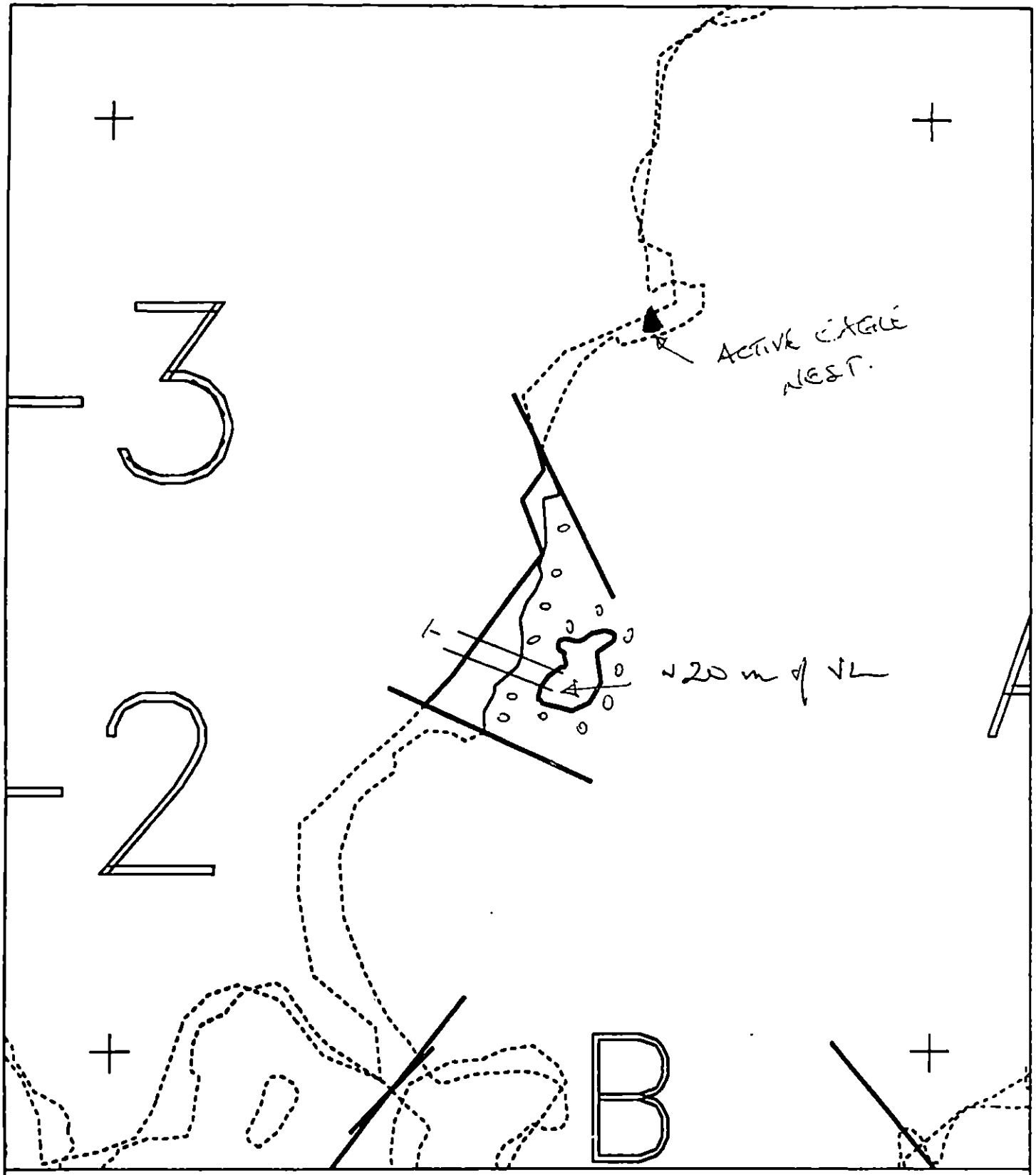
Rec'd 5/23/91 DM


Bio Sketch Map
CU 003 A
M. Fawcett
21 May 91
Nesting eagle pair observed ~ 100 m NNE of seg. boundary, on CU-4.
P.U.
A1
MS/TB near sparce barnacles, limpets, young rockweed; dense barnacle spat, mod. adults 5 m downshore, dense mussel bed 10m downshore
R
vertical - overhanging R
R
R
R
R
No nest on this island.
CB/R
no biota near CT; rockweed below and downshore
A2
same as A1
A3
CU003
Segment Reference Map
Map Key: PWSCU003
METERS
AK State Plane Zone 4
EAGLE NEST
EXXON

5

CU003A 5/21/91 Fancett
arr we 1140 w/ doug stine
- no nest at CU3 - prob only
mislocated, as there is a pair
300m north on another little
peninsula - idet
- 2 adults circling ~~[illegible]~~
uphill a ways
- CT/CV UTZ-SUTZ
in crevice behind bit - no
biota, Fucus below to downshore
- CT/CV on low BR poking
up through P/C at + 9 ft
sparse barn, limp nearby,
some young Fucus on BR
- dense spat mod barn
begins 5 ft downshore, dense
mussel bed 10m downshore
LTZ has outcrops rising to +8 ft
w/ dense barn, mussels, Fucus
- sparse Rhodo, Sc to: spat
all over
- 2 Goldeneye, 1 crow
- Leptasterias, hermits, old
N. scutum, Sculpins, Cladophora
in MTZ pools among B/R

Lit. eggs under MTZ rocks
also small mya shaped clam (
Finish 1210



XXXX	Wide	CU003 A	Subdivision Field Map
////	Medium	ADEC Subsegment Length: 427m	Map Key: PWSCU003A
----	Narrow	METERS	Name: GM
TTTT	Very Light	0 100 200	Date: 5.21.91
0000	No Oil	AK State Plane Zone 4 pcu003a	Date Entered:

REVIEWED: F.W. 5/23/91

SHORELINE EVALUATION

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

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1E Main Bay Hatchery release (4/20 to 5/10)
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)
5T All bald eagle nests (3/1 to 6/1)-Active eagle nest (3/1 to 9/1)
6Y Recreation: Special use destination

See attached Ecological Constraint Sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Treatment, if required, should be completed prior to 5/15 or between 7/1 and 8/15 unless otherwise approved by ADF&G and/or USFWS.

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Charles E Holmes DATE: 4/17/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 742 m: No Oil 101 m
Subsurface Oil Observed: Yes ____ No X Maximum Depth ____

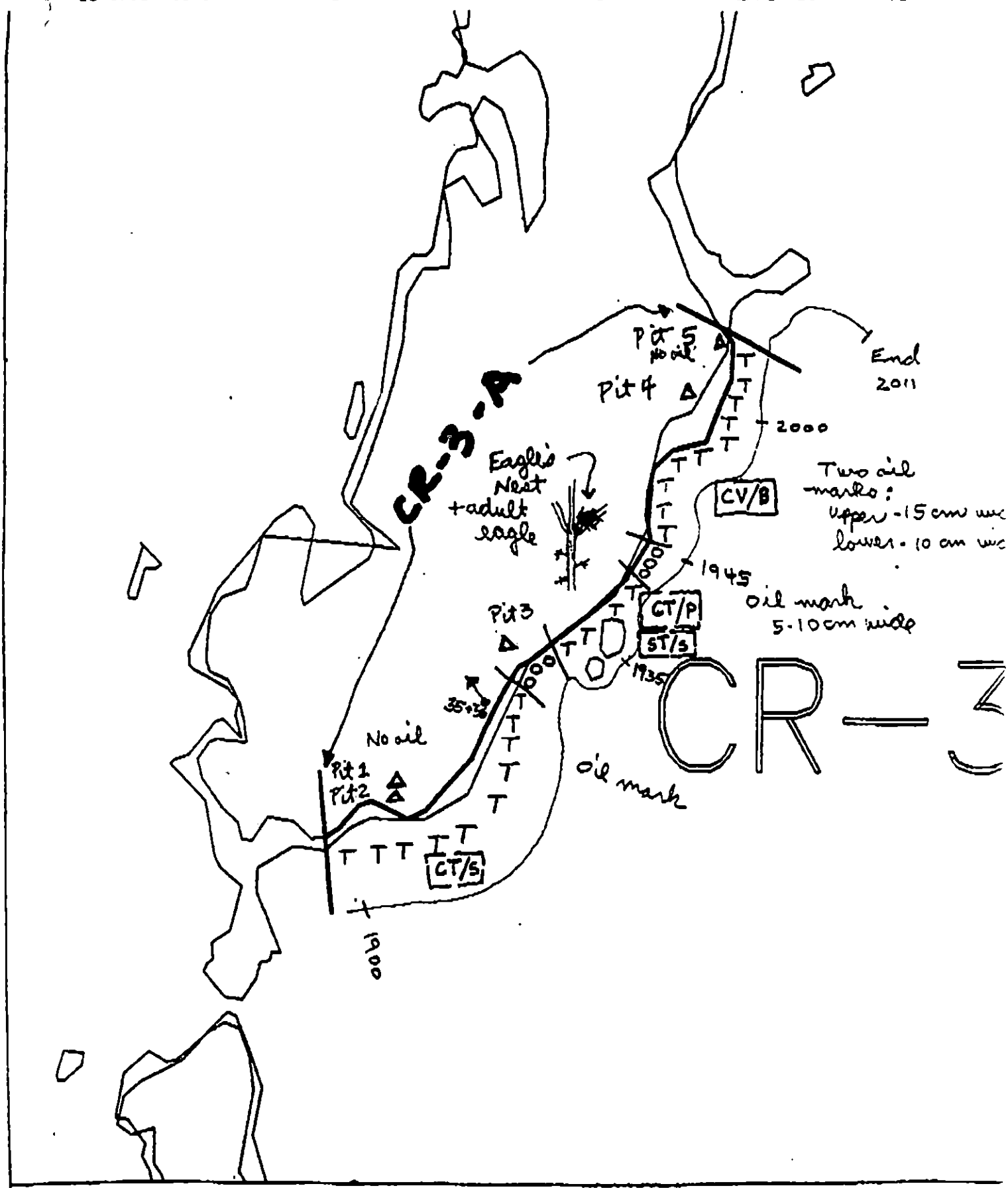
RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/17/90.
ADEC ART Weiner Art Weiner
EXXON TIMOTHY TEAL
NOAA Burl Wescott Burl Wescott
USCG KENNETH KEANE Kenneth Keane
FOSC: DATE: 4-22-90



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

CR-3

ADEC Segment Length: 843m

0 100 200 300
METERS

Map Key: PWS-64
Name: Randy McBride
Date: 4/4/90
Date Entered:

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/CR-04

SUBDIVISIONS: A (1 OF 3)

SHORELINE EVALUATION

SEGMENT ST/ CR-04 SUBDIVISION A (1 OF 3) DATE 4/4/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1E Main Bay Hatchery release (4/20 to 5/10)
1L Set net sites (6/11 to 7/25)
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)
6U Recreation: Tent sites (6/1 to 9/15)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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 1095 m: No Oil 0 m
Subsurface Oil Observed: Yes____ No X Maximum Depth_____

RECOMMENDATIONS:

X No Treatment Recommended
_____Treatment Recommended
_____Manual Pickup
_____Bioremediation
_____Tarmat: _____Breakup
_____Removal

_____Snare/Absorbent Booms
_____Oil Snares (pom poms)
_____Absorbents (pads,rolls,etc)
_____Spot Washing:_____Wands
_____ Beach Cleaner
_____Other (see comments)

COMMENTS: _____

TAG COMMENTS:_____

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

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / CR-4 SUBDIVISION: A (B & C SEPARATE) DATE 4/4/90

USCG
NAME GARY OTT SIGNATURE [signature]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

ADEC
NAME MICHAEL J. EBEL SIGNATURE [signature]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

CR-4-A

A discontinuous coat located in the UTZ of this highly exposed shoreline was found to be < 1mm in 95% of the subdivision where the contamination existed. Very occasional spots were found with weathered brown tar in cracks and interstices some > 1cm; most ≤ 3mm. The shoreline is being well washed.

LAND MANAGER - U.S.D.A. FOREST SERVICE
NAME DON J. BREITINGER SIGNATURE [signature] 4/4/

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

REVISION NO. 03/21/90

SHORELINE OILING SUMMARY

REVISION NO. 08/23/90

OG Randy McBride NOAA Gary Ott SEGMENT ST/ CR-4
BIO Lewis Sherman LAND REP U.S. F.S. Don Breitinger SUBDIVISION A
EXXON Leonard Herbst ADEC Michael Ebel TIME 15:17 to 17:40
TEAM NO.: 12 TIDE LEVEL: 2' to 1.8' DATE 4/14/90
EST. SUBDIVISION LENGTH: 973 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☒ Snow 1/2°C
UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: South to North
SURFACE SEDIMENTS: R 35 % B 10 % C 30 % P 10 % G 10 % S 5 % M ___ % V ___ %
SLOPE: Lang 20 % Hang 50 % Vert 30 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
OIL CATEGORY LENGTH: W ___ m M ___ m N ___ m VL 973 m NO ___ m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	PC	PB	PP	PS						SU	UI	MI	LI
ASPHALT PAVEMENT													
POOLED				X					X			X	
COVER				X				X			X		
COAT		○X	◇	+●		X		○● +◇		◇	○X	+	●
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM				X		X					X		
NO OIL													

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

OILED DEBRIS	AMOUNT SM	MD	LG
Logs			
Vegetation			
Trash	X		
Debris			

DEBRIS COLLECTED ☒ YES ☐ NO
TYPE Absorbent boom
#BAGS ___

Photographs:
Roll No. ST-12-3
Frames 16-27

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm-cm)	BELOW		OIL / FILM COLOR					PIT ZONE				ANA	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC						SU	UI	MI	LI		
4	52					X	— · —		X							X				P, G, S
1	45					X	— · —		X							X				P, G, S
2	40					X	— · —		X								X			G, S
3	30					X	— · —		X								X	/		G, S
5	45					X	— · —		X							X				C, R, G, S
6	46					X	— · —		X						X					C, P

COMMENTS

CR-4-A ~~was~~ is dominated by oil marks located along the upper intertidal zone. The oil marks are characterized by a coat (<1mm thick) which have ~~bk~~ broken, patchy, and sporadic distributions. Overall, CR-4-A is exposed to high wave energy as a result of the amount of fetch across Knight Island passage. (continued on next page).

 REVIEWED DIC DATE 4/18/90

SHORELINE OILING SUMMARY (PAGE 2 of 2)

REVISION 03/22/90

SEGMENT ST/ CR-4 SUBDIVISION A

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO	(CM-CM)	UO	UC	DBR/BR	DBR/RB	DBY/Y	DBR/TN	LBR	SU	UI	MI	LI		
7	25					X	— · —		X								X			C, P, G, S
8	35					X	·		X							X				G, S
							·													
							·													
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							·													
							·													
							·													

COMMENTS

Therefore, waves will continually wash this segment through the year.

Randy McBride
oil geomorphologist

REVIEWED 21/25 DATE

OG Ranc[redacted] McBride

SEGMENT ST/ CR-4

SUBDIVISION A

DATE 4/4/90

CHECKLIST

- ✓ N Arrow
- ✓ Approx. Scale
- ✓ Seg/Sub Bndry
- ✓ Oil Dist.
  - Width
  - Length
  - % Cover
- ✓ Substrate Character
- ✓ Est. HWL/LWL
- ✓ SSI
- ✓ 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

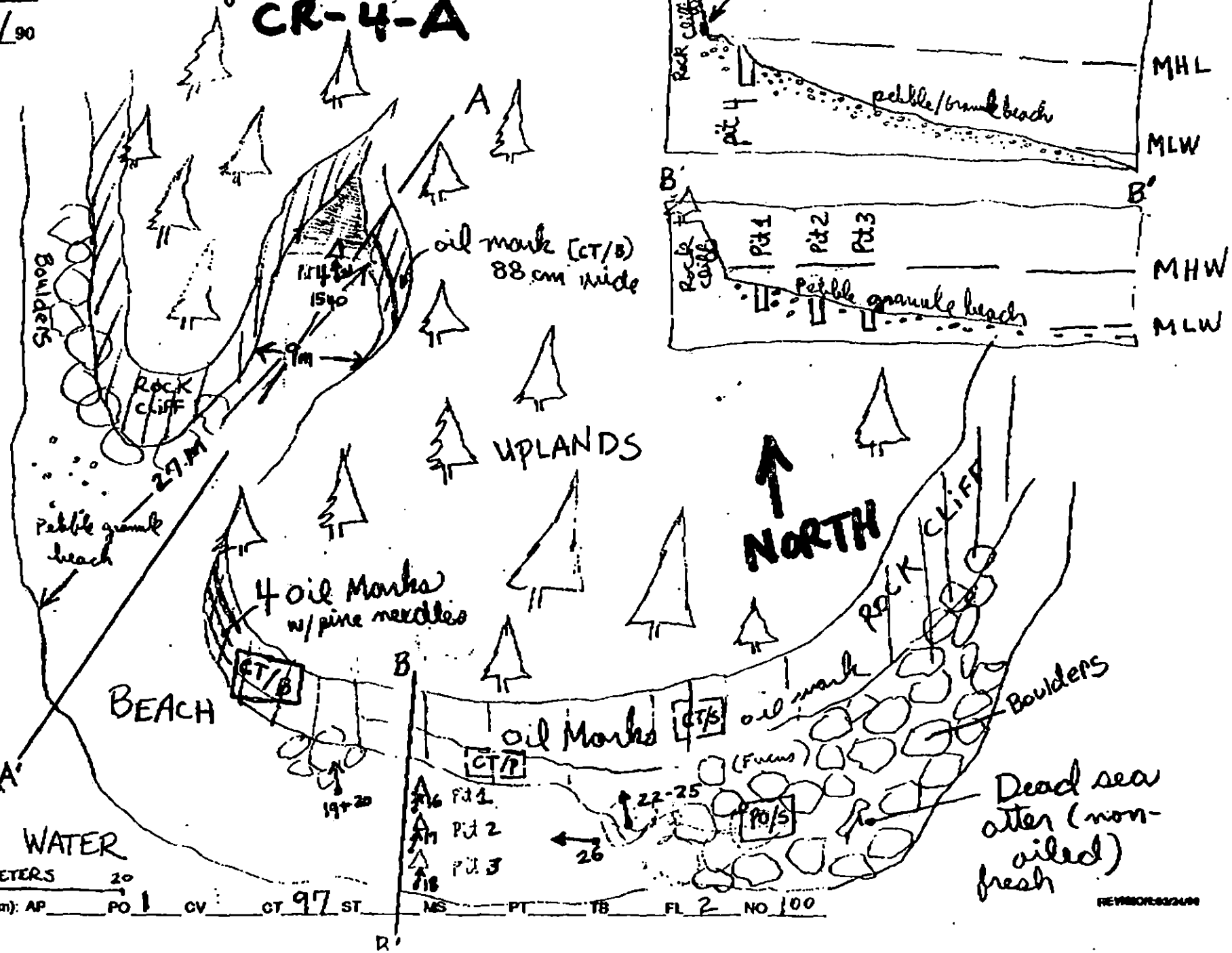
CT/S Splashed Distribution

Oiled Vegetation

1 Photo location, direction, and number

Southwest end of Grafton Island

CR-4-A



Oil Character Length (m): AP ____ PO 1 CV ____ CT 97 ST ____ MS ____ PT ____ TB ____ FL 2 NO 100

REVISION 03/24/90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / [redacted] CR-4 Subdivision A Date (mo / day / yr) 4/4/90

Time (24 hr) 1515-1740 Biologist SHARMAN

(A) Substrate type and % of ~~segments~~ SUBDIV.:
(1) Bedrock 35 (2) Boulder 10 (3) Cobble 30 (4) Pebble 10 (5) Sand + granules 15 (6) Silt ____

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

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

Photographs:
Roll No. ST-12-3
Frames 16-27

BARNACLES

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

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

NOT PRESENT

GASTROPODS (NACELLA, LITTORINA, LIMPETS)

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

NOT PRESENT

FUCUS

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

NOT PRESENT

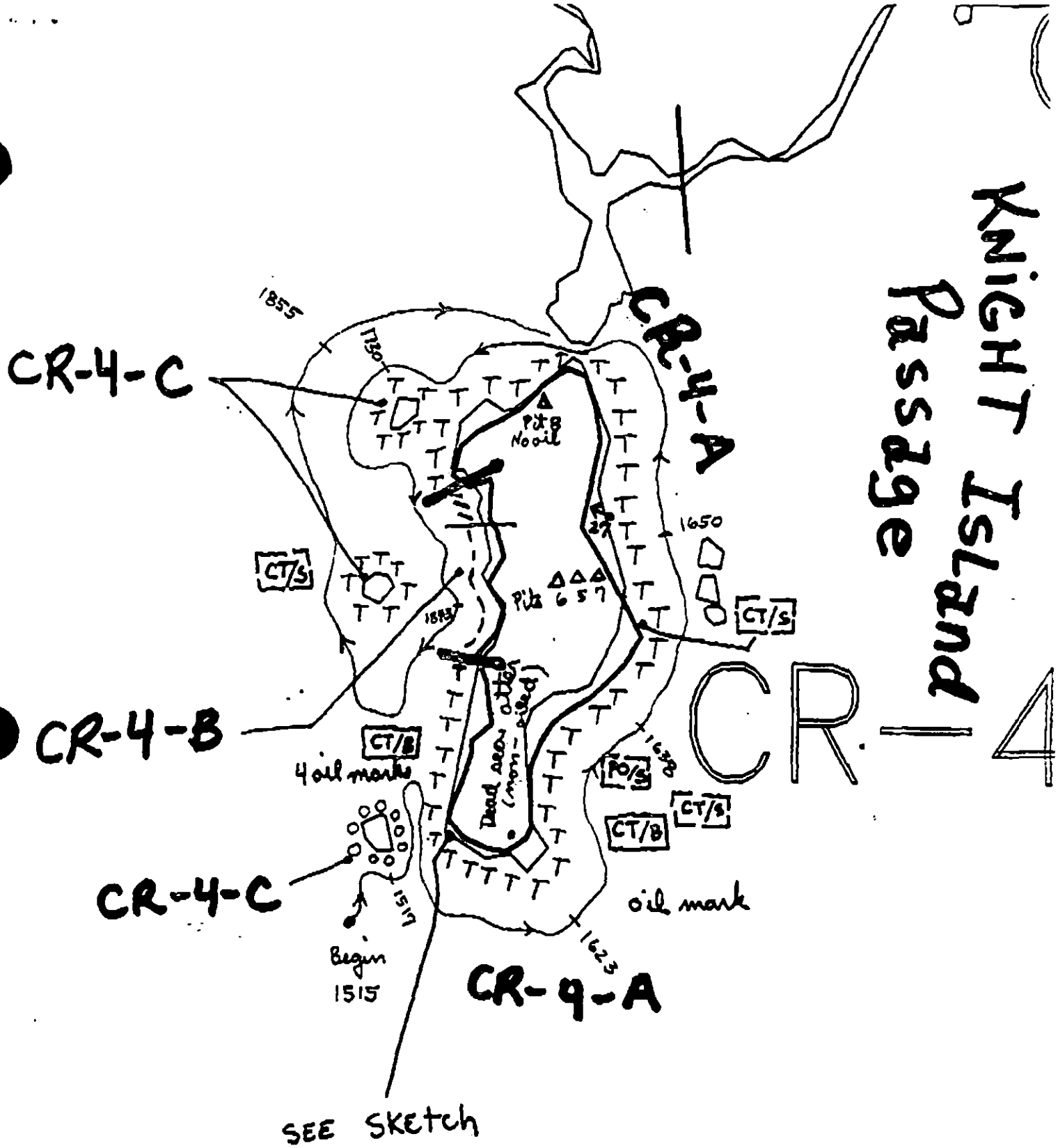
Wildlife Observations/ General Comments: 2 cormorants, 4 pairs harlequin ducks, 1 glaucous-winged gull, 1 pair adult eagles. Rocks at the S. end support a very productive intertidal community, with locally dense barnacle and mussel patches. In the LTZ of the surveyed beach portion, mussels are holding the surface pebble layer together. There is a UTZ weathered tar band on the rock walls. I have yet to see past spill bitumen spot settled on any tarred surfaces. There are patches of previously-oiled Fucus within this band, most of which is not as healthy as other Fucus nearby, but much of which seems to be recovering (growing). See photos.

Ecological Considerations: The Priorities and Windows table assigns this segment an environmentally ranked priority of 1, due to the area's use as a Main Bay Hatchery release site (code 1E) and for pinniped pupping and molting activities (Codes 3N, O, P, Q). Constraints range from 1-5, with treatment priorities 1-2. The rocky islets and points surrounding the "big island" of this segment are clearly of great value to pinnipeds for pupping + molting — this area must be protected from shoreline-treatment-type human intrusion during the critical period (essentially mid-May into September). The seals and sea lions have not yet arrived. We saw not a single individual during our 7 hours in the immediate area.

17-F2-I (Page 1 of 2)

CR-4-A 4/4/90 Shoreline Ecological Summary (cont.) Sherman

General Comments (cont.): In general, the intertidal community here appears to be normal and healthy except for areas within the discontinuous tar band at the MHW line. Littorina are avoiding this surface, as are newly settling barnacle spat. Where Fucus extends that high locally, however, impacted plants seem to be largely recovering. We found one dead sea otter in the UTZ among boulders at the S.E. end of the island. No apparent oil, animal was an adult, dead within the past few days, no visible wounds, cause of death unknown. Where bedrock extends into the LTZ (common), there are locally moderate to dense areas of Fucus and Rhodomela in the lower mid-intertidal zone. Tidepools common in LTZ bedrock - no oil sheens, and typical high diversity and productivity (Katharina, Serpula, Halosaccion, algal turf spp., Anthopleura, etc. - several coralline algal spp. including crustose forms such as Lithothamnion as well as branching articulated spp.). Locally in the LTZ, barnacle spat are in moderate densities. Lots of drift from yesterday's storm - varied. One river otter seen in the immediate unpatrolled contained mussel fragments + large amphipod. I saw these beaches last summer, and am impressed with the amount of natural cleaning that has taken place over the winter - particularly on the E. side.



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

CR-4

ADEC Segment Length: 1332m

0 100 200 300
METERS

Map Key: PWS-65
Name: Randy McBride
Date: 4/4/90
Date Entered:

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/CR-04

SUBDIVISIONS: B (2 OF 3)

SHORELINE EVALUATION

SEGMENT ST/ CR-04 SUBDIVISION B (2 OF 3) DATE 4/4/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1E Main Bay Hatchery release (4/20 to 6/10)
1L Set net sites (6/11 to 7/25)
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)
6U Recreation: Tent sites (6/1 to 9/15)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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 76 m: Narrow 162 m: V.Light 0 m: No Oil 0 m
Subsurface Oil Observed: Yes X No____ Maximum Depth 8 cm

RECOMMENDATIONS:

X No Treatment Recommended
____Treatment Recommended
____Manual Pickup
____Bioremediation
____Tarmat: ____Breakup
____Removal

____Snare/Absorbent Booms
____Oil Snares (pom poms)
____Absorbents (pads,rolls,etc)
____Spot Washing:____Wands
____ Beach Cleaner
____Other (see comments)

COMMENTS: _____

TAG COMMENTS: _____

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

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / CR-4 SUBDIVISION: B (A & C SEPARATE) DATE 4/4/90

USCG
NAME GARY OTT SIGNATURE [signature]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

ADEC
NAME MICHAEL J. EBEL SIGNATURE [signature]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

CR-4-B: A small area of asphalt (loose to friable) was found along the North bedrock periphery here. Due to the small area we chopped up the patches and dug out the small subsurface extent. The remainder of the segment had V.L occasional covers, and coats. We viewed a light rainbow sheen in the lower MTZ but no subsurface oil was present (VLSF/m). Overall we performed the manual treatment for this area — nothing further recomm

LAND MANAGER - U.S.D.A. FOREST SERVICE
NAME DON J. BREITINGER SIGNATURE [signature] 4/4/90

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

REVISION NO. 03/21/90

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG RANDY McBRIDE USCG NOAA GARY OTT SEGMENT ST/ CR-4
BIO LEWIS SHARMAN LAND REP USFS DON BRETTINGER SUBDIVISION B
EXXON LEONARD HERST ADEC MIKE EBEL TIME 17:41 to 18:42
TEAM NO.: 12 TIDE LEVEL: +2 to +3.25 DATE 4/4/90
EST. SUBDIVISION LENGTH: 202 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow 42° F
UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: NORTH to SOUTH
SURFACE SEDIMENTS: R 25 % B 15 % C 35 % P 20 % G 5 % S ___ % M ___ % V ___ %
SLOPE: Lang 30 % Hang 45 % Vert 25 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
OIL CATEGORY LENGTH: W ___ m M 65 m N 132 m VL ___ m NO ___ m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	/C	/S	/P	/S	DRK BR	DRK RB	OL +	DRK TL	LIGHT	SU	UI	MI	LI
ASPHALT PAVEMENT			X O	+	DIL			+ O	DIL		+ X	O	
POOLED				X				X			X		
COVER				X				X			X		
COAT			X O	+	DIL			+ X O	DIL		+ X	O	
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM				OX		O		X			X	O	~
NO OIL										X			X

PAVEMENT: H ~~O~~ DIL (S) 15 sq. m by 4 cm

PATTIES / TARBALLS 0 BAGS

NEAR SHORE SHEEN? (NO) BR RW SL TL

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

DEBRIS COLLECTED ☒ YES ☐ NO

TYPE plastic bottle absorbent boom

#BAGS

Photographs:

Roll No. ST-12-3

Frames 28-33

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR					PIT ZONE				ANA	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	DRK BR	DRK RB	OL +	DRK TL	LIGHT	SU	UI	MI	LI		
1	23			X	O		5-8		X				X O			X				BCP
2	25					X	— · —		X							X				BCP
3	33					X	— · —		X							X				GS
4	17					X	— · —		X							X				GS
5	15				X		CANNOT DETERMINE		X				X				X			CPG
							·													

COMMENTS CR-4-B is characterized by a pocket beach w/ lots of jagged bedrock cropping out in the upper intertidal and supratidal zone. The medium oiling is found predominately along the northern portion of the pocket beach. The medium oiling is characterized by asphalt pavement, pooled, cover, and coat oiling that is patchy or splashed in distribution. The area is exposed to low wave energy but we broke up the oiled area using shovels so the oil could be washed by tidal processes.

REVIEWED DIL DATE 4/8/90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

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

Time (24 hr) 1740-1830 Biologist SHARMAN

(A) Substrate type and % of ~~segment~~ SUBDIV.:
(1) Bedrock 25 (2) Boulder 15 (3) Cobble 35 (4) Pebble 20 (5) Sand + granules 5 (6) Silt ____

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

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

Photographs:
Roll No. ST-12-3
Frames 28-33

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

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

NOT PRESENT

GASTROPODS (NUCELLA, LITTORINA, LIMPETS)

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments: 1 pair Harlequin ducks, 3 pairs surf scoters, 1 crow, deer tracks in UTZ, sea otter jawbone, 1 pair Steller's jays. 1-m tar band (thicker than usual) in UTZ - rock walls + boulders. No barnacle settlement on tar surface, no littorines, 75% barnacle mortality (vs. 10-20% elsewhere). In lower MTZ, locally moderate Rhodophyta cover along with Fucus (on cobble/pebble as well as larger grain size). Fucus growing on surface of pebbles has actually attached to embeddment cobbles.

Ecological Considerations:

Please see this section for subdivision CR-4-A. Primary sensitivity codes are 1E, + 3N, O, P, Q. Particularly key is the critical sensitivity re. pinniped pupping and molting on the jetting rock promontories.

OG Ran[redacted]iBride

SEGMENT ST/ CR-4

SUBDIVISION B

DATE 4 / 4 90

CHECKLIST

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

LEGEND

1 △ Pit - No Subsurface Oil

2 ▲ Pit - Subsurface Oil

CT/C Continuous Distribution

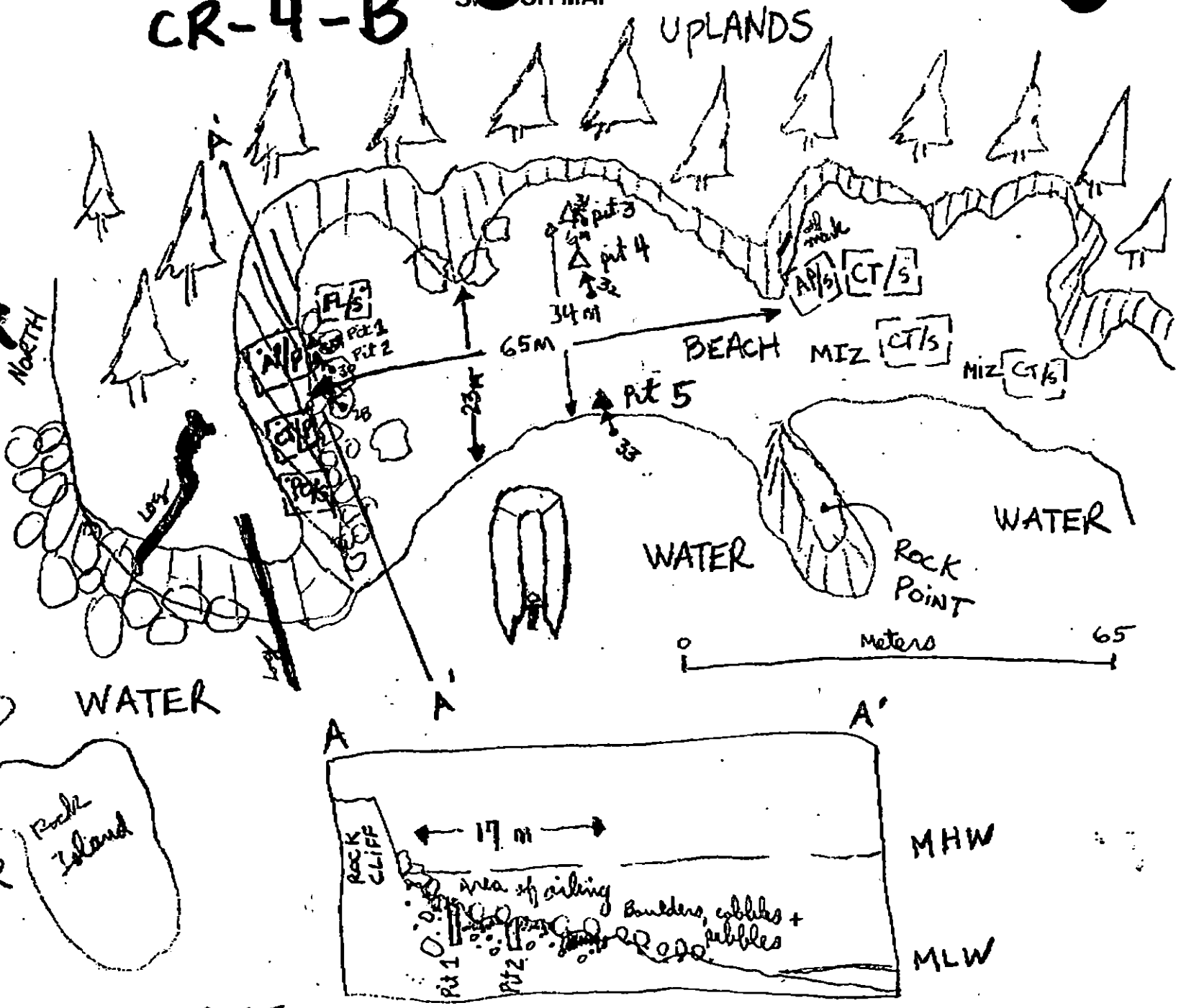
CT/B Broken Distribution

CT/P Patchy Distribution

CT/S Splashed Distribution

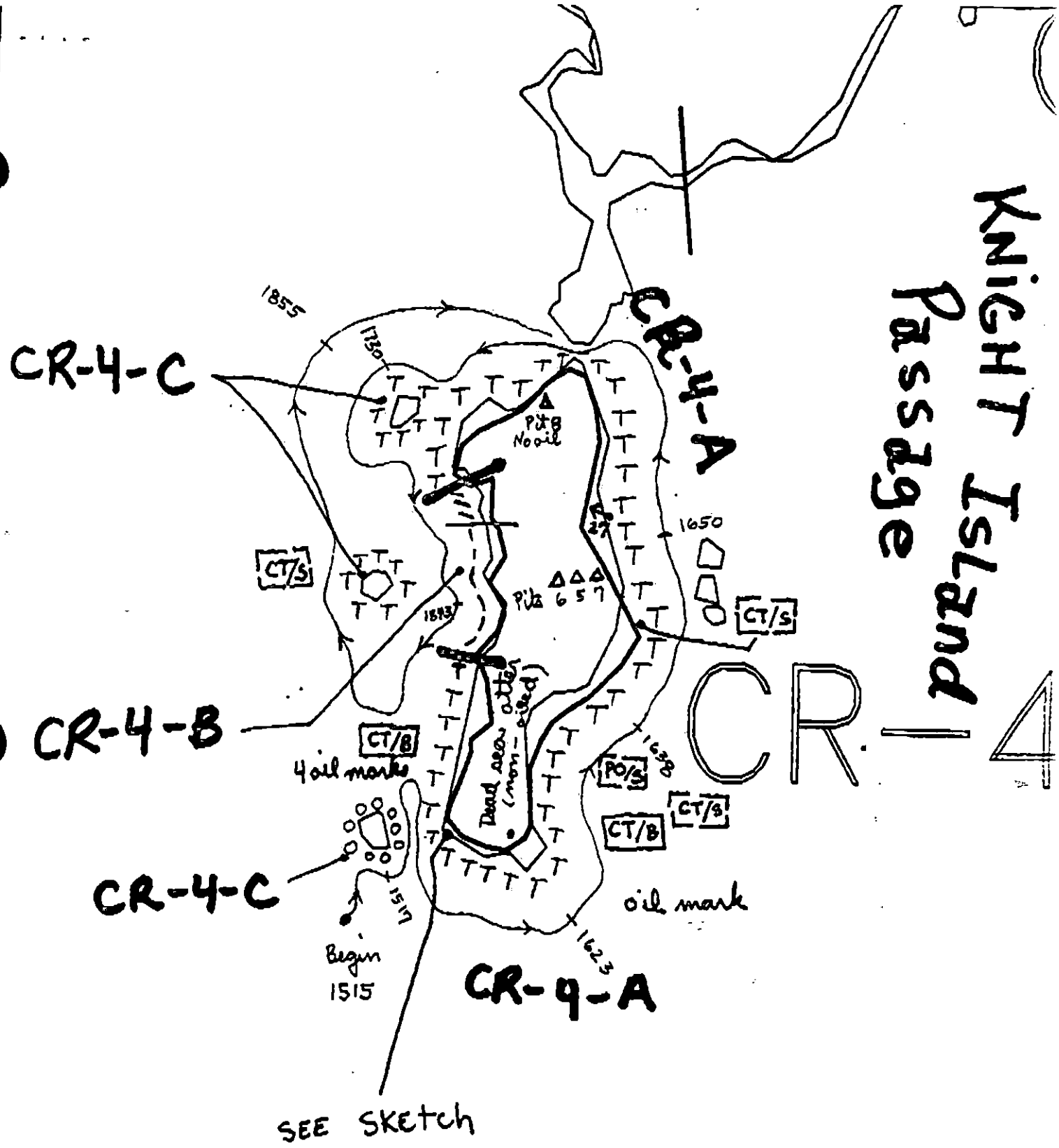
Oiled Vegetation

1 Photo location, direction, and number



Oil Character Length (m): AP 20 PO 10 CV 65 CT 65 ST____ MS____ PT____ TB____ FL____ NO____

REVISION:03/24/90



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

CR-4-B

ADEC Segment Length: 1332m

0 100 200 300
METERS

Map Key: PWS-65
Name: Randy McBride
Date: 4/4/90
Date Entered:

OILING LENGTHS

TO BE PROVIDED

AT A LATER DATE

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/CR-04

SUBDIVISIONS: C (3 OF 3)

SHORELINE EVALUATION

SEGMENT ST/ CR-04 SUBDIVISION C (3 OF 3) DATE 4/4/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1E Main Bay Hatchery release (4/20 to 6/10)
1L Set net sites (6/11 to 7/25)
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)
6U Recreation: Tent sites (6/1 to 9/15)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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 ~~326~~ m
Subsurface Oil Observed: Yes____ No X Maximum Depth_____

RECOMMENDATIONS:

X No Treatment Recommended
_____Treatment Recommended
_____Manual Pickup
_____Bioremediation
_____Tarmat: _____Breakup
_____Removal

_____Snare/Absorbent Booms
_____Oil Snares (pom poms)
_____Absorbents (pads,rolls,etc)
_____Spot Washing:_____Wands
_____ Beach Cleaner
_____Other (see comments)

COMMENTS: _____

TAG COMMENTS:_____

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

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / CR-4 SUBDIVISION: C (A & B SEPARATE) DATE 4/4/90

USCG
NAME GARY OTT SIGNATURE [signature]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

ADEC
NAME MICHAEL J. EBEL SIGNATURE [signature]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

CR-4-C The occasional coats and stains observed here were dried and weathered, mostly < 1mm thick, and found on < 10% of the shoreline. No treatment recommended.

LAND MANAGER – U.S.D.A. FOREST SERVICE
NAME DON J. BREITINGER SIGNATURE [signature] 4/4/90

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

REVISION NO. 03/21/90

SHORELINE OILING SUMMARY

REVISION NO. 03/23/90

OG Randy McBride USFS NOAA: Gary Ott SEGMENT ST/ CR-4
BIO Lewis Sharman LAND REP USFS: Don Breitinger SUBDIVISION C
EXXON Leonard Herbst ADEC Mike Ebel TIME 18:45 to 18:58
TEAM NO.: 12 TIDE LEVEL: 3.75' to 3.91' DATE 4/1/90
EST. SUBDIVISION LENGTH: 221 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow 42° F
UPLANDS DESCRIPTION: ☐ Grass ☐ Forest ☒ Rock
SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: South to North
SURFACE SEDIMENTS: R 90 % B 5 % C 5 % P ___ % G 0 % S 0 % M 0 % V 0 %
SLOPE: Lang 100 % Hang ___ % Vert ___ % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 221 m NO ~~0~~ m

SURFACE OIL

CHARACTER	DISTRIBUTION /C	/S	/P	/B	OIL / FILM COLOR					IMPACTED ZONES SU	SI	MI	LI
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT				X		X					X	O	
STAIN				X		X					X		
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL										X			X

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

PATTIES / TARBALLS 0 BAGS

NEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED ☐ YES ☒ NO

TYPE ___

#BAGS ___

Photographs:

Roll No. ST-12-3

Frames 35-36

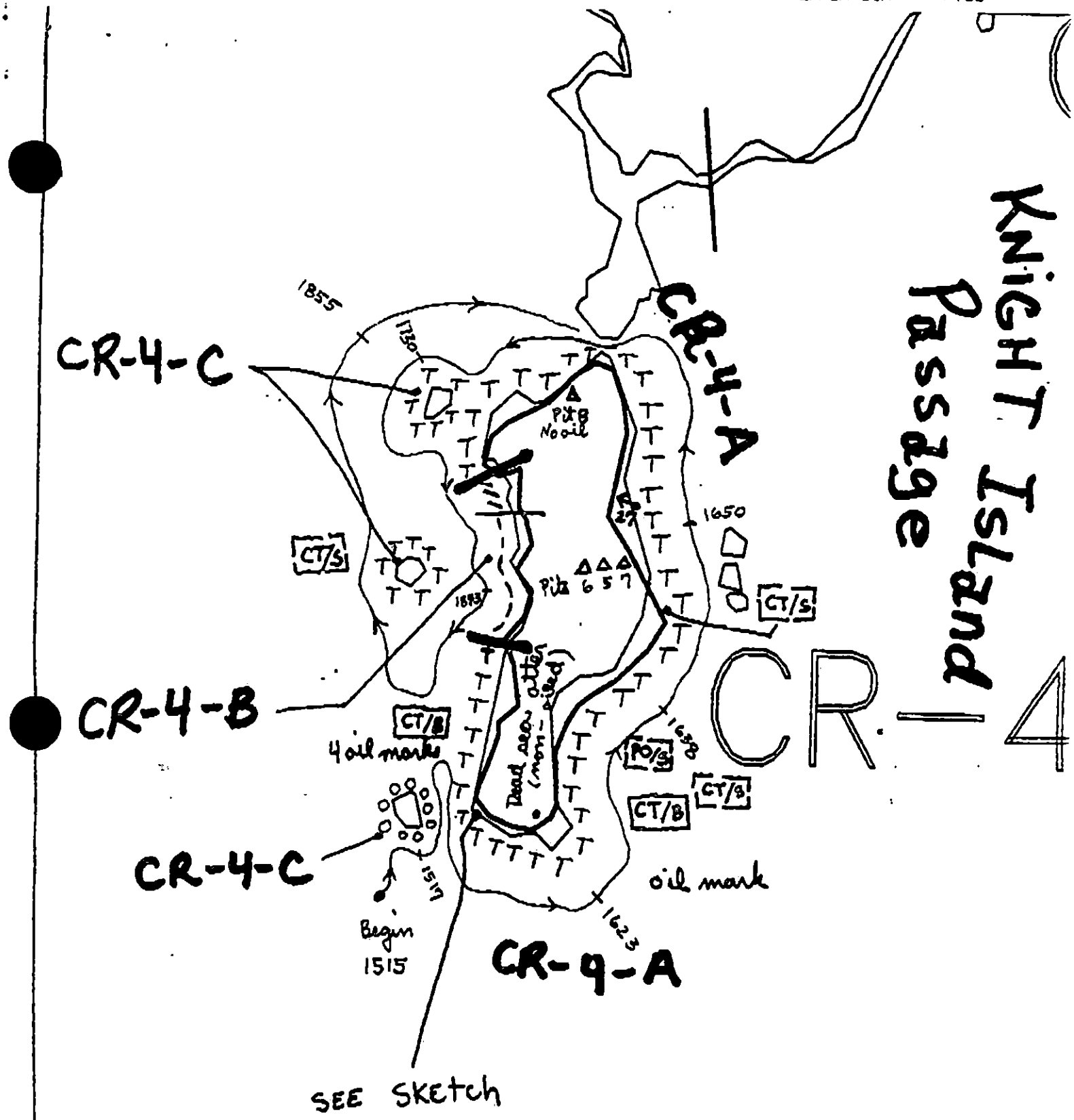
SUBSURFACE OIL - No pits - predominately bedrock

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER OP	OR	OL	OE	NO	OILED INTERVAL (CM-CM)	BELOW UO	UC	OIL / FILM COLOR					PIT ZONE SU	SI	MI	LI	ANA	SUBSURFACE SEDIMENTS

COMMENTS CR-4-C is dominated by very light and no oiling. The very light oiling is characterized by a coat (<1 mm thick) that is sporadic or occurs in splashes over <10% of the oiled area. This oil is dried and appears to pose no environmental threat.

Page 1 of 1 REVIEWED ___ DATE 23/25

~~Continued on next page~~



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

CR-4

ADEC Segment Length: 1332m

0 100 200 300
METERS

Map Key: PWS-65
Name: Randy McBride
Date: 4/4/90
Date Entered:

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/1

Segment ST / CR-4 Subdivision C Date (mo / day / yr) 4/4/90

Time (24 hr) 1540-1555 Biologist SHARMAN

(A) Substrate type and % of ~~segment~~ SUBDIV.
(1) Bedrock 90 (2) Boulder 5 (3) Cobble 3 (4) Pebble 1 (5) Sand 1 + granule (6) Silt ____

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

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

Photographs:
Roll No. ST-12-3
Frames 34

BARNACLES

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

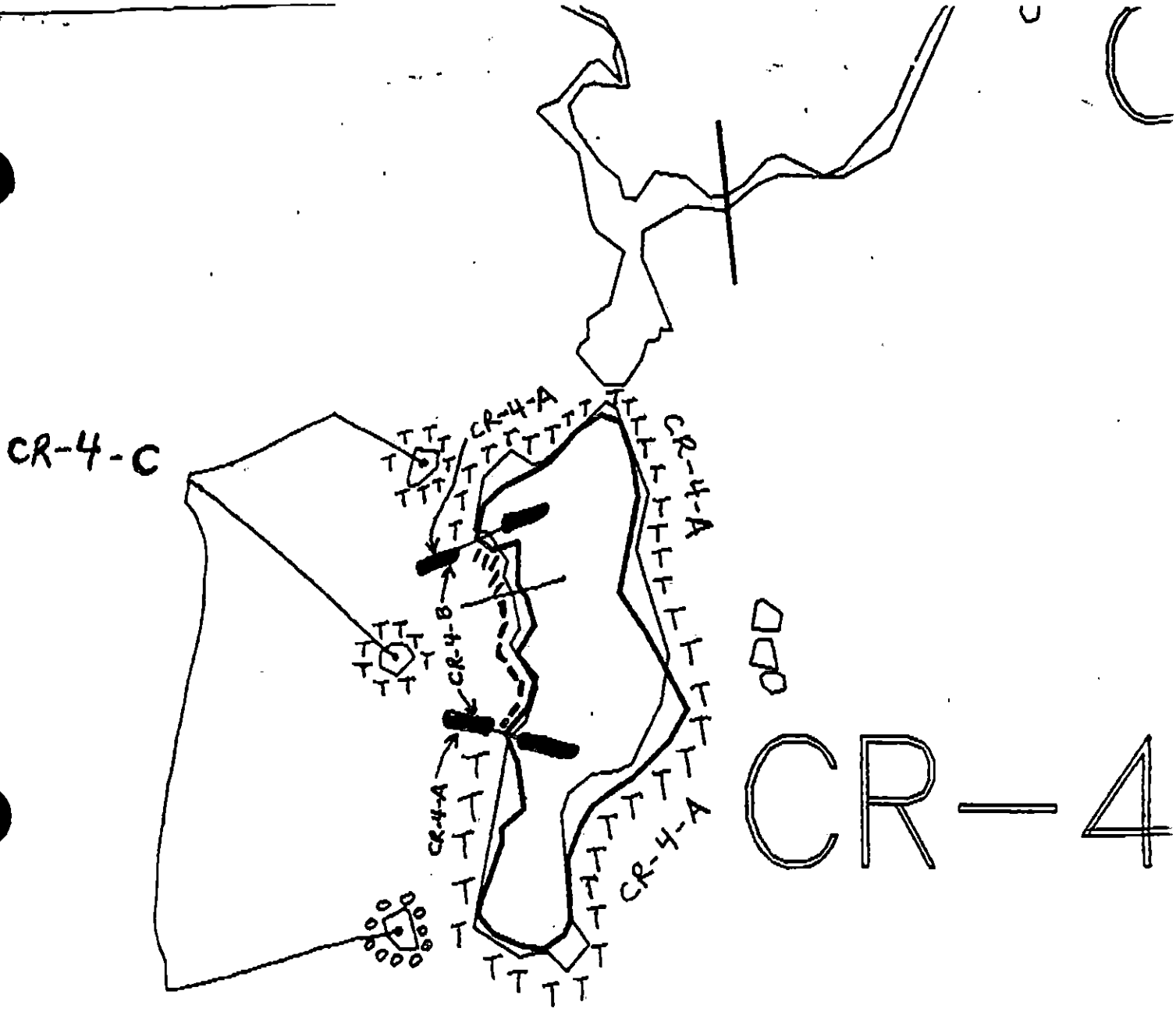
Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	X	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments: 1 sea otter, 1 pr. harlequin ducks, 1 adult eagle, 1 crow. Islets are mostly bedrock, generally uniform except for discontinuous isolated sweetbread tar patches usually on or near tops, in UT⊕ at higher elevations. Barnacle and fucus recruitment locally moderate in MT⊕. Did not get a very good look at LT⊕. Locally moderate growth of Rhodomela and Sargassum in MT⊕. Intertidal communities appear normal + healthy, given annual scouring by pinniped haulouts.

Ecological Considerations:

Please see the section for subdivision C4-4-A. Primary sensitivity codes are 1E, + 3W, O, P, Q. Particularly key is the critical sensitivity re. pinniped pupping and molting. This is the subdivision for these sensitivities because this subdivision is made up of the trackline nearshore + offshore rock islets + pinnacles surrounding the main CR-4 island. Pinnipeds have not yet arrived - see none.



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

CR-4

ADEC Segment Length: 1332m

0 100 200 300
METERS

Map Key: PWS-65
Name: Randy McBride
Date: 4/4/90
Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ CR-04 SUBDIVISION A (1 OF 3) DATE 4/4/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1E Main Bay Hatchery release (4/20 to 5/10)
1L Set net sites (6/11 to 7/25)
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)
6U Recreation: Tent sites (6/1 to 9/15)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: [signature] DATE: 4/28/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 1095 m: No Oil 0 m
Subsurface Oil Observed: Yes ____ No X Maximum Depth ____

RECOMMENDATIONS:

X No Treatment Recommended
____ Treatment Recommended
____ Manual Pickup
____ Bioremediation
____ Tarmat: ____ Breakup
____ Removal

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

COMMENTS: ____

TAG COMMENTS: ____

TAG APPROVAL DATE: 4/26/90.
ADEC John Bauer [signature]
EXXON Andy Tear [signature]
NOAA Gary Petrac [signature]
USCG Kenneth Keane [signature]

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

OG Ran[redacted] McBride

SEGMENT ST/ CR-4

SUBDIVISION A

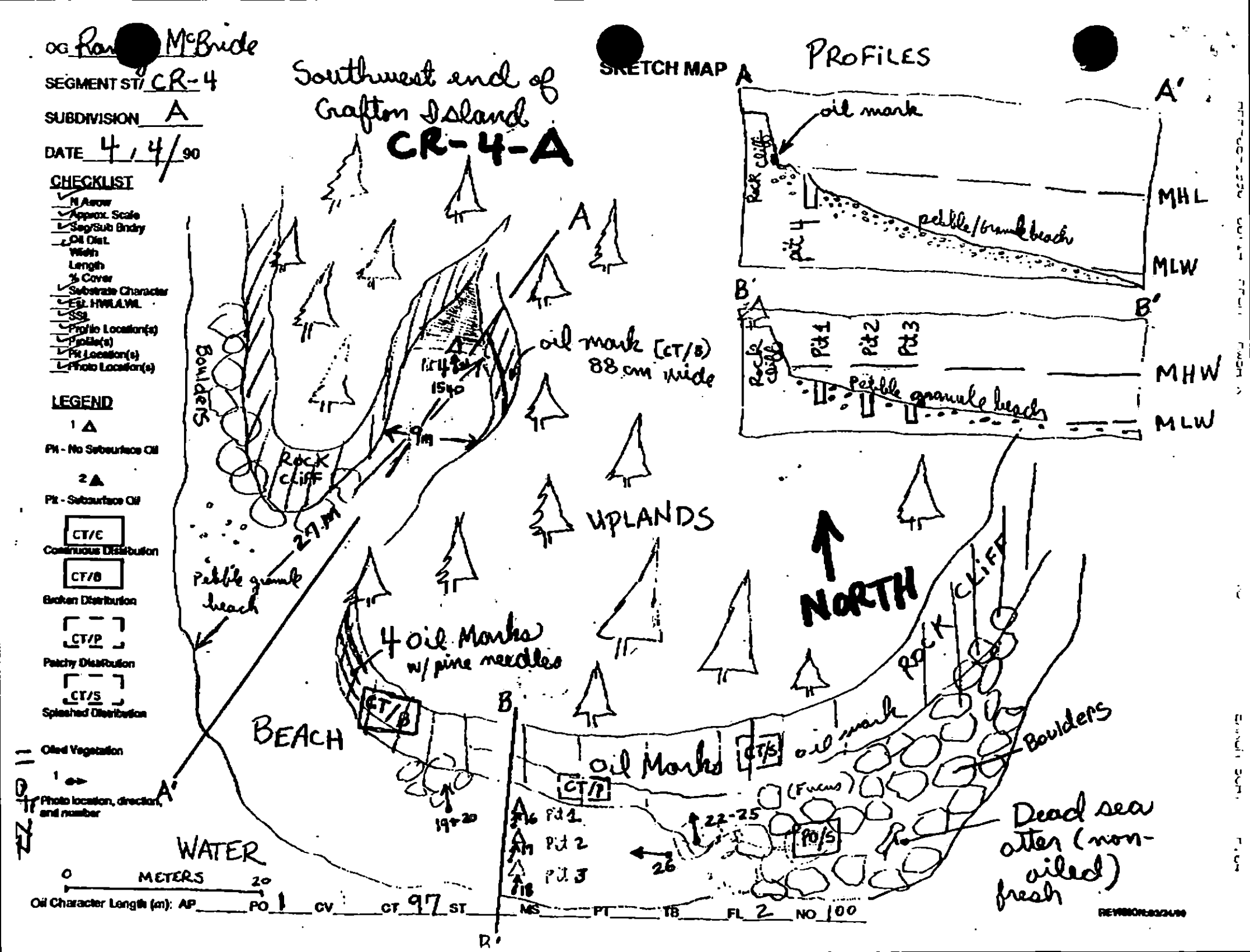
DATE 4/4/90

CHECKLIST

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

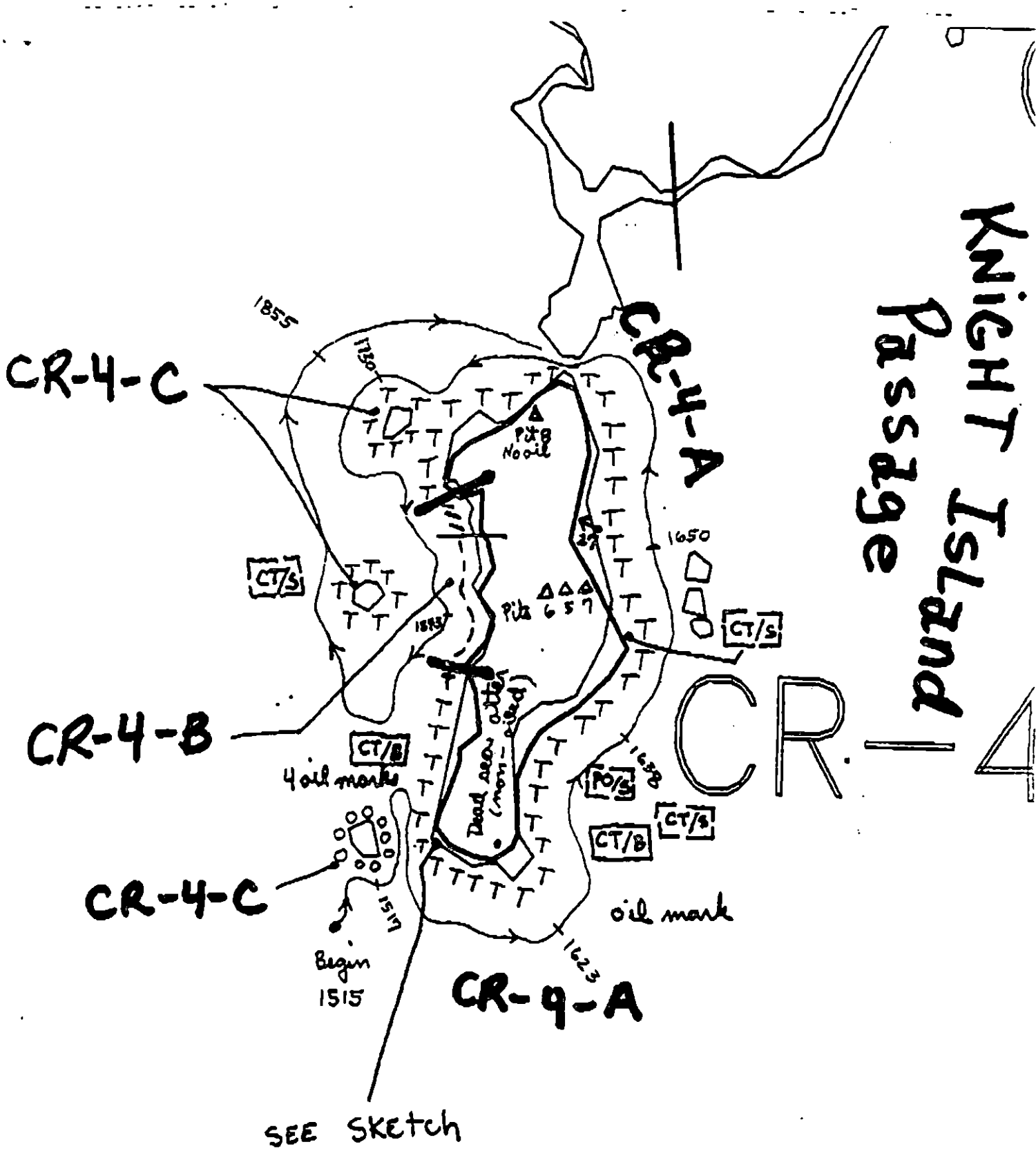
LEGEND

- 1 ▲ 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



Oil Character Length (m): AP____ PO 1 CV____ CT 97 ST____ MS____ PT____ TB____ FL 2 NO 100

REVISION:8/23/90



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

CR-4

ADEC Segment Length: 1332m

0 100 200 300
METERS

Map Key: PWS-65
Name: Randy McBride
Date: 4/4/90
Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ CR-04 SUBDIVISION B (2 OF 3) DATE 4/4/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1E Main Bay Hatchery release (4/20 to 6/10)
1L Set net sites (6/11 to 7/25)
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)
6U Recreation: Tent sites (6/1 to 9/15)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: [signature] DATE: 4/28/90

OILING CATEGORIZATION:

Wide 0 m: Medium 76 m: Narrow 162 m: V.Light 0 m: No Oil 0 m
Subsurface Oil Observed: Yes X No ____ Maximum Depth 8 cm

RECOMMENDATIONS:

X No Treatment Recommended
____ Treatment Recommended
____ Manual Pickup
____ Bioremediation
____ Tarmat: ____ Breakup
____ Removal

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

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: 4/26/90
ADEC JOHN BAUER [signature]
EXXON ANN TOAL [signature]
NOAA Gary Peterson [signature]
USCG KENNETH KEANE [signature]

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

OG Ran[redacted]Bride

SEGMENT ST/ CR-4

SUBDIVISION B

DATE 4 / 4 90

CHECKLIST

- ✓ N Arrow
- ✓ Approx. Scale
- ✓ Seg/Sub Bndry
- ✓ Loft Dist.
  - Width
  - Length
  - % Cover
- ✓ Substrate Character
- ✓ Est. HWL/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

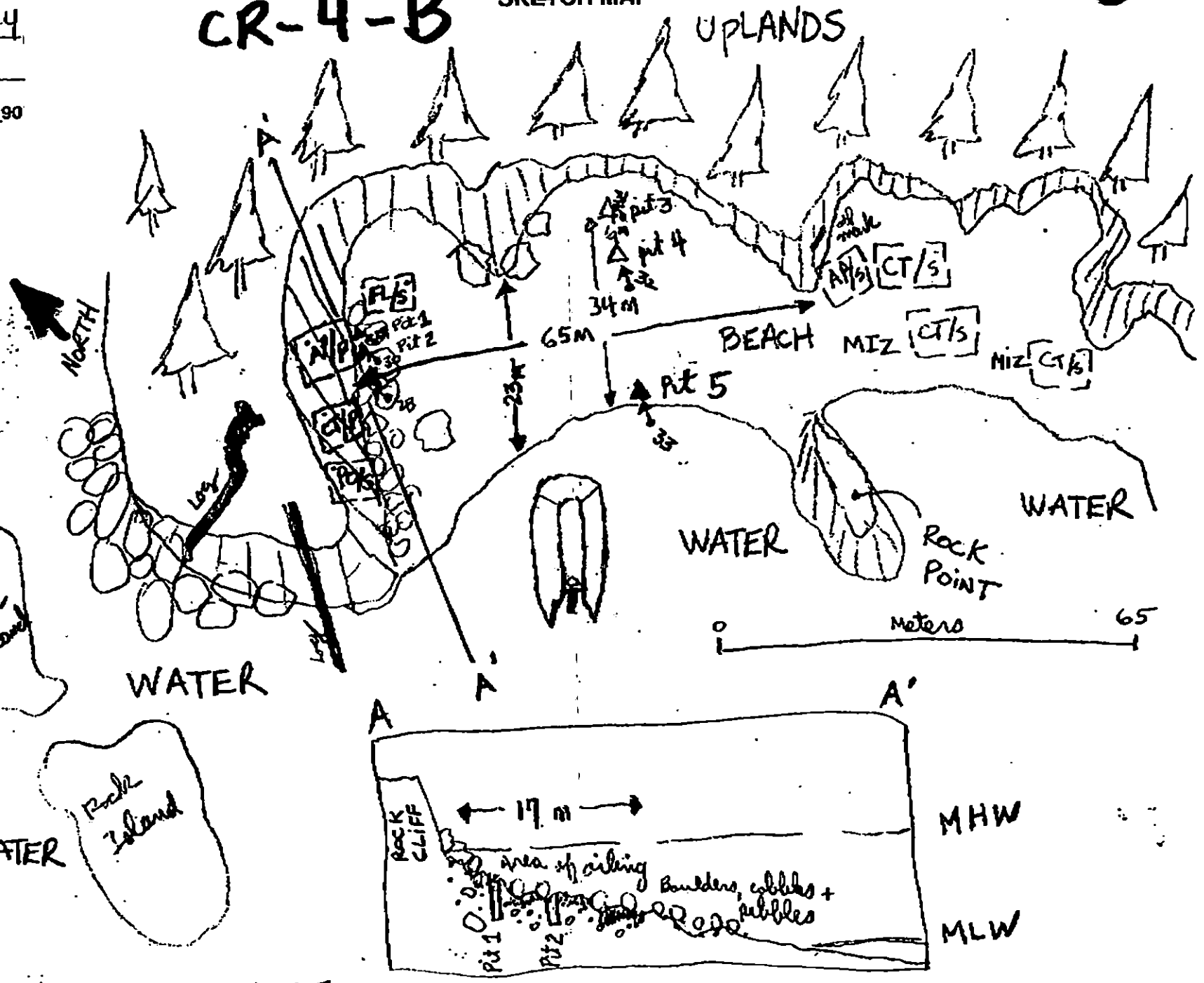
CT/S Splashed Distribution

Oiled Vegetation

1 ⊕ Photo location, direction, and number

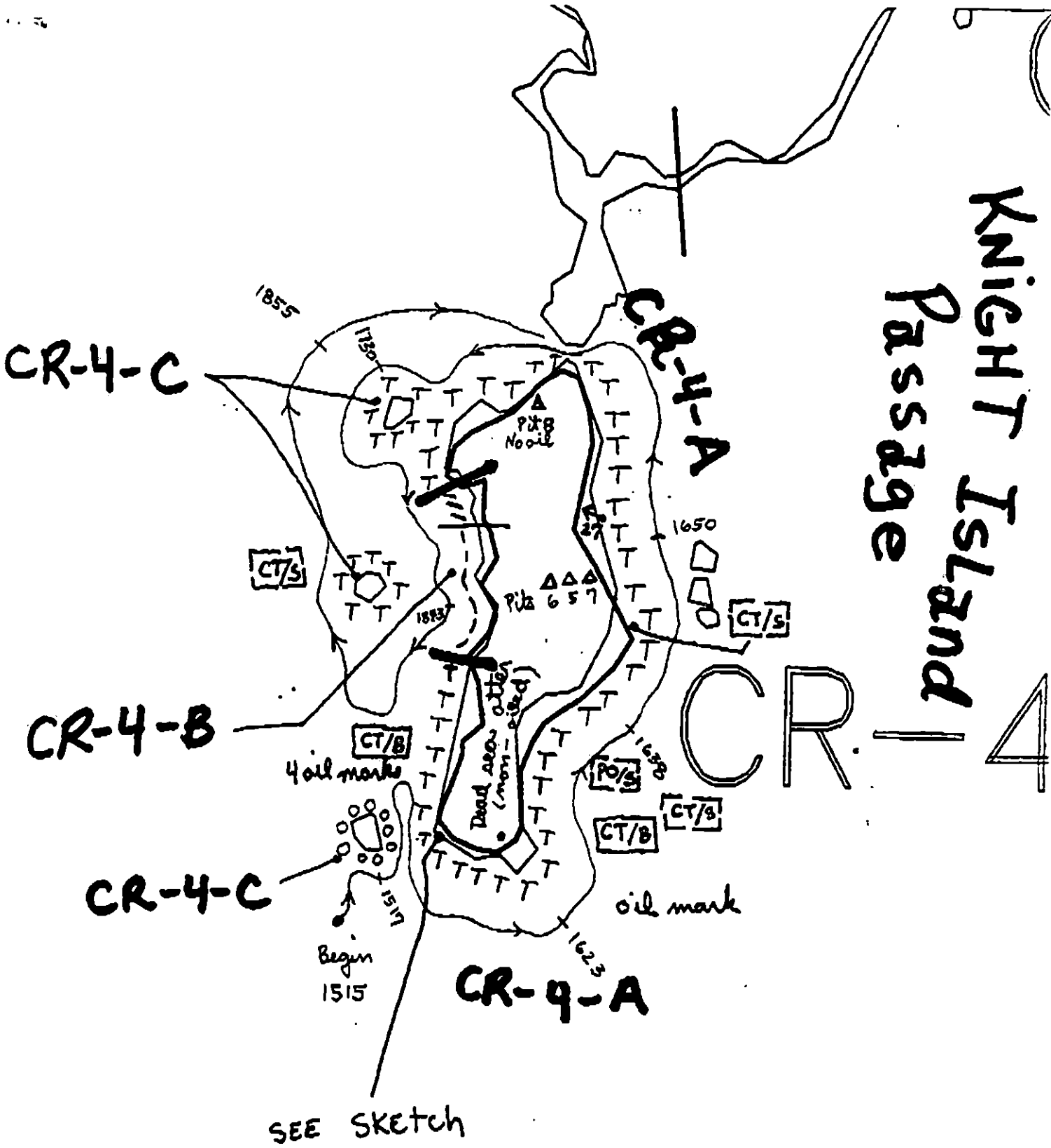
CR-4-B

SKETCH MAP



Oil Character Length (m): AP 20 PO 10 CV 65 CT 65 ST ____ MS ____ PT ____ TB ____ FL ____ NO ____

REVISION:08/24/90



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

CR-4-B

ADEC Segment Length: 1332m

0 100 200 300
METERS

Map Key: PWS-65
Name: Randy McBride
Date: 4/4/90
Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ CR-04 SUBDIVISION C (3 OF 3) DATE 4/4/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1E Main Bay Hatchery release (4/20 to 5/10)
1L Set net sites (6/11 to 7/25)
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)
6U Recreation: Tent sites (6/1 to 9/15)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: [signature] DATE: 4/28/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 208 m: No Oil 118 m
Subsurface Oil Observed: Yes ____ No X Maximum Depth ____

RECOMMENDATIONS:

X No Treatment Recommended
____ Treatment Recommended
____ Manual Pickup
____ Bioremediation
____ Tarmat: ____ Breakup
____ Removal

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

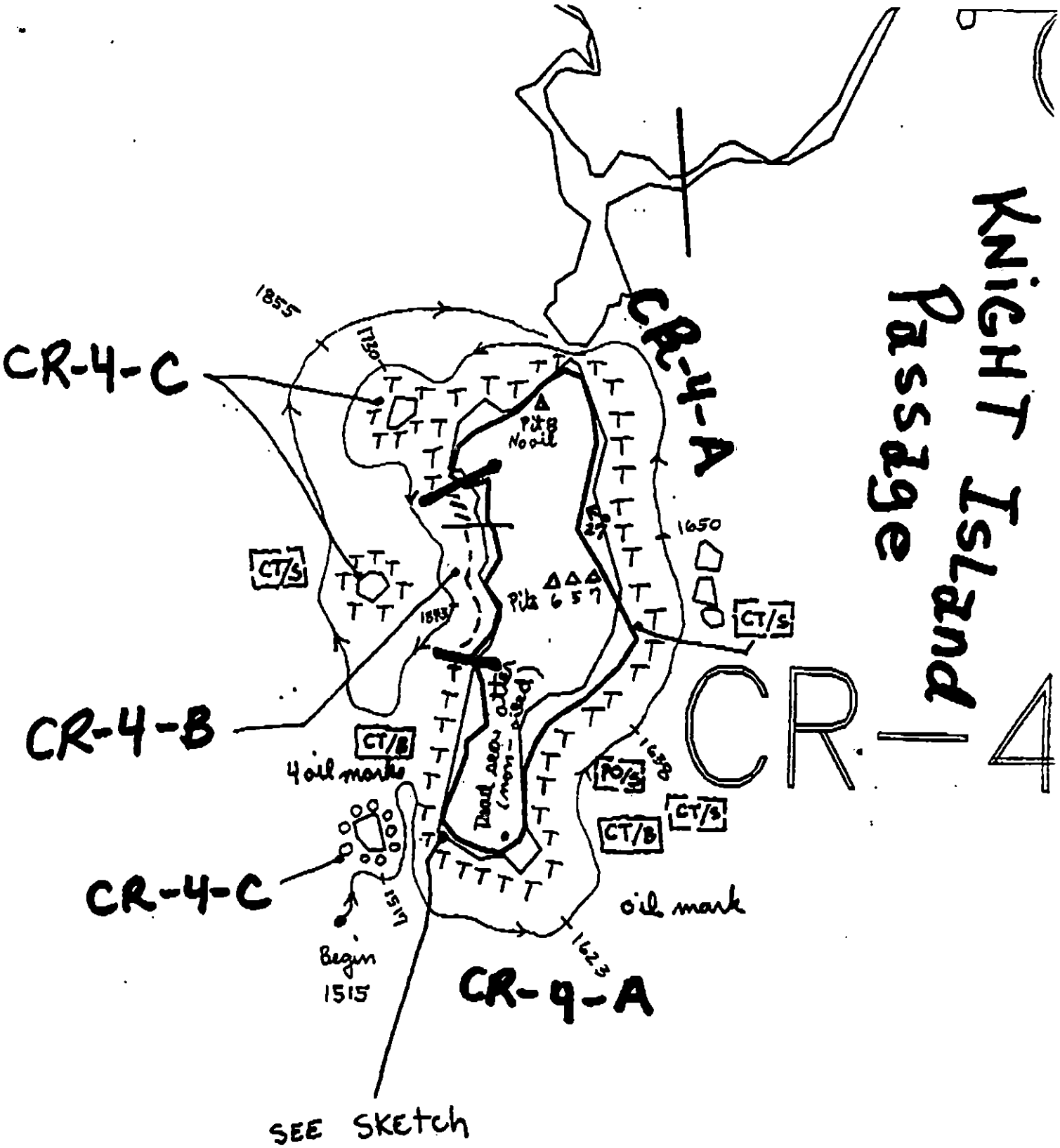
COMMENTS: ____

TAG COMMENTS: ____

TAG APPROVAL DATE: 4/26/90

ADEC JOHN BAUER [signature]
EXXON [signature]
NOAA Gary Petrosky [signature]
USCG KENNETH KEANE [signature]

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



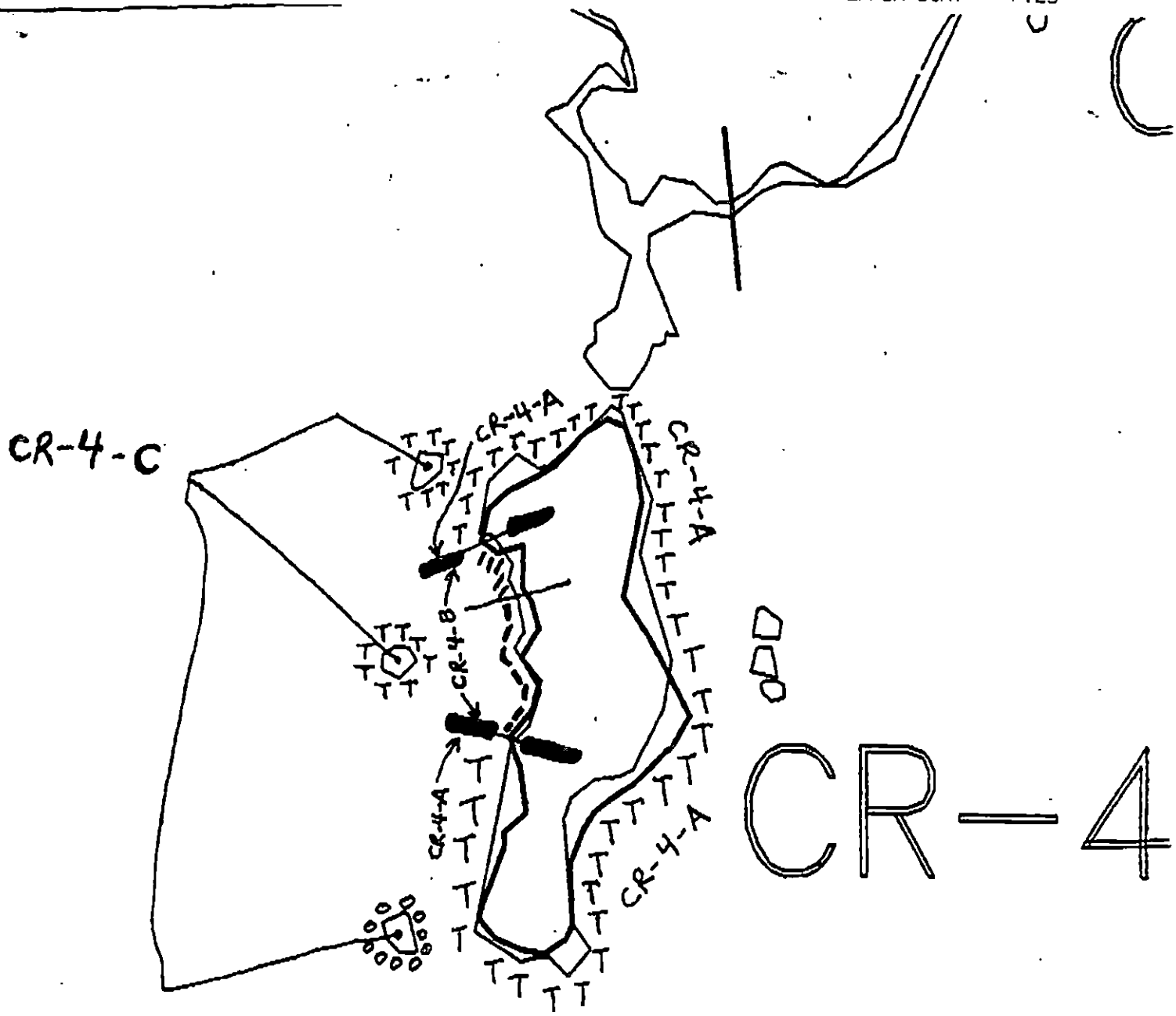
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

CR-4

ADEC Segment Length: 1332m

0 100 200 300
METERS

Map Key: PWS-65
Name: Randy McBride
Date: 4/4/90
Date Entered:



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

CR-4

ADEC Segment Length: 1332m

0 100 200 300
METERS

Map Key: PWS-65
Name: Randy McBride
Date: 4/4/90
Data Entered:

1991 MAYSAP EVALUATION

SEGMENT: CR 004 SUB: A REGION: PWS SURVEY DATE: 5/20/91

ENVIRONMENTAL SENSITIVITIES:
Work Window(s) RESTRICTED 3/1 - 9/1

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

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.

MATSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 1 SEGMENT CR004 SUBDIVISION A DATE 5/29/91

ADEC
NAME JEFF GINAKAS SIGNATURE [signature]

☐ NTR ☒ TREATMENT RECOMMENDED

MANUAL WORK - TROWELS. AT AREA "F" (OG MAP) SOME MOUSSE IS TRAPPED IN CRACKS AND DEPRESSIONS OF LARGE BEDROCK UPRISE (50'x15') AT HITE. THE MOUSSE FORMED A DRIED LAYER WHICH PROTECTED THE OIL UNDERNEATH FROM DEGRADED SIGNIFICANTLY. PUNGENT ODOR WHEN DISTURBED MUCH OF THE OIL ABOVE THE PEBBLE/COBBLE BASE OF BEDROCK REMOVED. BUT WHEN PEBBLES CLEANED, SIMILAR MOUSSE TRAPS BELOW THE PEBBLES. I WOULD RECOMMEND A SMALL SQUAD CLEAR AWAY PEBBLES, DEFINE & EXPOSE THE TOTAL IMPACT COVERAGE, AND REMOVE FOUR TO SIX PEOPLE COULD COMPLETE IN THREE HOURS. RECOMMENDED TREATMENT AREA IS BEDROCK/COBBLE/PEBBLE THIS MINIMAL IMPACT ON BIOTA. IF TREATMENT IS RECOMMENDED, FOR LOGISTICS CONSIDER THIS SITE WITH CR-004 (B)

EXXON
NAME LARRY D. OLSON SIGNATURE [signature]

☒ NTR Survey crew removed 7 GEO. bags from this segment. What remains is indicated on sketch map and should weather and break down without further intrusion.

LANDMANAGER
NAME MARSHA HALL OF DNR SIGNATURE Marsha Hall

☐ NTR ☒ TREATMENT
Area F had removal of AP from bedrock cracks and bowls. Area of MOUSSE is at base of bedrock covered with pebbles and cobbles. It is recoverable as well as accessible to manual crew - hit it on a calm day. Eagle nest on other side of island. Set net sites, recreational area. Most oil removed came from cracks on bedrock. The mousse really should go. It is well protected from outlying rocks.

USCG/NOAA
NAME SCHULTZ/CHILDS SIGNATURE [signature]

☒ NTR INSIGNIFICANT AMOUNT OF RECOVERABLE OIL. WHAT IS REMAINING SHOULD BE LEFT TO WEATHER. HAS ALREADY SHOWN SIGNS OF DEGREDATION

STEEP, IRREGULAR, ROCK OUTCROPPING SHORELINE. BEDROCK LITHOLOGIES CHANGE SEVERAL TIMES OVER THE SEGMENT WHICH CREATE DIFFERENT CHARACTER TO POSSIBLE BEACHES HERE. SILICIOUS BEDROCKS ON S'ly END OF ISLAND FORM BLOCKED CREVICES THAT HOLD MS/I & AP IN "F". APPARENT "JOINT CONTROLLED" ROCK CHANNELS & GULLIES HARBOR RESIDUAL AP IN "G" & "J". REMAINING OIL - CT, CV, ST @ HITE/SITE AREAS ARE TYPICAL.

MAYSAP SHORELINE OILING SUMMARY

PAGE 1 OF 1

TEAM NO. 1

OG G. MACDONALD BIO M. FAWCETT SEGMENT CR-4

ADEC J. GINAVIAS LANDMANAGER M. HALL for DNR SUBDIVISION A

EXXON L. OLSON USCG/NOAA SCHULTZ/CHILDS DATE 5/20/91

TIME 10:15 to 13:15 TIDE LEVEL +4.2 ft. to +0.2 ft. ENERGY LEVEL: [ ] H [ ] M [X] L

SURVEYED FROM: [X] FOOT [ ] BOAT [ ] HELO WEATHER: [X] SUN [ ] CLOUDS [ ] FOG [ ] RAIN [ ] SNOW

TOTAL LENGTH SHORELINE SURVEYED: 1100 m NEAR SHORE SHEEN: [ ] BR [ ] RB [ ] SL [X] NONE

EST. OIL CATEGORY LENGTH: W – m M 15 m N – m VL 280 m NO 805 m US – m

LOC	SURFACE OIL CHARACTER AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO	SURFACE SEDIMENT TYPE	SHORE SLOPE V H M L	AREA WIDTH m	AREA LENGTH m	ZONE S	UI	MI	LI	NOTES
C						S					R	H	<1	20		X			
D						S	S				R	H	<1/2	20		X			
E						T					R	H	<5	70		X			
F1					S	S					R	M	<5	15		X			m-R
F2		S									RPG	M	<2	10		X			
F3	S										RPG	M	≤1	1		X			
G	T										BR	M	2	5		X			after P.U
H						T					R	H	<1	50		X			totalled.
I						T					R	H	<1	90		X			
J	T										BR	M	2	2		X			after P.U.
K						T					RB	H	<1	30		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 - 27 FRAMES 5~16

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER OP	HOR	MOR	LOR	OF	TR	NO	OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE S	UI	MI	LI	SURFACE-SUBSURFACE SEDIMENTS	NOTES
1	15							X	-		–			X			PC - PCV	organics
2	45							X	-		–			X			P - PGV	peat @ 40 cm
3	30							X	-		–				X		P - PG	
4	50							X	-		–			X			P - P	
5	30							X	-		–			X			PC - PGV	organics
6	20							X	-		–			X			P - PV	"
7	30							X	-		–			X			PG - PGV	"
8	30							X	-		–				X		PG - PGV	"
									-									

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

OG COMMENTS: Low relief R shore w/ sheltered west side and more exposed, higher energy east shore. Surface oil only, as (i) AP/I, friable, w/ MS/I, notable @ SE end of island, now largely removed.

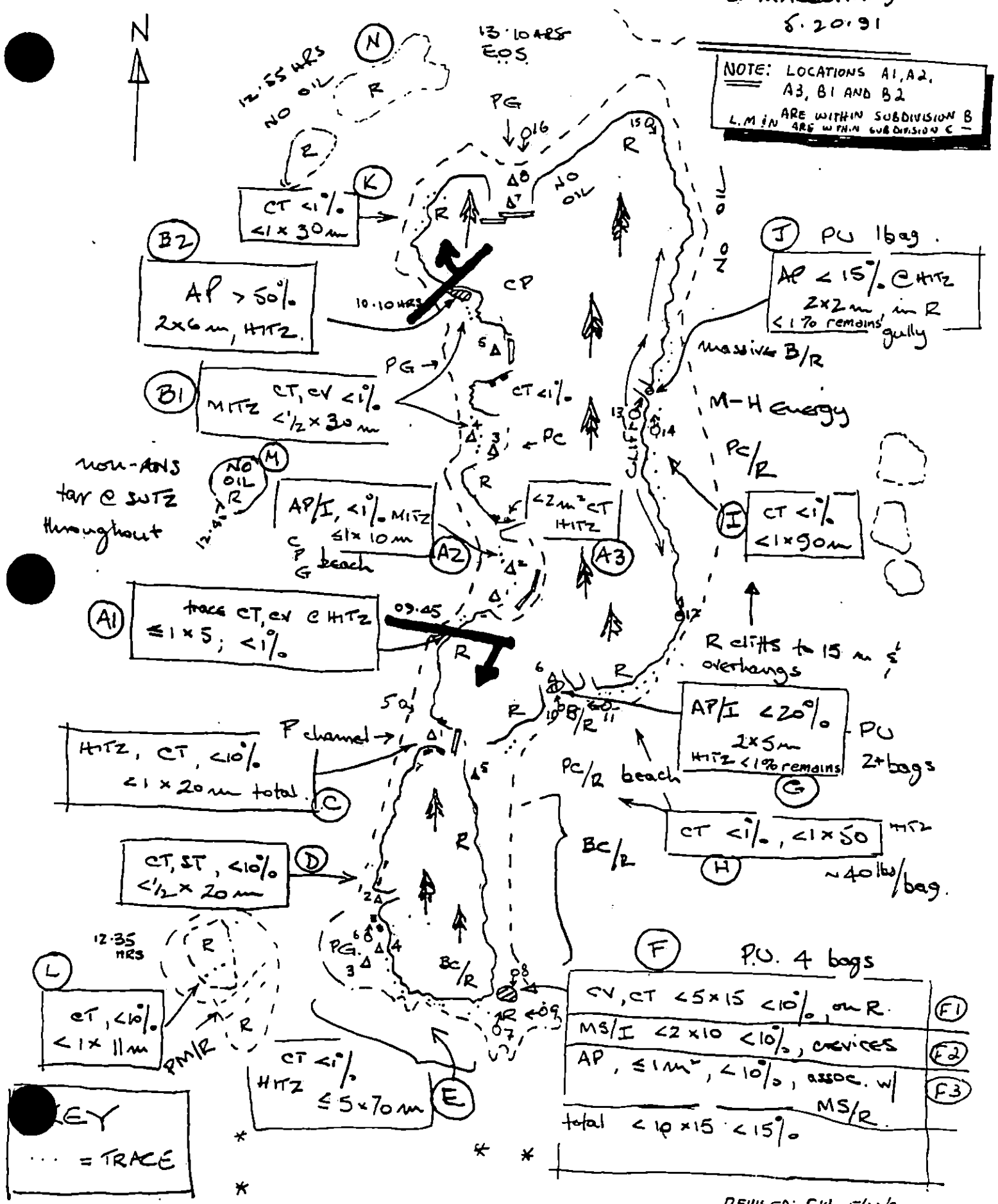
(ii) CT, CV, ST @ HTZ, typically trace amounts.

REVISED: F.W. 5/22/91

CR-4A

G. MACDONALD
8.20.91

NOTE: LOCATIONS A1, A2, A3, B1 AND B2 ARE WITHIN SUBDIVISION B
L, M, N ARE WITHIN SUBDIVISION C



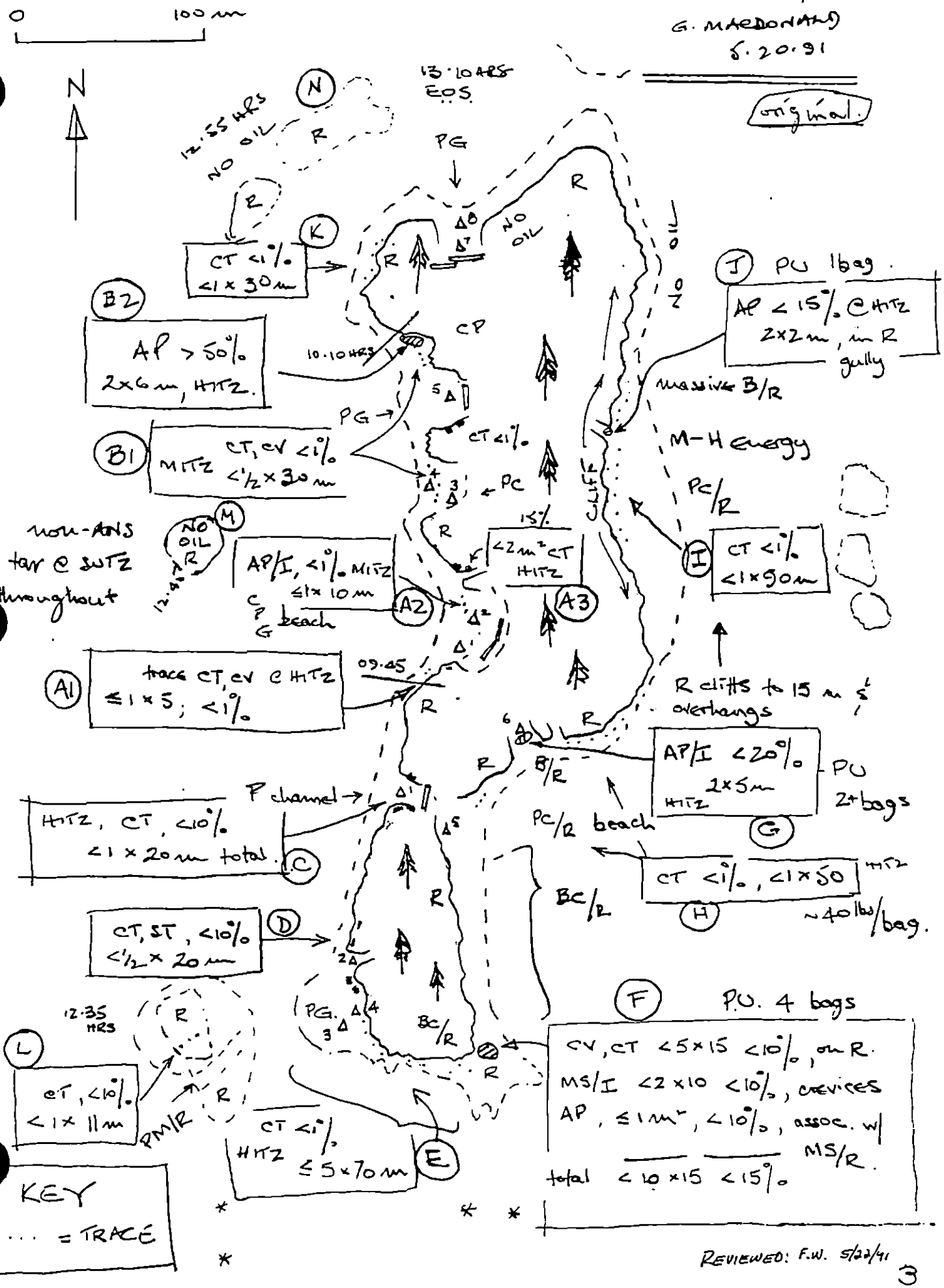
REVISED: F.W. 5/22/91

2

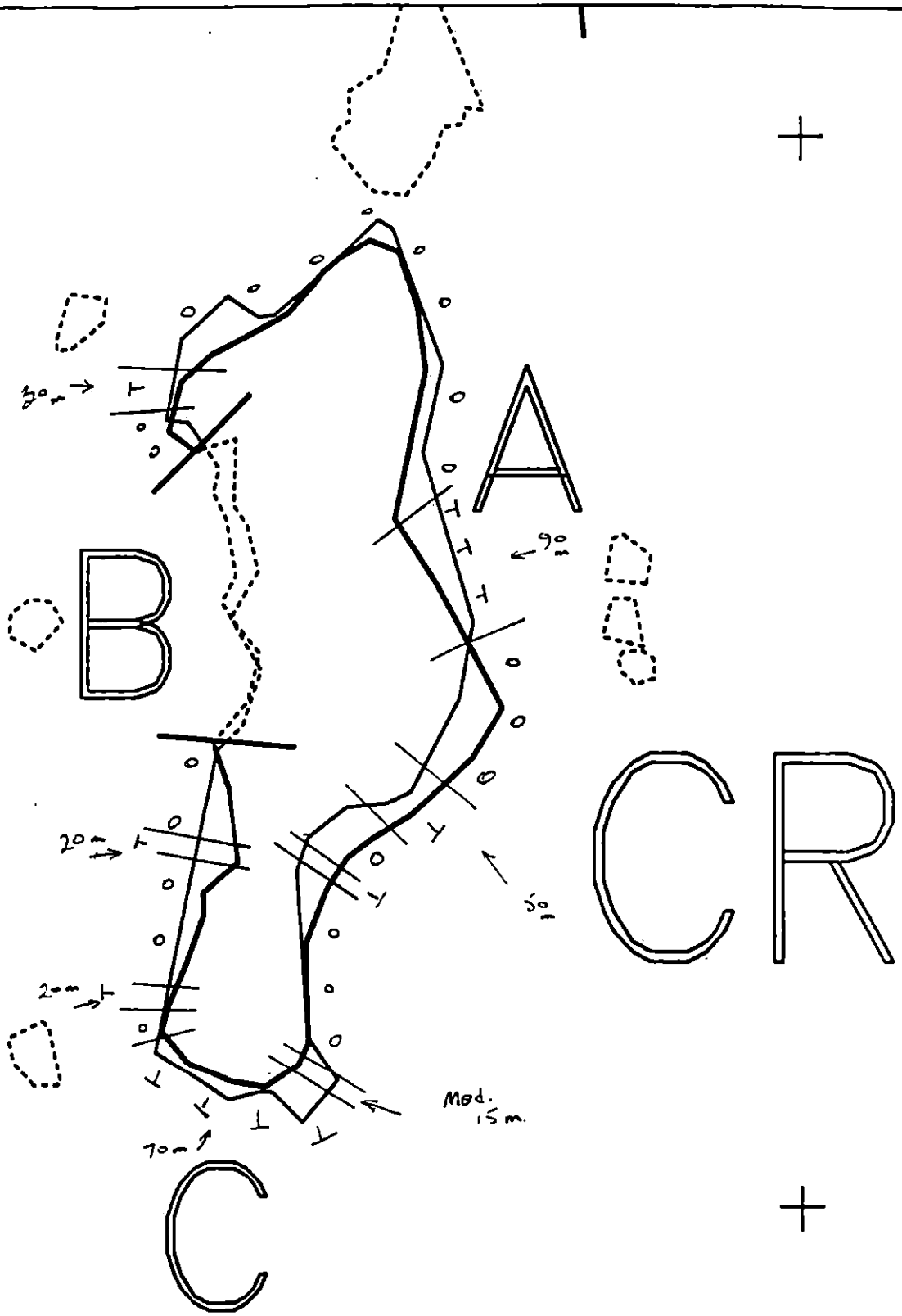
CR-4A, B, C.

G. MACDONALD
5.20.91

original.



REVIEWED: F.W. 5/22/91



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

CR004 A

ADEC Subsegment Length: 1094m

METERS

0 100 200

AK State Plane Zone 4 per004a

Subdivision Field Map

Map Key: PWSCR004A

Name: Grill

Date: 5-20-91

Date Entered:

REVISED: F.W. 5/22/91

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 1 DATE 20 May 91

SEGMENT # CR 004 TIDAL HEIGHT(Range) +0.1 to +5.0 ft MLLW

SUBDIVISION A BIOLOGIST Michael Fawcett

SEA STATE calm WIND SPEED/DIRECTION calm

PHOTOGRAPHS: ROLL # FRAME #

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

This subdivision includes both ends and the eastern shore of the main island represented by CR004. Intertidal habitat includes pocket B/C/P/&G beaches, steep rock shoreline and rugged, incised bedrock complexes with benches, surge channels, and tidepools. Biota generally most diverse and abundant on the bedrock areas or in large boulders next to bedrock outcrops. Beaches with small sediments (P&G) have little or no biota in UTZ, but often have dense mussel beds and dense young littorinids in MTZ-LTZ. The rugged area at the south end of the island has the greatest variety of microhabitats, and a much greater diversity of intertidal species than most of the rest of the subdivision. see sketch map for descriptions of biota near sites with residual oil.

WILDLIFE OBSERVATIONS
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1 (immature)	1	salmon fry
Seabirds			
Waterfowl	2 canada goose, common merganser	6	
Gulls/kittiwakes			
Shorebirds	2 (whimbrel, black oystercatcher)	4	
Corvids	1 (crow)	3	
Other Birds	1 (orange-crowned warbler)	1	

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters			
Pinnipeds(specify)	2 sea lion, 3 harbor seals		
Whales(specify)			

Shoreline subdivision map showing important biological features attached.

Rec'd 5/22/91 LM 5

CR004-B 5/20/91 Fawcett
Arrive 0945 at S. end, walk
north - doing ~~SO~~ Stine (USFWS), in
boat watching eagle nest - low energy
- 0945 1st beach p/g, logs in UTZ
no biota on BR outcrops
CT on S end bedrock +8 ft UTZ
among upper edge of dense barnacles
- dense Fucus nearby & below
- dense Litt. in Fucus MTZ on
BR, sparse in MTZ-LTZ P/G
- barn spat on MTZ
- mussel bed (under water) in MTZ-LTZ
P/G, also called Fucus
- 30 yds North sediments more
coarse C/B - dense Litt (many
new recruits) - young mussel bed
extends up to +6 ft
- SOR in UTZ (+8) B/C - sparse barn, Litt (mod)
mod. spat - dense mussels on barn
0955 - just below nest - same B/C/P -
very dense young Litt +3-+7 ft
sparse Fucus, dense mussels up to +6
sparse Rhodonde - dense hermit crabs
- 1 common merganser
- heard some vocalizing of
eagle for 30 seconds

1000 - N end - CT ISOR near BR end
+8-12 ft - some barn
- heard adult vocalizing, then eagle
flew from nest area to left area perches
- (Doug said it was another adult
flying over from elsewhere, and
the one on the nest was vocalizing
at it, did not leave nest
wind NE 0-5, no seas
1015 - start CR004-A - low energy
pocket beach C/B/P/G
mussel bed below 6 ft - dense Litt,
(same complex as (B))
- BR has sparse barn, Fucus,
Rhodo, dense spat below 7 ft,
mussels in crevices (sparse Litt)
SOR ACTON north BR wall
+16 ft (in right angle crack) in biota - barnacles
up to about 8 ft
- historical structure remains in
backshore
- 3 harbor seals
- large school salmon fry
- dep. 1030
- 1030 - G/P beach - BR in
UTZ-SUTZ & at N end

CR004-A (cont) 5/20/91 Fawcett

- band of CT on back wall + 10 ft
no biota among or below - pebble
abrasion - fil green filmorb
- deer bones on beach - also skull
1040 - opp islet - band of
CT continues along UTZ-SUTZ abrasion
biota - sun out
- 3 crows
- at point 1045 - BR/B/C
dense Fucus MTZ - LTZ
- spat all over
- mod. lit anemones -
scattered CT + SOR + 3-10 ft - some
picked up - base of rugged complex
of shelfs, humps; chaotically, tidepool
ext along out to seashore reefs
- tidepools in UTZ-MTZ-LTZ
levels - dense Rhodomela &
Lithomnia in pools - also Litho
Sculpins, chitons, Katharina, Tonicella, Lepetopsis, Sculpins, etc, Tegula
Large old B Californica, very dead
3-10 mm mussels overgrowing
barnacles + forming hummocks in
most exposed areas
1100 - SOR being picked up among
sparse barn, mass, lit - alive
mussels growing in it

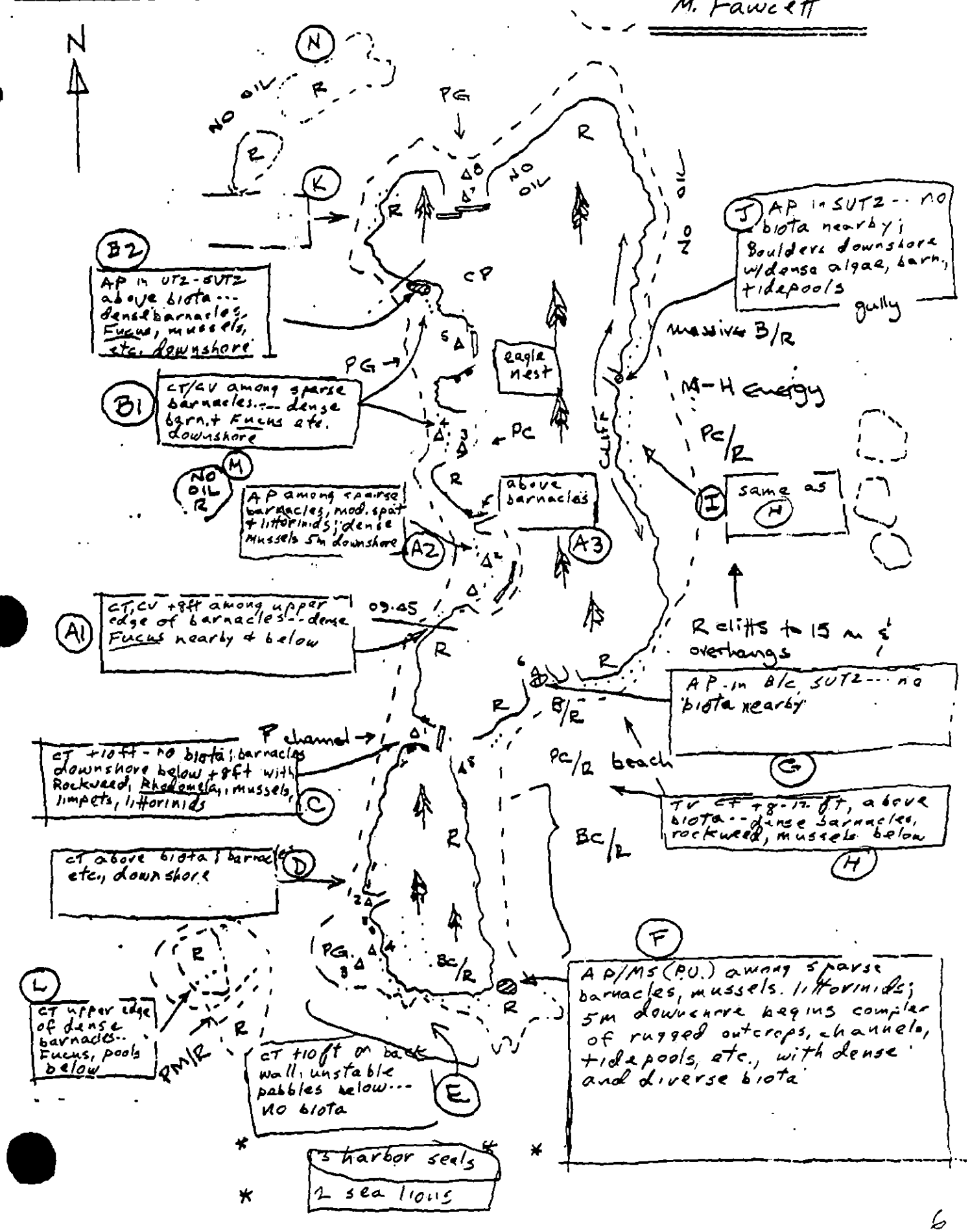
harbor seals seen earlier - hanging around
reefs -
- 1130 - Sleep BR - very
dense Fucus UTZ-MTZ - dense
mixed algae LTZ -
dense barn, dense 0-2 yr mussel
under Fucus
Tr. - CT + 8-12 ft above biota

1150 - AP picked up - SUTZ - no biota
- tracer CT + 8 m Fucus, lit, limp
- boulders & tidepools downstream -
Kath, anemones, Litho -
- continuing north - more rugged BR/B
tiny pools
- reached 12 ft, shuffled back
around north and to get to other
side of (A) - juvenile eagle
in tree

1255 - returned to North end of A
B/C/P/G beach similar to others
dense mussel bed MTZ - also dense
barn on C/D - dense pur. lit.
- very dense 0-yr mussels at end of
island in MTZ B/C/P

CR004 A (cont) -
- 2 oystercatchers near end of segment
someone stepped on single egg -
we buried it to encourage female
to lay another, as recommended
by Doug Stone (USFWS)
Finish segment 1315

CR-4 5/20/91
Bio Sketch Map
M. Fawcett



1991 MAYSAP EVALUATION

SEGMENT: CR 004 **SUB:** B **REGION:** PWS **SURVEY DATE:** 5/20/91

ENVIRONMENTAL SENSITIVITIES:
Work Window(s) **RESTRICTED 3/1 - 9/1**

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

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.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 1 SEGMENT CR004 SUBDIVISION B DATE 5/20/91

ADEC
NAME JEFF GINDLIAS SIGNATURE [signature]

☐ NTR ☒ TREATMENT RECOMMENDED

MANUAL TREATMENT AT SITE B2 (COG MAP). SURFACE ~~AP~~ ASPHALT IN 2 x 6 METER BAND, PROTECTED AREA (LEE SIDE, SW ORIENTATION) UITZ. LAYER IS SOMEWHAT WEATHERED BUT ~~REMOVAL~~ REMOVAL ~~MAY~~ MAY BE PREFERRED TO NATURAL DEGRADATION FAIRLY THIN, WORK CREW OF 4 PERSONS COULD COMPLETE IN 2-4 HOURS. ~~AND~~ PROPOSED WORK AREA IS BELOW ACTIVE EAGLE NEST. PER ADVICE OF DOUG SIRUE, USF&WS, TREATMENT ACTIVITIES IN AREA SHOULD BE DELAYED UNTIL YOUNG REACH FLEDGLING STAGE. FOR PLANNING PURPOSES & LOGISTICS, A RECOMMENDATION IS TO CONSIDER TREATMENT ON THIS SEGMENT IN CONJUNCTION WITH CR004(A).

EXXON
NAME LARRY O. OLSON SIGNATURE [signature]

☒ NTR Segment is healthy with Biological growth. No removable oil remains. Area indicated as B-2 on sketch map lies below an active Eagle nest. The remaining described oil has weathered nicely and will continue to do so.

LANDMANAGER
NAME MARSHA HALL OF DNR SIGNATURE Marsha Hall

☐ NTR ☒ Treatment
Area B2 could use some manual work. Remove surface Asphalt of Hitz. High use area recreation wise. Fishing - set net sites. It's pretty ugly.

USCG/NOAA
NAME SCHULTZ / CHILDS SIGNATURE [signature]

☒ NTR REMAINING OIL SHOULD BE LEFT TO NATURAL DEGREDATION PROCESSES, WHAT REMAINS HAS WEATHERED & WILL BREAKDOWN FURTHER. NO FURTHER INTRUSION IS NECESSARY.

FRACTURED - IRREGULAR BEDROCK SHORELINE w/ CRESCENT SHAPED BEACHES [illegible] OF ANGULAR TO SUBANGULAR REVERSE GRADED P.C. BOULDERS (OR BR [illegible]) [illegible] SCATTERED BETWEEN SEGMENT & ALONG BEACH FACE. VERTICAL PATCH ⊗ SI & FORMER [illegible]. MAJOR BEDROCK LITHOLOGY CHANGE FROM SILICIOUS ROCK (A3) TO PILLOW BASALTS (B-1). OIL AS CT, CV ⊗ HI SI - TRACES E AP ⊗ UI in N'lg Portion - SMALL PATCHES.

MAYSAP SHORELINE OILING SUMMARY

PAGE 1 OF 1

TEAM NO. 1

OG G. MACDONALD BIO M. FAWCETT SEGMENT CR-4

ADEC J. GINAKIAS LANDMANAGER M HALL for DNR SUBDIVISION B

EXXON L. OLSON USCG/NOAA SCHULTZ/CHILDS DATE 5/20/91

TIME 09:45 to 10:15 TIDE LEVEL +5.8 ft. to +4.3 ft. ENERGY LEVEL: ☐ H ☐ M ☒ L

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

TOTAL LENGTH SHORELINE SURVEYED: 237 m NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONE

EST. OIL CATEGORY LENGTH: W — m M — m N 8 m VL 40 m NO 189 m US — m

LOC	SURFACE OIL CHARACTER										SURFACE SEDIMENT TYPE	SHORE SLOPE	AREA		ZONE				NOTES
	AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO		V H M L	WIDTH m	LENGTH m	S	UI	MI	LI	
A1					T	T					RB	H	≤1	5		X			
A2	T										BCPG	M	≤1	10			X		
A3						P					R	H	1	<2		X			
B1					T	T					PG	M	<1/2	30			X		totals.
B2	B										BCG	M	2	6		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 - 27 FRAMES 2~4

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO				B R S N	S	UI	MI	LI		
1	30							X	-		20	N		X			GP-GRV	organics
2	15							X	-		—				X		CB-CPG	
3	20							X	-		—			X			P-PC	
4	15							X	-		—				X		PB-CG	
5	15							X	-		—			X			PG-GPV	organics

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

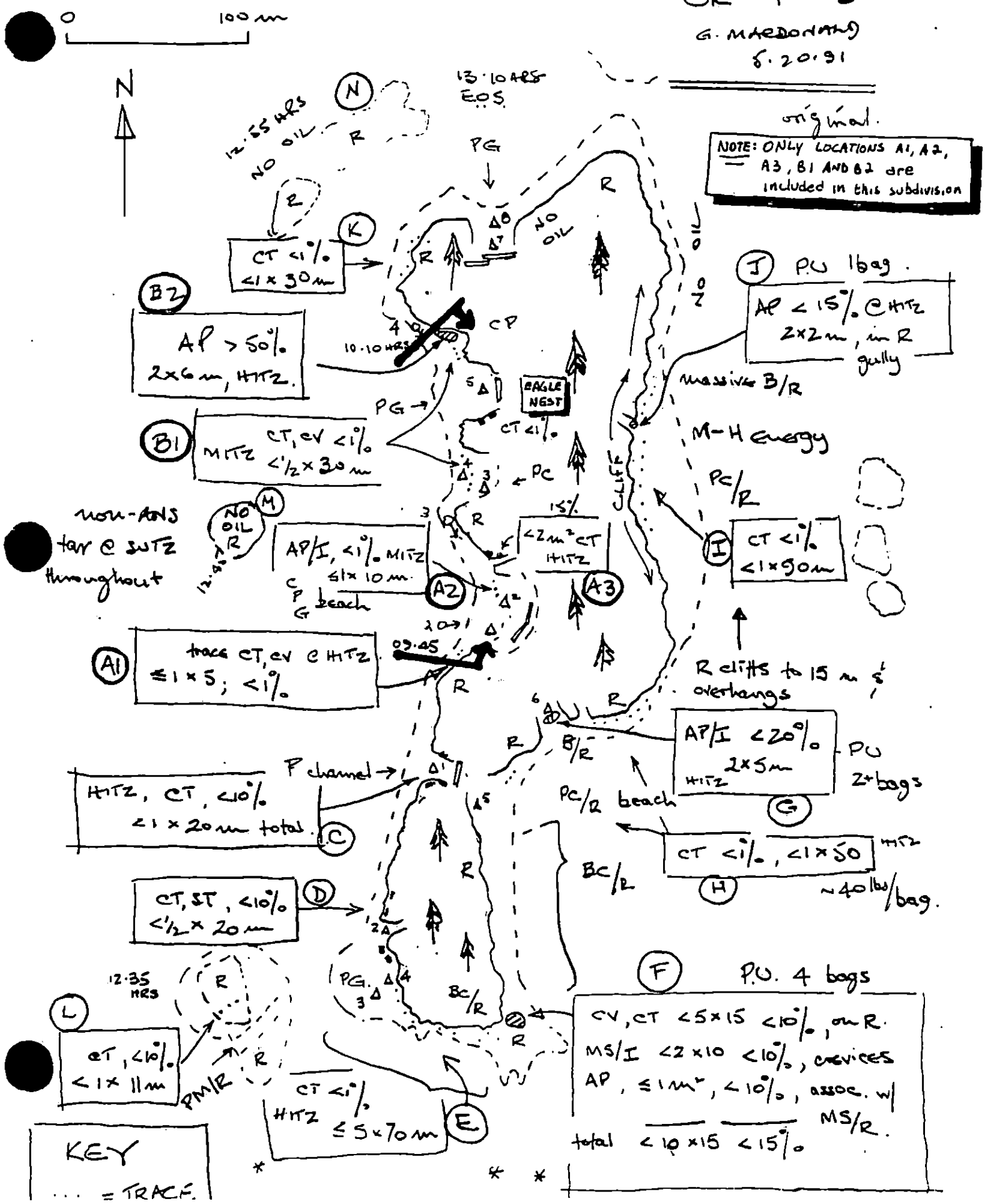
OG COMMENTS: Low relief rocky shore w/ CPG beaches & rock outcrops. Surface oil only, as (i) CV, CT, traces @ HTZ w/ local patch. (ii) A1; two small areas, one traces, the other a broken pavement @ north end of segment. This pavement lies behind an active eagle nest

CR-4 B

G. MACDONALD
8.20.91

original.

NOTE: ONLY LOCATIONS A1, A2, A3, B1 AND B2 are included in this subdivision



MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 1 DATE 20 May 91

SEGMENT # CB 004 TIDAL HEIGHT(Range) 5.0-6.0ft MLLW

SUBDIVISION B 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 three low energy B/C/P beaches separated by rock outcrops. The beaches generally have sparse biota in UTZ, but dense young mussel beds in MTZ-LTZ with patchy rockweed, Rhodomela, and barnacles, very dense littorinids (mostly young, recent recruits), moderate limpets and dense hermit crabs. Remaining patches of oil are mostly above +8ft MLLW (above nearly all intertidal biota), but some is within upper range of barnacles.

See sketch map for descriptions of biota near each area of residual oil.

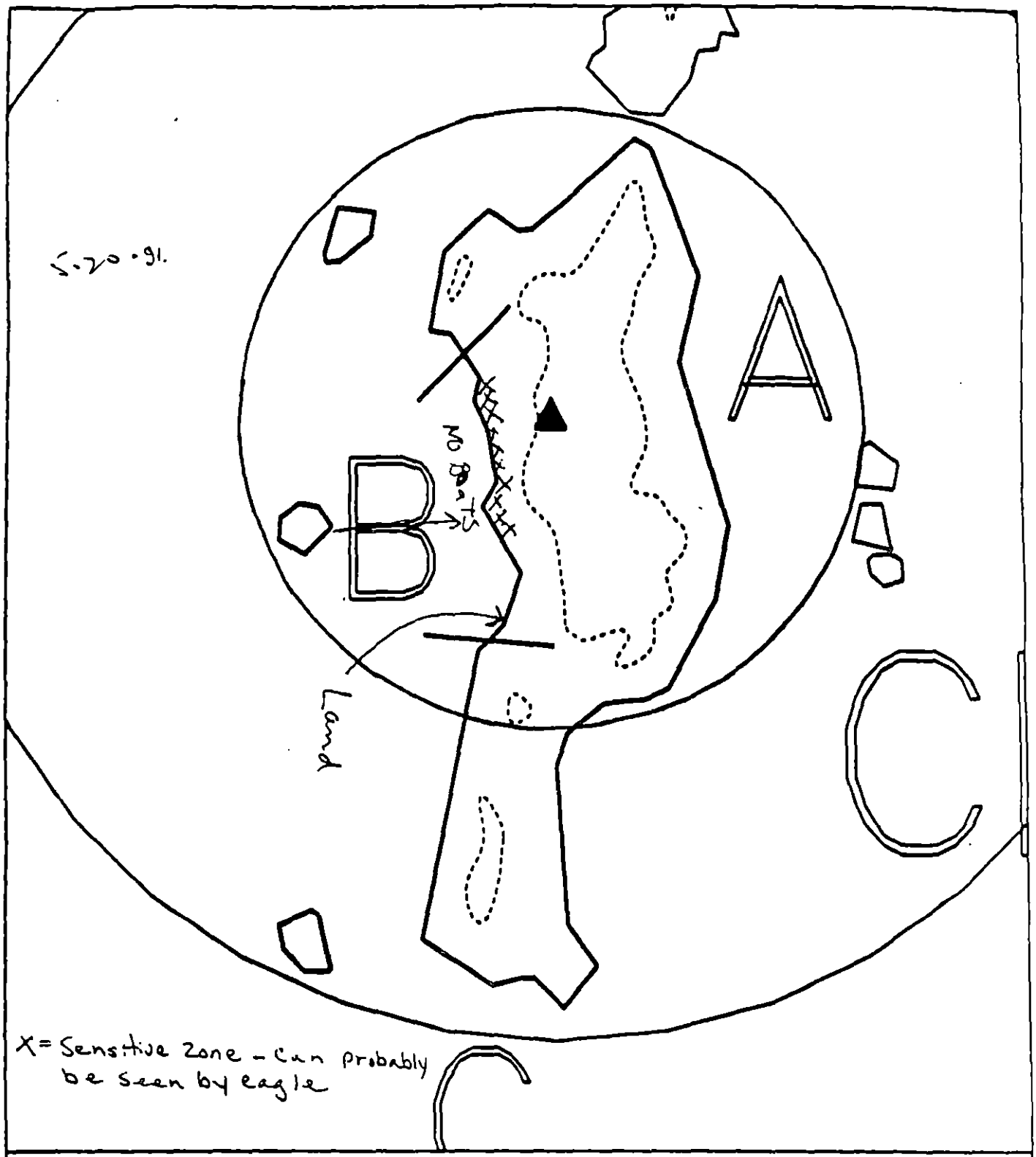
USFWS representative Doug Stine monitored eagle nest while we conducted the survey.

WILDLIFE OBSERVATIONS
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	3 (2 adults w/ nest - 1 imm flew by)	
Seabirds			
Waterfowl	1 (common merganser)	1	
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.



CR004

Segment Reference Map

Map Key: PWSCR004

EXXON

METERS

0 92 184

AK State Plane Zone 4

EAGLE NEST

CR004-B 5/20/91 Fawcett

Arrive 0945 at S. end, walk north - doing ~~SD~~ Stine (USFWS) in boat watching eagle nest - low energy

- 0945 1st beach p/g, logs in UTZ no biota exc. on BR outcrops

CT on S and bedrock +8 ft UTZ among upper edge of dense barnacles

- dense Fucus nearby & below

- dense Litt. on Fucus MTZ on BR, sparse in MTZ-LTZ P/G

- barn spat on MTZ

- mussel bed (under water) in MTZ-LTZ P/G, also scattered Fucus

- 30 yds North sediments more coarse c/B - dense Litt (many new recruits) - young mussel bed extends up to +6 ft

- SOR in UTZ (+8) B/C - sparse barn, Litt (mod) mod. spat - dense mussels on barn

0955 - just below nest - same B/C/P - very dense young Litt +3-+7 ft

sparse Fucus, dense rockweed up to +6

sparse Rhodomela - dense hermit crabs

- 1 common nor'gansett

- heard some vocalizing of eagle for 30 seconds

1000 - N end - CT/SOR near BR end +8-12 ft - some biota

- heard adult vocalizing, then eagle flew from nest area to left area perches

- (Doug said it was another adult flying over from elsewhere, and the one on the nest was vocalizing at it, did not leave nest

Wind NE 0-5, no seas

1015 - start CR004-A - low energy

Pocket beach C/B/P/G

mussel bed below 6 ft - dense Litt, (same description as B)

but BR has sparse barn, Fucus, Rhodo, dense spat below 7 ft, mussels in crevices (sparse limpets, Litt)

SOR & CT on north BR wall +16 ft (in right angle crack) no biota - barnacles up to about 8 ft

- historical structure remains in backshore

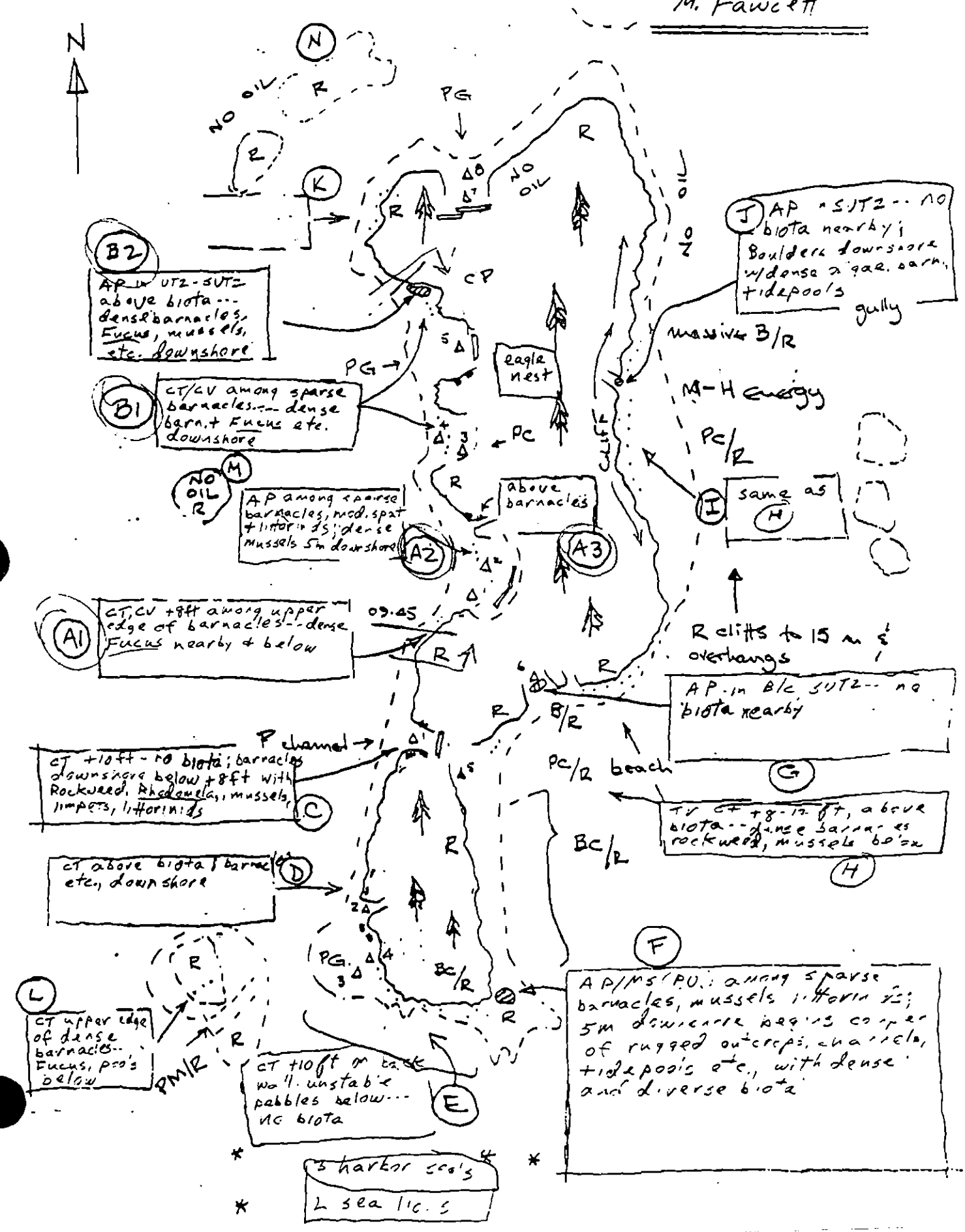
- 3 harbor seals

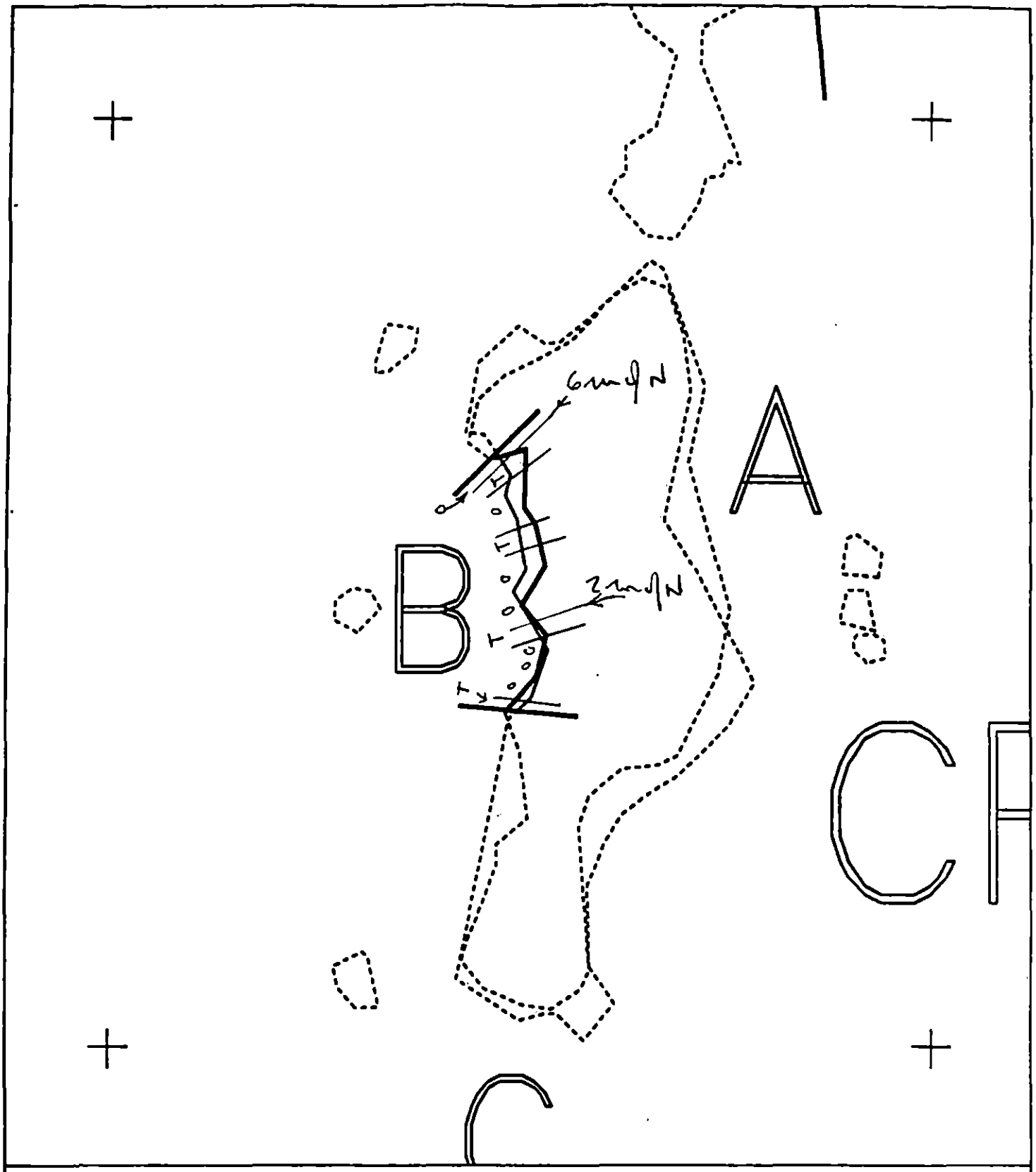
- large school salmon fry

- dep. 1030

- 1030 - G/P beach - BR in UTZ-SUTZ & at N end

CR-4 5/20/91
Bio Sketch Map
M. Fawcett





XXXX	Wide	CR004 B	Subdivision Field Map
////	Medium	ADEC Subsegment Length: 237m	Map Key: PWSCR0048
----	Narrow	METERS	Name: G.M.
TTTT	Very Light	0 100 200	Date: 5-20-91
0000	No Oil	AK State Plane Zone 4 per004b	Date Entered:

1991 MAYSAP EVALUATION

SEGMENT: CR 004 SUB: C REGION: PWS SURVEY DATE: 5/20/91

ENVIRONMENTAL SENSITIVITIES:
Work Window(s) RESTRICTED 3/1 - 9/1

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

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.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 1 SEGMENT CR004 SUBDIVISION C DATE 5 / 20 / 91

ADEC
NAME JEFF GINKUS SIGNATURE [signature]

☒ NTR

NO OIL.

EXXON
NAME LARRY O. OLSON SIGNATURE Larry O. Olson

☒ NTR No oiling conditions were located on this segment.

LANDMANAGER
NAME MARSHA HALL OF DNR SIGNATURE Marsha Hall

☒ NTR NO OIL.

USCG/NOAA
NAME SCHULTZ / CHILDS SIGNATURE [signature] / [signature]

☒ NTR NO RECOVERABLE OIL FOUND

THREE "ISLANDETTES" – RELATIVELY SMOOTH & ROUNDED – BEDROCK PINNACLES
SMALL AMOUNT OF CT ON "L" – NO OTHER OIL DETECTED

MAYSAP SHORELINE OILING SUMMARY

PAGE 1 OF 1

TEAM NO. 1

SEGMENT CR-4

OG G. MACDONALD BIO M. FAWCETT

SUBDIVISION C

ADEC J. GINALIAS LANDMANAGER M. HALL for DNR

DATE 5 / 20 / 91

EXXON L. OLSON USCG/NOAA SCHULTZ / CHILDS

TIME 12 : 30 to 12 : 50 TIDE LEVEL +0.25 ft. to +0.1 ft. ENERGY LEVEL: [ ] H [ ] M [X] L

SURVEYED FROM: [X] FOOT [X] BOAT [ ] HELO WEATHER: [X] SUN [ ] CLOUDS [ ] FOG [ ] RAIN [ ] SNOW

TOTAL LENGTH SHORELINE SURVEYED: 325 m NEAR SHORE SHEEN: [ ] BR [ ] RB [ ] SL [X] NONE

EST. OIL CATEGORY LENGTH: W — m M — m N — m VL 11 m NO 314 m US — m

LOC	SURFACE OIL CHARACTER										SURFACE SEDIMENT TYPE	SHORE SLOPE	AREA WIDTH m	AREA LENGTH m	ZONE				NOTES
	AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO		V H M L			S	UI	MI	LI	
L						S					R	M	<1	11		X			
M										C	R	M	-	-	X	—	—	X	
N										C	R	M	-	-	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 - 27 FRAMES 16-17

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		

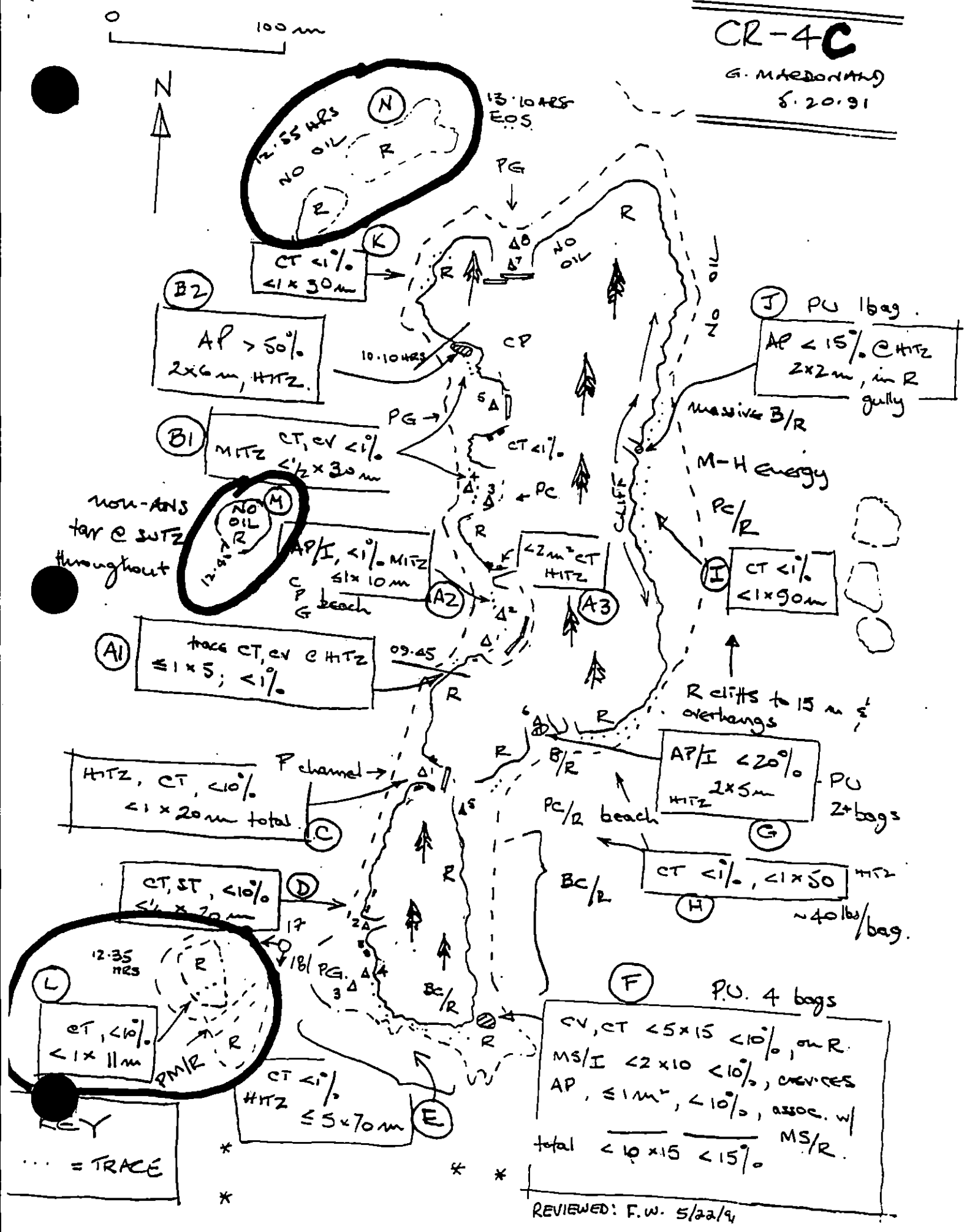
SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

REVIEWED: F.W. 5/22/91

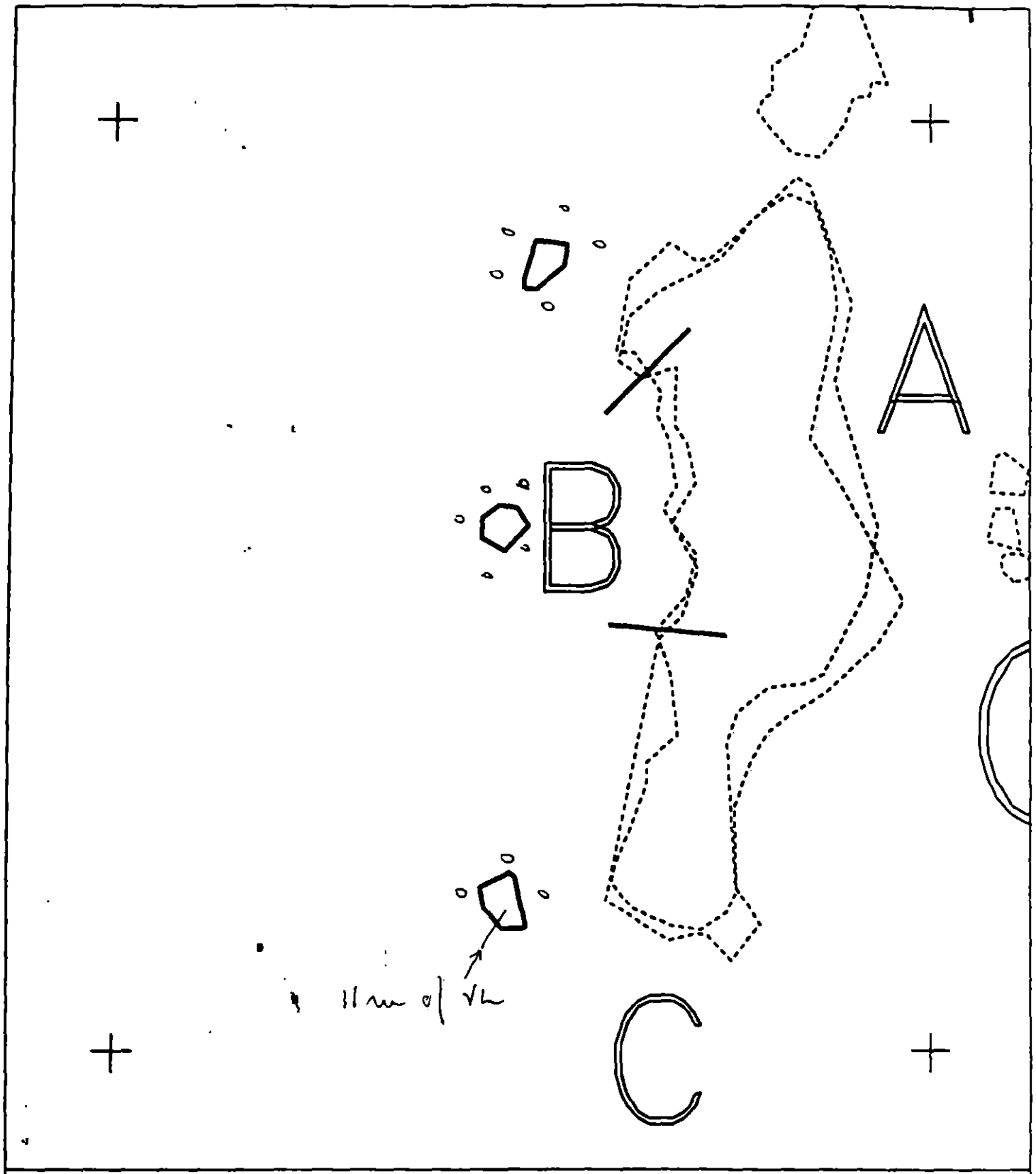
OG COMMENTS: Chain of 3 rocks, mostly submerged, low relief & generally smooth, low angle rock.
Surface oil only, confined to the south islet @ (L) as a band of sporadic CT on a channel wall.
No pits were dug since mud was prevalent at surface

CR-4C

G. MACDONALD
8.20.91



REVIEWED: F.W. 5/22/94



XXXX	Wide	CR004 C	Subdivision Field Map
////	Medium	ADEC Subsegment Length: 328m	Map Key: PWSCR004C
----	Narrow	METERS	Name: GM
TTTT	Very Light	0 100 200	Date: 5.20.91
0000	No Oil	AK State Plane Zone 4 per004a	Date Entered:

REVIEWED: 5/22/91 C.W.

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 1 DATE 20 May 91

SEGMENT # CR004 TIDAL HEIGHT(Range) +0.2 to +0.4 ft MLLW

SUBDIVISION C BIOLOGIST Michael Fawcett

SEA STATE calm WIND SPEED/DIRECTION calm

PHOTOGRAPHS: ROLL # FRAME #

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

Southernmost islet (L on sketch) has CT on rock wall among the upper edge of dense barnacles. No other oil seen on any of the three islets in this subdivision. The islets have mostly moderate-slope rock walls covered with dense barnacles, Fucus, and patchy mussels. MTZ pebble channels have very dense mussel beds, clams in LTZ. Many craters & broken shells in clam and mussel beds indicate sea otter activity. Regurgitated mussel shells scattered about on tops of islets in SUTZ indicate gull use of mussels as well. Some small tidepools on top of southern islet are filled with dense filamentous green algae and littorinids.

WILDLIFE OBSERVATIONS
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles			
Seabirds			
Waterfowl			
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.

Cont. sketch No. 4

CR004-C (SATs) 5/20/91 Fawcett

1230 hrs. – southern most islet

– clams, moon snails LT2 –
very dense mussel bed in 6 ft wide
channel separating 2 parts of
rock +1 to +3 ft

small SUTZ pools on top
(+ 16 ft) – choked with fil. green
algae, some Rhodophyta Scytosiphon –
dense Littorinids –

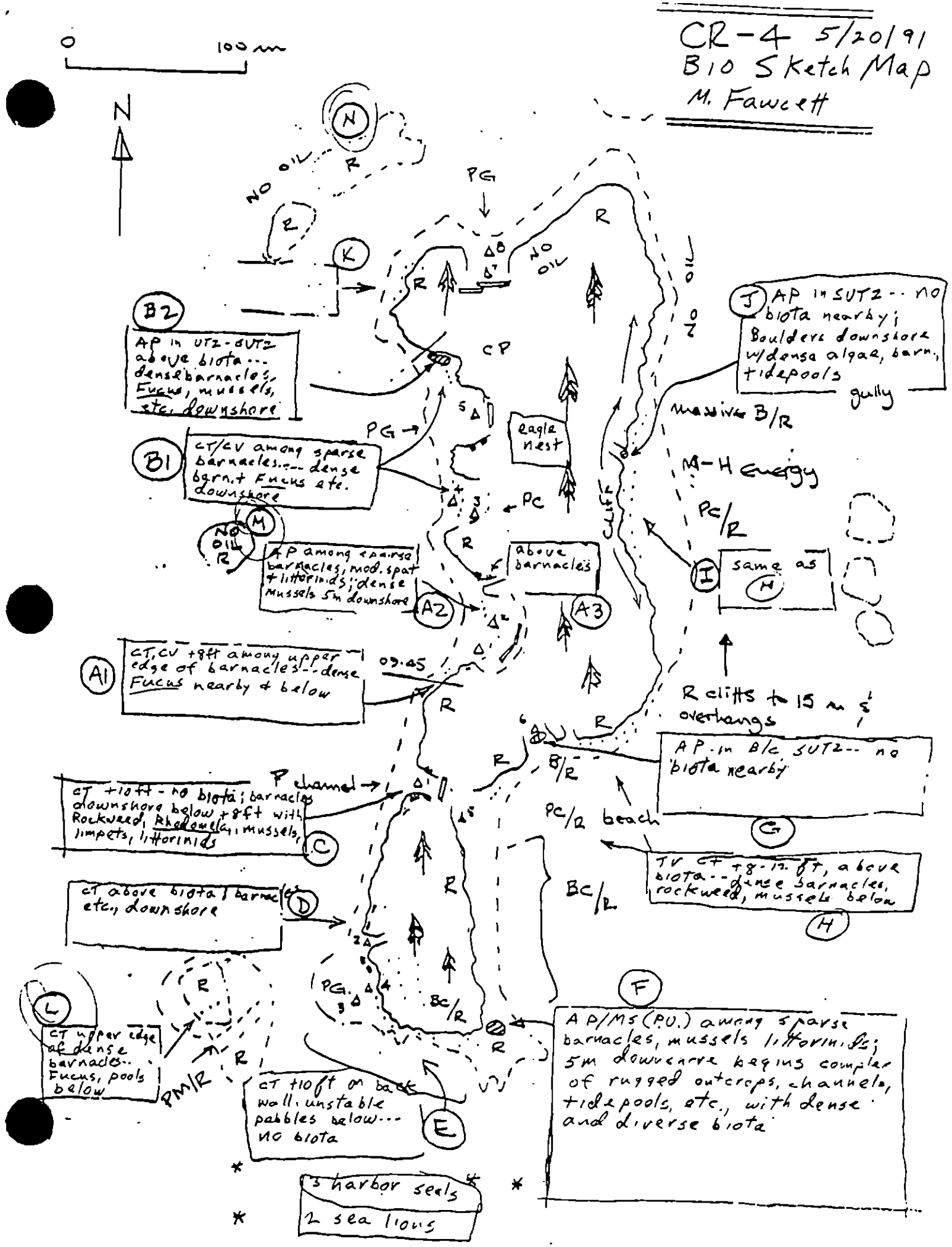
CT on rock wall +8-10 along upper
edge of dense barnacles – Fucus,
pools below

1240 – proceed to Middle islet
– same biota

1245 – Islet 3 – same biota – no oil

finish 1250 hrs

CR-4 5/20/91
Bio Sketch Map
M. Fawcett



1991 MAYSAP EVALUATION

SEGMENT: CR 004 SUB: C REGION: PWS SURVEY DATE: 5/20/91

ENVIRONMENTAL SENSITIVITIES:
Work Window(s) RESTRICTED 3/1 - 9/1

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

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

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

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 31 1991 FOSC APPROVAL DATE: 6/3/91

ADEC

EXXON

USCG

NOAA

FOSC

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.

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

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 1 SEGMENT CR004 SUBDIVISION C DATE 5 / 20 / 91

ADEC
NAME JEFF GINATUS SIGNATURE [signature]

[X] NTR

NO OIL.

EXXON
NAME LARRY O. OLSON SIGNATURE Larry O. Olson

[X] NTR No oiling conditions were located on this segment.

LANDMANAGER
NAME MARSHA HALL OF DNR SIGNATURE Marsha Hall

[X] NTR NO OIL.

USCG/NOAA
NAME SCHULTZ / CHILDS SIGNATURE [signature]

[X] NTR NO RECOVERABLE OIL FOUND

THREE "ISLANDETTES" – RELATIVELY SMOOTH & ROUNDED – BEDROCK PINNACLES
SMALL AMOUNT OF CT ON "L" – NO OTHER OIL DETECTED

MAYSAP SHORELINE OILING SUMMARY

PAGE 1 OF 1

TEAM NO. 1

OG G. MACDONALD BIO M. FAWCETT SEGMENT CR-4

DEC J. GINALIAS LANDMANAGER M. HALL for DNR SUBDIVISION C

EXXON L. OLSON USCG/NOAA SCHULTZ/CHILDS DATE 5/20/91

TIME 12:30 to 12:50 TIDE LEVEL +0.25 ft. to +0.1 ft. ENERGY LEVEL: [ ] H [ ] M [X] L

SURVEYED FROM: [X] FOOT [X] BOAT [ ] HELO WEATHER: [X] SUN [ ] CLOUDS [ ] FOG [ ] RAIN [ ] SNOW

TOTAL LENGTH SHORELINE SURVEYED: 325 m NEAR SHORE SHEEN: [ ] BR [ ] RB [ ] SL [X] NONE

EST. OIL CATEGORY LENGTH: W — m M — m N — m VL 11 m NO 314 m US — m

LOC	SURFACE OIL CHARACTER										SURFACE SEDIMENT TYPE	SHORE SLOPE V H M L	AREA WIDTH m	AREA LENGTH m	ZONE S	ZONE UI	ZONE MI	ZONE LI	NOTES
	AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO									
L						S					R	M	<1	11		X			
M										C	R	M	-	-	X	—		X	
N										C	R	M	-	-	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 - 27 FRAMES 16-17

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		

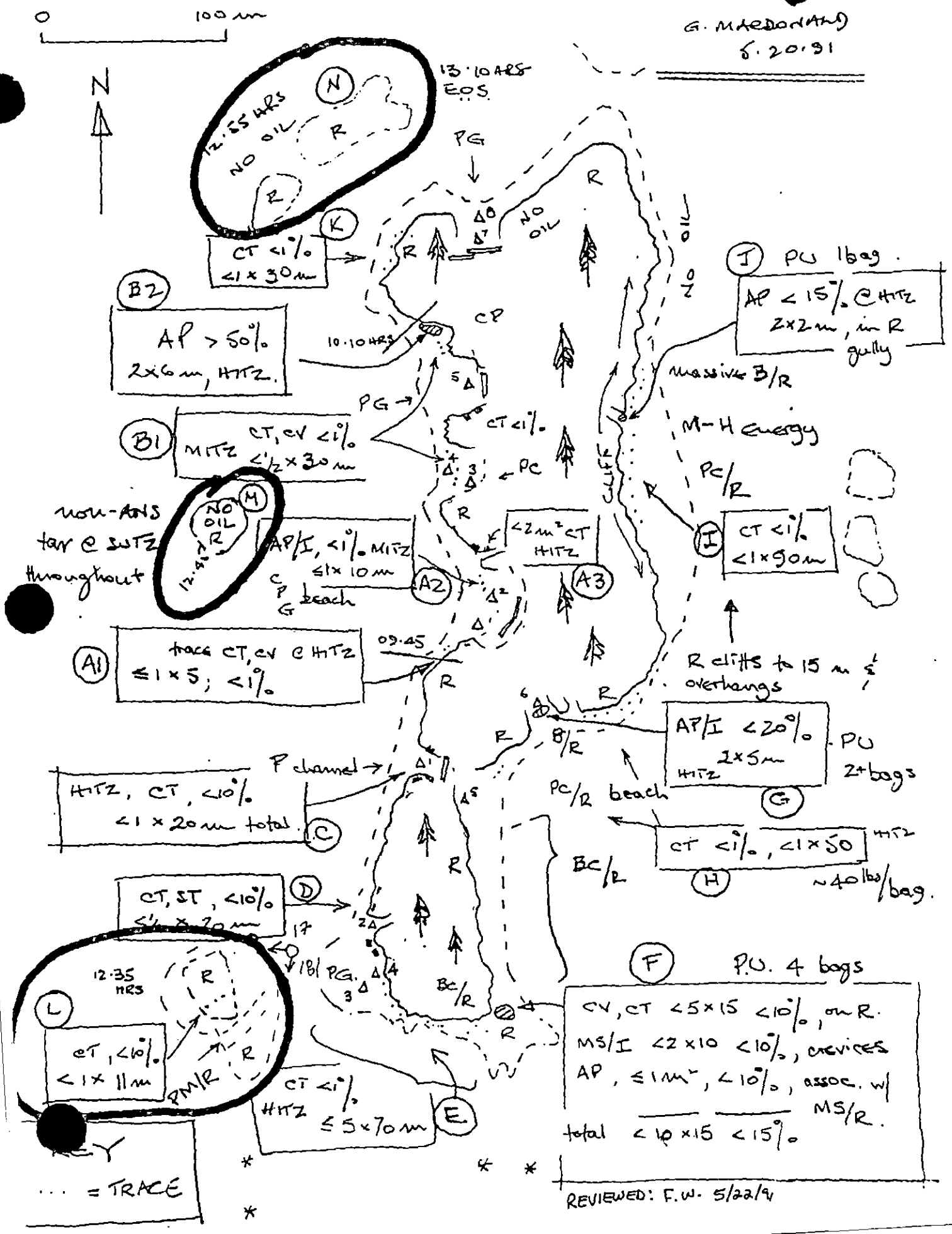
SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

REVIEWED: F.W. 5/22/91

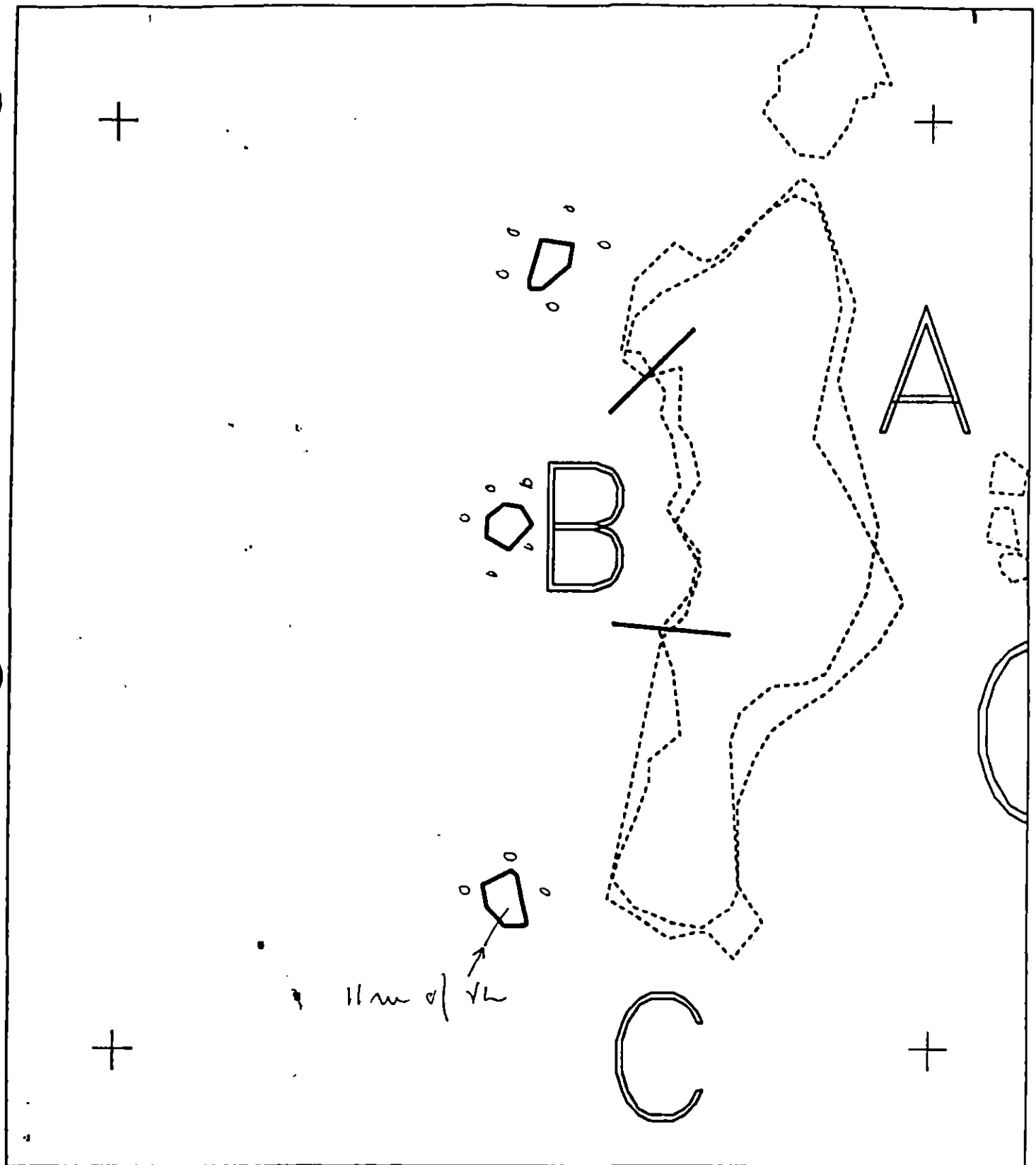
OG COMMENTS: Chain of 3 rocks, mostly submerged, low relief & generally smooth, low angle rock.
Surface oil only, confined to the south islet @ (L), as a band of sporadic CT on a channel wall.
No bite [illegible] since mud was breakout at surface

CR-4C

G. MACDONALD
8.20.91



REVIEWED: F.W. 5/22/91



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

CR004 C

ADEC Subsegment Length: 326m

METERS

0 100 200

AK State Plane Zone 4 per004c

Subdivision Field Map

Map Key: PWSCR004C

Name: GM

Date: 5.20.91

Date Entered:

REVIEWED: 5/22/91 C.W.

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 1 DATE 20 May 91

SEGMENT # CR004 TIDAL HEIGHT(Range) +0.2 to +0.4 ft MLLW

SUBDIVISION C BIOLOGIST Michael Fawcett

STATE calm WIND SPEED/DIRECTION calm

PHOTOGRAPHS: ROLL # FRAME #

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

Southernmost islet (L on sketch) has CT on rock wall among the upper edge of dense barnacles. No other oil seen on any of the three islets in this subdivision. The islets have mostly moderate-slope rock walls covered with dense barnacles, Fucus, and patchy mussels. MTZ pebble channels have very dense mussel beds, clams in LTZ. Many craters & broken shells in clam and mussel beds indicate sea otter activity. Regurgitated mussel shells scattered about on tops of islets in SUTZ indicate gull use of mussels as well. Some small tidepools on top of southern islet are filled with dense filamentous green algae and littorinids.

WILDLIFE OBSERVATIONS
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles			
Seabirds			
Waterfowl			
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.

Cont. 5/22/91 Nm 4

CR004-C (Islets) 5/20/91 Fawcett

1230 hrs. – Southern most islet

– claims, moon snails LT2 –

very dense mussel bed in 6 ft wide

channel separating 2 parts of

rock +1 to +3 ft

Small SUTZ pools on top

(+ 16 ft) – choked with fil. green

algae, some Rhodophyta Scytosiphon –

dense Littorinids –

CT on wall +8-10 among upper

edge of dense barnacles – Fucus,

pools below

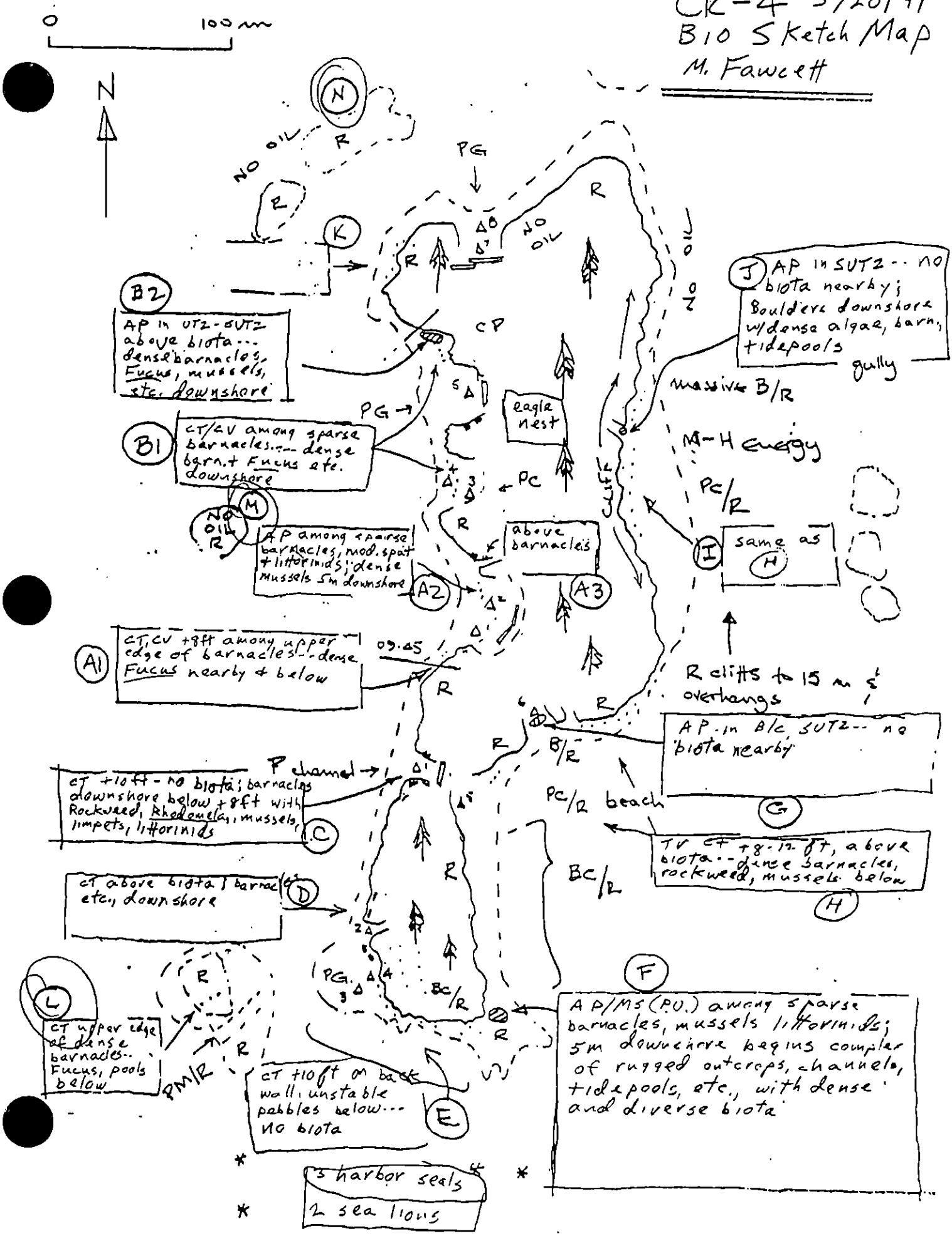
1240 – proceed to middle islet

– same biota

1245 – Islet 3 – same biota – no oil

finish 1250 hrs

CR-4 5/20/91
Bio Sketch Map
M. Fawcett



1991 MAYSAP EVALUATION

SEGMENT: CR 004 SUB: A REGION: PWS SURVEY DATE: 5/20/91

ENVIRONMENTAL SENSITIVITIES:
Work Window(s) RESTRICTED 3/1 - 9/1

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

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

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

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 31 1991 FOSC APPROVAL DATE: 6/5/91

ADEC

EXXON

USCG

NOAA

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

The state will evaluate the need for further treatment. JG

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.

MAYDAY FIELD SHORELINE COMMENT SHEET

TEAM NO. 1 SEGMENT CR004 SUBDIVISION A DATE 5/29/91

ADEC
NAME JEFF GINALIAS SIGNATURE [signature]

☐ NTR ☒ TREATMENT RECOMMENDED

MANUAL WORK - TROWELS. AT AREA "F" (OG MAP) SOME MOUSSE IS TRAPPED IN CRACKS AND DEPRESSIONS OF LARGE BEDROCK UPRISE (5'x15') AT HITZ. THE MOUSSE FORMED A DRIED LAYER WHICH PROTECTED THE OIL UNDERNEATH FROM DEGRADED SIGNIFICANTLY. PUNGENT ODOR WHEN DISTURBED. MUCH OF THE OIL ABOVE THE PEBBLE/COBBLE BASE OF BEDROCK REMOVED. BUT WHEN PEBBLES CLEARED, SIMILAR MOUSSE TRAPS BELOW THE PEBBLES. I WOULD RECOMMEND A SMALL SQUAD CLEAR AWAY PEBBLES, DEFINE & EXPOSE THE TOTAL IMPACT COVERAGE, AND REMOVE. FOUR TO SIX PEOPLE COULD COMPLETE IN THREE HOURS. RECOMMENDED TREATMENT AREA IS BEDROCK/COBBLE/PEBBLE. THIS MINIMAL IMPACT ON BIOTA. IF TREATMENT IS RECOMMENDED, FOR LOGISTICS CONSIDER THIS SITE WITH CR-004 (B)

EXXON
NAME LARRY D. OLSON SIGNATURE [signature]

☒ NTR Survey crew removed 7 GEO. bags from this segment. What remains is indicated on sketch map and should weather and break down without further intrusion.

LANDMANAGER
NAME MARSHA HALL OF DNR SIGNATURE [signature]

☐ NTR ☒ TREATMENT
Area F had removal of AP from bedrock cracks and bowls. Area of MOUSSE is at base of bedrock covered with pebbles and cobbles. It is recoverable AS well AS Accessible to MANUAL crew - hit it on a calm day. Eagle nest on other side of island. Set net sites, recreational area. Most oil removed came from cracks on bedrock. The mousse really should go. It is well protected from outlying ROCKS.

USCG/NOAA
NAME SCHULTZ/CHILDS SIGNATURE [signature]

☒ NTR INSIGNIFICANT AMOUNT OF RECOVERABLE OIL. WHAT IS REMAINING SHOULD BE LEFT TO WEATHER. HAS ALREADY SHOWN SIGNS OF DEGREDATION

STEEP, IRREGULAR, ROCK OUTCROPPING SHORELINE. BEDROCK LITHOLOGIES CHANGE SEVERAL TIMES OVER THE SEGMENT WHICH CREATE DIFFERENT CHARACTER TO POCKETS AND NICHES HERE. SILICIOUS BED ROCKS ON S'ly END OF ISLAND FORM BLOCKY CREVICES THAT HOLD MS/I & AP IN "F". APPARENT "JOINT CONTROLLED" ROCK CHANNELS & GULLIES HARBOR REC. AP IN "G" & "J". REMAINING OIL - CT, CV, ST @ HITZ/SITZ AREAS ARE TYPICAL.

MAYSAP SHORELINE OILING SUMMARY

TEAM NO. 1

SEGMENT CR-4

OG G. MACDONALD BIO M. FAWCETT

SUBDIVISION A

ADEC J. GINANJAS LANDMANAGER M. HALL for DNR

DATE 5 / 20 / 91

EXXON L. OLSON USCG/NOAA SCHULTZ / CHILDS

TIME 10 : 15 to 13 : 15 TIDE LEVEL +4.2 ft. to +0.2 ft. ENERGY LEVEL: ☐ H ☐ M ☒ L

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

TOTAL LENGTH SHORELINE SURVEYED: 1100 m NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONE

EST. OIL CATEGORY LENGTH: W – m M 15 m N – m VL 280 m NO 805 m US – m

LOC	SURFACE OIL CHARACTER										SURFACE SEDIMENT TYPE	SHORE SLOPE	AREA		ZONE				NOTES
	AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO		V H M L	WIDTH m	LENGTH m	S	UI	MI	LI	
C						S					R	H	<1	20		X			
D						S	S				R	H	<1/2	20		X			
E						T					R	H	<5	70		X			
F1					S	S					R	M	<5	15		X			mR
F2		S									RPG	M	<2	10		X			
F3	S										RPG	M	≤1	1		X			
G	T										BR	M	2	5		X			after P.U
H						T					R	H	<1	50		X			totalled.
[illegible]						T					R	H	<1	90		X			
[illegible]	T										BR	M	<2	2		X			after P.U.
K						T					RB	H	<1	30		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 - 27 FRAMES 5-16

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO				B R S N	S	UI	MI	LI		
1	15							X	-		–			X			Pc - PcV	organics
2	45							X	-		–			X			P - PGV	peat @ 40 cm
3	30							X	-		–				X		P - PG	
4	50							X	-		–			X			P - P	
5	30							X	-		–			X			Pc - PGV	organics
6	20							X	-		–			X			P - PV	"
7	30							X	-		–			X			PG - PGV	"
8	30							X	-		–				X		PG - PGV	"
									-									

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

OG COMMENTS: Low relief R shore w/ sheltered west side and more exposed, higher energy east shore. Surface oil only, as (i) AP/I, friable, w/ MS/I, notable @ SE end of island, now largely removed.

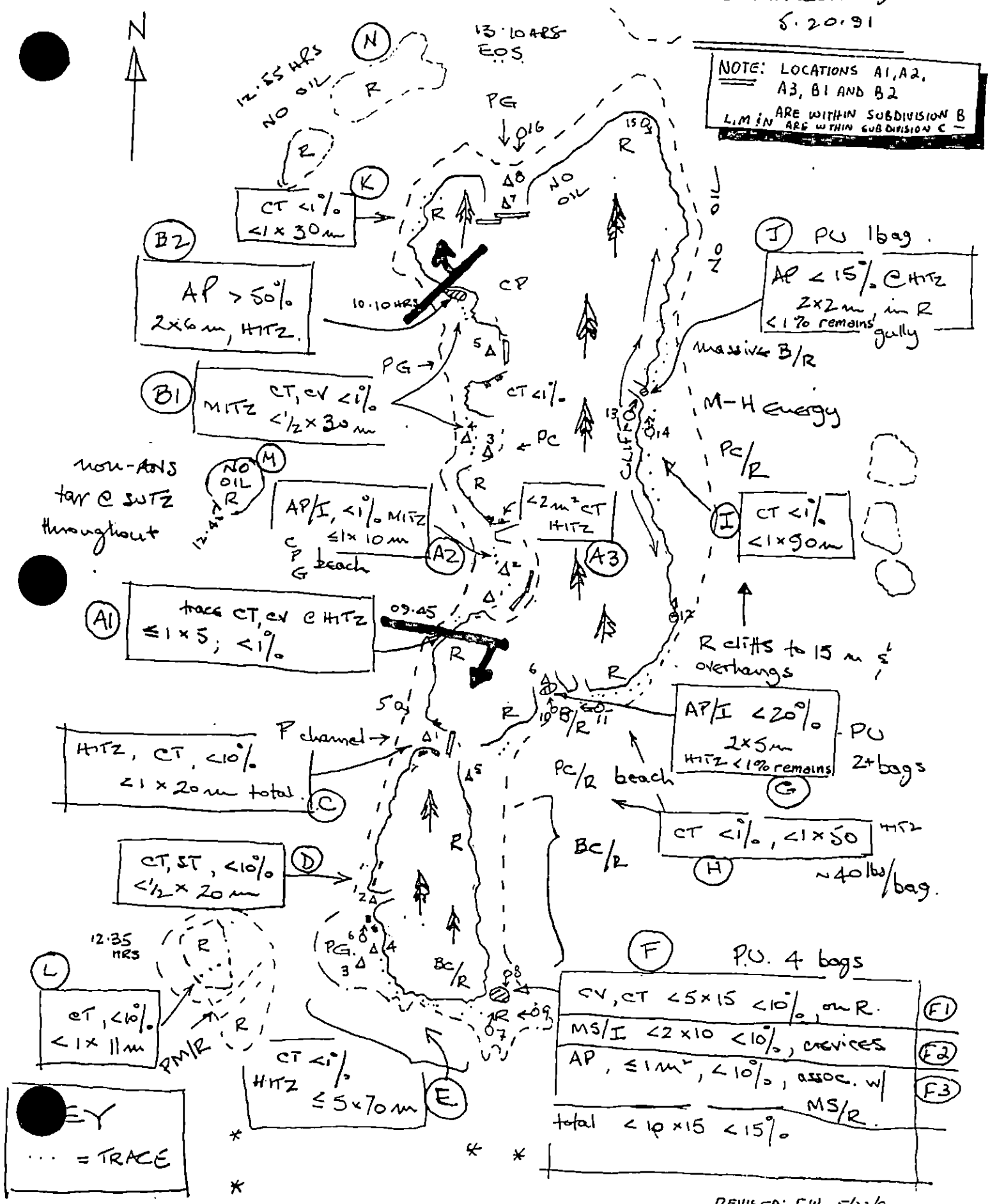
(ii) CT, CV, ST @ HTZ, typically trace amounts.

REVISED: F.W. 5/22/91

CR-4A

G. MACDONALD
5.20.91

NOTE: LOCATIONS A1, A2, A3, B1 AND B2 ARE WITHIN SUBDIVISION B
L, M, N ARE WITHIN SUBDIVISION C

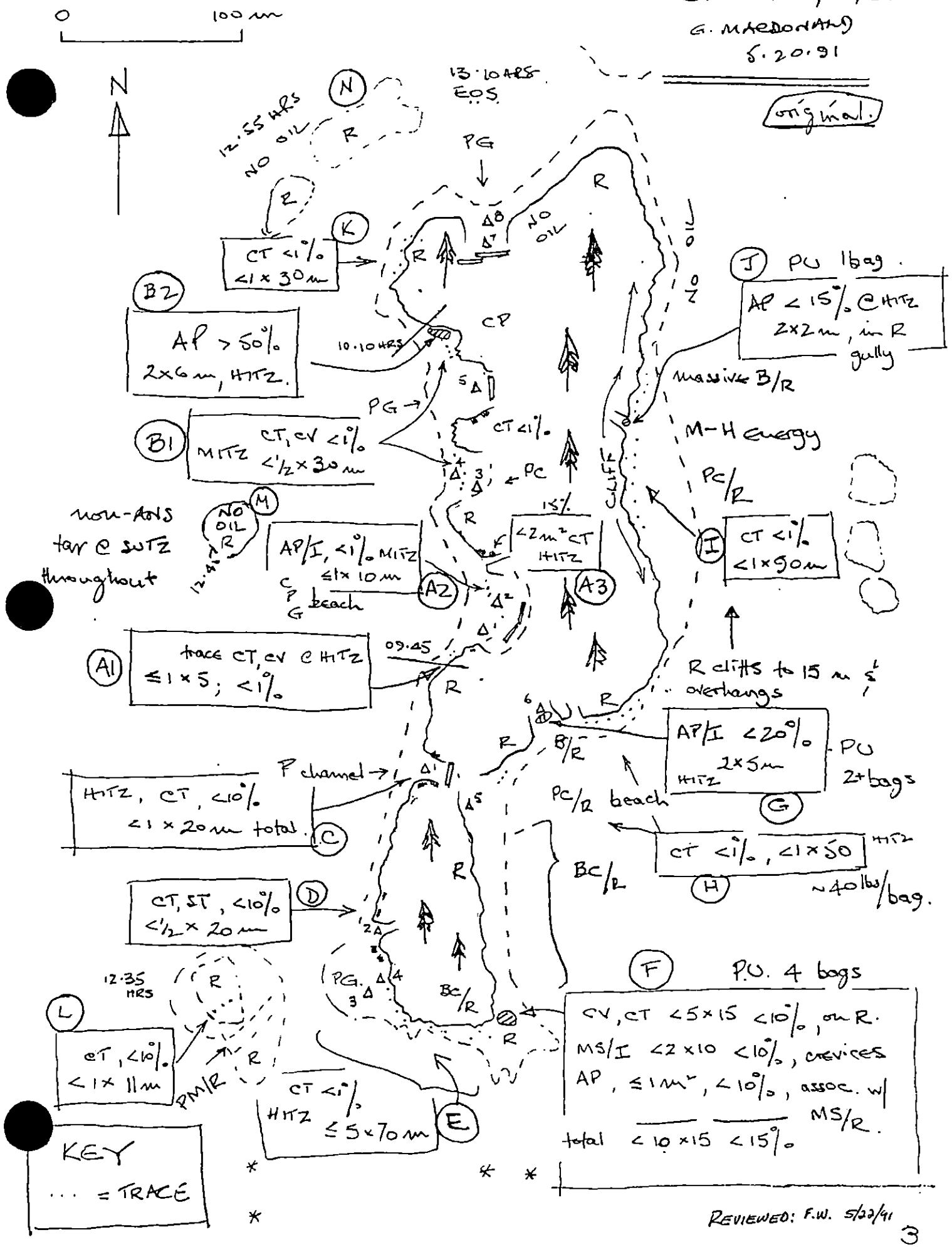


REVISED: F.W. 5/22/91

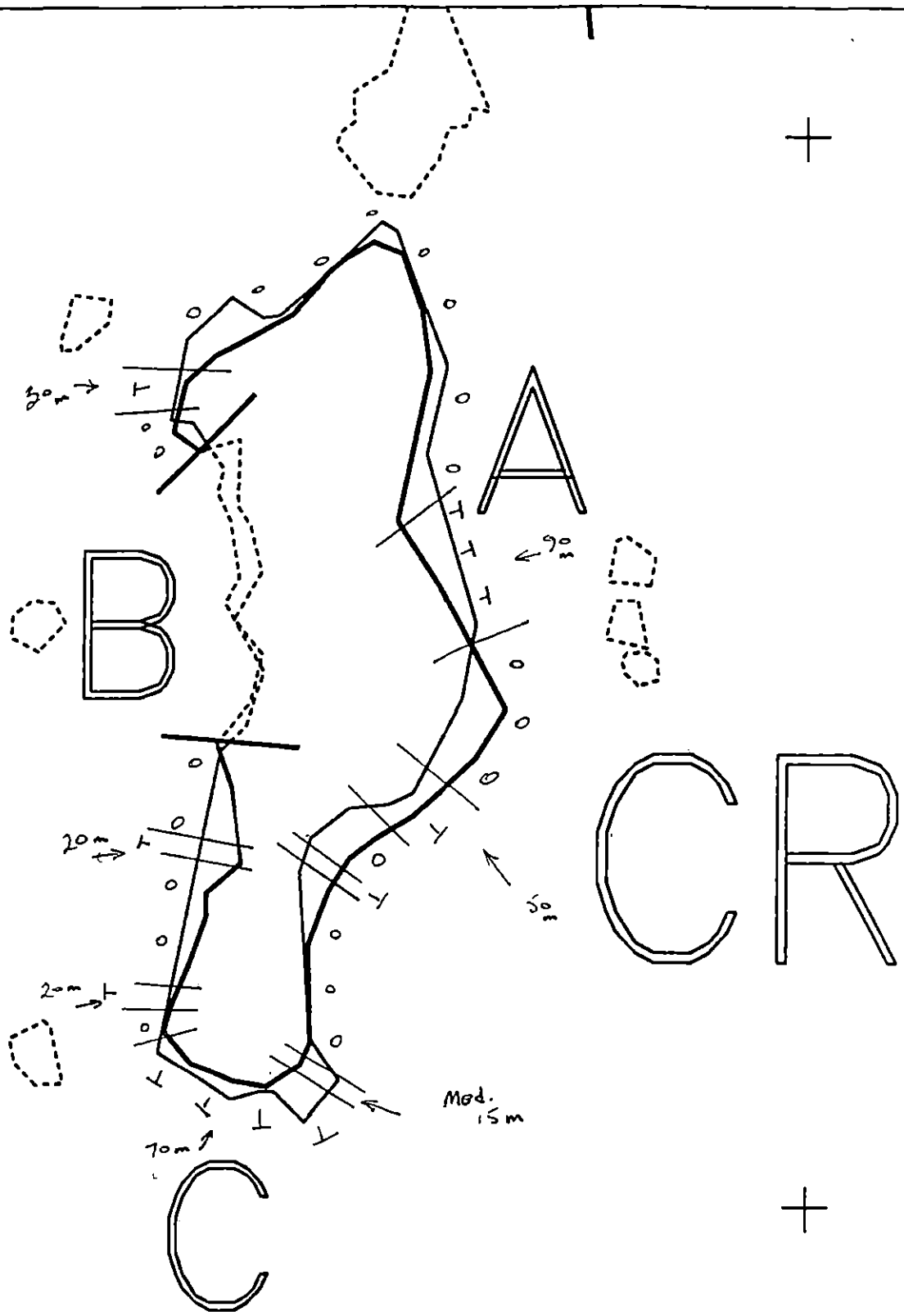
CR-4A, B, C.

G. MACDONALD
5.20.91

original.



REVIEWED: F.W. 5/22/91



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

CR004 A

ADEC Subsegment Length: 1094m

METERS

0 100 200

AK State Plane Zone 4
per084a

Subdivision Field Map

Map Key: PWSCR004A

Name: Grh

Date: 5·20·91

Date Entered:

REVISED: F.W. 5/22/91

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 1 DATE 20 May 91

SEGMENT # CR 004 TIDAL HEIGHT(Range) +0.1 to +5.0ft MLLW

SUBDIVISION A BIOLOGIST Michael Fawcett

SEA STATE calm WIND SPEED/DIRECTION calm

PHOTOGRAPHS: ROLL # FRAME #

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

This subdivision includes both ends and the eastern shore of the main island represented by CR004. Intertidal habitat includes pocket B/c/P/&G beaches, steep rock shoreline and rugged, incised bedrock complexes with benches, surge channels, and tidepools. Biota generally most diverse and abundant on the bedrock areas or in large boulders next to bedrock outcrops. Beaches with small sediments (P & G) have little or no biota in UTZ, but often have dense mussel beds and dense young littorinids in MTZ-LTZ. The rugged area at the south end of the island has the greatest variety of microhabitats, and a much greater diversity of intertidal species than most of the rest of the subdivision. see sketch map for descriptions of biota near sites with residual oil.

WILDLIFE OBSERVATIONS
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1 (immature)	1	salmon fry
Seabirds			
Waterfowl	2 canada goose, common merganser	6	
Gulls/kittiwakes			
Shorebirds	2 (whimbrel, black oystercatcher)	4	
Corvids	1 (crow)	3	
Other Birds	1 (orange-crowned warbler)	1	

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters			
Pinnipeds(specify)	2 sea lion, 3 harbor seals		
Whales(specify)			

Shoreline subdivision map showing important biological features attached.

Rec'd 5/27/91 LM 5

CR004-B 5/20/91 Fawcett

Arrive 0945 at S. end, walk north - doing ~~SD~~ Stine (USFWS), in boat watching eagle nest - low energy

- 0945 1st beach p/g, logs in UTZ no biota ~~seen~~ in BR outcrops

CT on S end bedrock, +8 ft UTZ among upper edge of dense barnacles

- dense Fucus nearby & below

dense Litt. on Fucus MTZ on BR, sparse in MTZ-LTZ P/G

- barn spat on MTZ

- mussel bed (under water) in MTZ-LTZ P/G, also scattered Fucus

- 30 yds North sediments more coarse C/B - dense Litt (many new recruits) - young mussel bed extends up to +6 ft

- SOR in UTZ (+8) B/C - sparse barn, Litt (mod) mod. spat - dense mussels on barn

0955 - just below nest - same B/C/P - very dense young Litt +3-+7 ft

sparse Fucus, dense mussels up to +6

sparse Rhodomela - dense hermit crabs

- 1 common merganser

- heard some vocalizing of ~~[illegible]~~ eagle for 30 seconds

1000 - N end - CT isolR near BR end +8-12 ft - some barn

- heard adult vocalizing, then eagle flew from nest area to left area [illegible]

- (Doug said it was another adult flying over from elsewhere, and the one on the nest was vocalizing at it, did not leave nest

Wind NE 0-5, no seas

1015 start CR004-A - low energy pocket beach C/B/P/G

mussel bed below 6 ft - dense Litt, (same description as (B))

Spot BR has sparse barn, Fucus, Rhodo, dense spat below 7 ft, mussels in crevices (~~[illegible]~~ sparse Litt)

SOR & CT on north BR wall +16 ft (in right angle crack) in biota - barnacles up to about 8 ft

- historical structure remains in backshore

- 3 harbor seals

- large school salmon fry

- dep. 1030

- 1030 - g/P beach - BR in UTZ-SUTZ & at N end

CR004-A (cont) 5/20/91 Fauvelle

- band of CT on back wall + 10 ft
no biota among or below - pebble
abrasion - fil green filmon
- deer bones on beach - also skull
1040 - opp islet - band of
CT continues along UTZ-SUTZ above
biota - sun out
- 3 crows
- at point 1045 - BR/B/C
dense Fucus MTZ - LTZ
- spat all over
- mod. lit. anemones -
scattered CT + SOR + 8-10 ft - some
picked up - base of rugged complex
of shelfs, humps, channels, + tidepool
ext. out to seashore reefs
- tidepools in UTZ-MTZ-LTZ
levels - dense Rhodomela &
littorinids in pools - also Litho
Sculpins, chitons, Katharina, Junceus, Lottia, Sculpins, etc, Territs
Large old B carcasses, very dense
3-10 mm mussels overgrowing
barnacles + forming hummocks in
most exposed areas
1106 - SOR being picked up among
sparse barn, mass, lit - alive
mussels growing in it

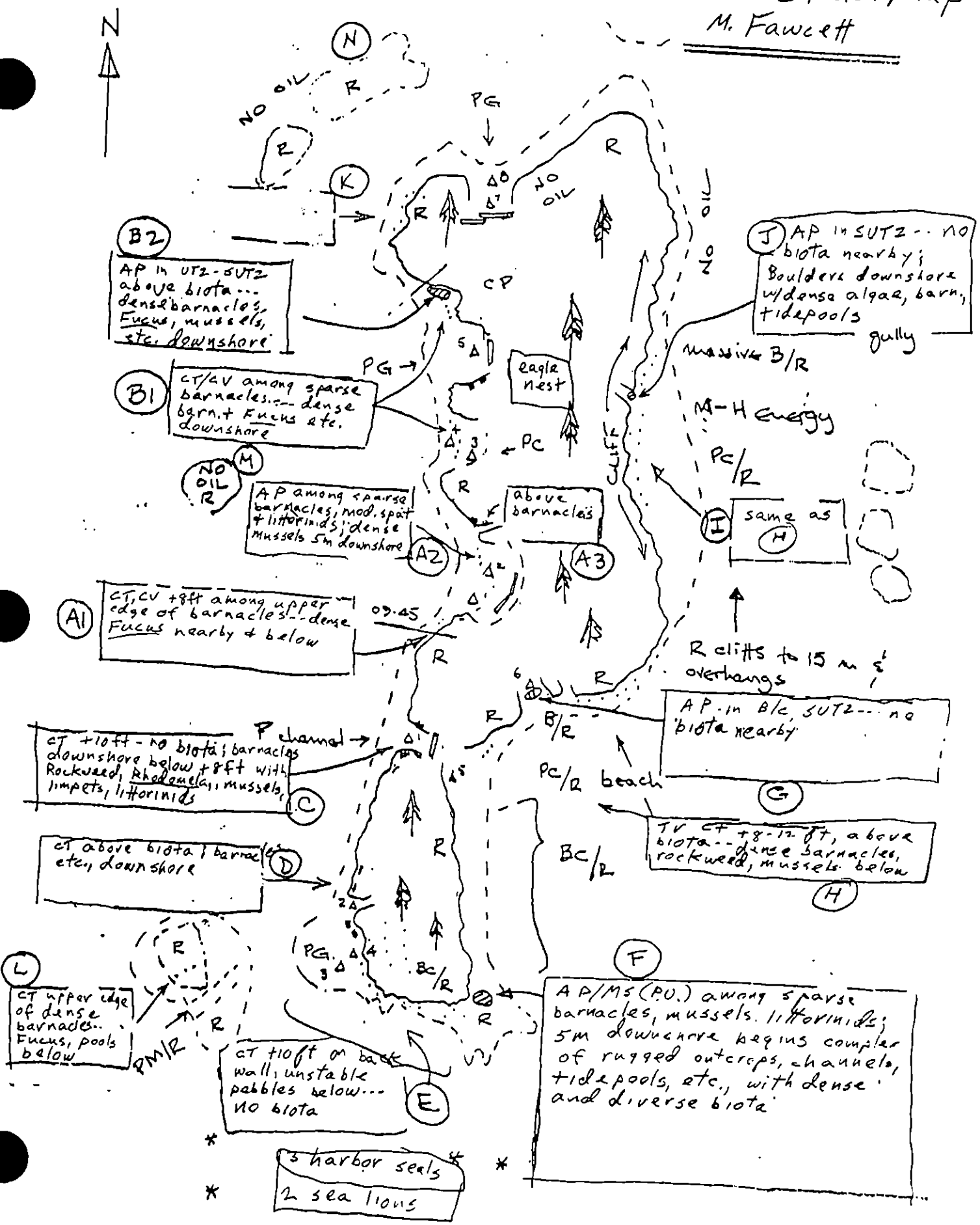
harbor seals seen earlier hanging around
reefs -
- 1130 - Sleep BR - very
dense Fucus UTZ-MTZ - dense
mixed algae LTZ -
dense barn, dense 0-2 yr mussels
under Fucus
Tr. - CT + 8-12 ft above biota

1150 - AP picked up - SUTZ - no biota
- traces CT + 8 in Fucus, lit, limp
- barnacles & tidepools barns
Kath, anemones, Litho -
- continuing north - more rugged BR/B
tiny pockets
- reached end 12/2 hrs, shuffled back
around north and to get to other
side of (A) - juvenile eagle
in tree

1255 - returned to North end of A
B/C/P/G beach similar to above
dense mussel bed MTZ - also dense
barn on C/D - dense pure lit.
- very dense 0-yr mussels at end of
island in MTZ B/C/P

CR004 A (cont) -
- 2 osprey cablers near end of segment
someone stepped on single egg -
we buried it to encourage female
to lay another, as recommended
by Doug Stone (USFWS)
Finish segment 1315

CR-4 5/20/91
BIO Sketch Map
M. Fawcett



1991 MAYSAP EVALUATION

SEGMENT: CR 004 SUB: B REGION: PWS SURVEY DATE: 5/20/91

ENVIRONMENTAL SENSITIVITIES:
Work Window(s) RESTRICTED 3/1 - 9/1

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

ARCHAEOLOGICAL CONSTRAINTS:

Consultation and inspection with an **Exxon archaeologist is required prior to treatment.** Specific on-site monitoring requirements will be determined at that time. **PHONE 564-3276; 564-3657; (Anchorage) or 229-1514 (24 hrs.)** Timothy A. Smith for SHPO 6/03/91

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

COMMENTS:
INITIAL:

TAG: MANUAL P/U & AP AT AREA B2.

FOSC:

TAG APPROVAL DATE: MAY 31 1991 FOSC APPROVAL DATE: 6/5/91

ADEC

EXXON

USCG

NOAA

FOSC
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.

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

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 1 SEGMENT CR004 SUBDIVISION B DATE 5/20/91

ADEC
NAME JEFF GIUALIAS SIGNATURE [signature]

☐ NTR ☒ TREATMENT RECOMMENDED

MANUAL TREATMENT AT SITE B2 (OG MAP). SURFACE ~~AP~~ ASPHALT IN 2 X 6 METER BAND, PROTECTED AREA (LEE SIDE, SW ORIENTATION) UITZ. LAYER IS SOMEWHAT WEATHERED BUT ~~REMOVAL~~ REMOVAL ~~WOULD~~ MAY BE PREFERRED TO NATURAL DEGRADATION FAIRLY THIN, WORK CREW OF 4 PERSONS COULD COMPLETE IN 2-4 HOURS. ~~AREA~~ PROPOSED WORK AREA IS BELOW ACTIVE EAGLE NEST. PER ADVICE OF DOUG SIVE, USF&WS, ANY TREATMENT ACTIVITIES IN AREA SHOULD BE DELAYED UNTIL YOUNG REACH FLEDGLING STAGE. FOR PLANNING PURPOSES & LOGISTICS, A RECOMMENDATION IS TO CONSIDER TREATMENT ON THIS SEGMENT IN CONJUNCTION WITH CR004(A).

EXXON
NAME LARRY O. OLSON SIGNATURE [signature]

☒ NTR Segment is healthy with Biological growth. No recoverable oil remains. Area indicated as B-2 on sketch map lies below an active Eagle nest. The remaining described oil has weathered nicely and will continue to do so.

LANDMANAGER
NAME MARSHA HALL OF DNR SIGNATURE Marsha Hall

☐ NTR ☒ Treatment
Area B2 could use some manual work. Remove surface Asphalt of Hitz. High use area recreation wise. Fishing - set net sites. It's pretty ugly.

USCG/NOAA
NAME SCHULTZ / CHILDS SIGNATURE [signature]

☒ NTR REMAINING OIL SHOULD BE LEFT TO NATURAL DEGREDATIVE PROCESSES, WHAT REMAINS HAS WEATHERED & WILL BREAKDOWN FURTHER. NO FURTHER INTRODION IS NECESSARY.

FRACTURED-IRREGULAR BEDROCK SHORELINE w/ CRESENT SHAPED BEACHES (CR. F.) OF ANGULAR TO SUBANGULAR REVERSE GRADED P C. BOULDERS (OR BR OUT...) UNDISPERSED BETWEEN SEGMENT & ALONG BEACH FACE. VERTICAL ROCK ⊗ SI & FORESHORE. MAJOR BEDROCK LITHOLOGY CHANGE FROM SILICIOUS ROCK (A3) TO PILLOW BASALTS (B-1), OIL AS CT, CV ⊗ HI SI-TRACES & AP ⊗ UI in N'lg portion - small PATCHES.

MAYSAP SHORELINE OILING SUMMARY

TEAM NO. 1

OG G. MACDONALD BIO M. FAWCETT

ADEC J. GIHALIAS LANDMANAGER M HALL for DNR

EXXON L. OLSON USCG/NOAA SCHULTZ/CHILDS

SEGMENT CR-4

SUBDIVISION B

DATE 5/20/91

TIME 09:45 to 10:15 TIDE LEVEL +5.8 ft. to +4.3 ft. ENERGY LEVEL: ☐ H ☐ M ☒ L

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

TOTAL LENGTH SHORELINE SURVEYED: 237 m NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONE

EST. OIL CATEGORY LENGTH: W — m M — m N 8 m VL 40 m NO 189 m US — m

LOC	SURFACE OIL CHARACTER										SURFACE SEDIMENT TYPE	SHORE SLOPE	AREA		ZONE				NOTES
	AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO		V.H.M.L	WIDTH m	LENGTH m	S	UI	MI	LI	
A1					T	T					RB	H	≤1	5		x			
A2	T										BCPG	M	≤1	10			x		
A3						P					R	H	1	<2		x			
B1					T	T					PG	M	<1/2	30			x		totals.
B2	B										BCG	M	2	6		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 - 27 FRAMES 2~4

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	30							x	-		20	N		x			GP-GPV	organics
2	15							x	-		—				x		CB-CPG	
3	20							x	-		—			x			P-PC	
4	15							x	-		—				x		PB-CG	
5	15							x	-		—			x			PG-GPV	organics
									-									
									-									
									-									
									-									

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

OG COMMENTS: Low relief rocky shore w/ CPG beaches & rock outcrops. Surface oil only, as (i) CV, CT, traces @ HTZ w/ local patch. (ii) A1; two small areas, one traces, the other a broken pavement @ north end of segment. This pavement lies below an active eagle nest.

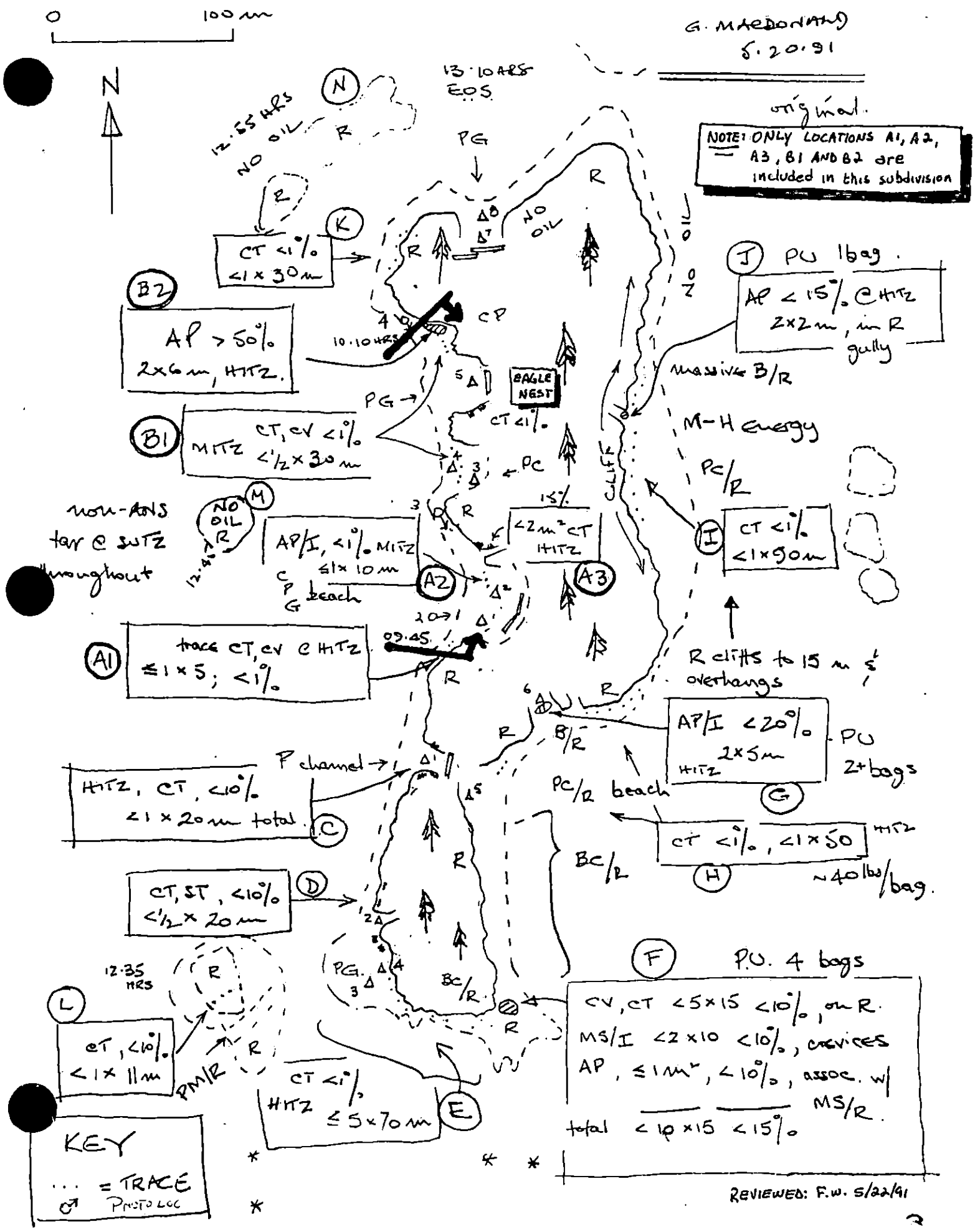
REVIEWED: F.W. 5/22/91

CR-4 B

G. MACDONALD
5.20.91

original.

NOTE: ONLY LOCATIONS A1, A2, A3, B1 AND B2 are included in this subdivision



REVIEWED: F.W. 5/22/91

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 1 DATE 20 May 91

SEGMENT # CB 004 TIDAL HEIGHT(Range) 5.0-6.0ft MLLW

SUBDIVISION B 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 three low energy B/C/P beaches separated by rock outcrops. The beaches generally have sparse biota in UTZ, but dense young mussel beds in MTZ-LTZ with patchy rockweed, Rhodomela, and barnacles, very dense littorinids (mostly young, recent recruits), moderate limpets and dense hermit crabs. Remaining patches of oil are mostly above +8ft MLLW (above nearly all intertidal biota), but some is within upper range of barnacles.

See sketch map for descriptions of biota near each area of residual oil.

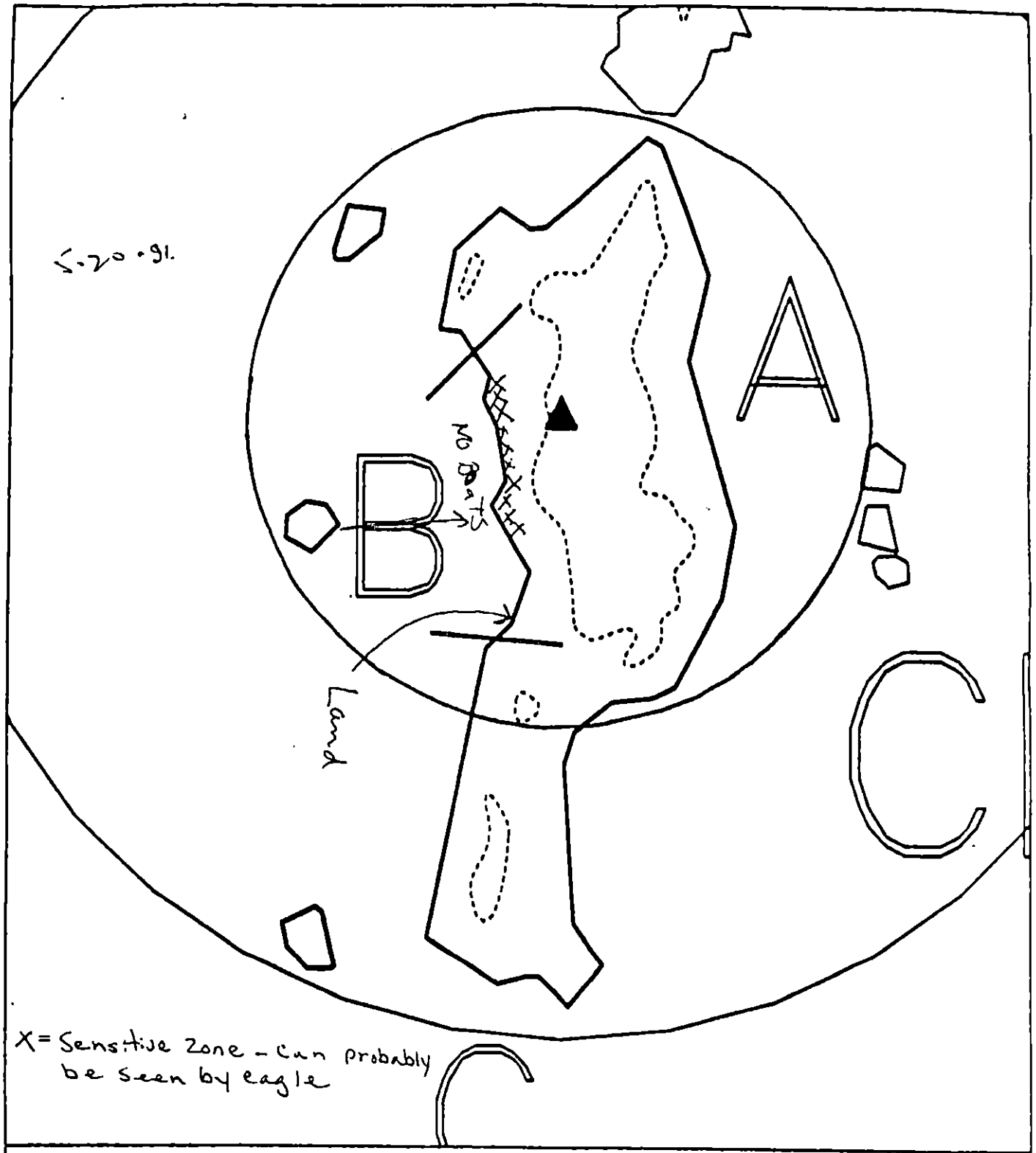
USFWS representative Doug Stine monitored eagle nest while we conducted the survey.

WILDLIFE OBSERVATIONS
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	3 (2 adults with nest - 1 immature flew by)	
Seabirds			
Waterfowl	1 (common merganser)	1	
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.



CR004

Segment Reference Map
Map Key: PWSCR004

METERS

0 32 64

AK State Plane Zone 4
NAD83

EAGLE NEST

CR004-B 5/20/91 Fawcett

Arrive 0945 at S. end, walk north - Doug Stone (USFWS) in boat watching eagle nest - low energy

- 0945 1st beach p/g, logs in UTZ no biota exc. on BR outcrops

CT on S end bedrock +8 ft UTZ among upper edge of dense barnacles

- dense Fucus nearby & below

- dense Litt. on Fucus MTZ on BR, sparse in MTZ-LTZ P/G

- barn spat on MTZ p/g

- mussel bed (under water) in MTZ-LTZ P/G, also called Fucus

- 30 yds North sediments more coarse C/B - dense Litt (many new recruits) - young mussel bed extends up to +6 ft

- SOR in UTZ (+9) B/C - sparse barn, Litt (mod) mod. spat - dense mussels on down

0955 - just below nest - same B/C/P - very dense young Litt +3-+7 ft

sparse Fucus, dense mussels up to +6

sparse Rhodomela - dense hermit crabs

- 1 common merganser

- heard some vocalizing of eagle for 30 seconds

1000 - N end - CT/SOR near BR end +8-12 ft - some barn

- heard adult vocalizing, then eagle flew from nest area to left area 1010hrs

- (Doug said it was another adult flying over from elsewhere, and the one on the nest was vocalizing at it, & did not leave nest

wind NE 0-5, no seas

1015 start CR004-A - low energy pocket beach C/B/P/G

mussel bed below 6 ft - dense Litt, (same description as (B))

but BR has sparse barn, Fucus, Rhodo, dense spat below 7 ft, mussels in crannies (sparse 1 in patch, Litt)

SOR & CT on north BR wall +16 ft (in right angle crack) no biota - barnacles up to about 8 ft

- historical structure remains in backshore

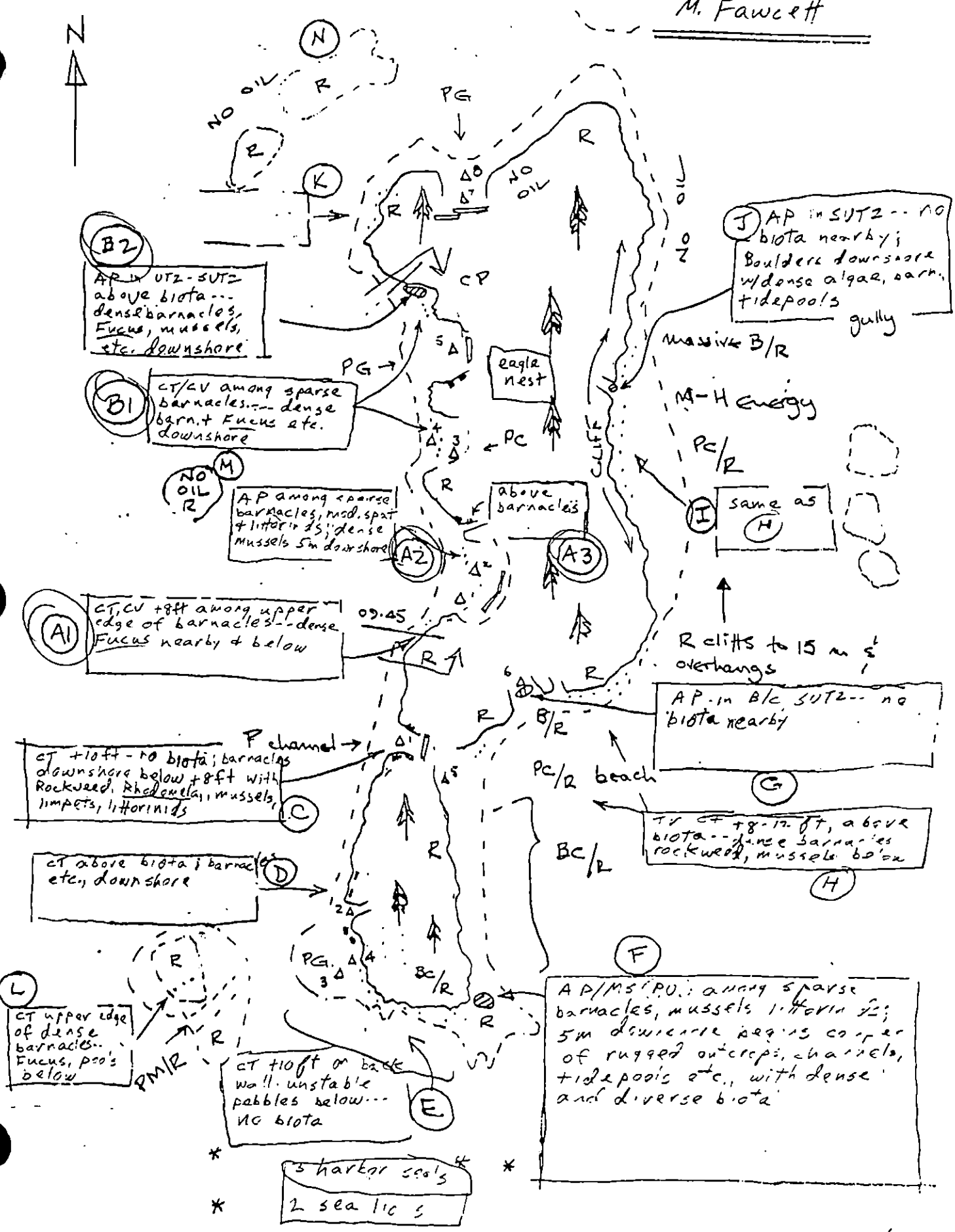
- 3 harbor seals

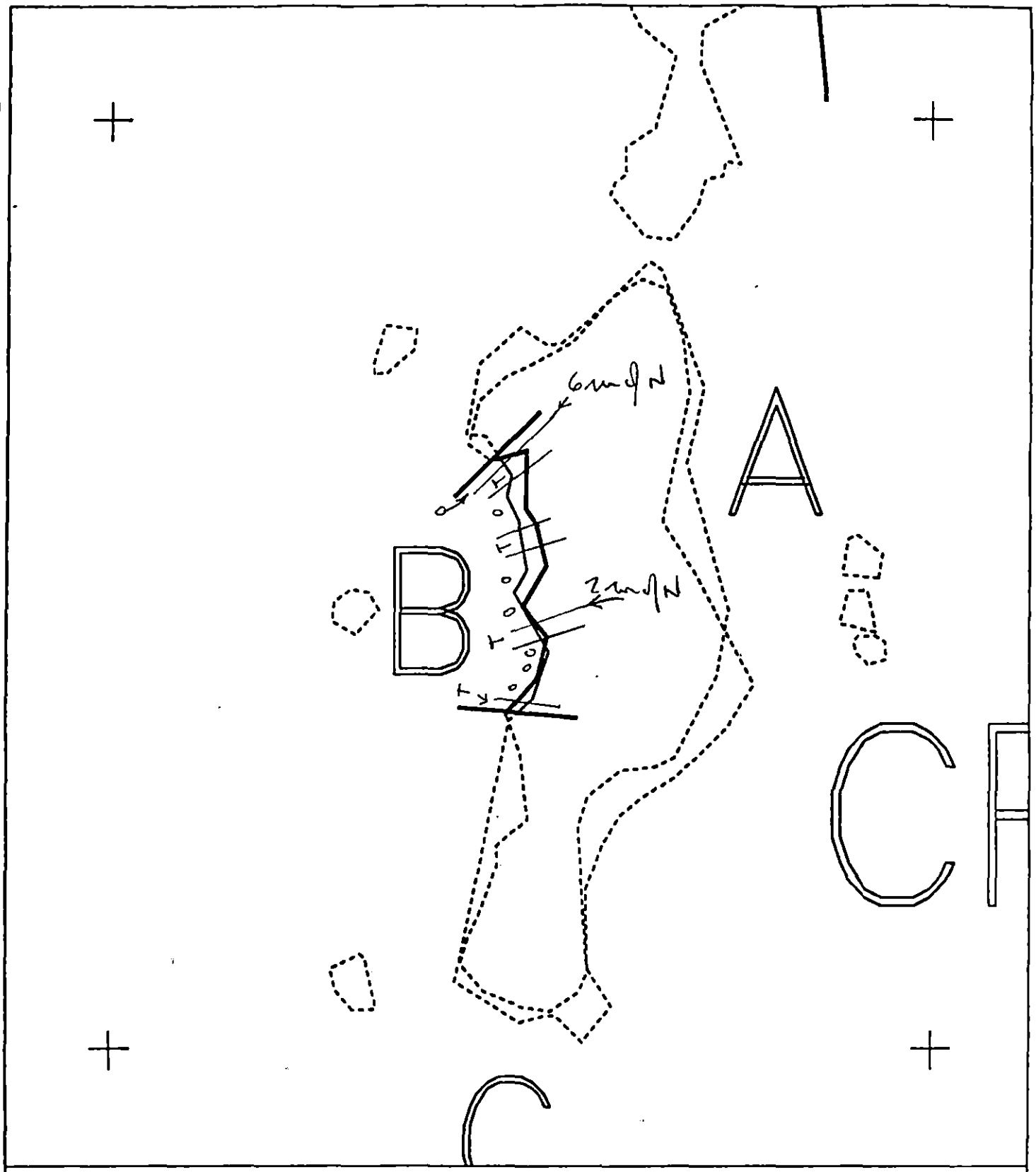
- large school salmon fry

- dep. 1030

- 1030 - G/P beach - BR in UTZ-SUT & at N end

CR-4 5/20/91
Bio Sketch Map
M. Fawcett





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

CR004 B

ADEC Subsegment Length: 237m

METERS

0 100 200

AK State Plane Zone 4
per004b

EXXON

Subdivision Field Map

Map Key: PWSCR004B

Name: G.M.

Date: 5-20-91

Date Entered:

REVIEWED: F.W. 5/22/91

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/CU-01

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

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

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
Salmon stream mouth (no. 12995)
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
6U Recreation: Tent sites (6/1 to 9/15)
6V Recreation: Anchorages (6/1 to 9/15)
6Y Recreation: Special use destination
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid disturbance/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 193 m: Narrow 237 m: V.Light 1560 m: No Oil 0 m
Subsurface Oil Observed: Yes X No____ Maximum Depth 17 cm

RECOMMENDATIONS:

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

COMMENTS: The recommended treatment activities are as follows: 1) Manual pick up of debris, 2) Removal of tarmat and, 3) Bioremediation of areas shown on attached sketch map. Treatment activities should be conducted between 5/15 and 7/10 based on above salmon constraints, unless approved by ADF&G.

TAG COMMENTS:

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

PWS ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / CU-01 SUBDIVISION: A-1 of 1 DATE 04/04/9

USCG
NAME David S Thomas SIGNATURE [signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

ADEC
NAME Clara Crosby SIGNATURE Clara S. Crosby

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

Manual removal of mats - If Bioremediation is considered at this site - oiling should be broken up (PIT #2) or filled - Very low energy area - to 17 [illegible]

LAND MANAGER
NAME MARSHA MARTIN / DNR SIGNATURE Marsha Martin

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

Did not observe the outlying islands with Exxon & USCG Reps.

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Rick GILLIE USCG BM 1 Thomas SEGMENT ST/ CU-01
BIO Dave Lowe LAND REP Marsha Martin SUBDIVISION A, 1 of 1
EXXON FRANK Dok ADEC Clara Crosby (ADNR) TIME 18:00 to 19:30
TEAM NO.: 13 TIDE LEVEL: +3 to +5 DATE 04 / 04 / 90
EST. SUBDIVISION LENGTH: 286 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
SURFACE SEDIMENTS: R 30 % B 10 % C 20 % P 40 % G 0 % S 0 % M 0 % V 0 %
SLOPE: Lang 40 % Hang 30 % Vert 20 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
OIL CATEGORY LENGTH: W 0 m M 100 m N 400 m VL 2316 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	/C	/B	/P	/S	SBL/BR	DBL/RW	GY/SL	DBR/TL	LBR	SU	UI	MI	LI
ASPHALT PAVEMENT	X					X					X		
POOLED													
COVER													
COAT		X	✓		X✓							X✓	
STAIN													
MOUSSE													
PATTIES				X				X			X		
TARBALLS				X				X			X		
FILM	X			✓			X✓				X✓		
NO OIL													X

PAVEMENT: H F (S) 100 sq. m by 4 cm
PATTIES / TARBALLS 0.5 BAGS
NEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT SM	MD	LG
Logs			
Vegetation			
Trash	X		
Debris			

DEBRIS COLLECTED ☐ YES ☒ NO
TYPE
#BAGS

Photographs:
Roll No. ST-13-2
Frames 21-24

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR					PIT ZONE				ANA	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SBL/BR	DBL/RW	GY/SL	DBR/TL	LBR	SU	UI	MI	LI		
1	30					X	·									X				P, G, C
* 2	15			X			2 · 8		X		X						X			P, G, S, M
3	20		X				7 · 17		X		X					X				P, M
4	20					X	·									X				P, G
							·													
							·													

* OILED INTERVAL <5 CM IN PIT NO. 2 DOES NOT CONSTITUTE SUBSURFACE OIL

COMMENTS

① OILING - AP/C DESIGNATED ALONG APPROX. 100M OF SITE 1 AREA. ALSO SUBSURFACE OIL TO DEPTH OF 17 CM.
- OTHERWISE, CT/S AND AP/S.

REVIEWED TW DATE 4-6-90

1 of 6

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / CU001 Subdivision A Date (mo / day / yr) 4-4-90

Time (24 hr) 18:00 Biologist David Cohen

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

(B) Overall % cover of biota (% of segment): Dense 15 Moderate 25 Low 60

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

Photographs:
Roll No. ST-13-2
Frames 21-24

BARNACLES

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

MYTILUS

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

GASTROPODS

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

FUCUS

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

Wildlife Observations/ General Comments:

See page 2

Ecological Considerations:

6U,6V,6Y - no comment

- One running stream located in segment - oil present in area of stream mouth

1. Moderate to dense mussels in mid-intertidal cobble would be susceptible to foot traffic/disturbances.

Shoreline Ecological Summary

Segment ST-CU001 Subdivision A 4-4-90

Biologist David Lohse

Wildlife Observations/General Comments

1. present in mid-intertidal: Enteromorpha, Nuella, Ulva, Ectocarpus, Cladophora unidentified "branching" red algae
2. One sea lion spotted in area
3. In mid-intertidal cobble/pebble mussel mortality reaches 50% in some areas. Overall mortality is ~10%.
4. deer skeleton found above high tide line. No oil observed.
5. Lots of drift Fucus washed up on beach at one location. H_2S present
6. Low intertidal not sampled due to tidal level

OG Ric[redacted] Gillie

SEGMENT ST/ CU-01

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 △ Pit - No Subsurface Oil

2 ▲ Pit - Subsurface Oil

CT/C Continuous Distribution

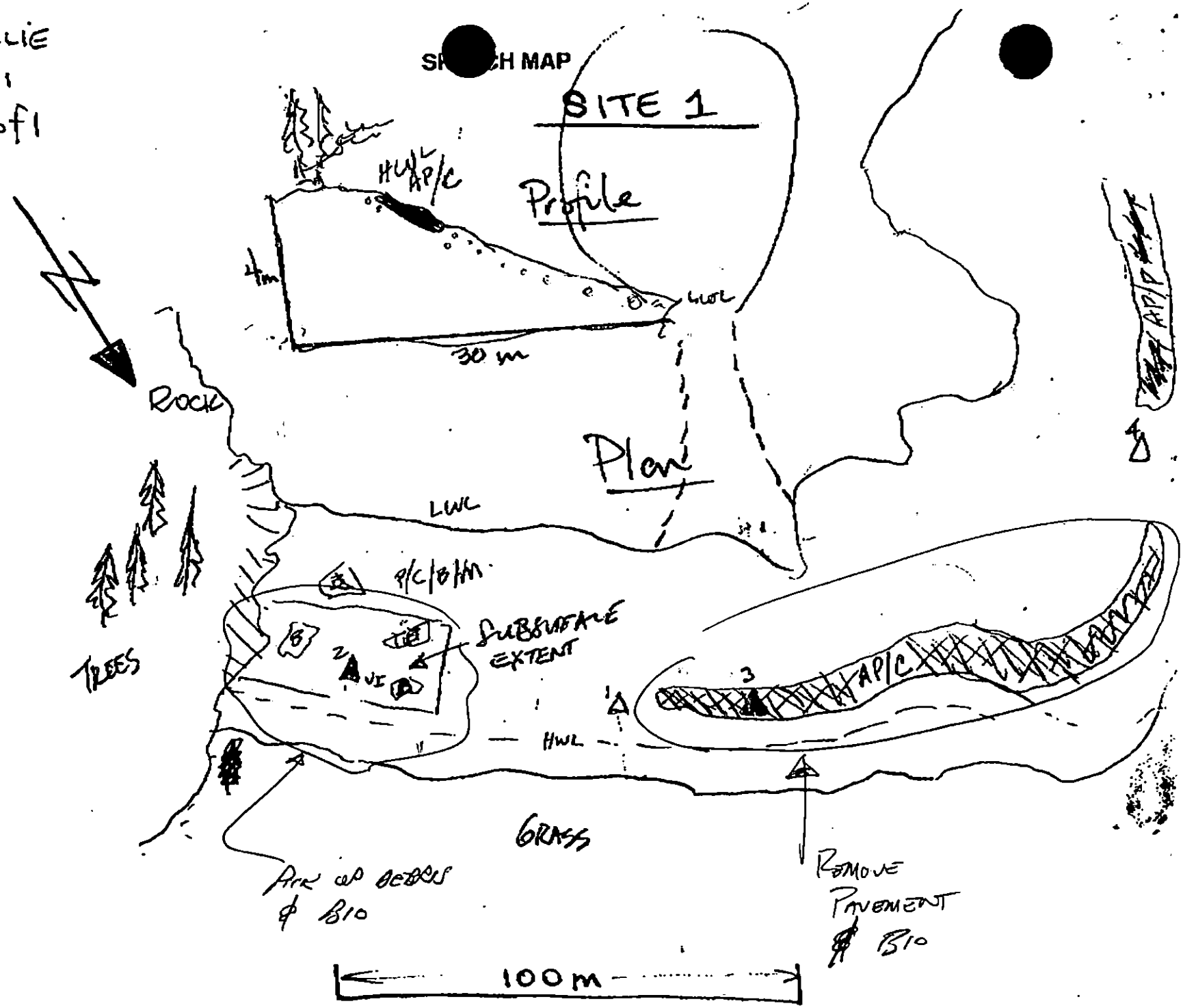
CT/B Broken Distribution

CT/P Patchy Distribution

CT/S Splashed Distribution

Oiled Vegetation

1 ◆► Photo location, direction, and number



Oil Character/Length (m): OP ___ PO ___ CV ___ CT ___ ST ___ MS ___ TB ___ FL ___ NO ___

REVISION 03/28/90

OG Ric[redacted] GILLIE

SEGMENT ST/ CU-01

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 △ Pit - No Subsurface Oil

2 ▲ Pit - Subsurface Oil

CT/C Continuous Distribution

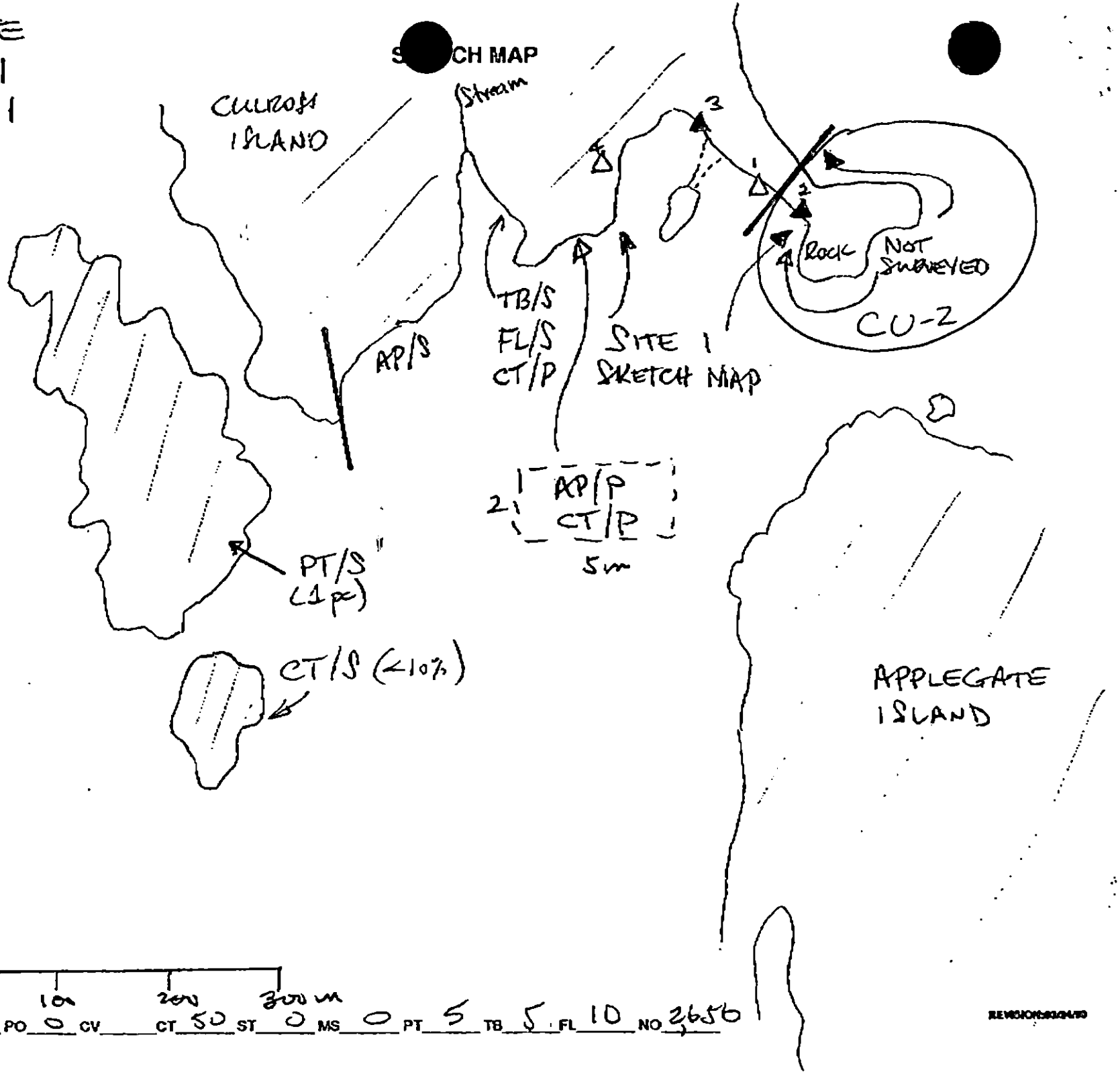
CT/B Broken Distribution

CT/P Patchy Distribution

CT/S Splashed Distribution

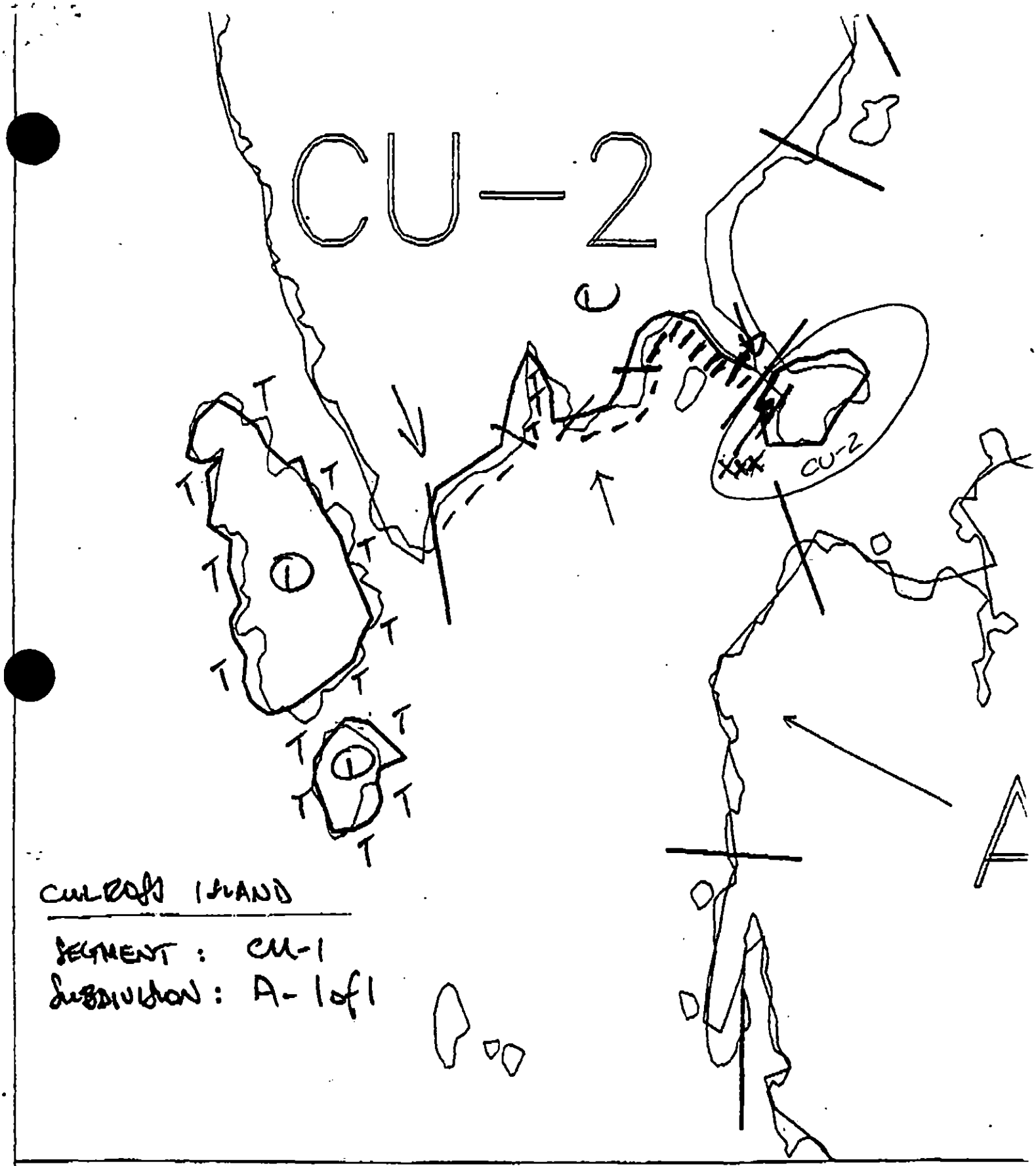
Oiled Vegetation

1 ➔ Photo location, direction, and number



Oil Character Length (m): AP 100 PO 0 CV ___ CT 50 ST 0 MS 0 PT 5 TB 5 FL 10 NO 2,650

REVISION 03/04/90



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

CU-1

ADEC Segment Length: 2394m

0 100 200 300
METERS

Map Key: PWS-67
Name: GILLIE
Date: 4-4-90
Data Entered:

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/CU-01

SUBDIVISIONS: B (2 OF 2)

CU-01-A WAS COMPLETED DURING PHASE I.

SHORELINE EVALUATION

SEGMENT ST/ CU-01 SUBDIVISION B (2 OF 2) DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
ADF&G anadromous stream no. 224-20-12995 (12/89, Ps)
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
6U Recreation: Tent sites (6/1 to 9/15)
6V Recreation: Anchorages (6/1 to 9/15)
See attached Ecological Constraint sheet for specific constraints and contacts.

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

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 384 m
Subsurface Oil Observed: Yes____ No X Maximum Depth_____

RECOMMENDATIONS:

X No Treatment Recommended
_____Treatment Recommended
_____Manual Pickup
_____Bioremediation
_____Tarmat Removal
_____Snare/Absorbent Booms
_____Oil Snares (pom poms)
_____Absorbents (pads,rolls,etc)
_____Spot Washing:_____Wands
_____Beach Cleaner
_____Other (see comments)

COMMENTS: _____

TAG COMMENTS:_____

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

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 Suzomoto 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 unoiled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Evelyn Biggs 424-3235

Harbor seal and sea lion pupping (5/15 to 7/1)
3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
ADF&G Don Calkins 267-2403

5R Seabird colony (5/1 to 9/1)
Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

5S Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
ADF&G Tom Rothy 267-2206

5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

6U Recreation: Tent sites (6/1 to 9/15)
6V Anchorages (6/1 to 9/15)
6W Forest Service cabins (6/1 to 9/15)
6X Lodge (6/1 to 9/15)
6Y Special use destination

7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
7HH Finfish harvesting
7II Deer harvesting (8/15 to 2/28)
7JJ Invertebrate harvesting
Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / CU-1B SUBDIVISION: A DATE 4/24/90

USCG
NAME M.J. SHARPE SIGNATURE [signature]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

ADEC
NAME STEPHEN FERGUSON SIGNATURE Stephen Ferguson

■ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS
No oil observed / checked entire island

LAND MANAGER
NAME Leigh Carlson SIGNATURE Leigh Carlson ADNR

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS
Listed in PWS Area Plan as frequently used camping and anchorage spot. Listed as priority 1 by PWSCA.

SHORELINE OILING SUMMARY

REVISION NO. 04/12/90

OG K. Ramsey USCG R. Sharpe SEGMENT ST/ CU-1b
BIO G. Penn LAND REP L. Carlson SUBDIVISION A (2 OF 2)
EXXON S. Reid ADEC S. Ferguson TIME 6:50 to 7:15
TEAM NO. 4 TIDE LEVEL -2' to -2' DATE 4 / 24 / 90
EST. SUBDIVISION LENGTH: 460 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
SURFACE SEDIMENTS: R 78 % B 7 % C 5 % P 10 % G Ø % S Ø % M Ø % V Ø %
SLOPE: Lang Ø % Hang 22 % Vert 78 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
OIL CATEGORY LENGTH: W Ø m M Ø m N Ø m VL Ø m NO 460 m

SURFACE OIL

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

PAVEMENT H F S Ø sq. m by Ø cm
PATTIES / TARBALLS Ø 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 Ø
#BAGS Ø

Photographs:
Roll No. —
Frames —

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER OP	OR	OL	OF	NO	OILED INTERVAL (cm-cm)	BELOW UO	UO	OIL / FILM COLOR					PIT ZONE SU	UI	MI	LI	ANA	SHEEN (Y/N)	▼	SURFACE - SUBSURFACE SEDIMENTS
							-															
							-															
							-															
							-															
							-															
							-															

COMMENTS

This subsegment was basically a tumbolo + vertical bedrock. Area appeared cleaned. Arrived at -1.0' tide. Walked + dug around tumbolo, skiffed around to baby pocket cove + checked. NO oil observed.

REVIEWED [illegible] DATE 4/25/90

OG K. Ran[redacted]Y

SEGMENT ST/ CU-1B

SUBDIVISION A

DATE 4/24/90

SKE[redacted]H MAP

CHECKLIST

- ✓ N Arrow
- ✓ Approx. Scale
- — Seg/Sub Bndry
- ✓ Oil Dist.
- Width
- Length
- % Cover
- ✓ Substrate Character
- ✓ Est. HWL/AWL
- ✓ SSL
- Pwlls Location(s)
- Pwlls(s)
- Pit Location(s)
- Photo Location(s)

LEGEND

1 △ Pit - No Subsurface Oil

2 ▲ Pit - Subsurface Oil

CT/C Continuous Distribution

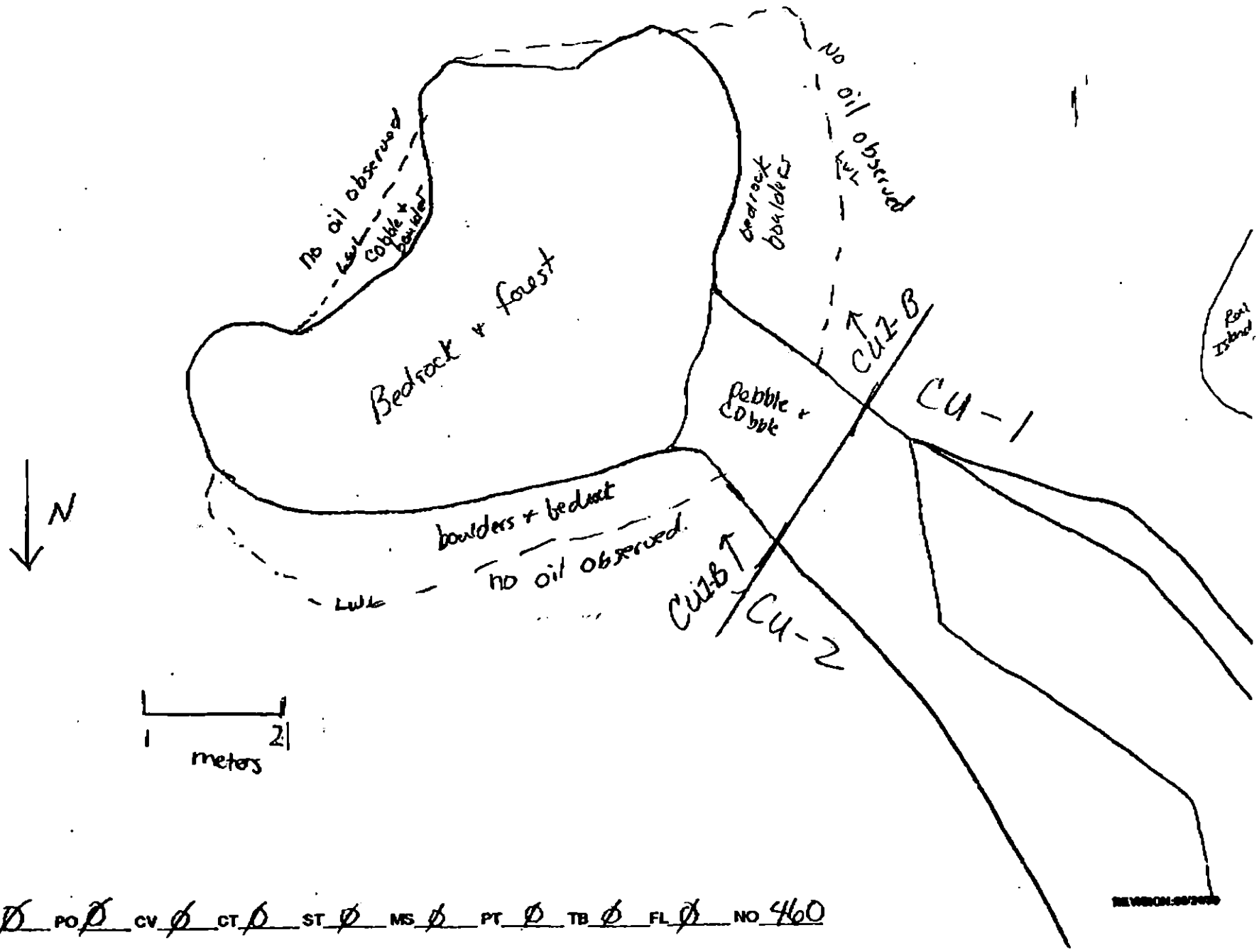
CT/B Broken Distribution

CT/P Patchy Distribution

CT/S Splashed Distribution

eee Oiled Vegetation

1 Photo location, direction, and number



Oil Character Length (m): AP Ø PO Ø CV Ø CT Ø ST Ø MS Ø PT Ø TB Ø FL Ø NO 460

REVISION: 09/24/90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / C-U-1 Subdivision B Date (mo / day / yr) 4-24

Time (24 hr) 0651 Biologist PENN

(A) Substrate type and % of segments:
(1) Bedrock 78 (2) Boulder 7 (3) Cobble 5 (4) Pebble 10 (5) Sand Ø (6) Silt Ø

(B) Overall % cover of biota (% of segment): Dense 30 Moderate 5 Low 40

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

Photographs:
Roll No. –
Frames –

BARNACLES

Dense			Moderate			Sparse			Rare			
~~1U~~	1M	1L	(1U)	1M	1L	1U	~~1M~~	1L	1U	1M	~~1L~~	NOT PRESENT
2	2	2	2	2	2	2	2	2	2	2	2	
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
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	observed NOT ~~PRESENT~~
2	2	2	2	2	2	2	2	2	2	2	2	
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
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	NOT PRESENT
2	2	2	2	2	2	2	2	2	2	2	2	
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
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

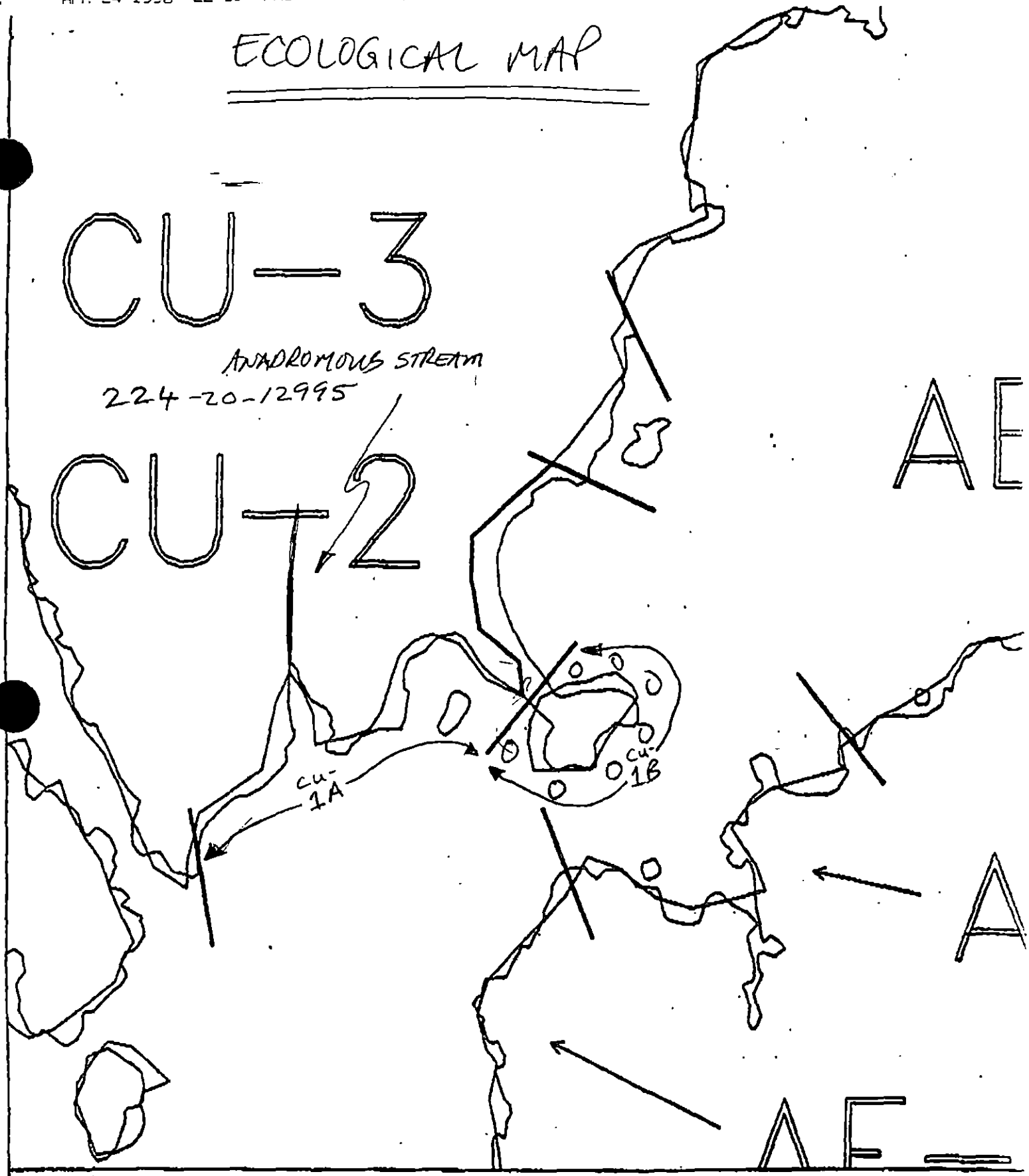
Dense			Moderate			Sparse			Rare			
~~1U~~	~~1M~~	1L	1U	1M	1L	(1U)	1M	1L	1U	1M	~~1L~~	NOT PRESENT
2	2	2	2	2	2	2	2	2	2	2	2	
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

Wildlife Observations/ General Comments:

1 eagle
1 seal

Ecological Considerations:

ECOLOGICAL MAP



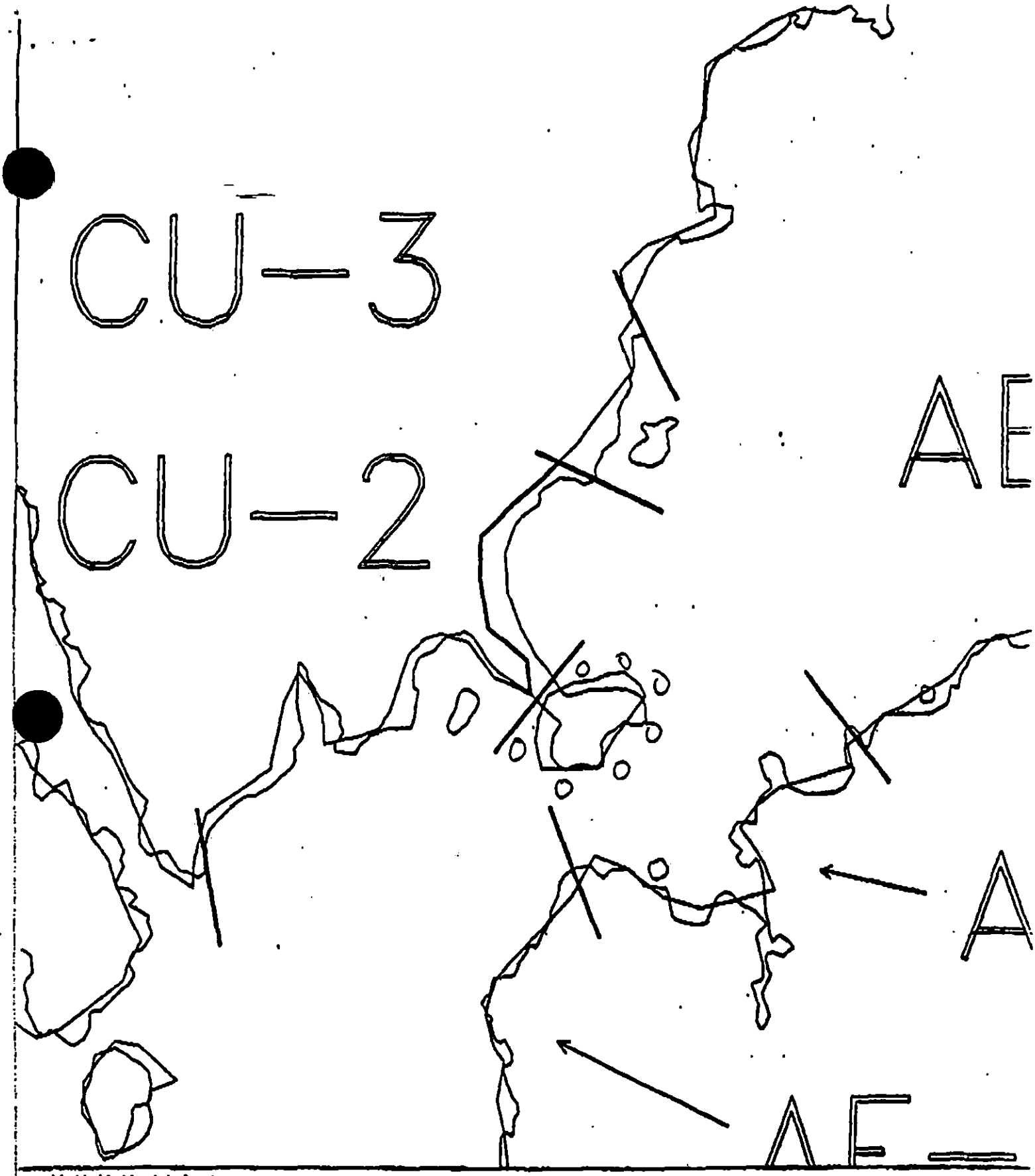
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

CU-01B

ADEC Segment Length: ~410 for ADEC Line

0 100 200 300
METERS

Map Key: PWS-78
Name: K. RAMSEY
Date: 4/24/90
Date Entered:



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

CU-~~0~~1B

ADEC Segment Length: ~410 for ADEC Line

0 100 200 300
METERS

N

Map Key: PWS-78
Name: K. RAMSEY
Date: 4/24/90
Date Entered:

(6)

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT CU-01 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN
Bioremediation	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon stream NO CONSTRAINT. ADF&G catalogued salmon stream (224-20-12995) is more than 100m from work area.

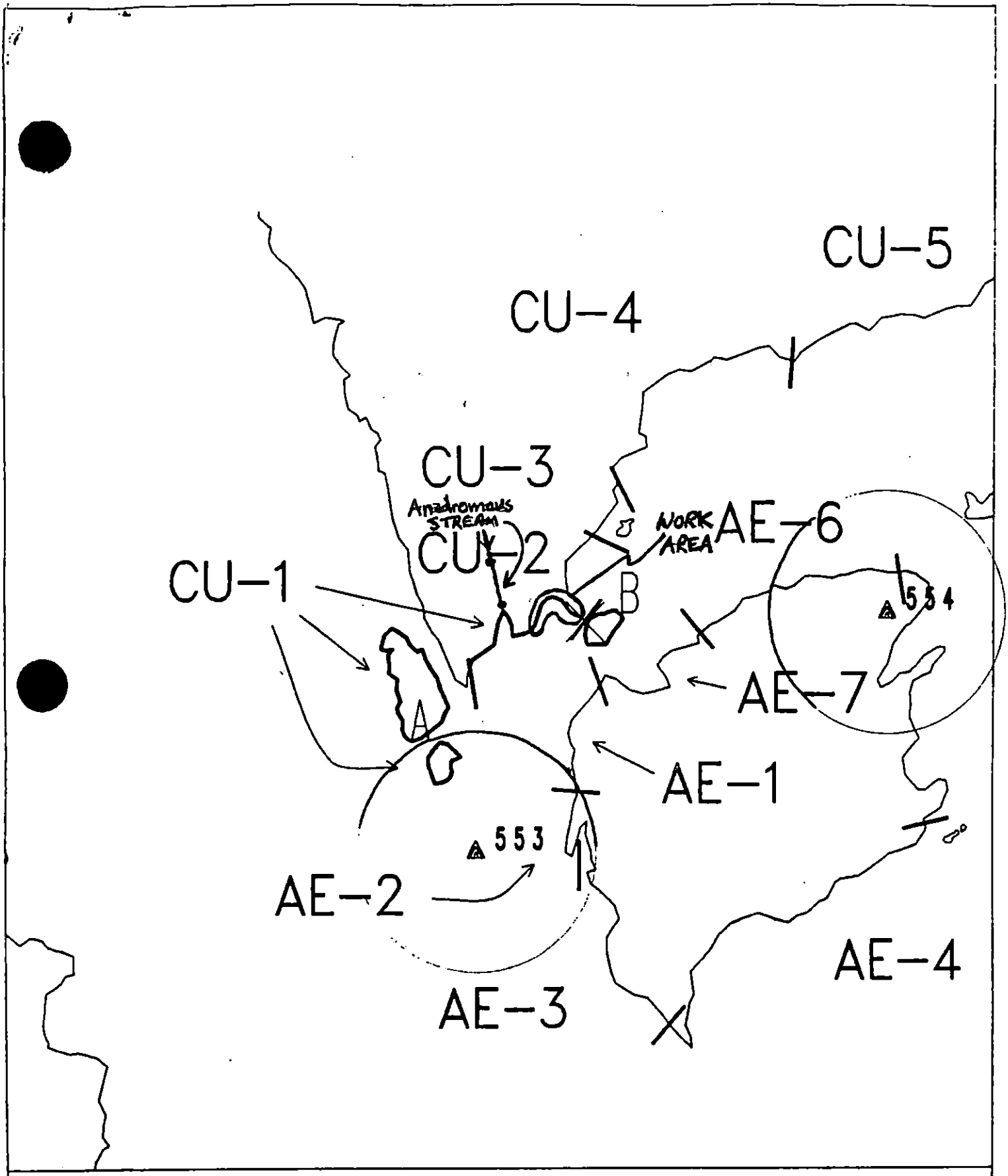
OTHER ECOLOGICAL CONSIDERATIONS

Avoid disturbance or damage to unoiled biota and substrate.

TAG ADDENDUM DATE 5/16/90
ADEC ART WEINER
EXXON ANDY TEAL
NOAA JOSEPH TALBOT
USCG G.A. REITER

FOSC _____ DATE 5-17-90

Prepared by: WK Date: 5/14/90



Exxon Company, USA
Map Key: PWS-CU-1
May 11, 1990

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

METERS
0 426 853

★ Seabird Colony
△ Eagle Nest

1 inch = 1399 feet

SHORELINE EVALUATION

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

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
Salmon stream mouth (no. 12995)
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
6U Recreation: Tent sites (6/1 to 9/15)
6V Recreation: Anchorages (6/1 to 9/15)
6Y Recreation: Special use destination
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid disturbance/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: 4/26/90

OILING CATEGORIZATION:

Wide 0 m: Medium 193 m: Narrow 237 m: V.Light 1560 m: No Oil 0 m
Subsurface Oil Observed: Yes X No ____ Maximum Depth 17 cm

RECOMMENDATIONS:

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

COMMENTS: The recommended treatment activities are as follows: 1) Manual pick up of debris, 2) Removal of tarmat and, 3) Bioremediation of areas shown on attached sketch map. Treatment activities should be conducted between 5/15 and 7/10 based on above salmon constraints, unless approved by ADF&G.

See Addendum dated 5/14/90 wpk

TAG COMMENTS:

TAG APPROVAL DATE: 4/25/90
ADEC [signature]
EXXON [signature]
NOAA Joseph Talbott [signature]
USCG [signature]

FOSC: [signature] DATE: 5-3-90

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ CU-01 STREAM NO: 224-20-12995 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)
6U Recreation: Tent sites (6/1 to 9/15)
6V Recreation: Anchorages (6/1 to 9/15)
6Y Recreation: Special use destination

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINT: 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 (564-3274 (Anchorage) or 229-1508 (24 hrs.)).**

SHPO SIGNATURE: Rachel Jan Dale DATE: 5/18/90

Subsurface Oil Observed: Yes____ No X Maximum Depth____

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS: MANUAL PICK UP OF TAR BALLS + PATTIES AS INDICATED ON SKETCH

TAG APPROVAL DATE: 5/9/90

ADEC ART WEINER Art Weiner
EXXON AUDY TEAL
NOAA Burl Wescott
USCG D. D. ROME D D Rome

FOSC: DATE: 5-23-90

N SEGMENT STI (-0-00)

STREA 4-20-12995

DATE 4 / 26 90

CHECKLIST

- ___N Arrow
- ___Approx. Scale
- ___Seg/Sub Bndry
- ___Oil Dist.
  - Width
  - Length
  - % Cover
- ___Substrate Character
- ___Est. HWL&WL
- ___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

eee Oiled Vegetation

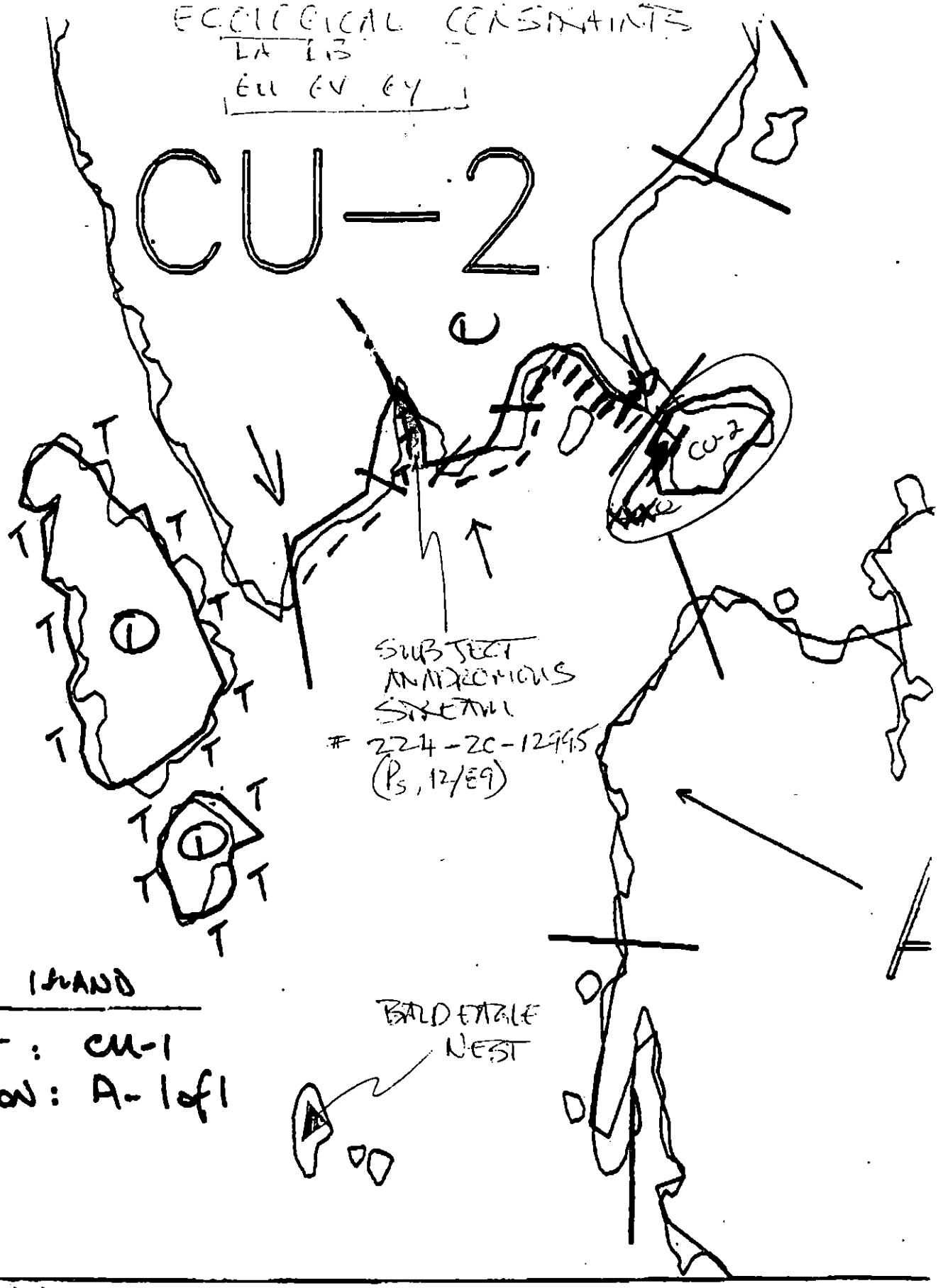
1 ➔ Photo location, direction, and number

SKETCH MAP

Character Length (m): AP_____ PO_____ CV_____ CT_____ ST_____ MS_____ PT_____ TB 15 FL_____ NO_____

ECOLOGICAL CONSTRAINTS
LA 13
ELL EV EY

CU-2



CULROSS ISLAND

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

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

CU-1

ADEC Segment Length: 2394m

0 100 200 300

Map Key: PWS-67
Name: GILLIE
Date: 4-4-90
Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ CU-01 SUBDIVISION B (2 OF 2) DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
ADF&G anadromous stream no. 224-20-12995 (12/89, Ps)
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
6U Recreation: Tent sites (6/1 to 9/15)
6V Recreation: Anchorages (6/1 to 9/15)
See attached Ecological Constraint sheet for specific constraints and contacts.

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

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 384 m
Subsurface Oil Observed: Yes ____ No X Maximum Depth ____

RECOMMENDATIONS:

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

COMMENTS: ____

TAG COMMENTS: ____

TAG APPROVAL DATE: 5/3/90
ADEC Art Weiner [signature]
EXXON Andy Teal [signature]
NOAA Gary Petrone [signature]
USCG Kenneth Keane [signature]

FOSC: [signature] DATE: 17 June 90

K. Ram

SMENT ST/ CU-1B

DIVISION A

TE 4/24/90

ECKLIST

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

GEND

1 ▲ No Subsurface Oil

2 ▲ Subsurface Oil

CT/C Continuous Distribution

CT/B Patch Distribution

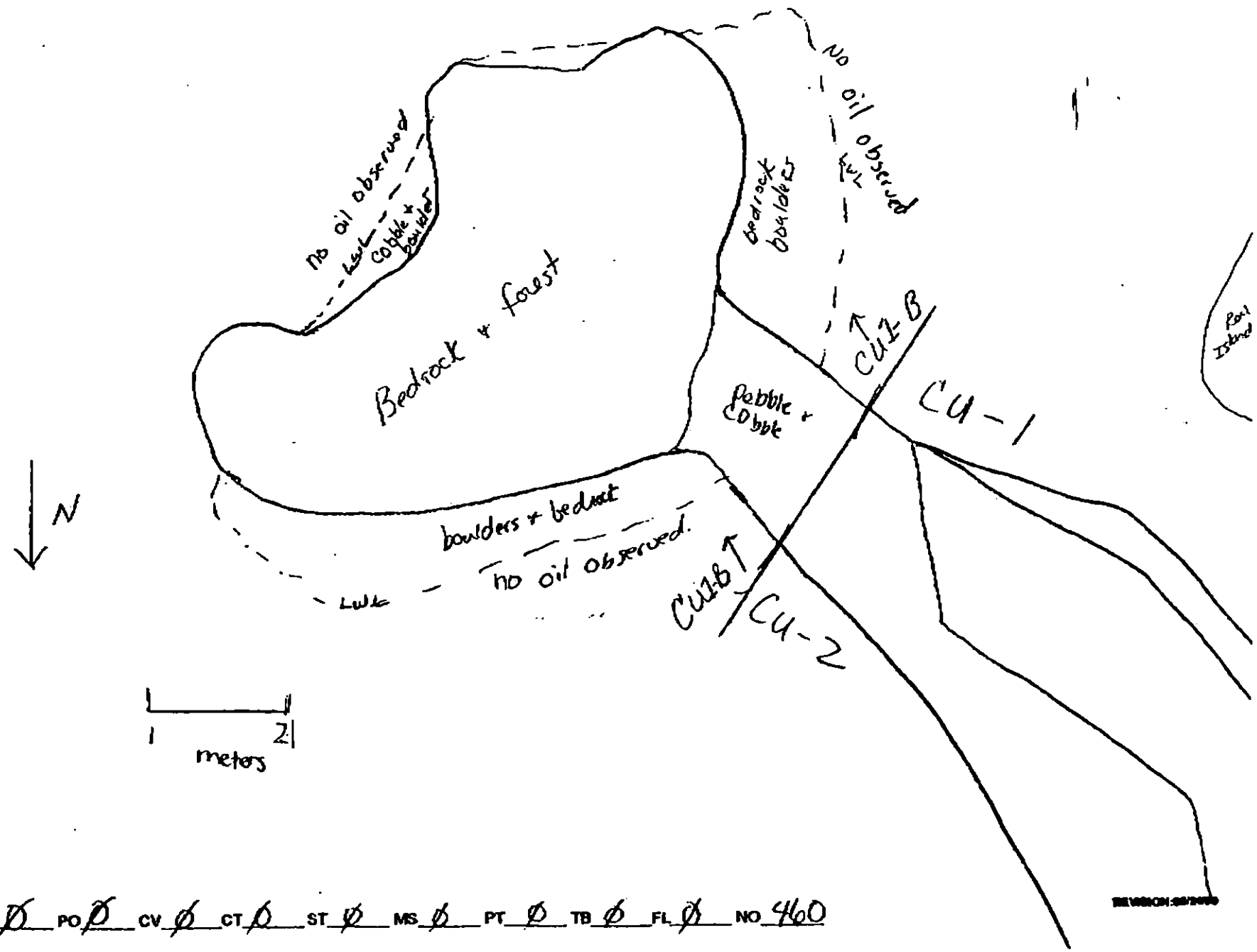
CT/P Patchy Distribution

CT/S Stained Distribution

Tree Stained Vegetation

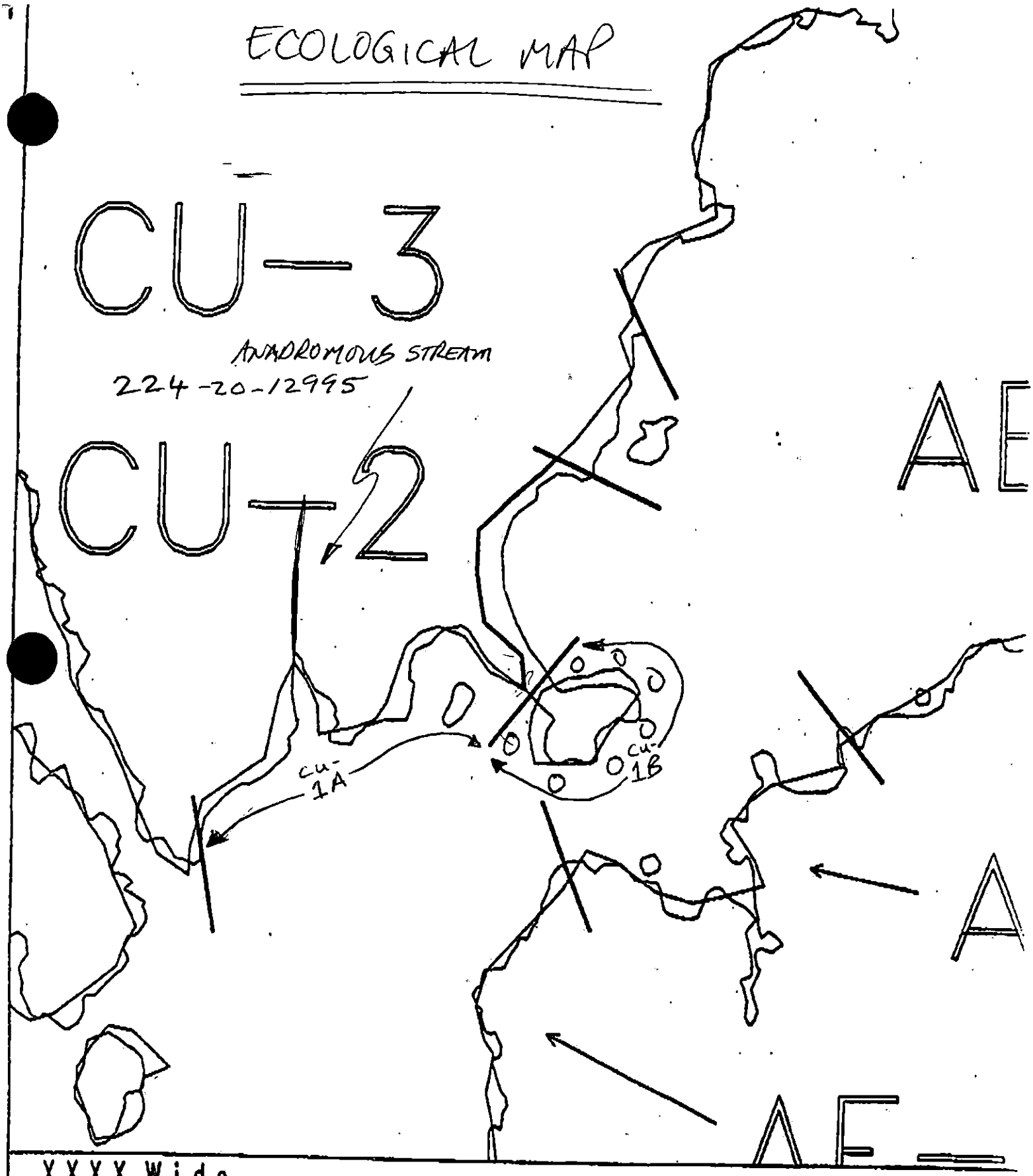
Photo location, direction, number

SKETCH MAP



Character Length (m): AP Ø PO Ø CV Ø CT Ø ST Ø MS Ø PT Ø TB Ø FL Ø NO 460

ECOLOGICAL MAP



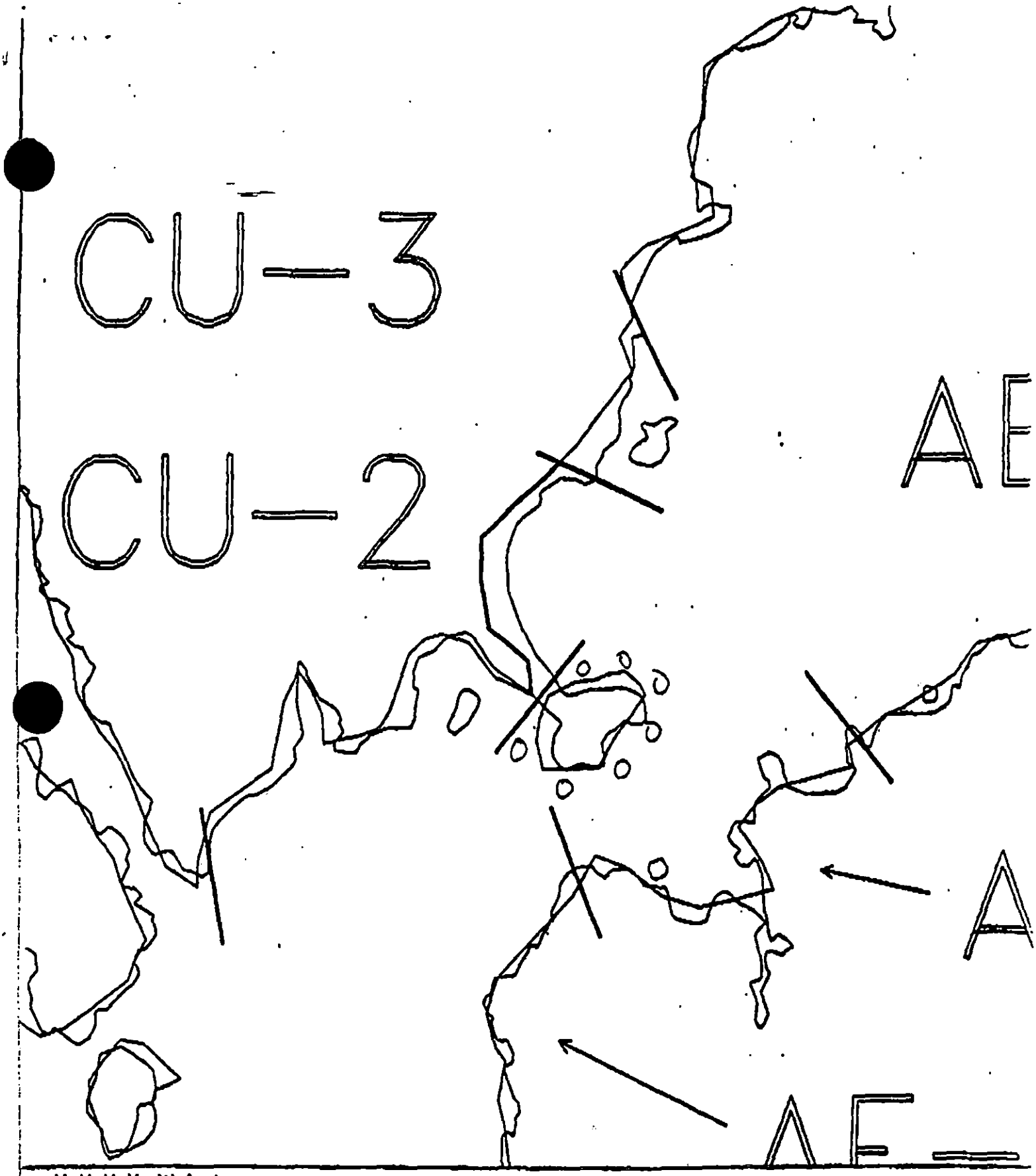
XXXX Wide
/// Medium
---- Narrow
TTTT Very Light
0000 No Oil

CU-01B

ADEC Segment Length: ~410 for ADEC Line

0 100 200 300

Map Key: PWS-78
Name: K. RAMSEY
Date: 4/24/90
Data Entered:



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

CU-01B

ADEC Segment Length: ~410 for ADEC Line

0 100 200 300
METERS

Map Key: PWS-78
Name: K. RAMSEY
Date: 4/24/90
Date Entered:

SHORELINE EVALUATION

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

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
Salmon stream mouth (no. 12995)
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
6U Recreation: Tent sites (6/1 to 9/15)
6V Recreation: Anchorages (6/1 to 9/15)
6Y Recreation: Special use destination
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid disturbance/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 H. Mc DATE: 4/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 193 m: Narrow 237 m: V.Light 1560 m: No Oil 0 m
Subsurface Oil Observed: Yes X No ____ Maximum Depth 17 cm

RECOMMENDATIONS:

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

COMMENTS: The recommended treatment activities are as follows: 1) Manual pick up of debris, 2) Removal of tarmat and, 3) Bioremediation of areas shown on attached sketch map. Treatment activities should be conducted between 5/15 and 7/10 based on above salmon constraints, unless approved by ADF&G.

TAG COMMENTS:

TAG APPROVAL DATE: 4/25/90
ADEC Art Weaver
EXXON Andy Gar
NOAA Joseph Talbott
USCG Kenneth Kearns
FOSC: [illegible] DATE: 5-3-90

OG Ric[redacted] Gillie

SEGMENT ST/ [redacted]-01

SUBDIVISION A-1of1

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 ▲ Pit - No Subsurface Oil

2 ▲ Pit - Subsurface Oil

CT/C Continuous Distribution

CT/B Broken Distribution

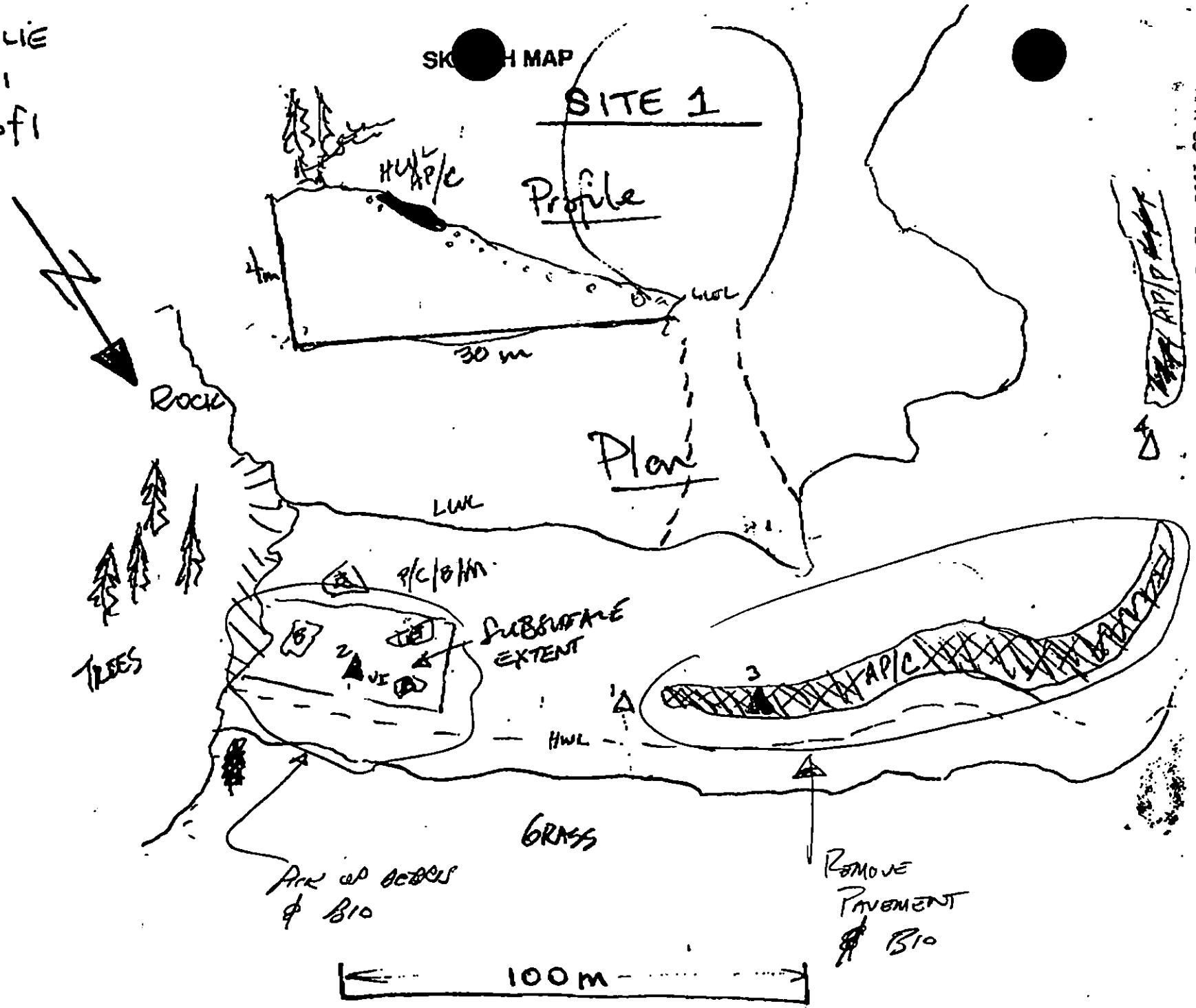
CT/P Patchy Distribution

CT/S Splashed Distribution

Oiled Vegetation

1 Photo location, direction, and number

SK[redacted]H MAP



Oil Character Index (%): OP ___ PO ___ CV ___ CT ___ ST ___ MS ___ TB ___ FL ___ NO ___

REVISION: 03/29/90

OG Ric[redacted] Gillie

SEGMENT ST/ CU-01

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 △ Pit - No Subsurface Oil

2 ▲ Pit - Subsurface Oil

CT/C Continuous Distribution

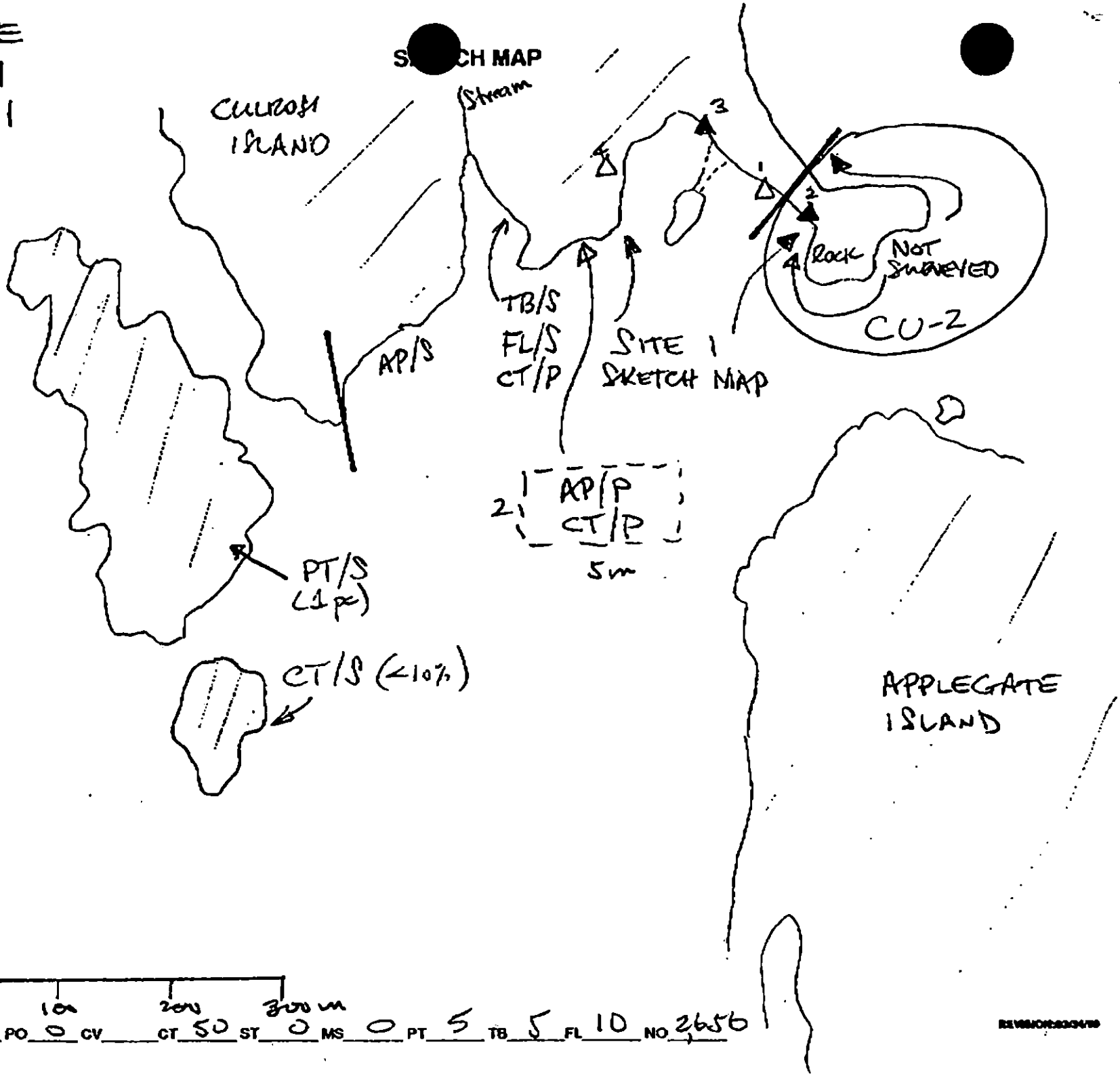
CT/B Broken Distribution

CT/P Patchy Distribution

CT/S Splashed Distribution

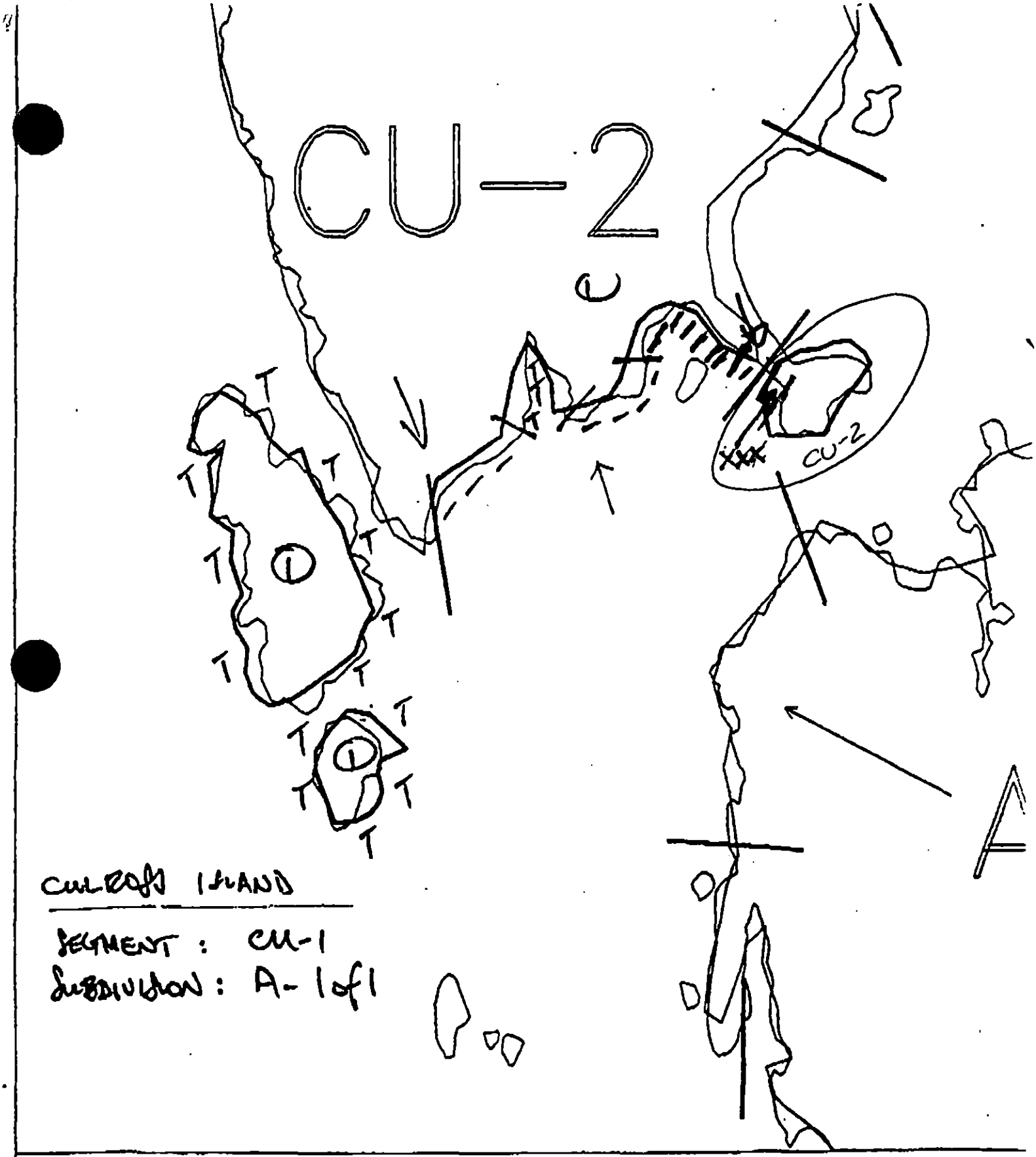
Oiled Vegetation

1 ●▸ Photo location, direction, and number



Oil Character Length (m): AP 100 PO 0 CV ___ CT 50 ST 0 MS 0 PT 5 TB 5 FL 10 NO 2656

REVISION 03/04/90



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

CU-1

ADEC Segment Length: 2394m

0 100 200 300
METERS

Map Key: PWS-67
Name: GILLIE
Date: 4-4-90
Data Entered:

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/CU-02

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ CU-02 SUBDIVISION A (1 OF 1) DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
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 25 m: Narrow 0 m: V.Light 9 m: No Oil 322 m
Subsurface Oil Observed: Yes____ No X Maximum Depth_____

RECOMMENDATIONS:

X No Treatment Recommended
_____Treatment Recommended
_____Manual Pickup
_____Bioremediation
_____Tarmat Removal

_____Snare/Absorbent Booms
_____Oil Snares (pom poms)
_____Absorbents (pads,rolls,etc)
_____Spot Washing:_____Wands
_____Beach Cleaner
_____Other (see comments)

COMMENTS: _____

TAG COMMENTS:_____

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

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 Suzomoto 424-7511

1I Gill net area (6/7 to 8/31)
1J Purse seine area (7/20 to 9/30)
1K Purse seine hook-off (7/20 to 9/30)
1L Set net sites (6/11 to 7/25)
Contact ADF&G for specific dates, locations and constraints. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G James Brady 424-3212

2M Herring spawning (4/1 to 6/15)
Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Evelyn Biggs 424-3235

3P Harbor seal and sea lion pupping (5/15 to 7/1)
3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
ADF&G Don Calkins 267-2403

5R Seabird colony (5/1 to 9/1)
Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

5S Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
ADF&G Tom Rothy 267-2206

5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

6U Recreation: Tent sites (6/1 to 9/15)
6V Anchorages (6/1 to 9/15)
6W Forest Service cabins (6/1 to 9/15)
6X Lodge (6/1 to 9/15)
6Y Special use destination

7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
7HH Finfish harvesting
7II Deer harvesting (8/15 to 2/28)
7JJ Invertebrate harvesting
Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / CU-2 SUBDIVISION: 7 DATE 4/24/90

USCG
NAME M.J. SHARPE SIGNATURE [signature]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

ADEC
NAME STEPHEN FERGUSON SIGNATURE Stephen Ferguson

■ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

(1) Picked up 3 mousse paddies (HIT2)
(2) Some sat/sed in horizontal bedrock (TRACE) → HIT2
(3) splash / ST / CT (TRACE)
– Team # 4 Recovered oiled paddies / rest of oiling is very difficult to retrieve.

LAND MANAGER
NAME Leigh Carlson SIGNATURE Leigh Carlson ADNR

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

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

REVISION NO. 08/21/89

SHORELINE OILING SUMMARY

REVISION NO. 04/13/90

OG K. Ramsey USCG R. Sharpe SEGMENT ST/ CU-2
BIO G. PENN LAND REP L. Carlson SUBDIVISION A (1 OF 1)
EXXON S. REID ADEC S. Ferguson TIME 7:15 to 8:00
TEAM NO. 4 TIDE LEVEL -2' to -2' DATE 4/24/90
EST. SUBDIVISION LENGTH: 320 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
SURFACE SEDIMENTS: R .5 % B 1.5 % C 5 % P 93 % G Ø % S Ø % M Ø % VØ %
SLOPE: Lang 95 % Hang 5 % Vert Ø % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
OIL CATEGORY LENGTH: W Ø m M Ø m N Ø m VL ~~0.5~~ 1 m NO ~~319.5~~ 319 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	/C	/B	/P	/R						SU	UI	MI	LI
ASPHALT PAVEMENT													
POOLED													
COVER				X		X				X			
COAT													
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL											X	X	X

PAVEMENT H F S Ø sq. m by Ø cm
PATTIES / TARBALLS Ø - we picked up Patties BAGS
NEAR SHORE SHEEN? (NO) BR RW SL TL

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

DID YOU COLLECT DEBRIS? YES ☐ NO ☒
TYPE —
#BAGS —

Photographs:
Roll No. —
Frames —

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR					PIT ZONE				ANA	SHEEN (Y/N)	▼	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC						SU	UI	MI	LI	—	—	—	—
1	42					X	— - —		X							X			N	—	—	C, P
2	25					X	— - —		X							X			N	—	—	C, P, R
3	40					X	— - —		X								X		N	—	—	C, P
4	30					X	— - —		X									X	N	N	23	C, P
5	25					X	— - —		X									X	N	N	20	C, P
6	30					X	— - —		X								X		N	—	—	C, P

COMMENTS

This segment was mainly a scalloped beach made of cobbles + pebbles with 3 distinct berms. There was oil found in the cracks of bedrock outcrop in Su which was thick enough to be called cover but a very small area. Pits around + below this outcropping were clean, just past this outcrop was an area 1m x 1m of mousse patties. Collected the patties. All that was left was a coat on the boulders left from the patties: very very small amount

REVIEWED JW DATE 4/25/90

SHORELINE OILING SUMMARY (PAGE 2)

REVISION 06/13/90

SEGMENT ST/ CU-2 SUBDIVISION A (1 OF 1)

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR					PIT ZONE				ANA	SHEEN (Y/N)	▼	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UO	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	SU	UI	MI	U	—	—	—	—
7	30					X	- - -		X							X			N	—	—	C, P
8	35					X	- - -		X						X				N	—	—	P
9	45					X	- - -		X						X				N	—	—	P
10	35					X	- - -		X							X			N	—	—	C, P
11	35					X	- - -		X							X			N	—	—	C, P, R
12	25					X	- - -		X							X			N	—	—	C, P, R
13	40					X	- - -		X							X			N	N	34	C, P

COMMENTS

REVIEWED _____ DATE _____

OO K. Ra[redacted]y

SEGMENT S[redacted]d-2

SUBDIVISION A

DATE 4/24/90

CHECKLIST

- ✓ N Arrow
- ✓ Approx. Scale
- ✓ Seg/Sub Bndry
- ✓ Oil Dist.
  - Width
  - Length
  - % Cover
- ✓ Substrate Character
- — Est. HWR/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

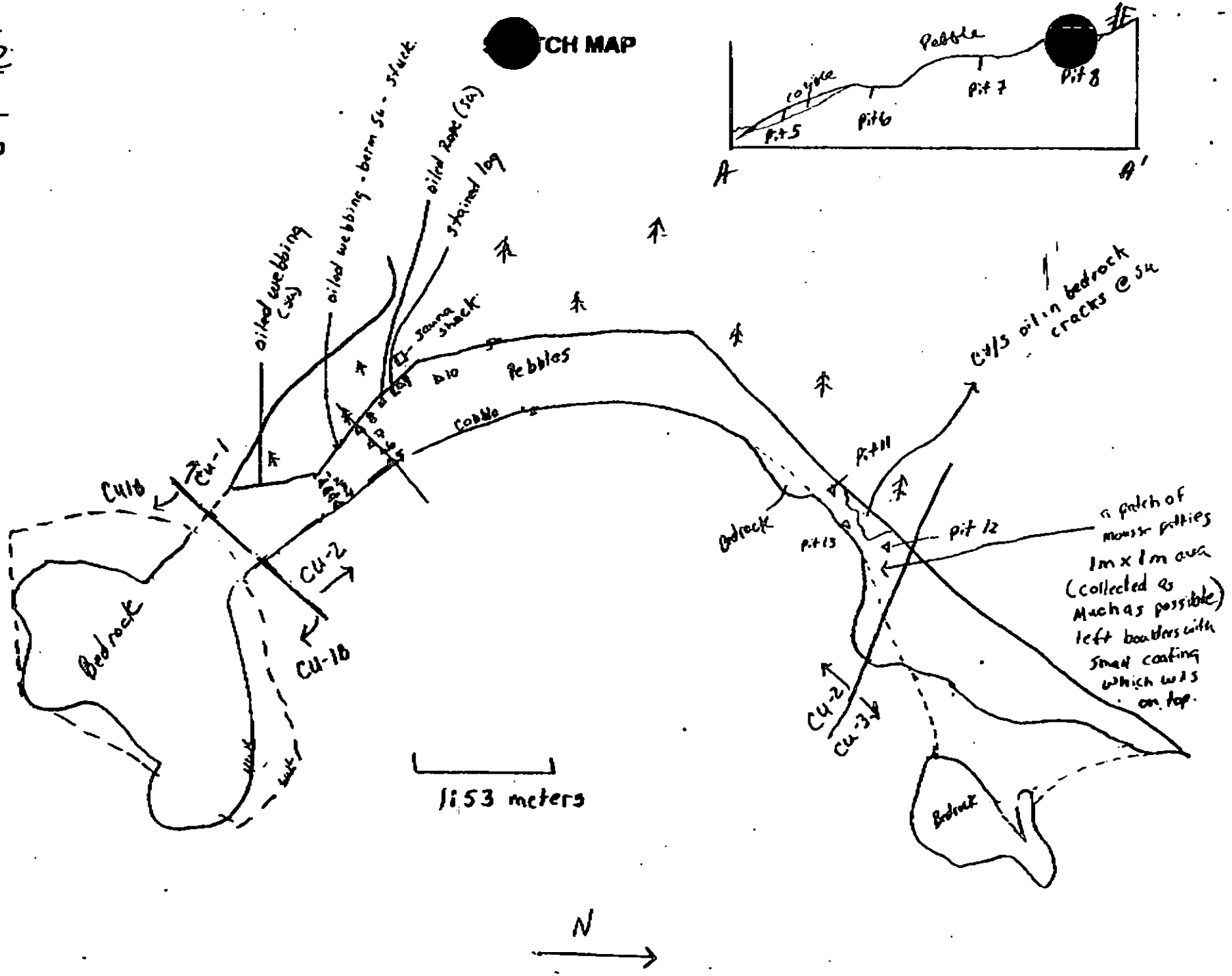
CT/B Broken Distribution

CT/P Patchy Distribution

CT/S Splashed Distribution

Oiled Vegetation

Photo location, direction, and number



Oil Character Length (m): AP Ø PO Ø CV .5 CT Ø ST Ø MS Ø PT Ø TB Ø FL Ø NO 319.5

REVISION 03/90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / CU-2 Subdivision A Date (mo / day / yr) 4-24-90

Time (24 hr) 07:15 Biologist Penn

(A) Substrate type and % of segments:
(1) Bedrock ½ (2) Boulder 1.5 (3) Cobble 5 (4) Pebble 93 (5) Sand Ø (6) Silt Ø

(B) Overall % cover of biota (% of segment): Dense 2 Moderate 20 Low 60

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

Photographs:
Roll No. —
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	X	NOT PRESENT
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

MYTILUS

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

GASTROPODS

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

FUCUS

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

Wildlife Observations/ General Comments:

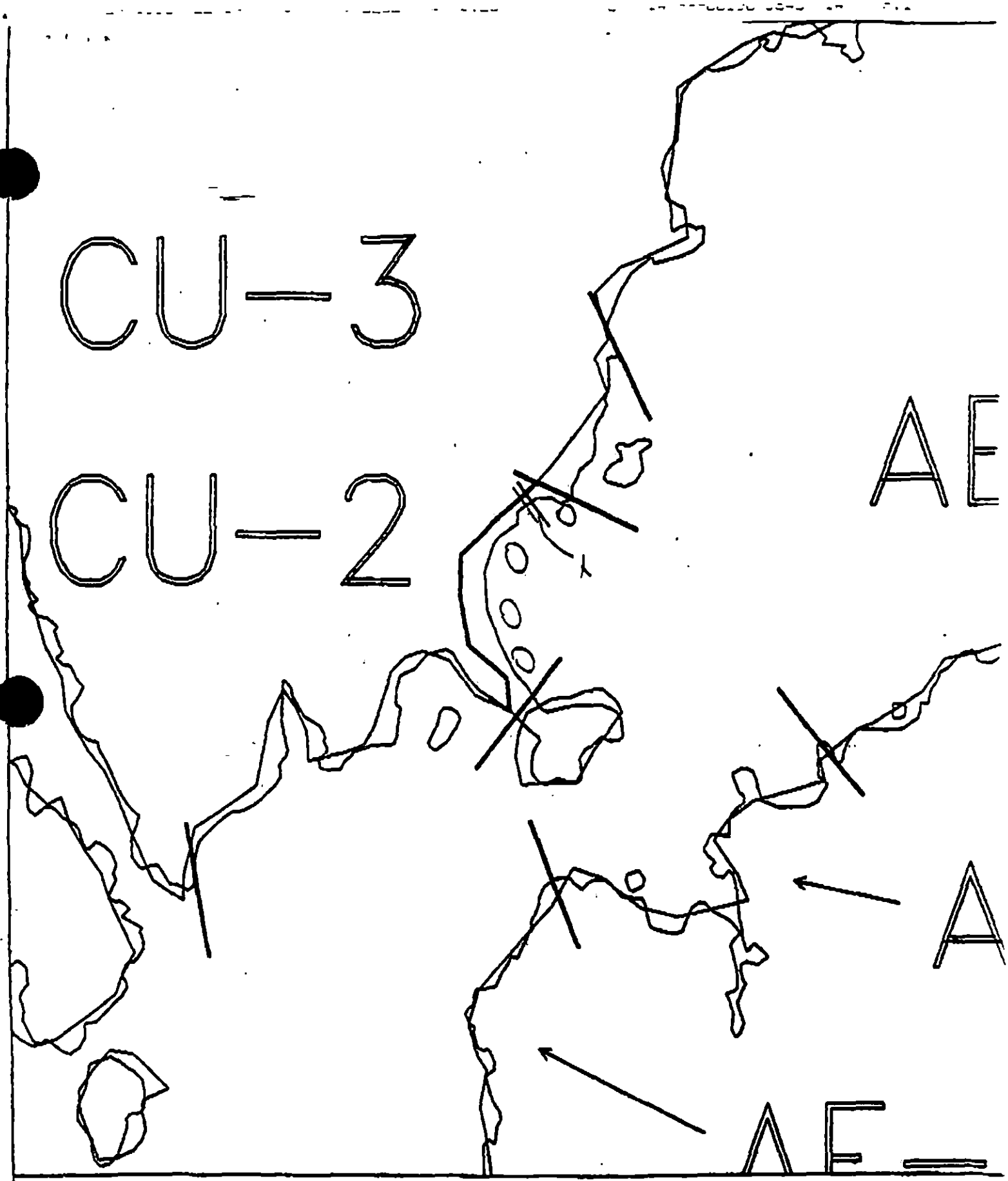
Diverse & Healthy Mitz & Litz on Rock

Ecological Considerations:

DATE 4-24/90 TIME 0715 TIDE HEIGHT 0.0

1 = BEDROCK 2=BOULDER 3=COBBLE 5=SAND 6=SILT

	SPECIES	UITZ	MITZ	LITZ	COMMENTS
FLORA:	BOSSIELLA/CORALLINA				
	~~CALLIARTHRON~~/CORALLINA			1	Dense in Tide Pools
	CLADOPHORA SPP			1	Sparse
	COSTARIA SPP				
	ENDOCLADIA MURICATA				
	FILMAENTOUS GREENS				
	FILAMENTOUS REDS				
	GLOIOPELTIS FURCATA				
	HALOSACCION GLANDIFORME		1	1	Moderate
	LAMINARIA SPP				
	LITHOTHAMNION			1	Moderate in Tide Pools
	NEREOCYSTIS SPP				
	PORPHYRA SPP				
	RALPHSIA/HILDENBRANDIA				
	PHODOMELA LARIX			1	moderate
	RHOKOMENIA PALMATA		1	1	moderate
	SCYTOSIPHON SPP			1	moderate
	ULVA SPP			1	moderate on Rock, Dense on Cobbles
	ZOSTERA MARINA			1	Moderate
	ENTOROMORPHA		1		moderate
	Constatinea			1	moderate
FAUNA:	ANTHOPLEURA SPP			1	Tide Pools - moderate, dense in Sand
	(SEMI) BALUNUS CARIOSUS				
	B. GLANDULA		1		
	BRYOZOANS				
	CHITONS (other than K. TUNICATA)				
	CLAMS				
	CRABS				
	DERMASTERIAS IMBRICATA			1	Moderate
	KATHARINA TUNICATA			1	Sparse
	LEPTASTERIAS HEXACTIS			1	Sparse
	LIMPETS		1	1	Sparse - Mitz, Litz on cobbles in Sand
	LITTORINA SPP		1		Dense
	NUCELLA SPP			1	Cobbles in Sand
	PAGURUS SPP			1	Rare
	PISASTER OCHRACEUS				
	POLYCHAETES			1	moderate - sand
	PYCNOPODIA HELIANTHOIDES			1	Dense
	SEARLESIA DIRA				
	SERPULIDS				
	SIPHONARIA THERSITES				
	TEALIA				
	Snail eyed mussel			1	moderate
	Rock Lice				



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

CU-2

ADEC Segment Length: 336m

0 100 200 300
METERS

Map Key: PWS-78
Name: K. Ramsey
Date: 4/24/90
Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ CU-02 SUBDIVISION A (1 OF 1) DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
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. Holmes DATE: 5/3/90

OILING CATEGORIZATION:

Wide 0 m: Medium 25 m: Narrow 0 m: V.Light 9 m: No Oil 322 m
Subsurface Oil Observed: Yes ____ No X Maximum Depth ____

RECOMMENDATIONS:

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

COMMENTS: ____

TAG COMMENTS: ____

TAG APPROVAL DATE: 5/3/90
ADEC Art Weiner Art Weiner
EXXON Andy Tear
NOAA Gary Petrac
USCG Kenneth Kearney

FOSC: D E Y L DATE: 5-8-90

OO K. Ra[redacted]y

SEGMENT S[redacted]-2

SUBDIVISION A

DATE 4/24/90

CHECKLIST

- ✓ N Arrow
- ✓ Approx. Scale
- ✓ Seg/Sub Bndy
- ✓ Oil Dist.
  - Width
  - Length
  - % Cover
- ✓ Substrate Character
- Est. HWL/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

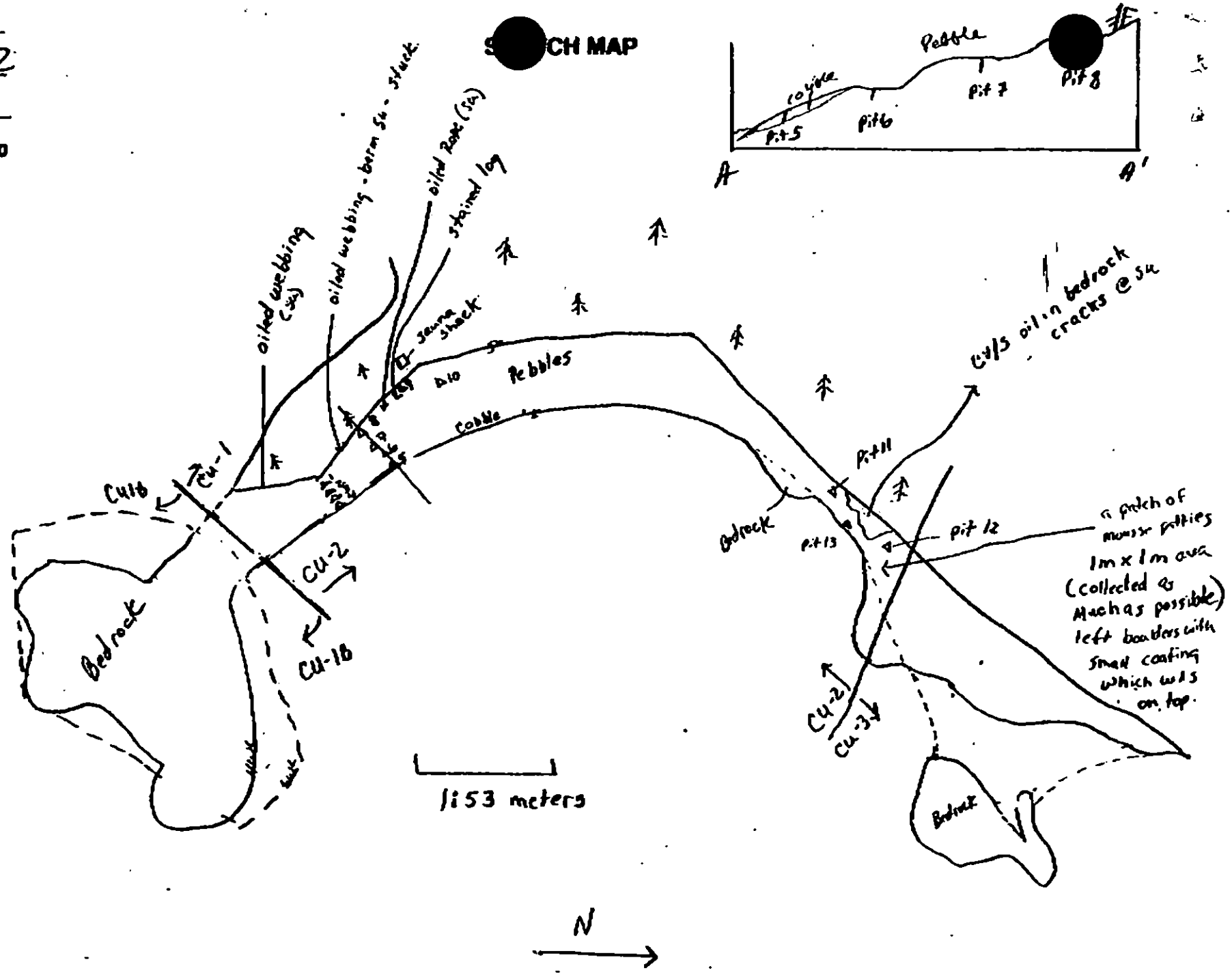
CT/B Broken Distribution

CT/P Patchy Distribution

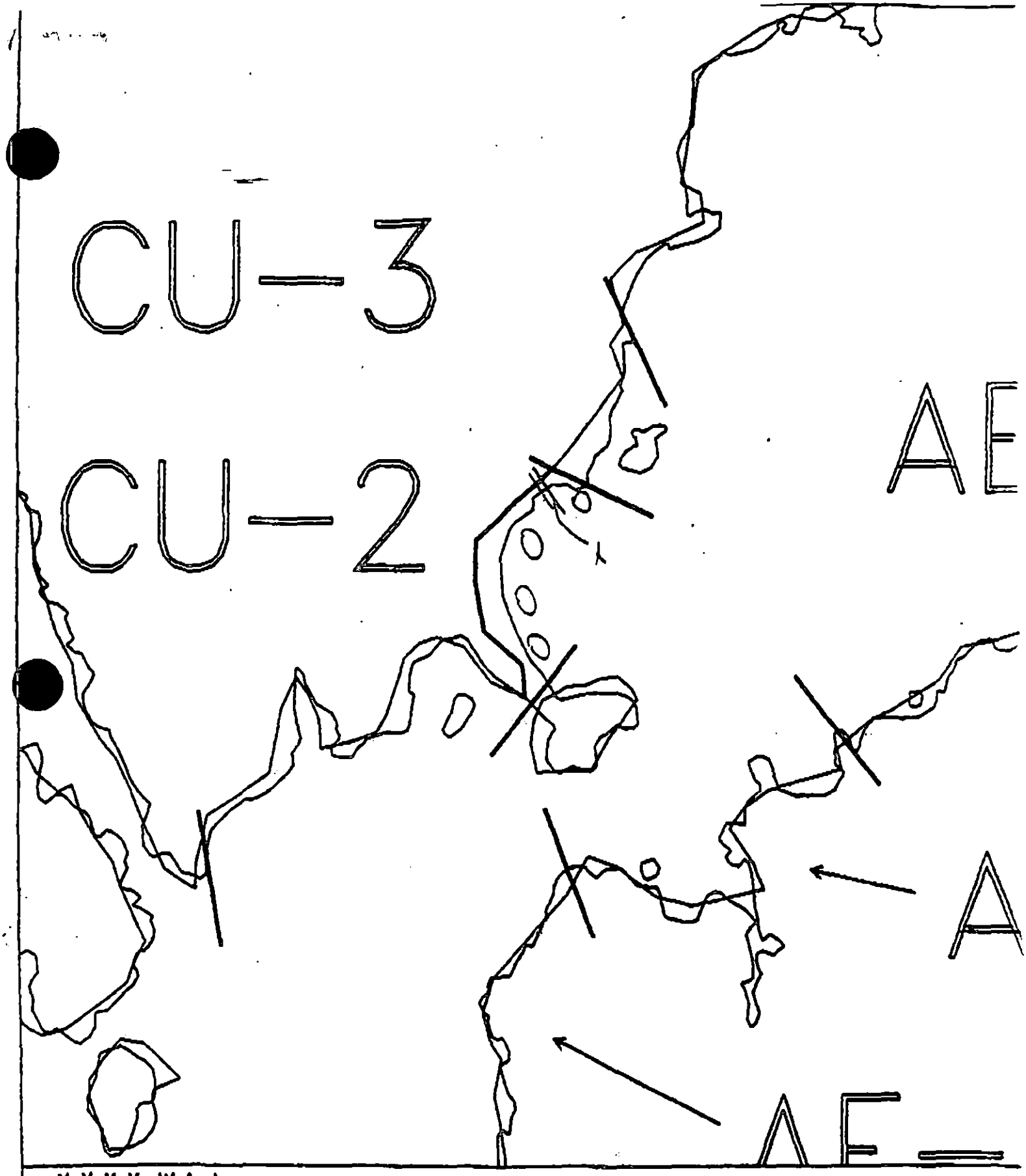
CT/S Splashed Distribution

Oiled Vegetation

1 Photo location, direction, and number



Character Length (m): AP ∅ PO ∅ CV .5 CT ∅ ST ∅ MS ∅ PT ∅ TB ∅ FL ∅ NO 319.5



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

CU-2

ADEC Segment Length: 336m

0 100 200 300
METERS

N

Map Key: PWS-78
Name: K. Ramsey
Date: 4/24/90
Date Entered:

(17)

ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 224-20-12995

SEGMENT CU-1 SUBDIVISION A

WORK WINDOW

Manual Pickup	**OPEN**

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resourses are uncovered, PHONE 564-3274

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream No constraint to manual pickup.

OTHER ECOLOGICAL CONSIDERATIONS

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

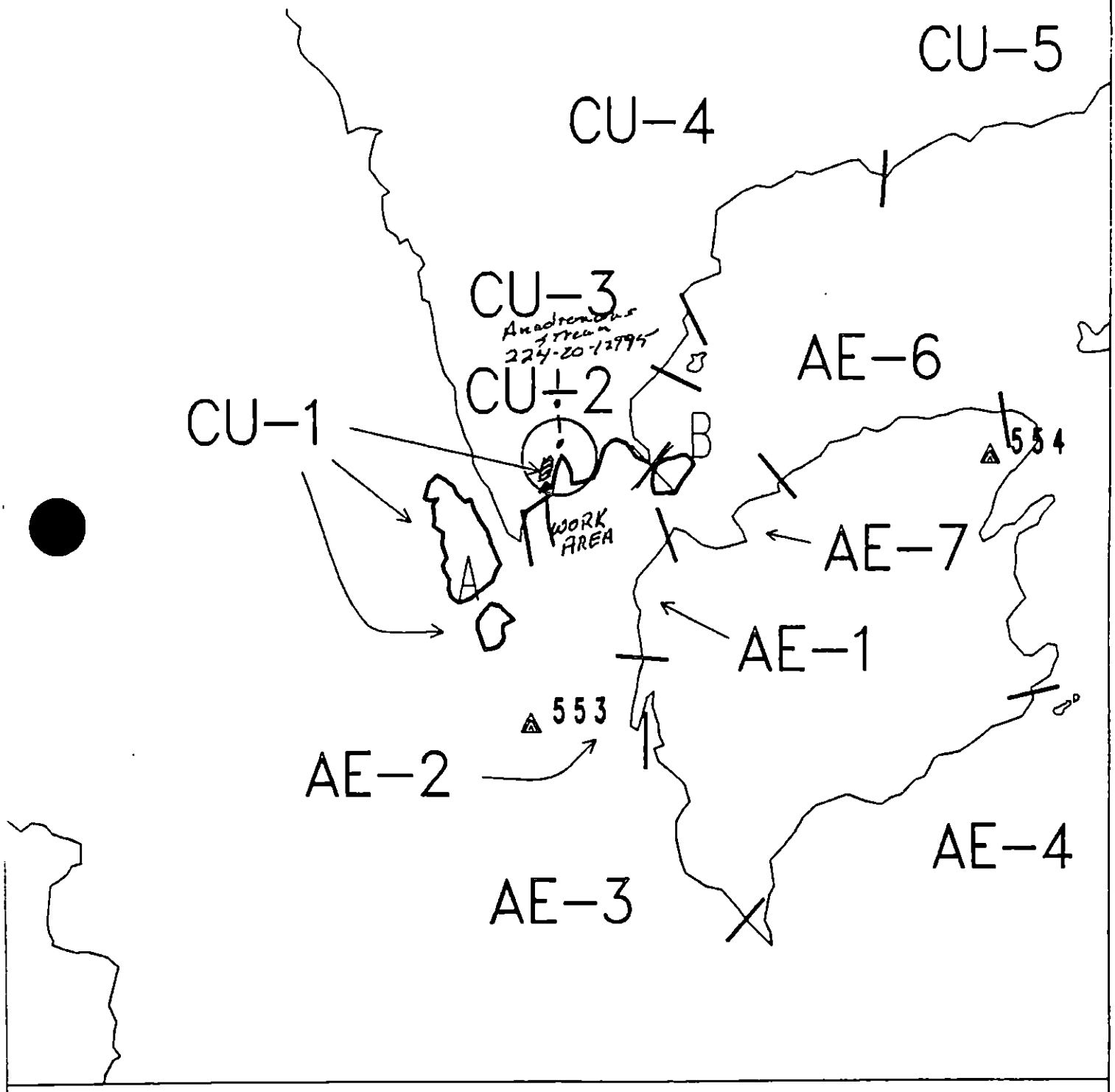
SEE SUBDIVISION CONSTRAINT ADDENDUM CU-1A FOR ADDITIONAL CONSTRAINT INFORMATION.

TAG APPROVAL DATE 5/29/90.
ADEC Art Weiner Art Weiner
EXXON Andy Tay
NOAA B Wescott
USCG G.A. Reiter G.A. Reiter

FOSC [signature] DATE MAY 29 1990

Prepared By: Andrew Meyer WK Date 5/28/90

Anadromous Stream Evaluation



Exxon Company, USA
Map Key: PWS-CU-1
May 11, 1990

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

METERS
0 426 853

★ Seabird Colony
▲ Eagle Nest

1 inch = 1399 feet

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ CU-01 STREAM NO: 224-20-12995 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)
6U Recreation: Tent sites (6/1 to 9/15)
6V Recreation: Anchorages (6/1 to 9/15)
6Y Recreation: Special use destination

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Subject stream is located within Subdivision A (1 of 1).

ARCHAEOLOGICAL CONSTRAINT: 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 (564-3274 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Robert Van Dam DATE: 5/18/90

Subsurface Oil Observed: Yes____ No X Maximum Depth____

RECOMMENDATIONS:

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

COMMENTS: [For Work Window, See Constraint Addendum 5/28/90 bhk]

TAG COMMENTS: Manual pickup of tar balls + patties as indicated on sketch

TAG APPROVAL DATE: 5/9/90

ADEC Art Weiner Art Weiner
EXXON Andy Cole
NOAA Burl Wescott Burl Wescott
USCG D.D. Rome D.D. Rome

FOSC: ____ DATE: ____

ANADROMOUS FISH STREAM ASSESSMENT

REGION: PRINCE WILLIAM SOUND

SEGMENT: CU-01

STREAM NO: 224-20-12995

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ CU-01 STREAM NO: 224-20-12995 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)
6U Recreation: Tent sites (6/1 to 9/15)
6V Recreation: Anchorages (6/1 to 9/15)
6Y Recreation: Special use destination

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled 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:

X No Treatment Recommended
_____Treatment Recommended
_____Manual Pickup
_____Bioremediation
_____Tarmat Removal

_____Snare/Absorbent Booms
_____Oil Snares (pom poms)
_____Absorbents (pads,rolls,etc)
_____Spot Washing:_____Wands
_____Beach Cleaner
_____Other (see comments)

COMMENTS: _____

TAG COMMENTS:_____

TAG APPROVAL DATE:_____

ADEC _____
EXXON _____ FOSC:_____ DATE:_____
NOAA _____
USCG _____

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 Suzomoto 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 unoiled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Evelyn Biggs 424-3235

3N, 3P Harbor seal and sea lion pupping (5/15 to 7/1)
3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
ADF&G Don Calkins 267-2403

5R Seabird colony (5/1 to 9/1)
Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

5S Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
ADF&G Tom Rothy 267-2206

5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

6U Recreation: Tent sites (6/1 to 9/15)
6V Anchorages (6/1 to 9/15)
6W Forest Service cabins (6/1 to 9/15)
6X Lodge (6/1 to 9/15)
6Y Special use destination

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

4/27

FIELD SHORELINE COMMENT SHEET DRAFT

224-20-12995

SEGMENT ST / CU-001 SUBDIVISION: ASC ~~224-20-16280~~ DATE 26 APR 90

USCG
NAME Kerwin L. Drehan SIGNATURE CWO K. L. Drehan

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

~~ADEQ~~ → ADF&G
NAME Rick Gustin SIGNATURE Richard Gustin

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

If work crews are in the area, say Applegate Fs., perhaps 2 people and a shovel could run across and in 20-30 minutes or less remove the small amount of patties present.
No bioremediation necessary.

~~LAND MANAGER~~ → NONE
NAME Rick Gustin SIGNATURE Richard Gustin

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

SHORELINE OILING SUMMARY (MAP)

REVISION NO. 0A1

OG CAL LARSON USCG DREHER, CWE SEGMENT ST/ CL001 1/2
BIO REN CLITCHLAW LAND REP STREAM 224 20-12PM OF
EXXON AL SNOW ADFG BACK, BOSTON-AIMEE WEIZMAN TIME 10:25 10:55
TEAM NO. 7F TIDE LEVEL -1 FT DATE 4 / 26 / 90
EST. SUBDIVISION LENGTH: 50 m ☑ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☐ Grass ☑ Forest ☐ Rock
SURVEYED FROM: ☐ Foot ☐ Boat ☐ Helo
SURFACE SEDIMENTS: R ___ % B ___ % C 40 % P 40 % G 20 % S ___ % M ___ % V ___
SLOPE: Lang 10 % Hang ___ % Vert 10 % WAVE EXPOSURE: ☑ Low ☐ Med ☐ High
OIL CATEGORY LENGTH: W ___ m M ___ m N ___ m VL 15.5 m NO 34.5

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	PC	AB	IP	AB						SW	SI	MI	LI
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT													
STAIN				✓		✓					✓		
MOUSSE													
PATTIES				✓		✓					✓		
TARBALLS				✓		✓					✓		
FILM													
NO OIL										✓		✓	✓

PAVEMENT H F S ___ sq. m by ___

PATTIES / TARBALLS 1/2 BAG

NEAR SHORE SHEEN? NO BR RW SL TI

OILED DEBRIS	AMOUNT SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

Did You Collect DEBRIS ☐ YES ☑ NO

TYPE ___

#BAGS ___

Photographs:

Roll No. ___

Frames ___

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				ANA	SHEEN (Y/N)	▼	SURFACE SUBSURFACE SEDIMENT
		CP	CR	CL	CF	NO		MO	MC						SW	SI	MI	LI				
1	8					✓	•									✓						CB FG CL CB PB CL
							•															
							•															
							•															
							•															
							•															

COMMENTS LONG POCKET COVE, RIMMED BY TALL SPRUCE 4-5 METER CLIFF BORDERING COVE. BOULDER SEDIMENT CONSISTING OF BROKEN SILT. VERY LITTLE OILING AT THIS SITE

REVIEWED JW DATE 4-29-90

SEGMENT STI C.001

STREAM 224-20-R995

DATE 4/26/90

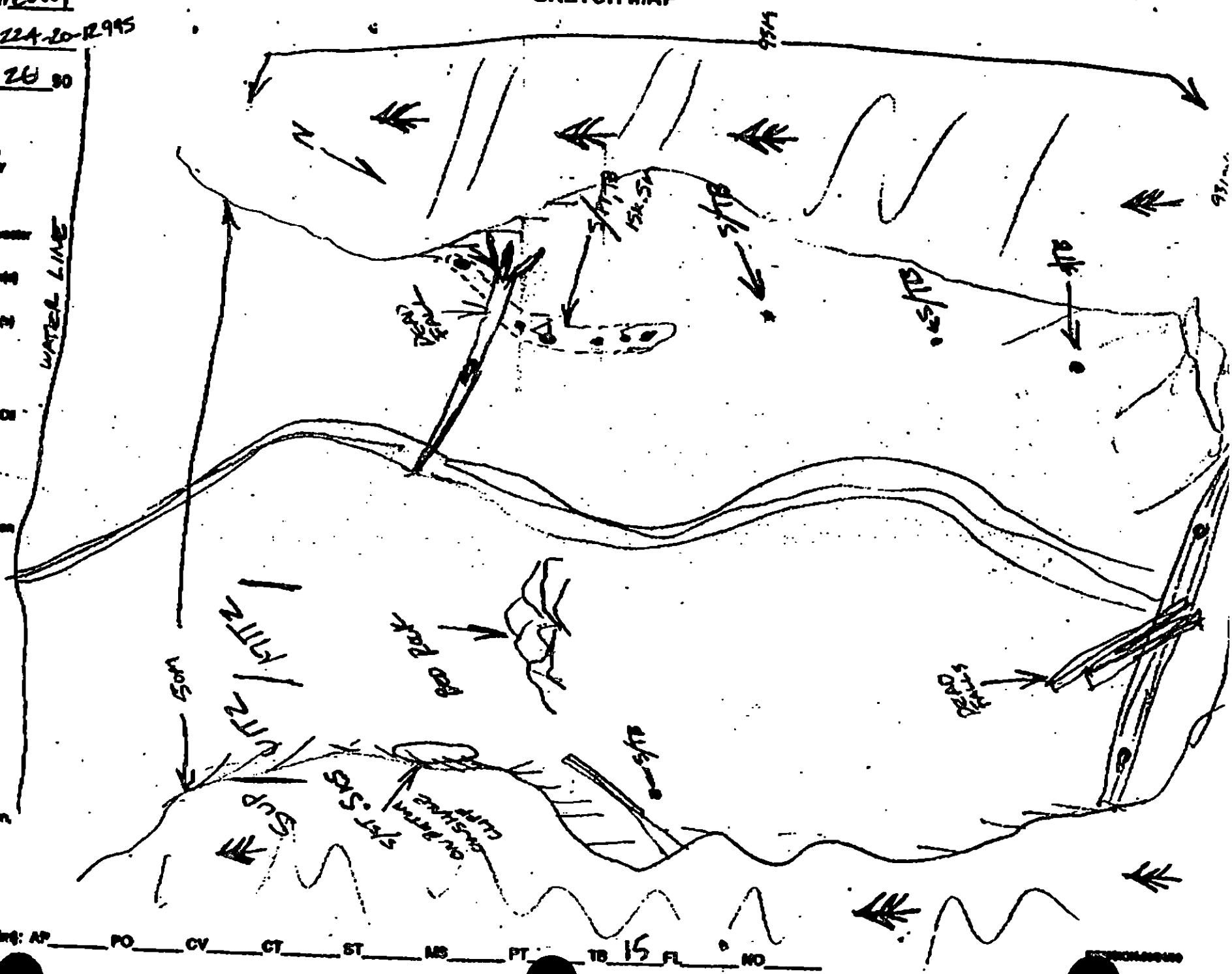
SKETCH MAP

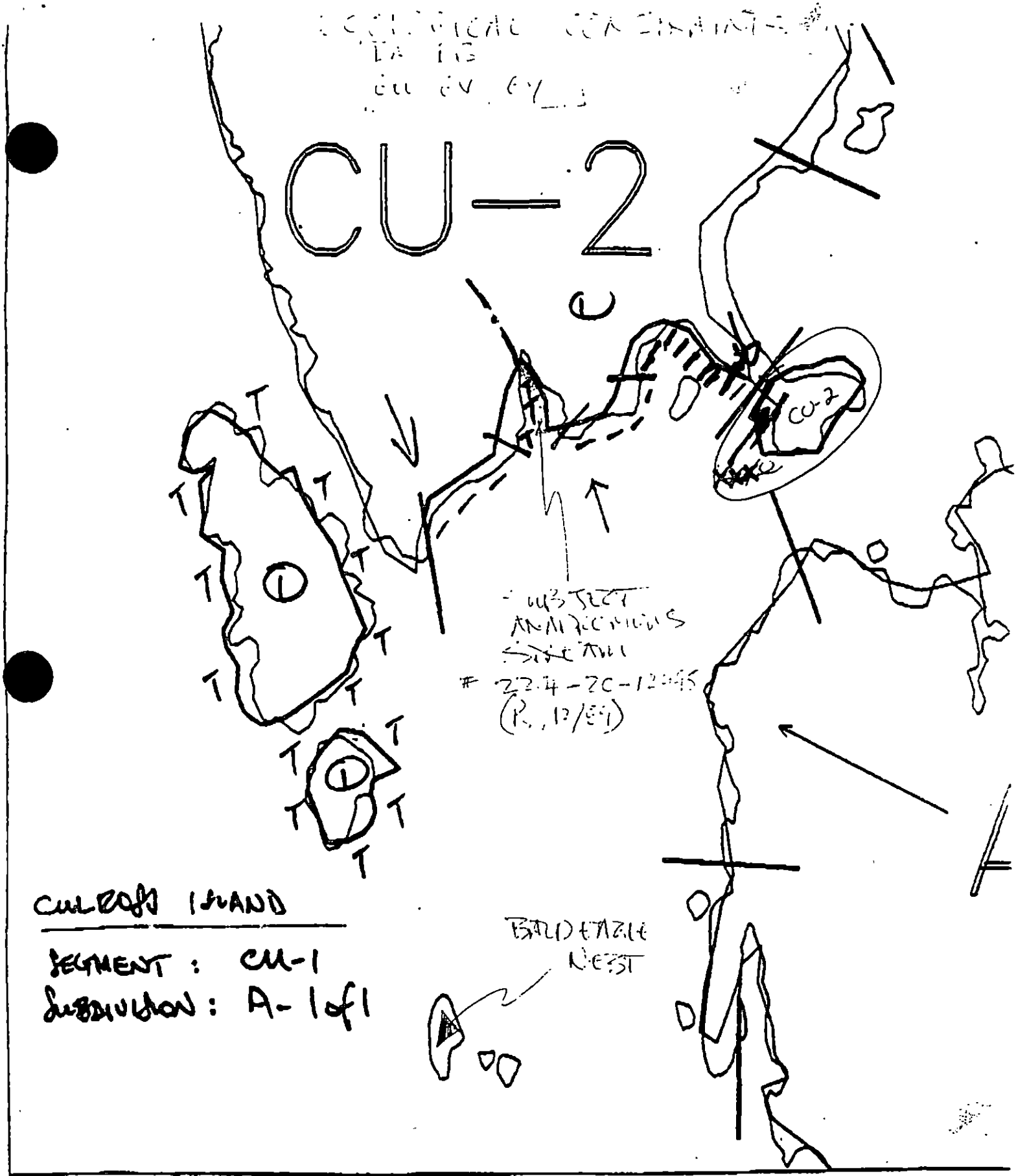
CHECKLIST

- N Arrow
- Access, Beds
- Stop/Sub Beds
- Oil Dist.
- Width
- Length
- % Cover
- Substrate Character
- Est. HRA/AWL
- 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/D Broken Distribution
- CT/P Patchy Distribution
- CT/S Spotted Distribution
- Oiled Vegetation
- Photo location, direction, and number


WATER LINE
N
STP
STP, TB
15k.SN
STP
STP
STP



CULROSS ISLAND

SEGMENT : CU-1

SUBDIVISION : A-1of1

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

CU-1

ADEC Segment Length: 2394m

0 100 200 300

Map Key: PWS-67

Name: GILLIE

Date: 4-4-90

Date Entered:

Seg ID: CU-001 Subdiv: 224-20-12995
Survey Date: 4/26/90
Comments by: Ken Critchlow

A line of scattered patties/asphalt pavement was present in a narrow band extending most of the length of the stream along the left side in the UITZ. Oil in this area was widely scattered and unlikely to be mobile. A small area of oil coating and stain was observed on the right side in the MITZ.

Oil observed at this site will probably weather slowly and is unlikely to be removed by storm activity due considerable shading of the banks and extremely low exposure to wave action, respectively. For this reason, it may be desirable to remove the patties/asphalt pavement. This would require perhaps 2 hours work by two persons using shovels and travels.

KR Critchlow

1/2

ADFG MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS (SS) OS TS AVS SCM MMS PTA 2 REGION: (PWS) KP,CI K,AP

METHOD: Aerial (Ground) Boat

3 DATE: 4-26-90 15 HIGH TIDE TIME: / 21 TEAM RECORDER: J. Gute

4 START TIME: 1026 16 HIGH TIDE HTS: / 22 OBSERVERS: A. Weseman

5 STOP TIME: 1055 17 LOW TIDE TIMES: / 23 AGENCY: ADF&G

6 SEGMENT #: CU 001 18 LOW TIDE HTS: / 24 PHOTOS TAKEN: Y (N)

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

8 K-UNIT: _____ Ebb Slack Flood Slack 25 VIDEO TAKEN: (Y) N TAPE: 90AJ0004

9 STAT AREA: _____ 20 USGS QUAD: SCH Start: 0649 End: 0760

10 LAT: _____ 11 LONG: _____ 26 SAMPLES TAKEN? Y (N) Number

12 SOURCE: (Map) Loran Oil _____

13 LOCATION: Culross I. Sediment _____

14 DESCRIPTION: Se tip - across from Applegate I. Biological _____

EXTENT OF OIL Water _____

	SHORELINE L	W	M²	%	STREAM L	W	M²	%
27 SURFACE COVERAGE				2-3%				0
28 SURFACE THICKNESS	1cm							
29 PENETRATION	1-2cm							

36 CATALOGED ANAD. FISH STREAM? (Y) N

37 CATALOG #: 224-20-12995

38 STREAM NAME: _____

39 OIL IN STREAM BED? Y (N)

40 OIL ON STREAM BANKS? (N) N

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

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

31 OIL TYPE: Pooled (Mousse) Tar Asphalt Sticky Stain

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

32 OILED DEBRIS? (Y) N Where: _____

33 SHORELINE TYPE: Headland Low-lying Rocks Beach (Cobble) Lagoon Marsh

43 ANADROMOUS FISH PRESENT? Y N

34 WAVE EXPOSURE: High Moderate (Low)

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

35 SUBSTRATE TYPE: Bedrock _____ Boulder 5% Cobble 20%

Gravel 75% Sand _____ Mud/silt _____

COMMENTS: broken fragments/sporadic patches upper intertidal. BSEDS seen fallen spruce stain/surface coating on BSEDS in bedrock cliffs down for rock needles.

(½ meter x 15 meter sporadic patch) (0.25 sq. meter of tarballs/patch)

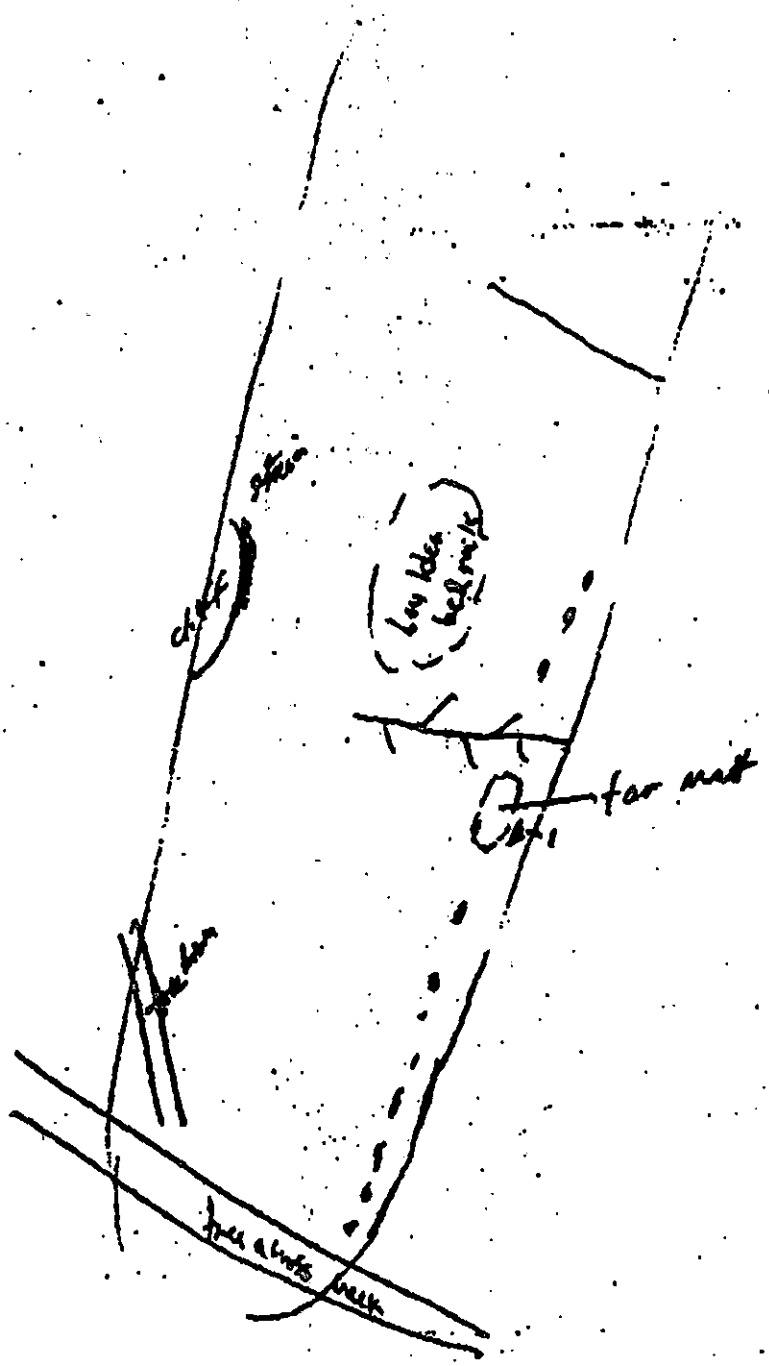
CU001 18

224-20-129

4B PHOTOLOG

FRAME(S)	DESCRIPTION
	pit 1 - Rear dump hole (1 cm oil surface dam.)
	Recommendations: If work crews are in the area, say Applegate Island perhaps 2 people and a shovel could easily access and in 30 minutes or less remove the small amount of patch in present. No Barricade Necessary.

4C OIL DISTRIBUTION DIAGRAM



Sample taken
Photo frame # and
shot direction.

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/CU-03

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ CU-03 SUBDIVISION A (1 OF 1) DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
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 13 m: V.Light 83 m: No Oil 332 m
Subsurface Oil Observed: Yes____ No X Maximum Depth_____

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)
____Spot Washing:____Wands
____Beach Cleaner
____Other (see comments)

COMMENTS: Recommended treatment includes tarmat removal and bioremediation in areas of surface coat as shown on sketch map. No specific ecological time constraints identified.

TAG COMMENTS:_____

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

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 Suzomoto 424-7511

1I Gill net area (6/7 to 8/31)
1J Purse seine area (7/20 to 9/30)
1K Purse seine hook-off (7/20 to 9/30)
1L Set net sites (6/11 to 7/25)
Contact ADF&G for specific dates, locations and constraints. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G James Brady 424-3212

2M Herring spawning (4/1 to 6/15)
Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Evelyn Biggs 424-3235

[illegible]P Harbor seal and sea lion pupping (5/15 to 7/1)
3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
ADF&G Don Calkins 267-2403

5R Seabird colony (5/1 to 9/1)
Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

5S Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
ADF&G Tom Rothy 267-2206

5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

6U Recreation: Tent sites (6/1 to 9/15)
6V Anchorages (6/1 to 9/15)
6W Forest Service cabins (6/1 to 9/15)
6X Lodge (6/1 to 9/15)
6Y Special use destination

7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
7HH Finfish harvesting
7II Deer harvesting (8/15 to 2/28)
[illegible]J Invertebrate harvesting
Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / CU-3 SUBDIVISION: 7 DATE 4/24/90

USCG
NAME M.J. SHARPE SIGNATURE [signature]

☐ NO TREATMENT RECOMMENDED ■ TREATMENT SUGGESTED

COMMENTS

PICKED UP SOME OF THE PAVEMENT, BUT SOME REMAINED. MANUAL PICK-UP WITH VERY SMALL SHOVELS. HIGH HUMAN USE.

ADEC
NAME STEPHEN FERGUSON SIGNATURE Stephen Ferguson

☐ NO TREATMENT RECOMMENDED ■ TREATMENT SUGGESTED

COMMENTS

Code at AP/P ON SKETCH MAP / RECOMMEND MANUAL REMOVAL OF THIS 17m(L) X 3m(W) PAVEMENT AREA / WORK TIME would be approx. 1 HOUR MAX to ACCOMPLISH THIS (10 MAN CREW)

LAND MANAGER
NAME Leigh Carlson SIGNATURE Leigh Carlson ADNR

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

Listed in PWS Area Plan as frequently used camping and anchorage spot. Listed as priority 2 by PWSCA. Oiling is located on a beach area that receives a lot of human use. Recommend manual pick-up of remaining pavement.

REVISION NO. 03/21/90

SHORELINE OILING SUMMARY

REVISION NO. 04/13/90

OG K. Ramsey USCG R. Sharpe SEGMENT ST/ CU-3
BIO G. Penn LAND REP L. Carlson SUBDIVISION A (1 OF 1)
EXXON S. Reid ADEC S. Ferguson TIME 8:00 to 8:54
TEAM NO. 4 TIDE LEVEL -2.0' to 0' DATE 4 / 24 / 90
EST. SUBDIVISION LENGTH: 428 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
SURFACE SEDIMENTS: R 37 % B 3 % C 50 % P 10 % G Ø % S Ø % M Ø % V Ø %
SLOPE: Lang 50 % Hang 50 % Vert Ø % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
OIL CATEGORY LENGTH: W Ø m M Ø m N 17 m VL 85 m NO 326 m

SURFACE OIL

CHARACTER	DISTRIBUTION /C	/B	/P	/S	OIL / FILM COLOR BR	DBR	OR	DOR	LBR	IMPACTED ZONES SU	UI	MI	LI
ASPHALT PAVEMENT			X			X				X			
POOLED													
COVER													
COAT		•	X	△		X/△				X	X/△		
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL												X	X

PAVEMENT H (F) S 51 sq. m by 1 cm
PATTIES / TARBALLS Ø BAGS
NEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?
YES ☐ NO ☒
TYPE —
#BAGS —

Photographs:
Roll No. —
Frames —

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER OP	OR	OL	OF	NO	OILED INTERVAL (CM)	BELOW UO	UO	OIL / FILM COLOR BR	DBR	OR	DOR	LBR	PIT ZONE SU	UI	MI	LI	ANA	SHEEN (Y/N)	▼	SURFACE - SUBSURFACE SEDIMENTS
1	20					X	— - —		X							X			N	N	15	C, P
							-															
							-															
							-															
							-															
							-															

COMMENTS This segment was basically cobble beach with bedrock outcropping in front. There was oil found behind bedrock in crevice in diagram which had a patchy band. Behind this Island of bedrock was an area of Asphalt pavement ≈ 17m long x 3 m wide. There was patchy coat band on back bedrock wall with splashes of coat + dribbles on boulders.

REVIEWED JW DATE 4/25/90

OG K[illegible]msey

SEGMENT ST/ CU-3

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 ▲ Pit - No Subsurface Oil

2 ▲ Pit - Subsurface Oil

CT/C Continuous Distribution

CT/B Broken Distribution

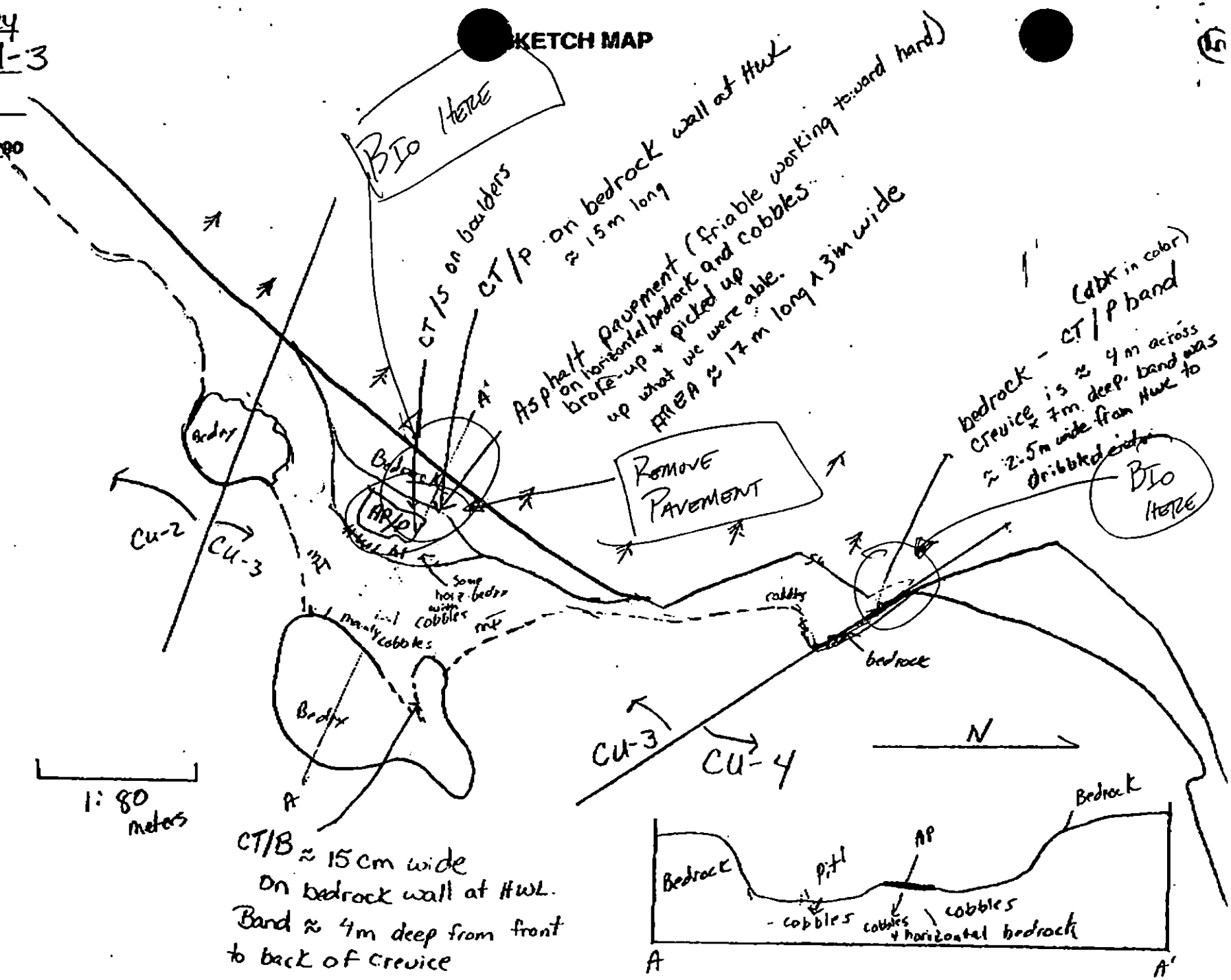
CT/P Patchy Distribution

CT/S Splashed Distribution

Oiled Vegetation

1 Photo location, direction, and number

SKETCH MAP



Oil Character Length (m): AP 17 PO Ø CV Ø CT 102 ST Ø MS Ø PT Ø TB Ø FL Ø NO 326

REVISION 12/2/88

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / CU-3 Subdivision A Date (mo / day / yr) 4-24-90

Time (24 hr) 0800 Biologist PENN

(A) Substrate type and % of segments:
(1) Bedrock 37 (2) Boulder 3 (3) Cobble 50 (4) Pebble 10 (5) Sand Ø (6) Silt Ø

(B) Overall % cover of biota (% of segment): Dense 40 Moderate 10 Low 20

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

Photographs:
Roll No. -
Frames -

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

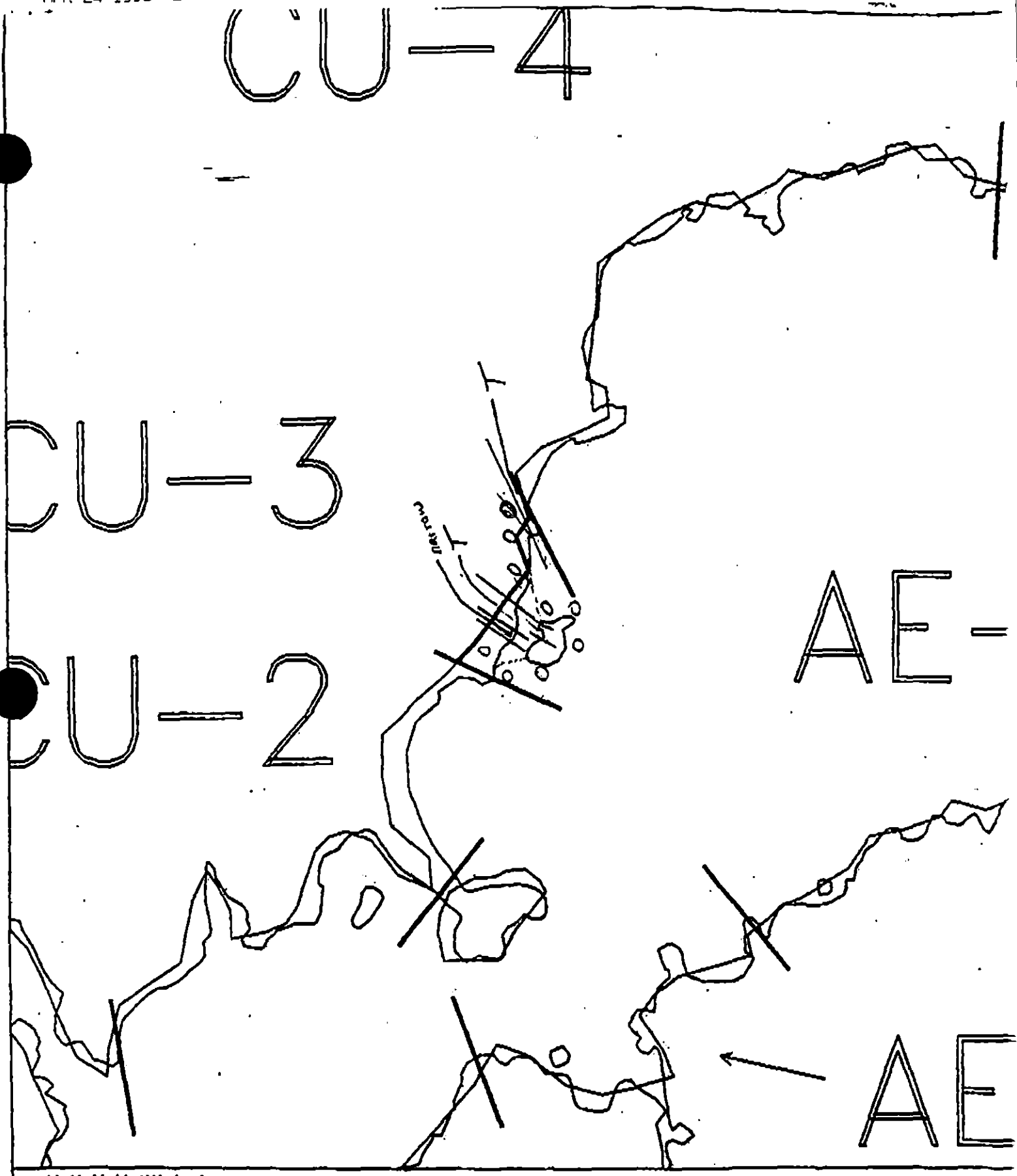
FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:
1- Eagle

Ecological Considerations:



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

CU-3

ADEC Segment Length: 230m

0 100 200 300
METERS

Map Key: PWS-81
Name: K. Ramsey
Date: 4/24/90
Date Entered:

6

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT CU-3 SUBDIVISION A (1 of 1)

WORK WINDOW	
Tarmat Removal	OPEN
Bioremediation	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

No time-dependent ecological constraints.

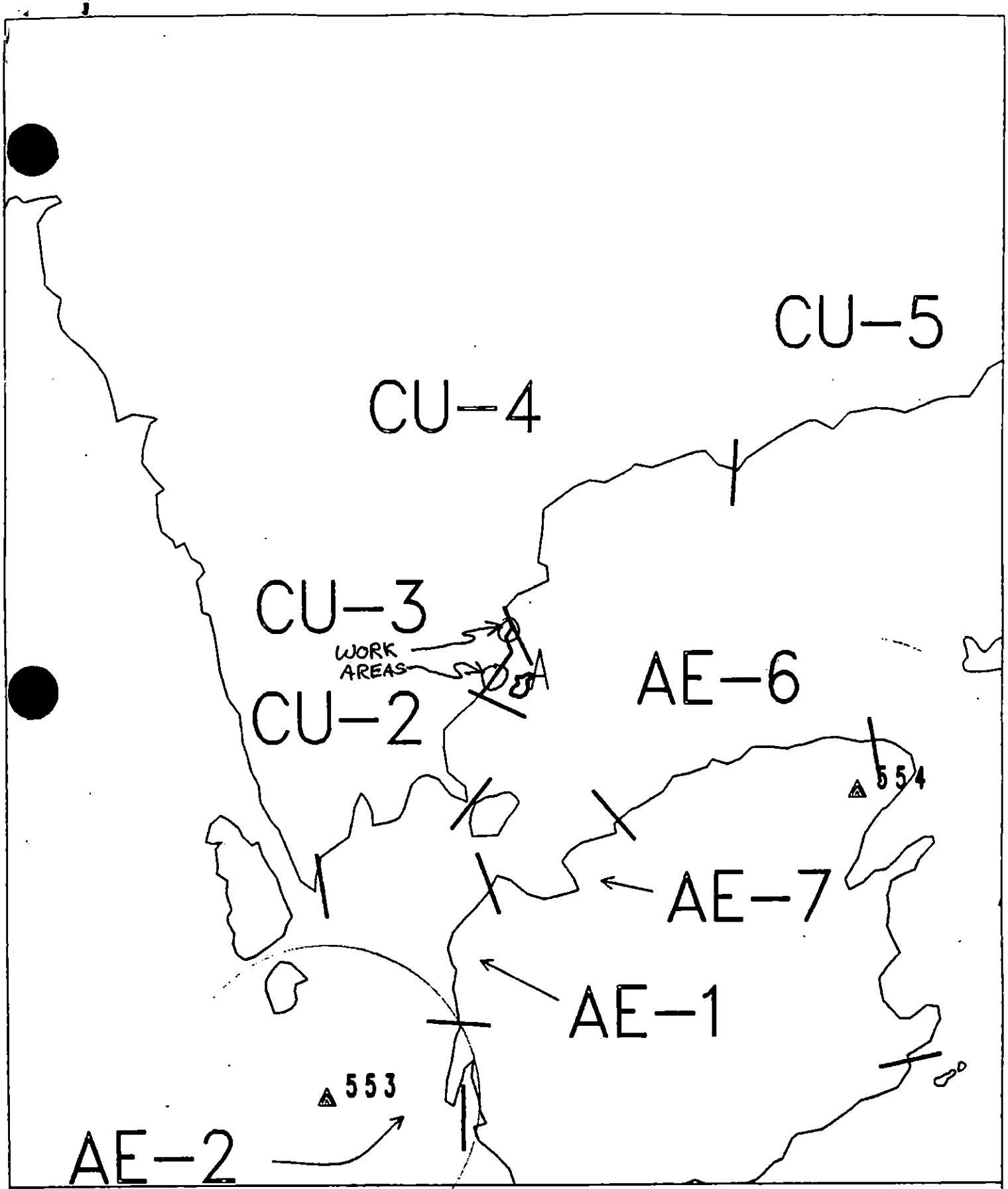
OTHER ECOLOGICAL CONSIDERATIONS

Avoid disturbance or damage to unoiled biota and substrate.

TAG ADDENDUM DATE 5/16/90.
ADEC ART WEINER
EXXON ANDY TEAL
NOAA JOSEPH TALBOTT
USCG G.A. REITER

FOSC _____ DATE 5-17-90

Prepared by: WK Date: 5/14/90



EXXON

Exxon Company, USA
Map Key: PWS-CU-3
May 11, 1990

ECOLOGY MAP
SEGMENT CU-3
SUBDIVISION A (1 of 1)

METERS
0 332 663

★ Seabird Colony
▲ Eagle Nest

1 inch = 1088 feet

SHORELINE EVALUATION

SEGMENT ST/ CU-03 SUBDIVISION A (1 OF 1) DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
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: 5/3/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 13 m: V.Light 83 m: No Oil 332 m
Subsurface Oil Observed: Yes ____ No X Maximum Depth ____

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)
____ Spot Washing: ____ Wands
____ Beach Cleaner
____ Other (see comments)

COMMENTS: Recommended treatment includes tarmat removal and bioremediation in areas of surface coat as shown on sketch map. No specific ecological time constraints identified.

TAG COMMENTS: ____

TAG APPROVAL DATE: 5/3/90
ADEC Art Weiner [signature]
EXXON Andy Tan [signature]
NOAA Gary Petrone [signature]
USCG Kenneth Kerner [signature]

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

SHORELINE EVALUATION

SEGMENT ST/ CU-03 SUBDIVISION A (1 OF 1) DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
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: 5/3/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 13 m: V.Light 83 m: No Oil 332 m
Subsurface Oil Observed: Yes ____ No X Maximum Depth ____

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes tarmat removal and bioremediation in areas of surface coat as shown on sketch map. No specific ecological time constraints identified.

TAG COMMENTS: ____

TAG APPROVAL DATE: 5/3/90
ADEC Art Weiner [signature]
EXXON Andy Tepp [signature]
NOAA Gary Petrone [signature]
USCG Kenneth Kopine [signature]

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

OG K. Ramsey

SEGMENT ST/ CU-3

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 ▲ Pit - No Subsurface Oil

2 ▲ Pit - Subsurface Oil

CT/C Continuous Distribution

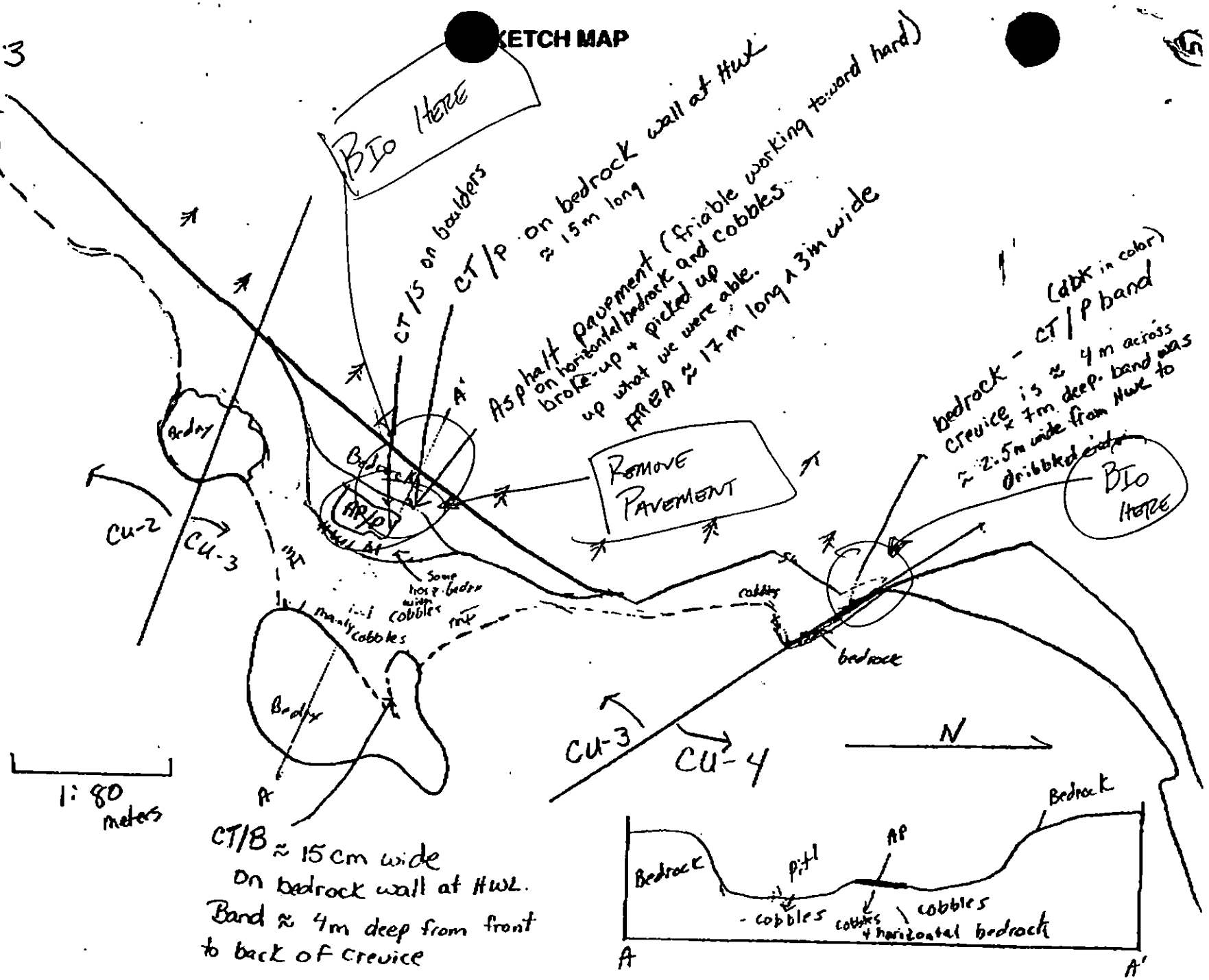
CT/B Broken Distribution

CT/P Patchy Distribution

CT/S Splashed Distribution

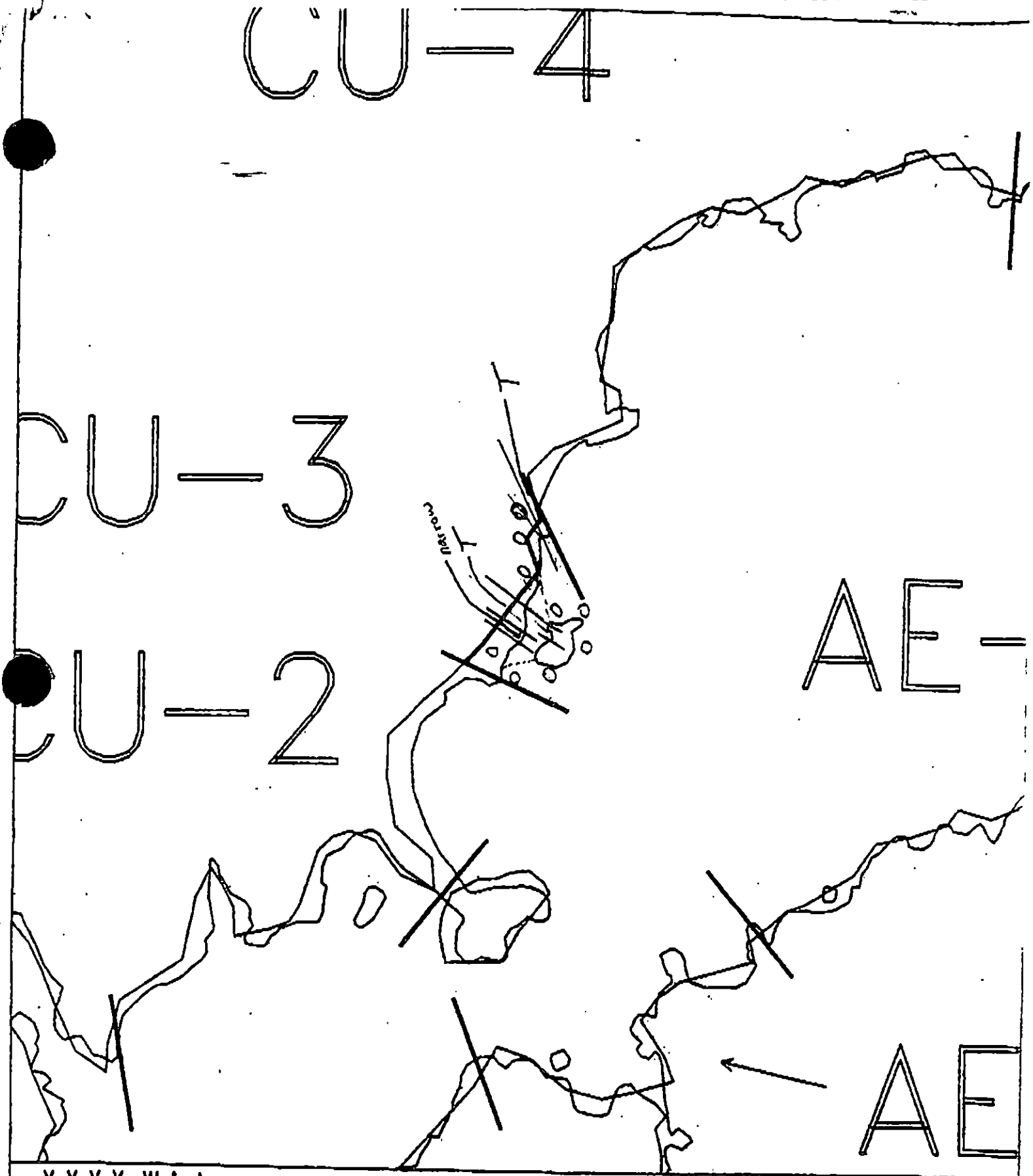
Oiled Vegetation

1 Photo location, direction, and number



Oil Character Length (m): AP 17 PO Ø CV Ø CT 102 ST Ø MS Ø PT Ø TB Ø FL Ø NO 326

REVISION 03/2000



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

CU-3

ADEC Segment Length: 230m

0 100 200 300
METERS

Map Key: PWS-81
Name: K. Ramsey
Date: 4/24/90
Data Entered:

6

1991 MAYSAP EVALUATION

SEGMENT: CU 003 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 J. Smith Date: 5/31/91

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 31 1991 FOSC APPROVAL DATE: 6/5/91

ADEC

EXXON

USCG

NOAA

FOSC

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.

TEAM NO. 1 SEGMENT CU 3 SUBDIVISION A DATE 5/21/91

ADEC
NAME JEFF GINKUS SIGNATURE [signature]

[X] NTR No remaining recoverable oil present. At impact area of beach (OG map sites A1, A3), Mayo crew removed surface patches of mousse ~~[illegible]~~ trapped in boulder crevices and dried surface asphalt. No further treatment necessary. Impact area relatively small (2x10, broken). A bit of coat on bedrock

EXXON
NAME LARRY D OLSON SIGNATURE [signature]

[X] NTR No retrievable oiling remains.

LANDMANAGER
NAME MARSHA HALL OF DNR SIGNATURE Marsha Hall

[X] NTR Remaining oil at site would require hot water wash and there is not enough to justify that type treatment. Thicker patches of oil were scraped and removed leaving a greasy coat. Sunny and hot.

USCG/NOAA
NAME SCHULTZ / CHILDS SIGNATURE [signature] / [signature]

[X] NTR No recoverable oil remains

Steeply dipping. Bedrock shore w/ large crevices along bed rock joints. Crevices follow joint weakness lines. Small island is extension of larger island w/ "washover" connecting. MS/I & asphalt patties on "washover" at hi-pu by team.

MAYSAP SHORELINE OILING SUMMARY

TEAM NO. 1

OG G. MACDONALD BIO M FAWCETT SEGMENT CU-3

ADEC J. GINATIAS LANDMANAGER M HALL for DNR SUBDIVISION A

EXXON L. OLSON USCG/NOAA SCHULTZ / CHILDS DATE 5 / 21 / 91

TIME 11 : 40 to 12 : 10 TIDE LEVEL ____ ft. to ____ ft. ENERGY LEVEL: ☐ H ☐ M ☒ L

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

TOTAL LENGTH SHORELINE SURVEYED: 430 m NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONE

EST. OIL CATEGORY LENGTH: W — m M — m N — m VL 20 m NO 410 m US — m

LOC	SURFACE OIL CHARACTER										SURFACE SEDIMENT TYPE	SHORE SLOPE	AREA		ZONE				NOTES
	AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO		V H M L	WIDTH m	LENGTH m	S	UI	MI	LI	
A1		T									R	L	2	5		x			
A2						T					CBR	M	<1	20		x			
A3			T								CB	L	2	10		x			

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

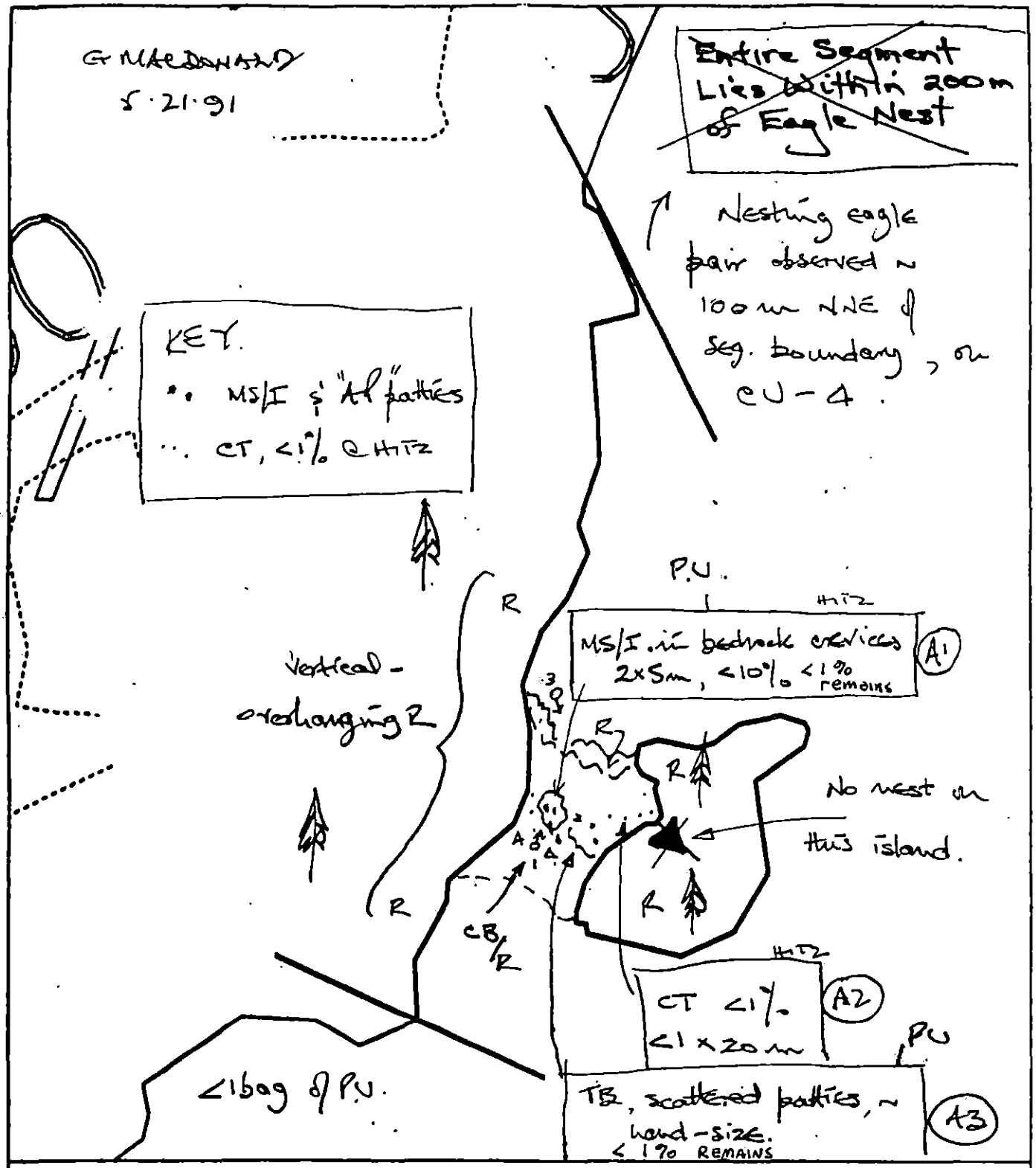
SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE PHOTO ROLL # MAYSAP- 1 - 28 FRAMES 3~4

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

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

OG COMMENTS: CB over bedrock bench which connects R islet to Cuttoss Island. Surface oil only, as scattered asphalt patties, MS/I in bedrock crevices and trace CT on R walls and across bench — all @ HITZ. A trace of ~~these~~ remains following P.W. activities.
The active eagle nest plotted here is actually on CU-4.

REVIEWED: P.W. 5/23/91



CU003

Segment Reference Map

Map Key: PWSCU003

METERS

0 31 62

AK State Plane Zone 4 (NAD83)

EAGLE NEST

REVIEWED: R.W. 5/23/91

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 1 DATE 5/21/91

SEGMENT # CU 003 TIDAL HEIGHT(Range) +3.5 to +4.5 ft MLLW

SUBDIVISION A BIOLOGIST Michael Fawcett

STATE 1/2 ft WIND SPEED/DIRECTION calm

PHOTOGRAPHS: ROLL # FRAME #

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

The residual oil in this subdivision was in a small BR/B/C intertidal neck connecting an islet to the main shore of Culross Island. USFWS rep. Doug Stine accompanied the survey team because an active eagle nest was reported to be on the islet (this was incorrect; an active nest was located by Doug in CU 004, about 300 m north of the islet in CU 003). Some mousse and tarballs were recovered from the high intertidal zone on the neck, among cobble, pebbles, and splintery bedrock. The oiled sediments were at about +9 ft MLLW, and were among or near sparse barnacles, limpets and young rockweed, with dense barnacles, mussels, rockweed and other organisms downshore. A small area of residual oil coat and cover occurred in a protected crevice behind the islet; no biota nearby.

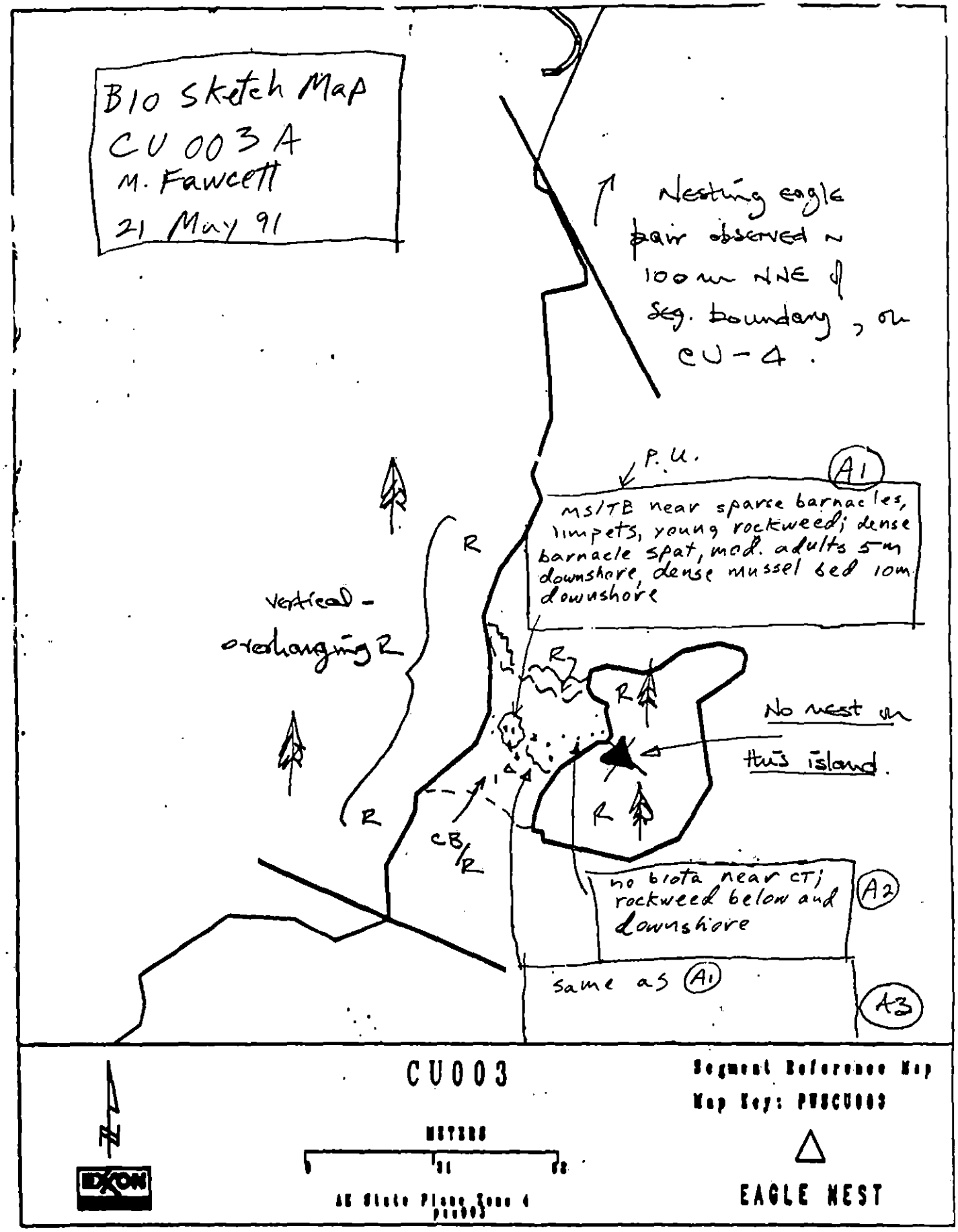
WILDLIFE OBSERVATIONS
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	2	tidepool sculpin
Seabirds			black prickleback
Waterfowl	1 (goldeneye sp.)	2	
Gulls/Kittiwakes			
Shorebirds			
Corvids	1 (crow)	1	
Other Birds			

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

Shoreline subdivision map showing important biological features attached.

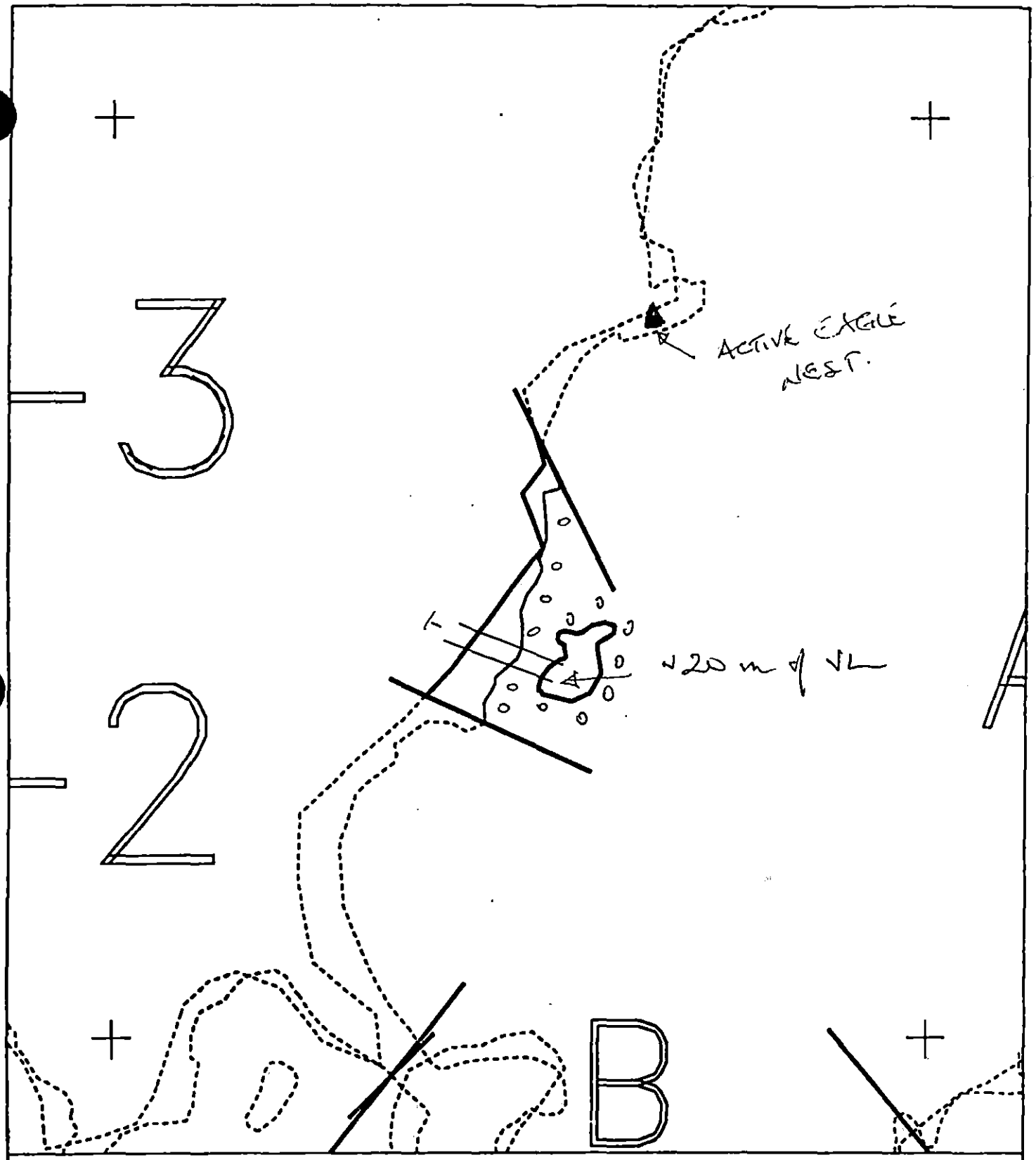
Rev. 4/23/91 MM


Bio Sketch Map
CU 003 A
M. Fawcett
21 May 91
Nesting eagle pair observed ~ 100 m NNE of seg. boundary, on CU-4.
P.U.
A1
MS/TB near sparse barnacles, limpets, young rockweed; dense barnacle spat, mod. adults 5 m downshore, dense mussel bed 10 m downshore
R
vertical - overhanging R
R
R
R
R
No nest on this island.
CB/R
no biota near CT; rockweed below and downshore
A2
same as A1
A3
CU003
Segment Reference Map
Map Key: PWSCU003
METERS
AK State Plane Zone 4
EAGLE NEST
EXXON

5

CU003A 5/21/91 Fancett
arrive 1140 w/ Doug Stine
- no nest at CU3 - prob. dirty
mislocated, as there is a nest
300 m north on another little
peninsula - islet
- 2 adults circling ~~[illegible]~~
upshell a ways
- CT/CV UTZ-SUTZ
in crevice behind bot - no
biota, Fucus below + downshore
- CT/CV on low BR probing
up through P/C at + 9 ft
sparse barn, limp nearby,
some young Fucus on BR
- dense spat mod barn
begin 5 m downshore, dense
Mussel bed 10 m downshore
LTZ has outcrops rising to +8 ft
w/ dense barn, mussels, Fucus
- sparse Rhodo, Sc to - spat
all over
- 2 Goldeneye, 1 crow
- Leptasterias, hermits, old
N. scutum, sculpins, Cladophora
in MTZ pools among B/R

Lit. eggs under MTZ rocks
also small mya shaped clam (
Finish 1210



XXXX	Wide	CU003 A	Subdivision Field Map
////	Medium	ADEC Subsegment Length: 427m	Map Key: PWSCU003A
----	Narrow	METERS	Name: GM
TTTT	Very Light	0 100 200	
0000	No Oil	AK State Plane Zone 4 pcu003a	Date: 5.21.91
			Date Entered:

REVIEWED: F.W. 5/23/91

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