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[Shoreline evaluations, 1991].

Kodiak K0909 CD 007 to K0915 SB 103

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REGION: KODIAK

SEGMENT: ST/K09-09-CD-007

SUBDIVISION: A (1 of 1)

SHORELINE EVALUATION

SEGMENT ST/_K09-09-CD-007_ SUBDIVISION A (1 OF 1) DATE 5/21/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

4LL State Marine Park National Parks

3N, 3P Harbor seal and sea lion pupping (5/10 to 7/1)

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

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 Exxon's Cultural Resource Program immediately (564-3274 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 75 m: Narrow 0 m: V.Light 620 m: No Oil 1476 m
Subsurface Oil Observed: Yes X No _____ Maximum Depth 5cm

RECOMMENDATIONS:

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

COMMENTS: Recommend treatment includes 1) manual pick up of accessible mousse deposits, 2) spot wash 3) bioremediate inaccessible mousse deposits. Work should be conducted between 7/1 and 7/31 due to pinniped constraints.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

KODIAK ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ K9-09 C0-7 SUBDIVISION: A DATE 5-21-10

CG

NAME STAN L. SHIELDS SIGNATURE Stan L. Shields☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

IF THIS WERE THE ONLY SEGMENT IN THE CAPE DOUGLAS AREA THAT HAD OILING I WOULD RECOMMEND NO TREATMENT DUE TO AMOUNT FOUND IN THIS SEGMENT. THERE ARE 3 AREAS THAT COULD BENEFIT FROM MANUAL REMOVAL BY SHOVELS AND TROWELS. THE FIRST TWO POCKETS ARE IN THE WEST PART OF SEG. WITH ^{LIGHT} PATCHY MOUSSE AND STAIN IN THE UPPER MIDDLE TIDE ZONE AND THE 3RD POCKET IS IN THE EASTERN PART OF SEG. IN THE UPPER TIDE ZONE AGAIN WITH ^{LIGHT} PATCHY MOUSSE AND STAIN.

ADEC

NAME Francine J. Bennett SIGNATURE Francine J. Bennett☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

MANUAL PICK-UP WITH SHOVELS & TROWELS RECOMMENDED.

Three areas of mousse + mousse saturated fine sediments exist along this segment, north being with medium wave energy:

- 1) 10 m x 50 m band among cobbles/boulders, western part of segment
- 2) 3 m x 5 m band slightly to the east of this
- 3) 2 m x 3 m area of some mousse in coarse gravel among cobbles/boulders in eastern portion of segment.

All oil described is recoverable by manual retrieval methods. See SEA map for exact location

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

NOT available

SEGMENT ST / K9.19 CQ-7 SUBDIVISION: A DATE 5-21-10

USCG

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADEC

NAME Francis J. Beane SIGNATURE Francis J. Beane

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

MANUAL PICK-UP WITH SHOVELS & TROWELS RECOMMENDED.

Three areas of mousse & mousse saturated fine sediments exist along this segment, both being with medium wave energy:

- 1) 10 m x 50 m band along cobble/boulders, western part of segment
- 2) 3 m x 5 m band slightly to the east of this
- 3) 2 m x 3 m area of some mousse in coarse gravel among cobble/boulders in eastern portion of segment.

All oil described is recoverable by manual retrieval methods. See SEA map for exact location.

LAND MANAGER

NAME Carl Scheel SIGNATURE Carl Scheel

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

Not present during assessment

Concur with ADEC recommendation. Recoverable oil

is primarily in the three pockets/patches indicated on the sketch map. Recommend having NPS/ADEC monitor locate these difficult to find areas.

SHORELINE OILING SUMMARY

REVISION NO. 26/13/90

OG Mike Foget USCG Stan shields ^{NPS} SEGMENT ST/ K0909 / CD 007
 BIG Heather Davis LAND REPOS Lagerstrom / Dan Connors SUBDIVISION A (1 OF 1)
 TEAM NO. 20 ADEC Fran Bennis TIME 16:30 to 18:30
 TIDE LEVEL +6.0 - 1.2 DATE 5 / 21 / 90
 EST. SUBDIVISION LENGTH: 2117 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock mostly steep rocky backshore
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 5 % B 40 % C 30 % P 10 % G 5 % S 10 % M 0 % V 0 %
 SLOPE: Lang 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 75 m N 0 m VL 635 m NO 1407 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	10	15	20	25	30	35	40	45	SW	U	M	E
ASPHALT PAVEMENT												
POOLED												
COVER												
COAT												
STAIN			0	X	X				0	X		
MOUSSE			X	X					X	0	X	
PATTIES												
TARBALLS												
FILM												
NO OIL										X	X	

PAVEMENT H F S 0 sq. m by 0 cmPATTIES / TARBALLS 30 BAGSNEAR SHORE SHEEN? ☒ NO BR RW SL TL

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

Photographs:

Roll No. ST-20-12Frames 22-27

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR				PIT ZONE				AN A	DEEPEN (Y/N)	F	SURFACE - SUBSURFACE SEDIMENTS
		OP	OM	OL	OS	NO		UO	UG	30	35	40	45	SW	U	M	E				
1	20					X	0		X					X							P, G, S
2	30					X	0		X					X					N	25	P, G, S, P
3	30					X	0		X					X							C, P, S, P
4	25					X	0		X					X							C, P, S, P
5	15		X				0.5		X			X		X					Y	10	C, S
6	15		X				0.5		X			X		X					N	-	S, C

COMMENTS

shore zone is a rocky headland with a boulder/cobble beach zone which is low angle, most of the oiling occurs as staining in the HITZ. There is some patchy distribution of Mousse in the HITZ toward the west end of the segment. There is a rock bench to the west of the patch and a point to the east. The mousse is in granule/sand in between boulder/cobb in the HITZ. Mousse is also located in

REVIEWED

BAT

DATE 24 May 90

SEGMENT ST/ CD-07 SUBDIVISION A (1 OF 1)

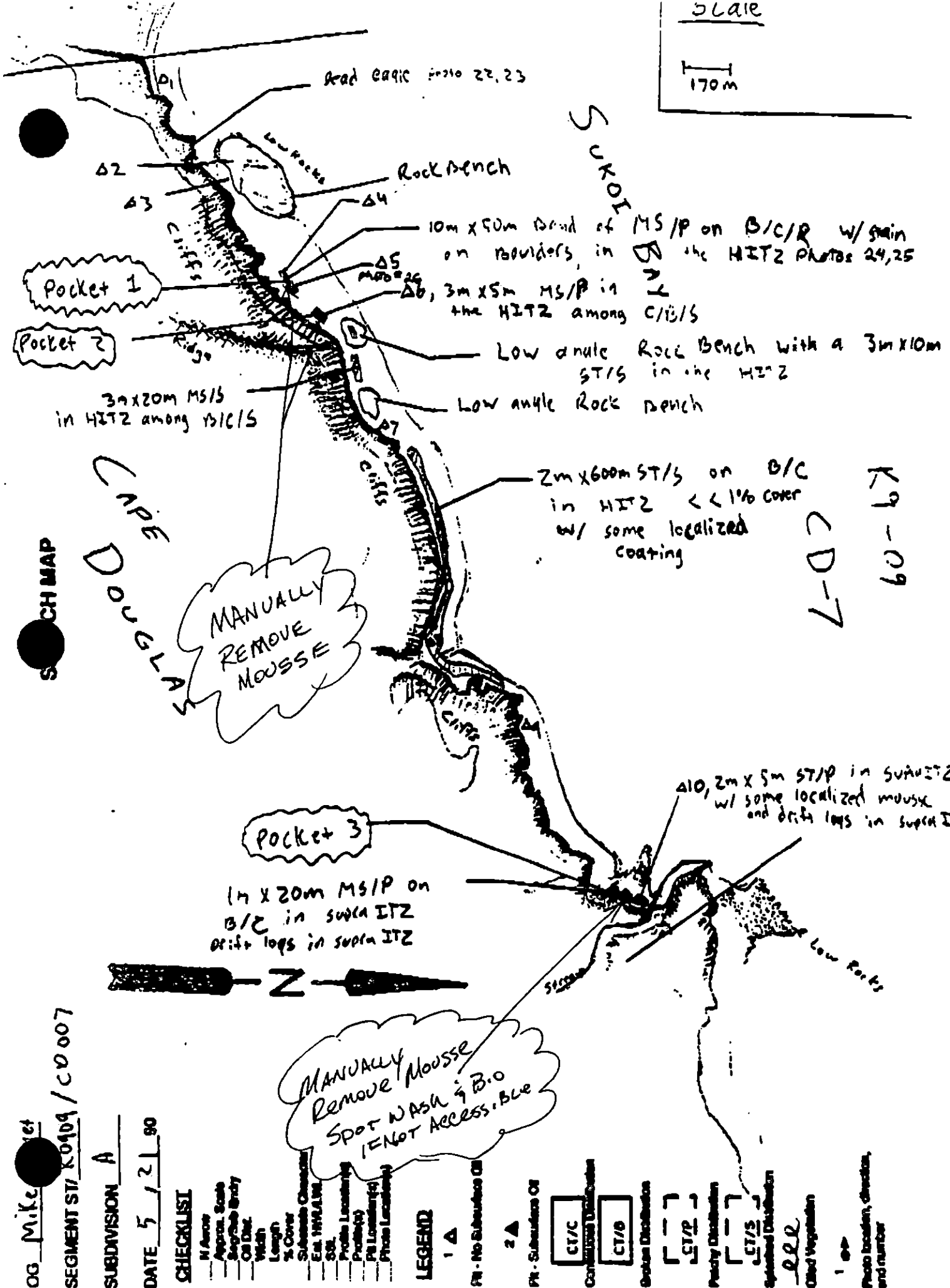
SUBSURFACE OIL (CONTINUED)

[illegible]

COMMENTS

the eastern end of the segment in a pocket beach in the Suva ITZ,

REVIEWED _____ DATE _____



OG Mike
SEGMENT ST/ K0109 / C0007

SUBDIVISION A
DATE 5/2/90

- CHECKLIST
- ☐ M Area
 - ☐ Approx. Scale
 - ☐ Significant Boundary
 - ☐ On Disc
 - ☐ Width
 - ☐ Length
 - ☐ % Cover
 - ☐ Substrate Character
 - ☐ Est. 1984/1985
 - ☐ SBL
 - ☐ Profile Location
 - ☐ Profile
 - ☐ Photo Location
 - ☐ Photo Location

LEGEND

- 1 Δ
- 2 Δ
- PR - Substrate Of
- CT/C
- CT/B
- Broken Distribution
- CT/P
- Patchy Distribution
- CT/S
- Spotted Distribution
- RRR
- Other Vegetation

Photo location, direction, and number

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST/K09-09 Subdivision CD-07 Date (mo/day/yr) 5/21/90Time (24 hr) 16:15 Biologist H. Davis(A) Substrate type and % of segments:
(1) Bedrock 5 (2) Boulder 40 (3) Cobble 30 (4) Pebble 15 (5) Sand 10 (6) Silt —(B) Overall % cover of biota (% of segment): Dense 10% Moderate 40% Low 50% (30%)

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

Photographs:

Roll No. ST-20-12Frames 22-27BARNACLES *Variable in density but continuous along the segment*

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

NOT PRESENT
4, 5, 6MYTILUS *Rare. Just a few in the segment.*

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

NOT PRESENT
3, 4, 5, 6GASTROPODS *Variable in density but continuous.*

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

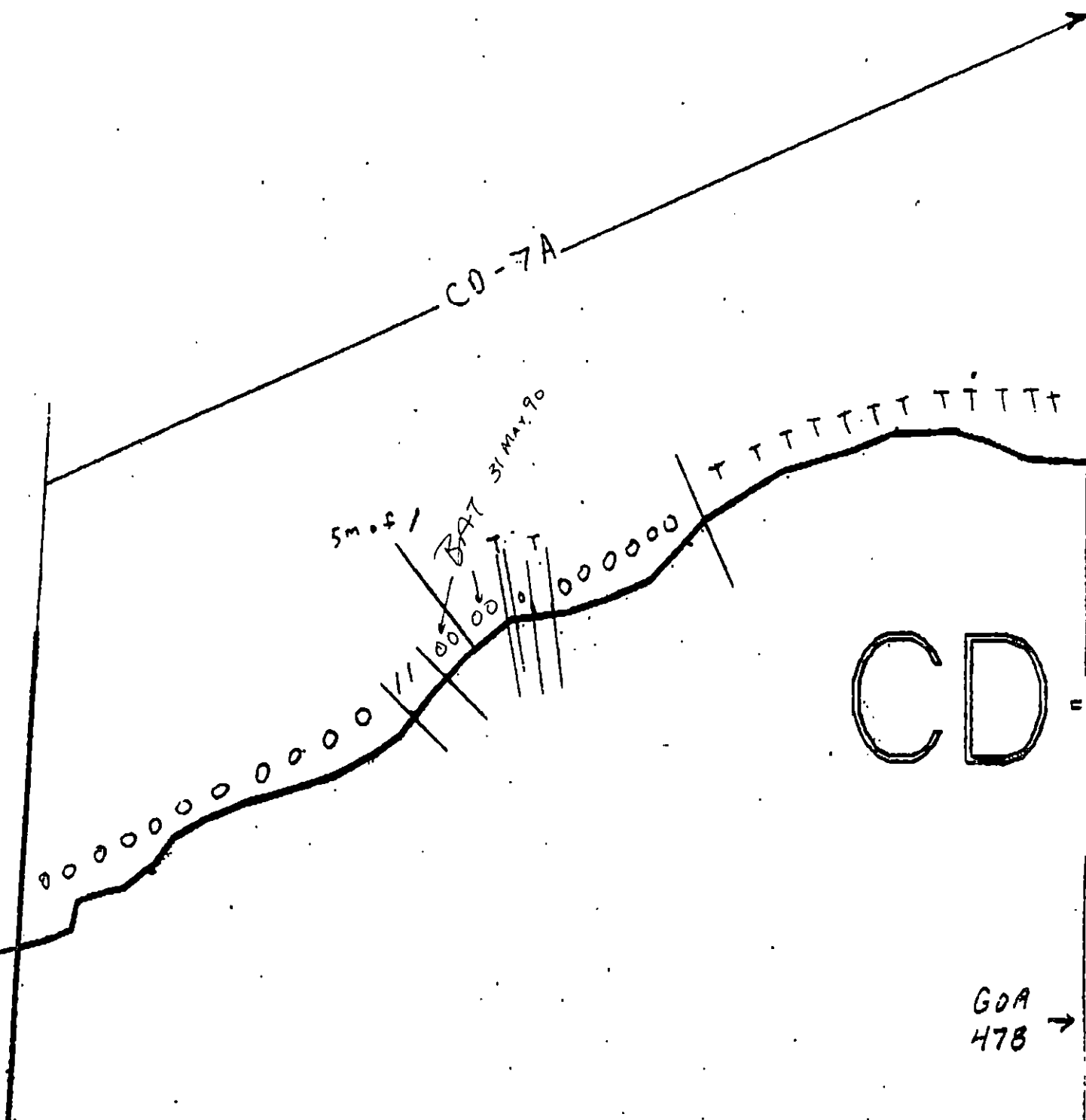
NOT PRESENT
4, 5, 6FUCUS *Patchy*

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

NOT PRESENT
4, 5, 6

Wildlife Observations/ General Comments: MT2 Littorina, Limpets, Balanus, some pagurus, amphipods, Porphyra, and Fucus. MT2 Fucus, Ulva, Halosaccion, Odonthalia, Rhodomena? Barnacles, Littorina, limpets, Eurentacta, Leptasterias, Anthopleura (astrea), sculpins, and Gloropella (on the tops of rocks) MT2 Odonthalia, Ulva, Scytosiphon, Zostera and Corallina. Bear on CD-5. Bear, Fox, and Raccoon tracks found on CD-7. Three Harbor seals seen just off shore. Ecological Considerations: No Ecological Constraints. Eagles in the area. No nests observed. 1 dead Eagle found. Harbor seals haul out and pup in the area.

Birds seen in area: 1 dead Eagle, Wandering Tattler, Black Scoters, Harlequin (40%) ducks and Glaucous-winged Gulls.



XXX Wide

Medium

Narrow

TTTT Very Light

NNNN N/A

K0909 CD-7A

ADEC Segment Length: 2155m

0 100 200 300

Map Key: GOA-478

Name: Mike Fogel

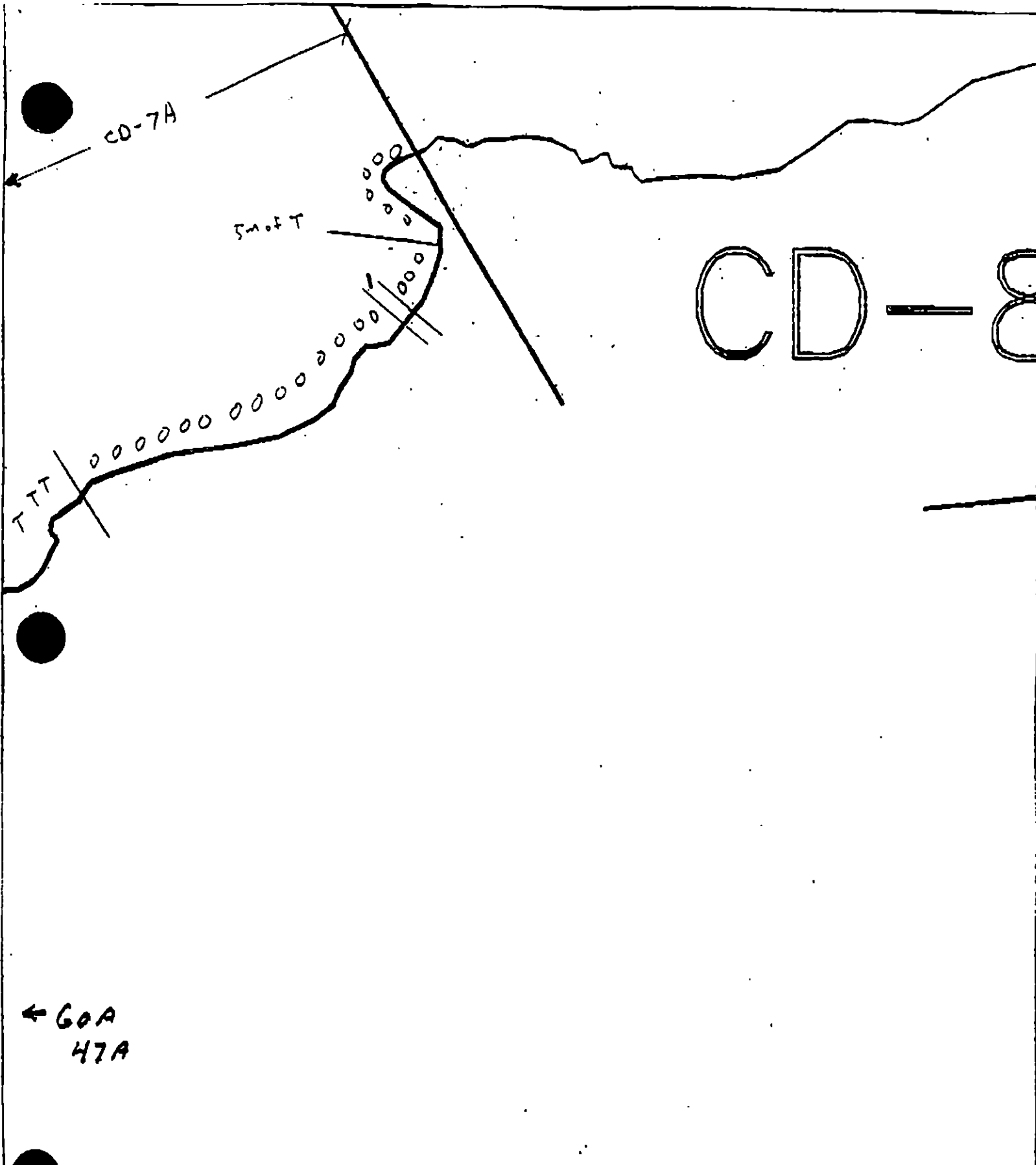
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MAY-23-1990 17:03 FROM EXXON KODIAK
MAY-22-1990 15:21 FROM EXXON SCAT

TO
TO

15643771 P.08
94874006 P.24



← GOA
47A

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

K0909-CD-7A

ADEC Segment Length: 2155m

Map Key: GOA-47b

Name: Mike Fogel

Date: 5/21/90

SHORELINE EVALUATION

SEGMENT ST/ K09-09-CD-007 SUBDIVISION A (1 OF 1) DATE 5/21/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

4LL State Marine Park National Parks

3N, 3P Harbor seal and sea lion pupping (5/10 to 7/1)

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

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 Exxon's Cultural Resource Program immediately (564-3274 (Anchorage) or 229-1508 (24 hrs.)).

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

OILING CATEGORIZATION:

Wide 0 m: Medium 75 m: Narrow 0 m: V.Light 620 m: No Oil 1476 m
Subsurface Oil Observed: Yes X No Maximum Depth 5cm

RECOMMENDATIONS:

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

COMMENTS: Recommend treatment includes 1) manual pick up of accessible
mousse deposits, 2) spot wash 3) bioremediate inaccessible mousse
deposits. Work should be conducted between 7/1 and 7/31 due to pinniped
constraints.

TAG COMMENTS:

TAG APPROVAL DATE: 6/16/90

ADEC Ryan Morris Ryan Morris

EXXON Andy Teal Andy Teal

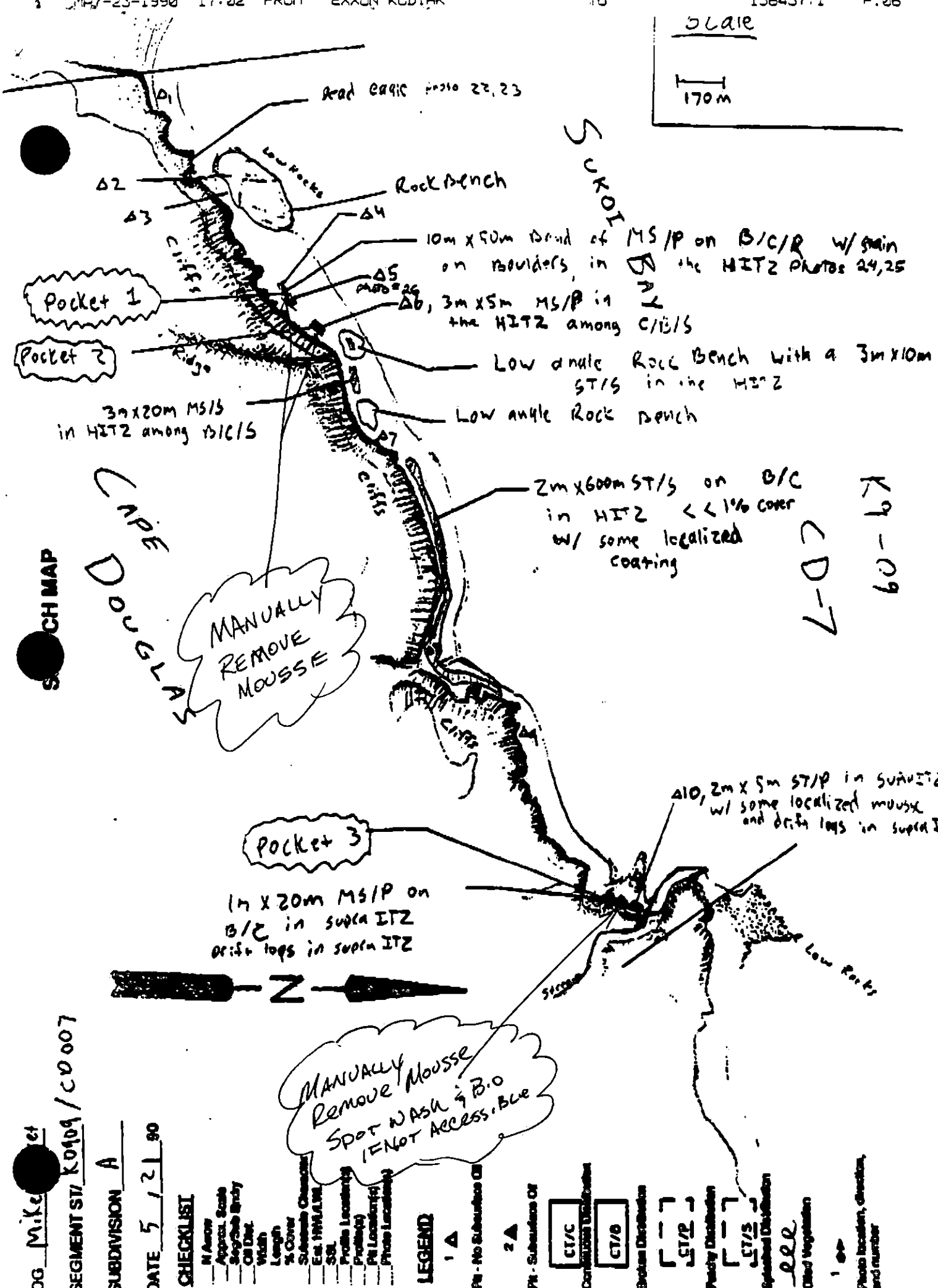
NOAA Joseph T. Kott Joseph T. Kott

USCG G.A. Deiter G.A. Deiter

* Bio in upper/super tidal zone only
at DISCRETION OF UPS MONITOR.
FOSC: A. Janoff DATE: 7/5/90

Scale

170m



SCCH MAP

OG Mike

SEGMENT ST/ K0909 / CD007

SUBDIVISION A

DATE 5 / 2 / 90

CHECKLIST

N Arrow
Approx. Scale
Sketchy Study
On Det.
Width

Length
% Cover
Substrate Character
Est. HMA/LM
SSL
Profile Location
Profile
Photo Location
Photo Location

LEGEND

1 A

Pt - No Substrate Cl

2 A

Pt - Substrate Cl

CT/C

Condition Unaltered

CT/B

Broken Distribution

CT/P

Peculiar Distribution

CT/S

Specified Distribution

CT/L

Clad Vegetation

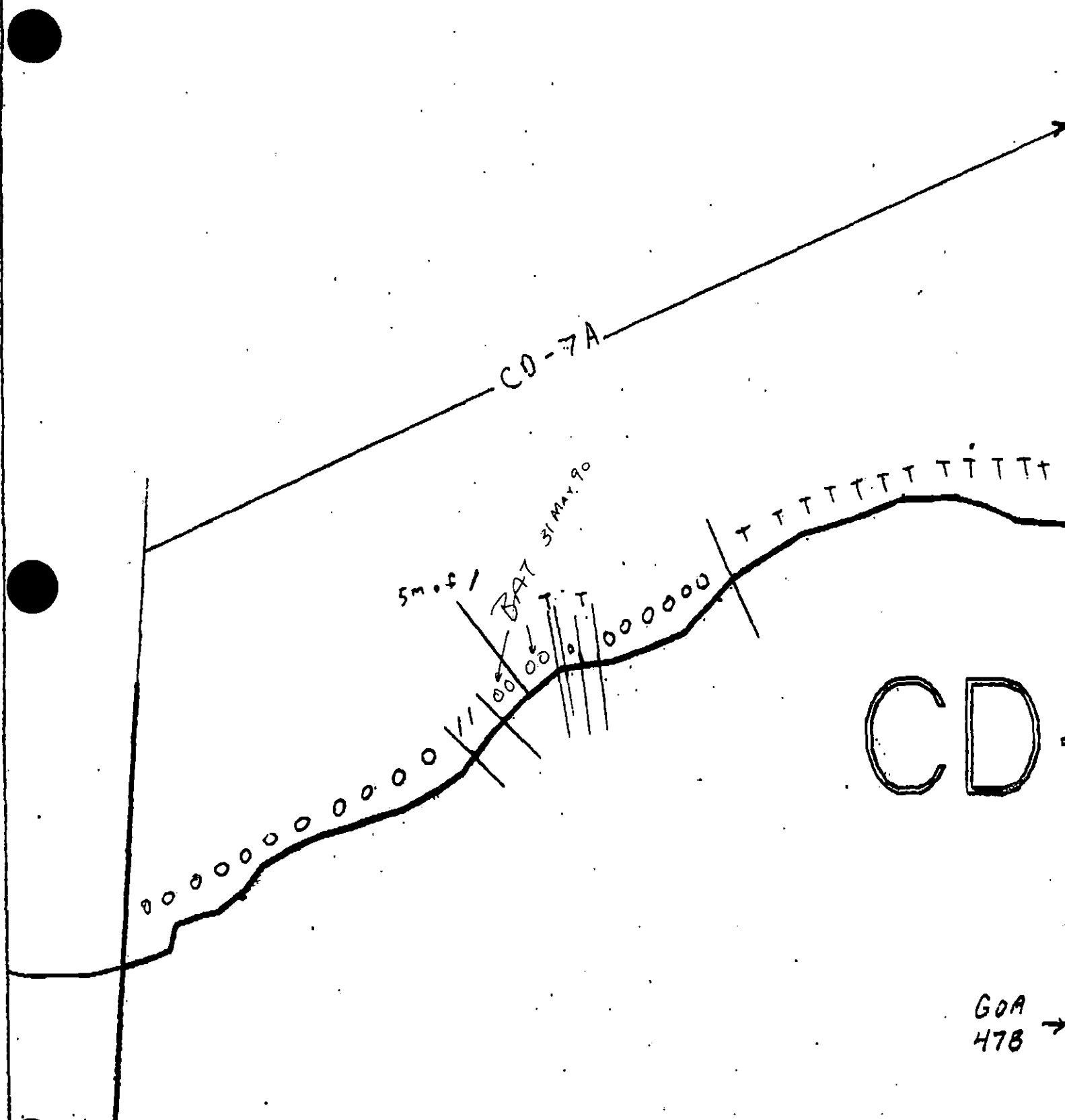
1 00

Photo location, direction, and number

OH Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 615 MS 95 PT 0 TB 0 FLO NO 1407

60-67

CD-7



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

K0909 CD-7A
ADEC Segment Length: 2155m

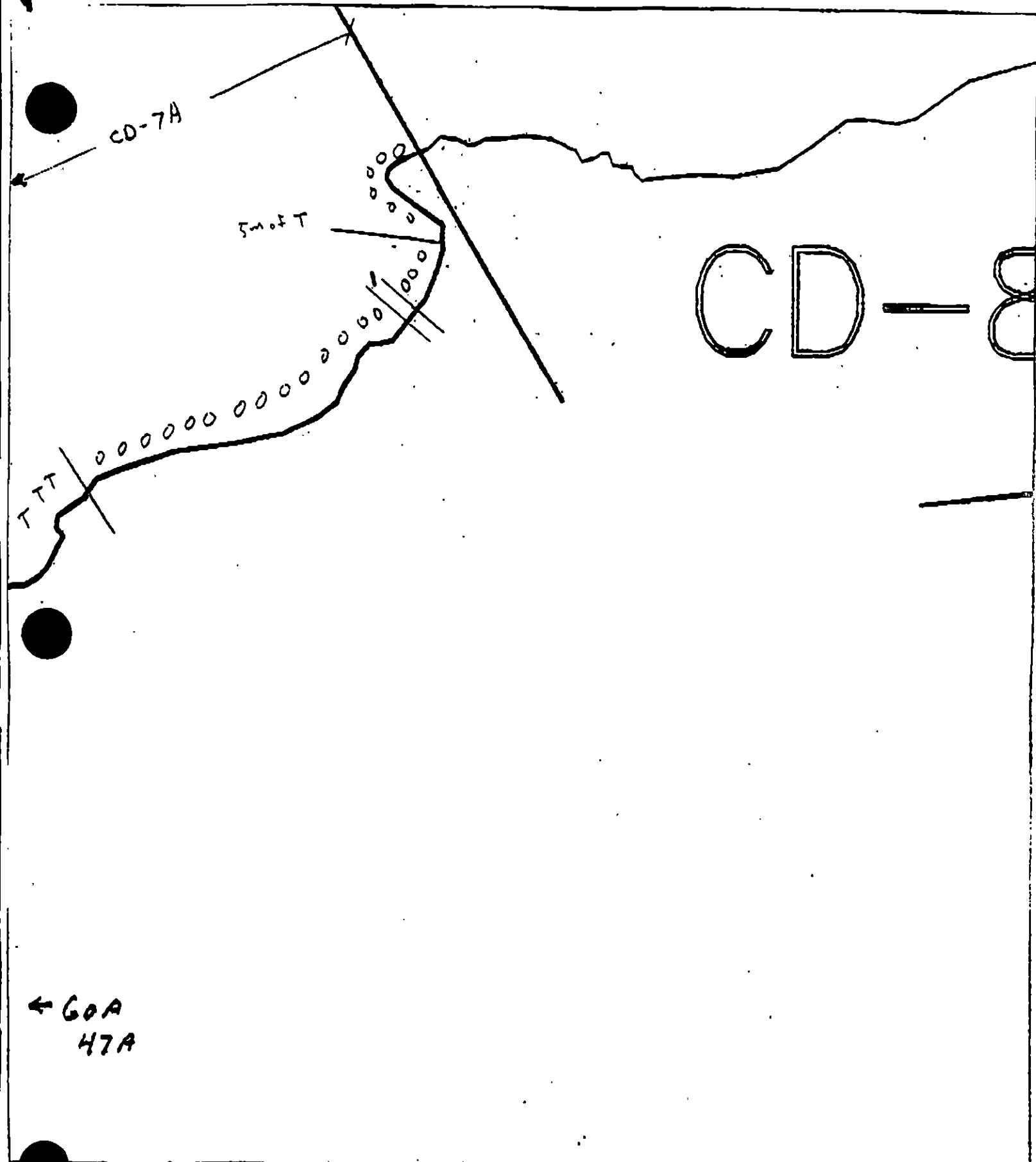
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Map Key: GOA-47a
Name: Mike Fogel
Date: 5/21/90
Data Entered:

MAY-23-1990 17:03 FROM EXXON LODIAK
MAY-22-1990 15:21 -RUM EXXON SCAT

TO
TO

15643771 P.08
94874006 P.24

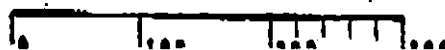


← GOA
H7A

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

K0909-CD-7A

ADEC Segment Length: 2155m



Map Key: 60A-476

Name: Mike Fogel

Date: 5/2/90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K09-09-CD-007 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	WORK 7/1 - 8/15
Bioremediation *	WORK 7/1 - 7/31
Spot Washing	WORK 7/1 - 8/15

* BIO ONLY WITH NPS MONITOR APPROVAL

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

3N,O,P,Q

Harbor Seal & Sea Lion
Pupping and Molting

Closed to bioremediation prior to 7/1 and after 7/31. Closed to manual pickup and spot washing prior to 7/1 and after 8/15.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

[Signature]

Date

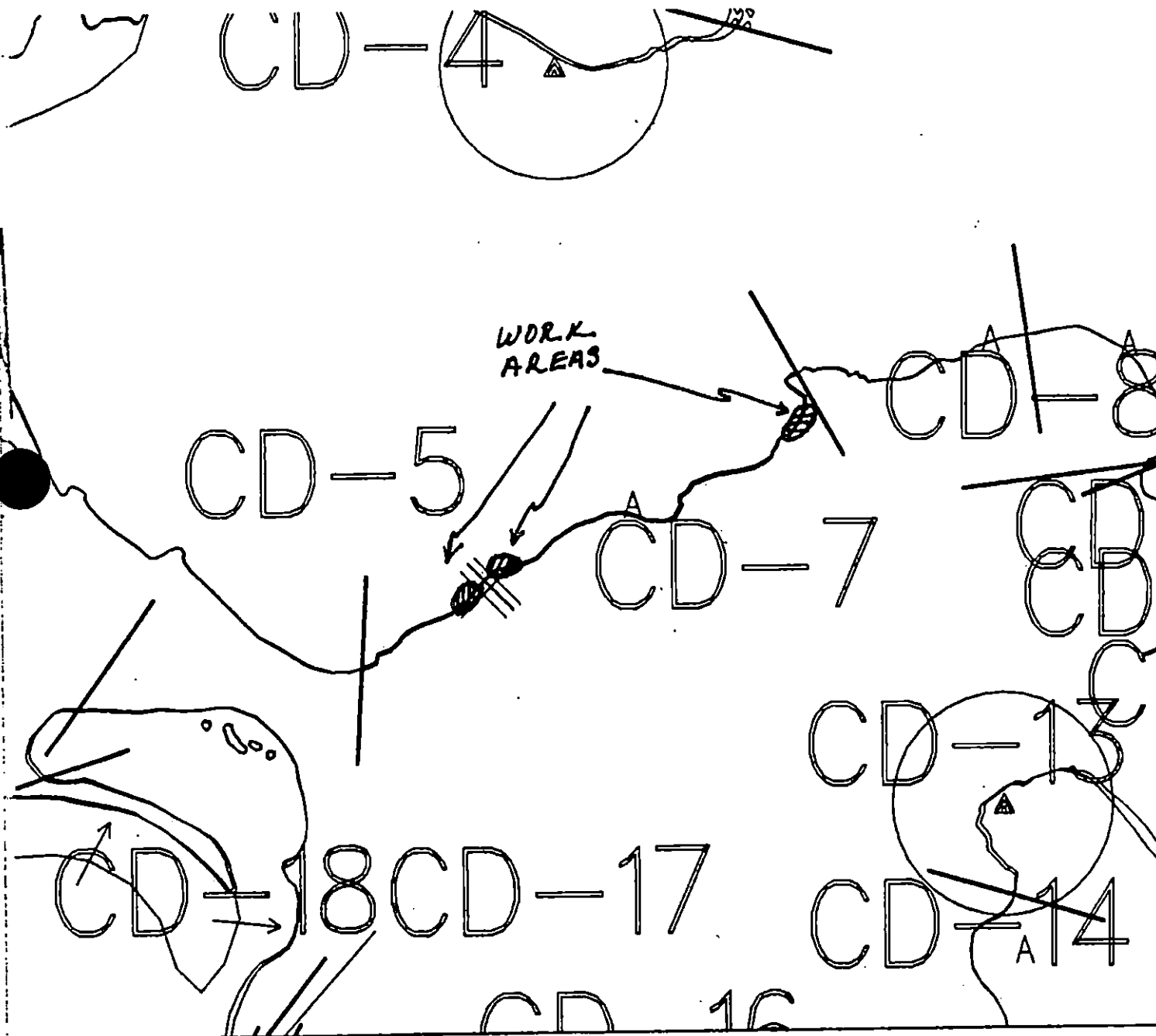
7/6/90

Prepared by

[Signature]

Date

07-06-90



Exxon Company, USA
Map Key: AKP-CD-7
June 10, 1990



ECOLOGY MAP
SEGMENT K9N-9 CD-7
SUBDIVISION A (_ / o / _)
METERS
0 538 1079

★	Seabird Colony
▲	Active Eagle Nest
△	Inactive Eagle Nest

1 inch = 1769 feet

SHORELINE EVALUATION

SEGMENT ST/ K09-09-CD-007 SUBDIVISION A (1 OF 1) DATE 5/21/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

L State Marine Park National Parks
1, 3P Harbor seal and sea lion pupping (5/10 to 7/1)
30, 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:

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: Charles Z. Adams

DATE: June 19, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 75 m: Narrow 0 m: V. Light 620 m: No Oil 1476 m
 Subsurface Oil Observed: Yes X No Maximum Depth 5cm

RECOMMENDATIONS:

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

COMMENTS: Recommend treatment includes 1) manual pick up of accessible mousse deposits, 2) spot wash 3) bioremediate inaccessible mousse deposits. Work should be conducted between 7/1 and 7/31 due to pinniped constraints.

SEE CONSTRAINT ADDENDUM DATED 7/6/90. REX.C.

TAG COMMENTS:

TAG APPROVAL DATE: 6/16/90

ADEC San Manuel R. Jensen
 EXXON ANN TATE
 NOAA Joseph Tallotti
 USCG G.A. Heiter

FOSC:

DATE: 7/5/90

* Bio in upper/super tidal zone only at discretion of UPS Monitor.

1991 MAYSAP EVALUATION

SEGMENT: K0909CD007 SUB: A REGION: KOD SURVEY DATE: 5/22/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) OPEN

Ecological/Constraints (see page two for details) NONE

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

ADEC

NAME J. BARNHART, ADECSIGNATURE *J. Barnhart*☒ NTR Concur with NPS comments.

EXXON

NAME R. HARRELSON, EXXON

SIGNATURE _____

☐ NTR*See next page*

LANDMANAGER

NAME E. BENNISOF NPSSIGNATURE *E. Bennis*☒ NTR

Very little oil observed in the areas treated by the 1990 clean-up crew. Deposition of clean, fine grain sediments among the cobbles/boulders is present throughout the UITE + supratidal zone. Oil observed in this area, ~ 1% visible, is in the form of mousse, pooled in the c/b interstices, mousse entrained in fine sediments, ST, CT, CV, SDR.

USCG/NOAA

NAME CWO R. SPURR / S. SHIGENAKASIGNATURE *R. Spurr* / *S. Shigenaka*☒ NTR

THIS SEGMENT WAS WORKED OVER TWO CONSECUTIVE DAYS DUE TO FIELD TIME LIMITATIONS ON THE FIRST DAY. SURVEYED PORTION WAS A BOULDER BEACH THAT BUTTED UP AGAINST CRUMBLY "ROTTEN" ROCK CLIFFS. THERE WAS A GRASSY COVER ON THE HIGH BLUFFS AT THE TOP OF THE CLIFFS ABOVE THE BEACH. THE BOULDER BEACH APPEARED TO BE HIGHLY EXPOSED, AND THIS WAS REFLECTED IN THE RELATIVELY LOW DIVERSITY OF SPECIES INHABITING THE INTERTIDAL: THE UPPER TO MID ITZ WAS FAIRLY DEPAUPERATE; THE LOWER MID AND BELOW HAD FAIRLY ABUNDANT POPULATIONS OF LITTORINA SITCANA SNAILS, BARNACLES, DOGWHELKS (NUCELLA LIMA) WERE ALSO PRESENT. THERE WERE TWO SUBSTANTIVE BANDS OF OILING OBSERVED ON THIS SEGMENT BOTH CONSISTED OF PATCHES OF SO2/MOUSSE AMONG BOULDER/COBBLE IN THE UITE, AND BOTH WERE WORKED BY THE VECO CREW. A RELATIVELY SMALL AMOUNT OF OILED MATERIAL (1/2 BAG) WAS RECOVERED ALONG THE REMAINDER OF THE SEGMENT. THERE WERE OCCASIONAL SPLATTELS AND SOME COAT IN THE UITE, AND A PITA BREAD-SIZED MASS OF TAR WAS FOUND BUT CG FELT WAS NOT OF EXXON-VALDEZ ORIGIN. NO OIL WAS OBSERVED ALONG THE EASTERNMOST PORTION OF THE SURV

TEAM NO. 6-HILO SEGMENT CD-7 SUBDIVISION A DATE 5/21/91
5/22/91

ADEC

NAME J. BARNHART, ADEIG

SIGNATURE

Jeff Barnhart

☒ NTR CONCURRE WITH NPS COMMENTS.

EXXON

NAME R. HARRELSON EXXON

SIGNATURE

Reb. 2

☒ NTR Very little evidence of oil left on this beach.
No work is necessary.

LANDMANAGER

NAME F. BENNIS

02-11-04

SIGNATURE

James R.

☒ NTR

Very little oil observed in the area treated by the 1992 clean-up crew. Deposition of clean, fine grain sediments along the cobbles/boulders is present throughout the UTA + supra tidal zone. Oil observed in this area, is 1% visible, in the form of mounds, pooled in the clefts, mouse entrained in fine sediments, ST, CT, CV, SOR.

USCG/NOAA

NAME CWO R. SPURR/5. SHIGENAKA

SIGNATURE

1000 — 1000 Spanish

IX NTR

THIS SEGMENT WAS WORKED OVER TWO CONSECUTIVE DAYS DUE TO FIELD TIME LIMITATIONS ON THE FIRST DAY. SURVEYED PORTION WAS A BOULDER BEACH THAT BUTTED UP AGAINST CRUMBLY "ROTTEN" ROCK CLIFFS. THERE WAS A GRASSY COVER ON THE HIGH BLUFFS AT THE TOP OF THE CLIFFS ABOVE THE BEACH. THE BOULDER BEACH APPEARED TO BE HIGHLY EXPOSED, AND THIS WAS REFLECTED IN THE RELATIVELY LOW DIVERSITY OF SPECIES INHABITING THE INTERTIDAL: THE UPPER TO MID ITZ WAS FAIRLY DEPAUPERATE, THE LOWER MID AND BELOW HAD FAIRLY ABUNDANT POPULATIONS OF LITTORINA SITANA SNAILS, BARNACLES, DOGWHEELS (NEXELLA LIMA) WERE ALSO PRESENT. THERE WERE TWO SUBSTANTIVE BANDS OF OILING OBSERVED ON THIS SEGMENT. BOTH CONSISTED OF PATCHES OF SOR/MOUSSE AMONG BOULDER/COBBLE IN THE UITS, AND BOTH WERE WORKED BY THE VECO CREW. A RELATIVELY SMALL AMOUNT OF OILED MATERIAL (IN BAG) WAS RECOVERED ALONG THE REMAINDER OF THE SEGMENT. THERE WERE OCCASIONAL SPILLERS AND SOME COAL IN THE UITS, AND A PITA BREAD-SIZED MASS OF TAR WAS FOUND BUT OG TEST WAS NOT OF EXXON. VARIOUS ORIGIN. NO GC WAS OBSERVED ALONG THE EASTERMOST PORTION OF THE SURVEYED SEGMENT.

Reviewed by: MC 5/27/97
Reviewed 5.27.97

[illegible]

UNSURVEYED

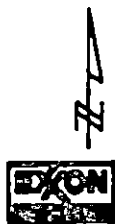
K0909 CD007 A

Subdivision Field Map

Map Key: 60AE6908CB007AB

Name: D. FitzGerald

Date: 22 May 1991



SECRET

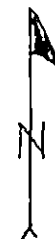
AK State Planning Zone 4
90300400706-200.4

Reviewed 5.27 Jy

Bedrock
 CLIFF
 LOGS
 PHOTO SITES

Sketch Map (OG)
 K09-9-CD-7-A
 D. VII FITZGERALD
 22 MAY 1991
 1240-1345

BAY



P.V. * VECO WORKERS
 RETRIED 1/2 TON
 OF Oiled Sediment
 from sites A & B.

A. MS/SOK
 CT/ST
 1. 5 by 20m, < 190
 2. 2 by 10m, < 190
 I/u Boulder Area

UNSURVEYED
 MSL

Bedrock Platform

CAPE DOUGLAS PENINSULA

BEGIN
 SEGMENT
 CO-5

Boulder veneer
 on top of the
 bedrock

0 400
 METERS

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 22 1991

SEGMENT # K9W-9 CD-07

TIDAL HEIGHT(Range) 7.0 - 5 ft (1240 - 1345)

SUBDIVISION A

BIOLOGIST H. Davis

SEA STATE Calm < 0.5 ft

WIND SPEED/DIRECTION Light Breeze 10-20 NE

PHOTOGRAPHS: ROLL # 6-19+6-20

FRAME # 21, 22 +

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

This segment had a moderate biota. URTZ with littorina, limpets, and barnacles on boulder surfaces. Amphipods, nemertean and pagurus under boulders. Since last year at this time sand has been deposited in the METZ covering some animals and filling pools. Algae common in this segment are Gloripelta, Ulva, H. litoralis, Rhodormela, Odonthalia, Scytosiphon and Fucus. Zostera is growing through the sand in some of the larger pools. Common animals are Anthopleura artemesia, Urcellaria, Leptasterias, encrusting brachyopods, Mytilus, Modiolus, Barnacles (B. glandula, C. minor and Tetracilia rubens) and Hydroids. Shell found were prototheca, saxidomus, clinocardium, modiolus and mytilus.

Site A(12) was in the URTZ at the top of the littorine zone. Very little biota was in this area.

Any clean up in this area would be more disruptive than productive.

Surf Scoter (6) Wandering Tattler (4) Glaucous winged Gull (3) Kittiwake (3)
Raven (2 with nest) Western sandpiper (5) Tundra Swan (9) Black brants (30) Harlequin (5)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	0	-	
Seabirds	0	-	
Waterfowl	3	41	
Gulls/Kittiwakes	2	6	
Shorebirds	2	9	
Corvids	1	2 w/ 3 visible in nest	
Other Birds swans*	9		

* Flying overhead

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	0	Fox Tracks	
Pinnipeds (specify)			
Harbor Seal	3		
Whales (specify)	0		

Shoreline subdivision map showing important biological features attached.

Reviews M.B. 5/2

CLIFF
LOGS
PHOTO SITES

BAY

H. Davis

K09-9-CO-7-A
D.M. Fitz
22 MAY
1240-1345

Reviewed M.B. 21

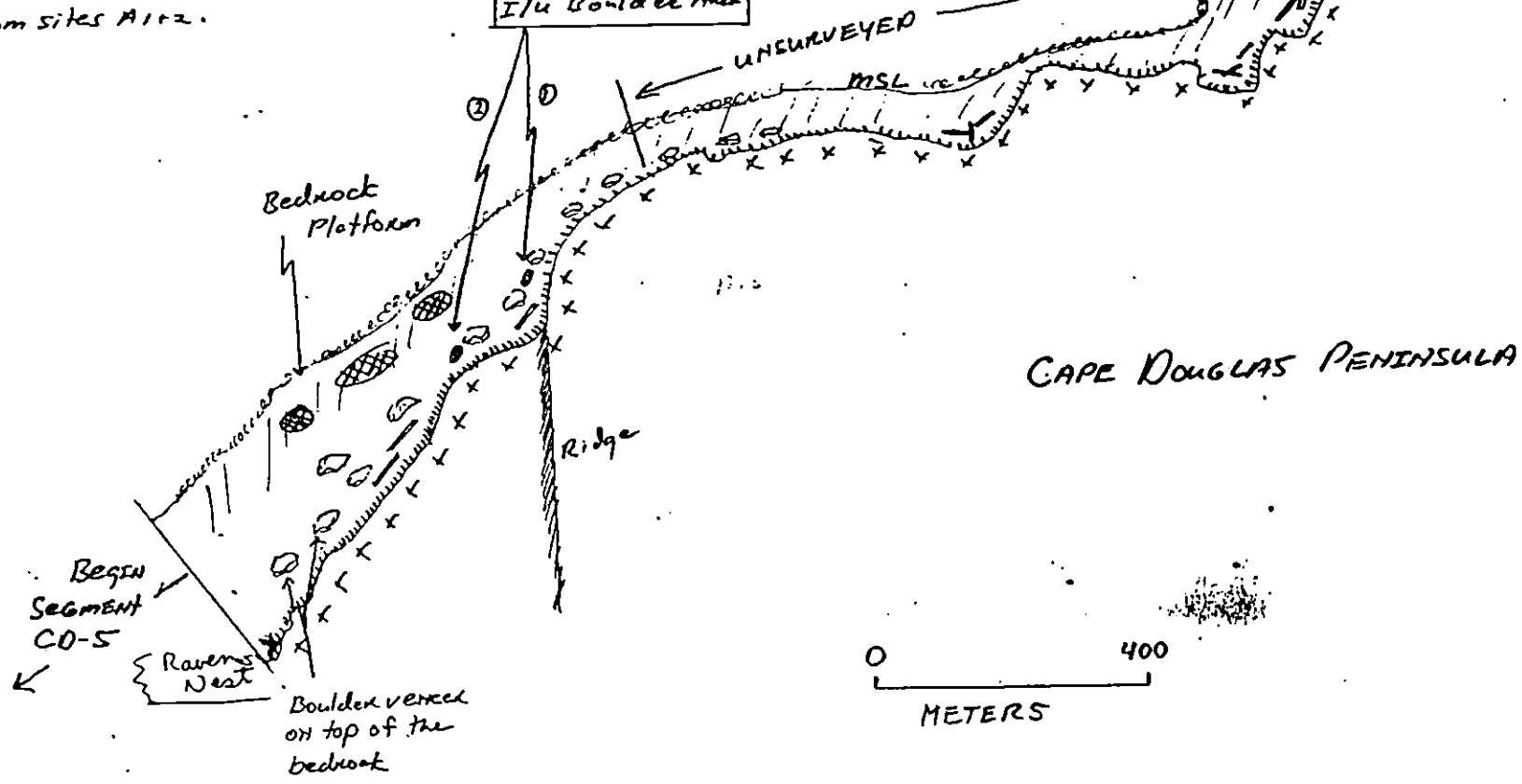
300m beds.

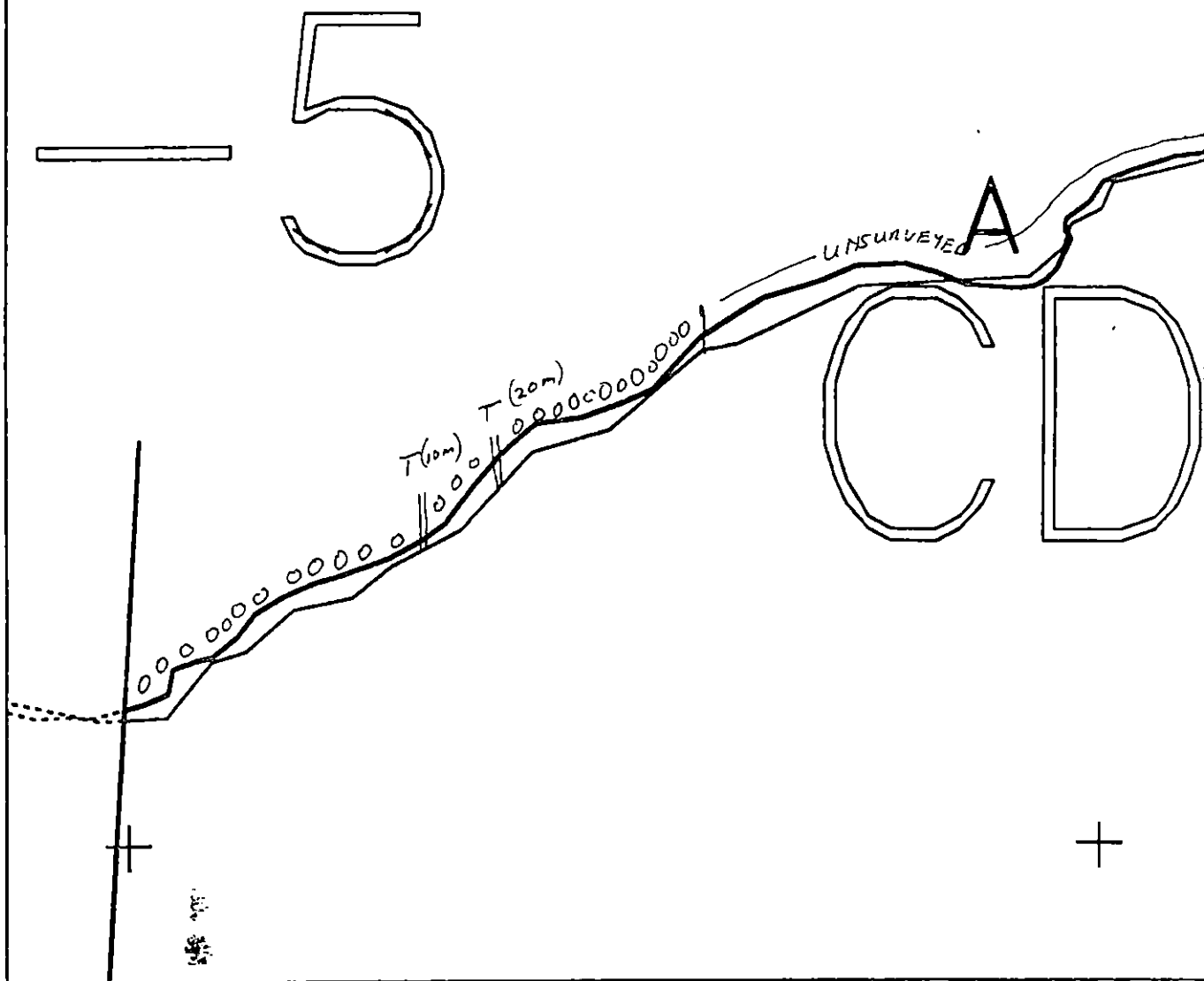
P.U. * VECO WORKERS
RETRIED 1/2 Bag
OF Oiled Sediment
from sites A1+2.

A. MS/SOK
CT/ST
1. 5 by 20m, <1%
2. 2 by 10m, <1%
I/u Boulder area

A. located at the
top of the littoral
zone. Barnacles and
limpets are also present.

Begin
SEGMENT
CO-8



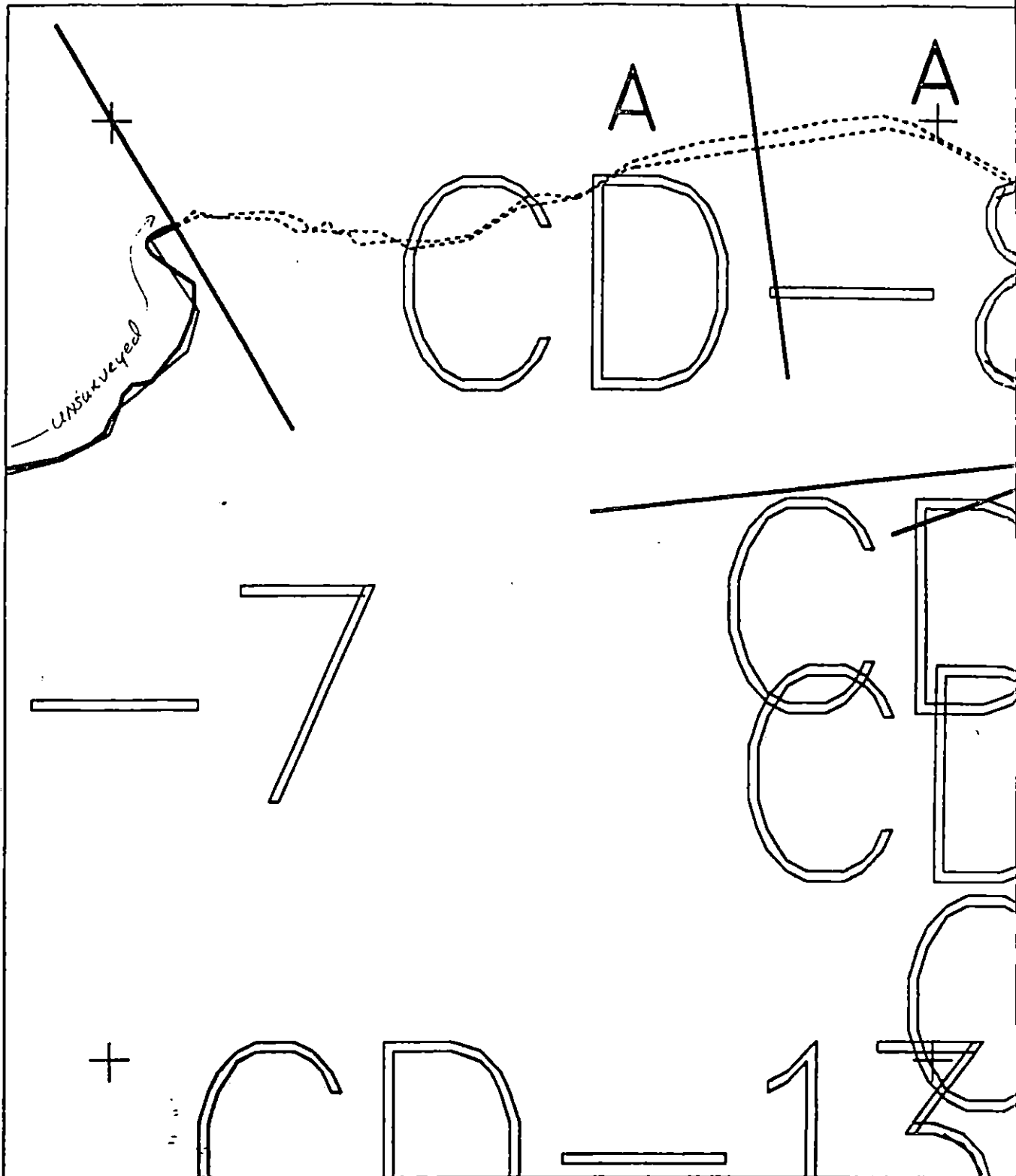


XXXX Wide
 //// Medium
 ---- Narrow
 TTTT Very Light
 0000 No Oil

K0909 CD007 A
 ADEC Subsegment Length: 2170m
 METERS
 0 200 400
 AK State Plane Zone 4
 600000000700-1 . . .

Subdivision Field Map
 Map Key: 60AK0000CD007A
 Name: D. Fikberald
 Date: 22 MAY 1991
 Date Entered:

Reviewed: MC 5/27/91
 reviewed 5.27.91



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

K0909 CD007 A
 ADEC Subsegment Length: 2170m
 METERS

0 200 400
 AK State Plane Zone 4
 9009-0007-00



Subdivision Field Map
 Map Key: 60AK0000CD007A
 Name: D.F. EGENALD
 Date: 22 MAY 1991
 Date Entered:

REVIEWER: MC 50

1991 MAYSAP EVALUATION

SEGMENT: K0909CD007 SUB: A REGION: KOD SURVEY DATE: 5/22/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) OPEN

Ecological/Constraints (see page two for details) NONE

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: Timothy A. Smith Date: 6/07/91

RECOMMENDATIONS:

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

COMMENTS:

INITIAL: ~~JE~~

TAG:

FOSC:

TAG APPROVAL DATE: JUNE 6 1991

FOSC APPROVAL DATE: 6/12/91

ADEC John Bauer

FOSC E. E. Page

EXXON Paul

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

USCG Ed Moore

NOAA John T

TEAM NO. 6-HELO SEGMENT CD-7SUBDIVISION ADATE 5/21/91
5/22/91

ADEC

NAME J. BARNHART, ADEC

SIGNATURE

J. Barnhart☒ NTR Concur with NPS comments.

EXXON

NAME R. HARRELSON, EXXON

SIGNATURE

☐ NTR*See next page*

LANDMANAGER

NAME F. BENNIS

OF NPS

SIGNATURE

F. Bennis☒ NTR

Very little oil observed in the areas treated by the 1990 clean-up crew. Deposition of clean, fine grain sediments among the cobbles/boulders is present throughout the UITZ + supratidal zone. Oil observed in this area, ~1% visible, is in the form of mousse, pooled in the cfb interstices, mousse entrained in fine sediments, ST, CT, CV, SDR.

USCG/NOAA

NAME CWO R. SPURR/G. SHIGENAKA

SIGNATURE

R. Spurr / G. Shigenaka☒ NTR

THIS SEGMENT WAS WORKED OVER TWO CONSECUTIVE DAYS DUE TO FIELD TIME LIMITATIONS ON THE FIRST DAY. SURVEYED PORTION WAS A BOULDER BEACH THAT BUTTED UP AGAINST CRUMBLY "ROTTEN" ROCK CLIFFS. THERE WAS A GRASSY COVER ON THE HIGH BLUFFS AT THE TOP OF THE CLIFFS ABOVE THE BEACH. THE BOULDER BEACH APPEARED TO BE HIGHLY EXPOSED, AND THIS WAS REFLECTED IN THE RELATIVELY LOW DIVERSITY OF SPECIES INHABITING THE INTERTIDAL: THE UPPER TO MID ITZ WAS FAIRLY DEPAUPERATE; THE LOWER MID AND BELOW HAD FAIRLY ABUNDANT POPULATIONS OF LITTORINA SITICANA SNAILS, BARNACLES, DOGWHELKS (MUCELLA LIMA) WERE ALSO PRESENT. THERE WERE TWO SUBSTANTIVE BANDS OF OILING OBSERVED ON THIS SEGMENT BOTH CONSISTED OF PATCHES OF SDR/MOUSSE AMONG BOULDER/COBBLE IN THE UITZ, AND BOTH WERE WORKED BY THE VECO CREW. A RELATIVELY SMALL AMOUNT OF OILED MATERIAL (1/2 BAG) WAS RECOVERED ALONG THE REMAINDER OF THE SEGMENT. THERE WERE OCCASIONAL SPLATTERS AND SOME COAT IN THE UITZ, AND A PITA BREAD-SIZED MASS OF TAR WAS FOUND, BUT OS FELT WAS NOT OF EXXON-VALDEZ ORIGIN. NO OIL WAS OBSERVED ALONG THE EASTERNMOST PORTION OF THE SURVEY.

MAYSAN FIELD SHORELINE COMMENT SHEET

17136561767

P.02

TEAM NO. 6-HILO SEGMENT CD-7

SUBDIVISION A

DATE 5/21/91
5/22/91

ADEC

NAME T. BARNHART, ADEC

SIGNATURE T. Barnhart

NTR Concur with NPS comments.

EXXON

NAME R. HARRELSON, EXXON

SIGNATURE R. Harrelson

☒ NTR Very little evidence of oil left on this beach.
No work is necessary.

LANDMANAGER

NAME E. BENNIS

OF NPS

SIGNATURE E. Bennis

☒ NTR

Very little oil observed in the area treated by the 1992 clean-up crew.
Deposition of clean, fine grain sediments among the cobbles/boulders is present throughout the UITE & supra tidal zone. Oil observed in this area, is 170' visible, is in the form of mousse, picked in the c/o interstices, mousse entrained in fine sediments, ST, CT, CV, SOR.

USCG/NOAA

NAME CWO R. SPURR/G. SHIGENAKA

SIGNATURE R. Spurr / G. Shigenaka

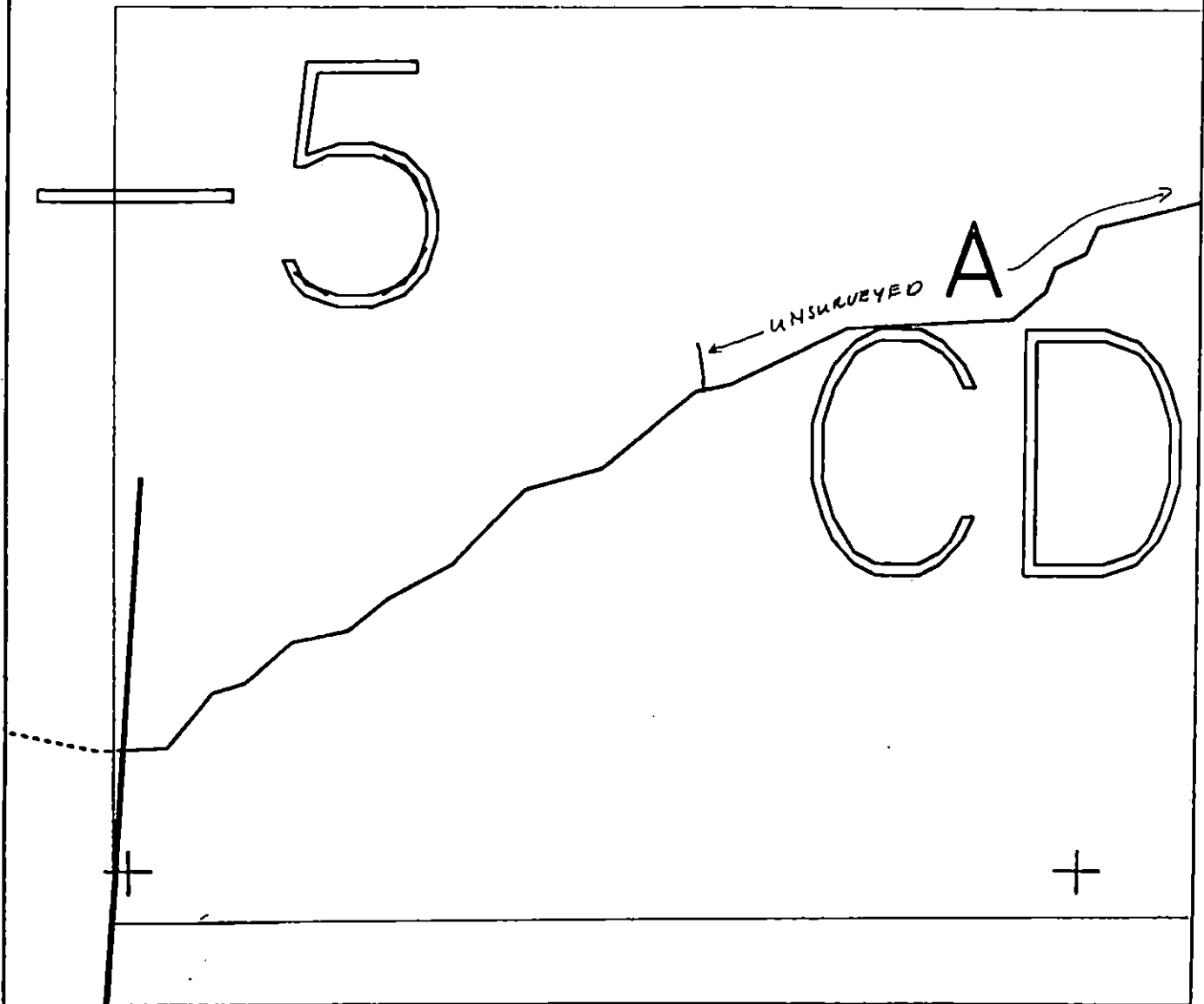
☒ NTR

THIS SEGMENT WAS WORKED OVER TWO CONSECUTIVE DAYS DUE TO FIELD TIME LIMITATIONS ON THE FIRST DAY. SURVEYED PORTION WAS A BOULDER BEACH THAT BUTTED UP AGAINST CRUMBLY "ROTTEN" ROCK CLIFFS. THERE WAS A GRASSY COVER ON THE HIGH BLUFFS AT THE TOP OF THE CLIFFS ABOVE THE BEACH. THE BOULDER BEACH APPEARED TO BE HIGHLY EXPOSED, AND THIS WAS REFLECTED IN THE RELATIVELY LOW DIVERSITY OF SPECIES HABITING THE INTERSTICE. THE UPPER TO MID UITE WAS FAIRLY DEPAUPERATE; THE LOWER MID AND BELOW UITE WERE FAIRLY ABUNDANT POPULATIONS OF LITTORINA SITKANA SNAILS, BARNACLES, DOGWHEELS (NUCELLA LINA) WERE PRESENT. THERE WERE TWO SUBSTANTIVE BANDS OF OILING OBSERVED ON THIS SEGMENT. BOTH CONSISTED OF PATCHES OF SOR/MOUSSE AMONG BOULDER/COBBLE IN THE UITE AND BOTH WERE WORKED BY THE VECO CREW. A RELATIVELY SMALL AMOUNT OF OILED MATERIAL (1/2 BAG) WAS RECOVERED ALONG THE REMAINDER OF THE SEGMENT. THERE WERE OCCASIONAL SPLATTERS AND SOME COAT IN THE UITE. AND A PITA BREAD-SIZED MASS OF TAR WAS FOUND BUT OS TEST WAS NOT OF EXXON. VARIOUS ORIGIN. NO OIL WAS OBSERVED ALONG THE EASTERMOST PORTION OF THE SURVEY.

PAGE 1 OF 1

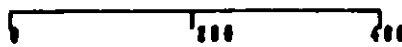
Reviewed: MC 5/27/97
Reviewed 5.27.97

MAP #1



K0909 CD007 A

METERS



AS SHOWN BY THE SURVEY

Subdivision Field Map

Map Key: 60AK0000C0007A

Name: D. Fitzgerald

Date: 22 MAY 1991

reviewed 5-27 91

CONTINUATION
OF MAP #1

UNSURVEYED

A

A

7

CEP
12

+

CD

—



K0909 CD007 A

METERS

0 100 200

AK State Plane Zone 8

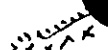
Subdivision Field Map

Map Key: COAK000SC0007AB

Name: D. Fitzgerald

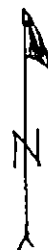
Date: 22 MAY 1991

Reviewed 5-27 91

 BEDROCK CLIFF
 LOGS
 PHOTO SITES

MAP 061
 K019-CO-7-A
 D. W. FITZGERALD
 22 MAY 1991
 1240-1345

BAY



P.U. * VECO WORKERS
 RETRIED 1/2 BAG
 OF Oiled Sediment
 from sites A1 & 2.

A. MS/SOX
 CT/ST
 1. 5 by 20m, < 1%
 2. 2 by 10m, < 1%
 I/u Boulder Area

BEGIN SEGMENT CO-8

UNSURVEYED
 MSL

Bedrock Platform

CAPE DOUGLAS PENINSULA

BEGIN SEGMENT CO-5

Boulders veneer
 on top of the
 bedrock

Ridge

0 400
 METERS

reviewed S.27 AM
 REVIEWED: MC 5/29/91

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 22 1991

SEGMENT # K9N-9 CD-07

TIDAL HEIGHT (Range) 7.0-5 ft (12:40-13:45)

SUBDIVISION A

BIOLOGIST H. Davis

SEA STATE Calm <0.5 ft

WIND SPEED/DIRECTION Light Breeze 10-20 NE

PHOTOGRAPHS: ROLL # 6-19+6-20

FRAME # 21,22 +

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

This segment had a moderate biota. LITZ with littorina, limpets, and barnacles on boulder surfaces. Amphipods, nemertean and pagurus under boulders. Since last year at this time sand has been deposited in the METZ covering some animals and filling pools. Algae common in this segment are Gloripelta, Ulva 11 division Phosomela, Odonthalia, Scylocephalon and Fucus. Zostera is growing through the sand in some of the larger pools. Common animals are Lithoporella artemesia, Nucella, Leptasterias, encrusting bryozoans, Mytilus, Modiolus, Barnacles (B. glandulosa, cerisea, and Tetractis rubens) and Hydrobia. Shell found: were prototheca, saxidomus clinocardium, modiolus and mytilus

Site A(42) was in the LITZ at the top of the littorine zone. Very little biota was in this area.

Any clean up in this area would be more disruptive than productive.

Surf Scoter (6) Wandering Tattler (4) Glaucous winged Gull (3) Kittiwake (3)

Raven (2 with nest) Western Sandpiper (5) Tundra Swan (9) Black brants (30) Harlequin (5)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	0	-	
Seabirds	0	-	
Waterfowl	3	41	
Gulls/Kittiwakes	2	6	
Shorebirds	2	9	
Corvids	1	2 w/ 3 visible in nest	
Other Birds swans*	9		

* Flying overhead

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	0	Fox Tracks	
Pinnipeds (specify)			
Harbor Seal	3		
Seals (specify)	0		

Shoreline subdivision map showing important biological features attached.

Reviews M.B. 5/24/91

Bedrock
 CLIFF
 LOGS
 PHOTO SITES

boulder beds.

BAY

B16 Map
 N. Davis

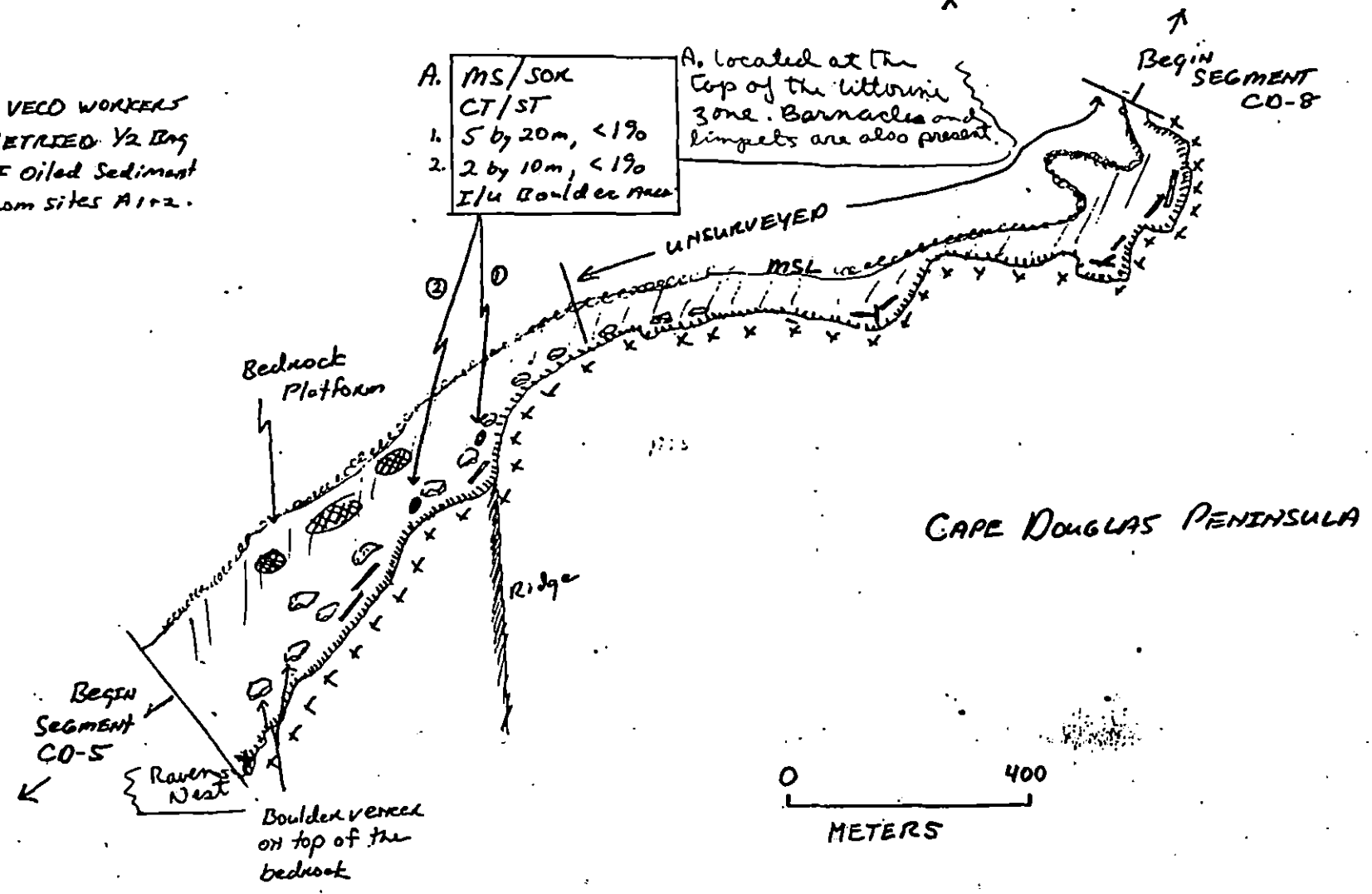
Sketch Map (06)
 K09-9-CD-T-A
 D. M. FITZGERALD
 22 MAY 1991
 1240-1345

Reviewed M.B. 2/6/6

P.U. * VECO WORKERS
 RETRIEVED 1/2 BAG
 OF Oiled Sediment
 from sites A1+2.

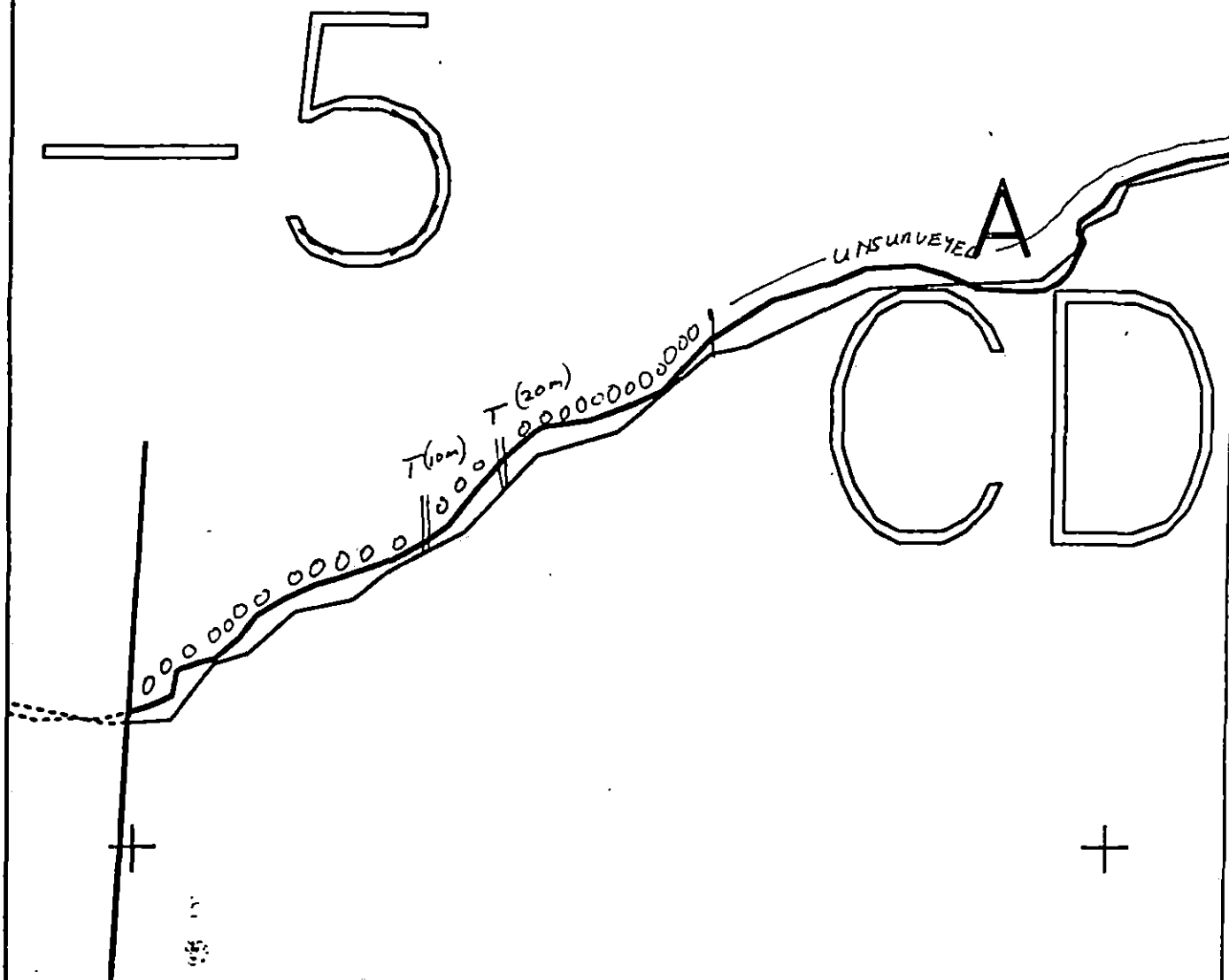
A. MS/SOK
 CT/ST
 1. 5 by 20m, <1%
 2. 2 by 10m, <1%
 I/U Boulder Area

A. located at the
 top of the littoral
 zone. Barnacles and
 limpets are also present.



CAPE DOUGLAS PENINSULA

0 400
 METERS



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

K0909 CD007 A
 ADEC Subsegment Length: 2170m
 METERS

AK State Plane Zone 4
 98080400700-1 . . .



Subdivision Field Map
 Map Key: 60AK0000CD007A
 Name: D. Fitzgerald
 Date: 22 MAY 1991
 Date Entered:

Reviewed: MC 5/27/91
 reviewed 5.27.91



SHORELINE EVALUATION

SEGMENT ST/ K09-09-CD-08 SUBDIVISION A (1 OF 1) DATE 4/29/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
Katmai National Park

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3274 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Michael Aufroyer DATE: 5/15/90

OILING CATEGORIZATION:

Wide 0 m: Medium 97 m: Narrow 20 m: V.Light 651 m: No Oil 140 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment activities include 1) manual pickup of
mousse and 2) bioremediation of areas as indicated on attached sketch
map. No specific ecological time constraints identified.

TAG COMMENTS: MONITORS TO ASSESS LOGS

TAG APPROVAL DATE: 5/15/90.

ADEC ART WELCH Art Welch

EXXON JOHN GAN John Gan

NOAA Joseph Talbot Joseph Talbot

USCG G.H. REITER G.H. Reiter

FOSC: DATE: 5-20-90

Monitors ensure bioremediation treatment
is clearly in the intertidal zone,
below mean high tide line.

OG Line NAKASHIMA

SEGMENT STI K0909-CD008

SUBDIVISION CD008A

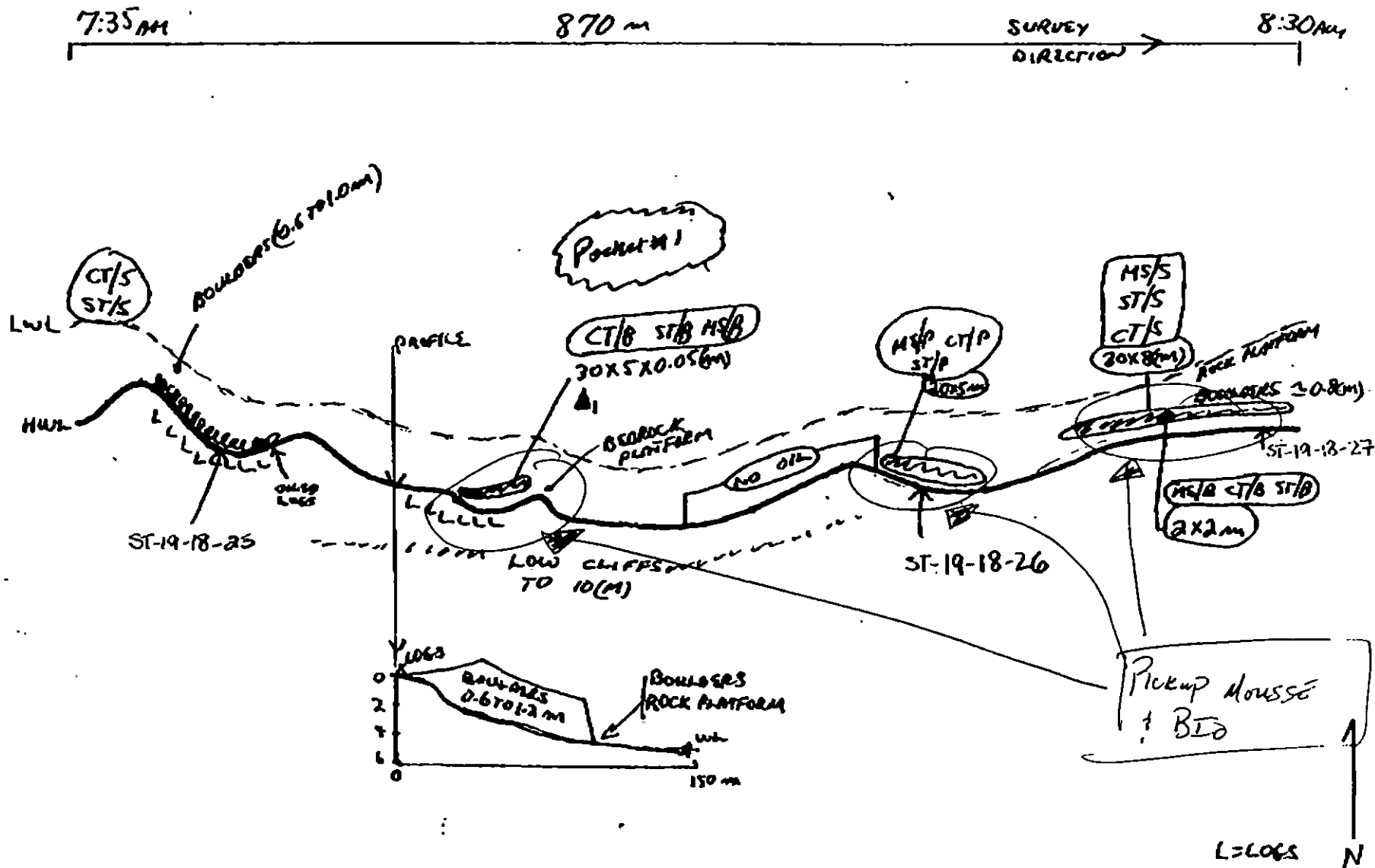
DATE 4 127 90

CHECKLIST

- ___ N Arrow
- ___ Approx. Scale
- ___ Seg/Sec Bdry
- ___ Oil Char.
- ___ Width
- ___ Length
- ___ % Cover
- ___ Substrate Character
- ___ Est. HML/LVL
- ___ SSL
- ___ Profile Location(s)
- ___ Profile(s)
- ___ PI Location(s)
- ___ Photo Location(s)

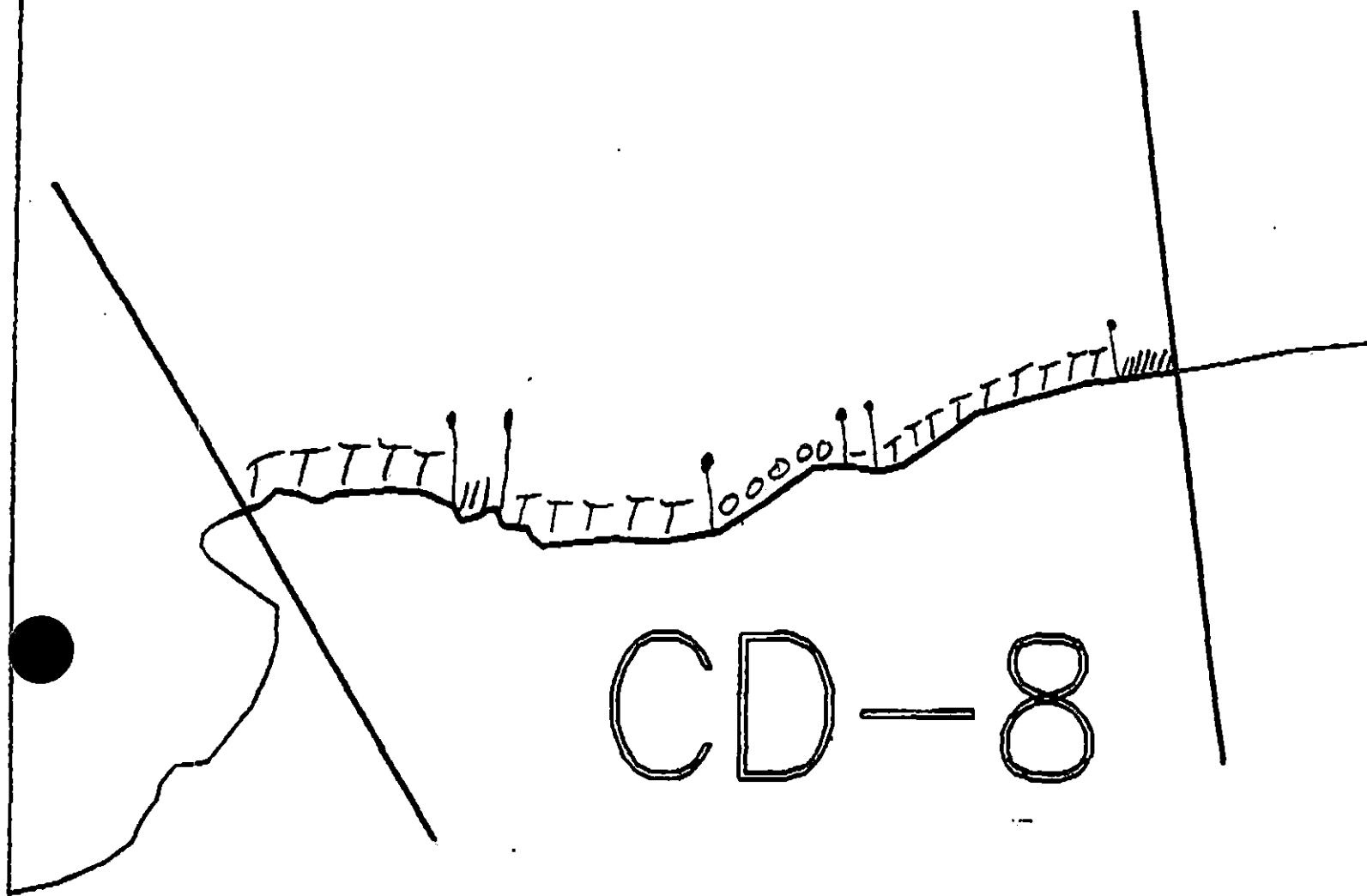
LEGEND

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



Oil Character Length (m): AP 0 PO 0 CV 0 CT 80 ST 753 MS 753 PT 0 TB 0 FL 0 NO 126

NETSCOUT 000000



CD-8

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CD-8

ADEC Segment Length: 924m



Map Key: 60A-48

Name: LINDSAY NAKOSHIMA

Date: 4/27/90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ K09-15-SB-101 SUBDIVISION A (1 OF 1) DATE 4/28/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

3N,3P Harbor seal and sea lion pupping (5/15 to 7/1)
30,3Q Harbor seal and sea lion molting (8/15 to 9/15)
4LL National Parks
5R Seabird colony (5/1 to 9/1)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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

SHPO SIGNATURE: Michael Outcrop DATE: 5/15/90

OILING CATEGORIZATION:

Wide 34 m: Medium 0 m: Narrow 47 m: V.Light 469 m: No Oil 1179 m
Subsurface Oil Observed: Yes X No Maximum Depth 20 cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) bioremediation of area indicated on attached sketch map. Work should be conducted between 7/1 and 8/15 based on pinniped constraints with approval of USFWS regarding seabird colony.

TAG COMMENTS: BIOREMEDIATE AREAS OF TP 5, 7, + 8

TAG APPROVAL DATE: 5/15/90

ADEC Arthur Anderson

EXXON John T. Galt

NOAA Joseph T. Galt

USCG G.A. Heiter

FOSC:

DATE: 5-20-90

monitors evaluate need for treatment at time of intended application.

Hang R and
Lang R | Lang B

Lang C/P/G/S
CT/S ST/S SITZ
Sm. amt. oiled logs

Lang B/Hang R
CT/S ST/S SITZ
Sm. amt. oiled logs

Hang | Lang R

Hang R

photo 27
Lang R/B/C/P
CT/P 3m wide
ST/S 30m long
SITZ

Lang R/B/C/P CT/S ST/S SITZ
Lang B CT/S ST/S SITZ
oiled logs

Lang S L-SITZ

Lang S L-UITZ
Hang B SITZ
TB/S SITZ

Lang S L-UITZ
Vert R SITZ
30m long

Hang B
CV/S 2m wide
CT/P 10m long
photo 24

Lang B/C CT/S ST/S SITZ oiled logs

Lang B/C CT/S ST/S SITZ oiled logs

Lang B/R CT/P 3m wide
5m long SITZ

Lang B/R ST/S CT/S SITZ

Hang R ST/S SITZ

Lang B/R/C

Lang R ST/S SITZ

Lang S L-MITZ
Lang B/C U-SITZ
ST/S SITZ

Hang R/B
CT/S SITZ on backside
ST/S of rock face

OIL CHARACTER LENGTHS (m):



CV 2

CT 293

ST 100

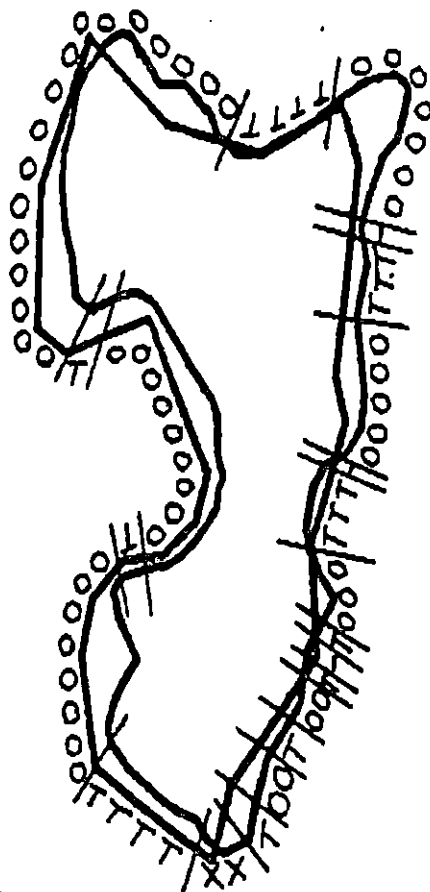
TB 40

NO 1333

Lang S/B L-MITZ
Lang B/C/S U-SITZ
CT/S U-SITZ
ST/S 10m wide
50m long
No subsurface oiling

SB-101-A
1662m





S



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

SB-101-A

EXXON SEGMENT LENGTH: 1662m
Approx. Segment Length: 1695m



Map Key: AKP-SB-101

Name: C. DILLON

Date: 4/28/90

Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT KO9-09-CD-008 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

5T	Bald Eagle Nest	NO CONSTRAINT. Authorized per memo dated 6/10/90 from Mary Portner/USFWS to Rex Coulter/Exxon.

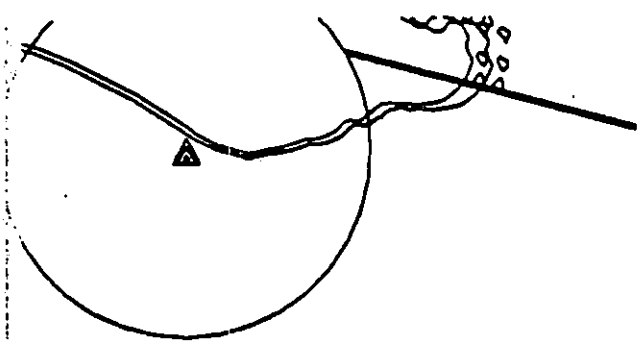
OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

R. Zanghi Date 6/13/90

Prepared by Rex R. Coulter Date 6/10/90



WORK
AREAS

CD-

CD-8

CD-7

CD-10

CD-11

CD-12

TREATMENT

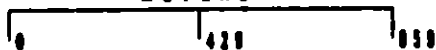


Exxon Company, USA
Map Key: MP-CD-8
June 10, 1990



ECOLOGY MAP
SEGMENT K9N-9 CD-8
SUBDIVISION A (1 of 1)

METERS



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

1 inch = 1409 feet

WORK PLAN ADDENDUM

Segment K09-09-CD-008

Subdivision A

Dated 5/22/90

MODIFICATION

1. REASON FOR MODIFICATION

- FOSC Request
- Landowner comments

2. ADJUSTMENT TO WORK PLAN

- No bioremediation

SHPO APPROVAL NEEDED YES _____ SHPO SIGNATURE _____

NO X

TAG APPROVAL DATE 5/31/90.

ADEC ART WEINER Art Weiner

EXXON ANDY TAN Andy Tan

FOSC

[Signature]

DATE 5/31/90

NOAA Joseph Talbot J. Talbot

USCG G.A. REITER G.A. Reiter

SHORELINE EVALUATION

SEGMENT ST/ K09-09-CD-08 SUBDIVISION A (1 OF 1) DATE 4/29/90SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
Katmai National Park

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 Exxon's Cultural Resource Program immediately (564-3274 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Michael Aufaenger DATE: 5/15/90

OILING CATEGORIZATION:

Wide 0 m: Medium 97 m: Narrow 20 m: V.Light 651 m: No Oil 140 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u> </u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u>X</u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u>X</u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u>X</u> ~~Bioremediation~~ <u>AS 5/31/90</u>	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommended treatment activities include 1) manual pickup of mousse and 2) bioremediation of areas as indicated on attached sketch map. No specific ecological time constraints identified.

SEE WORK ADDENDUM DATED

5/22/90 AND CONSTRAINT

ADDENDUM DATED 6/10/90.

Reg C

TAG COMMENTS: MONITORS TO ASSESS LOGSTAG APPROVAL DATE: 5/15/90ADEC ART WEAVER Art WeaverEXXON ANDY BA Andy BaNOAA Joseph Talbot Joseph TalbotUSCG G.K. REITER G.K. ReiterFOSC: DATE: 5-20-90

Monitors ensure bioremediation treatment is clearly in the intertidal zone, below mean high tide line.

+
OILED
DEBRIS

WORK PLAN ADDENDUM

Segment K09-09-CD-008

Subdivision A

Dated 5/22/90

MODIFICATION

1. REASON FOR MODIFICATION

- FOSC Request
- Landowner comments

2. ADJUSTMENT TO WORK PLAN

- No bioremediation

SHPO APPROVAL NEEDED YES _____ SHPO SIGNATURE _____

NO X

TAG APPROVAL DATE 5/31/90.

ADEC ART WEINER Art Weiner

EXXON Andy Tanc Andy

FOSC [Signature] DATE 5/31/90

NOAA Joseph Talbot J Talbot

USCG G.A. REITER G.A. Reiter

SHORELINE EVALUATION

SEGMENT ST/ K09-09-CD-08 SUBDIVISION A (1 OF 1) DATE 4/29/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
Katmai National Park

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 Exxon's Cultural Resource Program immediately (564-3274 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Michael Aufaenger DATE: 5/15/90

OILING CATEGORIZATION:

Wide 0 m: Medium 97 m: Narrow 20 m: V.Light 651 m: No Oil 140 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u> </u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u>X</u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u>X</u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u>X</u> ~~Bioremediation~~ <u>5/31/90</u>	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommended treatment activities include 1) manual pickup of mousse and 2) bioremediation of areas as indicated on attached sketch map. No specific ecological time constraints identified.

TAG COMMENTS: MONITORS TO ASSESS LOGS

TAG APPROVAL DATE: 5/15/90

ADEC ART WENGER

EXXON ANDY EM

NOAA Joseph Talbot

USCG G.H. REITER

FOSC: W L

DATE: 5-20-90

monitors ensure bioremediation treatment is clearly in the intertidal zone, below mean high tide line.

00 LIN NAKASMAN

SEGMENT STI K0909-CD008

SUBDIVISION CD008A

DATE 4 12 90

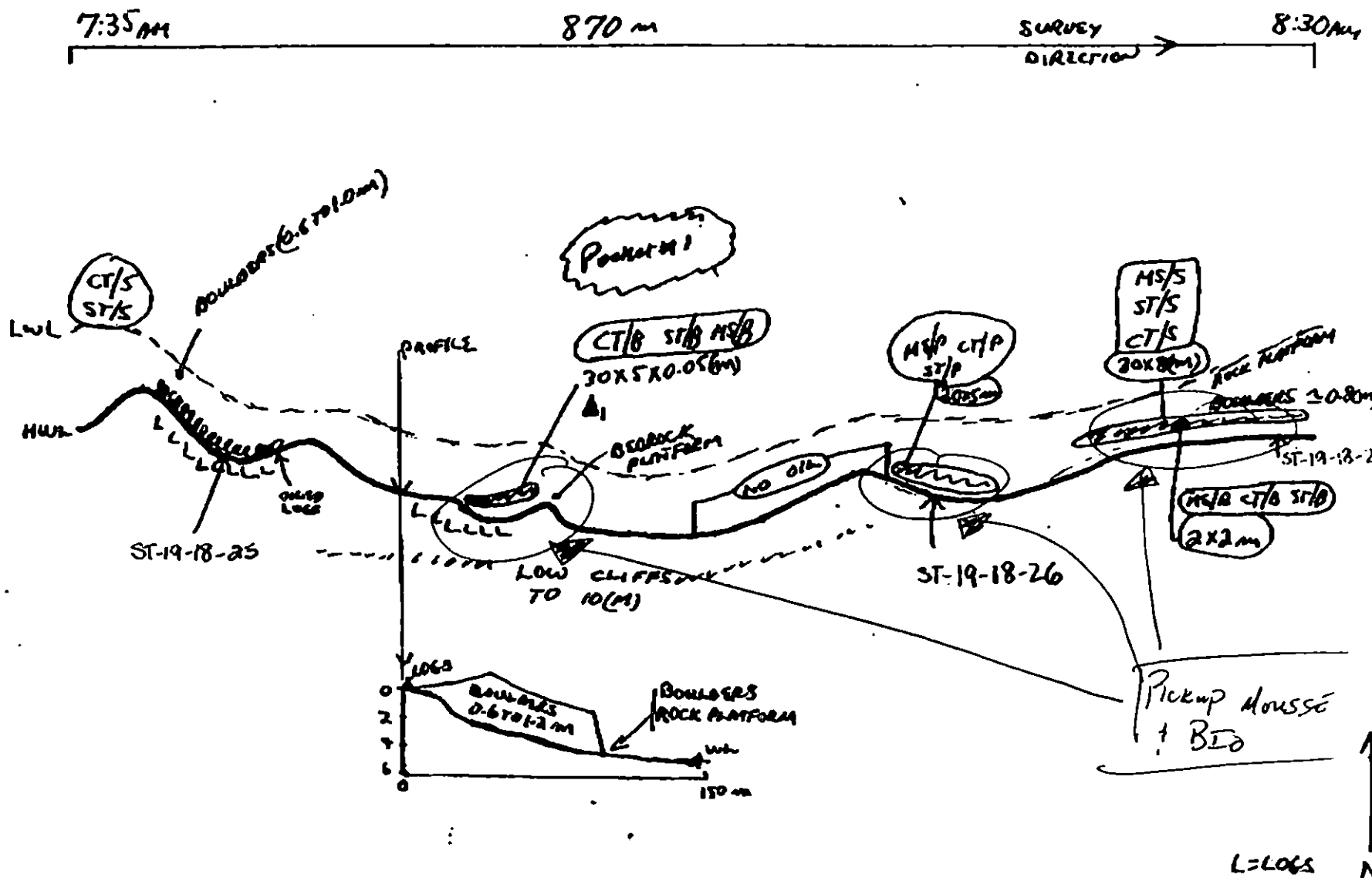
CHECKLIST

- ☐ M Arrow
- ☐ Approx. Scale
- ☐ Seg/Side Entry
- ☐ Oil Dist
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. MW/L/VL
- ☐ STL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pn Location(s)
- ☐ Photo Location(s)

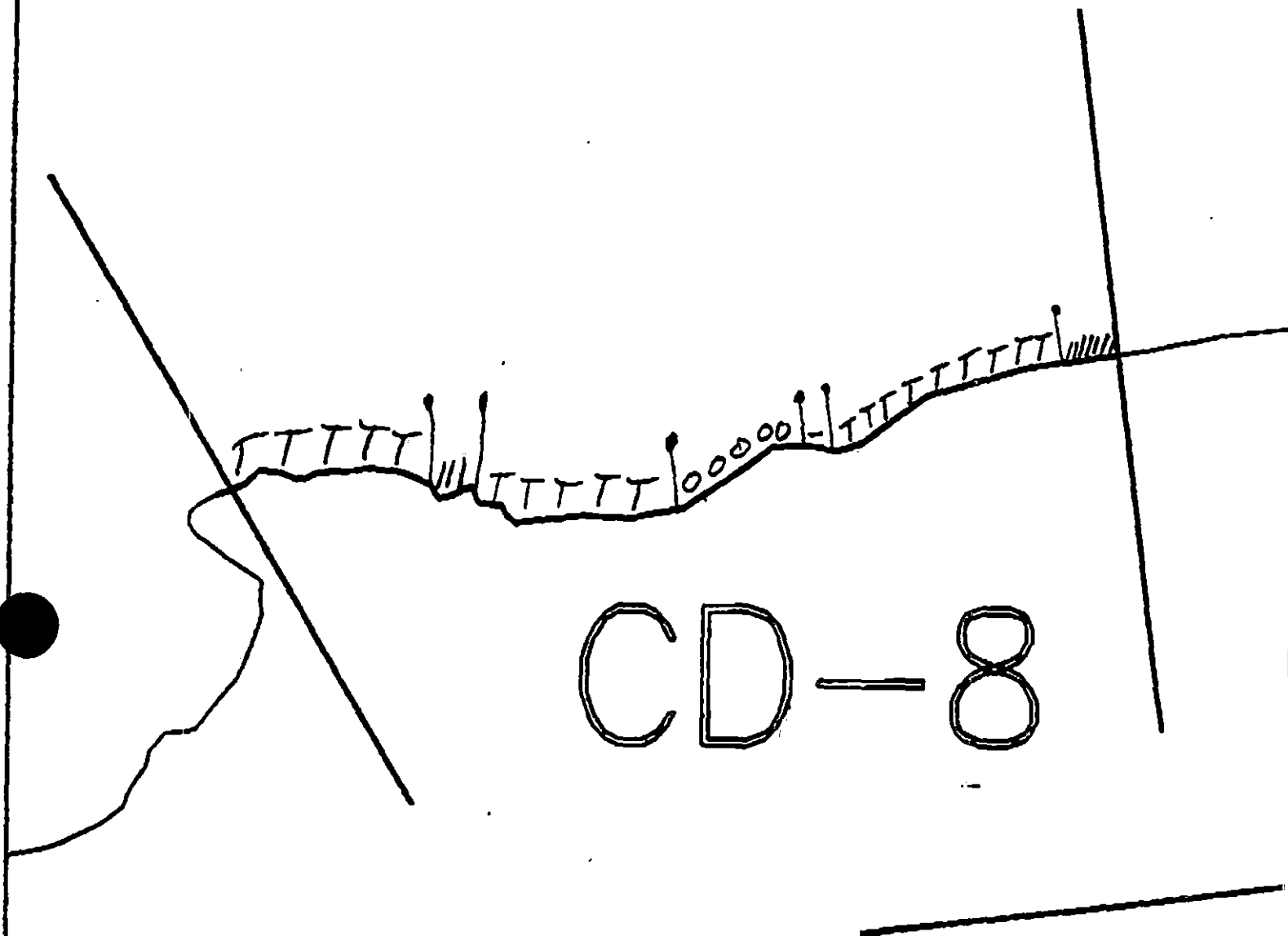
LEGEND

- 1 Δ
Pn - No Subsurface Oil
- 2 Δ
Pn - Subsurface Oil
- $\square$ CT/C
Continuous Distribution
- $\square$ CT/B
Broken Distribution
- $\square$ CT/P
Patchy Distribution
- $\square$ CT/S
Sporadic Distribution
- $\lll$
Oil Vegetation
- 1 $\Rightarrow$
Photo location, direction, and number

SKETCH MAP



Oil Character Length (m): AP 0 PO 0 CV 0 CT 80 ST 753 MS 753 PT 0 TB 0 FL 0 NO 126



CD-8

CD

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CD-8

ADEC Segment Length: 924m



Map Key: 60A-48

Name: LINDSAY NAKOSHIMA

Date: 4/27/90

Date Entered:

REGION: KODIAK

SEGMENT: ST/K09-09-CD-08

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ K09-09-CD-08 SUBDIVISION A (1 OF 1) DATE 4/29/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Katmai National Park

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 Exxon's Cultural Resource Program immediately (564-3274 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 97 m: Narrow 20 m: V.Light 651 m: No Oil 140 m
Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment activities include 1) manual pickup of
mousse and 2) bioremediation of areas as indicated on attached sketch
map. No specific ecological time constraints identified.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

KODIAK ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ K09-09 SUBDIVISION: C0008A DATE 4/27/90

NOAA
1986
NAME

John Naughton

SIGNATURE

John J. Naughton

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

This segment at Cape Douglas had very little oil over majority of length with two areas containing small amounts of patchy mousse. Recommend this small amount of oil be allowed to weather naturally.

ADEC

NAME

Terry Ellsworth

SIGNATURE

Terry Ellsworth

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

I concur with National Park Service's conclusions and recommend that the removal of the mousse and oiled debris be accomplished by manual methods.

LAND MANAGER

NAME

Carl Scheeb

SIGNATURE

Carl Scheeb

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

There are three areas of recoverable oil, mostly mousse in interstitial spaces. The entire segment should be walked by a cleanup crew and all recoverable mousse and oiled debris should be removed.

CG LINDSEY NAKASHIMA USCG (NOAA) JOHN NAKASHIMA SEGMENT ST. 40909-CD008
 BIO DEB MCCORMICK LAND REP (NPS) CARL SCHUCH SUBDIVISION CD008A 1 OF 1
 EXXON FRIO AVARS ADEC TERRY GILBERT TIME 7:35 to 8:30 AM
 TEAM NO. 19 TIDE LEVEL +5.60 TO +2.40 FALL DATE 4/27/90
 EST. SUBDIVISION LENGTH: 879 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 LANDS DESCRIPTION: ☐ Grass ☐ Forest ☒ Rock L
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: WEST to EAST
 SURFACE SEDIMENTS: R 15 % B 75 % C 10 % P 0 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 50 % Hang 45 % Vert 5 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 60 m N 20 m VL 673 m NO 126 m

SURFACE OIL

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

PAVEMENT H F S NONE sq. m by 0 cm

PATTIES / TARBALLS NONE BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT			DID YOU COLLECT DEBRIS?
	SM	MD	LG	
Logs	X			YES ☐ NO ☒
Vegetation				
Trash				
Debris				
				TYPE _____
				#BAGS _____

Photographs:

Roll No. ST-19-18

Frames 23-27

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (Y/N)	▽	SURFACE - SUBSURFACE SEDIMENTS	
		OP	OR	OL	OF	NO		UO	UG	1	2	3	4	5	SU	U	M	U					
1	5			X			0.5		X				X		X				N	N	N	C	B

COMMENTS

THIS SEGMENT IS LOCATED AT THE NORTH-FACING SHORE OF SHKOL BAY.
 THE VERY LIGHT OIL CHARACTERIZES MOST OF THE SEGMENT WITH
 SPORADIC PATCHES OF STAIN AND COAT.

REVIEWED BAT DATE 1 MAY 90

SKETCH MAP

DATE 4 127 90

CHECKLIST

- H Arrow
 Approx. Scale
 Seg/Tab Endry
 Oil Dist.
 Width
 Length
 % Cover
 Substrate Character
 Est. HML/LWL
 S/L
 Profile Location(s)
 Profile(s)
 Pl Location(s)
 Photo Location(s)

LEGEND

- PA - No Subscriptions On**

- 2 ▲
Pg. Subsurface Oil

CT/E

Continuous Distribution

CT/D

Ersten Diebstahl

CT/P

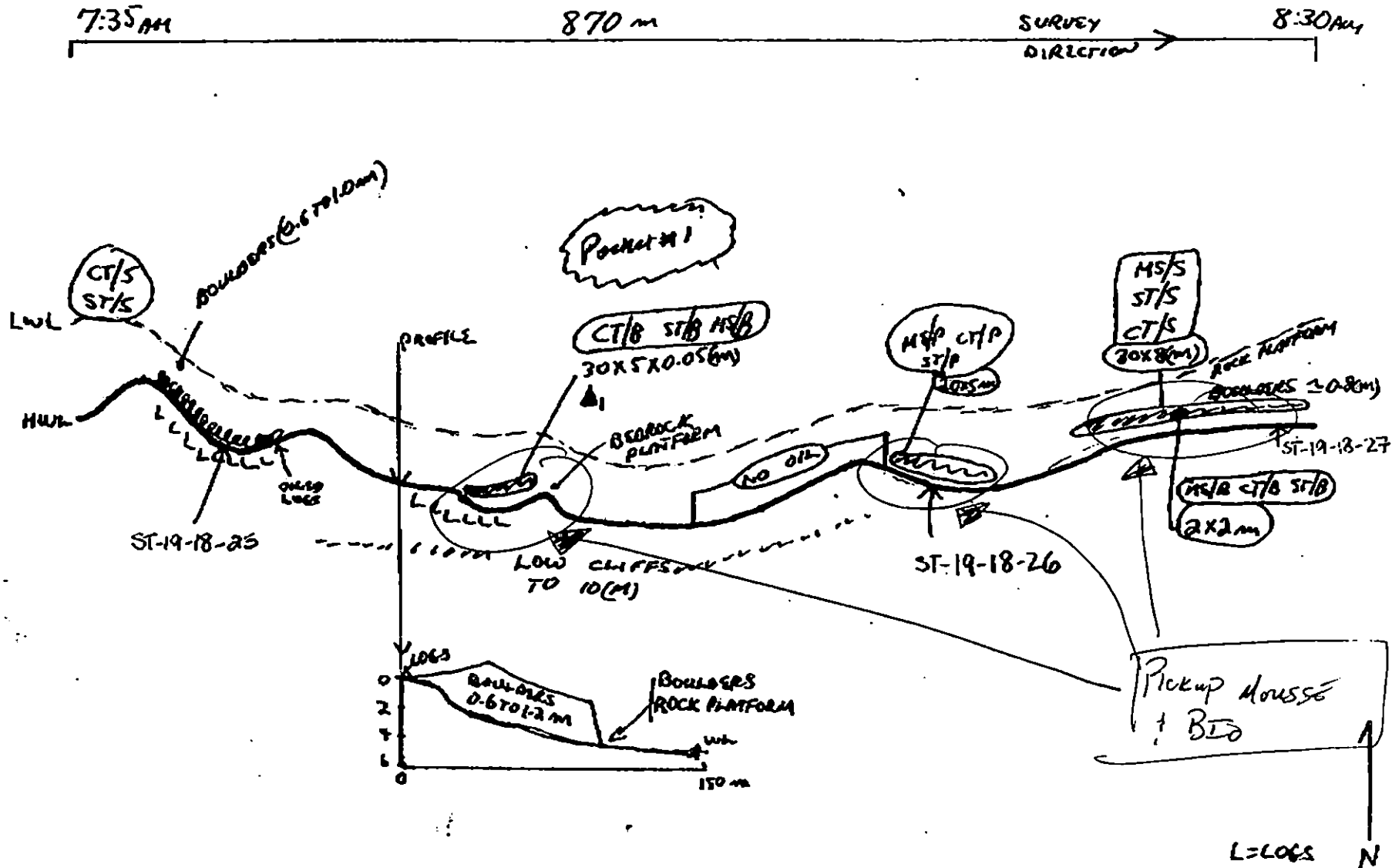
Product Distribution

CTAS

Splined Distribution

Other Vegetation

- 1 ~~00~~
- Photo location, direction,
and number



Character Length (in): AP 0 PO 0 CV 0 CT 80 ST 753 MS 753 PT 0 TB 0 FL 0 NO 126

電話：02-2652-2100

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / K-9-9-CD-8 Subdivision A Date (mo / day / yr) 4-27-90

Time (24 hr) 0750-0830 Biologist A. McCormick

(A) Substrate type and % of segments:
(1) Bedrock 15 (2) Boulder 75 (3) Cobble 10 (4) Pebble 0 (5) Sand 0 (6) Silt 0

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

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

Photographs:
Roll No. ST-19-18

Frames 23-27

BARNACLES

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

NOT PRESENT

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

None seen

NOT PRESENT

GASTROPODS

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

NOT PRESENT

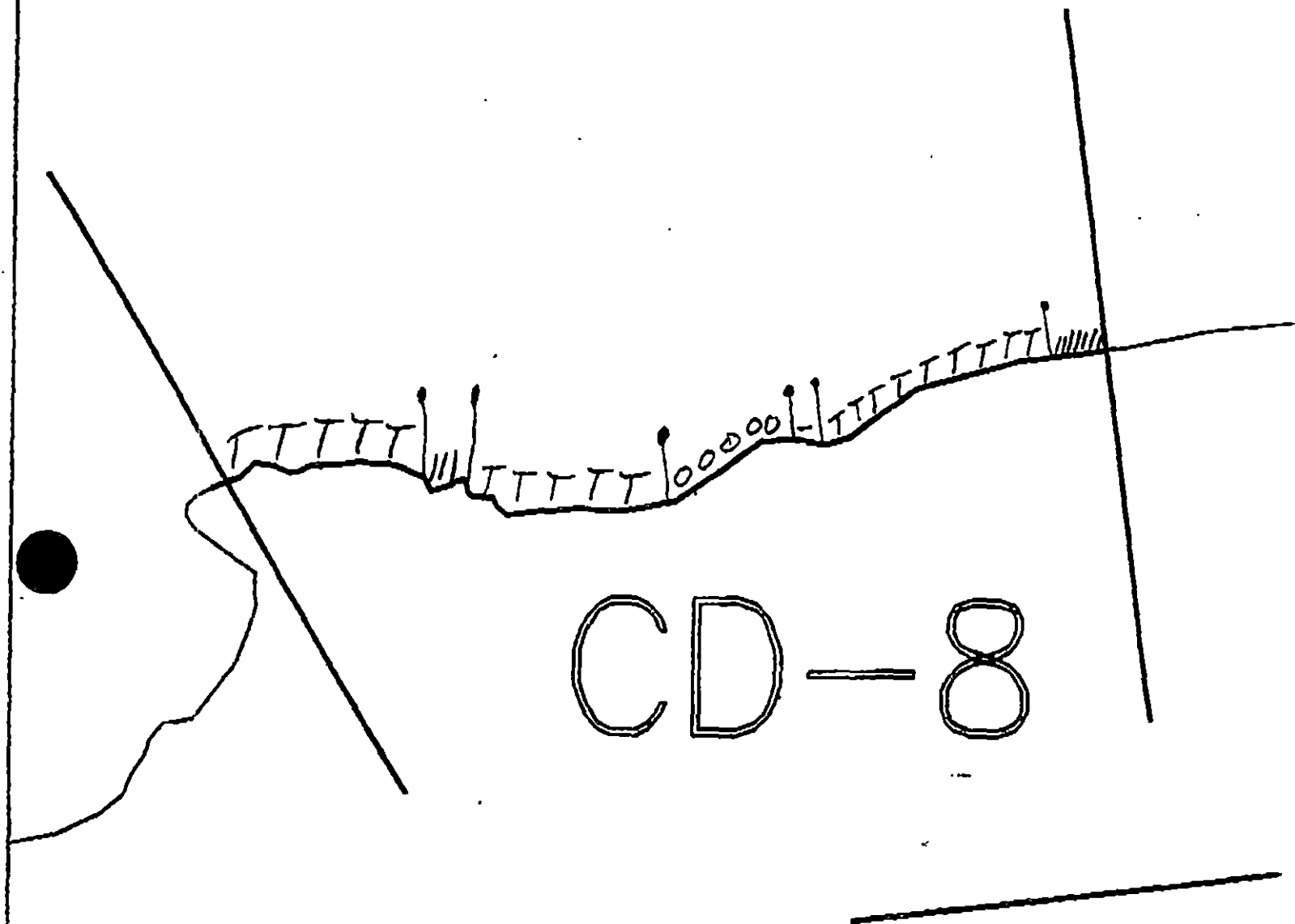
FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments: No birds/ mammals seen in the segment.
Littorines dominate intertidal community.

Ecological Considerations: NOAA data suggests eagle nest located in this segment. None were observed. No anadromous streams, therefore no ECO map is included in this report.



CD-8

CD

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CD-8

ADEC Segment Length: 924m



Map Key: 60A-48

Name: LINDSAY NAKOSHIMA

Date: 4/27/90

Date Entered:

1991 MAYSAP EVALUATION

SEGMENT: K0909CD008 SUB: A REGION: KOD SURVEY DATE: 5/21/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) OPEN

Ecological/Constraints (see page two for details) NONE

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

ADEC

NAME J. FARNHART, ADECSIGNATURE J. Farnhart☐ NTR ☒ Treatment Recommended

Site A - 30 m long x 6 m wide. Oil within the band ranging from 5% at the west end increasing to 20% at the east end. The mousse is located around cobble/boulder bleeding and running freely (some pooled) on the surface. Brown sheen in tidal pool. Strong odor of crude oil. Surface ms approx 5cm. A small quantity of oil was removed by the veco crew. IT extended 15cm into the substrate. Pore spaces filled with oil (HOR).

Treatment should consist of using trowels to remove the thick oil between the cobbles/boulders. Where possible the cobbles should be turned over to expose the oil under them. This oil should also be removed.

☒ TREATMENT Recommended - CONDUCT WITH ADEC & NPS John J. Jettis (Kodiak Island Borough)

EXXON

NAME R. HARRELSON, EXXON

SIGNATURE _____

☐ NTR

See next page

LANDMANAGER

NAME F. BENNISOF NPSSIGNATURE F. Bennis☐ NTR ☒ Treatment Suggested

Site A - Described on OG map has persistent mousse which is oozing in the sun, forming small pools, some ≥ 15 cm deep. ST, CT, CV, SOR, & MS is present in a patchy distribution within this band.

Pending review by NPS, removal of recoverable oil in this location is suggested.

Site B - consists mainly of scattered MS, ST, & CT.

USCG/NOAA

NAME CWO R. SPURGEON, USCG/NOAASIGNATURE R. Spurgeon / Amy Shigeh☐ NTR

It is recommended that the SOR and pooled mousse be removed in the area on the OG map marked A. This is easily accessible for manual removal between the large boulders.

SURVEYED PORTION OF THE SEGMENT CONSISTED OF AN EXPOSED, NORTHERLY-FACING BOULDER BEACH. GRASSY BLUFFS WERE ADJACENT TO THE BEACH TO THE SOUTH. MID- TO UPPER ITZ WERE FAIRLY DEPAUPERATE LIKELY DUE TO EXPOSURE AND SUBSTRATE, ALTHOUGH LITTORINA SITKANA PERIWINKLES WERE PRESENT IN SOME DENSITIES BELOW THE LOWER UITE. TWO SUBSTANTIVE BANDS OF OILING WERE OBSERVED ALONG THE SURVEYED BEACH. SITE 1, LOCATED ABOUT MIDWAY DOWN THE SEGMENT, WAS A BAND ESTIMATED BY THE O.G. TO BE 6 X 30 M. SOR AND MOUSSE COULD BE SEEN BETWEEN COBBLES AND BOULDERS (UTE). IN THE BLAZING HEAT OF THE ALASKA PENINSULA SUN, WAS BECOMING MORE FLUID AND BEGINNING TO COZE. UNDER COBBLES, THE MOUSSE WAS STILL LIQUID IN FORM. THE VECO CREW WORKED SITE 1 DURING THE ENTIRE STAY. IN AN INTERESTING EXPERIMENT, THE OG ASKED MEMBERS OF THE SURVEY TEAM TO ESTIMATE PERCENT COVER OIL IN SITE 1, AND RECEIVED ESTIMATES RANGING FROM 5-35 PERCENT. FOLLOWING SOME MINOR FISTICUFFS, A COMPROMISE RANGE

OF 5-20 PERCENT WAS AGREED UPON. SITE 2 WAS LOCATED TO THE EAST CLOSER TO THE BORDER BETWEEN CD-8 AND CD-9, AND CONSISTED OF A BAND OF COAT, ASPHALT, AND SOME SOR AND MOUSSE BETWEEN COBBLES AND IN CREVICES OF THE SUBSTRATE IN THE UITE. SPORADIC OCCURRENCES OF TAR (QUESTIONABLY EXXON VALVEZ ORIGIN) AND COAT/STAIN WERE OBSERVED ALONG THE REST OF THE SURVEYED PORTION OF THE SEGMENT.

ADEC

NAME J. BARNHART, ADECSIGNATURE J. Barnhart☐ NTR ☒ Treatment Recommended

SITE A - 30 m long x 6 m wide. Oil within the band ranging from 5% at the west end increasing to 20% at the east end. The mousse is located around cobble/boulder bleeding and running freely (some pooled) on the surface. Brown sheen in tidal pool. Strong odor of crude oil. Surface ms approx 5cm. A small quantity of oil was removed by the veco crew. IT extended 15cm into the substrate. Pore spaces filled with oil (HOR).

Treatment should consist of using Trawls to remove the thick oil between the cobbles/boulders. Where possible the cobbles should be turned over to expose the oil under them. This oil should also be removed.

☒ TREATMENT Recommended - CONDUCT with ADEC & NPS Site A - (Kodiak Island Borough)

EXXON

NAME R. HARRELSON, EXXONSIGNATURE R. Harrelson

☐ NTR Recovery of oiled sediments from between boulders is operationally feasible, but would be slow work and manpower intensive. The bio report indicates work on this segment might be more disruptive than productive.

LANDMANAGER

NAME E. BENNIS

OF NPS

SIGNATURE E. Bennis☐ NTR ☒ Treatment Suggested

SITE A - described on OS map has persistent mousse which is oozing in the sun, forming small pools, some ≥ 15 cm deep. ST, CT, CV, SOR, & MS is present in a patchy distribution within this band.

Pending review by NPS, removal of recoverable oil in this location is suggested.

SITE B - consists mainly of scattered MS, ST, & CT.

USCG/NOAA

NAME CWO R. SPURR / B. SHIGENAKASIGNATURE R. Spurr / B. Shigenaka

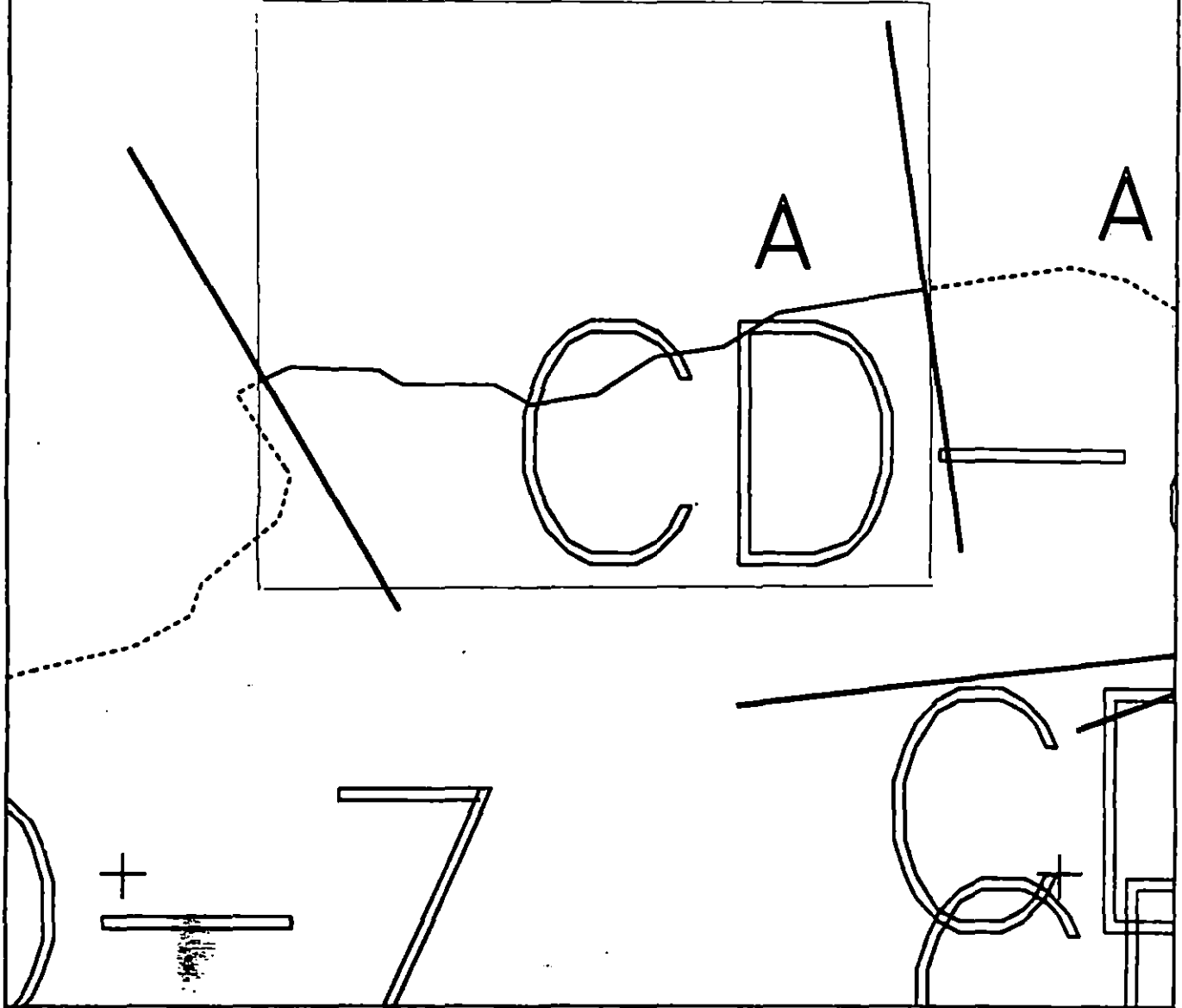
☐ NTR It is recommended that the SOR and pooled mousse be removed in the area on the OS map marked A. This is easily accessible for manual removal between the large boulders.

SURVEYED PORTION OF THE SEGMENT CONSISTED OF AN EXPOSED, NORTHERLY-FACING BOULDER BEACH. GRASSY BLUFFS WERE ADJACENT TO THE BEACH TO THE SOUTH. MID- TO UPPER TIDE WERE FAIRLY DEVELOPED. LIKELY DUE TO EXPOSURE AND SUBSTRATE, ALTHOUGH LITTORINA SITANA PEWEECKLES WERE PRESENT IN SOME DENSITIES BELOW THE LOWER TIDE. TWO SUBSTANTIVE BANDS OF OILING WERE OBSERVED ALONG THE SURVEYED BEACH. SITE 1, LOCATED ABOUT MIDWAY DOWN THE SEGMENT, WAS A BAND ESTIMATED BY THE CG. BE 6 X 30 M. SOR AND MOUSSE COULD BE SEEN BETWEEN COBBLES AND BOULDERS (SITE). IN THE BLAZING HEAT OF THE ALASKA PENINSULA SUN, WAS BECOMING MORE FLUID AND BEGINNING TO COGE. UNDER COBBLES, THE MOUSSE WAS STILL LIQUID IN FORM. THE VECO CREW WOULD SITE 1 DURING THE ENTIRE STAY. IN AN INTERESTING EXPERIMENT, THE CG ASKED MEMBERS OF THE SURVEY TEAM TO ESTIMATE PERCENT COVER OIL IN SITE 1, AND RECEIVED ESTIMATES RANGING FROM 5-95 PERCENT. FOLLOWING SOME MINOR FISTCUFFS, A COMPROMISE RANGE

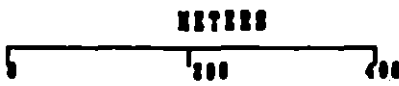
OF 5-20 PERCENT WAS AGREED UPON. SITE 2 WAS LOCATED TO THE EAST, CLOSER TO THE BORDER BETWEEN CD-8 AND CD-9, AND CONSISTED OF A BAND OF COAT, ASPHALT, AND SOME SOR AND MOUSSE BETWEEN COBBLES AND IN CREVICES OF THE SUBSTRATE IN THE TIDE. SPORADIC OCCURRENCES OF THE (QUESTIONABLE EXXON VALVE LEAKING) AND COAT/STAIN WERE ALSO OBSERVED ALONG THE WEST OF THE SURVEYED PORTION OF THE SEGMENT.

Reviewed: MC 5/30/91
reviewed 5.26 qy

MAP #1



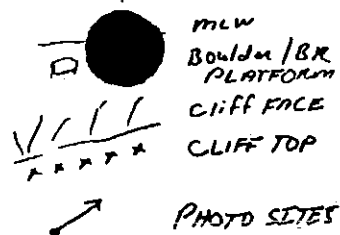
K0909 CD008 A



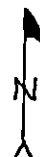
AS BUILT PLANS, 2000, 0.

Subdivision Field Map
Map Key: 000000000000
Name: D. Fitzgerald
Date: 21 MAY 1991

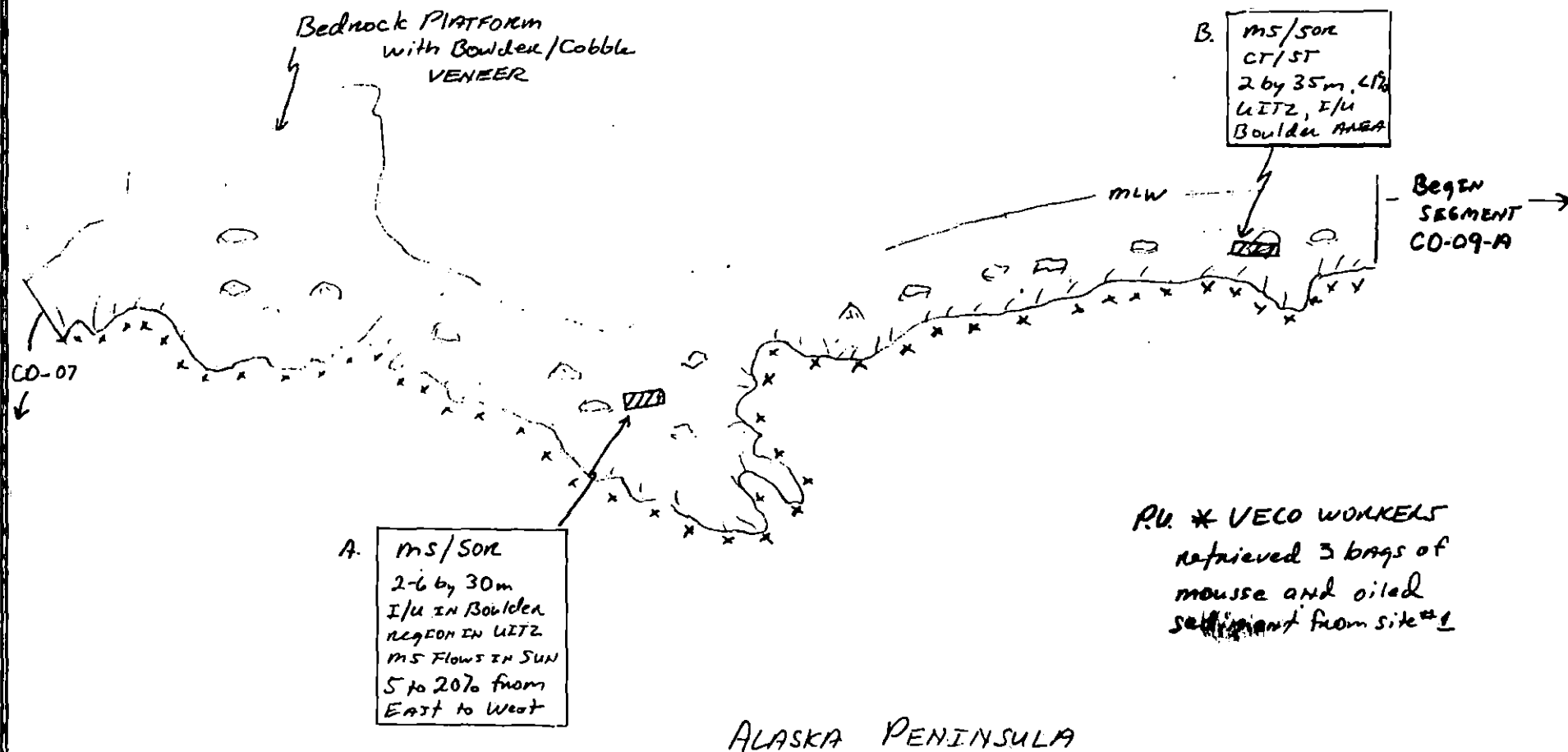
Reviewed S.R. 94



SKETCH MAP (06)
 K09-09-CD-8-A
 D. M. FITZGERALD
 21 MAY 1991
 1410 - 1545



SHELIKOF STRAIT



0 200
 METERS

reviewed 5.26.94

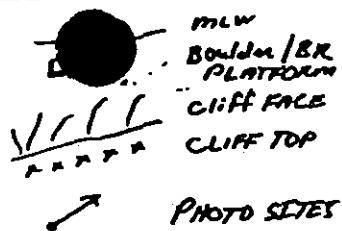
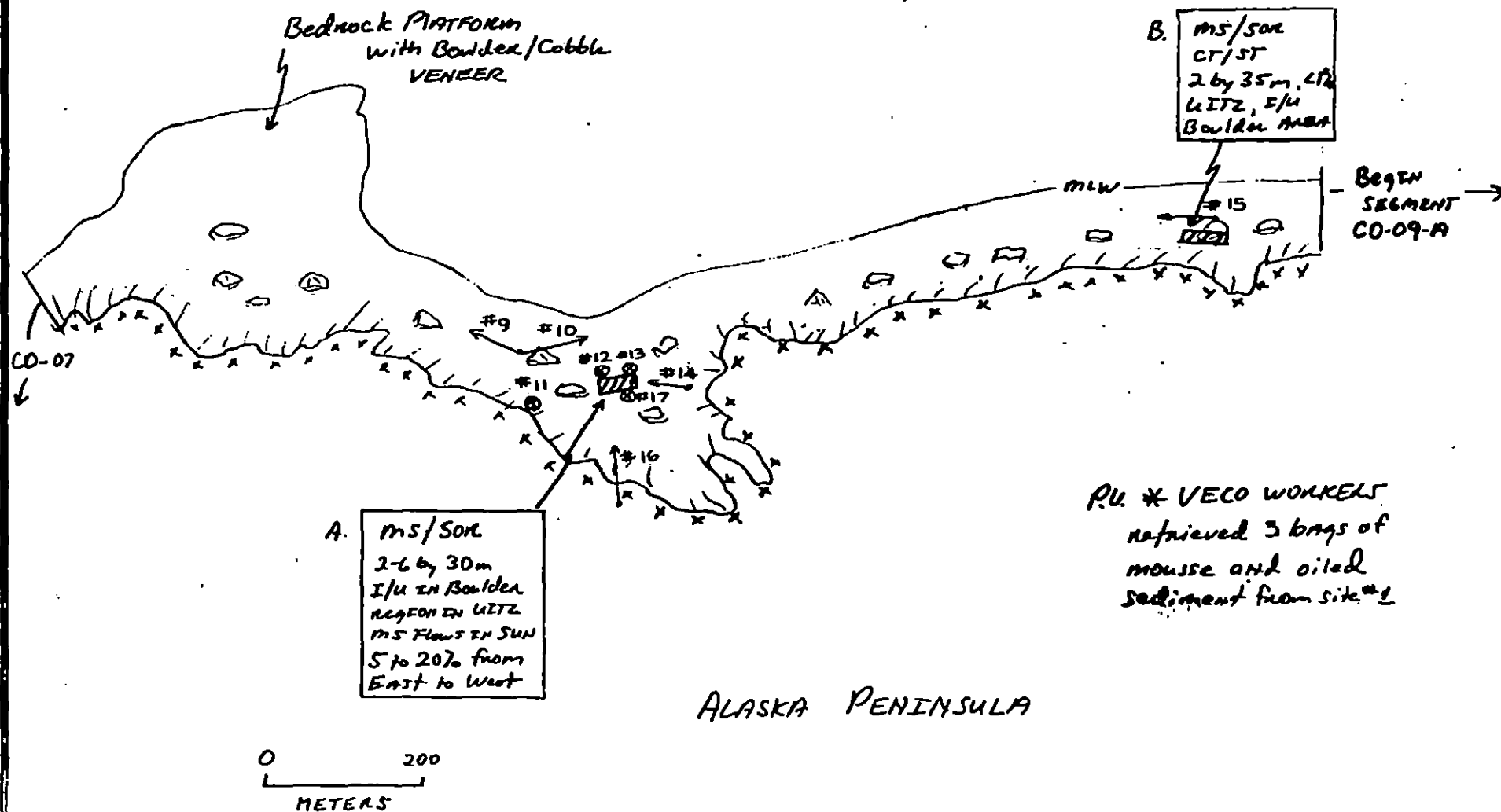


PHOTO SITES, CD-8A
ROLL 6-19, FRAMES 9-17

Sketch MAP (06)
K09-CD-8-A
D. M. FITZGERALD
21 MAY 1991
1410-1545

SHELIKOF
STRAIT



MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 21 1991

SEGMENT # K9N-9 CD-8

TIDAL HEIGHT (Range) 3.2 to 0 ft (14:10 to 15:45)

SUBDIVISION A

BIOLOGIST H. Davis

SEA STATE Calm < 1 ft

WIND SPEED/DIRECTION Very light breeze SKT NE

PHOTOGRAPHS: ROLL # 6-19

FRAME # 9-17

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

This segment is a irregular bedrock shoreline with boulders and cobbles on top. In the MITZ, littorines are the most common animals. There was very little algal drift. No amphipods visible and very few barnacles. In protected pools and crevices of the MITZ crustaceans Coralline, Nalichondria, Rhodomela, Nucella Bolandula, pagurus, Notosquilla personata, scutum and Callinectes digitatus were common. Eucus was just beginning its spring growth and was very sparse.

Site A+B littorina and a very few barnacles are the only organisms found in this area. Shells in the debris line were mostly Mya arenaria and Saxidomus. Moderate numbers of littorines, barnacles, and limpets begin about 20 meters below the two sites.

Clean up in this area may be more disruptive than productive.

Greater Scaup (3) Surf Scoter (6) 1 dead sooty Shearwater (2 dead Kittiwakes sparrows (5) Oystercatchers (4) Harlequin (4) Cormorant sp (2) Kittiwakes (6) Glaucous-winged Gull (10)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	0		0
Seabirds	2	3 (1 dead shearwater)	
Waterfowl	3	16	
Gulls/Kittiwakes	2	18 (2 dead Kittiwakes)	
Shorebirds	1	4	
Corvids	0	—	
Other Birds Sparrows	1	5	

MARINE MAMMALS

OBSERVED

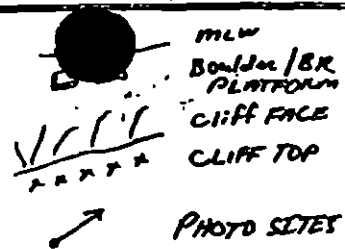
LAND MAMMALS

SPECIES

OBSERVED

Sea Otters		Bear tracks	
Pinnipeds (specify)			
Harbor seal	2		
Whales (specify)			

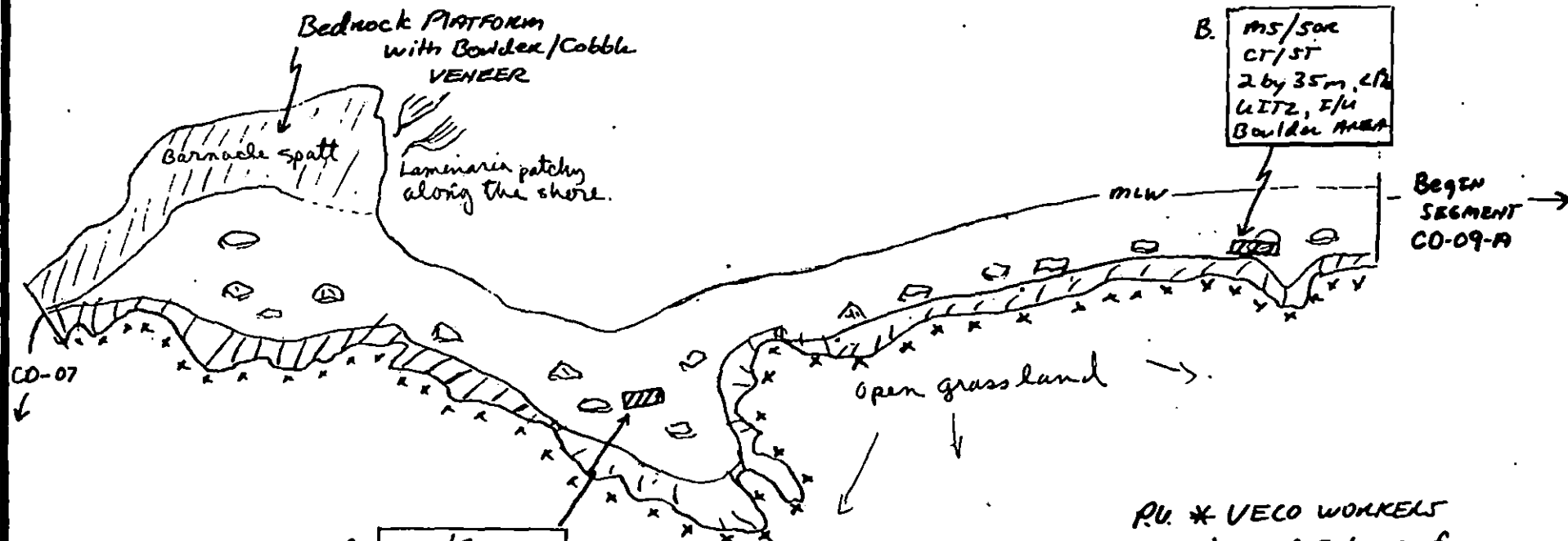
shoreline subdivision map showing important biological features attached.



Bio Map
H. Davis

Sketch Map (06)
K09-09-CD-8-A
D. M. FITZGERALD
21 MAY 1991
1410 - 1545

SHELIKOF
STRAIT



A. ms/sor
2-6 by 30m
I/U in Boulder
region in UETZ
ms flows in sun
5 to 20% from
East to West

B. ms/sor
2 by 35m, UETZ, I/U
Boulder area

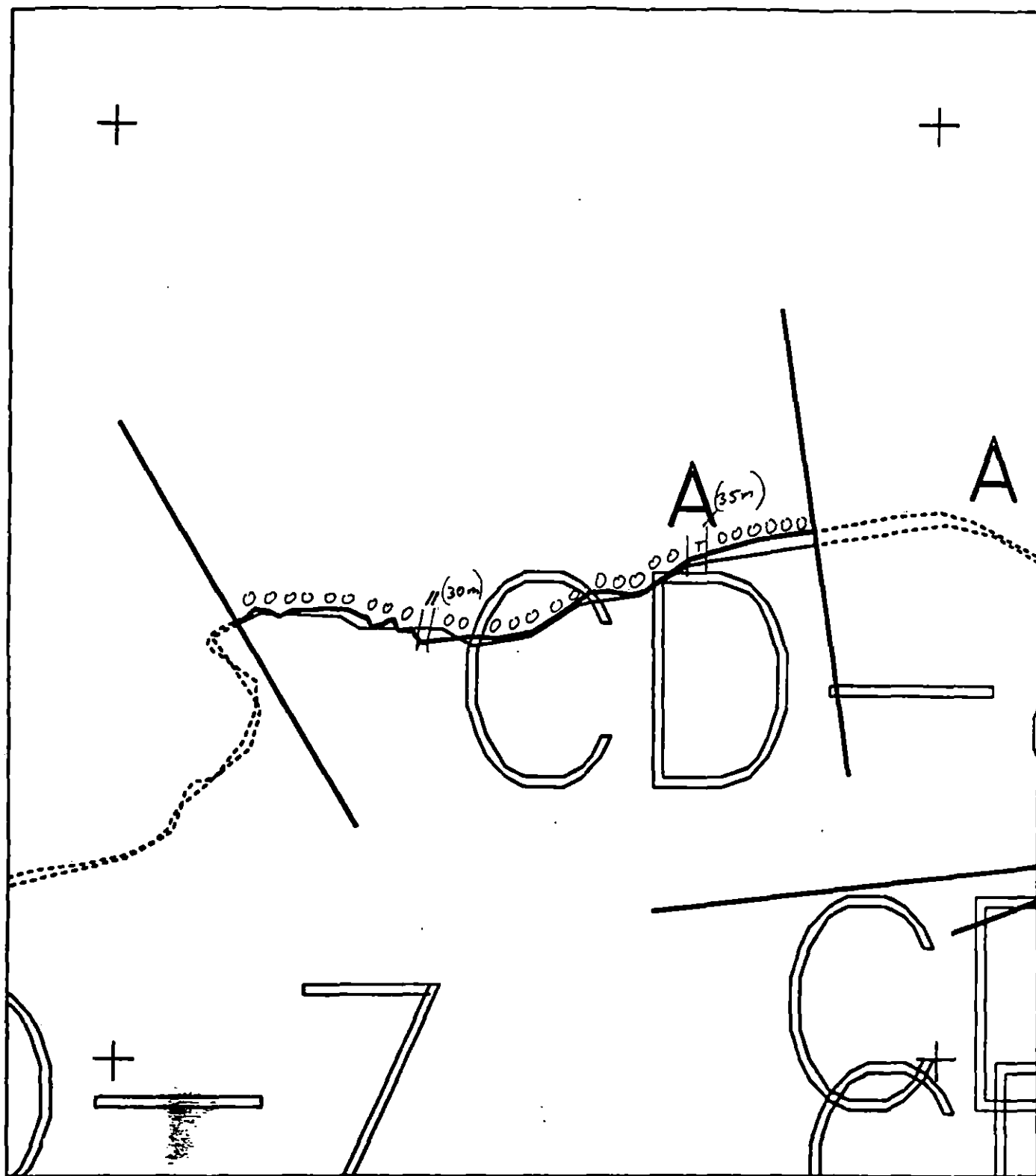
Begin
SEGMENT
CO-09-A

PU * VECO WORKERS
retrieved 3 bags of
mousse and oiled
sediment from site #1

ALASKA PENINSULA A+B

Kitfox and a few barnacles are the only
biota in these areas. However down in crevices
and pools there is more diversity
but not a great increase in density.
A healthier biota considering the substrate
and the exposure level.

0 200
METERS



XXXX	Wide	K0909 CD008 A	Subdivision Field Map
////	Medium	ADEC Subsegment Length: 809m	Map Key: 00AX0000CD000A
----	Narrow	METERS	Name: <u>D.F. Fitzgerald</u>
TTTT	Very Light	5 100 400	Date: <u>21 May 1991</u>
0000	No Oil	AK State Plane Zone 4	Date Entered:



Reviewed: MC 5/30/91
 revised 5.26 94

1991 MAYSAP EVALUATION

SEGMENT: K0909CD008 SUB: A REGION: KOD SURVEY DATE: 5/21/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) OPEN

Ecological/Constraints (see page two for details) NONE

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: Timothy Smith

Date: 6/03/91

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

N

Y

Manual Pickup (Check as Req.)

X

Spot Washing

Bio-Customblen Only

X

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL: _____

TAG: _____

FOSC: LAND MANAGER, AND ALL AGENCY SURVEY TEAM MEMBERS
RECOMMEND CLEANUP. AS ADDITIONAL C/S WORK IS REQUIRED
ON THE ALASKA PENINSULA THIS CAN BE EASILY SCHEDULED. "PATCH"
MOUSE IS RECOVERABLE - REMOVED MOUSE REMAINING. ALL

TAG APPROVAL DATE: MAY 31 1991

FOSC APPROVAL DATE: 6/8/91

ADEC

John Fane

FOSC

EE

EXXON

Real

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

USCG

Edma

NOAA

Long

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 6-HELO SEGMENT CD-8SUBDIVISION ADATE 5/21/91

ADEC

NAME T. BARNHART, ADEC

SIGNATURE

Jeff Barnhart☐ NTR ☒ Treatment Recommended

Site A - 30 m long x 6 m wide. Oil within the band ranging from 5% at the west end increasing to 20% at the east end. The mousse is located around cobble/boulder bleeding and running freely (some pooled) on the surface. Brown sheen in tidal pool. Strong odor of crude oil. Surface ms approx 5cm. A small quantity of oil was removed by the veco crew. IT extended 15cm into the substrate. Pore spaces filled with oil (HOR).

Treatment should consist of using Trowels to remove the thick oil between the cobbles/boulders. Where possible the cobbles should be turned over to expose the oil under them. This oil should also be removed.

☒ TREATMENT Recommended - CONCUR WITH ADEC & NPS *State of Alaska (Kodiak Island Borough)*

EXXON

NAME R. HARRELSON, EXXON

SIGNATURE

☐ NTR*See next page*

LANDMANAGER

NAME E. BENNISOF NPS

SIGNATURE

James Bennis☐ NTR ☒ Treatment Suggested

Site A - described on OG map has persistent mousse which is oozing in the sun, forming small pools, some ≥ 15 cm deep. ST, CT, CV, SOR, & MS is present in a patchy distribution within this band.

Pending review by NPS, removal of recoverable oil in this location is suggested.

Site B - consists mainly of scattered MS, ST, & CT.

USCG/NOAA

NAME CWO R. SPURGEON, SHIGENAKA

SIGNATURE

R.P. Spurgeon / Amy Shigenaka☐ NTR

If it is recommended that the SOR and pooled mousse be removed in the area on the OG map marked A1. This is easily accessible for manual removal between the large boulders.

SURVEYED PORTION OF THE SEGMENT CONSISTED OF AN EXPOSED, NORTHERLY-FACING BOULDER BEACH. GRASSY BLUFFS WERE ADJACENT TO THE BEACH TO THE SOUTH. MID- TO UPPER ITZ WERE FAIRLY DEPAUPERATE, LIKELY DUE TO EXPOSURE AND SUBSTRATE, ALTHOUGH LITTORINA SITKANA PERIWINKLES WERE PRESENT IN SOME DENSITIES BELOW THE LOWER UITE. TWO SUBSTANTIVE BANDS OF OILING WERE OBSERVED ALONG THE SURVEYED BEACH. SITE 1, LOCATED ABOUT MIDWAY DOWN THE SEGMENT, WAS A BAND ESTIMATED BY THE O.S. TO BE 6X30M. SOR AND MOUSSE COULD BE SEEN BETWEEN COBBLES AND BOULDERS (UITE), IN THE BLAZING HEAT OF THE ALASKA PENINSULA SUN, WAS BECOMING MORE FLUID AND BEGINNING TO COKE. UNDER COBBLES, THE MOUSSE WAS STILL LIQUID IN FORM. THE VECO CREW WORKED SITE 1 DURING THE ENTIRE STAY. IN AN INTERESTING EXPERIMENT, THE OG ASKED MEMBERS OF THE SURVEY TEAM TO ESTIMATE PERCENT COVER OIL IN SITE 1, AND RECEIVED ESTIMATES RANGING FROM 5-35 PERCENT. FOLLOWING SOME MINOR FISTCUFFS, A COMPROMISE RANGE

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TEAM NO. 6-HELO SEGMENT CD-8 SUBDIVISION A DATE 5/21/91

ADEC

NAME J. BARNHART, ADECSIGNATURE J. Barnhart☐ NTR ☒ Treatment Recommended

SITE A - 30 m long x 6 m wide. Oil within the band ranging from 5% at the west end increasing to 20% at the east end. The mousse is located around cobble/boulder bleeding and running freely (some pooled) on the surface. Brown sheen in tidal pool. Strong odor of crude oil. Surface ms approx 5cm. A small quantity of oil was removed by the veco crew. IT extended 15cm into the substrate. Pore spaces filled with oil (HOR).

Treatment should consist of using Trawls to remove the thick oil between the cobbles/boulders. Where possible the cobbles should be turned over to expose the oil under them. This oil should also be removed.

☒ TREATMENT Recommended - Consistent with NPS with ADEC ENPS Site A (Kodiak Island Borough)

EXXON

NAME R. HARRELSON EXXONSIGNATURE R. Harrelson

☐ NTR Recovery of oiled sediments from between boulders is operationally feasible, but would be slow work and manpower intensive. The bio report indicates work on this segment might be more disruptive than productive.

LANDMANAGER

NAME F. BENNIS

OF NPS

SIGNATURE F. Bennis☐ NTR ☒ Treatment Suggested

SITE A - Described on OG map has persistent mousse which is oozing in the sun, forming small pools, some ≥ 15 cm deep. ST, CT, CV, SOR, & MS is present in a patchy distribution within this band.

Pending review by NPS, removal of recoverable oil in this location is suggested.

SITE B - consists mainly of scattered MS, ST, & CT.

USCG/NOAA

NAME CWO R. SPURR / G. SHIGENAKASIGNATURE R. Spurr / G. Shigenaka

☐ NTR It is recommended that the SOR and pooled mousse be removed in the area on the OG map marked A. This is easily accessible for manual removal between the large boulders.

SURVEYED PORTION OF THE SEGMENT CONSISTED OF AN EXPOSED, NORTHERLY-FACING BOULDER BEACH. GRASSY BLUFFS WERE ADJACENT TO THE BEACH TO THE SOUTH. MID- TO UPPER TIDE WERE FAIRLY LEVAPPELATE. LIKELY DUE TO EXPOSURE ANY SUBSTRATE, ALTHOUGH LITTORINA SITICANA KEYWINKLES WERE PRESENT IN THE VENSITIES BELOW THE LOWER TIDE. TWO SUBSTANTIVE BANDS OF OILING WERE OBSERVED ALONG THE SURVEYED BEACH. SITE 1, LOCATED ABOUT MIDWAY DOWN THE SEGMENT, WAS A BAND ESTIMATED BY THE OG. BE 6 X 30 M. SOR AND MOUSSE COULD BE SEEN BETWEEN COBBLES AND BOULDERS (SITE 1). IN THE BLAZING HEAT ON THE ALASKA PENINSULA SUN, WAS BECOMING MORE FLUID AND BEGINNING TO COKE. UNDER COBBLES, THE MOUSSE WAS STILL LIQUID IN FORM. THE VECO CREW WORKED SITE 1 DURING THE ENTIRE STAY. IN AN INTERESTING EXPERIMENT, THE OG ASKED MEMBERS OF THE SURVEY TEAM TO ESTIMATE PERCENT COVER OIL IN SITE 1, AND RECEIVED ESTIMATES RANGING FROM 5-35 PERCENT. FOLLOWING SOME MINOR FISTICUFFS, A COMPROMISE RANGE

OF 8-20 PERCENT WAS AGREED UPON. SITE 2 WAS LOCATED TO THE EAST CLOSER TO THE BORDER BETWEEN CD-8 AND CD-9, AND CONSISTED OF A BAND OF COAT, ASPHALT, AND SOME SOR AND MOUSSE BETWEEN COBBLES AND IN CREVICES OF THE SUBSTRATE IN THE TIDE. SPORADIC OCCURRENCES OF THE (QUESTIONABLY EXXON VALVE WITHIN) AND COAT/STA

PAGE 1 OF 1

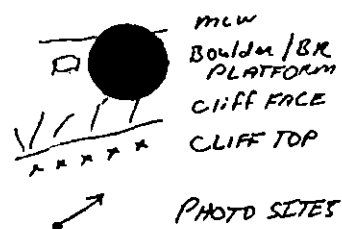
Reviewed: MC 5/30/91
reviewed 5.26 qy

The drawing shows a mechanical part with a central rectangular hole and a smaller circular hole. Dimension lines and labels 'A' and 'B' are used to specify features. The part is shown in a cross-sectional view, with a dashed line indicating the internal structure.

Date: 21 MAY 1991

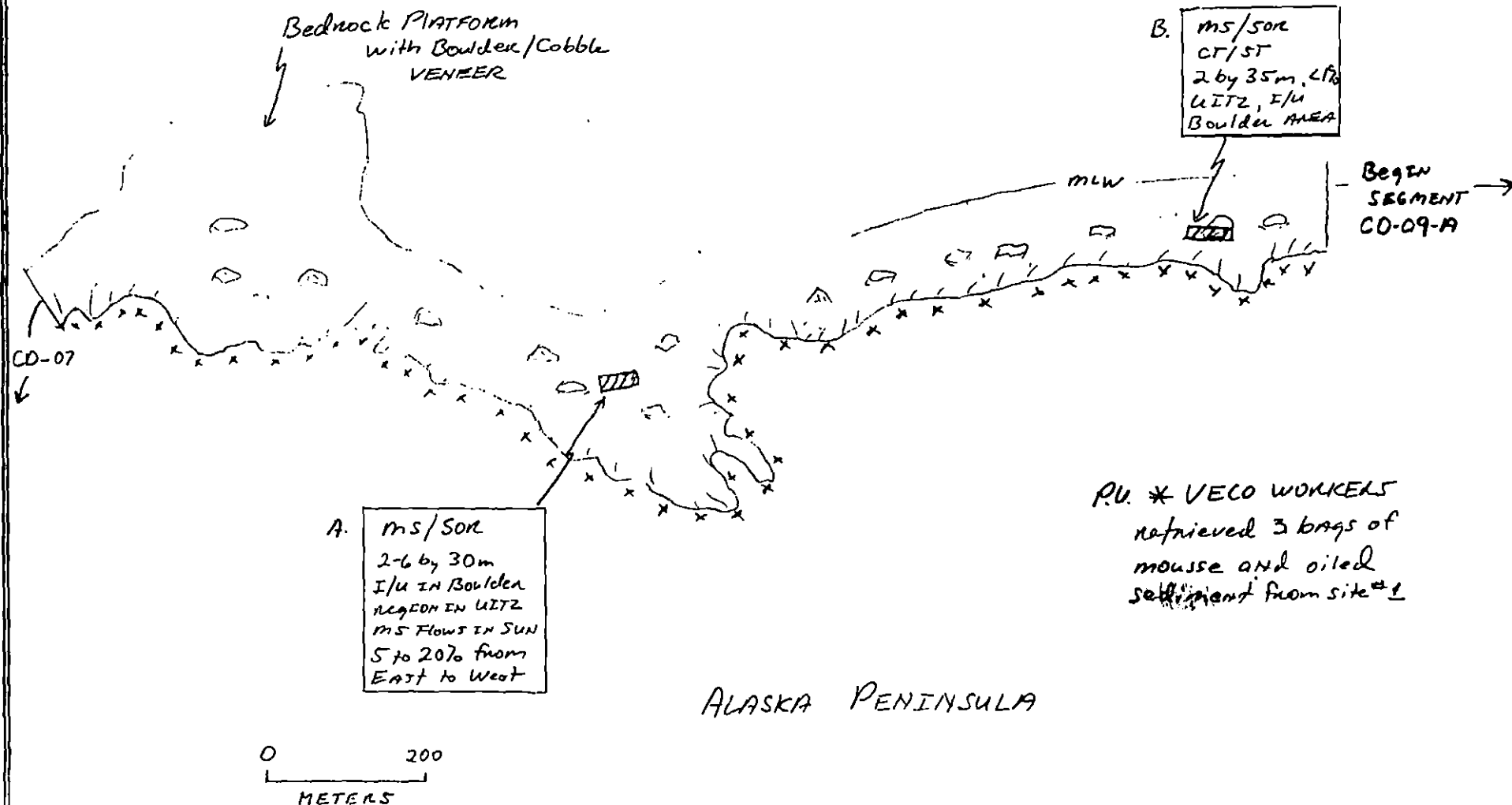
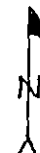
AK State Planning Zone, 4.
9099cd0000-

Reviewed S.269y



SKETCH MAP (06)
K09-01-CD-8-A
D. M. FITZGERALD
21 MAY 1991
1410 - 1545

SHELIKOF
STRAIT



P.U. * VECO WORKERS
retrieved 3 bags of
mousse and oiled
sediment from site #1

reviewed 5.26.94
Reviewed: MK 5/30/91

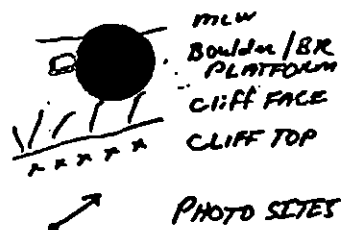
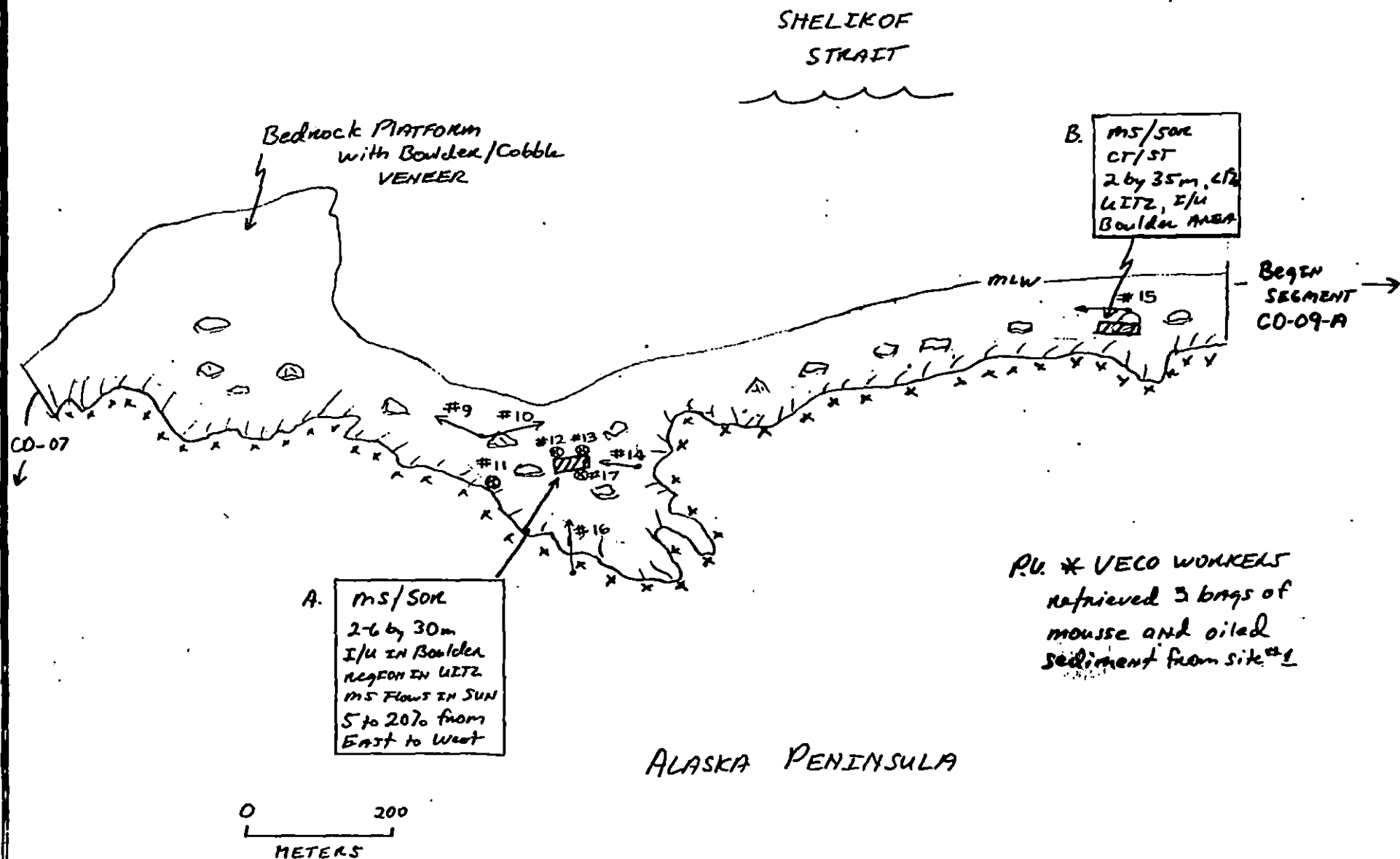


PHOTO SITES, CD-8A
ROLL 6-19, FRAMES 9 17

SKETCH MAP (06)
K09 CD-8-A
D. M. FITZGERALD
21 MAY 1991
1410-1545



MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 21 1991

SEGMENT # K9N-9 CD-8

TIDAL HEIGHT(Range) 3.2 to 0 ft (14:10 to 15:45)

SUBDIVISION A

BIOLOGIST H. Davis

SEA STATE Calm <1 ft

WIND SPEED/DIRECTION Very light breeze SKY NE

PHOTOGRAPHS: ROLL # 6-19

FRAME # 9-17

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

This segment is a irregular bedrock shoreline with boulders and cobbles on top. In the MITZ, littorines are the most common animals. There was very little algal drift. No amphipods visible and very few barnacles. In protected pools and crevices of the MITZ crustaceans Coralline, Nalichondria, Rhodomela, Nucella Blandula, pagurus, Notosquilla, scutum and Callinectes digitalis were common. Fuca was just beginning its spring growth and was very sparse.

Site A+B littorines and a very few barnacles are the only organisms found in this area. Shells in the debris line were mostly Mya arenaria and Saxidomus. Moderate numbers of littorines, barnacles, and limpets begin about 20 meters below the two sites.

Clean up in this area may be more disruptive than productive.

Greater Scaup (1/2) Surf Scoter (6) 1 dead sooty Shearwater (2 dead Kittiwakes sparrows (5) Oystercatchers (4) Harlequin (4) Cormorant sp (2) Kittiwakes (6) Glaucous-winged Gull (10)

WILDLIFE OBSERVATIONS

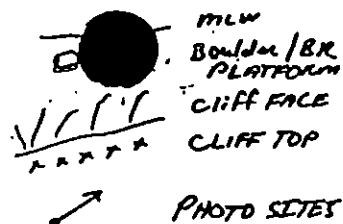
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	0		0
Seabirds	2	3 (1 dead Shearwater)	
Waterfowl	3	16	
Gulls/Kittiwakes	2	18 (2 dead Kittiwakes)	
Shorebirds	1	4	
Corvids	0	—	
Other Birds Sparrows	1	5	

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters		Bear tracks	
Pinnipeds (specify)			
Harbor Seal	2		
Wales (specify)			

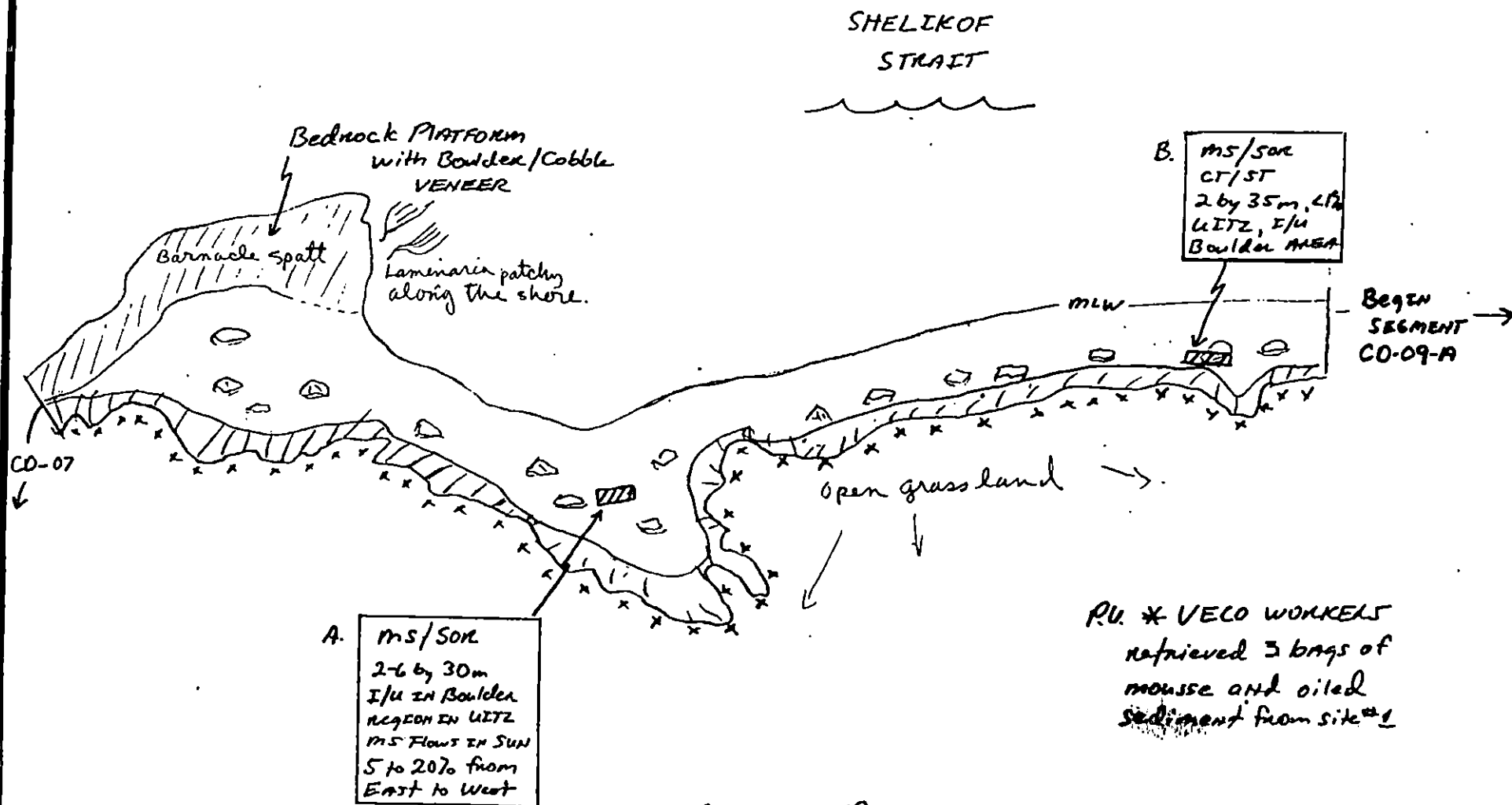
Shoreline subdivision map showing important biological features attached.

Reviewed: MC 5/30/91 Reviewed MB 5/30/91



Bio Map
H. Davis

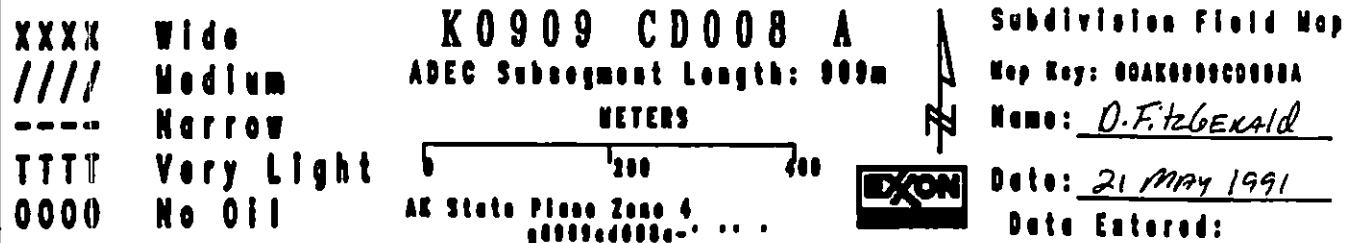
SKETCH MAP (OG)
K09-CD-8-A
O. M. FITZGERALD.
21 MAY 1991
1410-1545



ALASKA PENINSULA A+B

Little and a few barnacles are the only biota in the areas. Lower down in crevices and pools there is more diversity but not a great increase in density. A healthy biota considering the substrate and the exposure level.

Reviewed MS 5/30/91



Reviewed: MC 5/30/91
revised 5.26 99

REGION: KODIAK

SEGMENT: ST/K09-09-CD-09

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ K09-09-CD-09 SUBDIVISION A (1 OF 1) DATE 4/27/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Katmai National Park

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 Exxon's Cultural Resource Program immediately (564-3274 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 120 m: Narrow 142 m: V.Light 643 m: No Oil 0 m
Subsurface Oil Observed: Yes X No _____ Maximum Depth 10 cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes manual pickup of mousse
patties in areas indicated on sketch map. No specific working time
constraints.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

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

SEGMENT ST/ K09-09 SUBDIVISION: CD009A DATE 4/27/99NOAA
USCG

NAME

John Naughton

SIGNATURE

John J. Naughton☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

This segment mostly light oil with a few areas forward end, ^{with} medium patches of mousse. This area can be cleaned by manual removal - some of patches were at least 10cm deep. Recommend treatment in these few localized areas.

ADEC

NAME

Terry Ellsworth

SIGNATURE

Terry Ellsworth☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

Interstitial mousse/sediment occurs along most of the Segment with 6 more concentrated areas. I recommend manual removal of the mousse/sediment and oiled debris.

LAND MANAGER

NAME

Carl Schaub

SIGNATURE

Carl Schaub☒ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

Recoverable oil is mostly interstitial mousse and occasional mousse patties up to 1x1m. Segment should be walked by cleanup crew and recoverable oil removed. Oiled debris should also be removed. Oiled logs cannot be removed or burned.

OG Linosay Narashima USCG (NOMA) John Naughton SEGMENT ST/ 40909 - CD009
 BIO DEA Mc Cormick LAND REF (NPS) Carol Schoch SUBDIVISION CD009A 1 OF 1
 EXXON FRED AVARI ADEC TERRY ELLSWORTH TIME 8:33 to 9:25
 TEAM NO. 19 TIDE LEVEL +1.9 TO -2.0 FALLING DATE 4/27/90
 EST. SUBDIVISION LENGTH: 853 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock CLIFF YOU STAND AT TOP
 SURVEYED FROM: ☐ Foot ☐ Boat ☐ Helo WORKING DIRECTION: NORTH to South
 SURFACE SEDIMENTS: R 15 % B 70 % C 5 % P 5 % G 5 % S 0 % M 0 % V 0 %
 SLOPE: Long 70 % Hang 30 % Vert 0 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 130 m N 120 m VL 603 m NO 0 m

SURFACE OIL

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

PAVEMENT: H F S NONE sq. m by 0 cm

PATTIES / TARBALLS NONE 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 ..

NET

Photographs:

Roll No. ST-19-18

Frames 28-31

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR					PIT ZONE					AN A	SHEEN (Y/N)	↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	UC	1	2	3	4	5	SU	U	M	L	U				
1	5			X			0-3	X				X			X					N	N	-	B/C/P
2	5			X			0-5	X				X			X					N	N	-	B/C/P
3	15			X			0-10	X				X			X					N	N	-	B/C/P/G
							.																
							.																
							.																

COMMENTS

THE ENTIRE SEGMENT IS CHARACTERIZED BY OIL RANGING FROM VERY LIGHT, WHICH CONSISTS OF OCCASIONAL SPLASHES ON BOULDERS. NARROW TO MEDIUM CONCENTRATIONS EXIST AT 4 ELONGATED AREAS ALONG THE SEGMENT.

REVIEWED _____ DATE _____

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/77

Segment ST / K-9-9-2A-9 Subdivision A Date (mo / day / yr) 4-27-90Time (24 hr) 0830-0922 Biologist D. McCormick

- (A) Substrate type and % of segments:
 (1) Bedrock 15 (2) Boulder 70 (3) Cobble 5 (4) Pebble 10 (5) Sand 0 (6) Silt 0
- (B) Overall % cover of biota (% of segment): Dense 30% Moderate 50% Low 20%
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
Roll No. ST-19-18Frames 28-31

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: One eagle overhead - probably same individual observed on yesterday's survey. Littorines dominate intertidal community.

Ecological Considerations: No eagle nests, seabird colonies, or anascombs streams; therefore no ECO map is included in this report.

DATE 4-27-90 TIME 0830-0922 TIDE HEIGHT +1.9' ~ -2.0'

1 = BEDROCK 2=BOULDER 3=COBBLE 5=SAND 6=SILT

FLORA:

SPECIES	UTTZ	MITZ	LITZ	COMMENTS
BOSSIELLA/CORALLINA				
CALLIARTHRON/CORALLINA				
CLADOPHORA SPP				
COSTARIA SPP				
ENDOCLADIA MURICATA		2,3	1,2,3	
FILAMENTOUS GREENS			2,3	Cover in lower ITZ
FILAMENTOUS REDS				
GLOIOPELTIS FURCATA				
HALOSACCION GLANDIFORME		1		Intidal pool
LAMINARIA SPP			2,3	
LITHOTHAMNION		1		Intidal pools
NEREOCYSTIS SPP				
PORPHYRA SPP				
RALPHISIA/HILDENBRANDIA/R. ~~torresii~~				
RHODOMELA LARIX				
RHODOMENIA PALMATA		1,2		Intidal pools
SCYTOSIPHON SPP				
ULVA SPP				
ZOSTERA MARINA				
ENTEROMORPHA			2,3	Cover in LTIZ
Encrusting Pink		1,2		Intidal pools

FAUNA:

ANTHOPLEURA SPP				
(SEM) BALUNUS CARIOSUS		1,2		
B. GLANDULA		2,3		
BRYOZOANS				
CHITONS (other than K. TUNICATA)				
CLAMS				
CRABS				
DERMASTERIAS IMBRICATA				
KATHARINA TUNICATA				
LEPTASTERIAS HEXACTIS				
LIMPETS		2,3	2,3	
LITTORINA SPP	1,2	2,3		
NUCELLA SPP				
PAGURUS SPP				
PISASTER OCHRACEUS				
POLYCHAETES				
PYCNOPODIA HELIANTHOIDES				
SEARLESIA DIRA				
SERPULIDS				
SIPHONARIA THERSITES				
TEALIA				
Halichondria		1,2		Intidal pools

CD-

CD-10

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CD-9

ADEC Segment Length: 905m

0 100 200 300
METERS

Map Key: 60A-49

Name: LINOSAY NAKUSHIMA

Date: 4/27/90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ K09-09-CD-09 SUBDIVISION A (1 OF 1) DATE 4/27/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
Katmai National Park

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 Exxon's Cultural Resource Program immediately (564-3274 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Charles E. Holmes DATE: 5/14/90

OILING CATEGORIZATION:

Wide 0 m: Medium 120 m: Narrow 142 m: V. Light 643 m: No Oil 0 m
Subsurface Oil Observed: Yes X No Maximum Depth 10 cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes manual pickup of mousse
patties in areas indicated on sketch map. No specific working time
constraints.

TAG COMMENTS: BIOREMEDIATE AREAS OF COAST INDICATED ON SKETCH

TAG APPROVAL DATE: 5/12/90
ADEC ART WENGER
EXXON AMY TEAL
NOAA GARY PETROE
USCG D.D. ROME

FOSC: DATE: 5-18-90

SEGMENT K0909-CD009

SUBDIVISION CD00A

DATE 4/27/90

SKETCH MAP

CHECKLIST

- ☐ H Area
- ☐ Approx. Scale
- ☐ Sed/Sub. Body
- ☐ Oil Out
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. H/W/L/A/V/L
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PH Location(s)
- ☐ Photo Location(s)

LEGEND

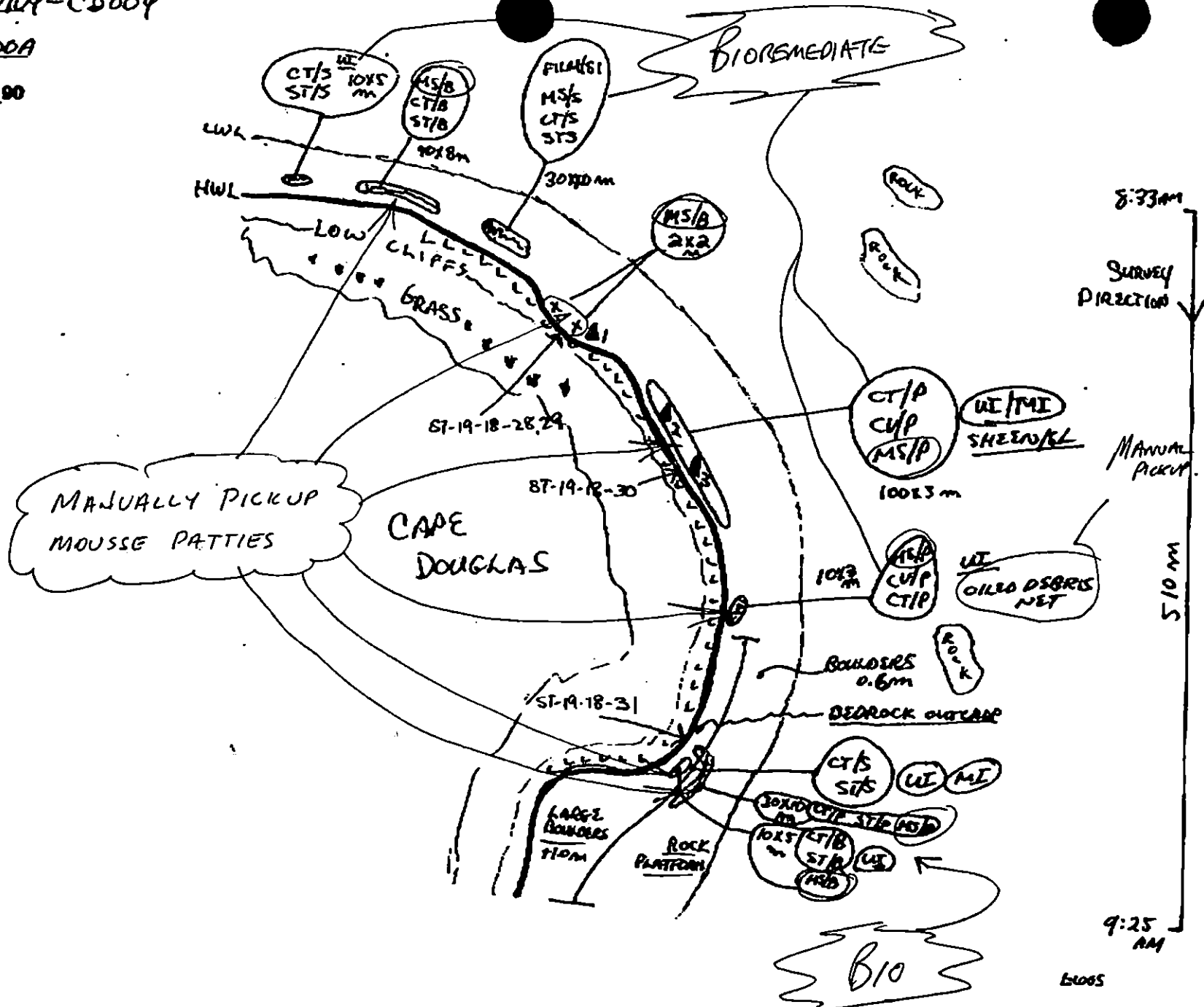
- 1 Δ
PR - No Subsurface Oil
- 2 Δ
PH - Subsurface Oil
- CT/C

Continuous Distribution
- CT/B

Broken Distribution
- CT/P

Patchy Distribution
- CT/S

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



Oil Character Length (m): AP 0 PO 0 CV 210 CT 500 ST 800 MS 285 PT 0 TB 0 FL 100 NO 0

CD-

CD-10

CD - 9

ADEC Segment Length: 905m

Map Key: GOA-49

Name: LINDSAY NAKASHIMA

Date: 4/27/90

METERS

Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K09-09-CD-009 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	CLOSED

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5R Seabird Colony

Closed to all activities; work site is less than 800m from seabird colony. Seabird colony location as per letter to Rex Coulter/Exxon from Walter Stieglitz/USFWS on 6/15/90.

OTHER ECOLOGICAL CONSIDERATIONS

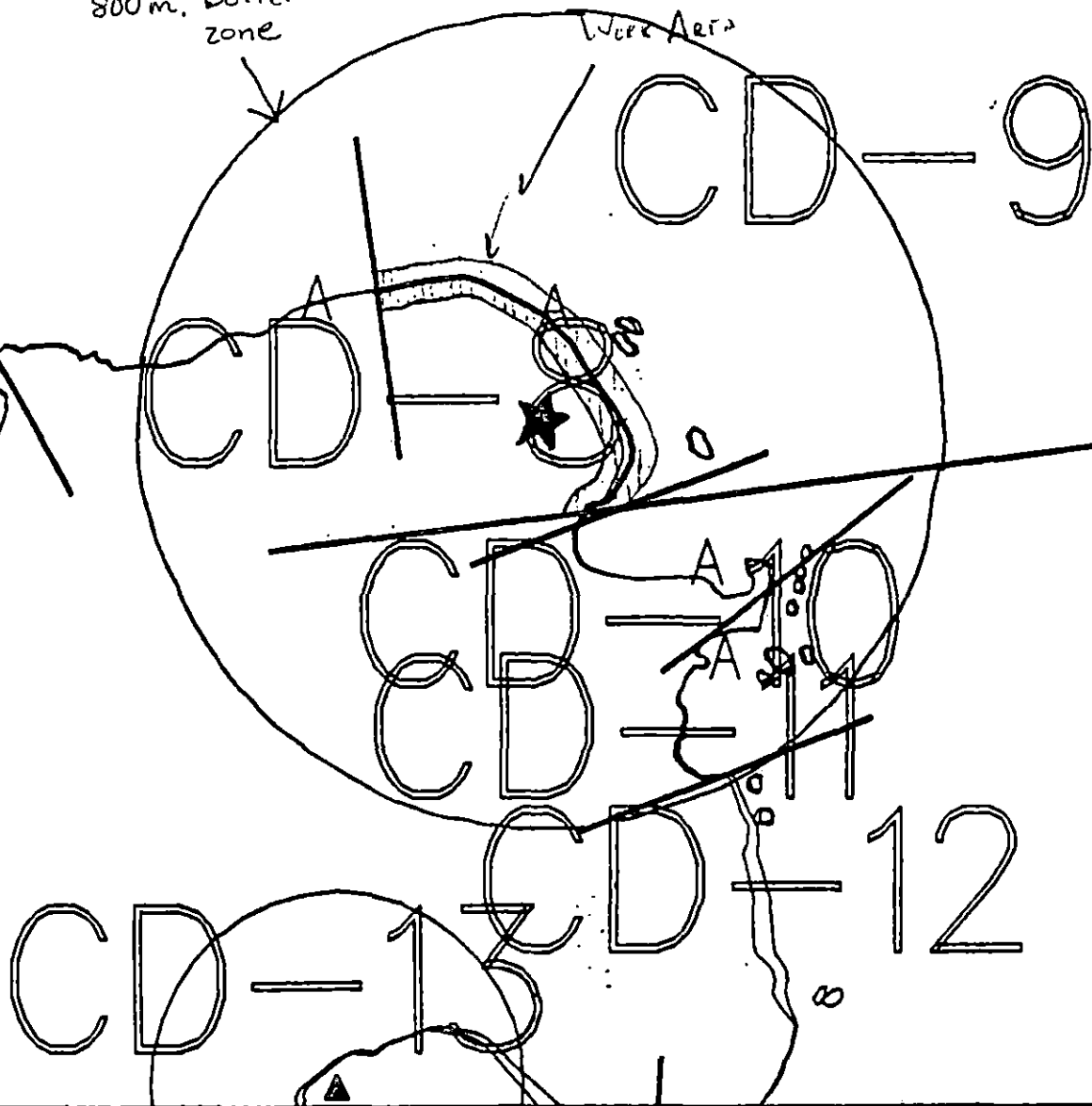
If seabird colony constraint is removed, other ecological considerations will apply.

FOSC [Signature] Date 6-22-90

Prepared by [Signature] Date 6/22/90

Seabird Colony
800 m. buffer zone

Work Area



TREATMENT



Exxon Company, USA
Map Key: AKP-CD-9
June 10, 1990



ECOLOGY MAP
SEGMENT K9N-9 CD-9
SUBDIVISION A (1 of 1)
METERS
0 500 700

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

1 inch = 1280 feet

WORK PLAN ADDENDUM

Segment K09-09-CD-009

Subdivision A

Dated 5/22/90

MODIFICATION

1. REASON FOR MODIFICATION

- FOSC Request
- Landowner comments

2. ADJUSTMENT TO WORK PLAN

- No bioremediation

SHPO APPROVAL NEEDED YES _____

SHPO SIGNATURE _____

NO X

TAG APPROVAL DATE 5/31/90.

ADEC Art Weiner Art Weiner

EXXON And Tarr Bl

NOAA Joseph Talbot

USCG G.A. Reiter G.A. REITER

FOSC

DATE _____

5/3/9

SHORELINE EVALUATION

SEGMENT ST/ K09-09-CD-09 SUBDIVISION A (1 OF 1) DATE 4/27/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
Katmai National Park

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3274 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Charles E. Adams

DATE: 5/14/90

OILING CATEGORIZATION:

Wide 0 m: Medium 120 m: Narrow 142 m: V.Light 643 m: No Oil 0 m
Subsurface Oil Observed: Yes X No Maximum Depth 10 cm

RECOMMENDATIONS:

 No Treatment Recommended
X Treatment Recommended
X 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 manual pickup of mousse
patties in areas indicated on sketch map. No specific working time
constraints.

SEE WORK PLAN ADDENDUM DATED
05/22/90 AND CONSTRAINT ADDENDUM
DATED 06/11/90 REL C.

TAG COMMENTS: BIOREMEDIATE AREAS OF COAST INDICATED ON SKETCH

TAG APPROVAL DATE: 5/12/90

ADEC Art Wagon
EXXON Art Wagon
NOAA Gary Petros
USCG D.D. Rome

FOSC: my L

DATE: 5-18-90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K09-09-CD-009 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

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

B. Zavarzhi

Date

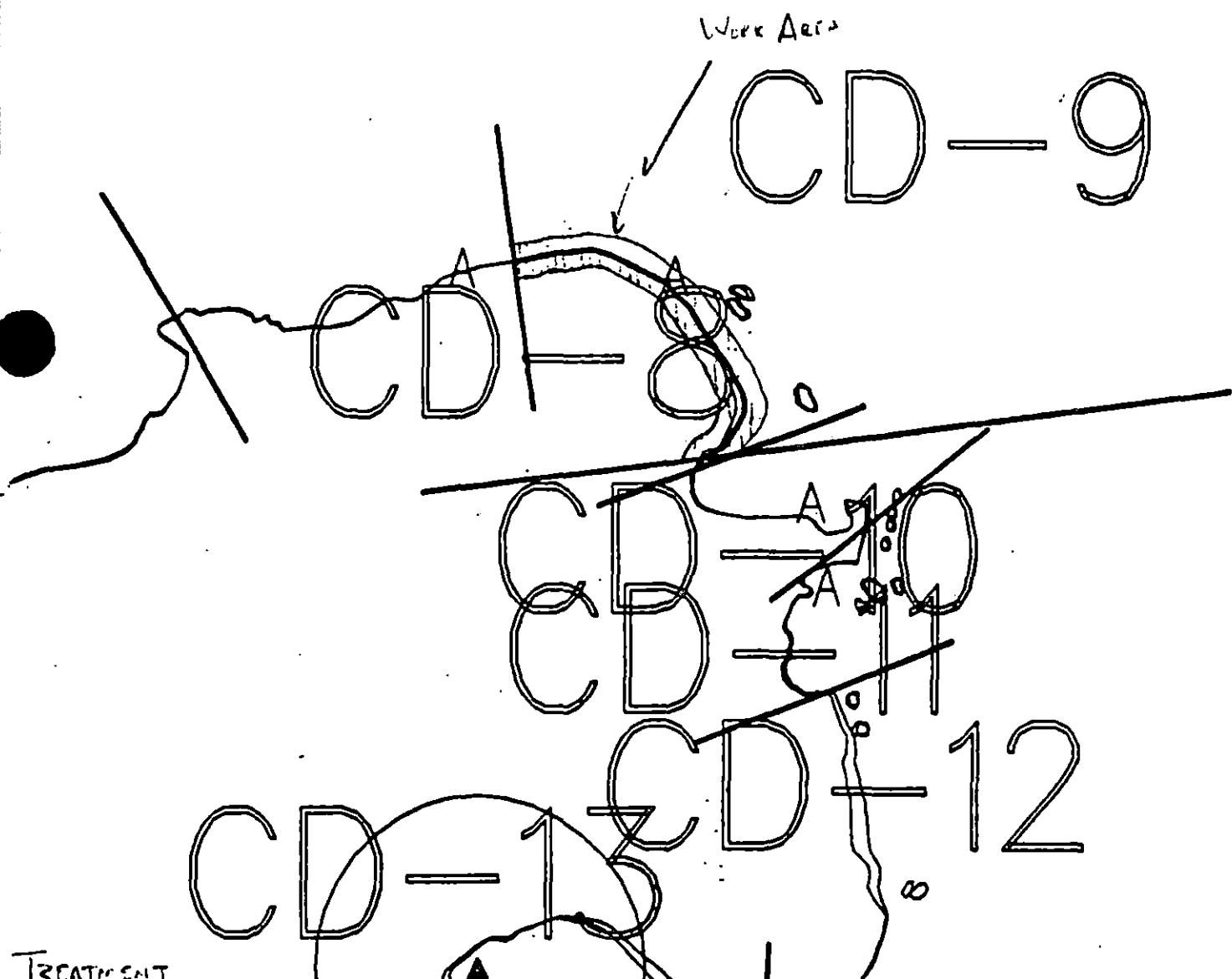
6/13/90

Prepared by

Ray D. Cantrell

Date

06/11/90



TREATMENT



Exxon Company, USA
Map Key: ACP-CD-9
June 10, 1990



ECOLOGY MAP
SEGMENT K9N-9 CD-9
SUBDIVISION A (1 of 1)
METERS
0 300 700

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

1 inch = 1280 feet

WORK PLAN ADDENDUM

Segment K09-09-CD-009

Subdivision A

Dated 5/22/90

MODIFICATION

1. REASON FOR MODIFICATION

- FOSC Request
- Landowner comments

2. ADJUSTMENT TO WORK PLAN

- **No bioremediation**

SHPO APPROVAL NEEDED YES _____

SHPO SIGNATURE _____

NO X

TAG APPROVAL DATE 5/31/20.

ADEC Art Wages Art Wages

EXXON High Gas Red

NOAA Joseph Talbot, Clerk

USCG G.A. Duter G.A. HEITER

FOSC 8/20/90 DATE 8/2/90

SHORELINE EVALUATION

SEGMENT ST/ K09-09-CD-09 SUBDIVISION A (1 OF 1) DATE 4/27/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
 Katmai National Park

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3274 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: [Signature] DATE: 5/14/90

OILING CATEGORIZATION:

Wide 0 m: Medium 120 m: Narrow 142 m: V.Light 643 m: No Oil 0 m
 Subsurface Oil Observed: Yes X No Maximum Depth 10 cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes manual pickup of mousse
patties in areas indicated on sketch map. No specific working time
constraints.
SEE WORK PLAN ADDENDUM DATED
05/22/90 AND CONSTRAINT ADDENDUM
DATED 06/11/90 Rev C.

TAG COMMENTS: BIOREMEDIATE AREAS OF COAST INDICATED ON SKETCH

TAG APPROVAL DATE: 5/12/90
 ADEC [Signature]
 EXXON [Signature]
 NOAA [Signature]
 USCG [Signature]

FOSC: [Signature] DATE: 5-18-90

WORK PLAN ADDENDUM

Segment K09-09-CD-009

Subdivision A

Dated 5/22/90

MODIFICATION

1. REASON FOR MODIFICATION

- FOSC Request
- Landowner comments

2. ADJUSTMENT TO WORK PLAN

- No bioremediation

SHPO APPROVAL NEEDED YES _____ SHPO SIGNATURE _____
NO X

TAG APPROVAL DATE 5/31/90.

ADEC Art Weiner Art Weiner

EXXON Andy Ten Andy Ten

NOAA Joseph Talbot Joe Talbot

USCG G.A. Reiter G.A. REITER

FOSC [Signature] DATE 5/31/90

SHORELINE EVALUATION

SEGMENT ST/ K09-09-CD-09 SUBDIVISION A (1 OF 1) DATE 4/27/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
Katmai National Park

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 Exxon's Cultural Resource Program immediately (564-3274 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Charles E. Holmes

DATE: 5/14/90

OILING CATEGORIZATION:

Wide 0 m: Medium 120 m: Narrow 142 m: V.Light 643 m: No Oil 0 m
Subsurface Oil Observed: Yes X No Maximum Depth 10 cm

RECOMMENDATIONS:

 No Treatment Recommended
 X Treatment Recommended
 X Manual Pickup
 X Bioremediation By 5/21/90
 Tarmat Removal

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

COMMENTS: Recommended treatment includes manual pickup of mousse
patties in areas indicated on sketch map. No specific working time
constraints.

TAG COMMENTS: BIOREMEDIATE AREAS OF COAST INDICATED ON SKETCH

TAG APPROVAL DATE: 5/12/90

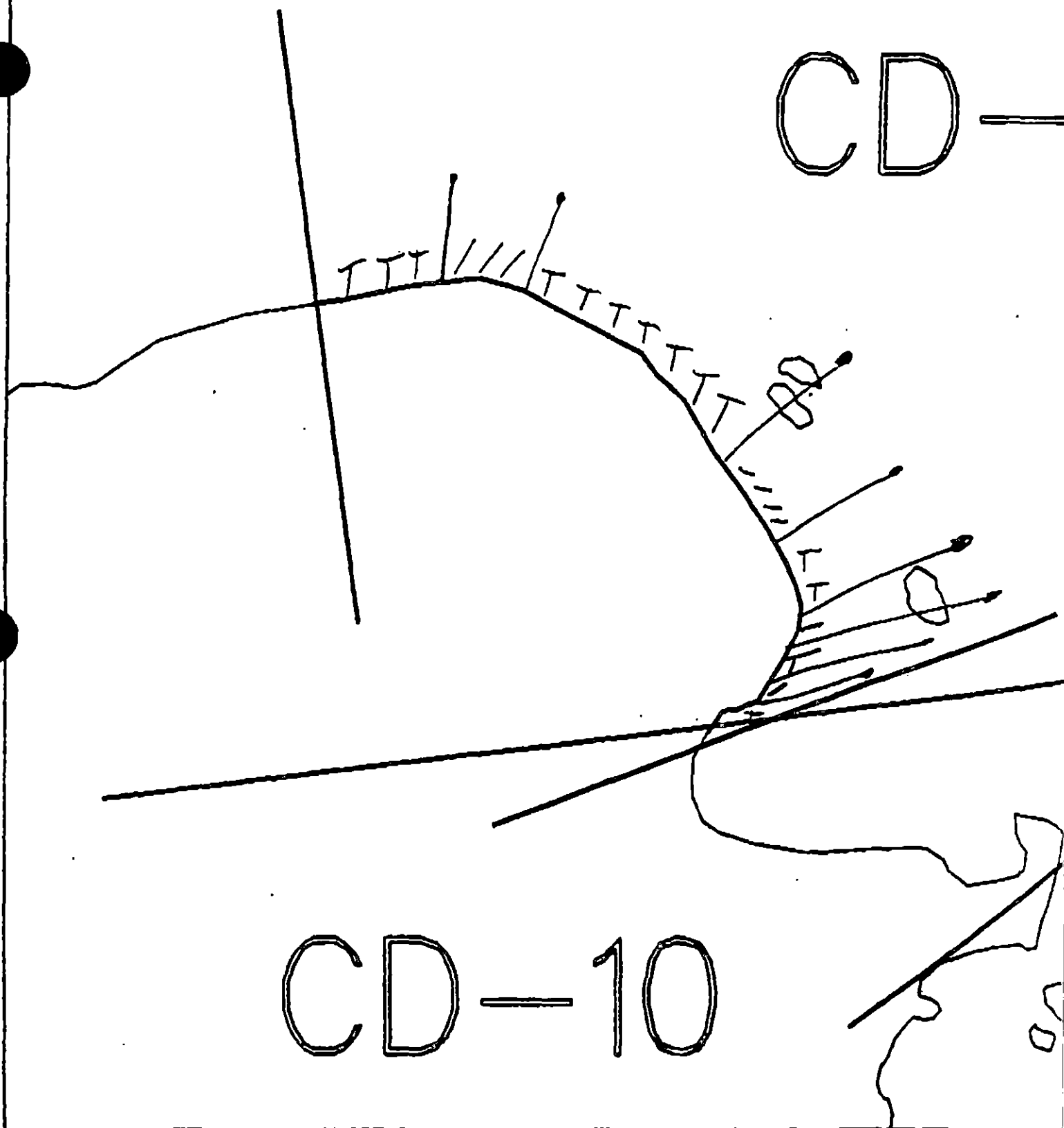
ADEC Art Wenzel
EXXON Ann Tish
NOAA Gary Petros
USCG D.D. Rome

FOSC: W L

DATE: 5-18-90

Oil Character Length (in): AP 0 PO 0 CV 210 CT 500 ST 800 MS 285 PT 0 TB 0 FL 100 NO 0

CD-



CD-10

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CD-9

ADEC Segment Length: 905m



Map Key: 60A-49

Name: LINDSAY NAKASHIMA

Date: 4/27/90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ K9-10-CD-10 SUBDIVISION A (1 OF 1) DATE 4/27/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

4LL Katmai National Park

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: 5/11/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 11 m: V.Light 267 m: No Oil 366 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes manual pickup of oiled vegetation and mousse patties in areas indicated on sketch map. No specific time constraints identified.

TAG COMMENTS:

TAG APPROVAL DATE: 5/11/90

ADEC Art Weiler

EXXON Andy Teal

NOAA Joseph Talbot

USCG D.D. Rome

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

SEGMENT ST/ ~~X0943~~ - CDO10

SUBDIVIS ~~CDO10A~~

DATE 4/27/90

CHECKLIST

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

LEGEND

1 Δ

PH - No Subsurface Oil

2 Δ

PH - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

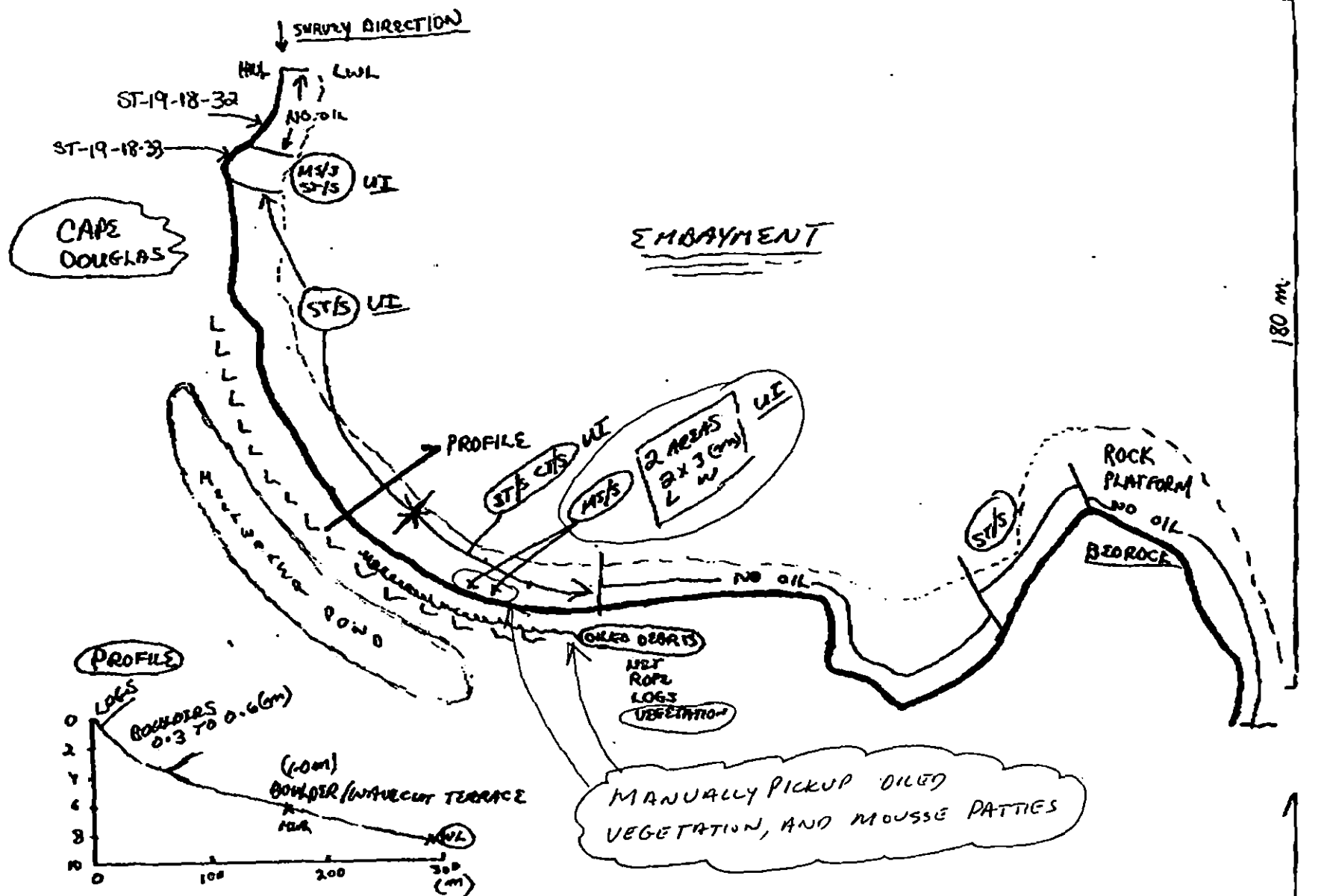
Patchy Distribution

CT/S

Splashed Distribution

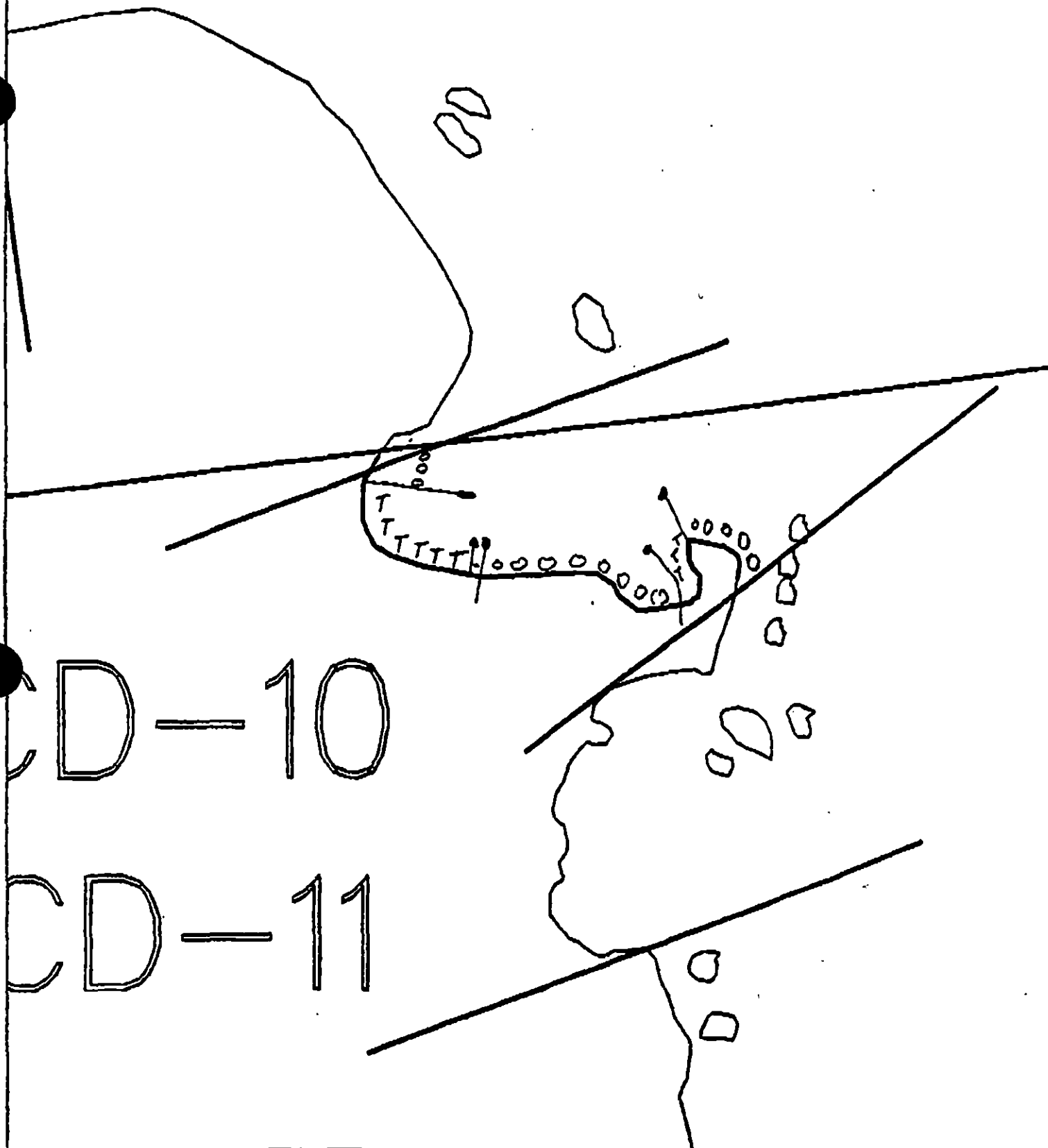
Oil Vegetation

1 ●→
Photo location, direction,
and number



Oil Character Length (m): AP 0 PO 0 CV 0 CT 140 ST 258 MS 4 PT 0 TB 0 FL 0 NO 386

L = LOGS N



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

OOOO No Oil

CD-10

ADEC Segment Length: 644m



Map Key: GOA-30

Name: LINDSAY NAKASHIMA

Date: 4/27/90

Date Entered:

REGION: KODIAK

SEGMENT: ST/K9-10-CD-10

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ K9-10-CD-10 SUBDIVISION A (1 OF 1) DATE 4/27/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

4LL Katmai National Park

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 11 m: V.Light 267 m: No Oil 366 m
Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes manual pickup of oiled vegetation and mousse patties in areas indicated on sketch map. No specific time constraints identified.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

KODIAK ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K29-10 SUBDIVISION: C0210A DATE 4/27/90NOAA
USCG
NAME

John Naughton

SIGNATURE

John J. Naughton

☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

This area has only very light oil. Recommend no treatment. (Found life ring here from missing F/V Jaus).

ADEC

NAME

Terry Ellsworth

SIGNATURE

Terry Ellsworth

☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

I concur with the National Park Services conclusions, and recommend that manual removal be used in these areas.

LAND MANAGER

NAME

Carl Sebech

SIGNATURE

Carl Sebech

☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

All oiled debris should be removed from storm berm area. Oiled logs can remain.

Recoverable mouse from the 2 - 2x3 m areas of broken cover and patties should be removed.

OG LINGENY NANTSHIMA USCG (NOAA) JOHN NAUGHTON SEGMENT ST. K0909 - CDO10
 BIO DEB MCCORMICK LAND REP (NPS) CARL SCHUCH SUBDIVISION CDO10A - 10FL
 EXXON ERID AVARS ADEC TERRY ELLSWORTH TIME 9:30 to 10:00 AM
 TEAM NO. 19 TIDE LEVEL -2.7 TO -3.1 FALLING DATE 4/27/90
 EST. SUBDIVISION LENGTH: 644 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: WEST to EAST
 SURFACE SEDIMENTS: A 50 % B 30 % C 10 % P 5 % G 3 % S 2 % M 0 % V 0
 SLOPE: Long % Hang % Vert 5 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 4 m VL 254 m NO 386 =

SURFACE OIL

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

PAVEMENT H F S NONE sq. m by 0 =

PATTIES / TARBALLS NONE BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

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

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒

TYPE

#BAGS

Photographs:

Roll No. ST-19-18

Frames 32-33

SUBSURFACE OIL NO PITS - MOSTLY BEDROCK/BOULDER

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (Y/N)	▽	SURFACE SUBSURFACE SEDIMENTS
		OP	OR	OL	CP	NO		UO	UE	1	2	3	4	5	SU	U	M	L				

COMMENTS

R2-ENTRANT IS COMPOSED MAINLY OF BEDROCK AND BOULDERS WHICH HAVE VERY SPORADIC SPLASHES OF STAIN WITH SOME COAT. OILED DEBRIS/LOGS AND 2. AREAS OF MOUSSE HAVE ACCUMULATED IN THE SOUTHWEST PORTION OF THE EMBAYMENT - THIS AREA FRONTS A MELTWATER/LAGOON WATERBODY.

REVIEWED BAF DATE 30 Apr 90

SEGMENT STI ~~X09A~~ - CDO10

SUBDIVIS ~~CDO10A~~

DATE 4/27/90

CHECKLIST

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

LEGEND

1 Δ

PI - No Subsurface Oil

2 Δ

PI - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

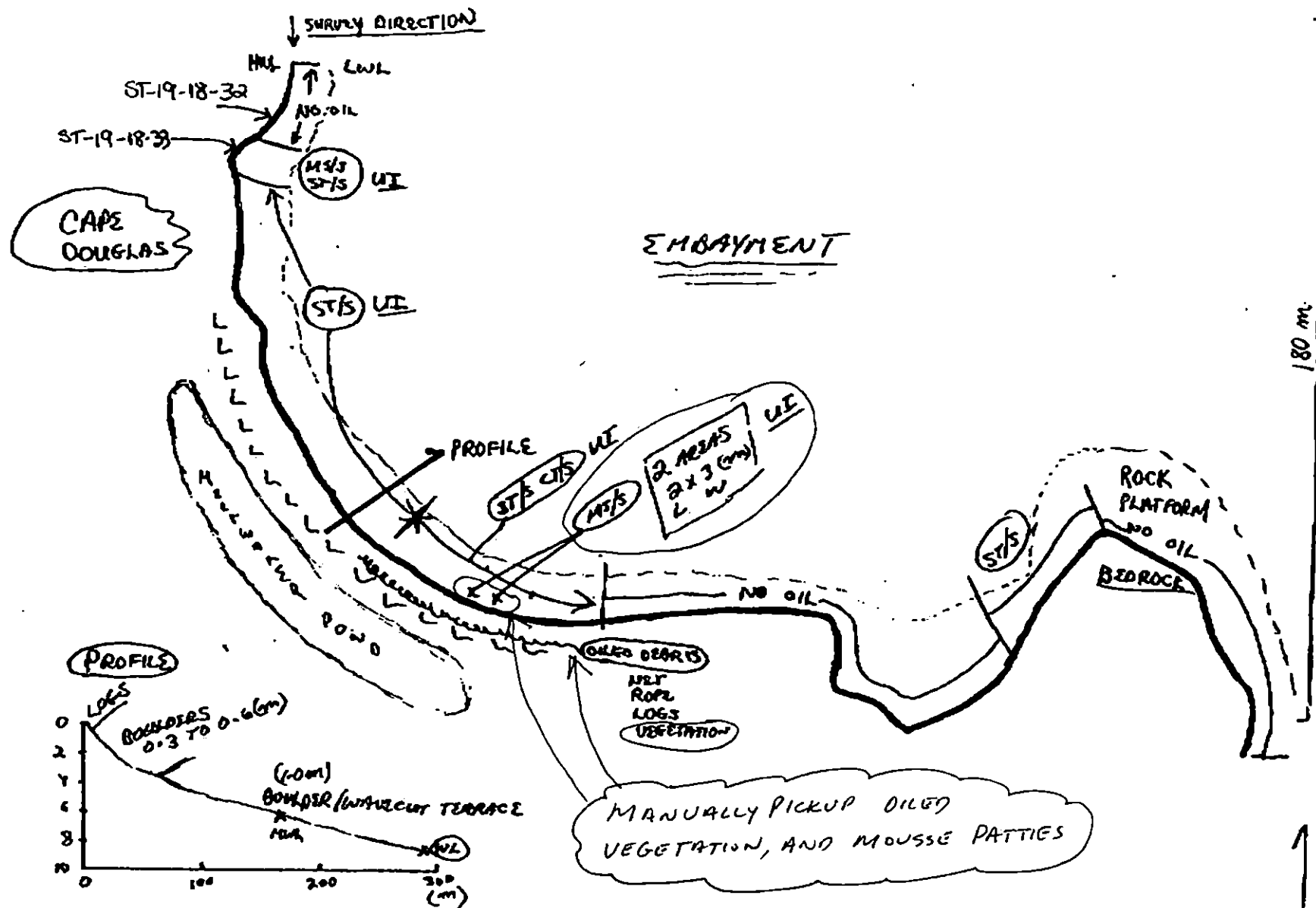
CT/S

Splashed Distribution

Oil Vegetation

1 ●

Photo location, direction, and number



Oil Character Length (m): AP 0 PO 0 CV 0 CT 140 ST 258 MS 4 PT 0 TB 0 FL 0 NO 386

L = LOGS
N

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03.

Segment ST/K-9-10 - CN-10 Subdivision A Date (mo / day / yr) 4-27-90

Time (24 hr) 0925-1000 Biologist D. McCormick

(A) Substrate type and % of segments:
(1) Bedrock 50 (2) Boulder 30 (3) Cobble 10 (4) Pebble 8 (5) Sand 2 (6) Silt

(B) Overall % cover of biota (% of segment): Dense 15% Moderate 35% Low 50%

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

Photographs:
Roll No. ST-19-18

Frames 32-33

BARNACLES

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

NOT PRESE!

MYTILUS

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

NOT PRESE!

GASTROPODS

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

NOT PRESE!

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	XU	1M	1L	XU	1M	1L	1U	1M	1L
2	2	2	2	2	X	2	X	X	2	2	2
3	3	3	3	3	X	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 PRESE!

Wildlife Observations/ General Comments: No birds or marine mammals observed.
Littorines dominate intertidal community.

Ecological Considerations: No anadromous streams, eagles nests, or seabird colonies.
Therefore, no ECO map is included in this report.

DATE 4-27-90 TIME 0925-1000 TIDE HEIGHT -2.7' ~ -3.1'

1 = BEDROCK 2 = BOULDER 3 = COBBLE 5 = SAND 6 = SILT

SPECIES	UTTZ	MITZ	LITZ	COMMENTS
BOSSIELLA/CORALLINA				
CALLIARTHRON/CORALLINA				
CLADOPHORA SPP				
COSTARIA SPP				
ENDOCLADIA MURICATA				
FILAMENTOUS GREENS			2,3	Dominant in ITZ
FILAMENTOUS REDS			2,3	" "
GLOIOPELTIS FURCATA				
HALOSACCION GLANDIFORME		2,3		Intertidal pools
LAMINARIA SPP				
LITHOTHAMNION				
NEREOCYSTIS SPP				
PORPHYRA SPP				
RALISIA/HILDENBRANDIA <i>R. medea</i>				
RHODOMELA LARIX	1			In tidal pools
RHODOMENIA PALMATA				
SCYTOSIPHON SPP				
ULVA SPP				
ZOSTERA MARINA				
ENTOMORPHA		2,3	2,3	Dominant in M-L ITZ
<i>Verucaria</i>	1,2			
<i>Fucosating pink</i>	1			Intertidal pools
ANTHOPLEURA SPP				
(SEMI) BALUNUS CARIOSUS		2		
B. GLANDULA	1,2	2,3		Spot in ITZ, beneath crinoids
BRYOZOANS				
CHITONS (other than K. TUNICATA)				
CLAMS				
CRABS				
DERMASTRIAS IMBRICATA				
KATHARINA TUNICATA				
LEPTASTERIAS HEXACTIS				
LIMPETS	1	2,3,4		
LITTORINA SPP	1	2,3		
NUCELLA SPP		2,3		
PAGURUS SPP		1,5		
PISASTER OCHRACEUS				
POLYCHAETES				
PYCNOPODIA HELIANTHOIDES				
SEARLESIA DIRA				
SERPULIDS				
SIPHONARIA THERSITES				
TEALIA				

FLORA:

FAUNA:

CD-10

CD-11

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CD-10

ADEC Segment Length: 644m



Map Key: GOA-30

Name: LINDSAY NAKASHIMI

Date: 4/27/90

Data Entered:

1991 MAYSAP EVALUATION

SEGMENT: K0910CD010 **SUB:** A **REGION:** KOD **SURVEY DATE:** 5/21/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) OPEN

Ecological/Constraints (see page two for details) NONE

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 _____

ADECNAME J. BARNHART, ADECSIGNATURE Jeff Barnhart

- ☒ NTR 20m long x 2m wide band of mousse/pooled mousse located around/under, cobble/boulder. Most of the ms was covered with a thin veneer of sand/pebble. Mousse "bleeding" through veneer. <4% oil within band. However, small areas of .5m², exhibited 90-100% oil coverage. Veco crew removed approx 60 pounds of oil. Trace oil remains, heavy in spots. The second site 10m long x 2m wide consists of CT, ST, SOR in trace quantities.

EXXONNAME R. HARRELSON, EXXON

SIGNATURE _____

- ☐ NTR

see next page

LANDMANAGERNAME E. BENNISOF NPSSIGNATURE Francine

- ☒ NTR

Oil exists in a band 2-3m wide x 20m long as mousse patches + pooled mousse, ST, CT, SOR. Oil was "bleeding" in the sun, oozing from the bases of boulders. Veco workers removed approximately 60# of oil from the beach. Small amounts of oil persists as ms, ST, CT, CV, SOR here. There is a 2 x 10m of ST, CT, + SOR to the north of this area.

USCG/NOAANAME CWO R. SPURR, SHIGENAKASIGNATURE R.P. Spurr / Gary Shigenaka

- ☒ NTR

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

SURVEYED PORTION OF THE SEGMENT WAS A SECTION OF BEACH NEAR THE HEAD OF AN EASTERLY-FACING EMBAYMENT. THE BEACH WAS CHARACTERIZED BY LARGE COBBLE AND BOULDERS. ABOVE THE BEACH TO THE WEST, A LARGE LAGOON IS LOCATED, AND LOGJAM-RESTRICTED RUNOFF FLOWS TO THE EAST ACROSS THE WESTERN END OF THE BEACH. A SECTION OF THE BOULDER BEACH LYING ON THE SOUTHWEST SIDE OF THE SEGMENT WAS FOUND TO CONTAIN OIL IN THE FORM OF MOUSSE BETWEEN AND UNDER BOULDERS IN THE UIZ. DIMENSIONS OF THE PATCH WAS ESTIMATED TO BE 3m x 20m. THE VECO CREW WORKED THE AREA AND REMOVED AS MUCH MATERIAL AS POSSIBLE. THE ONLY OTHER OILING OBSERVED WAS IN THE FORM OF OCCASIONAL SPLATTERS OF TAR ON COBBLE/BOULDER SUBSTRATE ON THE NORTHWEST SIDE OF THE BEACH.

ADECNAME T. BARNHART, ADECSIGNATURE Jeff Barnhart

NTR 20m long x 2m wide band of mousse/pooled mousse located around/under, cobble/boulder. Most of the ms was covered with a thin veneer of sand/pebble. Mousse "bleeding" through veneer. 64% oil within band. However, small areas of 15m² exhibited 90-100% oil coverage. VECO crew removed approx 60 pounds of oil. Trace oil remains, heavy in spots. The second site 10m long x 2m wide consists of CT, ST, SOL in trace quantities.

EXXONNAME R. HARRELSON, EXXONSIGNATURE R. C. Harrelson

☒ NTR Further treatment of this segment is not recommended.

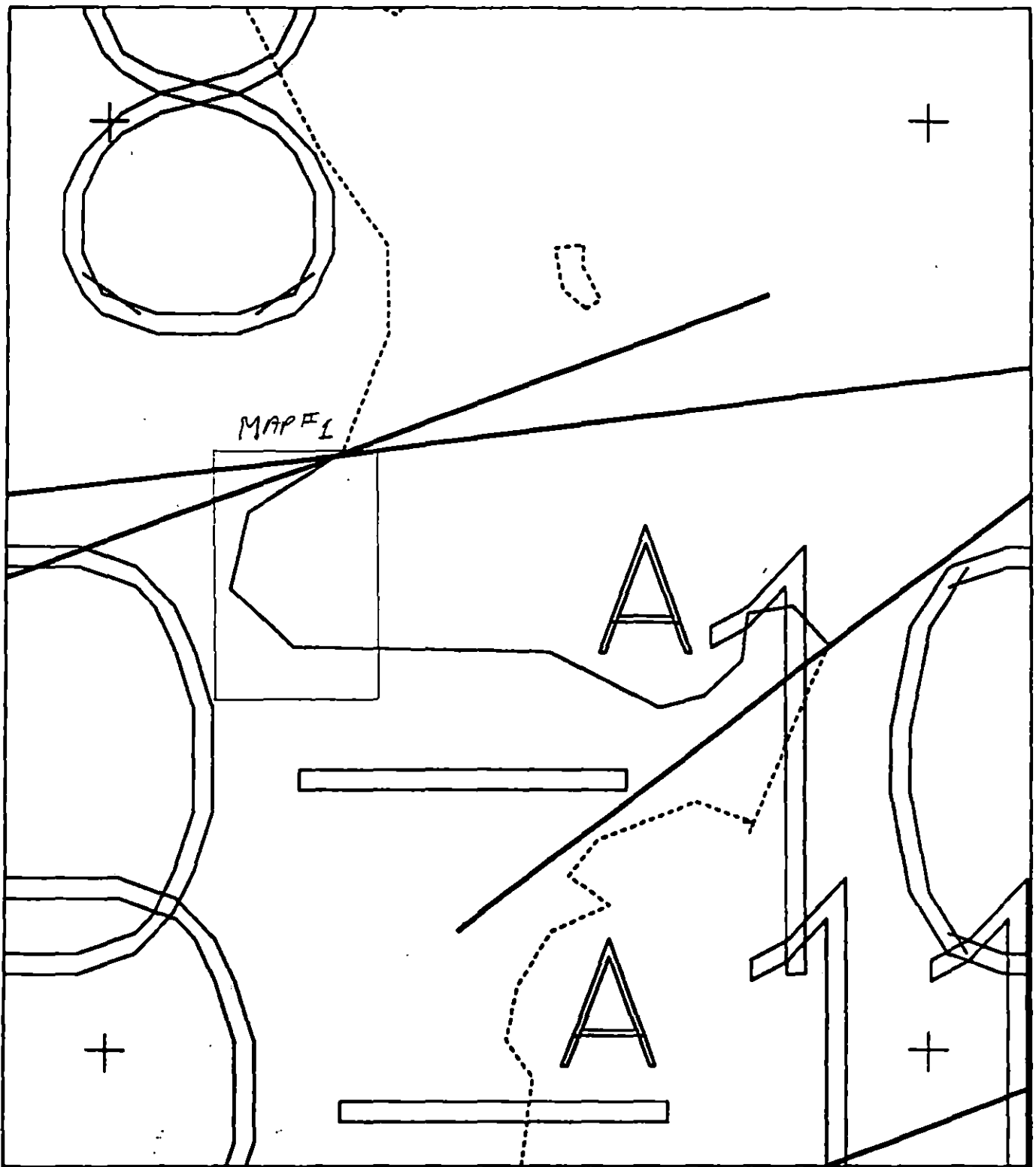
WILDMANAGERNAME F. BENNISOF NDSSIGNATURE F. Bennis☒ NTR

Oil exists in a band 2-3m wide x 20m long as mousse patches & pooled mousse, ST, CT, SOL. Oil was "bleeding" in the sun, oozing from the bases of boulders. VECO workers removed approximately 60% of oil from the beach. Small amounts of oil persists as ms, ST, CT, CV, SOL here. There is a 2 x 10 m of ST, CT, & SOL to the north of this area.

USCG/NOAANAME CWO R. SPURGEON, SHIGENAKASIGNATURE R. Spurgeon☒ NTR

Cleanup measures would be excessively costly in view of other magnificent contribution to minimizing a threat to public health or the environment.

SURVEYED PORTION OF THE SEGMENT WAS A SECTION OF BEACH NEAR THE HEAD OF AN EASTERLY-FACING ENDEMENT. THE BEACH WAS CHARACTERIZED BY LARGE COBBLE AND BOULDERS. ABOVE THE BEACH TO THE WEST, A LARGE LAGOON IS LOCATED, AND LOGJAM-RESTRICTED RUNOFF FLOWS TO THE EAST ACROSS THE WESTERN END OF THE BEACH. A SECTION OF THE BOULDER BEACH LYING ON THE SOUTHWEST SIDE OF THE SEGMENT WAS FOUND TO CONTAIN OIL IN THE FORM OF MOUSSE BETWEEN AND UNDER BOULDERS IN THE UNIT. DIMENSIONS OF THE OIL WAS ESTIMATED TO BE 3m x 20m. THE VECO CREW WORKED THE AREA AND REMOVED AS MUCH MATERIAL AS POSSIBLE. THE ONLY OTHER OILING OBSERVED WAS IN THE FORM OF OCCASIONAL SPLATTERS OF TAR ON COBBLE/ROCK SUBSTRATE ON THE NORTHWEST SIDE OF THE BEACH.



MAPPEL

A

A



K0910 CD010 A

METERS



AS SHOWN PLANS, ZONE 4.

Subdivision Field Map

Map Key: 60AK0010CD010A

Name: D. FITZGERALD

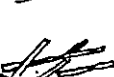
Date: 21 MAY 1991

reviewed 526 97

GRASSY AREA



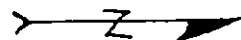
Rock Cliff



Driftwood Pile



PHOTO SITES



Sketch MAP (OG)

109-10-CD-10-A

D. M. FITZGERALD

21 MAY 1991

1300 - 1355

CAPE DOUGLAS

P.U. * VECO WORKERS PICKED UP 1 BAG OF OILED SEDIMENT

A. MS/SOK
3 by 20 m, 1-270
MOUSSE IN LITZ
I/U AT Boulder
ZONE. Oil Flaming
IN HOT SUN.

POND

COBBLE RIDGE

ROUNDED
BOULDERS

MLW

B. ST/CT
2 by 10 m, 170
ON BR + B

Embayment

Bedrock
FACE

Rock Cliff

LARGE
BOULDERS

A.



Rock Cliff

Oiled
ZONE

B.

MHW

Boulder
Slope

MLW

0 25
METERS

SHELIKOF
STRAIT

Reviewed: MC 5/31/91

reviewed 5.26.91

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Help

DATE May 21 1991

SEGMENT # K9N-10 CD-10

TIDAL HEIGHT (Range) 4.0 ft to 3 ft (1300-1400)

SUBDIVISION A

BIOLOGIST H. Davis

SEA STATE <1 ft calm

WIND SPEED/DIRECTION 10-5 kt Light Breeze

PHOTOGRAPHS: ROLL # 6-19

FRAME # 5-8

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

Site A is on a boulder slope below a cliff on the south side of a small embayment. The dominant species in the bay is Littorina sp. Kelp flies amphipods and encyrtids were on what little drift had been trapped in crevices. Barnacles (*B. glandulosa* and some *B. coriacea*) are present on protected rock surfaces.

Site B has fewer Littorina and almost no detritus. *Verrucaria* grows on the tops of the rocks along with the lichens *Xanthoria candelaria* and *Physcia caesia*. Some of the stem on the *Verrucaria* has worn off leaving behind a negative image.

Lower down at both sites were Barnacles, *Mytilus*, a few small *Modiolus*, *Fucus*, *Halosaccion*, Coralline crust, *Nucella* and *Pagurus* spp. Filamentous green algae was the most visible algae. *Nucella*, *Littorina*, and unidentified snail egg cases/masses were found under rocks, along with amphipods and nemertean worms.

The biota in this area has a low density but is healthy.

Glaucous-winged Gulls (10) Kittiwakes (5) 1 dead Sooty Shearwater
White wing scoter (2) Tufted puffins (2) Harlequin (5) American Pipits (2)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

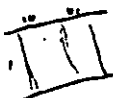
BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	0		0
Seabirds	1	2	
Waterfowl	2	7	
Gulls/Kittiwakes	2	15	
Shorebirds	1	2	
Corvids			
Other Birds			

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	0	0	
Pinnipeds (specify)			
Harbor Seals	2		
les (specify)	0		

Shoreline subdivision map showing important biological features attached.

Reviewed M.B. 5/30/91

V V GRASSY AREA



Rock Cliff



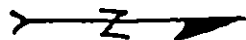
Driftwood Pile



PHOTO SITES

Bio map
N. Davis

Sketch MAP (OG)
K09-10-CD-10-A
D. M. FITZGERALD
21 MAY 1991
1300 - 1355

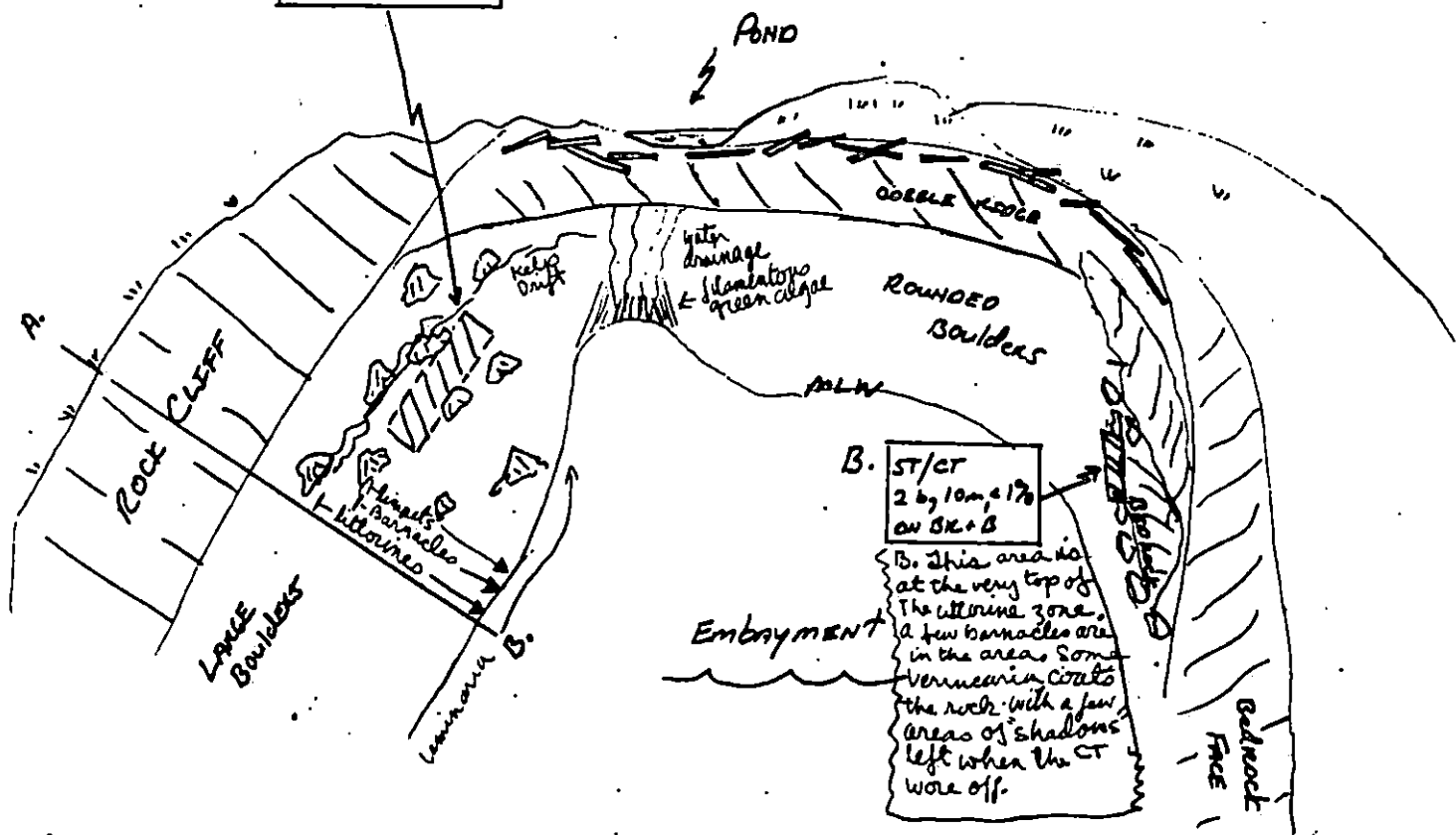


CAPE DOUGLAS

A. MS/SOC
3 by 20 m, 1-2%
MOUSE IN LITZ
I/U AT Boulder
ZONE. Oil Flaming
EN HOT SUN.

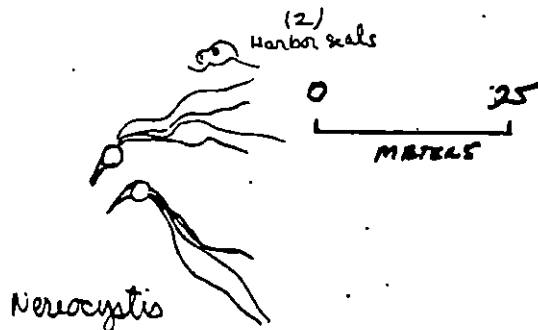
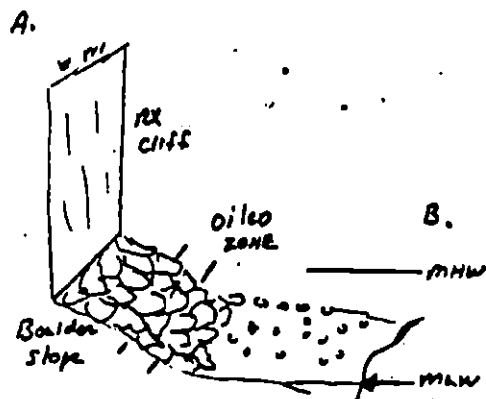
A. In and below the area, Littorina was the most common animal. Keep this amphipods and anellids are active on detritus stuck in pockets in the area. Some limpets and Barnacles are in crevices at the lower side of the area. lower down is a moderate biota with little diversity.

RU * VECO WORKERS PICKED
UP 1 BAG OF OILED
SEDIMENT



B. ST/CT
2 by 10 m, 1%
ON SK + B

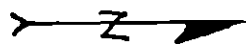
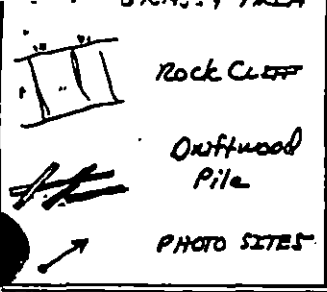
B. This area is at the very top of the Littorina zone. a few barnacles are in the area. Some Vermetaria corals the rock with a few areas of shadows left when the CT wore off.



SHELROF
STRAIT

Reviewed M.B. 5/30/91

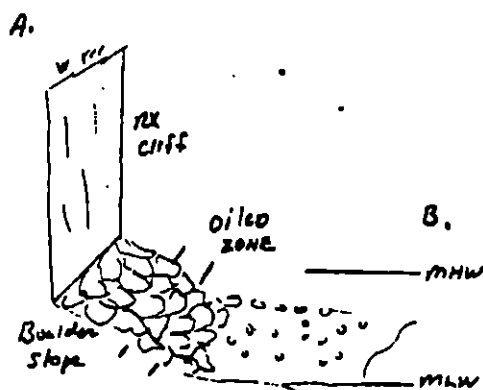
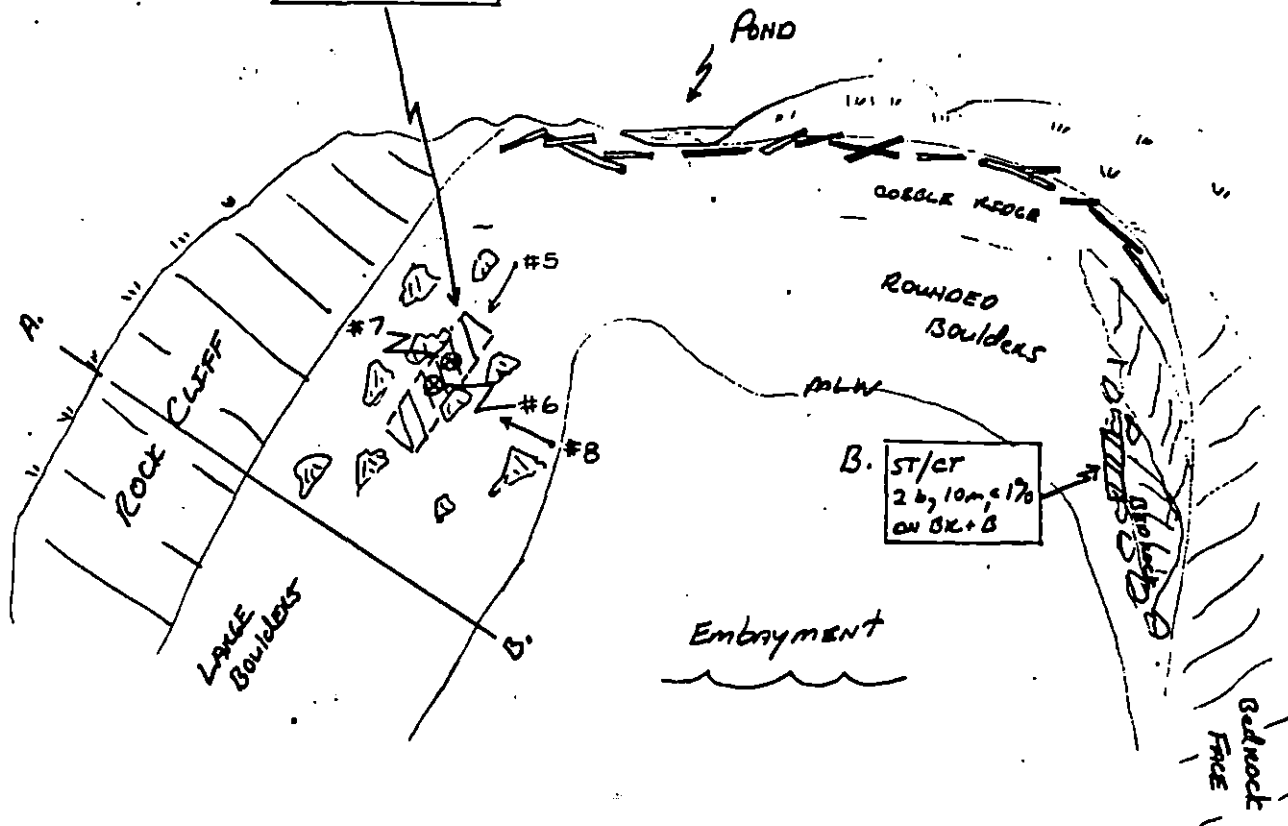
Sketch MAP (OG)
K09-10-CD-10-A
D. M. FITZGERALD
21 MAY 1991
1300 - 1355



CAPE DOUGLAS

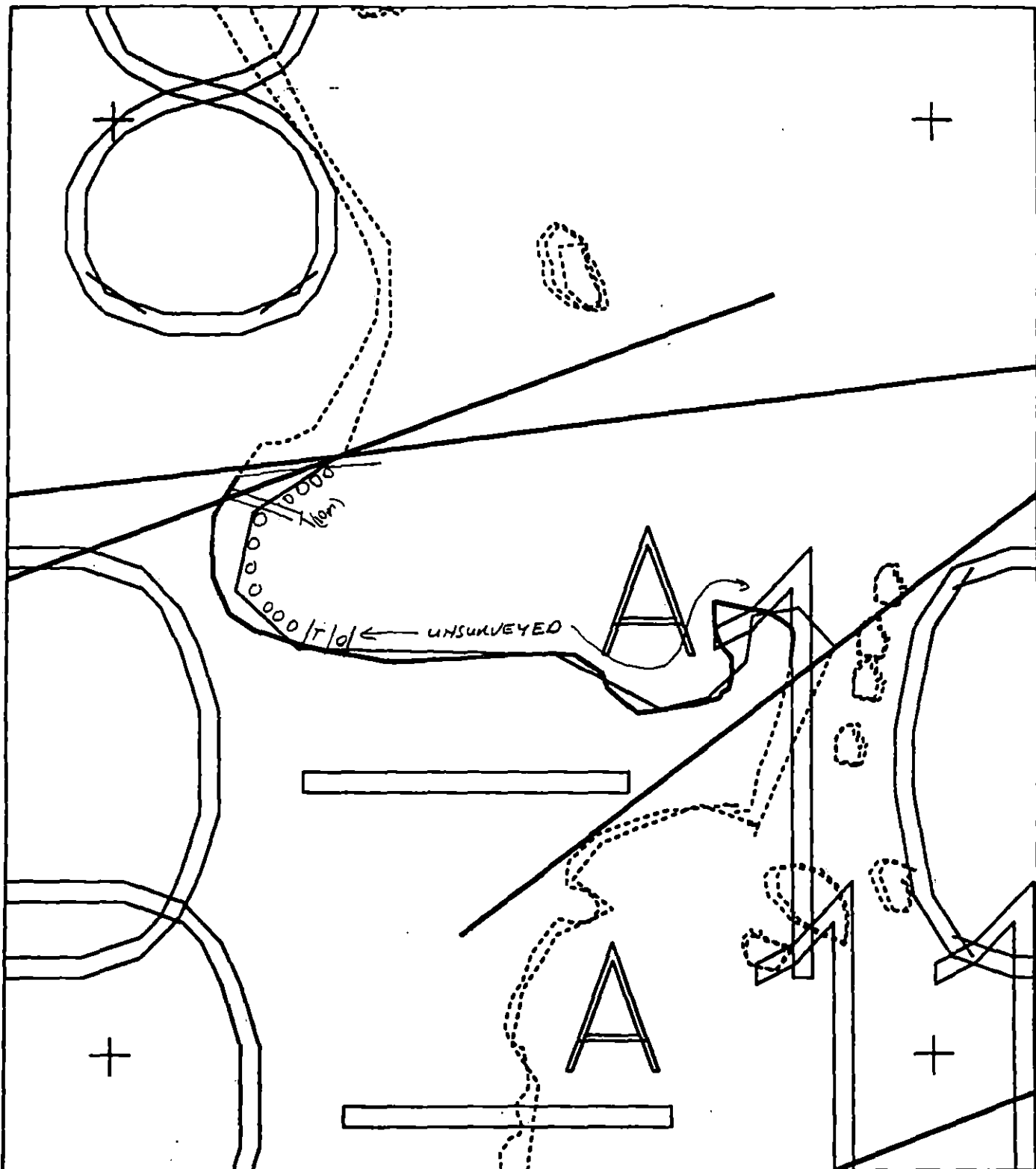
P.V. * VECO WORKERS PICKED
UP 1 BAG OF OILED
SEDIMENT

A. MS/SOC
3 by 20 m, 1-270
MOUSE IN LITZ
I/U AT Boulder
ZONE. Oil Flowing
EX HOT SUN.



0 25
METERS

SHELIKOF
STRAIT



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

K0910 CD010 A
 ADEC Subsegment Length: 844m
 METERS

5 100 200
 AK State Plane Zone 4
 900100d010e- . . .



Subdivision Field Map
 Map Key: 00AK0010CD010A
 Name: D. Fitzgerald
 Date: 21 MAY 1991
 Date Entered:

Reviewed: MC 5/31/91
 reviewed 5.26.91

1991 MAYSAP EVALUATION

SEGMENT: K0910CD010 SUB: A REGION: KOD SURVEY DATE: 5/21/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) OPEN

Ecological/Constraints (see page two for details) NONE

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: Timothy P. Small Date: 6/07/91

RECOMMENDATIONS:

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

COMMENTS:

INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE: JUNE 6 1991

FOSC APPROVAL DATE: 6/12/91

ADEC John Bane

FOSC E. E. PAGE

EXXON Small

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

USCG Small

NOAA J. Tamm

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 6-HELO SEGMENT CD-10SUBDIVISION ADATE 5/21/91

ADEC

NAME J. BARNHART, ADEC

SIGNATURE

Jeff Barnhart

- ☒ NTR 20 m long x 2 m wide band of mousse/pooled mousse located around/under, cobble/boulder. Most of the ms was covered with a thin veneer of sand/pebble. Mousse "bleeding" through veneer. < 4% oil within band. However, small areas of .5 m², exhibited 90-100% oil coverage. VECO crew removed approx 60 pounds of oil. Trace oil remains, heavy in spots. The second site 10 m long x 2 m wide consists of CT, ST, SOR in trace quantities.

EXXON

NAME R. HARRELSON, EXXON

SIGNATURE

- ☐ NTR

see next page

LANDMANAGER

NAME F. BENNISOF NPS

SIGNATURE

Francis Bennis

- ☒ NTR

Oil exists in a band 2-3 m wide x 20 m long as mousse patches + pooled mousse, ST, CT, SOR. Oil was "bleeding" in the sun, oozing from the bases of boulders. VECO workers removed approximately 60 # of oil from the beach. Small amounts of oil persists as ms, ST, CT, CV, SOR here. There is a 2 x 10 m of ST, CT, + SOR to the north of this area.

USCG/NOAA

NAME CWO R. SPURR/G. SHIGENAKA

SIGNATURE

R.P. Spurr / G. Shigenaka

- ☒ NTR

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

SURVEYED PORTION OF THE SEGMENT WAS A SECTION OF BEACH NEAR THE HEAD OF AN EASTERLY-FACING EMBAYMENT. THE BEACH WAS CHARACTERIZED BY LARGE COBBLE AND BOULDERS. ABOVE THE BEACH TO THE WEST, A LARGE LAGOON IS LOCATED, AND LOGJAM-RESTRICTED RUNOFF FLOWS TO THE EAST ACROSS THE WESTERN END OF THE BEACH. A SECTION OF THE BOULDER BEACH LYING ON THE SOUTHWEST SIDE OF THE SEGMENT WAS FOUND TO CONTAIN OIL IN THE FORM OF MOUSSE BETWEEN AND UNDER BOULDERS IN THE UITS. DIMENSIONS OF THE PATCH WAS ESTIMATED TO BE 3 m x 20 m. THE VECO CREW WORKED THE AREA AND REMOVED AS MUCH MATERIAL AS POSSIBLE. THE ONLY OTHER OILING OBSERVED WAS IN THE FORM OF OCCASIONAL SPLATTERS OF TAR ON COBBLE/BOULDER SUBSTRATE ON THE NORTHWEST SIDE OF THE BEACH.

TEAM NO. 6-HELO SEGMENT CD-10 SUBDIVISION A DATE 5/21/91

ADEC

NAME E. J. BARNHART, ADECSIGNATURE Jeff Barnhart

- ☒ NTR 20m long x 2m wide band of mousse/pooled mousse located around/under, cobble/boulder. Most of the ms was covered with a thin veneer of sand/pebble. Mousse "bleeding" through veneer. 64% oil within band. However, small areas of .5m² exhibited 90-100% oil coverage. VECO crew removed approx 60 pounds of oil. Trace oil remains, heavy in spots. The second site 10m long x 2m wide consists of CT, ST, SOR in trace quantities.

EXXON

NAME R. HARRELSON, EXXONSIGNATURE R. C. Harrelson

- ☒ NTR Further treatment of this segment is not recommended.

LANDMANAGER

NAME F. BENNIS

OF NOS

SIGNATURE Francis Bennis

- ☒ NTR

Oil exists in a band 2-3m wide x 20m long as mousse patches & pooled mousse, ST, CT, SOR. Oil was "bleeding" in the sun, oozing from the bases of boulders. VECO workers removed approximately 60% of oil from the beach. Small amounts of oil persists as ms, ST, CT, CR, SOR here. There is a 2 x 10 m of ST, CT, & SOR to the north of this area.

USCG/NOAA

NAME CWO R. SPURR, SHIGENAKASIGNATURE R. Spurr

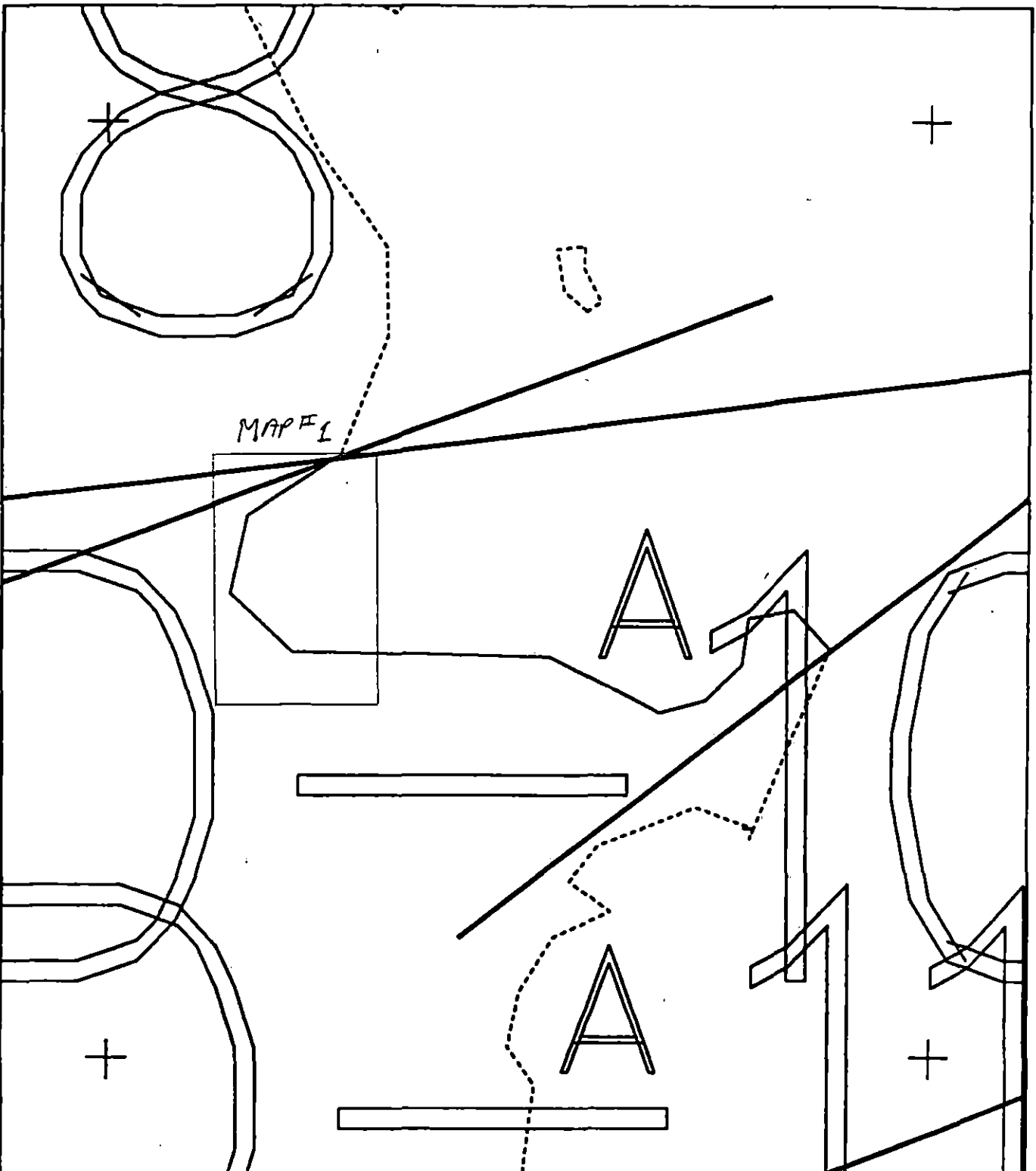
- ☒ NTR

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

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PAGE 1 OF 1

Reviewed S.2844



MAP #1

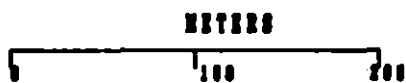
K0910 CD010 A

Subdivision Field Map

Map Key: 60A00010CD010A

Name: D. Fitzgerald

Date: 21 MAY 1991



AS State Plane Zone 4.
800100001000

reviewed 5.26 94

W.V. GRASSY AREA



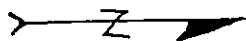
Rock CLIFF



Driftwood
Pile



PHOTO SITES

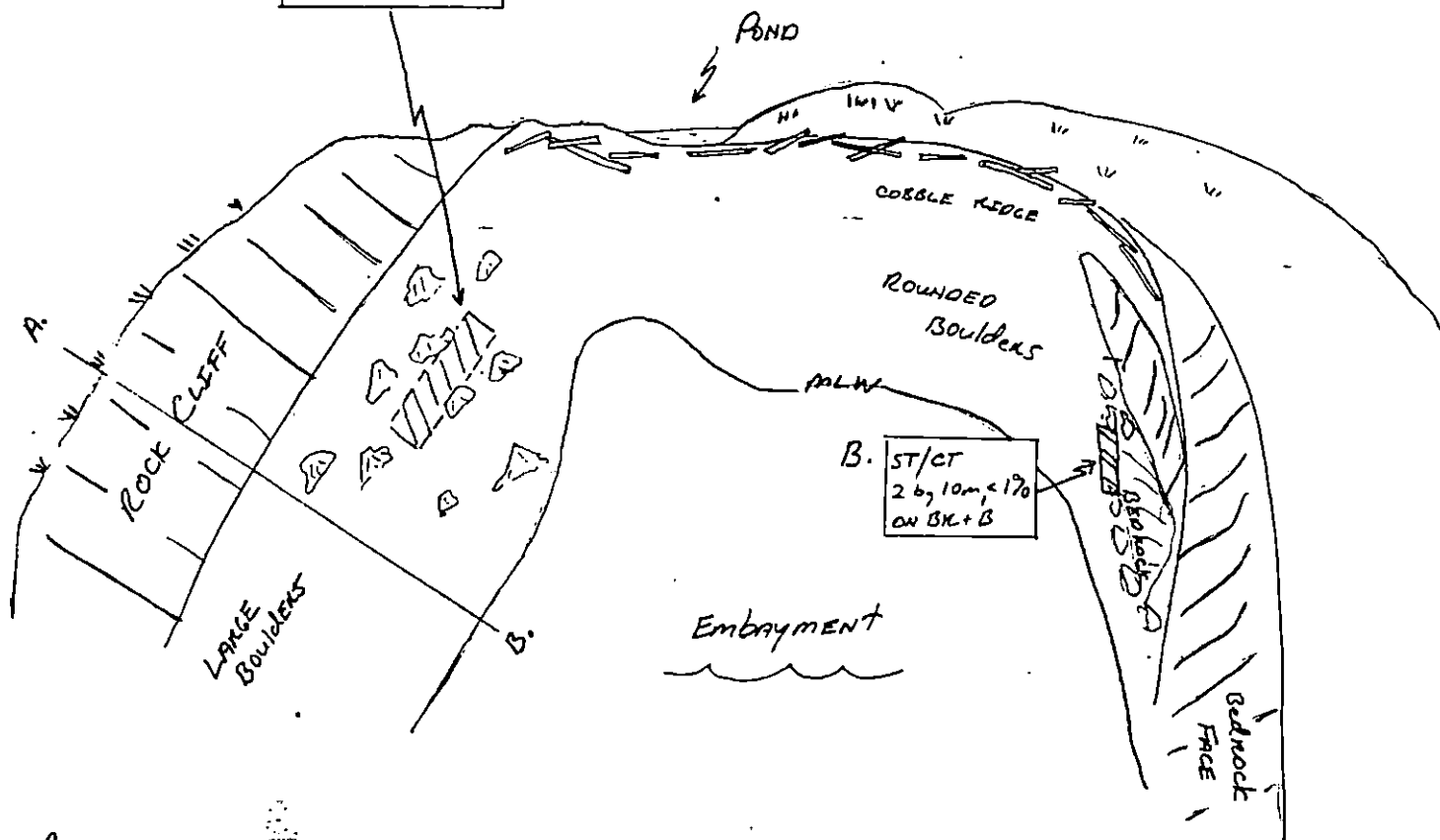


Sketch MAP (OG)
K09-10-CD-10-A
D. M. FITZGERALD
21 MAY 1991
1300 - 1355

CAPE DOUGLAS

P.U. X VECO WORKERS PICKED
UP 1 BAG OF OILED
SEDIMENT

A. MS/SOX
3 by 20 m, 1-2%
MOUSSE IN UITS
I/u A+ Boulder
ZONE. Oil Flowing
IN HOT SUN.



A.



Rock
CLIFF

Oiled
ZONE

B.

MHW

MHW

0 25
METERS

SHELIKOF
STRAIT

REVIEWED: MC 5/31/91
reviewed 5.26 9y

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Help

DATE May 21 1991

SEGMENT # K9N-10 CD-10

TIDAL HEIGHT (Range) 4.0 ft to 3 ft (1300-1400)

SUBDIVISION A

BIOLOGIST H. Davis

SEA STATE < 1 ft calm

WIND SPEED/DIRECTION 10-5 kt light breeze

PHOTOGRAPHS: ROLL # 6-19

FRAME # 5-8

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

Site A is on a boulder slope below a cliff on the south side of a small embayment. The dominant species in the bay is Littorina sp. Kelp flies, amphipods and Echinidae were on what little drift had been trapped in crevices. Barnacles (Balanus and some B. cariosus) are present on protected rock surfaces.

Site B has fewer Littorina and almost no detritus. Verrucaria grows on the tops of the boulders along with the lichens Xanthoria candelaria and Physcia caesia. Some of the stem on the verrucaria has worn off leaving behind a negative image.

Lower down at both sites were Barnacles, Mytilus, a few small Modiolus, Fucus, Halosaccion, coralline crust, Nucella and Pagurus spp. Filamentous green algae was the most visible algae. Nucella, Littorina and unidentified snail egg cases/masses were found under rocks, along with amphipods and nemertean worms.

The biota in this area has a low density but is healthy.

Glaucous-winged Gulls (10) Kittiwakes (5) 1 dead Sooty Shearwater
White wing scoter (2) Tufted puffins (2) Harlequin (5) American Pipits (2)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	0		0
Seabirds	1	2	
Waterfowl	2	7	
Gulls/Kittiwakes	2	15	
Shorebirds	1	2	
Corvids			
Other Birds			

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	0	0	
Pinnipeds (specify)			
Harbor Seals	2		
Wales (specify)	0		

Shoreline subdivision map showing important biological features attached.

Reviewed M.B. 5/30/91

Onftwood
Pile

PHOTO SITES

Sketch MAP (OG)
K09-10-CD-10-A
D. M. FITZGERALD
21 MAY 1991
1300 - 1355

PU * VECO WORKERS PICKED
UP 1 BAG OF OILED
SEDIMENT

A. MS/SOC
3 by 20 m, 1-270
MOUSSE EN LITZ
I/U at Boulder
ZONE. Oil Flowing
EX HOT SUN.

A. In and below the area, littorina was the most common animal. Kelp flies amphipods and annelids are active on detritus stuck in pocket in the area. Some limpets and Barnacles are in crevices at the lower side of the area. Lower down is a moderate biota with little diversity.

AND

COBOL

ROUNDED
Boulders

pol-4

B. ST/CT
2 b, 10
on BK.

3. This area is at the very top of the ultrine zone. A few barnacles are in the area. Some *Verrucaria* coats the rock. With a few areas of shadows left when the ST wore off.

Bedrock

A.

rx
cuff

**oiled
zone**

B.

PHW

MLW

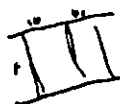
(2)
Harbor seals

Nereocystis

SHELKOF
STRAIT

Reviewed M.B. 5/30/91

W. W. GRASSY AREA



Rock Cliff



Driftwood
Pile



PHOTO SITES

PHOTO SITES, CD-10A
ROLL 6-19, FRAMES 5 THRU 8



Sketch MAP (OG)

109-10-CD-10-A

D. M. FITZGERALD

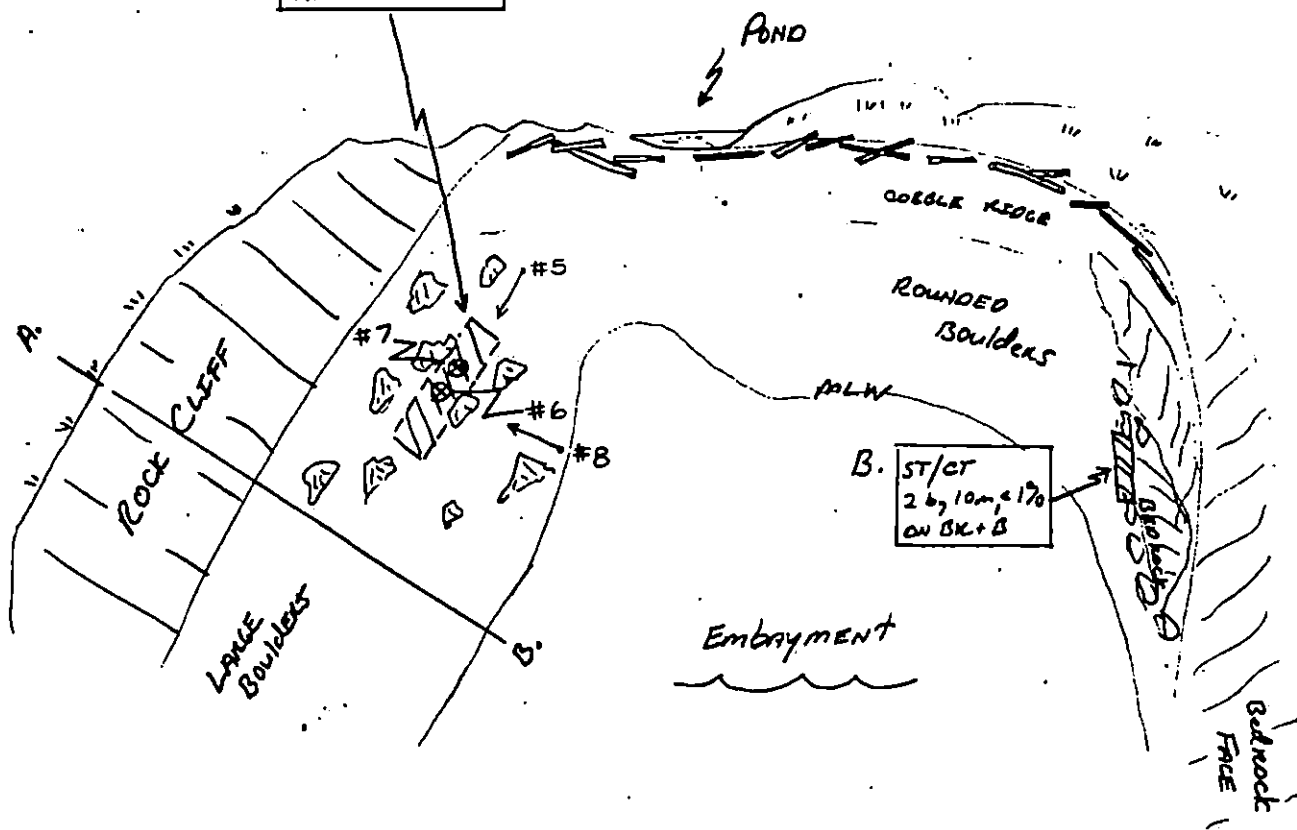
21 MAY 1991

1300 - 1355

CAPE DOUGLAS

P.U. * VECO WORKERS PICKED
UP 1 BAG OF OILED
SEDIMENT

A. MS/SOK
3 by 20 m, 1-270
MOUSSE EN LITZ
I/U AT Boulder
ZONE. Oil Flowing
IN HOT SUN.



A.



Oiled
zone

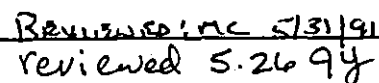
B.

MHW

MHW

0 25
METERS

SHELIKOF
STRAIT



ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K9-10-CD-10 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

5R Seabird Colony

No constraint to manual pickup as per conversation from Dan Hamson/NPS to Rex Coulter/Exxon on 6/13/90.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict all activity to essential minimum, especially air traffic. Avoid any unnecessary disturbance or damage to uncollected biota and substrate.

FOSC

A. Zawacki

Date

6/14/90

Prepared by

Rex R. Coulter

Date

06/13/90

CD-9

CD-8

Work Area

CD-10

CD-12

CD-13

TREATMENT



Exxon Company, USA
Map Key: AKP-CD-10



ECOLOGY MAP
SEGMENT K9N-10 CD-10
SUBDIVISION --- (--- of ---)
METERS

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

SHORELINE EVALUATION

SEGMENT ST/ K9-10-CD-10 SUBDIVISION A (1 OF 1) DATE 4/27/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

4LL Katmai National Park

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: 5/11/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 11 m: V.Light 267 m: No Oil 366 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

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

COMMENTS: Recommended treatment includes manual pickup of oiled vegetation and mousse patties in areas indicated on sketch map. No specific time constraints identified.

SEE CONSTRAINT ADDENDUM
DATED 06/13/90 RWC

TAG COMMENTS:

TAG APPROVAL DATE: 5/11/90

ADEC [Signature]
EXXON [Signature]
NOAA [Signature]
USCG [Signature]

FOSC: [Signature]

DATE: 5-15-90

SHORELINE EVALUATION

SEGMENT ST/ K09-10-CD-11 SUBDIVISION A (1 OF 1) DATE 4/26/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Katmai National Park

9LM Land Mammals

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE:

DATE:

BOILING CATEGORIZATION:

Wide_0_m: Medium_82_m: Narrow_0_m: V.Light_505_m: No Oil_116_m
Subsurface Oil Observed: Yes_X No_____ Maximum Depth_7_cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual pickup of mouse followed by 2) bioremediation in areas indicated on sketch map. No specific working time constraints.

TAG COMMENTS:

TAG APPROVAL DATE:

ADDEC Art WERNER Art Werner

EXXON *And/ Test*

NOAA Gary Petrac *Gary Petrac*

USCG G.A. KETTER / G.A. Ketter

FOSC:

DATE: 5-12-90

Inv. pol is not approved. NPS Rep to be on scene. Special use permit required.

CD-12

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

OOOO No Oil

CD-11

ADEC Segment Length: 679m

0 100 200 300
METERS

Map Key: GOA-31

Name: LINDSEY NAKASHIMA

Date: 4/24/90

Data Entered:

REGION: KODIAK

SEGMENT: ST/K09-10-CD-11

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ K09-10-CD-11 SUBDIVISION A (1 OF 1) DATE 4/26/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Katmai National Park

9LM Land Mammals

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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 82 m: Narrow 0 m: V.Light 505 m: No Oil 116 m
Subsurface Oil Observed: Yes X No _____ Maximum Depth 7 cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual pickup of mousse followed by 2) bioremediation in areas indicated on sketch map. No specific working time constraints.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

KODIAK ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ K0910-CD011 SUBDIVISION: CD011A DATE 4/26/90

~~NOAA~~
~~BOG~~
NAME John Naughton SIGNATURE John Naughton

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

Majority of segment had very light oil except for one area in the north end of the segment. This area contained patches of mousse which could be removed and recommend that area be the only one treated.

ADEC
NAME Terry Ellsworth SIGNATURE Terry Ellsworth

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

I agree with National Park Service's observations and recommend manual removal of the mousse and cover in this segment.

LAND MANAGER
NAME Carl Schoch SIGNATURE Carl Schoch

~~☐ NO TREATMENT RECOMMENDED~~ ~~☐ TREATMENT SUGGESTED~~
COMMENTS

Recoverable mousse was found within the first 150 m of the north end of this segment, and with the last 100 m of the south end of this segment.

Spatters of mousse were found over a 200 m area at the west shore of this segment.

SHORELINE OILING SUMMARY

REVISION NO. 2A-12K

CG LINDSEY NALISHIMA USCG (NOAA) JOHN NAUGHTON SEGMENT ST. KO910-CD011
 BIO DEA MCGORMICK LAND REP (UPS) CARL SCHUCH SUBDIVISION CA011A OF 1
 EXXON ERLO BYRNE ADEC TERRY ELLSWORTH TIME 9:15 to 10:05
 TEAM NO. 19 TIDE LEVEL -3.0 TO -3.90 DATE 4/26/90
 EST. SUBDIVISION LENGTH: 638 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: WEST to EAST
 SURFACE SEDIMENTS: R 22 % B 30 % C 30 % P 10 % G 2 % S 2 % M 0 % V 0
 SLOPE: Long _____ % Hang _____ % Vert _____ % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 55 m N 0 m VL 300 m NO 283 m

SURFACE OIL

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

PAVEMENT H F S NONE sq. m by 0PATTIES / TARBALLS NONE BAGSNEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE —#BAGS 0

Photographs:

Roll No. ST-19-18Frames 4-10

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (Y/N)	▽	SURFACE SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	1	2	3	4	5	SU	U	M	L				
1	9			X			0-7		X				X		X				N	N	—	B/C/P/G

COMMENTS - NORTH END OF SEGMENT HAS MEDIUM DISTRIBUTION OF OIL OVER 2 MAJOR AREAS - SEE SKETCH

SEE ALSO SKETCH

- THE BAYHEAD AND SOUTH-FACING SHORE HAVE A SPORADIC DISTRIBUTION OF OIL
- AN AREA WITHIN THE NORTH-FACING SHORE HAS A MEDIUM AREA OF OIL AND A 3X? AREA OF MOUSSE TO A 7cm DEPTH

REVIEWED YHDATE 4-29-90

⊕

SEGMENT ST-1910-C0011

SUBDIVISION C/D0114

DATE 4/26/90

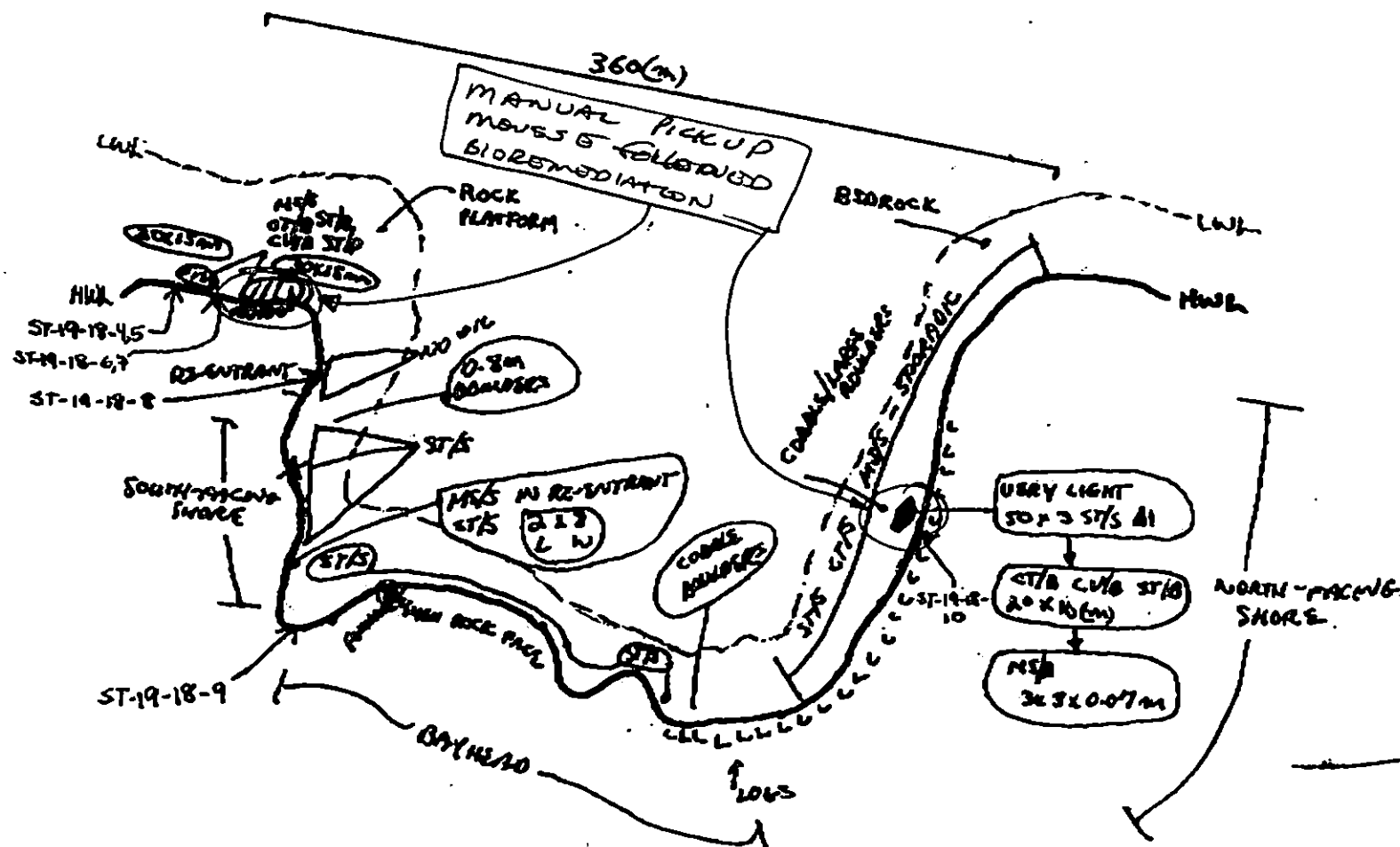
CHECKLIST

- Area
- Approx. Scale
- Seg/Sub Entry
- Oil Dist.
- Width
- Length
- % Cover
- Substrate Character
- Est. HML/VL
- SSL
- Profile Location(s)
- Profile(s)
- PI Location(s)
- Photo Location(s)

LEGEND

- 1 Δ
- 11- No Subsurface Oil
- 2 Δ
- 11- Subsurface Oil
- CT/C
- CT/B
- CT/P
- CT/S
- Red Vegetation
- Photo location, direction, and number

SKETCH MAP



Character Length (m): AP 0 PO 0 CV 70 CT 70 ST 350 MS 70 PT 0 TB 0 FL 0 NO 283

REVISIONS

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22

Segment ST / K-9-10-11 Subdivision A Date (mo / day / yr) 4-26-90Time (24 hr) 0915-1005 Biologist D. McCormick

- (A) Substrate type and % of segments:
 (1) Bedrock 20 (2) Boulder 30 (3) Cobble 30 (4) Pebble 18 (5) Sand (6) Silt
- (B) Overall % cover of biota (% of segment): Dense 20% Moderate 60% Low 20%
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X) , new settlement (3)

Photographs:
Roll No. ST-19-18Frames 4-10

BARNACLES

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

NOT PRESEN

MYTILUS

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

NOT PRESEN

GASTROPODS

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

NOT PRESEN

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

NOT PRESEN

Wildlife Observations/ General Comments: Oystercatchers were only birds noted.

Ecological Considerations: No anadromous streams in this segment. NOAA data suggests seabird colony (ies) in this segment, although none are shown on USFWS maps and none were observed. No eagles seen. No ECO map is included in this report.

DATE 4-26-90 TIME 0915 - 1005 TIDE HEIGHT -3.1' N - 4.0'

1 - BEDROCK 2-BOULDER 3-COBBLE 5-SAND 6-SILT

FLORA:

SPECIES	UITZ	MITZ	LITZ	COMMENTS
BOSSIELLA/CORALLINA				
CALLIARTHRON/CORALLINA				
CLADOPHORA SPP				
COSTARIA SPP				
ENDOCLADIA MURICATA	1	1,2		Intertidal pools
FILMAENTOUS GREENS			2	Continuous and dense
FILAMENTOUS REDS			2	
GLOIOPELTIS FURCATA				
HALOSACCION GLANDIFORME		1	1,2,3	
LAMINARIA SPP			1,2,3	
LITHOTHAMNION				
NEREOCYSTIS SPP				
PORPHYRA SPP				
RALPHSIA/HILDENBRANDIA				
RHODOMELA LARIX			1,2	
RHOHOMENTIA PALMATA				
SCYTOSIPHON SPP			2,3	
ULVA SPP		1,2	1	
ZOSTERA MARINA				
ENTOROMORPHA				
Encrusting pink	1	1,2		Intertidal pools
Tridene		2,3	2,3	
Verrucaria	1			
FAUNA:				
ANTHOPLEURA SPP		5		
(SEM) BALUNUS CARIOSUS		1,2	1,2,3	
B. GLANDULA	1	1,2	1,2,3	
BRYOZOANS				
CHITONS (other than K. TUNICATA)				
CLAMS				
CRABS				
DERMASTERIAS IMBRICATA				
KATHARINA TUNICATA				
LEPTASTERIAS HEXACTIS				
LIMPETS	1	1,2		
LITTORINA SPP	1	1,2		
NUCELLA SPP		1,2		
PAGURUS SPP	1			
PISASTER OCHRACEUS				
POLYCHAETES				
PYCNOPODIA HELIANTHOIDES				
SEARLESIA DIRA		1,2		
SERPULIDS				
SIPHONARIA THERSITES				
TEALIA				

CD-12

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

OOOO No Oil

CD-11

ADEC Segment Length: 679m

0 100 200 300
METERS

Map Key: GOA-31

Name: LINDSEY WALKER

Date: 4/24/90

Data Entered:

1991 MAYSAP EVALUATION

SEGMENT: KO910CD011 SUB: A REGION: KOD SURVEY DATE: 5/21/91ENVIRONMENTAL SENSITIVITIES:Work Window(s) OPENEcological/Constraints (see page two for details) NONEARCHAEOLOGICAL 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 _____

ADEC

NAME J. BARNHART, ADECSIGNATURE Jeffrey Barnhart☒ NTR ☐ Treatment suggested

Site A on the OG sketch map, 25m long x 10-20m wide, MS/pooled oil, melting in the sun. 65% oil within the band. VECO personnel removed approx 25 pound MS. 43% remains at this site.

EXXON

NAME R. HARRELSON, EXXONSIGNATURE R. C. Harrelson

☒ NTR VECO crew picked up majority of readily accessible oiled material. Additional work should not be necessary.

LANDMANAGER

NAME F. BENNIS

OF NDS

SIGNATURE F. Bennis☒ NTR

Mousse remains scattered throughout 'site A' in between and at bases of boulders/cobbles. It persists in a shiny, "gooey" state which appears to melt or "bleed" at warm temperatures. The oil at site B (OG map) is present in isolated splatters of MS "soa", ST/CT.

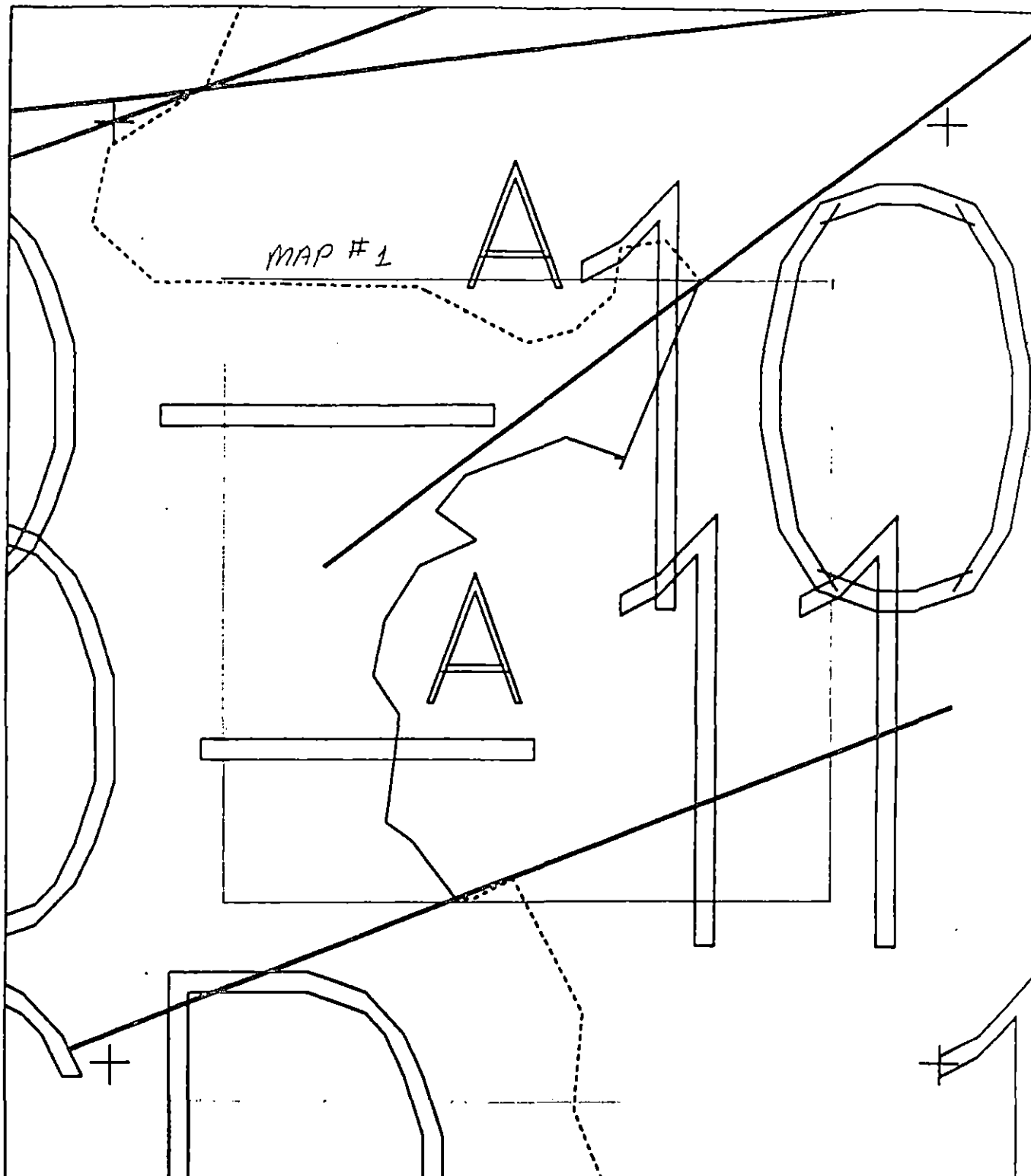
USCG/NOAA

NAME CWO R. SPURR/S. SHIGENAKASIGNATURE R. Spurr / S. Shigenaka☒ NTR

THE SURVEYED PORTION OF THE SEGMENT WAS A RUGGED AND IRREGULAR PIECE OF SHORELINE CHARACTERIZED BY BOULDER OR BOULDER-COBBLE BEACHES AND BEDROCK OUTCROPS. THE SEGMENT IS HIGHLY EXPOSED, AND THIS IS REFLECTED IN THE RELATIVELY DEPAUPERATE NATURE OF BICFA OBSERVED THERE. LARGE LITTORINA SITANA PERIWINKLES WERE FOUND IN ABUNDANCE BELOW THE LOWER MARGIN OF THE UITE. OBSERVED OILING WAS FOR ALL PRACTICAL PURPOSES (EXCEPTIONS WERE INFREQUENT SPATTERS OF TAR ON BOULDERS) LIMITED TO A BAND OF MOUSSE, WEATHERED COAT, AND STAIN FOUND IN THE UITE JUST SOUTH OF THE BORDER BETWEEN CD-11 AND CD-10. THIS BAND WAS READILY APPARENT, AS MOUSSE PRESENT BETWEEN BOULDERS ON THE BOULDER BEACH OF SITE 1 BEGAN TO "BLEED" IN THE AUTOGRAPH TOO RARE BUT DEEPLY APPRECIATED SUNSHINE. SOME SHEEN WAS OBSERVED IN POOLS OF WATER IN THIS AREA. THE VECO CREW SPENT APPROXIMATELY AN HOUR CLEANING THE AREA. AS THE BAND IS IN A HIGHLY EXPOSED AND BIOLOGICALLY DEPAUPERATE PORTION OF SHORELINE, BIOLOGICAL IMPACTS FROM REMAINING OIL MIGHT BE EXPECTED TO BE LOW.

PAGE 1 OF 1

Reviewed: MC 5/28/94
Reviewed 5.27.94



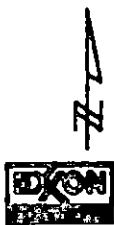
K0910 CD011 A

Subdivision Field Map

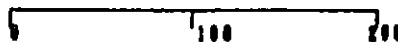
Map Key: COAX0010CD011A

Name: D. Fitzgerald

Date: 21 MAY 1991



METERS



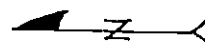
AS State Plane Zone 4,
GCS NAD83

reviewed 5.27.94

TTTT BEDROCK
 ↗ PHOTO SITES
 V V V GRASSY AREA

BEGIN
 SEGMENT
 CD-10

EXPOSED
 SLOPING
 BEDROCK



Sketch MAP 1061
 K0910-CD-11-A
 D. M. FITZGERALD
 21 MAY 1991
 1140 - 1240

SHELKOF
 STRAIT

A. MS, ST/CT
 10-20 by 25m, <1%
 mousse under and
 betw. Boulders / Bed-
 rock cracks.

* VECO WORKERS COLLECTED
 1 1/2 BAGS of oiled sediment
 FROM SITE A. USING
 TROWELS AND ABSORBANTS

B. ST
 1. 1 by 5m
 2. 1 by 10m
 3. 1 by 20m
 ON BR / Boulders
 at UTZ-SUTZ

BEGIN
 SEGMENT
 CD-12

CAPE
 DOUGLAS

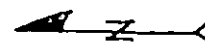
0 50
 METERS

REVIEWED: MC 5/18/91

 BEDROCK
 PHOTO SITES
 GRASSY AREA

PHOTO SITES, CD-11A
 ROLL 6-19, FRAMES 1 THRU 4

Sketch MAP (OG)
 K0910-CD-11-A
 D. M. FITZGERALD
 21 MAY 1991
 1140 - 1240



BEREN
 SEGMENT
 CD-10

EXPOSED
 SLOPING
 BEDROCK

SHELIKOF
 STRAIT

A. MS, ST/CT
 10-20 by 25m, <1%
 mouse under and
 betw. Boulders / Bed-
 rock cracks.

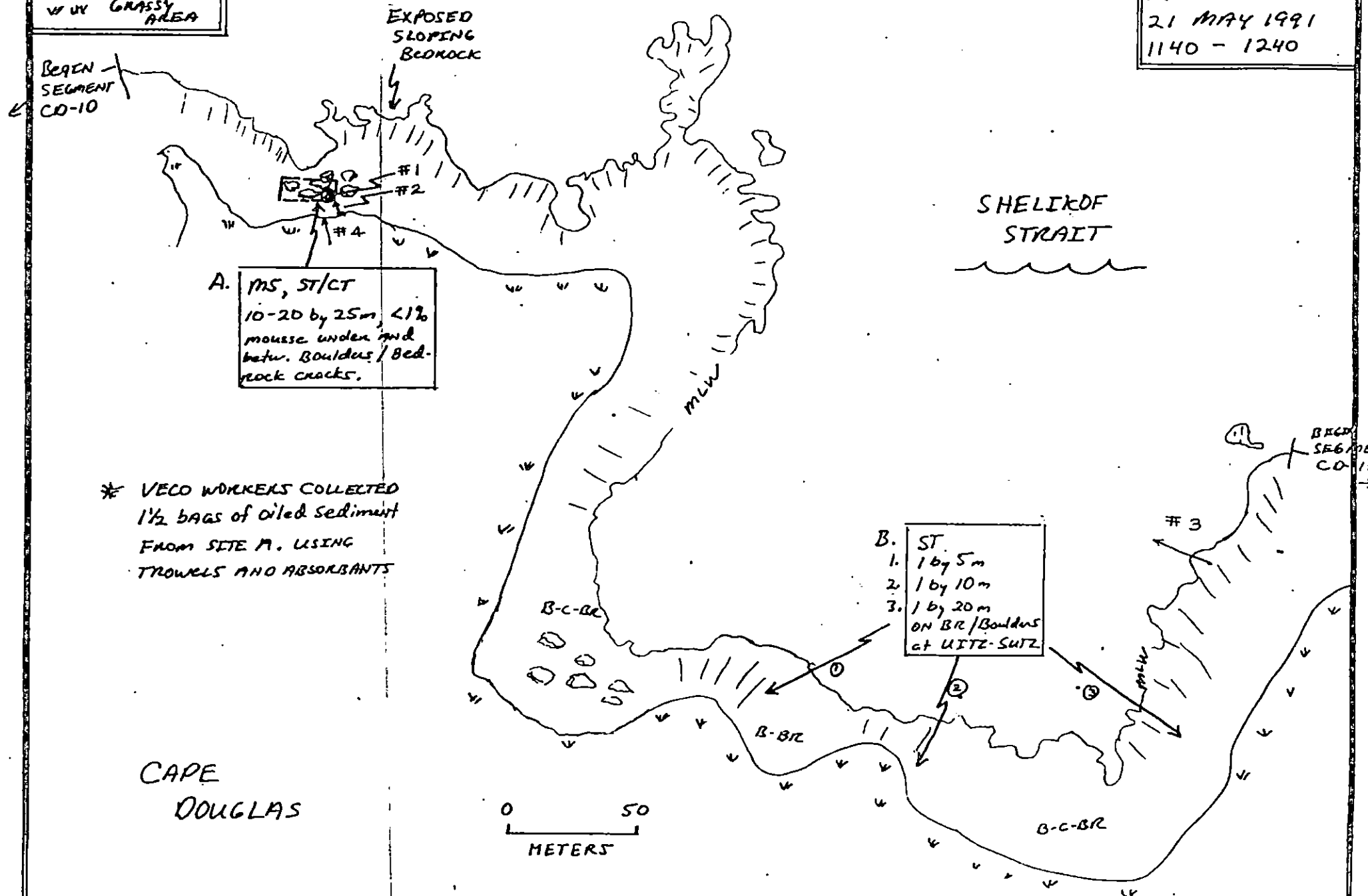
* VECO WORKERS COLLECTED
 1 1/2 BAGS OF OILED SEDIMENT
 FROM SITE M. USING
 TROWELS AND ABSORBANTS

CAPE
 DOUGLAS

0 50
 METERS

B. ST.
 1. 1 by 5m
 2. 1 by 10m
 3. 1 by 20m
 ON BR / Boulders
 at UITE-SUTZ

BEREN
 SEGMENT
 CD-11



TEAM # G Helo

DATE May 21 1991

SEGMENT # K9N-10 CD-11

TIDAL HEIGHT(Range) 6ft - 40ft (11:40 - 12:40)

SUBDIVISION A

BIOLOGIST H. Davis

SEA STATE < 1 ft calm

WIND SPEED/DIRECTION Very light breeze SKT, NE

PHOTOGRAPHS: ROLL # 6-19

FRAME # 1-4

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

The segment is an irregular shoreline with boulders and boulders- (broken) boulders overlying bedrock outcrops. In the UTZ and on exposed surfaces biota was extremely sparse. In crevices, under boulders margins and small protected areas there was a diverse population of organisms. From the UTZ to MITZ: *B. caricous* + *g. rubra*, *Littorina* (sicken + eggs), limpets, a few *Mytilus*, Encrusting coralline, end, skin filamentous greens, *Odonthalia*, *Scytosiphon*, *Nucella* (+ eggs), *Pagurus*, *Anthopleura*, *artem*, *Rhodomecha*, *Didemna*, *Laminaria*, *Leptasterias* and *Ulva*.

Both sites A and B are in the UTZ and MITZ where exposure is high. The major organisms in these areas were sparse but large *Littorina*, *Barnacles* (*B. glandula* mostly) and limpets.

Considering the type of shore, the exposure, and the organisms any clean up here would be more disruptive than productive.

Kittiwakes: 10, Glaucous-winged Gull (5) Mew Gull (5) Common Eiders (3) Jaeger (1) Ravens (2) Red Sanderling (2) White-winged Scoters (5) Western sandpipers (2) Murre (1) Greater Scaup (3) Harlequin ducks (6) Sparrows Pelagic cormorants (3) Red faced cormorant (2) Tufted Puffins (2) Pigeon Guillemot (1) Surf Scoter (1)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

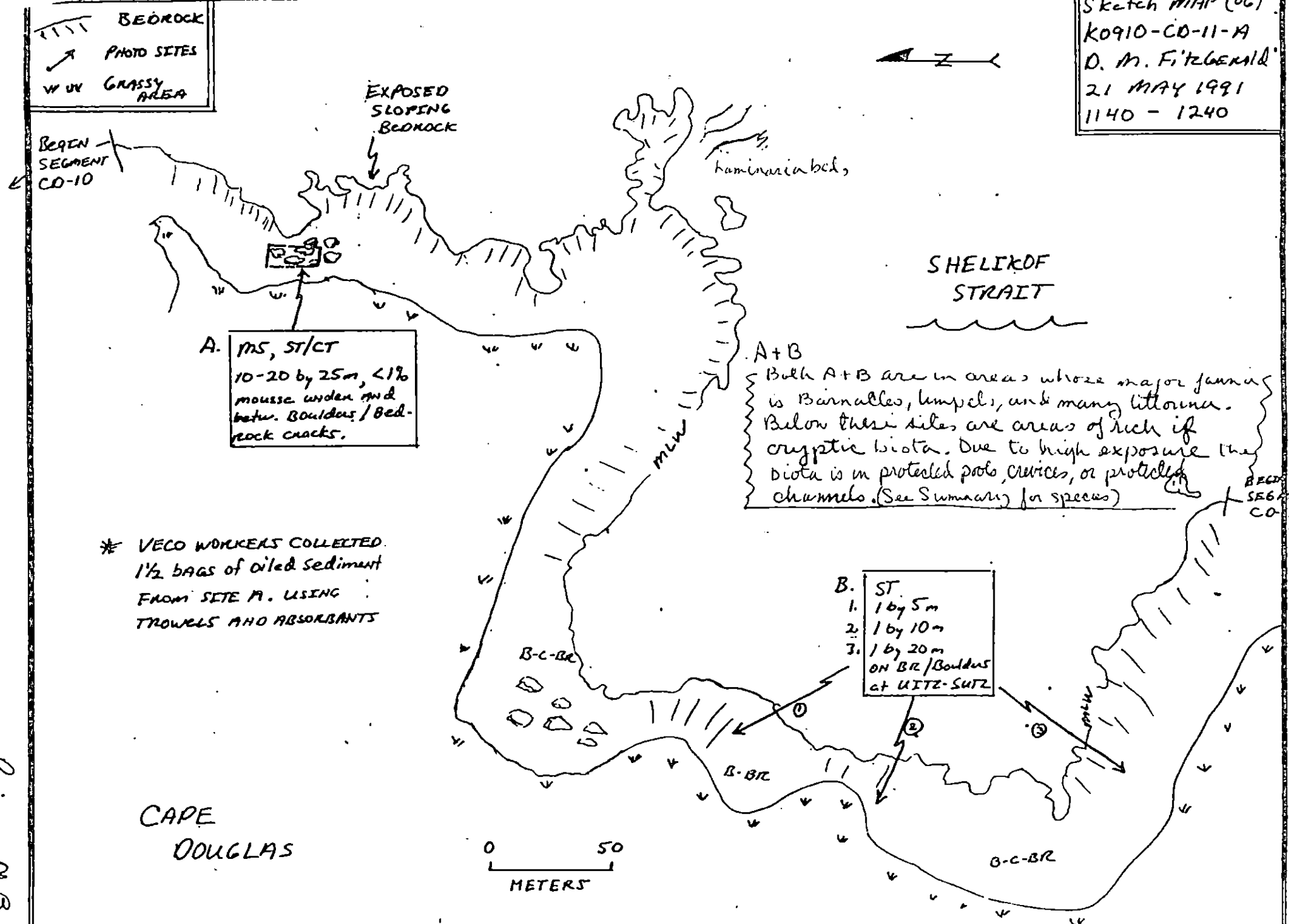
BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	0	-	Sculpins
Seabirds	5	16	
Waterfowl	6	19	
Gulls/Kittiwakes	3	30	
Shorebirds	2	4	
Corvids	1	2	
Other Birds <i>sparrows</i>	1	4	

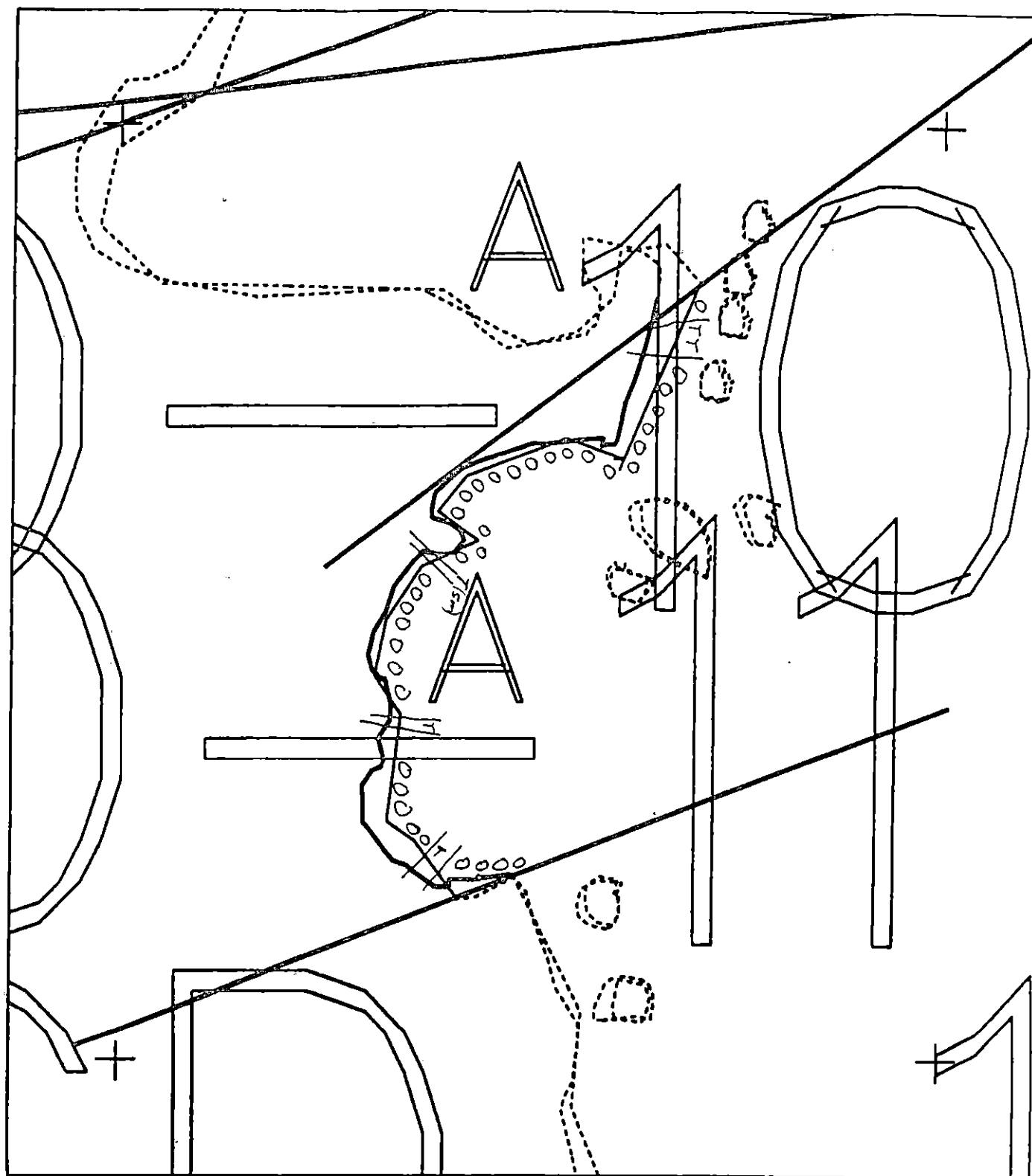
MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	0	0	
Pinnipeds (specify)	1 Harbor Seal		
	6 Steller's Sea Lion		
Whales (specify)	0		

shoreline subdivision map showing important biological features attached.

Reviewed M.B. 5/

Sketch MAP (OG)
K0910-CD-11-A
D. M. FITZGERALD
21 MAY 1991
1140 - 1240





XXXX	Wide	K0910 CD011 A ADEC Subsegment Length: 702m METERS AK State Plane Zone 4 60164011a-1	 	Subdivision Field Map
////	Medium			Map Key: 60AK0010CB011A
---	Narrow			Name: <u>D. FITZGERALD</u>
TTTT	Very Light			Date: <u>21 MAY 1991</u>
0000	No Oil			Date Entered:

REVIEWED: MC 5/27/91
 reviewed 5.27 91

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

TEAM NO. 6-HELO SEGMENT CD-11 SUBDIVISION A DATE 5/21/91

REC

NAME J. BARNHART, ADESG

SIGNATURE

Jeffrey Barnhart☒ NTR ☐ Treatment suggested

Site A on the OG sketch map, 25m long x 10-20m wide, MS/pooled oil, melting in the sun. 45% oil within the band. Veco personnel removed approx 25 pound MS. 43% remains at this site.

EXXON

NAME R. HARRELSON, EXXON

SIGNATURE

R. C. Harrelson

☒ NTR Veco crew picked up majority of readily accessible oiled material. Additional work should not be necessary.

LANDMANAGER

NAME E. BENNIS

OF NPS

SIGNATURE

James Bennis☒ NTR

Mousse remains scattered throughout 'site A' in between and at bases of boulders/cobbles. It persists in a shiny, "gooey" state which appears to melt or "bleed" at warm temperatures. The oil at site B (OG map) is present in isolated patches of MS "soa", 57/57.

USCG/NOAA

NAME CWO R. SPURR/S. SHIGENAKA

SIGNATURE

R. Spurr / S. Shigenaka☒ NTR

THE SURVEYED PORTION OF THE SEGMENT WAS A RUGGED AND IRREGULAR PIECE OF SHORELINE CHARACTERIZED BY BOULDER OR BOULDER-COBBLE BEACHES AND BEDROCK OUTCROPS. THE SEGMENT IS HIGHLY EXPOSED, AND THIS IS REFLECTED IN THE RELATIVELY DEPAUPERATE NATURE OF BIOTA OBSERVED THERE. LARGE LITTORINA SITANA TRIWINKLES WERE FOUND IN ABUNDANCE BELOW THE LOWER MARGIN OF THE UITS. OBSERVED OILING WAS FOR PRACTICAL PURPOSES (EXCEPTIONS WERE INFREQUENT SPATTERS OF TAR ON BOULDERS) LIMITED TO A BAND OF MOUSSE, WEATHERED COAT, AND STAIN FOUND IN THE UITS JUST SOUTH OF THE BORDER BETWEEN CD-11 AND CD-10. THIS BAND WAS READILY APPARENT, AS MOUSSE PRESENT BETWEEN BOULDERS ON THE BOULDER BEACH OR SITE 1 BEGAN TO "BLEED" IN THE AUTOGETHER TOO RARE BUT DEEPLY APPRECIATED SUNSHINE. SOME MOUSSE WAS OBSERVED IN POOLS OF WATER IN THIS AREA. THE VECO CREW SPENT APPROXIMATELY AN HOUR CLEANING THE AREA. AS THE BAND IS IN A HIGHLY EXPOSED AND BIOLOGICALLY DEPAUPERATE PORTION OF SHORELINE, BIOLOGICAL IMPACTS FROM REMAINING OIL MIGHT BE EXPECTED TO BE LOW.

MAYSAP SHORELINE OILING SUMMARY

PAGE 1 OF 1TEAM NO. G-HeloOG D. FitzGeraldBIO H. DavisSEGMENT K09-10-CD-011ADEC J. BarnhartLANDMANAGER F. Bennis for NPSSUBDIVISION AEXXON R. HarrelsonUSCG/NOAA CWD SPURR/G. SHIGENAKADATE 21 / MAY / 91TIME 11 : 40 to 12 : 40TIDE LEVEL 6 ft. to 4.0 ft.ENERGY LEVEL: ☒ H ☐ M ☐ LSURVEYED FROM: ☒ FOOT ☐ BOAT ☐ HELOWEATHER: ☒ SUN ☐ CLOUDS ☐ FOG ☐ RAIN ☐ SNOWTOTAL LENGTH SHORELINE SURVEYED: 702 mNEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONEEST. OIL CATEGORY LENGTH: W — m M — m N — m VL 60 m NO 642 m US — m

L O C	SURFACE OIL CHARACTER										SURFACE SEDIMENT TYPE	SHORE SLOPE VHML	AREA		ZONE				NOTES
	AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO			WIDTH m	LENGTH m	S	UI	MI	LI	
A		T				T	T				BR-B	H	15	25	X	X			I/U Boulders + BR
B							T				B-BR	M	1	5	X	X			ON Boulders + BR
1.							T				B-BR	M	1	10	X	X			
2.											B-BR	M	1	20	X	X			↓ ↓
3.							T				B-BR	M							

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

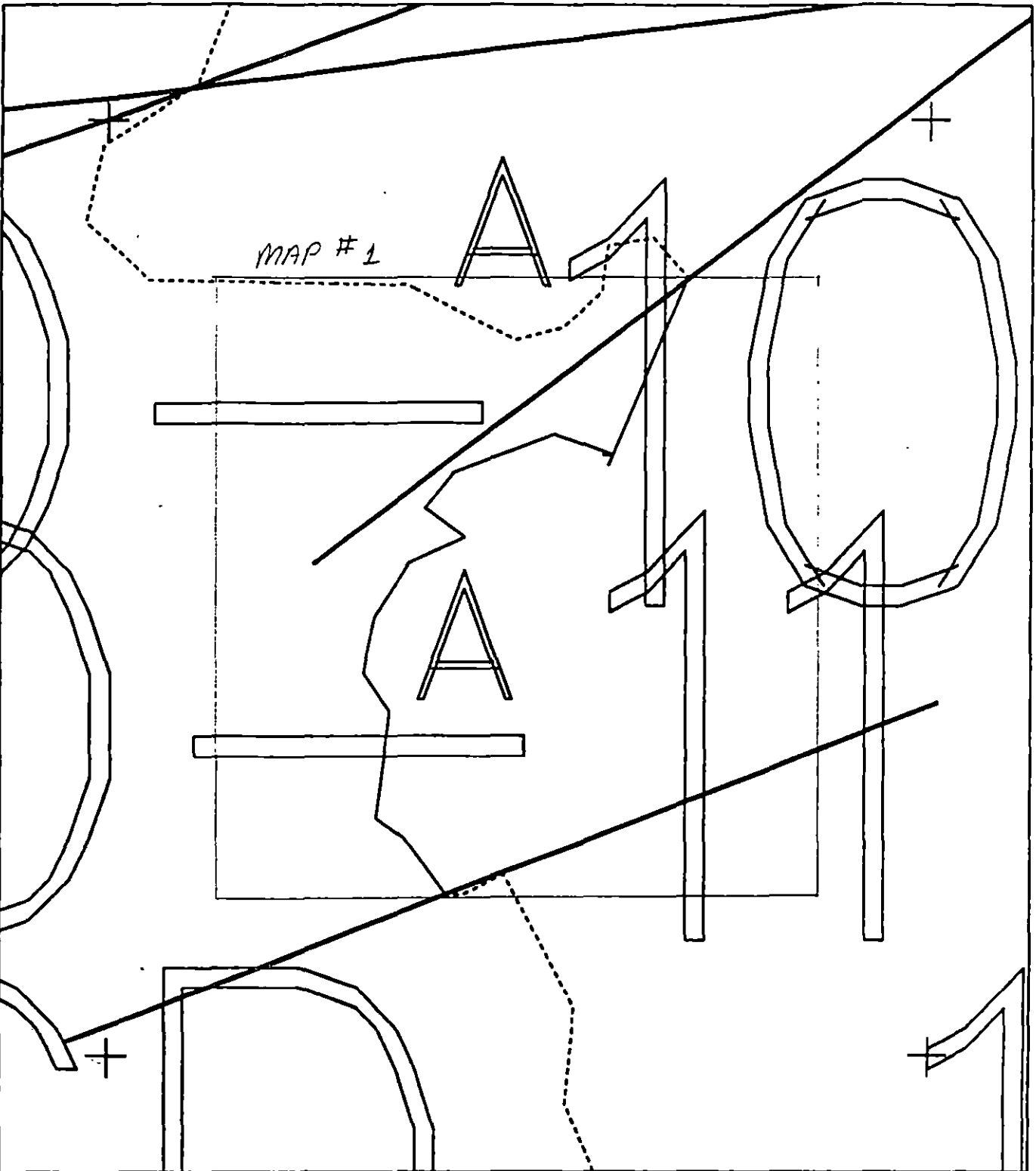
SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE PHOTO ROLL # MAYSAP- 6 - 19 FRAMES 1-4

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				B R S N	S	UI	MI	LI		
									-									
									-									
									-									
									-									
									-									
									-									
									-									
									-									
									-									

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

OG COMMENTS: The SEGMENT IS LOCATED ALONG the exposed bedrock coast of the outer CAPE DOUGLAS PENINSULA. THIS IS AN IRREGULAR SLOPING BEDROCK SHORELINE WITH small boulder, pocket beaches. The oiling is concentrated at the northern end of the segment in an area of boulders sitting on top of bedrock. The mousse at this site is located in cracks and crevices around boulders and bedrock and the more exposed mousse, pools in the "hot" sun. The VECO WORKERS collected 1 1/2 of oiled sediment at this site.

 REVIEWED: MC 5/28/91
 COLL. and C. 27 28.



K0910 CD011 A

Subdivision Field Map

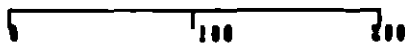
Map Key: COAR0010CD011A

Name: D. Fitzgerald

Date: 21 MAY 1991



METERS



AK State Plane Zone 6,
GCSNAD83-500,000

Reviewed 5.27.94

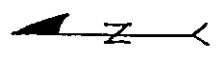
BEDROCK

 PHOTO SITE

 GRASSY AREA

Sketch MAP 1961
 K0910-CD-1
 D. M. FITZGERALD
 21 MAY 1991
 1140 - 1240

19EN
 SEGMENT
 0-10



EXPOSED
 SLOPING
 BEDROCK

SHELKOF
 STRAIT

A. MS, ST/CT
 10-20 by 25m, <1%
 mousse under and
 betw. Boulders / Bed-
 rock cracks.

* VECO WORKERS COLLECTED
 1 1/2 BAGS of oiled sediment
 FROM SITE A. USING
 TROWELS AND ABSORBANTS

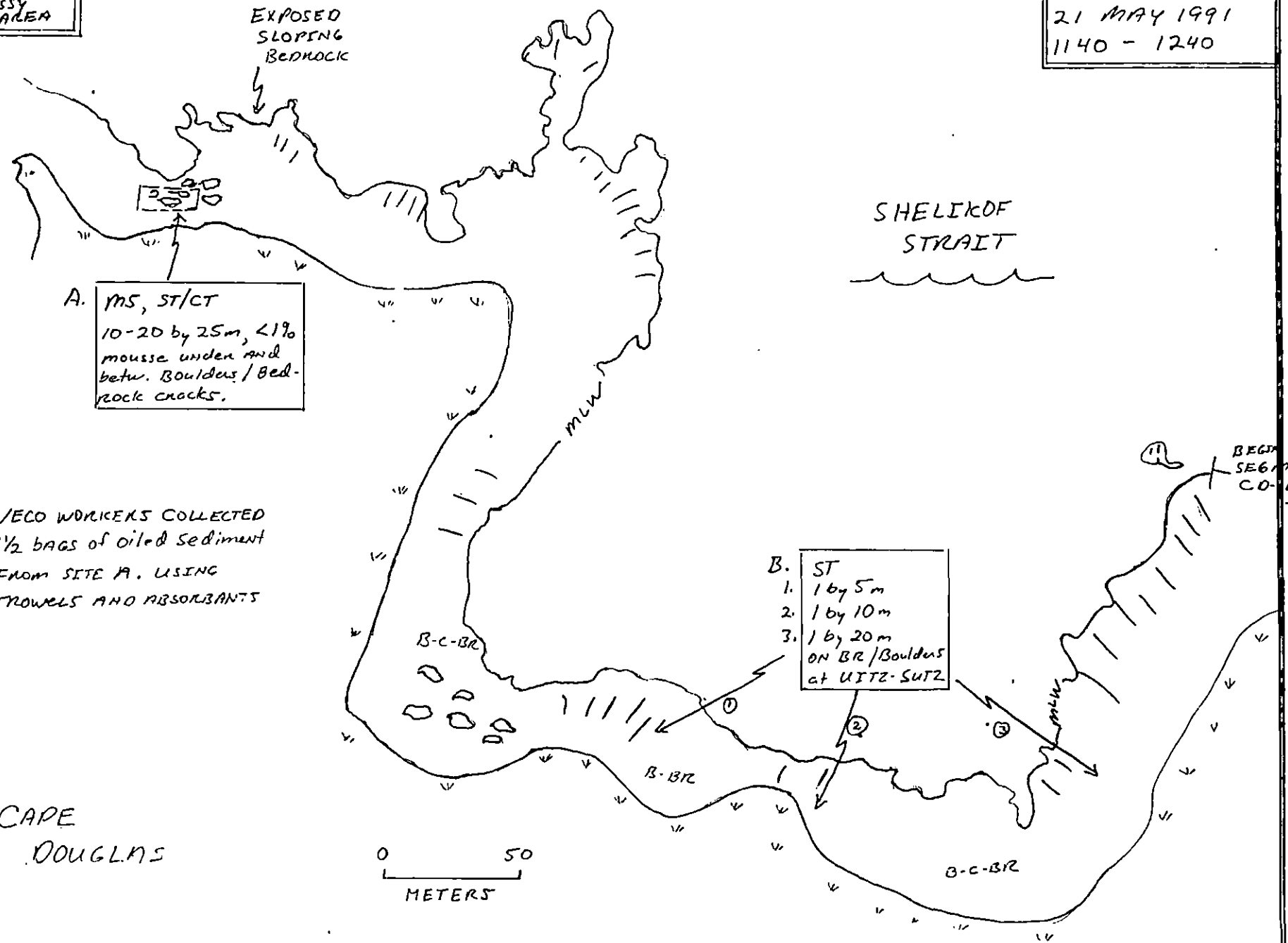
B. ST
 1. 1 by 5m
 2. 1 by 10m
 3. 1 by 20m
 ON BR / Boulders
 at UITS-SUTZ

BEGIN
 SEGMENT
 CD-12

CAPE
 DOUGLAS

0 50
 METERS

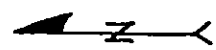
REVIEWED: MC 5/18/91
 reviewed 5-27-94



 ROCK
 PHOTO SITES
 GRASSY AREA

PHOTO SITES, CD
 ROLL 6-19, FRAME THRU 4

Sketch (OG)
 K0910-011-A
 D. M. Fitzgerald
 21 MAY 1991
 1140 - 1240



BEACH
 SEGMENT
 CD-10

EXPOSED
 SLOPING
 BEDROCK

SHELIKOF
 STRAIT

A. ms, ST/CT
 10-20 by 25m, <1%
 mousse under and
 betw. Boulders / Bed-
 rock cracks.

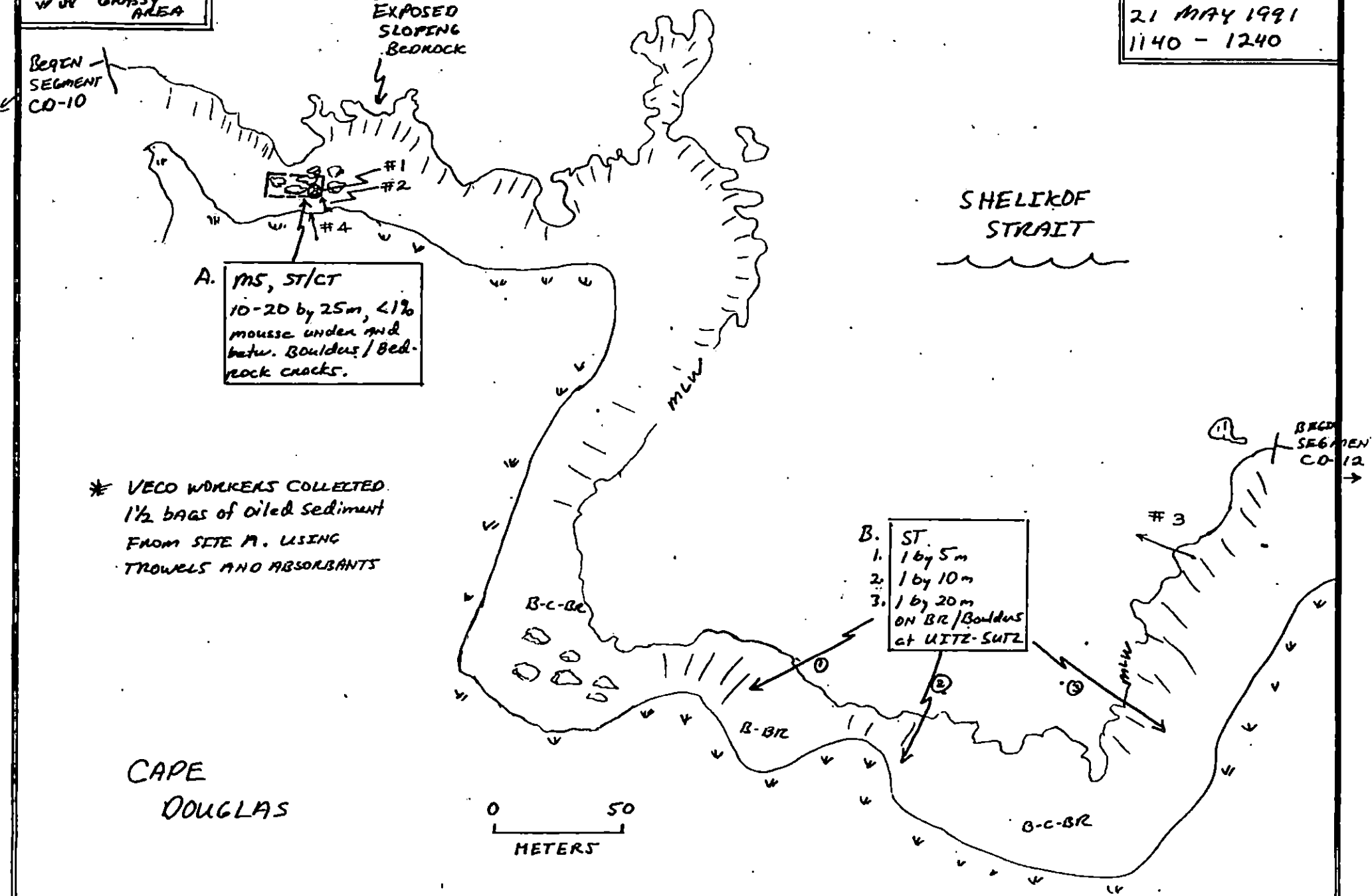
* VECO WORKERS COLLECTED
 1 1/2 BAGS of oiled sediment
 FROM SITE A. USING
 TROWELS AND ABSORBANTS

B. ST.
 1. 1 by 5m
 2. 1 by 10m
 3. 1 by 20m
 ON BR / Boulders
 at UITE-SUTZ

BEACH
 SEGMENT
 CD-12

CAPE
 DOUGLAS

0 50
 METERS



MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 21 1991

SEGMENT # K9N-16 CD-11

TIDAL HEIGHT (Range) 6ft - 40ft (11:40 - 12:40)

SUBDIVISION A

BIOLOGIST H. Davis

SEA STATE < 1 ft calm

WIND SPEED/DIRECTION Very light breeze 5KTS NE

PHOTOGRAPHS: ROLL # 6-19

FRAME # 1-4

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

This segment is an irregular shoreline with boulders and boulder-cobble beaches overlying bedrock outcrops. In the UETZ and on exposed surfaces biota was extremely sparse. In crevices, under boulders margins and small protected areas there was a diverse population of organisms. (From the UETZ to MITZ) *B. carinatus* + *glabella*, *Littorina* (sickeni + eggs), limpets, a few *Mytilus*, encrusting corallina, endosclerites, filamentous greens, *Oedothalia*, *Scytosiphon*, *Nacella* (+ eggs), *Pagurus*, *Anthopleura*, *artemisia*, *Rhodomela*, *Didemna*, *Laminaria*, *Leptasterias* and others.

Both sites A and B are in the UETZ and MITZ where exposure is high. The major organisms in these areas were sparse but large *Littorina*, Barnacles (*B. glabella* mostly) and limpets.

Considering the type of shore, the exposure, and the organisms any clean up here would be more disruptive than productive.

Kittiwakes (10), Glaucous Winged Gull (5), Mew Gull (5), Common Eiders (3), Jaeger (1), Ravens (2), Red Sandpiper (2), White-winged Scoters (5), Western sandpipers (2), Murre (8), Greater Scaup (3), Harlequin ducks (6), Sparrows (4), Pelagic cormorants (3), Red faced cormorant (2), Tufted Puffins (2), Pigeon Guillemot (1), Surf Scoter (1)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	0	-	Sculpins
Seabirds	5	16	
Waterfowl	6	19	
Gulls/Kittiwakes	3	30	
Shorebirds	2	4	
Corvids	1	2	
Other Birds <i>sparrows</i>	1	4	

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	0	0	
Carnipeds (specify)	1 Harbor Seal		
	6 Steller's Sea Lion		
Whales (specify)	0		

Shoreline subdivision map showing important biological features attached.

Sketch Map (OG)
K0910-11-A
D. M. Fitzgerald
21 MAY 1991
1140 - 1240

ROCK
PHOTO SITES
GRASSY AREA

BEACH
SEGMENT
CO-10

EXPOSED
SLOPING
BEDROCK

Laminaria bed,

SHELKOF
STRAIT

A. MS, ST/CT
10-20 by 25m, <1%
mousse under and
betw. Boulders/Bed-
rock cracks.

A+B
Both A+B are in areas whose major fauna
is Barnacles, limpets, and many littorines.
Below these sites are areas of rich if
cryptic biota. Due to high exposure the
biota is in protected pools, crevices, or protected
channels. (See Summary for species)

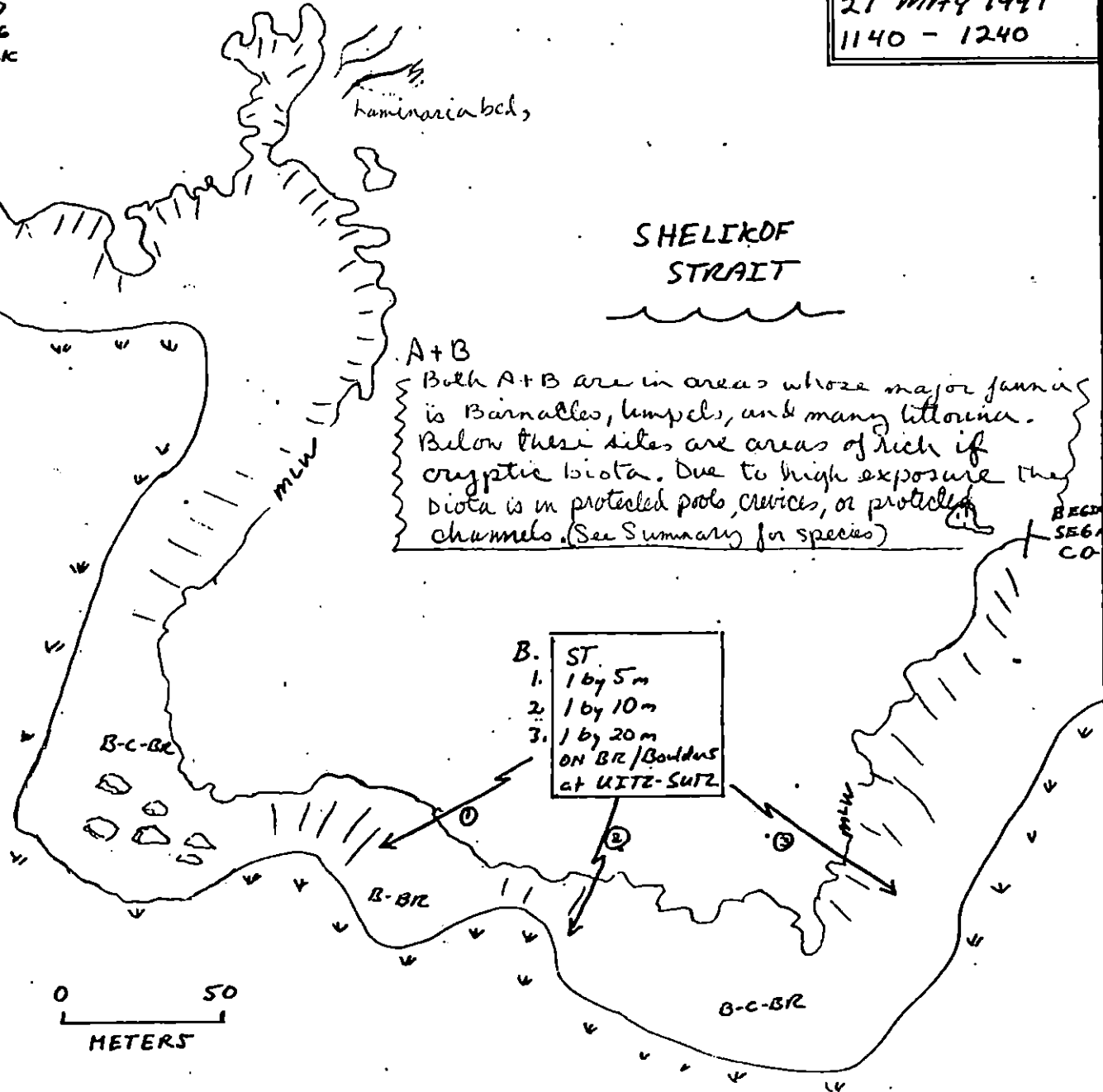
* VECO WORKERS COLLECTED
1 1/2 BAGS of oiled sediment
FROM SITE A. USING
TROWELS AND ABSORBANTS

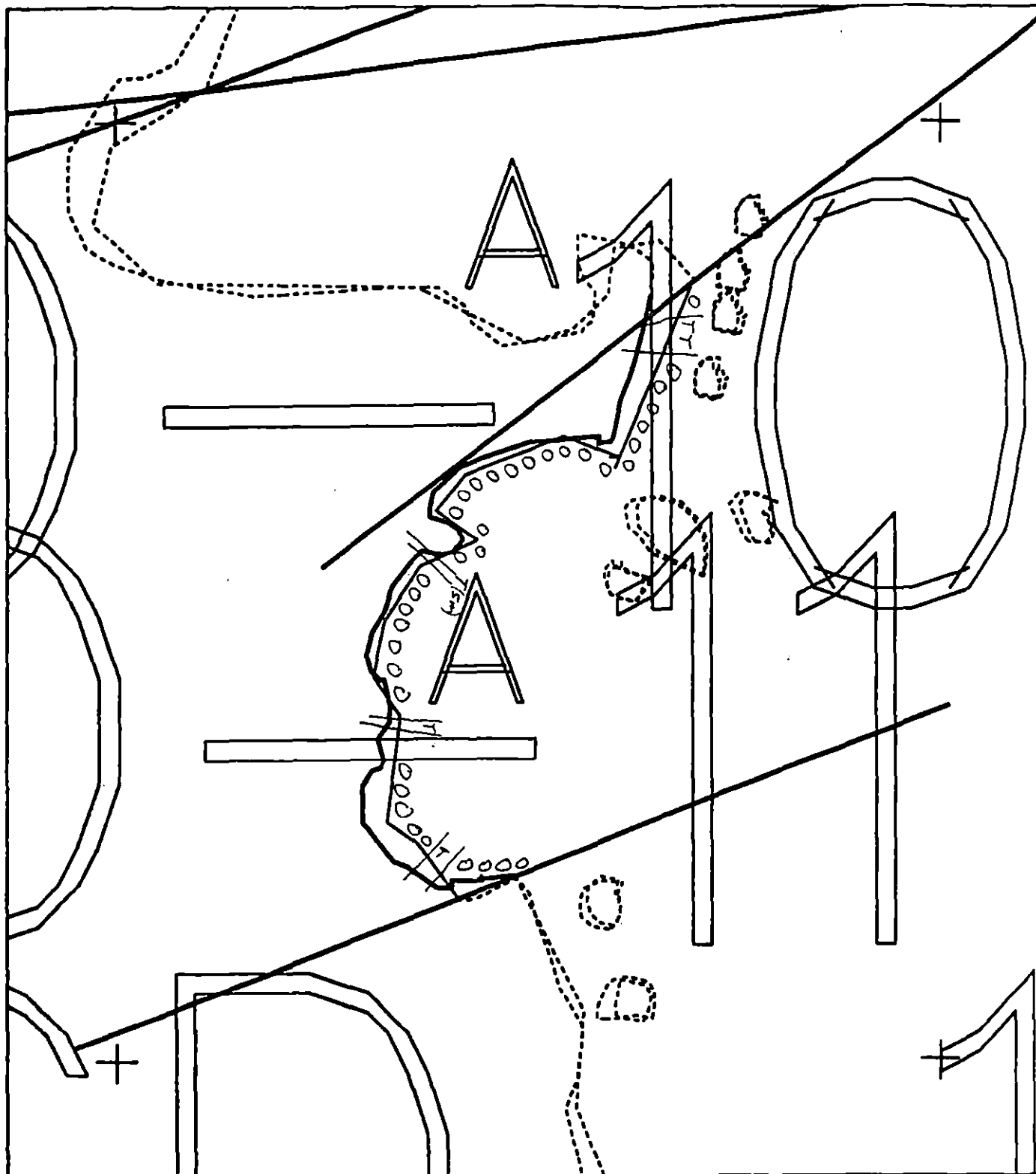
BEACH
SEGMENT
CO-12

B. ST.
1. 1 by 5m
2. 1 by 10m
3. 1 by 20m
ON BR/Boulders
at UITE-SUTZ

CAPE
DOUGLAS

0 50
METERS





XXXX
////

TTTT
0000

Wide
Medium
Narrow
Very Light
No Oil

K0910 CD011 A
ADEC Subsegment Length: 702m
METERS

0 100 200
AK State Plane Zone 4
80010cd011a- ...



Subdivision Field Map
Map Key: 00AK0010CD011A
Name: D. Fitzgerald
Date: 21 MAY 1991
Date Entered:

Reviewed: MC 5/27/91
reviewed 5.27 91

REGION: KODIAK

SEGMENT: ST/K9-10-CD-12

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ K9-10-CD-12 SUBDIVISION A (1 OF 1) DATE 4/26/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Katmai National Park

9LM Land Mammals

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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 851 m: No Oil 216 m
Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes manual pickup of mousse. No
specific working time constraints.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 1C Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Kotoi Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
 East side Kodiak, East side Afognak (7/4 to 10/1)
 1K Purse seine hook-off
 1L Set net sites
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- Harbor seal and sea lion pupping (5/10 to 7/1)
 Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31).
 Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2208
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (6/1 to 9/15)
 6V Anchorages (6/1 to 9/15)
 6W Forest Service cabins (6/1 to 9/15)
 6X Lodge (6/1 to 9/15)
 6Y Special use destination
- 7Z Subistence area: Salmon harvesting (6/1 to 9/30)
 7HH Finfish harvesting
 Deer harvesting (8/1 to 1/7)
 Invertebrate harvesting
 Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ K09 10-CD012 SUBDIVISION: CD012A DATE 4/26/90

~~NAA~~
~~SSCO~~

NAME John Naughton SIGNATURE John J. Naughton

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

This segment at Cape Douglas had very light oil, mainly splatters of stain, coat and a little mousse. Recommend no treatment. High resource area - observed fox, otter, sealions

ADEC

NAME Terry Ellsworth SIGNATURE Terry Ellsworth

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

As well as the two small areas of mousse at the southern and northern ends of the segment, sporadic mousse adjacent to cobbles and small boulders occurs in an area $\approx$ 450 m North of the Southern Segment boundary. Manual removal is recommended.

LAND MANAGER

NAME Carl Schach SIGNATURE Carl Schach

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Recoverable mousse was found in 2 small patches 2×2 m at the northern end and 1×1 m at the southern end.

SHORELINE OILING SUMMARY

REVISION NO. 34-13-88

OG LINCOLN NALISHIMA USES (NOAA) JOHN NAUGHTON SEGMENT ST/ K0910-CD012
 BIO DEB MCCORMICK LAND REP (NAS) CARL SCHUCH SUBDIVISION CD012A (1 OF 1)
 EXXON FRID AVES ADEC TERRY ELLSWORTH TIME 10:10:10 :50
 TEAM NO. 19 TIDE LEVEL -3.7 TO -2.4 FT DATE 4/26/90
 T. SUBDIVISION LENGTH: 1124 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 LANDS DESCRIPTION: ☐ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: NORTH to SOUTH
 SURFACE SEDIMENTS: R 10 % B 70 % C 10 % P 5 % G 3 % S 2 % M 0 % V 0 %
 SLOPE: Lang _____ % Hang _____ % Vert _____ % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 9/4 m NO 2/0 m

SURFACE OIL

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

PAVEMENT H F S NONE sq. m by 0 cmPATTIES / TARBALLS NONE BAGSNEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒

TYPE _____

#BAGS 0

Photographs:

Roll No. ST-19-18Frames 11-13

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SHEEN (Y/N)	▽	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	1	2	3	4	5	6	SU	U	M	U				
* 1	10			X			0-3		X				X			X				N	N	—	P/C/G/S
2	20					X	0-0	X								X							P/G
* 3	10			X			0-3		X				X			X				N	N	—	P/G/S
							.																
							.																
							.																

COMMENTS

AREA LANDWARD OF TIDAL POOL (SEE SKETCH) WAS NOT OILED

* Oiled intervals of less than 5 cm in Pits 1 & 3 do not constitute subsurface oil.

REVIEWED YHDATE 4-29-90

OG LINDSAY NAKASHIMA

SEGMENT ST-19-18-12

SUBDIVISION CDO12A

DATE 4/26/00

CHECKLIST

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

LEGEND

1 Δ
Pr - No Subsurface Oil

2 Δ
Pr - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

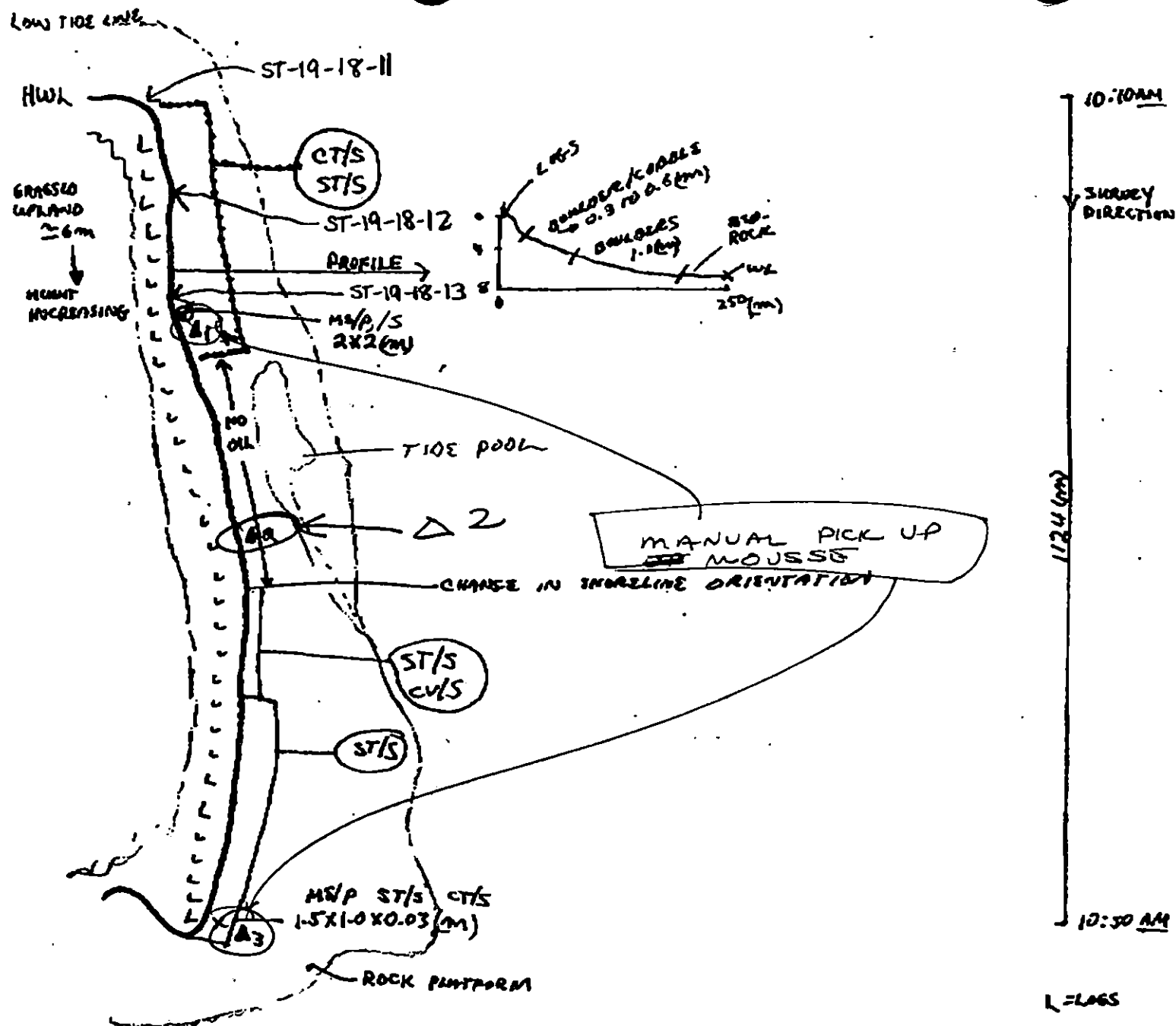
CT/P
Patchy Distribution

CT/S
Spotted Distribution

eee
Red Vegetation

1 @
note location, direction,
and number

ATCH MAP



Character Length (m): AP 0 PO 0 CV 160 CT 360 ST 840 MS 3.5 PT 0 TB 0 FL 0 NO 210

REVISIONS

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/9

Segment ST / K-9-10-CD-12 Subdivision A Date (mo / day / yr) 4-26-90Time (24 hr) 1010-1050 Biologist D. McCORMICK(A) Substrate type and % of segments:
(1) Bedrock 10 (2) Boulder 70 (3) Cobble 10 (4) Pebble 8 (5) Sand 2 (6) Silt 0(B) Overall % cover of biota (% of segment): Dense 30% Moderate 50% Low 20%

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

Photographs:
Roll No. ST-19-18Frames 11-13

BARNACLES

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

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments: Red fox. Sea lions offshore, 1 sea otter. Black scoters, @ 30-40 harlequin ducks, glaucous-winged gulls.

Ecological Considerations: According to NOAA, seabird colony(ies) are present in this segment. No specific locations are given on USFWS resource maps. No large seabird colonies were seen. No anadromous streams are located in this segment. Also, no eagles; therefore, an ECO map is not included in this report.

DATE 4-26-90 TIME 1010-1050 TIDE HEIGHT -3.7' ~ -3.4'

1 = BEDROCK 2 = BOULDER 3 = COBBLE 5 = SAND 6 = SILT

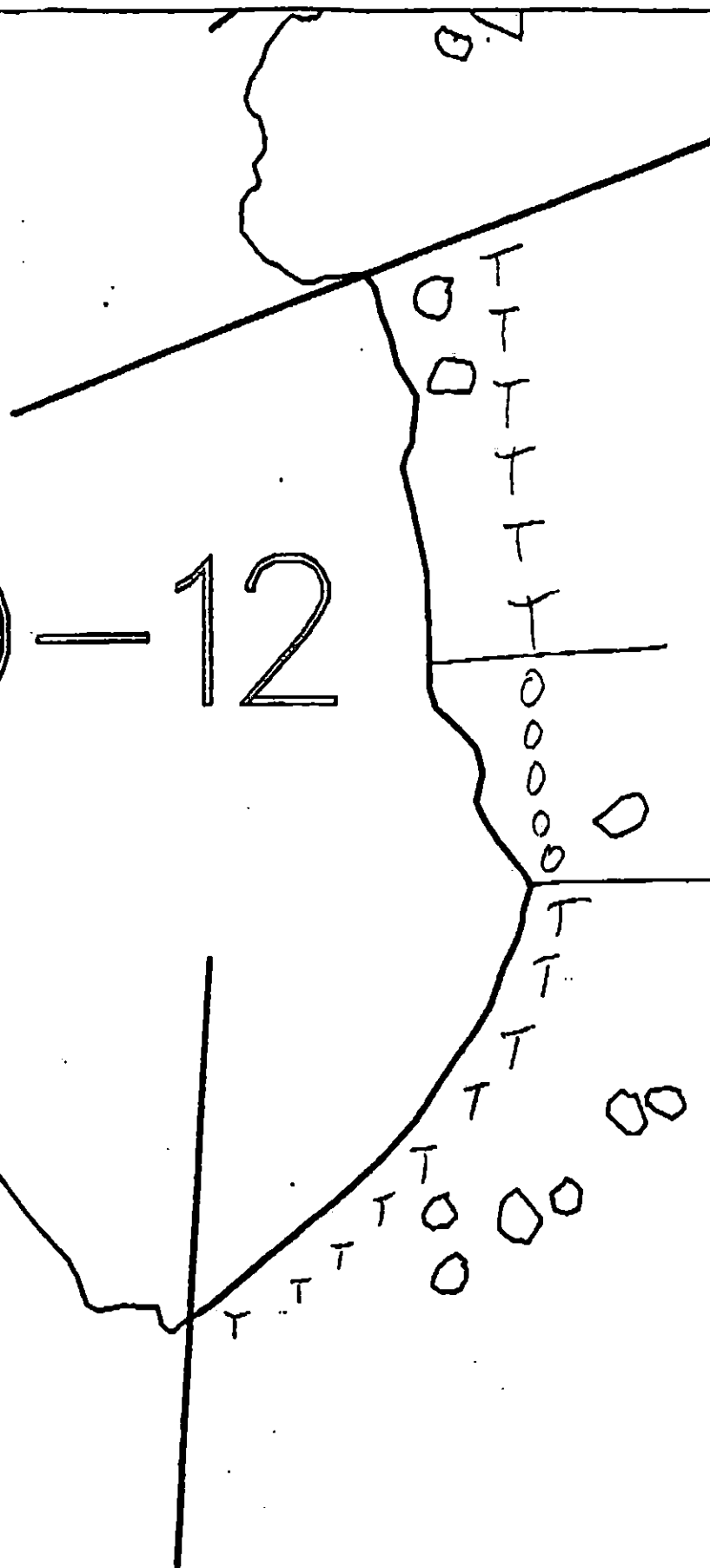
FLORA:

SPECIES	UTTZ	MITZ	LITZ	COMMENTS
BOSSIELLA/CORALLINA				
CALLIARTHRON/CORALLINA				
CLADOPHORA SPP				
COSTARIA SPP				
ENDOCLADIA MURICATA	1	1, 2	1	U, ITZ tidal pools only
FILAMENTOUS GREENS			2, 3	Dominates LITZ throughout
FILAMENTOUS REDS			2, 3	" " "
GLOIOPELTIS FURCATA		1		
HALOSACCION GLANDIFORME		1	1	
LAMINARIA SPP			1, 2	
LITHOTHAMNION		1		In tidal pools
NEREOCYSTIS SPP			2	
PORPHYRA SPP				
RALPHSIA/HILDENBRANDIA				
RHODOMELA LARX		1	1	
RHOHOMENIA PALMATA				
SCYTOSIPHON SPP		1, 2	1, 2	
ULVA SPP		1	1	Mostly new growth in tidal pools
ZOSTERA MARINA				
ENTOROMORPHA			1, 2	Dominates LITZ
Encrusting Bk alg	1	1, 2	1, 2	In tidal pools
Fridene		1, 2	1, 2	

FAUNA:

ANTHOPELEURA SPP		1		In tidal pools
(SEMI) BALUNUS CARIOSUS		1, 2	1, 2	
B. GLANDULA	1, 2, 3	1, 2	1, 2	Throughout segment
BRYOZOANS				
CHITONS (other than K. TUNICATA)				
CLAMS				
CRABS				
DERMASTERIAS IMBRICATA				
KATHARINA TUNICATA				
LEPTASTERIAS HEXACTIS				
LIMPETS	1	1, 2		Notasomea
LITTORINA SPP	1	1, 2, 3	1, 2	
NUCELLA SPP		1, 2	1, 2	
PAGURUS SPP		1, 2		In tidal pools
PISASTER OCHRACEUS				
POLYCHAETES				
PYCNOPODIA HELIANTHOIDES				
SEARLESIA DIRA		1, 2		
SERPULIDS				
SIPHONARIA THERSITES				
TEALIA				
Helichondria		1, 2		In tidal pools

CD-12



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

CD-12

ADEC Segment Length: 1067m

0 100 200 300



Map Key: GOA-32

Name: LINDSAY NAKASHIMA

Date: 4/26/90

Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K9-10-CD-12 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	OPEN

NPS Rep. To Be Present During Treatment

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5R Seabird Colony

No constraint to manual pickup as per conversation from Dan Hamson/NPS to Rex Coulter/Exxon on 6/13/90.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict all activity to essential minimum, especially air traffic. Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

FOSC

R. Zausch

Date

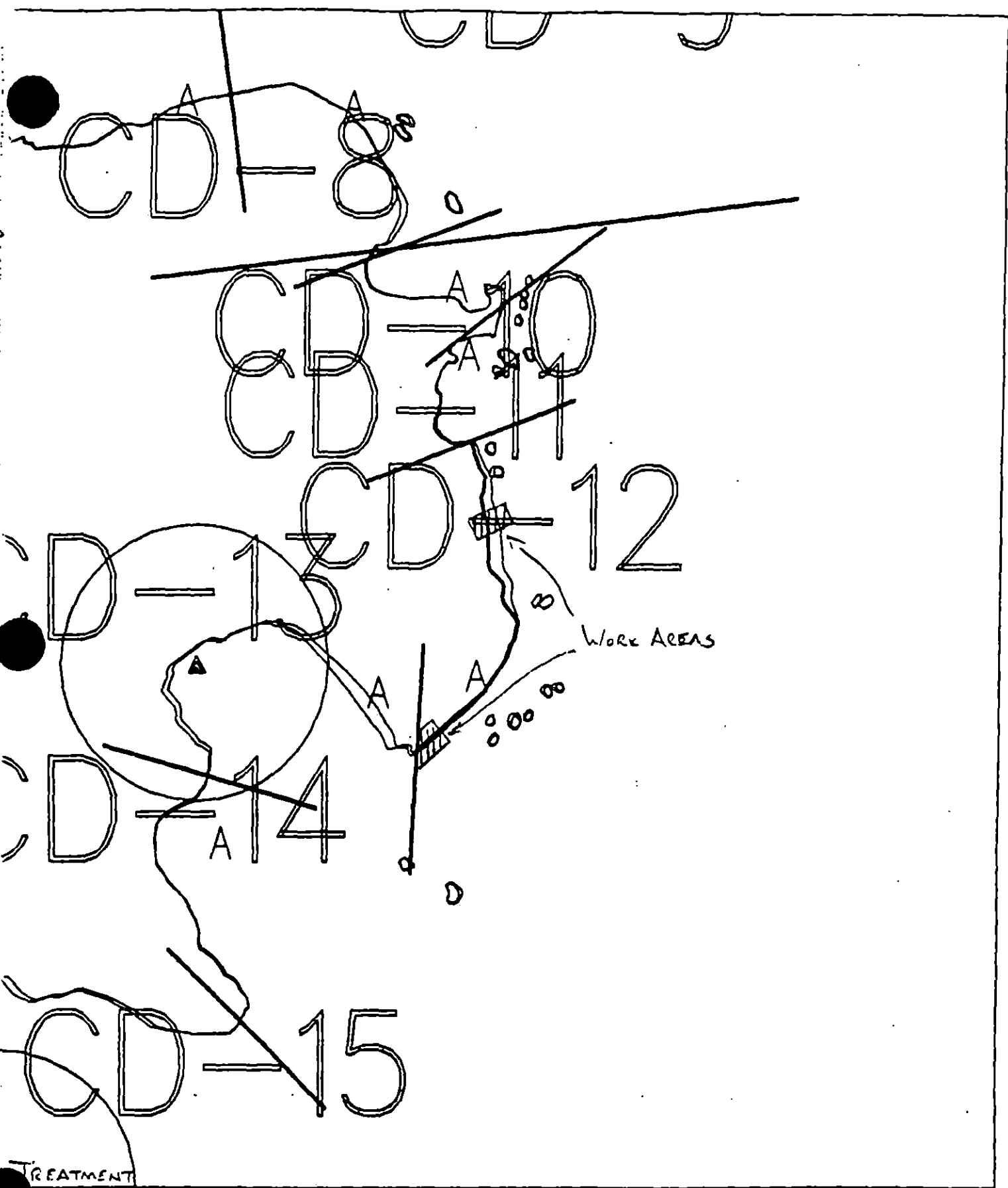
6/13/90

Prepared by

Rex R. Coulter

Date

06-13-90



Exxon Company, USA
Map Key: AKP-CD-12



ECOLOGY MAP
SEGMENT K9N-10 CD-12
SUBDIVISION --- (--- of ---)
METERS

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

SHORELINE EVALUATION

SEGMENT ST/ K9-10-CD-12 SUBDIVISION A (1 OF 1) DATE 4/26/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Katmai National Park

91M Land Mammals

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: [Signature]

DATE: 5/2/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V. Light 851 m: No Oil 216 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

 No Treatment Recommended

X Treatment Recommended

X Manual Pickup

 Bioremediation

 Tarmat Removal

 Snare/Absorbent Booms

 Oil Snares (pom poms)

 Absorbents (pads, rolls, etc)

 Spot Washing: Wands

 Beach Cleaner

 Other (see comments)

COMMENTS: Recommended treatment includes manual pickup of mousse. No specific working time constraints.

SEE CONSTRAINT ADDENDUM

DATED 06-13-90 R4C.

TAG COMMENTS:

TAG APPROVAL DATE: 5/2/90

ADEC [Signature]

EXXON [Signature]

NOAA [Signature]

USCG [Signature]

FOSC: [Signature]

DATE: 5-2-90

NPS Rep to be on scene. Special use permit required.

SHORELINE EVALUATION

SEGMENT ST/ K9-10-CD-12 SUBDIVISION A (1 OF 1) DATE 4/26/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Katmai National Park

9LM Land Mammals

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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: 5/8/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 851 m: No Oil 216 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes manual pickup of mousse. No
specific working time constraints.

TAG COMMENTS:

TAG APPROVAL DATE: 5/8/90.

ADEC *[Signature]*

EXXON *[Signature]*

NOAA *[Signature]*

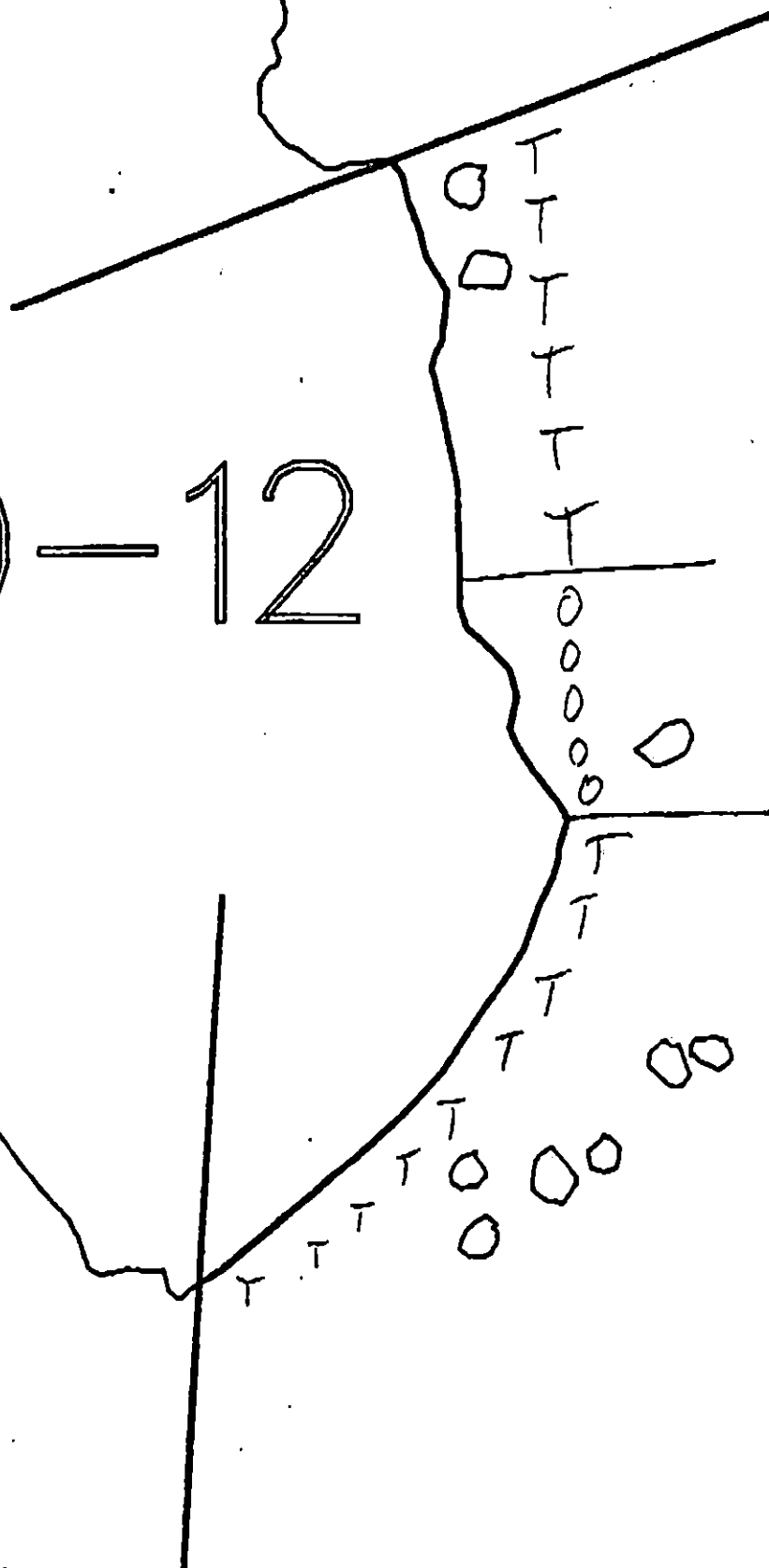
USCG *[Signature]*

FOSC: *[Signature]*

DATE: 5-12-90

NPS Rep to be on scene. Special
use permit required.

CD-12



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

CD-12

ADEC Segment Length: 1067m



Map Key: GOA-32

Name: LINDSAY NAKASHIMA

Date: 4/26/90

REGION: KODIAK

SEGMENT: ST/K9-10-CD-13

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ K9-10-CD-13 SUBDIVISION A (1 OF 1) DATE 4/26/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Katmai National Park

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 29 m: V.Light 384 m: No Oil 956 m
Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes manual removal of mousse
patch in area indicated on sketch map. No specific working time con-
straints.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

KODIAK ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1K0910-CD013 SUBDIVISION: CD013A DATE 4/26/90

NOAA
CG
NAME John Naughton SIGNATURE John J. Naughton

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

This segment had only one small area containing mousse which is recoverable. I collected a sample which included the easily removed mousse. No additional treatment recommended.

ADEC
NAME Terry Ellsworth SIGNATURE Terry Ellsworth

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

One small 3m x 6m area at the eastern end of this segment contains recoverable mousse and cover. Manual removal in this area is recommended.

LAND MANAGER

NAME Carl Schoch SIGNATURE Carl Schoch

☒ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

Any recoverable mousse within the 3 x 6 m patch should be removed.

SHORELINE OILING SUMMARY

REVISION NO. 24-12-90

OG LINDSEY NASHIMA USCG (NOAA) JOHN NAUGHTON SEGMENT ST/ KD910-CD013
 BIO DEA MC GORMICK LAND REP (AIPS) CARL SCHUCH SUBDIVISION CD013A 1 OF 1
 EXXON EPID BYARS ADEC TERRY ELLSWORTH TIME 11:00 to 11:45
 TEAM NO. 19 TIDE LEVEL -3.5 TO -1.80 (M) DATE 4/26/90
 ST. SUBDIVISION LENGTH: 133/ m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 PLANDS DESCRIPTION: ☐ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: EAST to WEST
 SURFACE SEDIMENTS: R 20 % B 40 % C 20 % P 10 % G 5 % S 5 % M 0 % V 0 %
 SLOPE: Long 25 % Hang 15 % Vert 5 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 3 m VL 250 m NO 1078 m

SURFACE OIL

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

PAVEMENT H F S NOVL sq. m by 0 cmPATTIES / TARBALLS NONE BAGSNEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE —#BAGS 0

Photographs:

Roll No. ST-19-18Frames 14-18

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SHEEN (Y/N)	▽	SURFACE - SUBSURFACE SEDIMENTS	
		OP	OR	OL	OF	NO		UO	UG	~~1~~	~~2~~	~~3~~	~~4~~	~~5~~	~~6~~	~~7~~	~~8~~	SU	U					M
1	2					X	0-0		X								X				-	-	-	g/s/p
							.																	
							.																	
							.																	
							.																	
							.																	

COMMENTS

- LARGEST AMOUNT OF OIL AT NORTHERN END OF EMBAYMENT AT THE TOP OF THE UPPER INTERTIDAL ZONE
 — EMBAYMENT CONSISTED OF SUBANGULAR BOULDERS BACKED BY HIGH CLIFFS

REVIEWED YHDATE 4-27-90

OG LINOSA AKASHIMA

SEGMENT ST/ K0910-C0013

SUBDIVISION K0910-C0013A

DATE 4 126 90

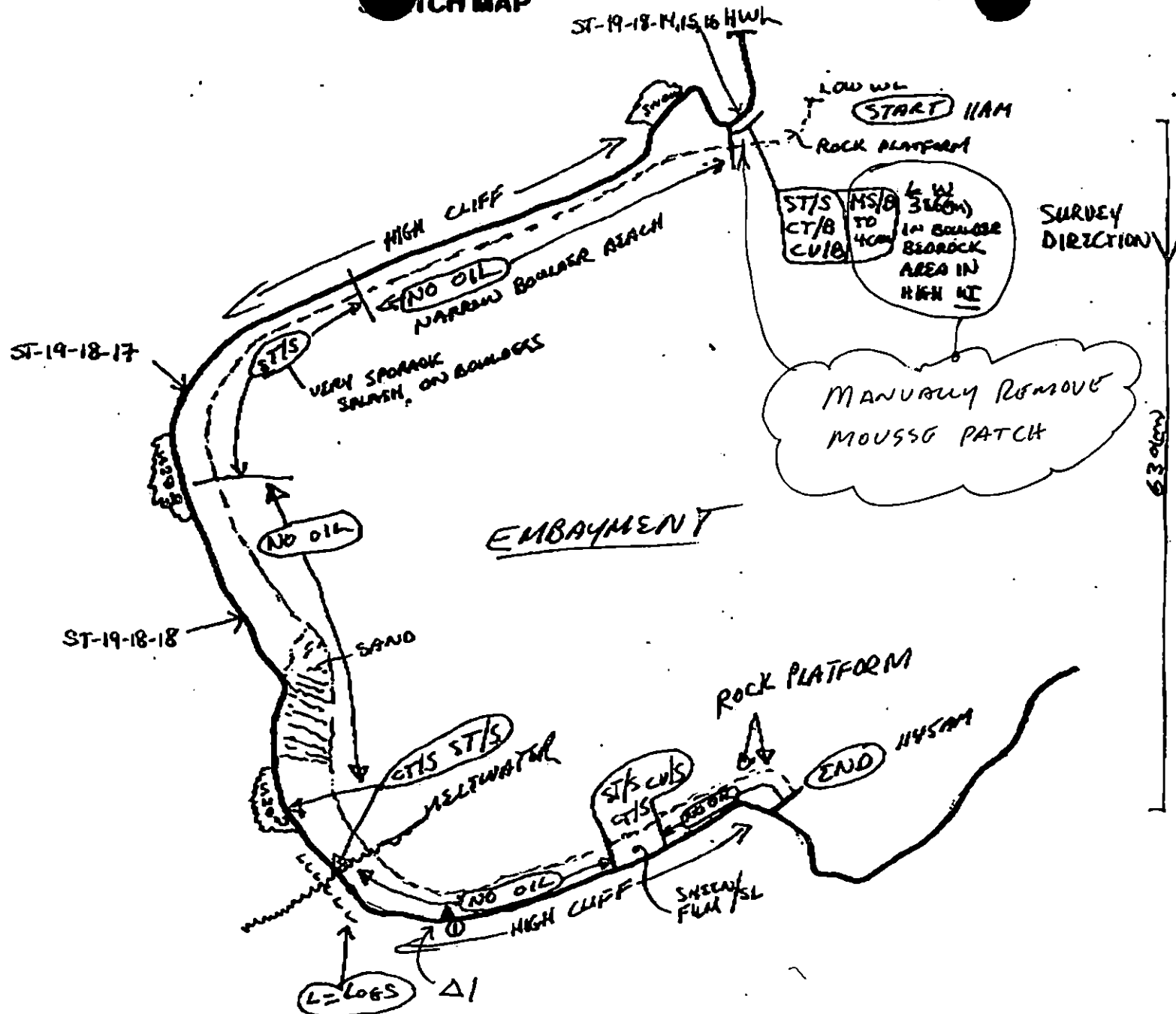
CHECKLIST

- ☐ M Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Study
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HAZ/LAM
- ☐ SGL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PFI Location(s)
- ☐ Photo Location(s)

LEGEND

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

ATCH MAP



Character Length (m): AP 0 PO 0 CV 20 CT 25 ST 250 MS 3 PT 0 TB 0 FL 60 NO 1078

REVISION 5/20/90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/9

Segment ST / K-9-10-CD-13 Subdivision A Date (mo / day / yr) 4-26-90

Time (24 hr) 1100-1145 Biologist D. McCORMICK

(A) Substrate type and % of segments:
(1) Bedrock 20 (2) Boulder 40 (3) Cobble 20 (4) Pebble 15 (5) Sand 5 (6) Silt 0

(B) Overall % cover of biota (% of segment): Dense 15% Moderate 30% Low 55%

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

Photographs:
Roll No. ST-19-18

Frames 14-18

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

Wildlife Observations/ General Comments: Eagles, gulls. Little bio on sand beaches etc. green algal layer on LIT2 boulders. Observations generally based on rock/boulder portions of segment.

Ecological Considerations: Eagles nest + 2 eagles nearby (see ECO map). NOAA suggests seabird colony(ies) in this segment - none observed. No anadromous streams.

DATE 4-26-90 TIME 1100-1145 TIDE HEIGHT -3.5' ~ -1.8'

1 = BEDROCK 2 = BOULDER 3 = COBBLE 5 = SAND 6 = SILT

FLORA:

SPECIES	UTTZ	MITZ	LITZ	COMMENTS
BOSSIELLA/CORALLINA				
CALLIARTHRON/CORALLINA				
CLADOPHORA SPP				
COSTARIA SPP				
ENDOCLADIA MURICATA				
FILAMENTOUS GREENS		2,3	2,3	Dominant in LITZ
FILAMENTOUS REDS			2,3	" "
GLOIOPELTIS FURCATA				
HALOSACCION GLANDIFORME		1,2	2,3	Tide pools & boulder interstices
LAMINARIA SPP			2,3	
LITHOTHAMNION				
NEREOCYSTIS SPP			2,3	Dense in L-Subtidal
PORPHYRA SPP				
RALPHSIA/HILDENBRANDIA				
PHODOMELA LARX				
RHOHOMENTIA PALMATA				
SCYTOSIPHON SPP		2,3	2,3	Moderately dense in patches
ULVA SPP				
ZOSTERA MARINA				
ENTOROMORPHA		2,3	2,3	Very dense on boulders
<i>Frideare</i>		1,2,3	2,3	

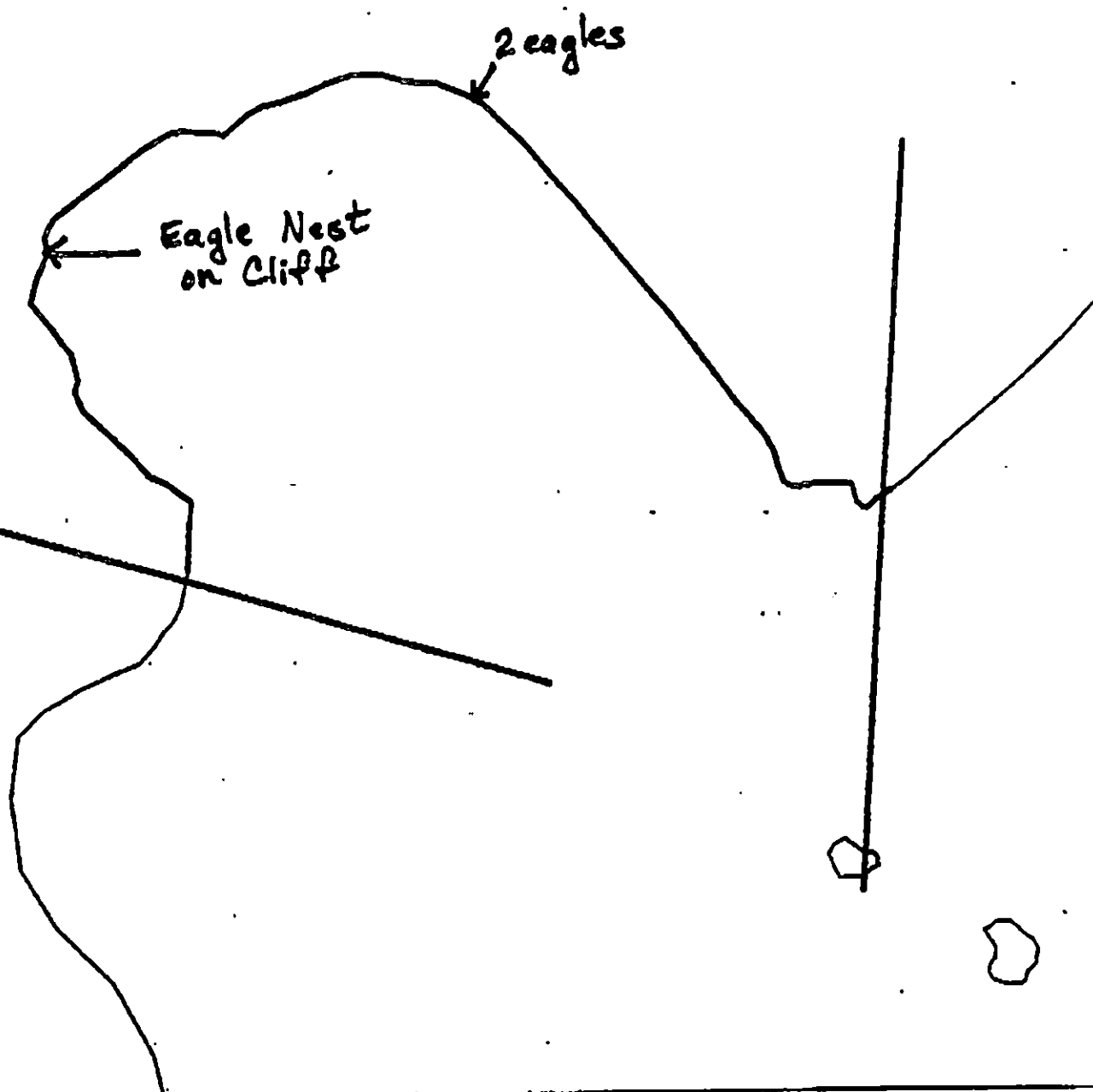
FAUNA:

ANTHOPLEURA SPP			5	
(SEMI) BALUNUS CARIOSUS				
B. GLANDULA	1,2	2,3		
BRYOZOANS				
CHITONS (other than K. TUNICATA)				
CLAMS				
CRABS				
DERMASTERIAS IMBRICATA				
KATHARINA TUNICATA				
LEPTASTERIAS HEXACTES		1		2 juvenile individuals
LIMPETS	1,2	1,2,3		generally sparse. Notresnea
LITTORINA SPP	1,2	1,2,3		Dense recruits on MITZ boulders
NUCELLA SPP				
PAGURUS SPP				
PISASTER OCHRACEUS				
POLYCHAETES				
PYCNOPODIA HELIANTHOIDES				
SEARLESIA DIRA				
SERPULIDS				
SIPHONARIA THERSITES				
TEALIA				
<i>Octopus dofleini</i>			5	young individuals (2) washed up
<i>Unident. worms</i>			5	

ECO MAP

K-9-10-CD-13-A

CD-12



XXXX Wide

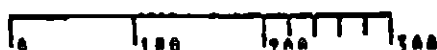
//// Medium

--- Narrow

TTTT Very Light

CD-13

ADEC Segment Length: 1369m

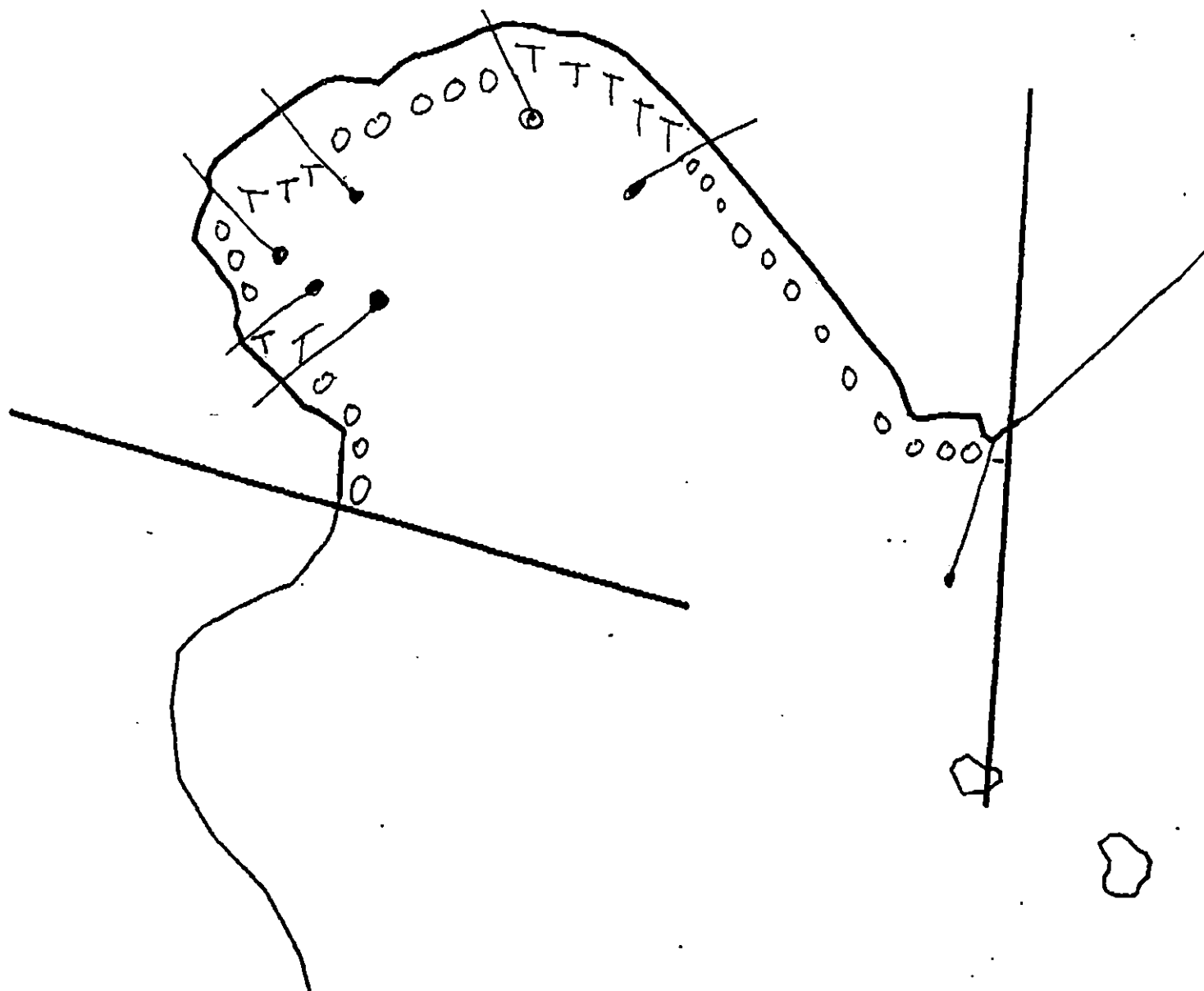


Map Key: GOA-33

Name: _____

Date: _____

CD-12



XXXX Wide

/// Medium

----- Narrow

TTTT Very Light

CD - 13

ADEC Segment Length: 1369m



Map Key: GOA-33

Name: LINDSAY M. KASHAW

Date: 4/26/90

Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K09-10-CD-013 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	CLOSED

NPS Representative to accompany work crew.

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5R Seabird Colony Closed to all activities; work site is less than 800m from seabird colony.

OTHER ECOLOGICAL CONSIDERATIONS

Avoid any unnecessary disturbance or damage to unrolled biota and substrate. If seabird constraint is removed, other ecological considerations will apply. Restrict all activity to essential minimum, especially air traffic.

FOSC

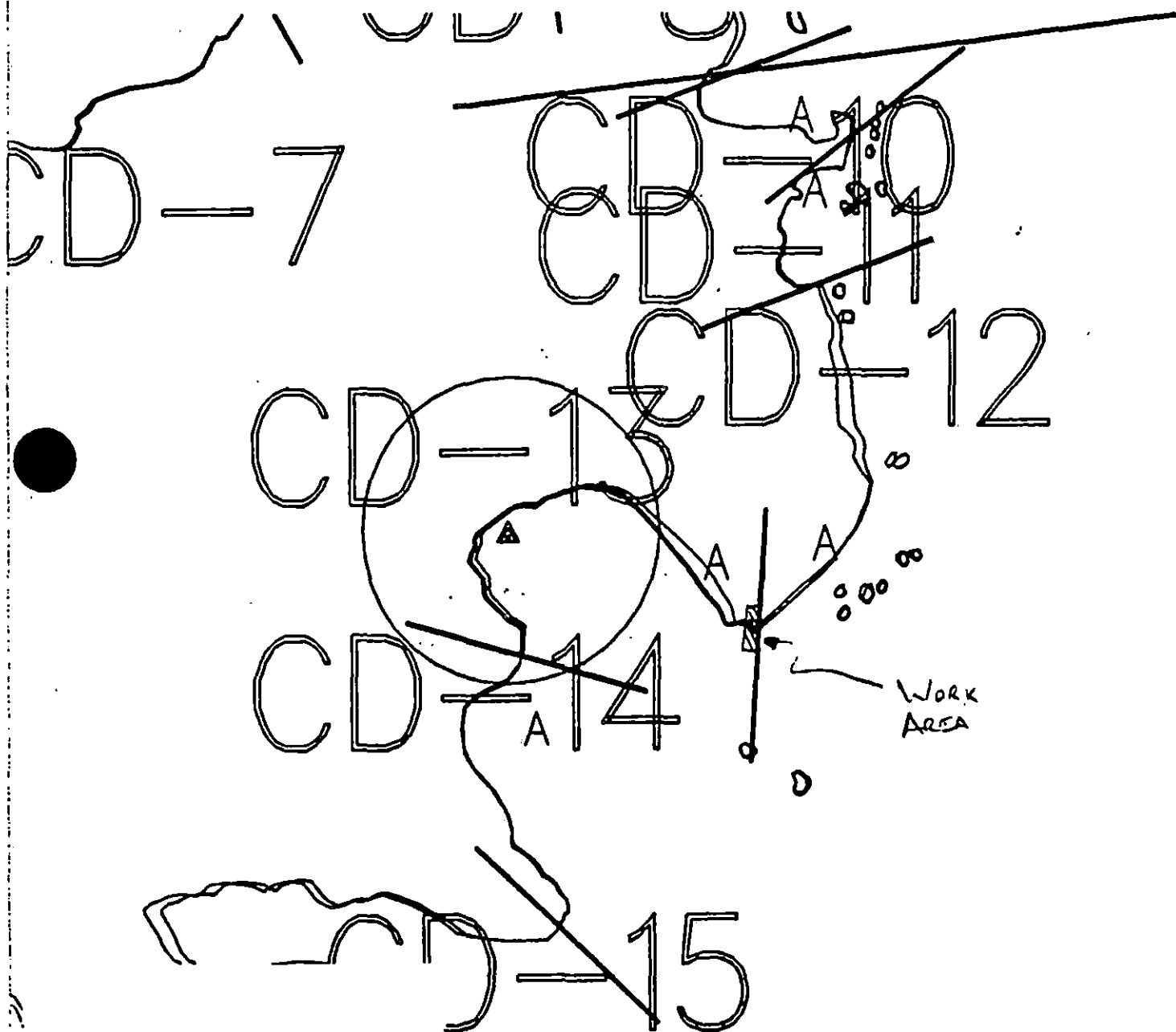
Date

6-20-90

Prepared by

Date

6/20/90



TREATMENT



Exxon Company, USA
Map Key: AKP-CD-13



ECOLOGY MAP
SEGMENT K9N-10 CD-13
SUBDIVISION ___ (___ of ___)
METERS

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

SHORELINE EVALUATION

SEGMENT ST/ K9-10-CD-13 SUBDIVISION A (1 OF 1) DATE 4/26/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
Katmai National Park

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: [Signature]

DATE: 5/3/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 29 m: V.Light 384 m: No Oil 956 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

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

COMMENTS: Recommended treatment includes manual removal of mousse
patch in area indicated on sketch map. No specific working time con-
straints.

SEE CONSTRAINTS ADDENDUM DATED 6/20/90

TAG COMMENTS:

TAG APPROVAL DATE: 5/8/90

ADEC [Signature]
EXXON [Signature]
NOAA [Signature]
USCG [Signature]

FOSC: [Signature]

DATE: 5-12-90

Cleanup activity restricted to mousse patch indicated on field sketch to stay away from eagle nest by 1/4 mile. Check with USFWS to determine status of nest. NPS Rep to be on.

SEGMENT K9-10-CD-13 SUBDIVISION A (1 of 1)

Manual Pickup

OPEN

If cultural resources are uncovered, PHONE 564-3274.

5T Bald Eagle Nest

NO CONSTRAINT. USFWS 4/9/90 map indicates no active nest within 400m of Subdivision A work site.

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

FOSC

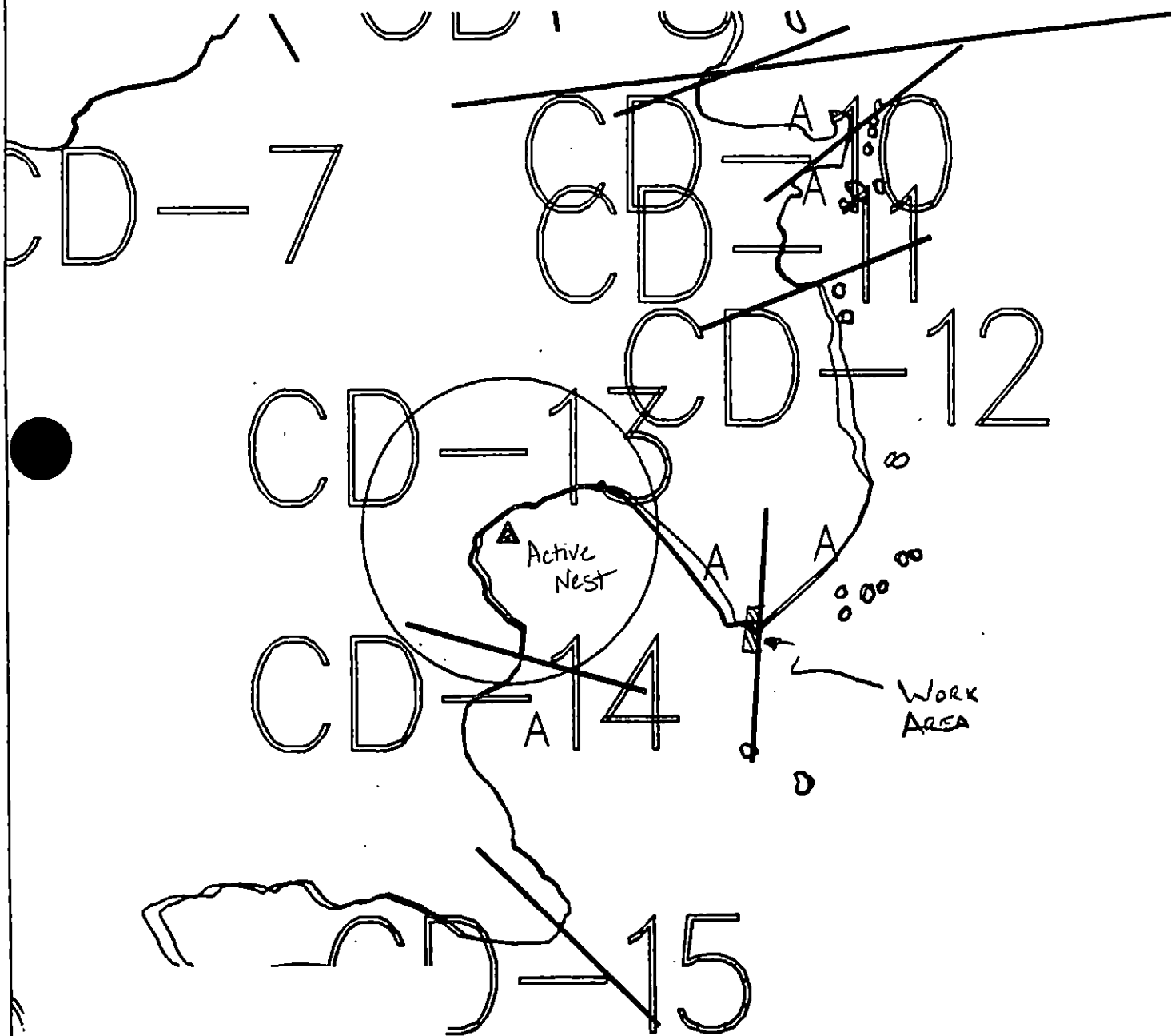
Date _____

6-22-90

Prepared by

Date _____

6/22/90



TREATMENT



Exxon Company, USA



ECOLOGY MAP SEGMENT K9N-10 CD-13 SUBDIVISION A (___ of ___)

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

SHORELINE EVALUATION

SEGMENT ST/ K9-10-CD-13 SUBDIVISION A (1 OF 1) DATE 4/26/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
Katmai National Park

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 29 m: V.Light 384 m: No Oil 956 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes manual removal of mousse patch in area indicated on sketch map. No specific working time constraints.

SEE CONSTRAINTS ADDENDUM DATED 6/22/90 [Signature]

TAG COMMENTS:

TAG APPROVAL DATE: 5/8/90

ADEC [Signature]
EXXON [Signature]
NOAA [Signature]
USCG [Signature]

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

Clean up activity restricted to mouse patch indicated on field sketch to stay away from eagle nest by 1/4 mile. Check with USF+WL to determine status of nest. NPS Rep to be on scene

SHORELINE EVALUATION

SEGMENT ST/ K9-10-CD-13 SUBDIVISION A (1 OF 1) DATE 4/26/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Katmai National Park

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: J. David McManis DATE: 5/8/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 29 m: V. Light 384 m: No Oil 956 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes manual removal of mousse
patch in area indicated on sketch map. No specific working time con-
straints.

TAG COMMENTS:

TAG APPROVAL DATE: 5/8/90.

ADEC Agg Weimer Dnt Dennis

EXXON Andy Tetz

NOAA Gary Petrage

USCG G.A. Reiter

FOSC: DATE: 5-12-90

Cleanup activity restricted to mousse patch indicated on field sketch to stay away from eagle nest by 1/4 mile. Check with USFWS to determine status of nest. NPS Rep to be on scene.

OG LINDSAY NAKASHIMA

SEGMENT ST/ K0910-C0013

SUBDIVISION K0910-C0013A

DATE 4 126 80

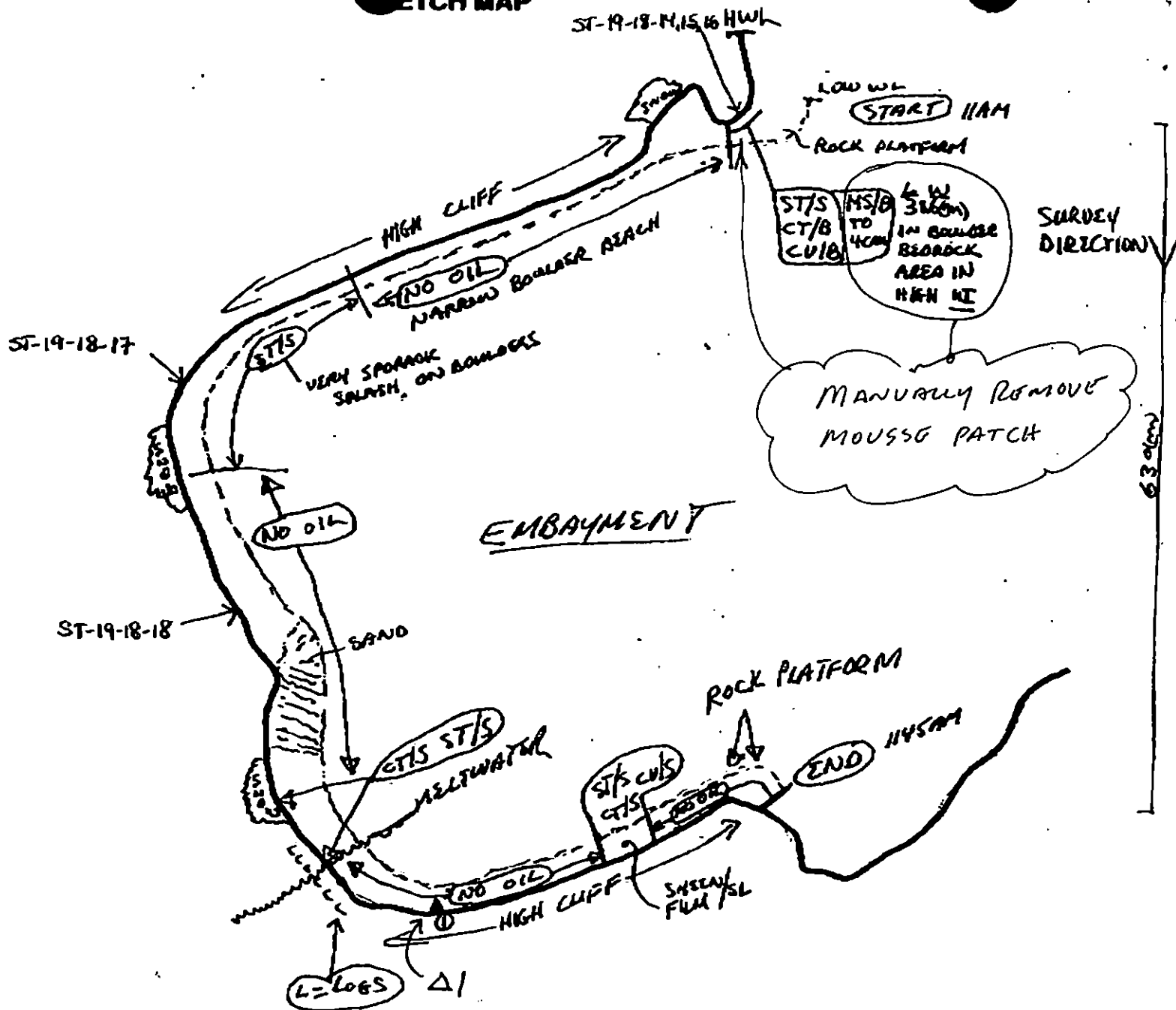
CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Bay/Sub Body
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HRR/LINE
- ☐ SSL
- ☐ Profile 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
Spotted Distribution
- eee
Med Vegetation
- 1 ●→
help to location, direction, and number

ETCH MAP



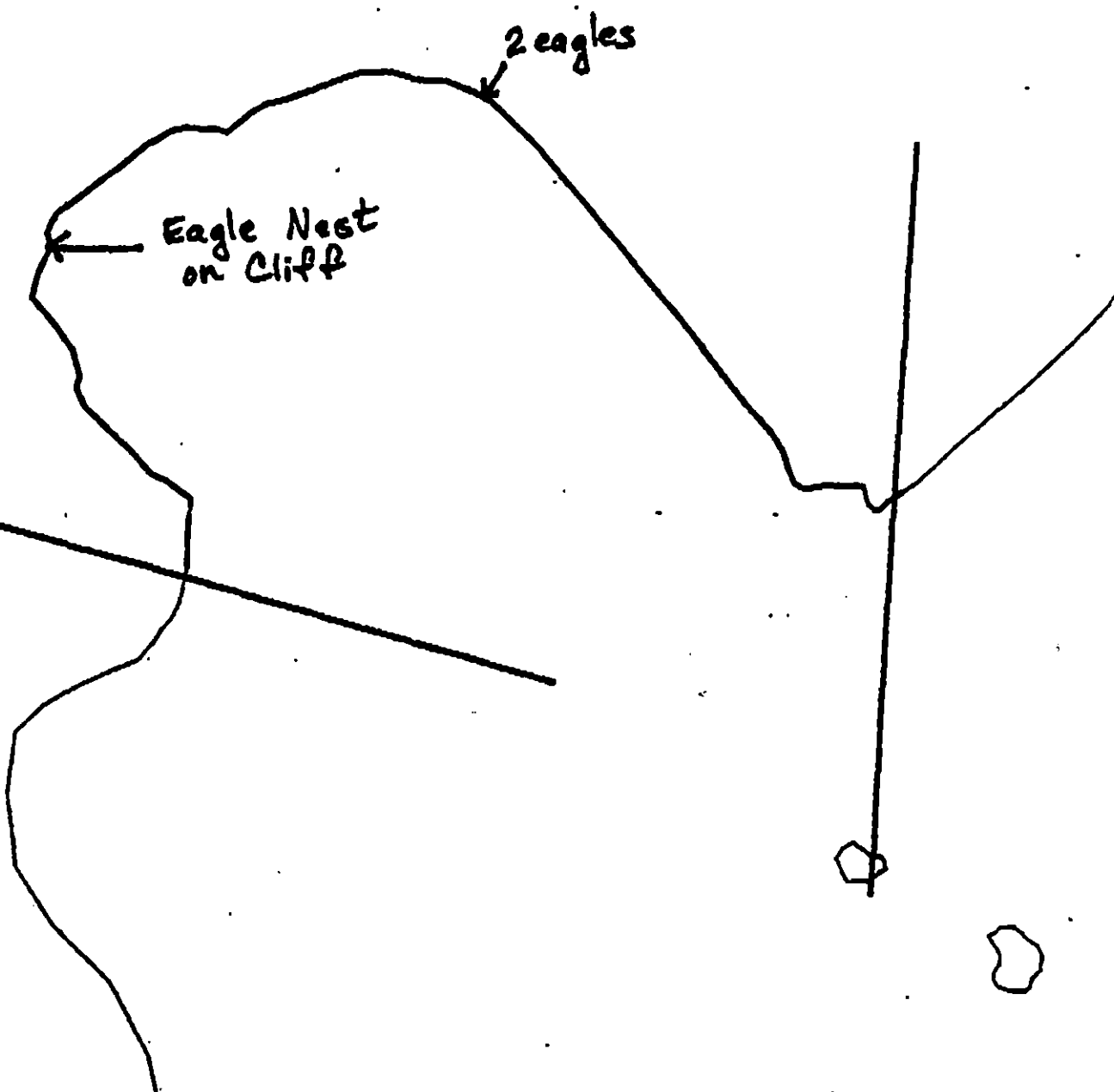
Character Length (m): AP 0 PO 0 CV 20 CT 25 ST 250 MS 3 PT 0 TB 0 FL 60 NO 1078

REVISION 03/04/80

ECO MAP

K-9-10-CD-13-A

CD-12



XXXX Wide

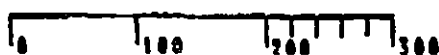
//// Medium

--- Narrow

TTTT Very Light

CD-13

ADEC Segment Length: 1369m

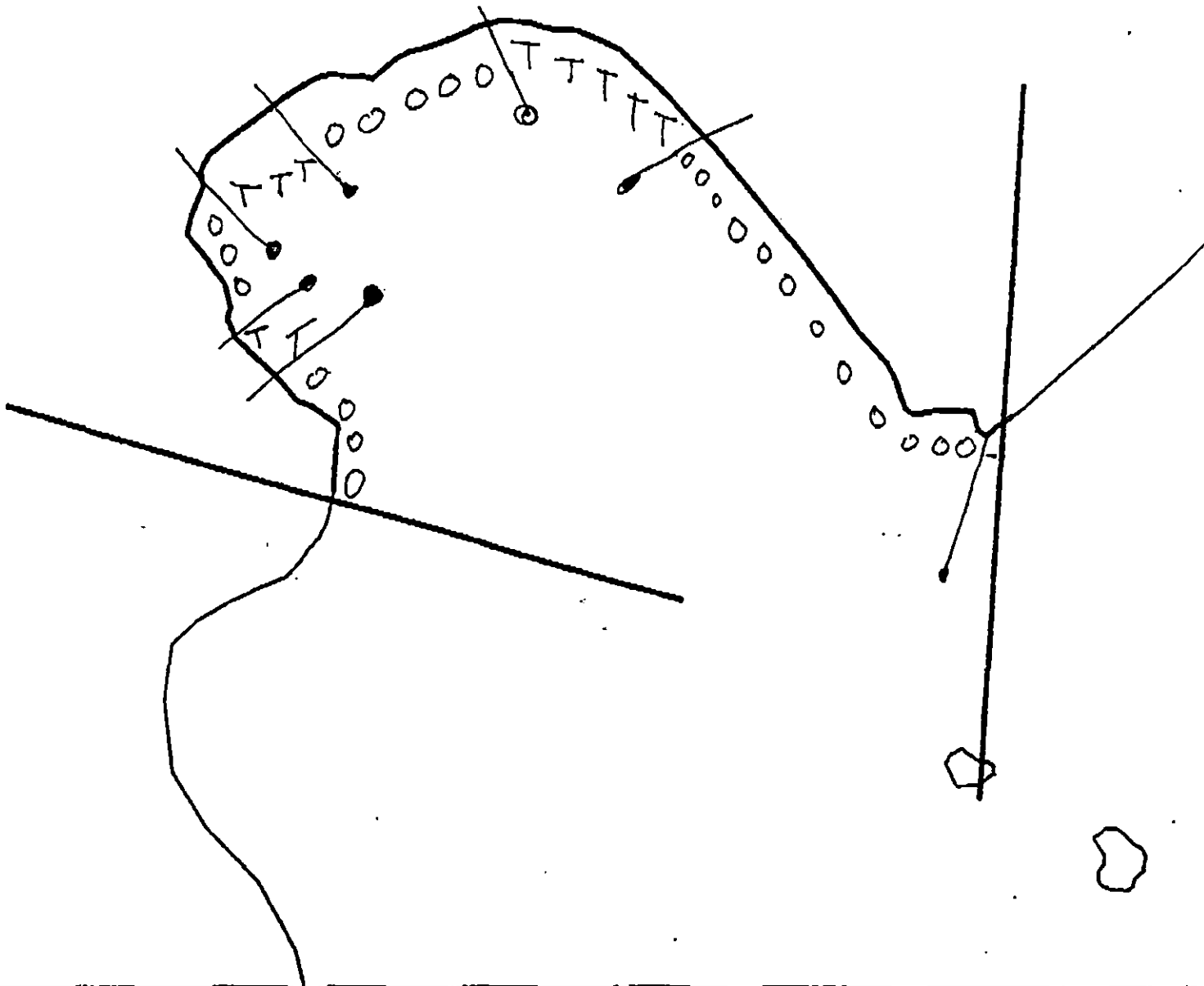


Map Key: GOA-33

Name: _____

Date: _____

CD-12



XXXX Wide

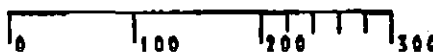
/// Medium

--- Narrow

TTTT Very Light

CD-13

ADEC Segment Length: 1369m



Map Key: 60A-33

Name: LINDSAY MARRASHER

Date: 4/26/90

REVISION 1

7/24/90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K09-10-CD-013 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	~~CLOSED~~ OPEN

G.A. Reiter
for FOSC

NPS Representative to accompany work crew.

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5R Seabird Colony

OPEN

Closed to all activities; work site is less than 800m from seabird colony.

5T Bald Eagle Nest

NO CONSTRAINT USFWS 6/1/90 map indicates no active nest within 400m of Subdivision A Work Site

OTHER ECOLOGICAL CONSIDERATIONS

Avoid any unnecessary disturbance or damage to uncollected biota and substrate. If seabird constraint is removed, other ecological considerations will apply. Restrict all activity to essential minimum, especially air traffic.

FOSC

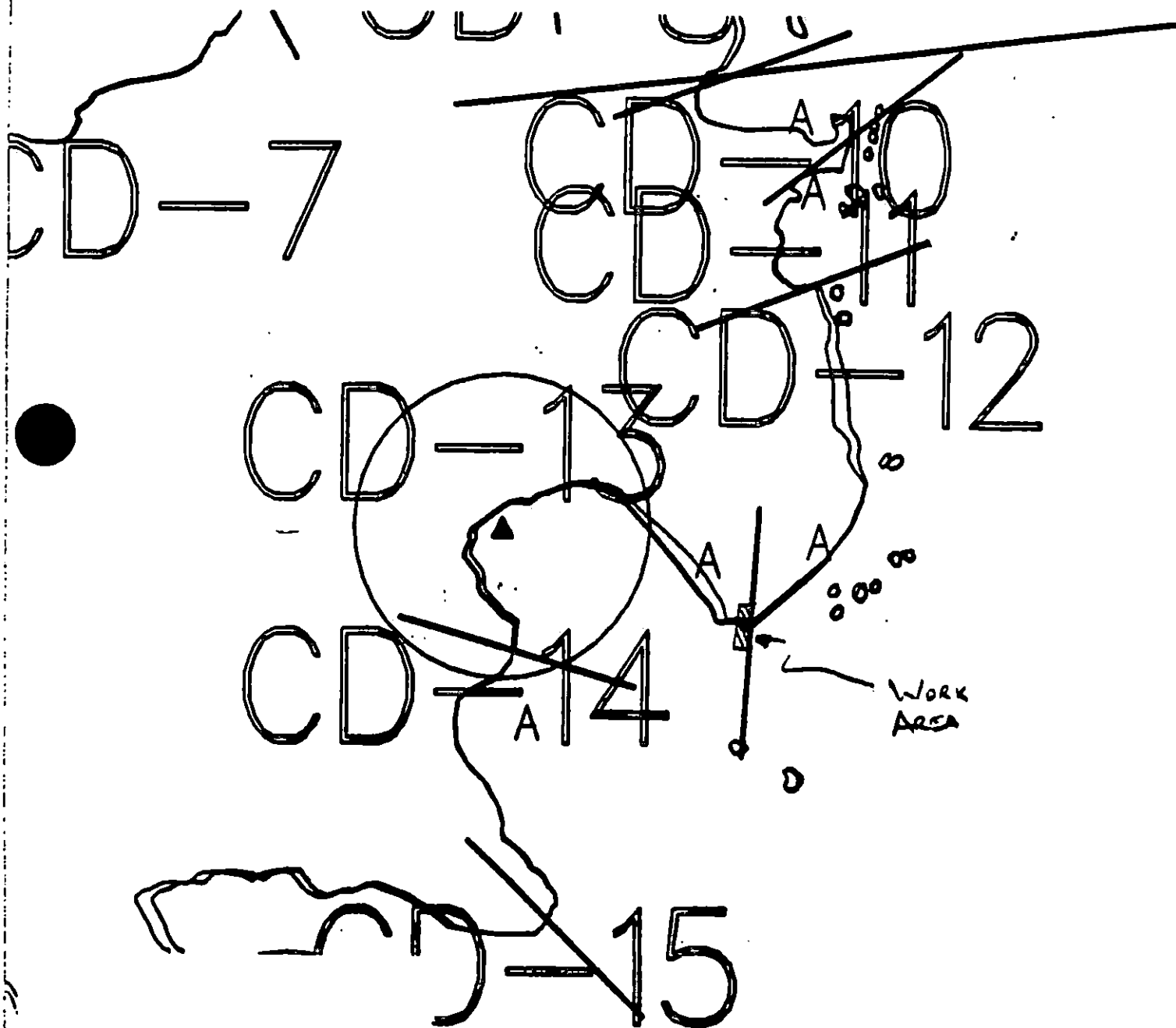
Date

6-20-90

Prepared by

Date

6/20/90



TREATMENT



ECOLOGY MAP SEGMENT K9N-10 CD-13

- ★ Seabird Colony
- ▲ Active Eagle Nest

SHORELINE EVALUATION

SEGMENT ST/ K9-10-CD-13 SUBDIVISION A (1 OF 1) DATE 4/26/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
Katmai National Park

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

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

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 29 m: V.Light 184 m: No Oil 956 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes manual removal of mousse
patch in area indicated on sketch map. No specific working time con-
straints.

SEE CONSTRAINTS ADDENDUM DATED 6/20/90

REVISION 1 TO
SEE CONSTRAINTS ADDENDUM DATED 7/24/90

TAG COMMENTS:

TAG APPROVAL DATE: 5/3/90

ADEC [Signature]
EXXON [Signature]
NOAA [Signature]
USCG [Signature]

FOSC: [Signature]

DATE: 5-12-90

Clean up activity restricted to mouse pads

SHORELINE EVALUATION

SEGMENT ST/ K09-10-CD-14 SUBDIVISION A (1 OF 1) DATE 4/26/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Katmai National Park

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: J. David McMan

DATE: 5/8/90

OILING CATEGORIZATION:

Wide 0 m: Medium 106 m: Narrow 97 m: V.Light 135 m: No Oil 599 m
Subsurface Oil Observed: Yes X No Maximum Depth 5 cm

RECOMMENDATIONS:

 No Treatment Recommended
X Treatment Recommended
X 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 manual removal of mousse in areas indicated on sketch map. No specific working time constraints.

TAG COMMENTS: MANUAL REMOVAL OF MOUSSE IF INACCESSIBLE
SPOT WASH IF REQUIRED PRIOR TO BIOREMEDIATION

TAG APPROVAL DATE: 5/8/90.

ADEC Art W. Wierman
EXXON Andy T. Bar
NOAA Gary Patridge
USCG G.A. REITER

FOSC: W L

DATE: 5-12-90

Inv. pol. has not approved. NPS Rep to be on scene. Special use permit required.

OG LINDSAY BIKASHIMA

SKETCH MAP

SEGMENT ST/ K0910-CD004

SUBDIVISION CD014A

DATE 4/26/90

CHECKLIST

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

LEGEND

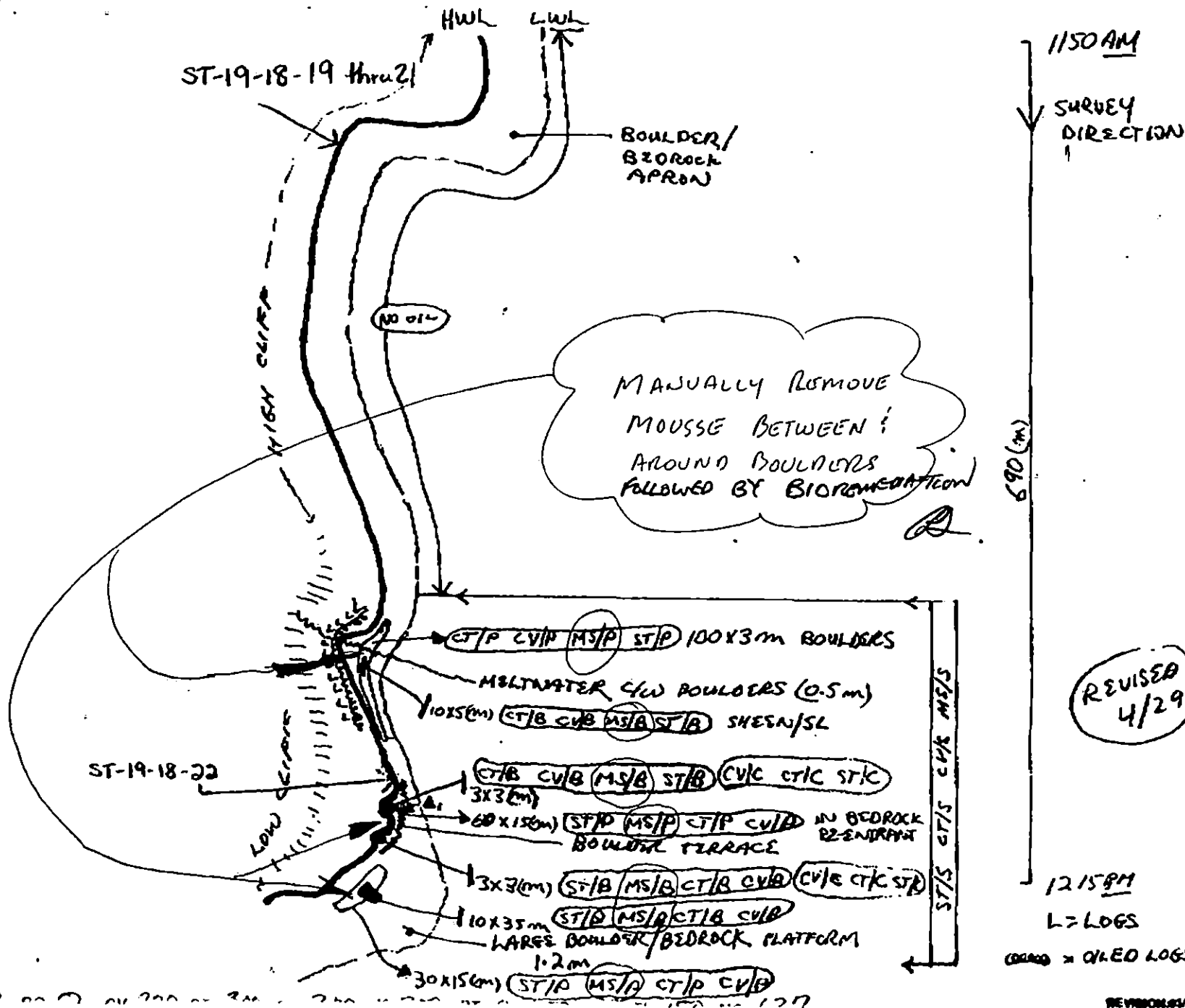
- 1 Δ
Pit - No Subsurface Oil
- 2 Δ
Pit - Subsurface Oil
- CT/C

Continuous Distribution
- CT/B

Broken Distribution
- CT/P

Patchy Distribution
- CT/S

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



CD-15

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CD-14

ADEC Segment Length: 937m



Map Key: 60A-34

Name: LINDSAY NAKASHIMA

Date: 4/26/90

Date Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K09-10-CD-14 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	OPEN
Bioremediation*	OPEN

*No Inpol - Use Customblen Only.
NPS Rep. To Be On Location

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

No ecological time constraints.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

[Signature]

Date

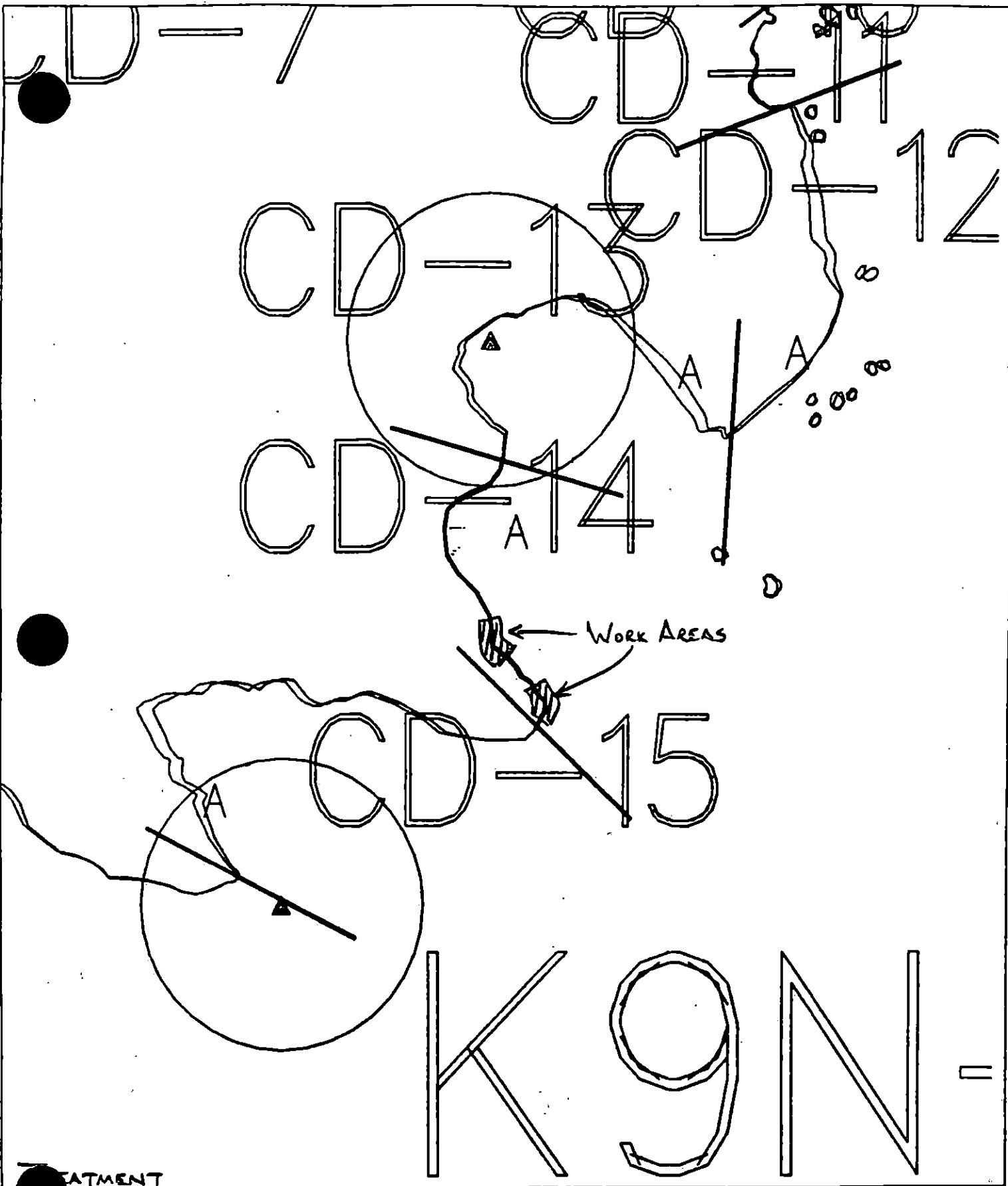
6/16/90

Prepared by

[Signature]

Date

06-14-90



Exxon Company, USA
Man Kavi AKP-CD-14



ECOLOGY MAP
SEGMENT K9N-10 CD-14
SUBDIVISION A (1 of 1)
METERS

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

SHORELINE EVALUATION

SEGMENT ST/ K09-10-CD-14 SUBDIVISION A (1 OF 1) DATE 4/26/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
Katmai National Park

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: [Signature]

DATE: 5/8/90

OILING CATEGORIZATION:

Wide 0 m: Medium 106 m: Narrow 97 m: V.Light 135 m: No Oil 599 m
Subsurface Oil Observed: Yes X No Maximum Depth 5 cm

RECOMMENDATIONS:

 No Treatment Recommended
X Treatment Recommended
X 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 manual removal of mousse in areas indicated on sketch map. No specific working time constraints.

SEE CONSTRAINT ADDENDUM
DATED 06-14-90. LDC

TAG COMMENTS: MANUAL REMOVAL OF MOUSSE IF INACCESSIBLE
SPOT WASH IF REQUIRED PRIOR TO BIOREMEDIATION

TAG APPROVAL DATE: 5/8/90.

ADEC [Signature]
EXXON [Signature]
NOAA [Signature]
USCG [Signature]

FOSC: [Signature]

DATE: 5-12-90

IN. pol has not approved. NPS Rep to be on scene. Special use permit

REGION: KODIAK

SEGMENT: ST/K09-10-CD-14

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ K09-10-CD-14 SUBDIVISION A (1 OF 1) DATE 4/26/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
Katmai National Park

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 106 m: Narrow 97 m: V.Light 135 m: No Oil 599 m
Subsurface Oil Observed: Yes X No _____ Maximum Depth 5 cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes manual removal of mousse in areas indicated on sketch map. No specific working time constraints.

TAG COMMENTS: _____

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

FOSC: _____ DATE: _____

KODIAK ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K0910-CD014 SUBDIVISION: CD014A DATE 4/26/90

~~NOAA~~
~~1988~~
NAME

John Naughton SIGNATURE John Y. Naughton

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Although not on our priority list this segment contains more oil than the other four segments surveyed today. The oil was found only in the southern portion of the segment. Several patches of medium oil here including recoverable mousse between large boulders. This oil should be removed. No anadromous streams, mammals or unusual birds observed. Treatment recommended just in the medium oil area (also narrow).

ADEC

NAME Terry Ellsworth

SIGNATURE Terry Ellsworth

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Mousse trapped in cracks and between boulders and cover on bedrock and boulders occurs in variable amounts from broken to patchy in the southern 300m of the segment. If not removed this oil will persist. Manual removal is recommended. Removal of mousse from between boulders will be difficult and require the use of small tools.

LAND MANAGER

NAME Carl Schach

SIGNATURE Carl Schach

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Recoverable mousse was found at the southern portion of this segment in several patches of variable dimensions. Sheen was observed in pooled runoff water below the heavier concentrations.

CG Lindsay NALASHIMA USCG (NOAA) JOHN NAUGHTON SEGMENT STI K0910-CDO14
 BIO DEA MC CORMICK LAND REP (NPS) CHARL SCHUCH SUBDIVISION CDO14A (1 OF 1)
 EXXON EPID AVARS ADEC TERRY ELLSWORTH TIME 11:50 TO 12:15
 TEAM NO. 19 TIDE LEVEL -1.40 TO +0.80 ASIDE DATE 4/20/90
 EST. SUBDIVISION LENGTH: 937 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 ISLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock GRASS AREAS ON TOP OF ROCK CUFFS
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: NORTH TO SOUTH
 SURFACE SEDIMENTS: R 20 % B 40 % C 30 % P 5 % G 5 % S 0 % M 0 % V 0 %
 SLOPE: Long 60 % Hang 40 % Vert 0 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 32 m N 190 m VL 90 m NO 637 m

SURFACE OIL

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

PAVEMENT H F S NONE sq. m by 0 on

PATTIES / TARBALLS NONE BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	X		
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒

TYPE —

#BAGS 0

Photographs:

Roll No. ST-19-18

Frames 19-22

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	GREEN	CYAN	↓	SURFACE-SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	UC	1	2	3	4	SU	U	M	L					
1	5			X			0-5	X				X		A				N	N	N		4/18

COMMENTS

SOUTHERN EXTREMITY OF SEGMENT (≈ 300 m) HAS VARYING QUANTITIES OF OIL RANGING FROM VERY LIGHT IN THE ENTIRE AREA TO BROKEN IN AREAS, PARTICULARLY RE-ENTRANTS IN THE HIGH-UPPER INTERTIDAL ZONE.

REVIEWED MH

DATE 4-29-90

OG LINDA BAKSHINA

SKETCH MAP

SEGMENT ST/ K0910-CD014

SUBDIVISION CD014A

DATE 4/26/90

CHECKLIST

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

LEGEND

1 Δ

PH - No Subsurface Oil

2 Δ

PH - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

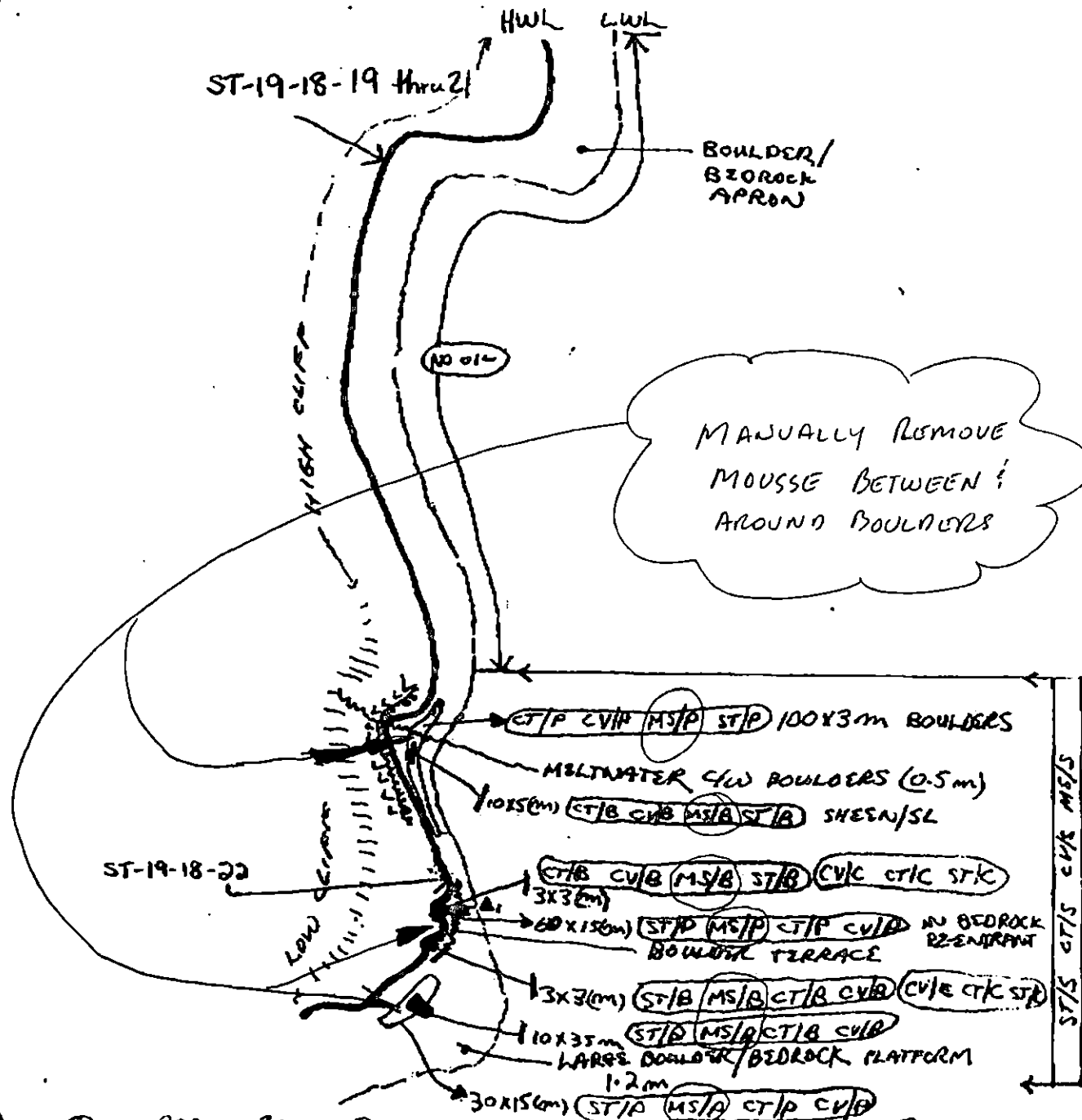
Speckled Distribution

eee

Oiled Vegetation

1 ●

Photo location, direction, and number



1150 AM
SURVEY DIRECTION

690 (m)

REVISED
4/29

1215 PM

L = LOGS

ORANGE = OILED LOGS

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/23

Segment ST / K-9-10-Cb-14 Subdivision A Date (mo / day / yr) 4-26-90Time (24 hr) 1145 - 1215 Biologist D. McCormick(A) Substrate type and % of segments:
(1) Bedrock 20 (2) Boulder 40 (3) Cobble 30 (4) Pebble 10 (5) Sand 0 (6) Silt 0(B) Overall % cover of biota (% of segment): Dense 10% Moderate 30% Low 40%

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

Photographs:
Roll No. ST-19-18Frames 19-22

BARNACLES

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

NOT PRESEN

MYTILUS

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

GASTROPODS

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

NOT PRESEN

FUCUS

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

Wildlife Observations/ General Comments: No mammal or birds observed in this segment.Ecological Considerations: No anadromous streams. No eagle nests or seabird colonies. No ECO map included in this report.

CD-15

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CD-14

ADEC Segment Length: 937m

0 100 200 300
METERS



Map Key: 60A-34

Name: LINDSEY NAKASHIMA

Date: 4/26/90

Date Entered:

REGION: KODIAK

SEGMENT: ST/K09-10-CD-015

SUBDIVISION: A (1 of 1)

SHORELINE EVALUATION

SEGMENT ST/ K09-10-CD-015 SUBDIVISION A (1 OF 1) DATE 5/5/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

4LL State Marine Park National Parks

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3274 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 49 m: Narrow 8 m: V.Light 231 m: No Oil 1530 m
Subsurface Oil Observed: Yes _____ No X Maximum Depth 7+cm

RECOMMENDATIONS:

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

COMMENTS: Recommend manual pick up of mousse, pooled oil and tarballs
followed by bioremediation as indicated on the attached sketch map. Work
after 6/1 with approval of USFWS regarding eagle nest.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

KODIAK ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ K09-10 - C0015 SUBDIVISION: A DATE 5/5/90

NAME STEPHEN LEHMAN SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS
Generally agree with ADEC assessment of the heavily impacted areas, however, manual removal would require ~~substantial~~ substantial disturbance of the beach. Suggest other methods of removal be considered. Further agree with ADEC that, despite the presence of oil, the SW end of the segment should not be treated due to the pair of nesting eagles.

ADEC NAME Terry Ellsworth SIGNATURE Terry Ellsworth

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS
Much of the oiling in this segment consists of stain, coat and cover, mousse occurs in bedrock cracks and crevices and interstitial between cobbles and boulders. There are two main areas of oiling in the segment, one at the east end of the segment and the second at the SW end of the segment. Smaller concentrations occur throughout the segment (see sketch map). Manual removal of mousse is recommended in the impacted area at the east end of the segment. Treatment is not recommended at the SW end because of the small amount of recoverable oil and the presence of an eagle nest with eggs.

LAND MANAGER NAME Carl Schoch SIGNATURE Carl Schoch

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS
Recoverable oil consists primarily of interstitial mousse in the boulder/cobble areas indicated on the sketch maps and in isolated crevices/fractures in the bedrock shoreline. The pocket beach in the southwest corner of the segment contains some oiled logs and 2 large (~100m) tarballs were found.

SHORELINE OILING SUMMARY

REVISION NO. 34.13.90

OG G. HEYMAN NOAA S. LENHART SEGMENT ST/ K-09-10-CD-015
 BIO L. SHARMAN USCG C. SCHOSH LAND REP NPS SUBDIVISION A (1 OF 1)
 EXXON Not Present ADEC T. FLEWORTH TIME 15:30 10/18/90
 TEAM NO. 19 TIDE LEVEL +2 to +2 3/4 DATE 5/10/90
 EST. SUBDIVISION LENGTH: 1860 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 60 % B 20 % C 10 % P 6 % G 4 % S 0 % M 0 % V 0 %
 SLOPE: Long 10 % Hang 60 % Ven 30 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 45 m N 5 m VL 200 m NO 1610 m

SURFACE OIL

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

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

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

Photographs:

Roll No. ST-19 (TIF) -1Frames 2

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	SHEEN (Y/N)	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		US	US	1	2	3	4	SU	U	M	U			
1	7	X					0-7	X				X		X				N	-	B-C/PGA
2	7	X					0-7	X				X		X				N	-	B-C/BPR
							.													
							.													
							.													
							.													

COMMENTS

 REVIEWED BAT DATE 10 May 90

REMOVAL OF
MOUSSE FOLLOWED
BY BIOREMEDIATION

1610	110	70	24	45	1
NO	ST	CT	CV	MS	PD

Grass covered
Terrace

Very random
ST-CT/S

MANUAL REMOVAL
OF MOUSSE
AND POOLED OIL

5x3m in fracture, oiling same
as in crevices @ Pit 2 location

ST-CT/S/P on Bdrk
MS/S in pab-gran w/
bldr interstices, protected
behind bdrk lin created
by pre dominant fracture
orientation.

Area not walked, steep rock
wall with lower smooth
low angle face covered w/
green algae, no oil
observed from either end.

MANUAL REMOVAL
OF MOUSSE, POOLED
OIL AND TARBALLS

Pooled MS/S
in small
facs 1x3cm
to 2cm thick.
In 1x1m area
1% cover

Boulders w/
CT-CV/S < 1%
2x30m

POCKET
BEACH

Snow

5x10m area
MS/P/S Peb-Gran in
interstices b/n boulders
ST-CT/S with CV/S
splatters on boulders < 1%
cover

5x3m with MS/S
ST-CT/S, all < 1%
cover in J-MITE
MS/S in splatters to
3x3cm, 1.2m thick,
DBL exterior, shiny
DBR interior

Area 1

3 MS splatters
like @ Area 1

5x20m area with CV/S
& CT-ST/P, 5x5m area
w/ interstitial MS/S

APPROXIMATE
EAGLE NEST
LOCATION

Wave Cut
Bedrock Platform

25m ring of
ST+CT+CV+MS/S to
IP around area w/
IP distribution

10x15m w/
ST-CT+CV+MS/P

Oiling continues
into adjacent
segment for
~10m

SKETCH MAP

C. Hayman

ST/K 09-10-CD 015 A

10/1

5/5/90

125
0
METERS

LEGEND
1. Pit w/ Subsurface Oil

OG COMMENTS K-04-10-CD-015 5-5-90 G. HEYMAN

Segment consists of a narrow inlet bound by steep bedrock walls and boulder covered slopes. The points north and south of the inlet are composed of wave cut bedrock platforms. A small pocket beach lies in the head of the inlet.

The majority of the oiling observed in this segment was located on the bedrock platforms at each segment boundary. The oiling occurred above the MITZ in fairly well defined zones, splatters outside the zones indicated on the sketch map were not observed. Within the zones, M, ST, CT, & CV combined to form 1P & 1S

distributions. On the northern point, a band of MS filled the pebble-granule pore spaces in the interstices below boulders and cobbles. Dark brown shiny MS was observed on the under-side of cobbles in this 1/2-2m X 20 m band. The band was within a zone of MS-CV-CT-ST on the bedrock and boulders throughout the UITZ. Splatters of ST-CT-CV/S continued into the SUTZ and was observed randomly on drift logs. Two or 3 very small sheens were observed on tidal pools in bedrock crevasses. On the southern point a 10x15m area of ST-

CT-CV-MS combined to form a patchy (~30-40% cover) distribution. This was surrounded by a ring ~5m wide of the same oiling characters with <10% cover. The MS in this area was filling small fractures or occurred as 1-2mm thick patches w/ DBL exteriors & shiny DBR sticky interiors. The fracture filling was generally <1cm thick, and very narrow.

OG Comments K-09-10-CD-015 (concluded)

South of the northern boundary, 5 fractured bedrock-protected chaams were observed with /S, /P & /B distributions of MS+CT+CV+ST. The chaams are narrow and the heavier oiling concentrations are very limited in extent. MS was observed as small fracture filling or filling pebble-granule pores beneath boulders.

Two additional areas were observed with MS in pebbles and granules in boulder interstices.

One 5x10m area with /S distribution north of the pocket beach, and the other a 5x20m area ^{of CV, CT & ST} w/ a 5x5m area of interstitial MS/S.

The remainder of oiling observed in this segment occurred as very random splatters on boulders and bedrock. Areas where these were observed are shown on the sketch maps.

SHORELINE ECOLOGICAL SUMMARY (Page 1 of 4)

REVISION: 08/22/79

Segment ST / CD-15 Subdivision A Date (mo / day / yr) 5/5/90Time (24 hr) 1530-1800 Biologist SHARMANSpent 1st 1/2 hour surveying small section of N. end (the window opened 1600).(A) Substrate type and % of segment: SUBDIV.
(1) Bedrock 60 (2) Boulder 20 (3) Cobble 10 (4) Pebble 6 (5) Sand 4 (6) Silt Granules(B) Overall % cover of biota (% of segment): Dense Moderate X Low
SUBDIV.

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

Photographs:

Roll No. ST-19 (III) - 1Frames 2

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS (NACELLA, LITTORINA, LYMAETE)

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	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: ~ 25 glaucous-winged gulls, ~ 10 glaucous gulls, 2 ravens, 1 cormorant, 1 murrelet, 1 subadult eagle attacking (commensally) raven on bluff edge (other defended, & eventually headed down to where among rocks). 1 pair adult breeding eagle with active nest (2 eggs) - see Ecol. Considerations section below. From line surveying off N. point (pilot report says ~ 160 further offshore (1-2 miles out). Upland bluff margin is heavily used by terrestrial mammals (cont.)

Ecological Considerations:

Please refer to attached Eco. Maps. The eagle nest is definitely very active (2 eggs ready to helicopter pilot) with 2 protective adults - nest is very accessible from edge of bluff above. Nest must be protected from any human disturbance. Entire bluff top, particularly the edge along the entire segment, is very important for mammal foraging and as a travel route. N.P.S. representative reports there is another eagle nest just around the corner to the N. on adjacent segment CD-14.

Searman
5/5/90General Comments (cont.):

There are abundant fox scats, one observed bear scat, the usual major bear/fox/wolf trail along the bluff edge, 3 bird bills (species unknown - probably gulls), a few areas of bear diggings (usually targeting Fucus roots), rare ptarmigan scat. Eagle/raven/gull feeding remains (fish bones, chiton scutes, urchin test fragments). Fox scats contain feathers, bone fragments, fur. Dominant summer terrestrial plants are sprouting - Argemone, Horsetail, Galen, some grasses (incl. Elymus), and another unidentified monardella (lily?).

This is a very exposed, wave-battered rock cliff shoreline. Intertidally the biological community is naturally highly stressed/disturbed, a classic of its type, and generally appears perfectly normal & healthy. MTE bedrock pools often dominated by Chthamalus and/or Littorhammion and Littorina snails. Pools also inhabited by foliose corallines, Gemmalanus canaliculatus, Pagurus, tidepool sculpin, small Anthopleura spp. (all 3 spp.), Enteromorpha, Nucella sp., limpets, Katharina. There are also UTE pools, but with considerably less Littorhammion, no anemones or chitons. Some of the pools at the N. end of the segment have a few small cheems (this is the general location of the most heavily oiled portion of the segment) - however, pool Littorina are recruiting well, and the mortality of Littorhammion is ~ 5% areally (well within natural expectation, & clearly not at the level of known "oil-induced" mortality observed elsewhere). At the N. end there are abundant last year's Littorina tracks into MTE + UTE coat/cover lands on bedrock. Effects outside the actual oiling, however, are not discernable. Barnacles are generally rare (dense locally) - spat are very rare (but present). Fucus is quite rare but recruiting unusually well where present - little for muscula. Sextonipora locally dense in lower MTE with Fucus. Barnacles, Fucus, & Sextonipora all can be very dense locally on flat bedrock platforms in the lower MTE. Found large (20cm) branched sponge (Iandictya sp.?) washed up in the drift line of boulder pocket beach.

ECOLOGY MAP

(1 of 2)

CD-15

(Page 3 of 4)

No resource sensitivities
identified in NOAA database.
(4/22/90)

However, note active bald eagle
nest (code ST) that was located on
this survey on Map 2 (3/1 → 6/1,
possibly until 9/1).
- not documented on 8/4/89 NPS
eagle nest map.

← GOA
35A

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

CD-15

ADEC Segment Length: 1859m

0 100 200 300

Map Key: GOA-35b

Name: _____

Date: _____

Note: Released.

CD-14

CD-15

active
nest
(top of cliff)

ECOLOGY MAP

(2 of 2)

CD-15

(Page 4 of 4)

See map page 1.

GDA
358

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

CD-15

ADEC Segment Length: 1859m

0 100 200 300

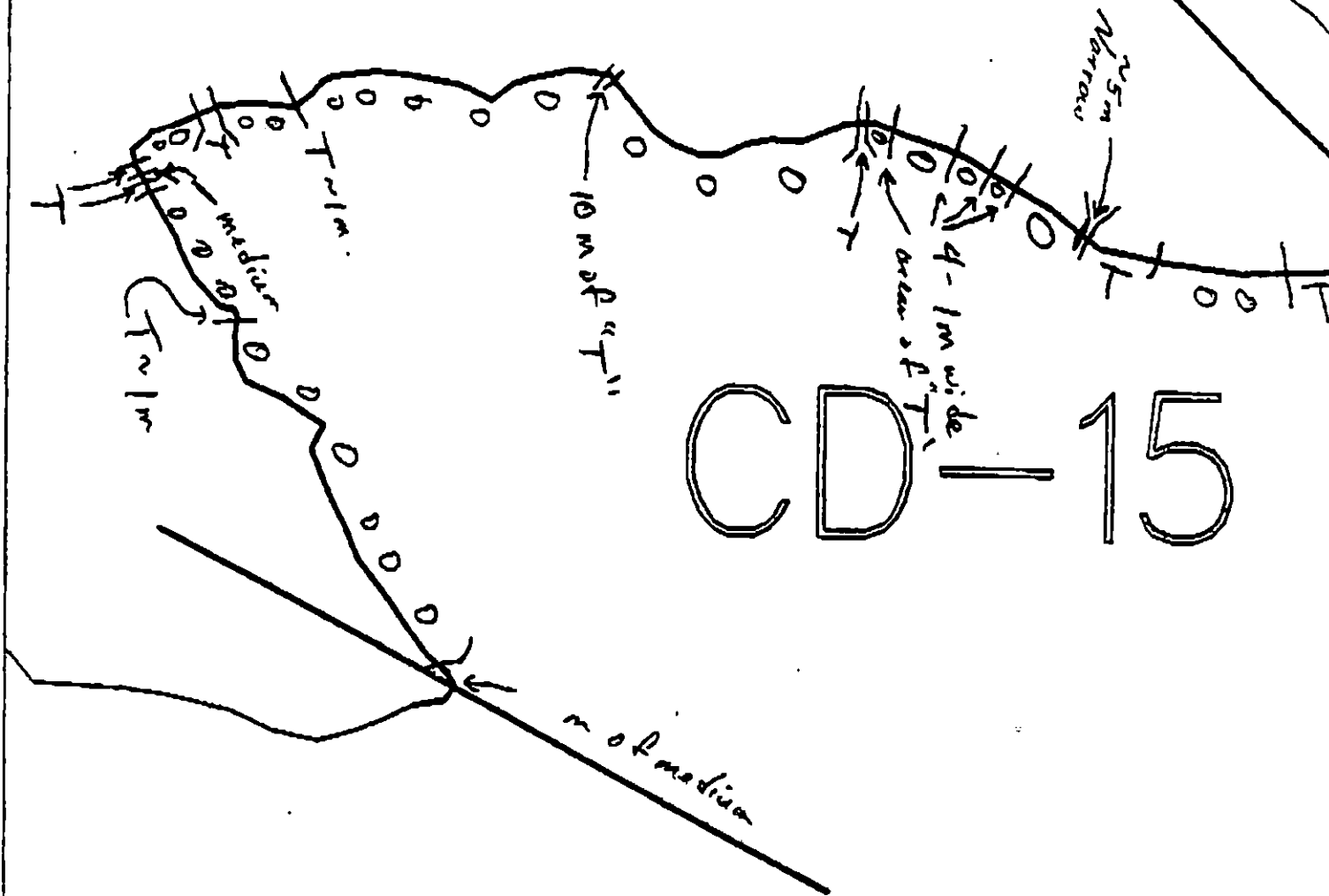
Map Key: GDA-35a

Name: _____

Date: _____



CD-14

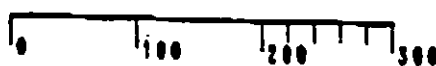


GOA
35B

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

CD-15 A (total)
 (1 of 2 sheets)

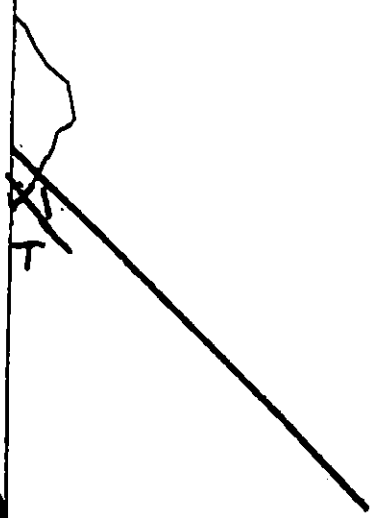
ADEC Segment Length: 1859m



Map Key: GOA-35a

Name: G. Heyman

Date: 5-5-90



← GOA
35A

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

CD-15 A
(2 of 2 sheets)
ADEC Segment Length: 1859m



Map Key: GOA-35b
Name: G. Hoyman
Date: 5-5-90
Data Entered:

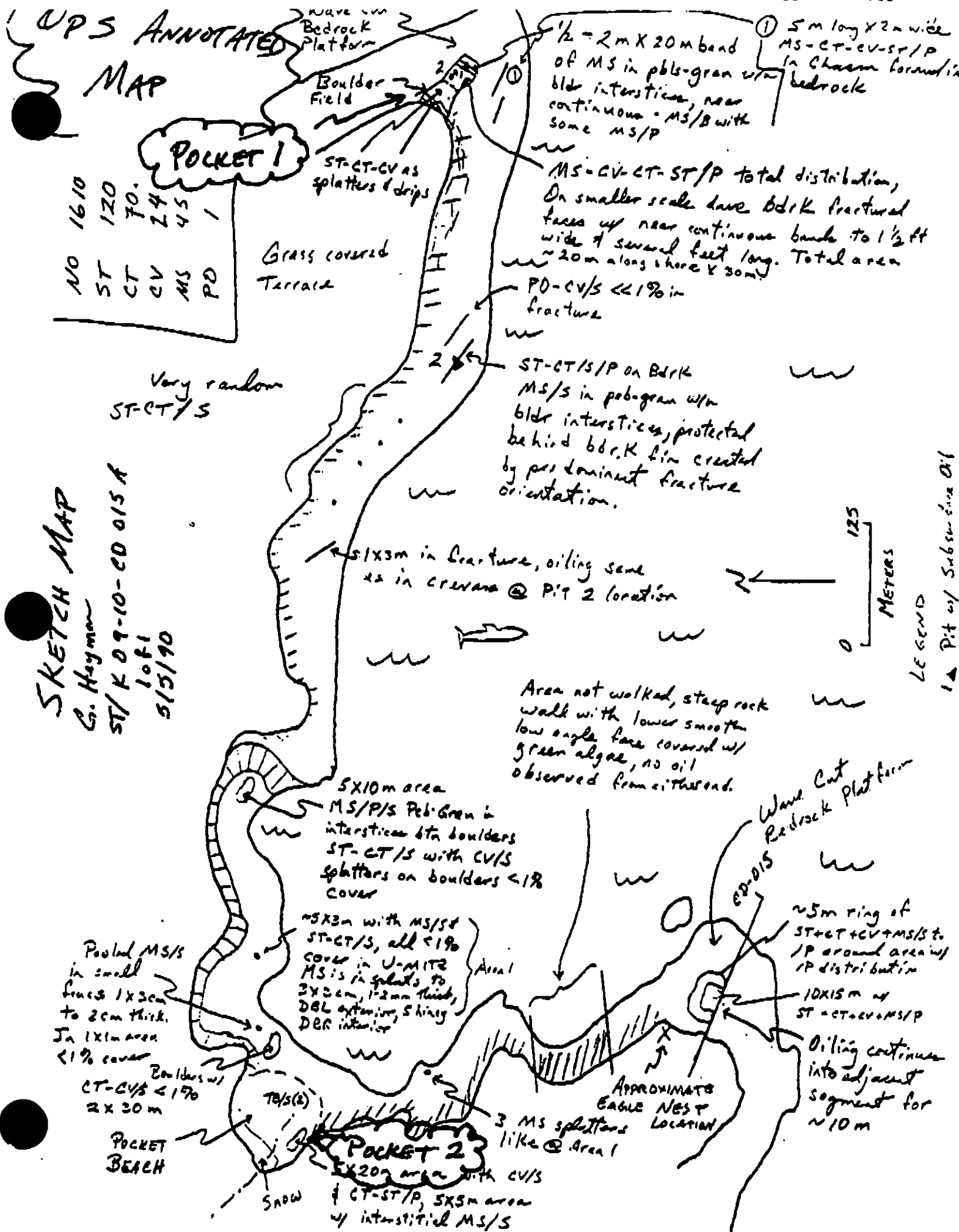
UPS ANNOTATED MAP

POCKET 1

NO	1610
ST	120
CT	70
CV	24
MS	45
PD	1

SKETCH MAP

G. Heyman
ST/K 09-10-CD 015 A
10 ft
5/5/90



LEGEND
1 Pit w/ Subsurface Oil
100 Photos & Direction

SHORELINE EVALUATION

SEGMENT ST/ K09-10-CD-015 SUBDIVISION A (1 OF 1) DATE 5/5/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
4LL State Marine Park National Parks
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unopened 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 Exxon's Cultural Resource Program immediately (564-3274 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Rachel De-Don DATE: 5/30/90

OILING CATEGORIZATION:

Wide 0 m: Medium 49 m: Narrow 8 m: V.Light 231 m: No Oil 1530 m
Subsurface Oil Observed: Yes No X Maximum Depth 7+cm

RECOMMENDATIONS:

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

COMMENTS: Recommend manual pick up of mousse, pooled oil and tarballs followed by bioremediation as indicated on the attached sketch map. Work after 6/1 with approval of USFWS regarding eagle nest.

TAG COMMENTS: CREWS TO AVOID ADJACENT UPLANDS

TAG APPROVAL DATE: 5/29/90

ADEC Art Weiner Art Weiner

EXXON Andy TGA Andy TGA

NOAA Burt Warrick Burt Warrick

USCG G.A. REITER G.A. REITER

FOSC: DATE: 6-18-90

Impol is not authorized. Use
Customblen or wave cut platforms
only as shown on sketch map.

MANUAL REMOVAL OF
MOUSSE FOLLOWED
BY BIOREMEDIATION

NO	ST	CT	CV	MS	PO
1610	110	70	24	45	1

Wave Cut
Bedrock
Platform

Boulder
Field

ST-CT-CV as
splatters & drips

Grass covered
Terrace

Very random
ST-CT/S

MANUAL REMOVAL
OF MOUSSE
AND POOLED OIL

ST/K 09-10-CD 015 A

10/1
5/5/90

SKETCH MAP
C. Hayman

MANUAL REMOVAL
OF MOUSSE, POOLED
OIL AND TARBALLS

Pooled MS/S
in small
pools 1x3cm
to 2cm thick.
In 1x1m area
1% cover

Boulders w/
CT-CV/S < 1%
2x30m

POCKET
BEACH

SNOW

5x20m area with CV/S
& CT-ST/P, 5x5m area
w/ interstitial MS/S

5x3m with MS/S
ST-CT/S, all < 1%
cover in U-MITE
MS/S in splatters to
3x3cm, 1-2mm thick,
DBL exterior, shiny
DBR interior

5x10m area
MS/P/S Peb-Gran in
interstices b/n boulders
ST-CT/S with CV/S
splatters on boulders < 1%
cover

400m
Ave. from
Eagle nest

Area not walked, steep rock
wall with lower smooth
low angle face covered w/
green algae, no oil
observed from either end.

APPROXIMATE
EAGLE NEST
LOCATION

3 MS splatters
like @ Area 1

Wave Cut
Bedrock Platform

CD-015

~5m ring of
ST+CT+CV+MS/S to
IP around area w/
IP distribution

10x15m w/
ST-CT-CV+MS/P

Oiling continues
into adjacent
segment for
~10m

1/2 - 2m x 20m band
of MS in pbs-gran w/n
bdr interstices, near
continuous - MS/S with
some MS/P

5m x 1m x 1m area
MS-2-2-CV-S/P
in Chasm formed in
bedrock

MS-CV-CT-ST/P total distribution,
On smaller scale have bdrk fractural
faces w/ near continuous bands to 1 1/2 ft
wide & several feet long. Total area
~20m along shore x 30m

PO-CV/S < 1% in
fracture

ST-CT/S/P on Bdrk
MS/S in pbs-gran w/n
bdr interstices, protected
behind bdrk lin created
by predominant fracture
orientation.

5x1x3m in fracture, oiling some
as in crevices @ Pit 2 location

125
0
METERS

LEGEND

1. Pit w/ Subsurface Oil

ECOLOGY MAP

(1 of 2)

CD-15

(Page 3 of 4)

No resource sensitivities
identified in NOAA database.
(4/22/90)

However, note active bald eagle
nest (code 5T) that was located on
this survey on Map 2 (3/1 → 6/1,
possibly until 9/1).
- not documented on 8/4/89 NPS
eagle nest map.

← GOA
35A

XXXX Wide

//// Medium

--- Narrow

TTTT Very light

CD-15

ADEC Segment Length: 1859m

Map Key: GOA-35b

Name: _____

Date: _____

CD-14

CD-15

active
nest
(top of cliff)

ECOLOGY MAP

(2 of 2)

CD-15

(Page 4 of 4)

See map page 1.

GDA
358

XXXX Wide

//// Medium

--- Narrow

TTTT Very narrow

CD-15

ADEC Segment Length: 1859m

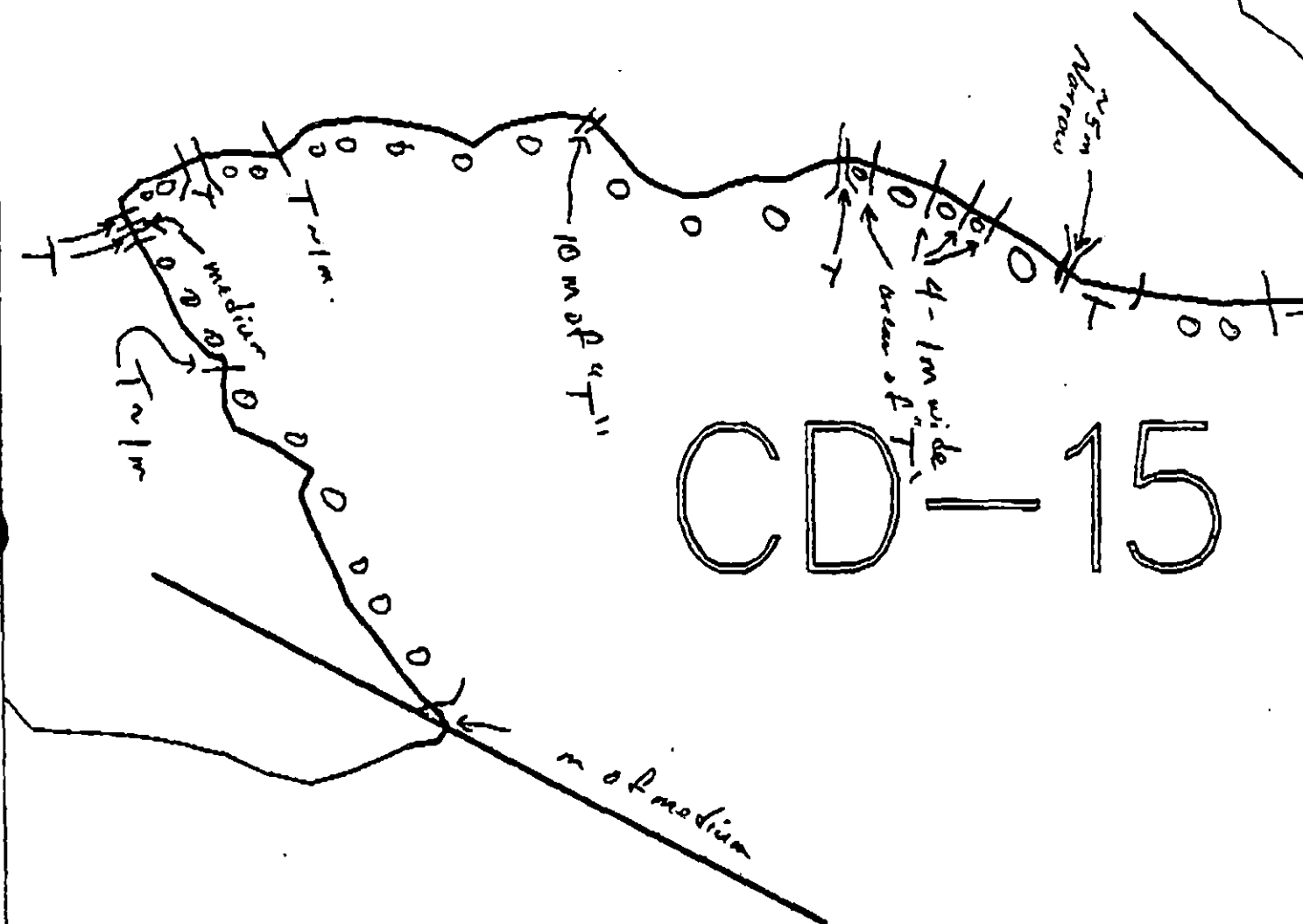
Map Key: GDA-35a

Name: _____

Date: _____



CD-14



CD-15

GOA
35B

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

CD-15 A (total)
(1 of 2 sheets)

ADEC Segment Length: 1859m



Map Key: GOA-35a

Name: G. Heyman

Date: 5-5-90



← GOA
35A

XXXX Wide

//// Medium

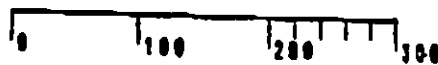
---- Narrow

TTTT Very Light

OOOO No Oil

CD-15 A
(2 of 2 sheets)

ADEC Segment Length: 1859m



Map Key: GOA-35b

Name: G. Hoyman

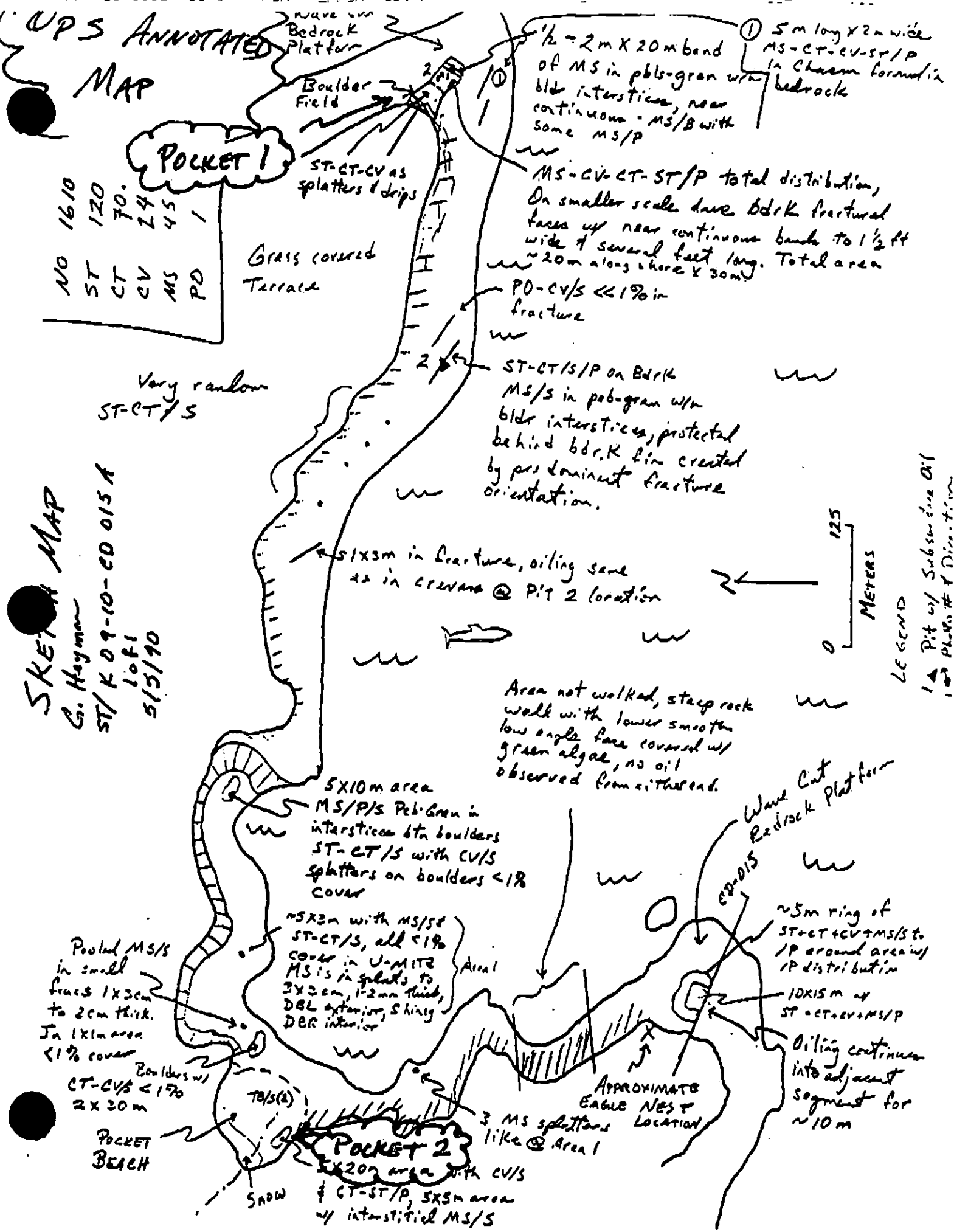
Date: 5-5-90

UPS ANNOTATED MAP

POCKET 1

16/10	120	70	24	45	1
NO	ST	CT	CV	MS	PD

SKETCH MAP
 G. Hayman
 ST/K 09-10-CD 015 A
 10/1
 5/5/90



ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K09-10-CD-015 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	OPEN
Bioremediation	OPEN*

*No Inpol - Use Customblen Only

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T	Bald Eagle Nest	NO CONSTRAINT. USFWS 4/9/90 map indicates no active nest within 400m of Subdivision A work site.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC W L Date 6-22-90

Prepared by J P Phillips Date 6/22/90

SHORELINE EVALUATION

SEGMENT ST/ K09-10-CD-015 SUBDIVISION A (1 OF 1) DATE 5/5/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
4LL State Marine Park National Parks
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3274 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Rachel J. Doherty DATE: 5/30/90

OILING CATEGORIZATION:

Wide 0 m: Medium 49 m: Narrow 8 m: V.Light 231 m: No Oil 1530 m
Subsurface Oil Observed: Yes No X Maximum Depth 7+cm

RECOMMENDATIONS:

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

COMMENTS: Recommend manual pick up of mousse, pooled oil and tarballs followed by bioremediation as indicated on the attached sketch map. Work after 6/1 with approval of USFWS regarding eagle nest.

SEE CONSTRAINTS ADDENDUM DATED 6/22/90

TAG COMMENTS: CREWS TO AVOID ADJACENT UPLANDS

TAG APPROVAL DATE: 5/29/90

ADEC Art Weiner
EXXON Andy Galt
NOAA Burt Wernick
SCG G.A. REITER

FOSC: [Signature] DATE: 6-19-90

Impol is not authorized. Use Customlites or wave cut platforms only as shown on sketch map.

REGION: KODIAK

SEGMENT: ST/K09-10-CD-16

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ K09-10-CD-16 SUBDIVISION A (1 OF 1) DATE 4/29/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

4LL National Parks

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3274 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 76 m: Narrow 319 m: V.Light 1279 m: No Oil 503 m
Subsurface Oil Observed: Yes X No _____ Maximum Depth 30+ cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes bioremediation of area as indicated on attached sketch map. No specific ecological time constraints identified.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

KODIAK ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST ^{R0910} CD-16 SUBDIVISION: A DATE 4/29/90

USCG

NAME AEC Vandepels SIGNATURE AEC Vandepels☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

ADEC

NAME Michelle Baer SIGNATURE MBaer☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Manually remove MS/s, pebbles and cobbles with CV, and heavily coated substrate. Sporadic patches lay throughout the LITZ. Suggest walking area ~~and~~ to locate patches as they are throughout the Northwestern 2/3's of the segment.

LAND MANAGER

NAME Janis Meldrum SIGNATURE Janis Meldrum☒ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Mousse patches and mousse covered rock and sediments could be manually removed with shovel or spade. The SITZ was snow covered at the time of the survey. Area should be rewalked after snow recedes. Oil observed was right up against the snow.

SHORELINE OILING SUMMARY

K49118 REVISION NO. 04/13/90

OG C. DILLON USCG AEC R. Vande SEGMENT ST/ CD-16
 BIO P. Crank LAND REP Janis Meldrum (NPS) SUBDIVISION A (1 OF 1)
 EXXON T. Tomblin ADEC Michele Baer TIME 10:15 to 12:30
 TEAM NO. 5 TIDE LEVEL +2 to -2.5 DATE 04/29/90
 EST. SUBDIVISION LENGTH: 2195 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 25 % B 55 % C 10 % P 3 % G 1 % S 1 % M 0 % V 0 %
 SLOPE: Lang 90 % Hang 10 % Vert 0 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 90 m N 325 m VL 1230 m NO 550 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	TC	TS	TP	TR	SP	BP	GL	GR	BR	BL	TR	LR	SU	U	M	U
ASPHALT PAVEMENT																
POOLED																
COVER				X					X				X			
COAT		X	X	X	X								X			
STAIN				X					X				X			
MOUSSE				X					X	X			X			
PATTIES																
TARBALLS																
FILM																
NO OIL	SNOW ON SITZ OF SOME AREAS												S		X	X

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☒ NO ☐TYPE mousse pathy oiled rocks#BAGS 1

Photographs:

Roll No. ST-5-7Frames 33, 34

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SHEEN (Y/N)	f	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SP	BP	GL	GR	BR	BL	TR	LR	SU	U	M	U				
1	5					X	-		X									X					N	-	B/C/P - P/G
2	30					X	-		X									X					N	25	G - G
3	20					X	-		X									X					N	-	C/P - P/R
4	25					X	-		X									X					N	-	C - P/G/C
5	30				X		0-30	X		X		X						X					N	-	C - e/P
6	10		X				0-7	X				X						X					N	-	C - P/G

COMMENTS MAJORITY OF THE SUBDIVISION IS LOW ANGLE BOULDERS AND CUBBLES (AND SOME AREAS WITH PEBBLES, GRANULES AND SAND IN B/C INTERSTICES) UNDERLAIN BY BEDROCK IN THE U-SITZ AT THE BASE OF VERT R BLUFFS. ALMOST ALL AREAS DESCRIBED AS CT/S AND ST/S OILING HAVE SPORADIC SPLATTERS AND DROPLETS OF WEATHERED DK BEN AND DULL BLACK STAIN/COAT ALONG THE LITZ. SNOW COVERS THE SITZ ALONG THE CENTER OF THE SUBDIV.

REVIEWED BAC DATE 3 MAY 90

OG C. D. TEAM 5

SEGMENT ST/ CD-16

SUBDIVISION A

DATE 4 / 29 90

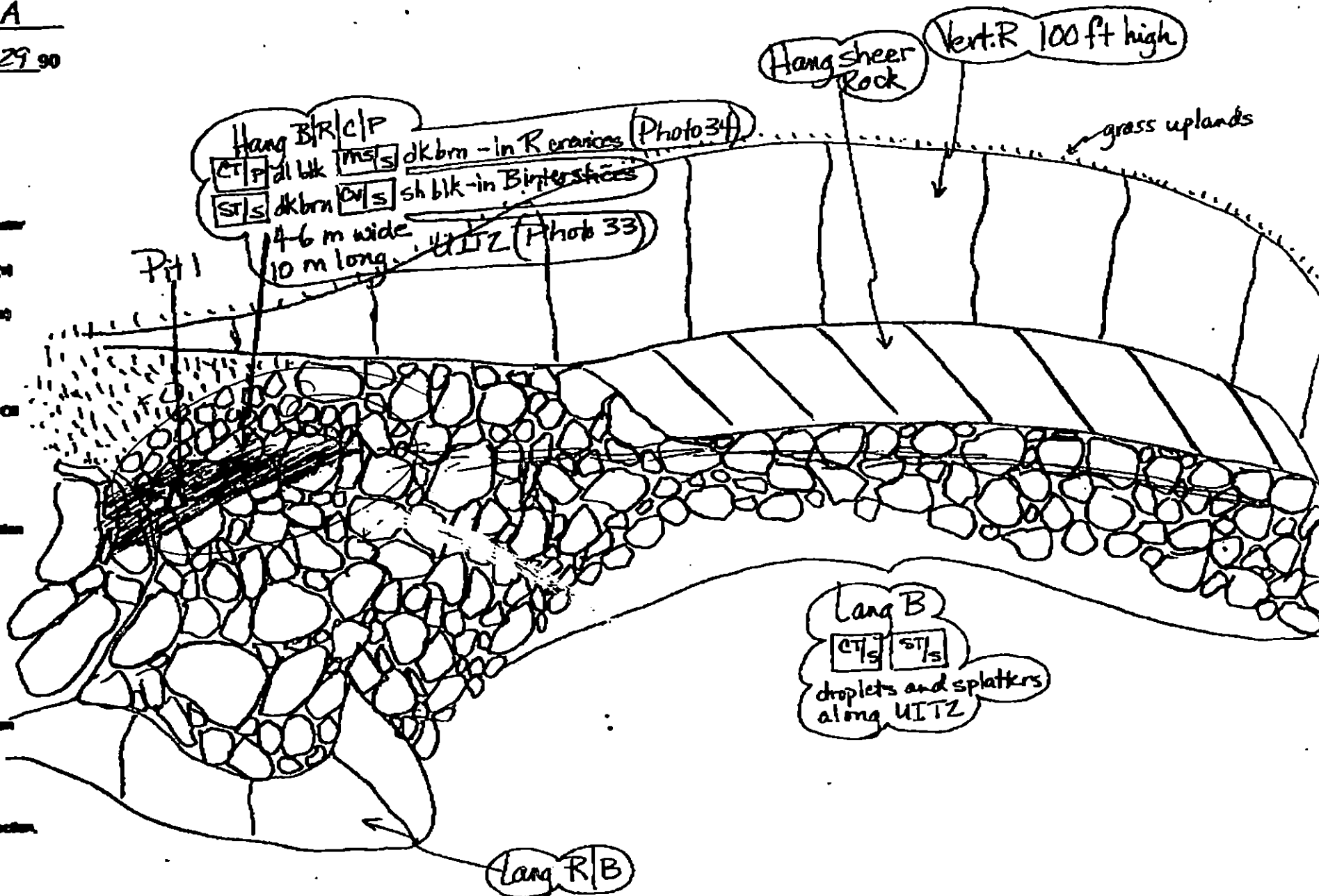
CHECKLIST

- ☐ M Area
- ☐ Approx. Scale
- ☐ Seg/Photo Entry
- ☐ Ch Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HVL/AVL
- ☐ SCL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ P/L Location(s)
- ☐ Photo Location(s)

LEGEND

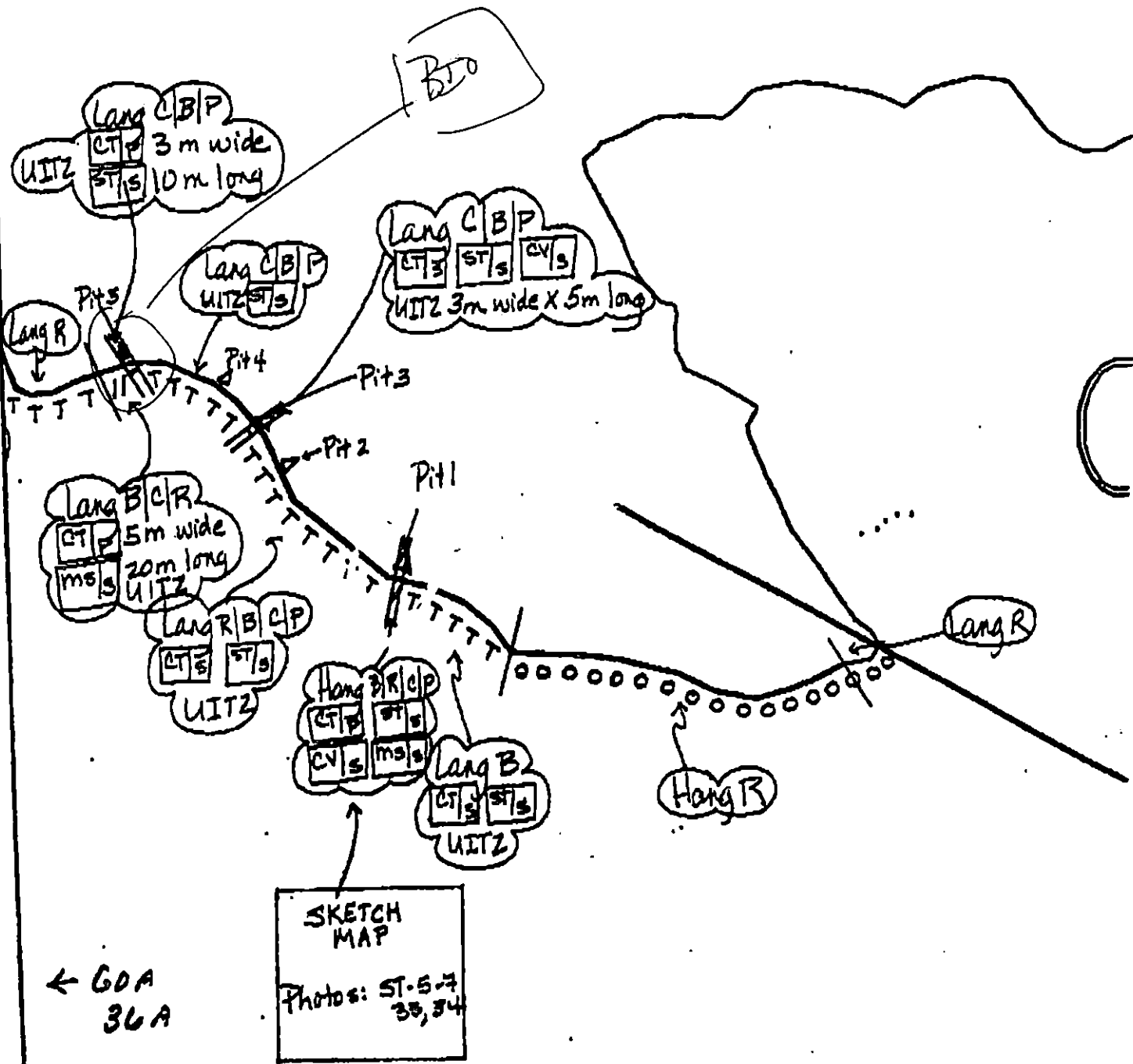
- 1 Δ
P/L - No Subsurface Ch
- 2 Δ
P/L - Subsurface Ch
- CT/C
Continuous Distribution
- CT/B
Broken Distribution
- [CT/P]
Patchy Distribution
- [CT/S]
Splashed Distribution
- lll
Clad Vegetation
- 1 00
Photo location, direction, and number

ETCH MAP



Ch Character Length (m): AP 0 PO 0 CV 1 CT 98 ST 50 MS 1 FT 0 TB 0 FL 0 NO 0 TOTAL 150m

REVISIONS



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CD-16-A

EXXON SEGMENT LENGTH: 2195m
ADIC Segment Length: 2176m

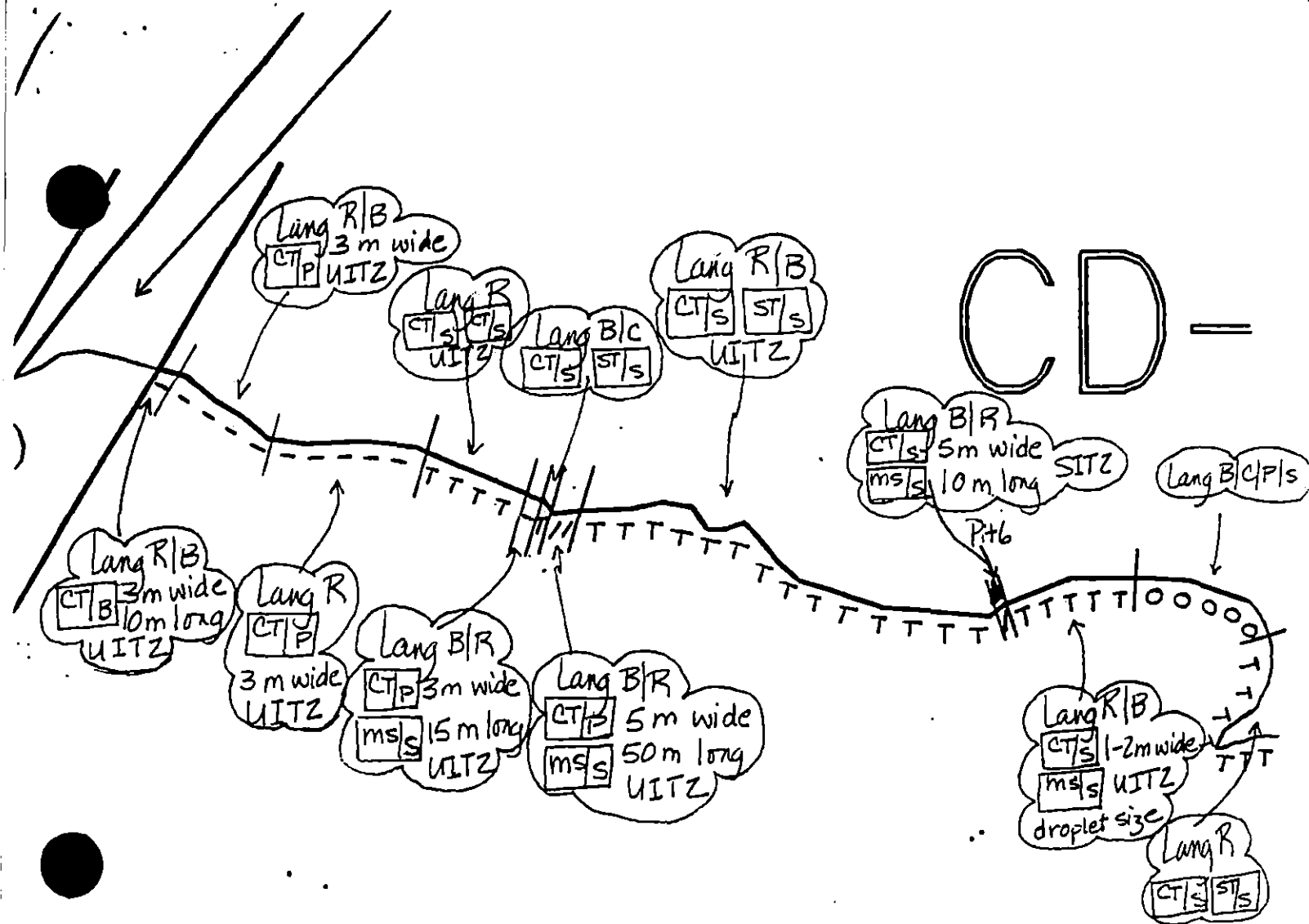


Map Key: GOA-366

Name: C. DILLON

Date: 4/29/90

Date Entered:



OIL CHARACTER LENGTHS (m): CV 1 CT 1249 ST 400 ms 5 NO 550

GOA
368

Segment ST-CD 16 Subdivision A Date (mo/day/yr) 4/29/90

Time (24 hr) 1015-1230 Biologist Crank Length: 2170

(A) Substrate type and % of segments:
(1) Bedrock 25 (2) Boulder 55 (3) Cobble 10 (4) Pebble 3 (5) Sand 2 (6) SM

(B) Overall % cover of biota (% of segment): Dense 5 Moderate 20 Low 75

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles/adults (X), new settlement (3)
Photographs: Roll No. ST-5-7
Frames 35

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	NOT PRESENT 4, 5
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

MYTILUS

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

Wildlife Observations/ General Comments:

2 - Gulls
33 - Pigeon Guillemots
50 - Ducks
Ecological Considerations:
Unknown - Office information was unavailable.

3 - Pelagic Cormorants - in breeding plum.
4 - Eagles - Mature
1 - Crow - harassing Eagle
2 - Goldeneyes

4 - Harlequins
1 - Sea Lion
- Lg school of Green Fish approx 5cm long.

- NPS rep found oiled Gull wings & oiled Chiton on upland.

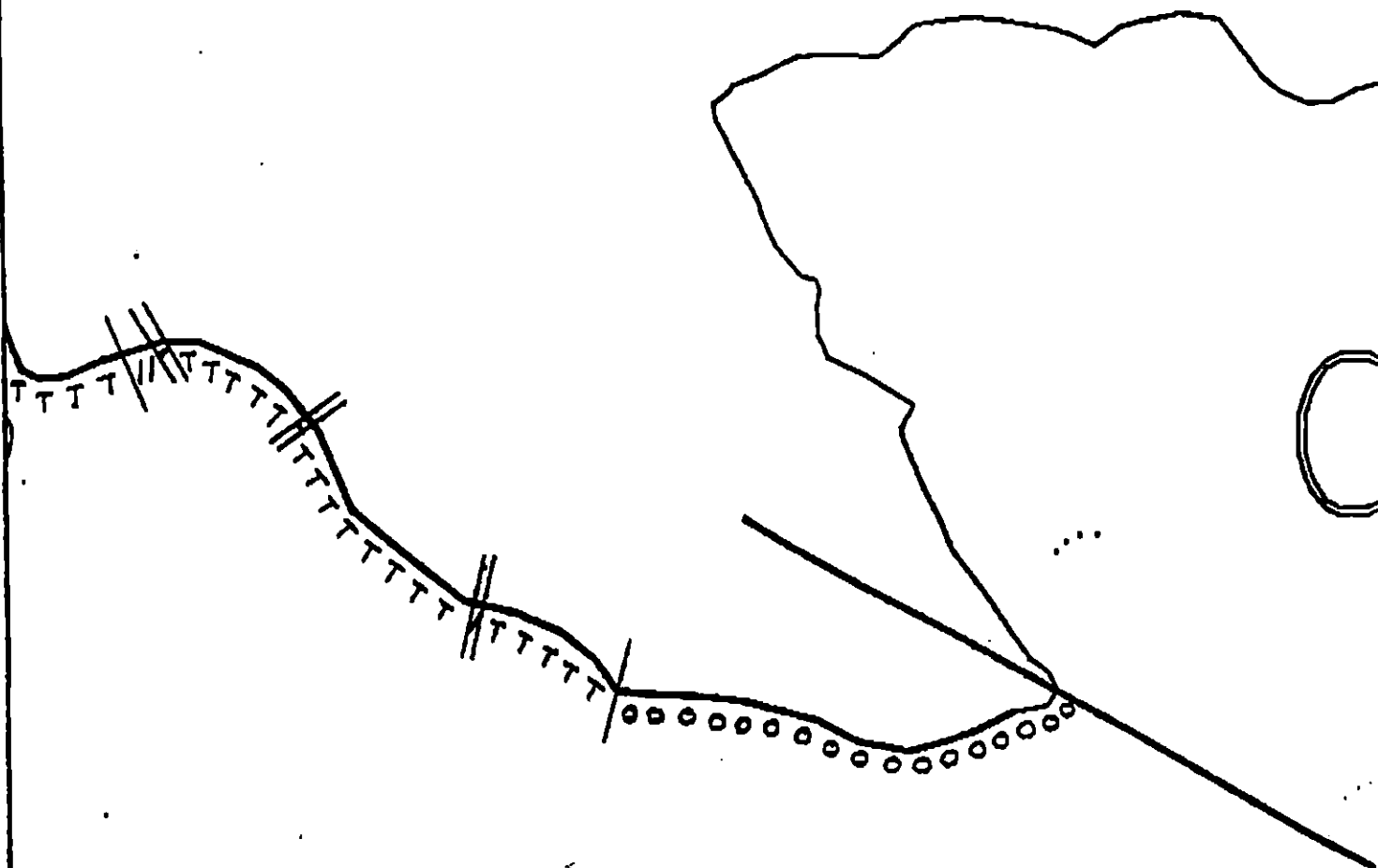
Segment: LITZ
Date: 4/29/90

Time: 1015-1230

Tide Height: +1 $\rightarrow$ -1.8

General Comments

- LITZ cobble: boulders are 50% covered with algae; 60% of the algae in LITZ is Filamentous greens at East end of segment. As traveled west Fil greens down to 25% and bladed Uds increased. Rock bench 80% algae cover.
- Area has a high exposure with low biotic coverage.
- 50% of sand was composed of crushed shell. No clam bed areas were observed.
- There was a globular green mass on top of LITZ rock. Appeared to be an alga mass. Unabled to ID - took photo
#ST-5-7-35
- Found largest Halyscion I've seen this spring
75cm long.
- Rock bench in LITZ has a shallower layer of sand covering its surface.
- A gull wing and a chiton shell, both with light oil spots were found by the NPS rep on the upland grass above the beach.



← GOA
36A

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

OOOO No Oil

CD-16-A

ADEC Segment Length: 2176m



Map Key: GOA-36A

Name: C. Dillon

Date: 4/29/90

Date Entered:

CD-

GOA
368

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CD-16-A

ADEC Segment Length: 2176m



Map Key: GOA-36a

Name: C. DILLON

Date: 4/29/90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ K09-10-CD-16 SUBDIVISION A (1 OF 1) DATE 4/29/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

4LL National Parks

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3274 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Michael Antognelli DATE: 5/15/90

OILING CATEGORIZATION:

Wide 0 m: Medium 76 m: Narrow 319 m: V.Light 1279 m: No Oil 503 m
Subsurface Oil Observed: Yes X No Maximum Depth 30+ cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes bioremediation of area as indicated on attached sketch map. No specific ecological time constraints identified.

TAG COMMENTS: MANUAL PICKUP OF MOVSSE AS INDICATED ON THE SKETCH

MONITORS TO ASSESS THE SUTZ - SNOW COVERED

TAG APPROVAL DATE: 5/15/90.

ADEC Art Wanner D. Wanner

EXXON Amy Lee Paul

NOAA Joseph Talbot J. Talbot

USCG G.A. Reiter G.A. Reiter

FOSC: ML DATE: 5-18-90

NO INV. POL

OG C. D. N TEAM 5

SEGMENT ST/ CD-16

SUBDIVISION A

DATE 4 / 29 90

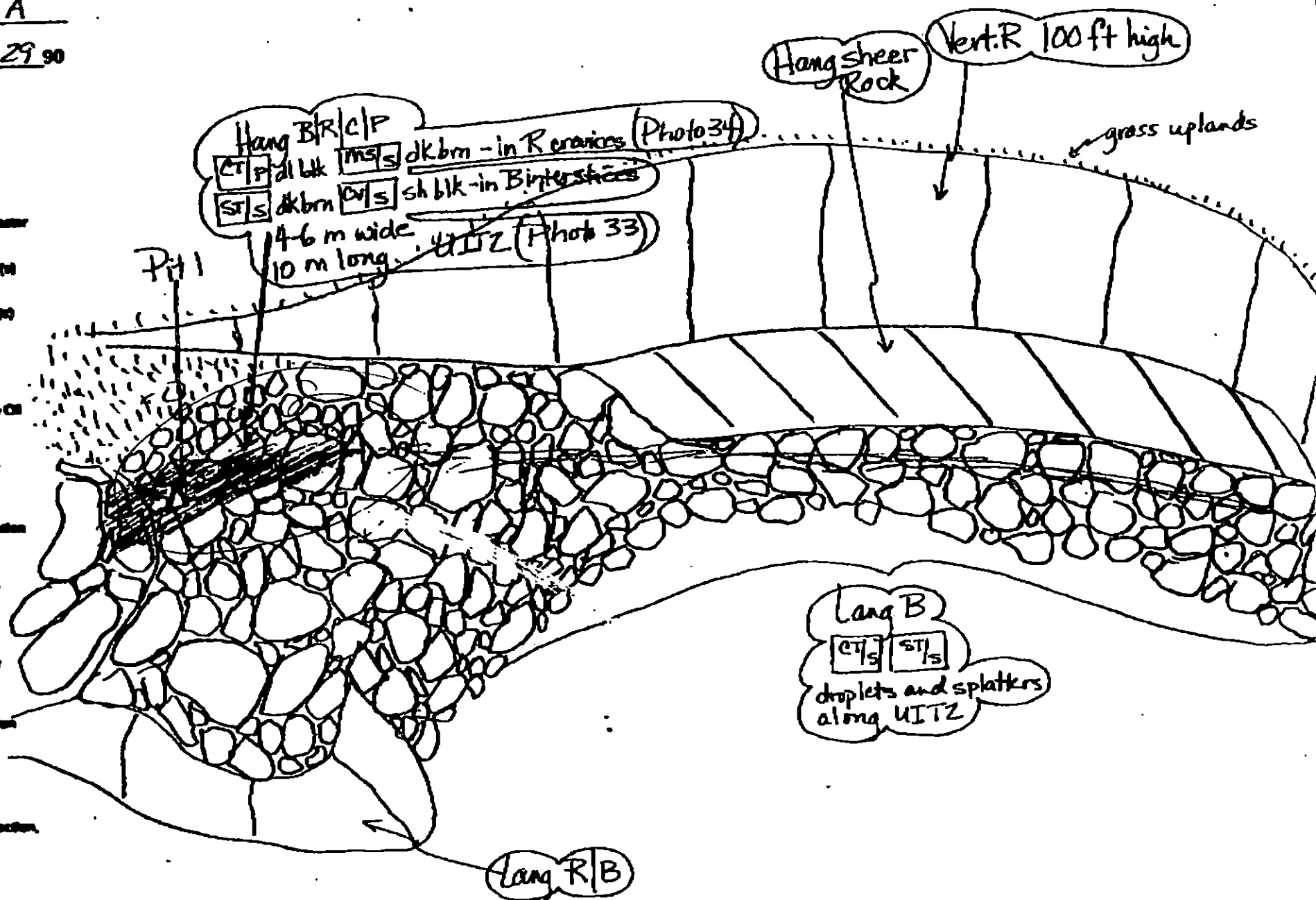
CHECKLIST

- ☐ M Area
- ☐ Approx. Scale
- ☐ Seg/Tab Study
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. H/W/L/W
- ☐ S/S
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pit Location(s)
- ☐ Photo Location(s)

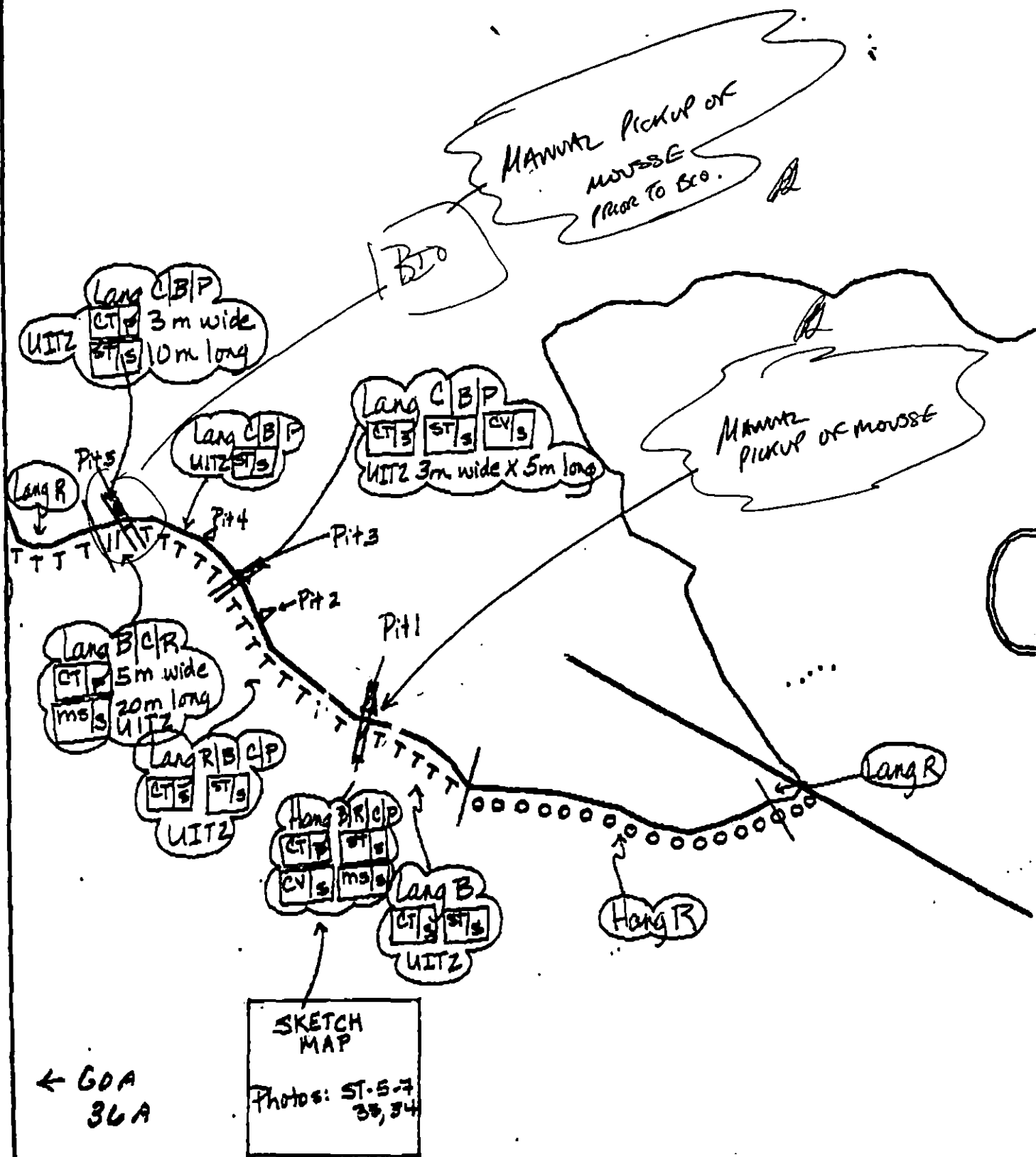
LEGEND

- ☐ Δ
Pit - No Substrate Oil
- ☐ Δ
Pit - Substrate Oil
- ☐ CT/C
Continuous Distribution
- ☐ CT/B
Broken Distribution
- ☐ [CT/P]
Patchy Distribution
- ☐ [CT/S]
Splashed Distribution
- ☐ lll
Oiled Vegetation
- ☐ $\rightarrow$
Photo location, direction, and number

SKETCH MAP



Oil Character Length (m): AP 0 PO 0 CV 1 CT 98 ST 50 MS 1 PT 0 TB 0 FL 0 NO 0 TOTAL 150m



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CD-16-A

EXXON SEGMENT LENGTH: 2195m

ADLC Segment Length: 2176m



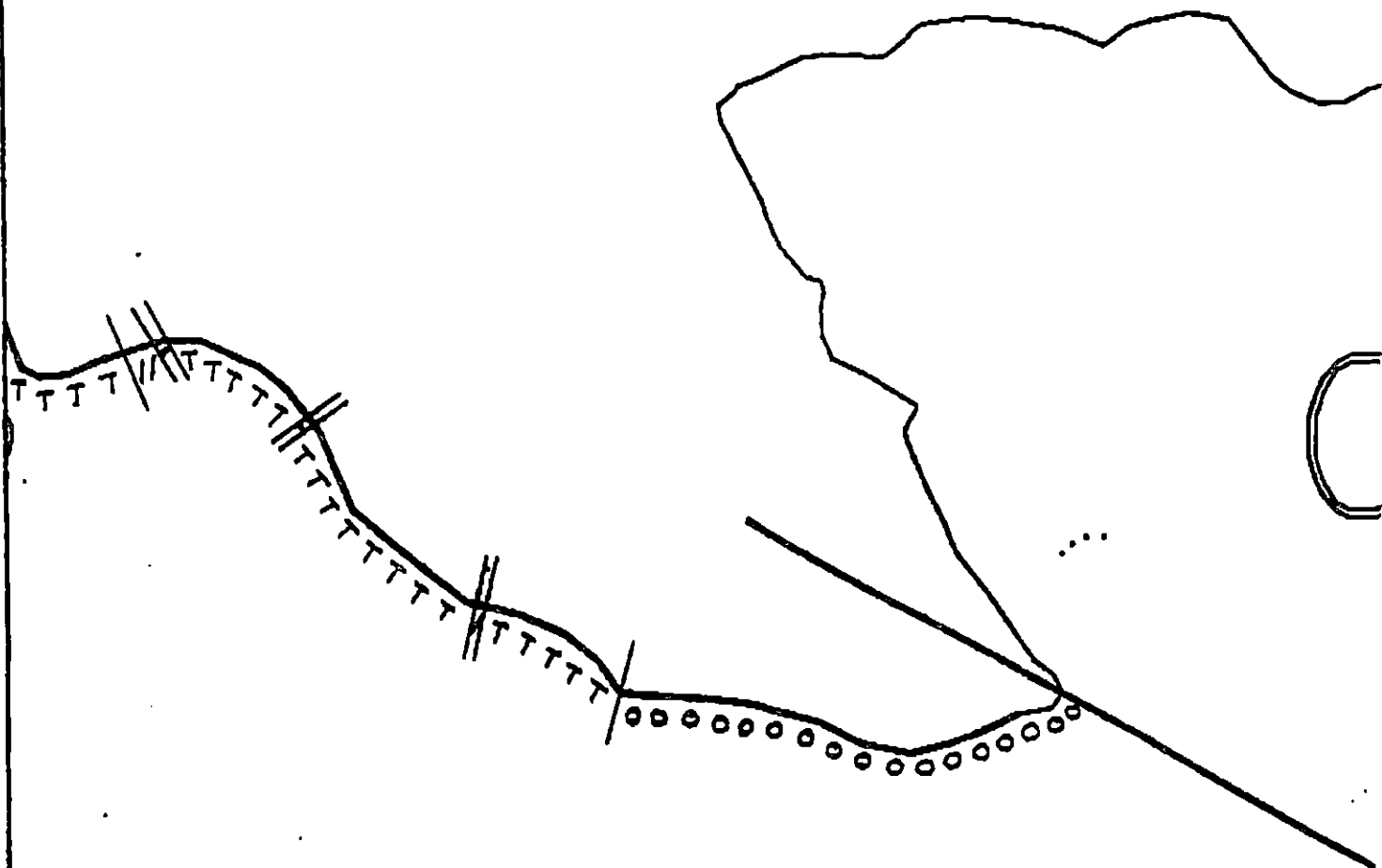
Map Key: GOA-366

Name: C. DILLON

Date: 4/29/90

Date Entered:

Date Entered:



← GOA
36A

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CD-16-A

ADEC Segment Length: 2176m



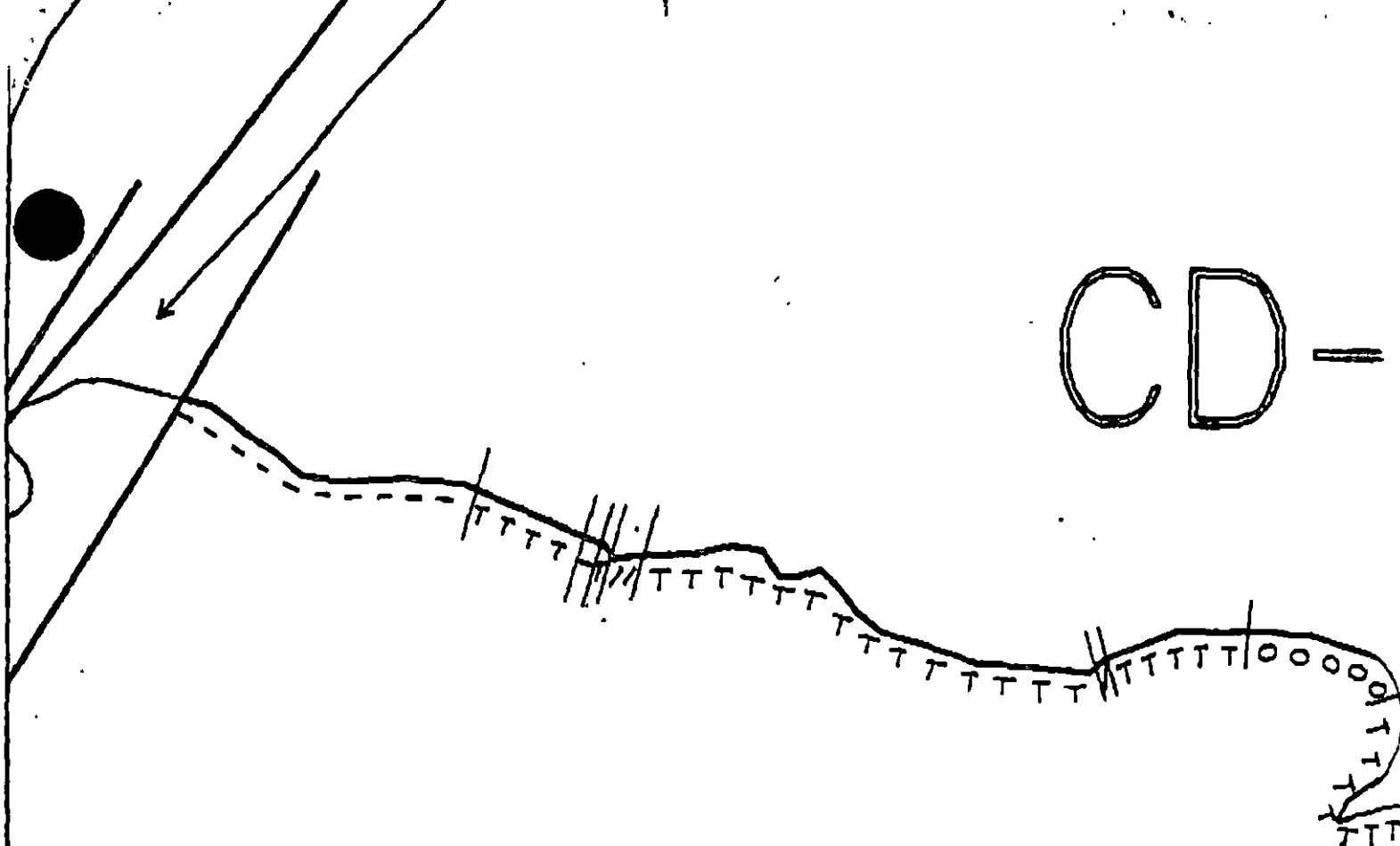
Map Key: GOA-36A

Name: C. Dillon

Date: 4/29/90

Date Entered:

CD-



GOA
368

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K09-10-CD-16 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	OPEN
Bioremediation	OPEN

*No Inpol - Use Customblen Only

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

No ecological time constraints.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

[Signature]

Date

6-16-90

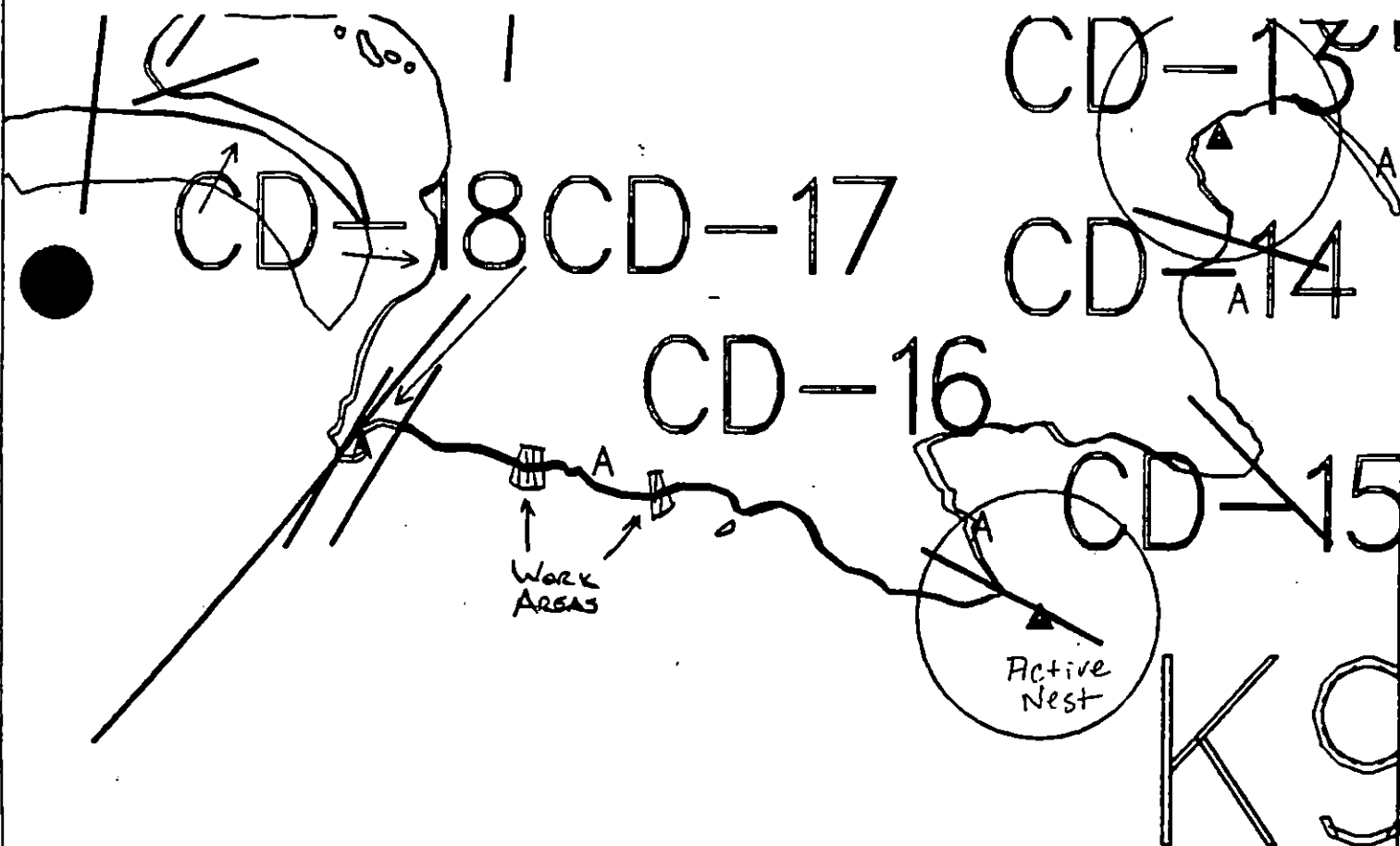
10 Inipol *[Signature]*

Prepared by

[Signature]

Date

6/15/90



TREATMENT



Exxon Company, USA
Map Key: MP-CD-16



ECOLOGY MAP
SEGMENT K9N-10 CD-16
SUBDIVISION H (1 of 1)
METERS

★	Seabird Colony
▲	Active Eagle Nest
△	Inactive Eagle Nest

SHORELINE EVALUATION

SEGMENT ST/ K09-10-CD-16 SUBDIVISION A (1 OF 1) DATE 4/29/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

4LL National Parks

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3274 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Michael Antognoli DATE: 5/15/90

OILING CATEGORIZATION:

Wide 0 m: Medium 76 m: Narrow 319 m: V.Light 1279 m: No Oil 503 m
Subsurface Oil Observed: Yes X No Maximum Depth 30+ cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes bioremediation of area as indicated on attached sketch map. No specific ecological time constraints identified.

SEE CONSTRAINTS ADDENDUM dated 6/15/90

TAG COMMENTS: MANUAL PICKUP OF MOVERS AS INDICATED ON THE SKETCH

MONITORS TO ADDRESS THE SURF - SNOW COVERED

TAG APPROVAL DATE: 5/15/90

ADEC Art Wagon

EXXON Andy Tom

NOAA Joseph Gilbert

USCG G.A. Reiter

FOSC: ML DATE: 5-18-90

NO IN.POL

SHORELINE EVALUATION

SEGMENT ST/ K09-10-CD-17 SUBDIVISION A (1 OF 1) DATE 4/29/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

4LL National Parks

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Michael Petrovich DATE: 5/15/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 191 m: No Oil 147 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: 5/15/90.

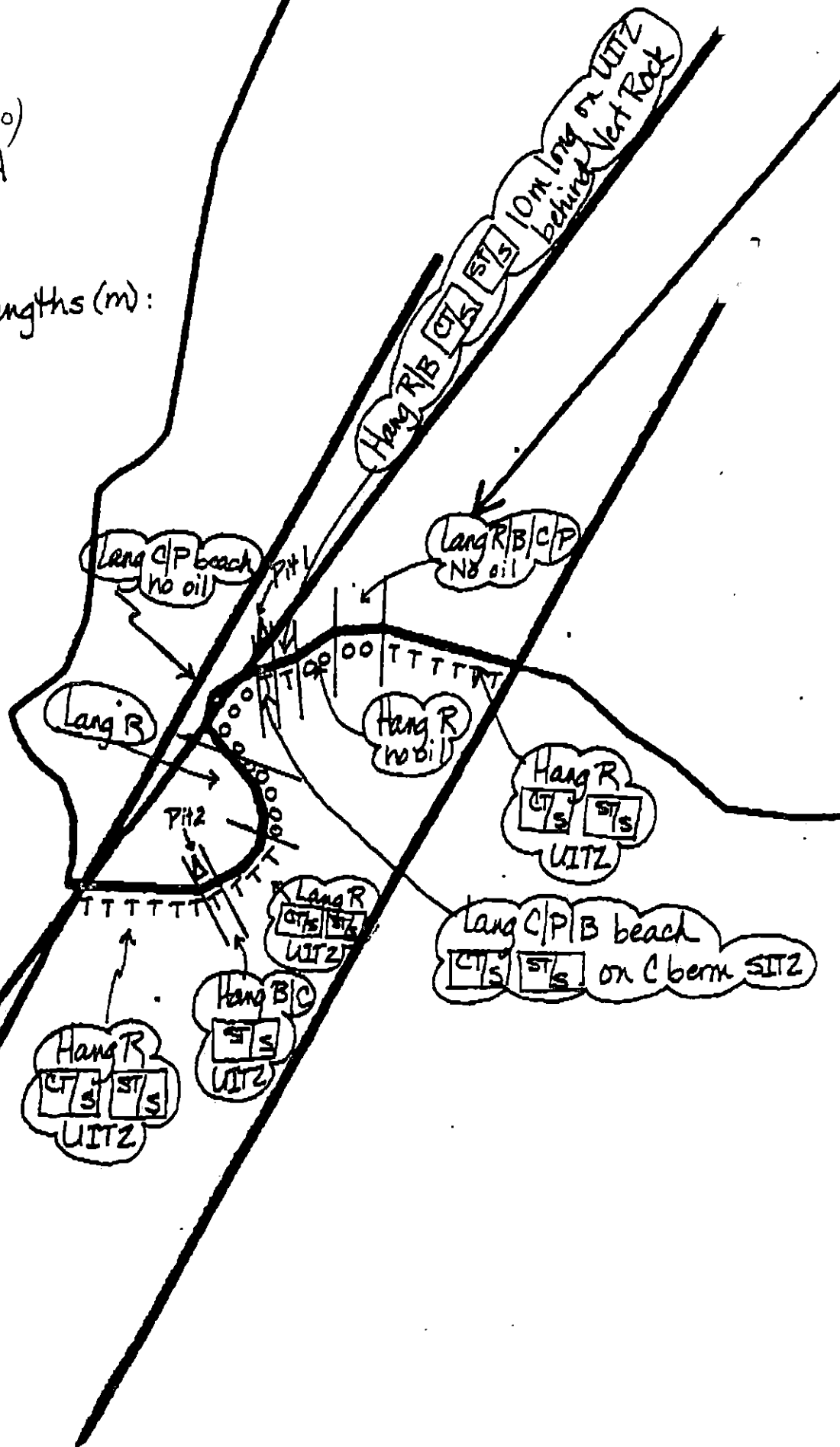
ADEC Art W. [unclear]
EXXON Ami [unclear] FOSC: [unclear] DATE: 5-18-90
NOAA Stephen [unclear]
USCG G.A. [unclear]

(K9-10)
CD-17-A
339m

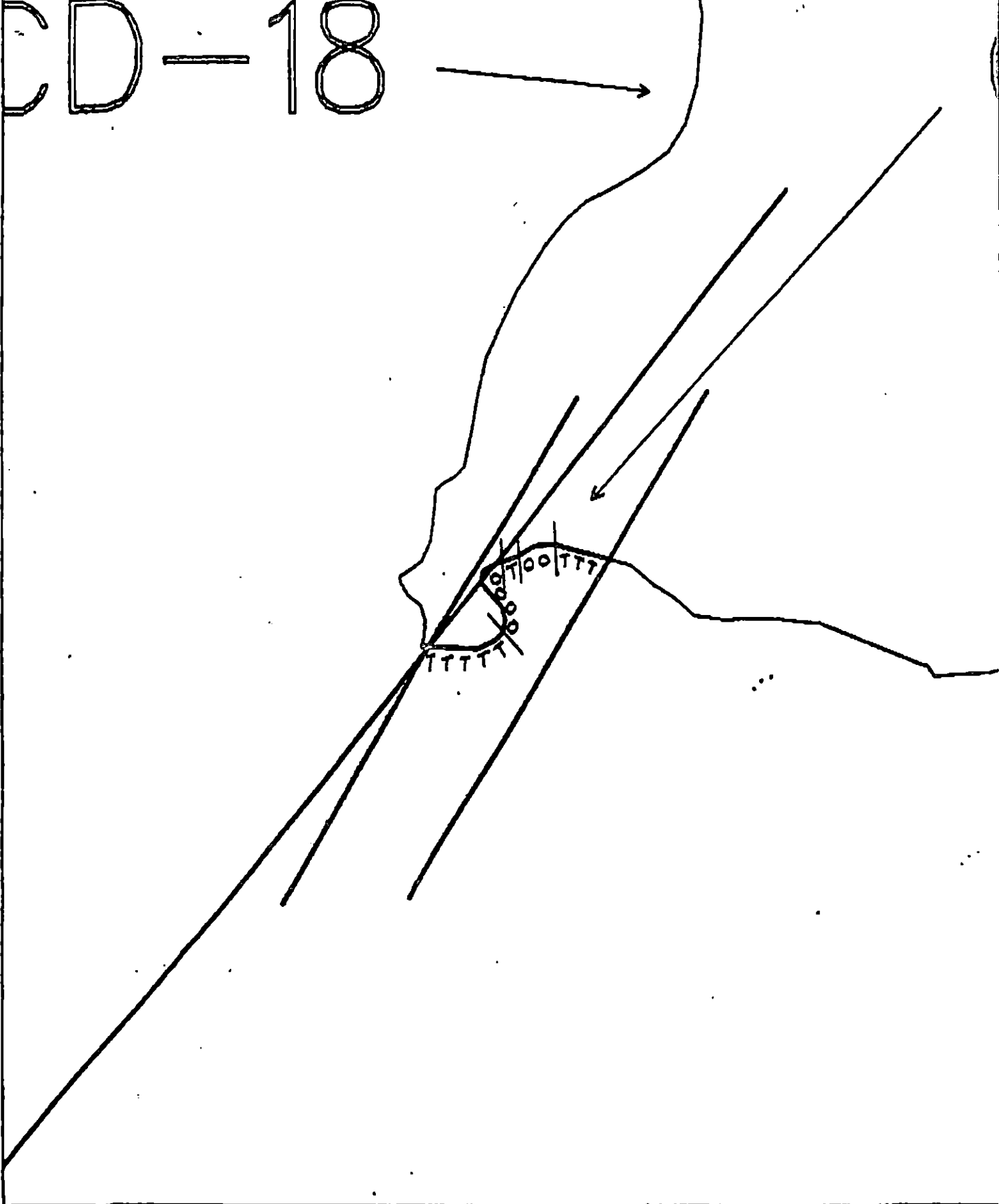
Oil Character Lengths (m):

CT 92ST 97

NO 150



CD-18



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

CD-17

(K9-10)

ADEC Segment Length: 339m



Map Key: 60A-37

Name: C. DILLON

Date: 4/29/90

Date Entered:

REGION: KODIAK

SEGMENT: ST/K09-10-CD-17

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ K09-10-CD-17 SUBDIVISION A (1 OF 1) DATE 4/29/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

4LL National Parks

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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 191 m: No Oil 147 m
Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

KODIAK ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST ^{K9-10} CD-17 SUBDIVISION: A DATE 4/29/90

SCG
NAME AEC Vandepels SIGNATURE AEC Vandepels

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

ADEC
NAME Michelle Baer SIGNATURE 4/29/90

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

*Dilting limited to splatters on surface sediments.
Cobble is very large and removal is not recommended.
Area has very high wave energy due to exposure.*

LAND MANAGER
NAME Janis Meldrum SIGNATURE Janis Meldrum

~~☐ NO TREATMENT RECOMMENDED~~ ~~☐ TREATMENT SUGGESTED~~
COMMENTS

*Oil removal could only be accomplished by scrubbing or scraping
of rock surfaces*

OG C. DILLON USCG AEC R. Vandepels SEGMENT ST/ CD-17
 BIG P. Crank LAND REP Tania Meldrum/NPS SUBDIVISION A (1 OF 1)
 EXXON T. Tomblin ADEC Michele Baer TIME 12:30 to 13:00
 TEAM NO. 5 TIDE LEVEL -2.5 to -2 DATE 04/29/90
 EST. SUBDIVISION LENGTH: 339 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Halo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 70 % B 20 % C 5 % P 3 % G 1 % S 1 % M 0 % V 0 %
 SLOPE: Long 60 % Hang 40 % Vert 0 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 189 m NO 150 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	A	B	P	S	1	2	3	4	SU	M	M	U
ASPHALT PAVEMENT												
POOLED												
COVER												
COAT				X	X	X			X	X		
STAIN				X	X	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			

DID YOU COLLECT DEBRIS?

YES ☒ NO ☐

TYPE un-oiled pom pom
un-oiled trash

#BAGS 1

Photographs:

Roll No. None

Frames

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	SHEEN (mg)	↓	SURFACE-SUBSURFACE SEDIMENTS
		CP	CR	CL	CF	NO		UO	UO	1	2	3	4	SU	M	M	U				
1	10					X	.	X						X				N	-		C-C/P/G
2	15					X	.	X							X			N	-		C-C/P/G/R
							.														
							.														
							.														
							.														

COMMENTS MAJORITY OF OILING IS IN THE FORM OF COAT / STAIN DROPLETS (UP TO ABOUT 5cm DIAMETER) ALONG THE LITZ OF THE ROCK AND BOULDERS. OILING IS LESS THAN 1% COVERAGE OR AN AVERAGE OF 2 OR 3 DROPLETS PER 10m.

PIT 1 IS IN THE SITZ C/P BERM ON THE E END OF A C/P BEACH. HOSE BERM SURFACE SEDS AND THE B/C/R FOR 20m TO THE EAST HAVE COAT/STAIN SPLATTERS UP TO 20cm DIAMETER. PIT 2 IS IN A 5m LONG SPLATTERED AREA WHICH ARE STAINS ON THE ROCKS/BOULDERS.

REVIEWED BAT DATE 2 May 90

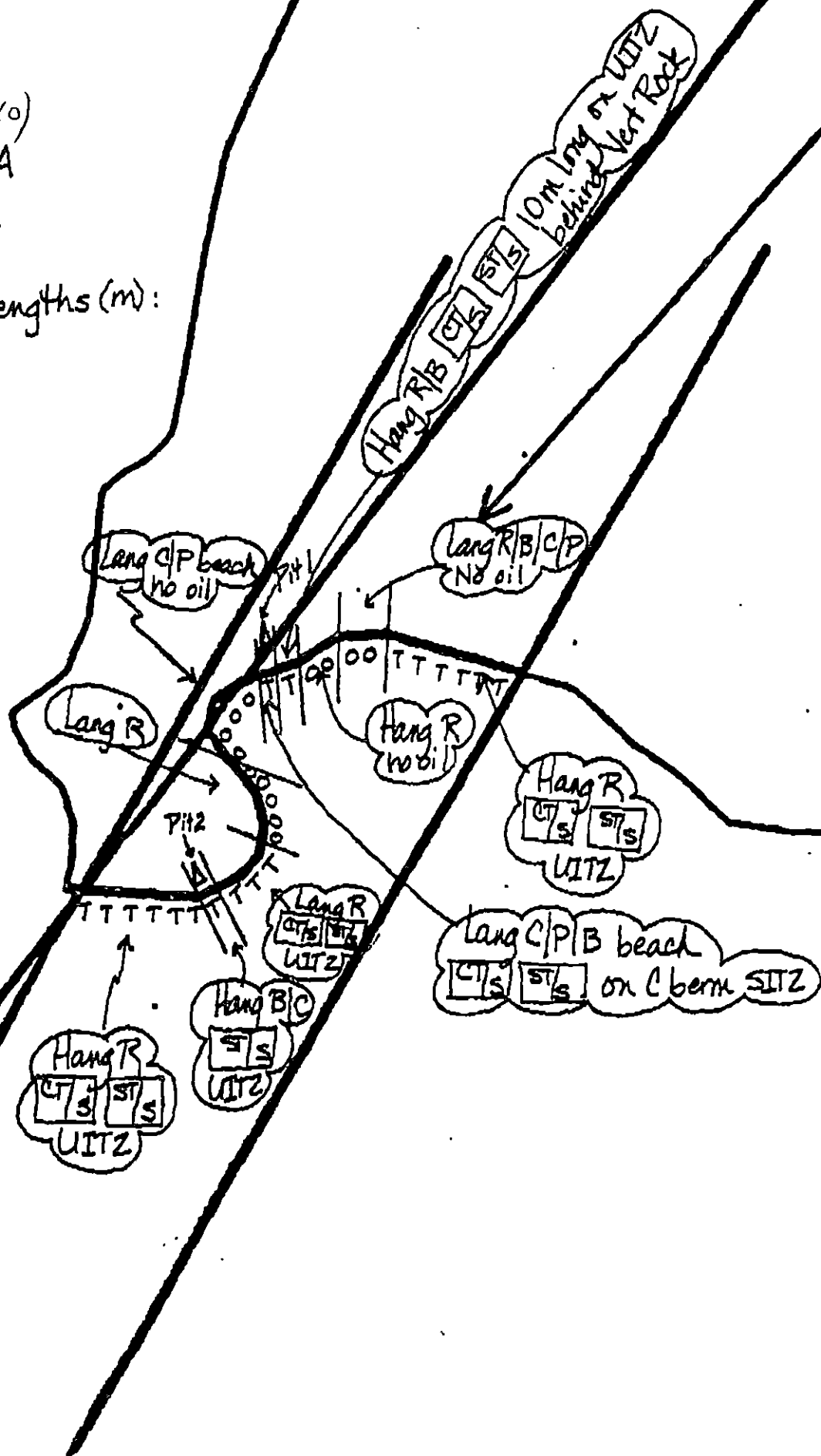
(K9-10)
CD-17-A
339m

Oil Character Lengths (m):

CT 92

ST 97

NO 150



SHORELINE ECOLOGICAL SUMMARY

pg 1 of 2

REVISION: 08/81

Segment ST / CD17Subdivision ADate (mo / day / yr) 4/29/90Time (24 hr) 1230-1300 Biologist CrankLength: 339 mTide Height: -18'

- (A) Substrate type and % of segments:
 (1) Bedrock 70 (2) Boulder 20 (3) Cobble 5 (4) Pebble 3 (5) Sand 2 (6) Sm
- (B) Overall % cover of biota (% of segment): Dense 10 Moderate 20 Low 70
- (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: No photos
 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

45

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

345

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

345

Wildlife Observations/ General Comments:

2-Gulls 1-Seal

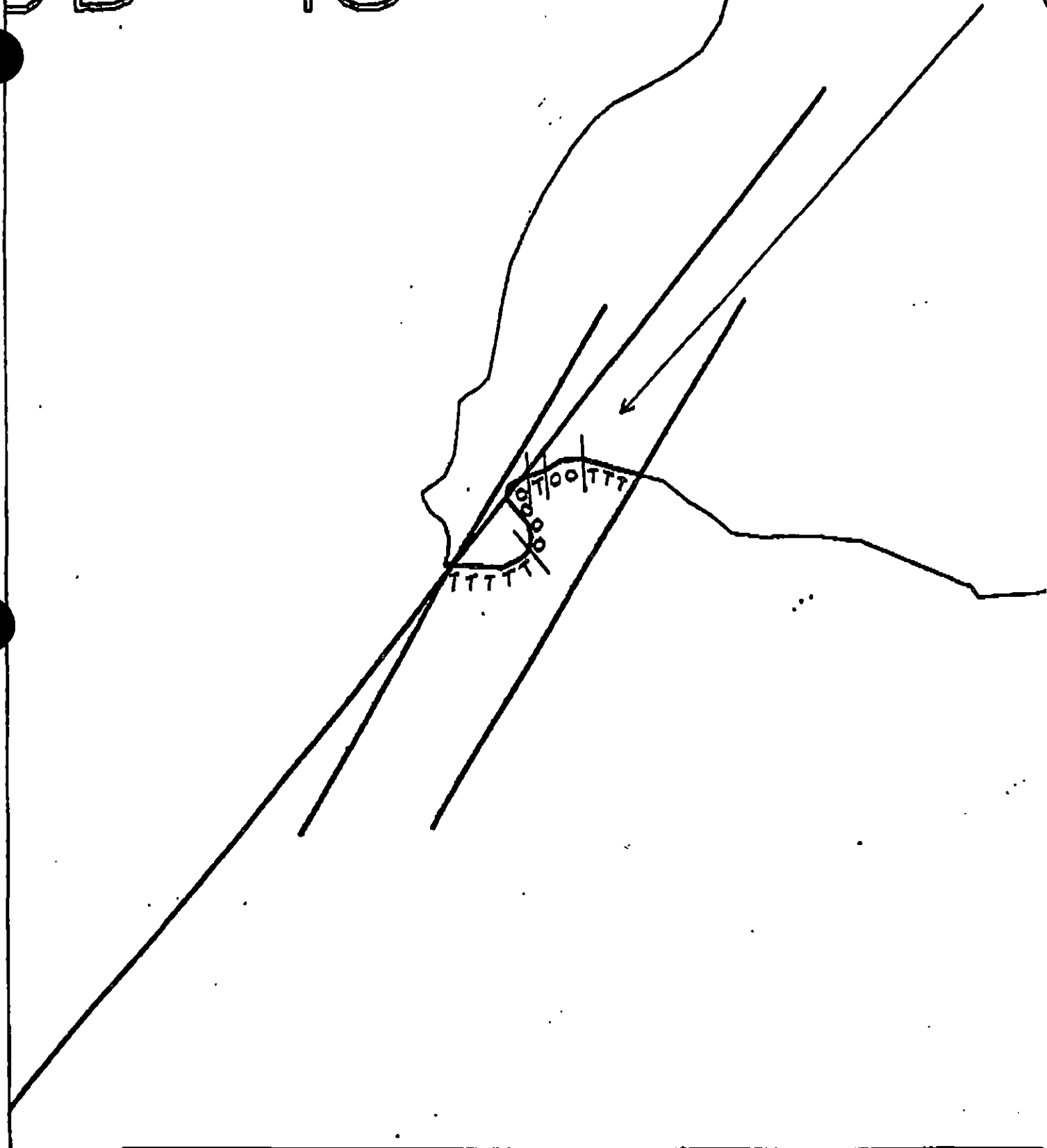
2-Sea Lions

Ecological Considerations:

Unknown-Office
information was
unavailable

- LITZ 80% rockbench with shallow sand cover. Extensive tidepool area below +1', with rich algae cover 80%.
- Intertidal biota similar to CD16A. This segment appears to have more yellow sponge, however, and seems to have a slight increase in biotic coverage.
- Fucus; mussels are found in sporadic patches.
- Barnacles and Gastropods are continuous population.

CD-18



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

CD-17 (K9-10)

ADEC Segment Length: 339m



Map Key: GOA-37

Name: C. DILLON

Date: 4/29/90

Date Entered:

REGION: KODIAK

SEGMENT: ST/K09-10-CD-100

SUBDIVISION: A (1 of 1)

SHORELINE EVALUATION

SEGMENT ST/ K09-10-CD-100 SUBDIVISION A (1 OF 1) DATE 5/12/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
3N, 3P Harbor seal and sea lion pupping (5/10 to 7/1)
4LL State Marine Park National Parks 7/1 and from 8/1 - 9/15
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

Cultural resource survey in progress. Shoreline treatment cannot proceed until field data have been assessed and a formal archaeological constraint entered on the shoreline evaluation form.

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 22 m: Narrow 0 m: V.Light 521 m: No Oil 0 m
Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: Recommend treatment includes 1) manual pick up of pooled mousse
2) bioremediation of areas as indicated on sketch map. Work should be
conducted between 7/1 and 7/31 with approval of USFWS regarding eagle
nest.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

KODIAK ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1 K09-10-CD 100 SUBDIVISION: A DATE 5/12/90

USCG

NAME Kenneth M. Treble SIGNATURE K Treble☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

There is broken coat ~~off~~ and stain w/ patchy mussel and pooled oil in crevices in a 10 x 5 meter area of boulders. Splash stain on remaining upper inter-tidal zone. Cleanup not feasible.

ADEC

NAME Francine J. Benoit SIGNATURE Francine J Benoit☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Concur with Coast Guard rep's comments. Any clean-up is not practical & would be more intrusive than it's worth.

LAND MANAGER NPSNAME Will Treyster SIGNATURE Will Treyster☐ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Some mussel remains, wedged between boulders but will be difficult to remove. Any cleanup effort would have to be weighed against damage to resources. This is a bald eagle nesting site, although there are

SHORELINE OILING SUMMARY

REVISION NO. 24-10-90

OG Greg Chaney USCG 14m Frigate SEGMENT ST/ K09-10-CD-100
 BIO Heather Davis LAND REP Will Snyder (NPS) SUBDIVISION A OF 1
 EXXON — ADEC From Beards TIME 12:00 to 13:00
 M NO. 20 TIDE LEVEL 0 to 4.0 ft DATE May 12 / 90
 SUBDIVISION LENGTH: 5.01 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock Drift wood
 SURVEYED FROM: ☒ Foot ☐ Boat ☒ Helo WORKING DIRECTION: West to East
 SURFACE SEDIMENTS: R 15 % B 70 % C 5 % P 5 % G 5 % S — % M — % V — %
 SLOPE: Long 95 % Hang 5 % Vert 0 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 10 m N 0 m VL 491 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	10	15	17	18	20	25	30	35	40	45	50	55	SU	UI	MI	U
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
NO OIL																

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE NONE#BAGS NONEPhotographs: NONERoll No. —Frames —

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SHEEN (Y/N)	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	VC	20	25	30	35	40	45	50	55	SU	UI	MI	U			

OFFICIAL COMMENTS Segment Length Does Not Accurately Reflect Actual Segment Length.
 See attached

REVIEWED Boat DATE 23 May 90

COMMENTS
SEGMENT K0910-CD-100

Greg Chaney

May 12 1990

Segment K0910-CD-100 consists of the northern portion of Douglas Reef in Shelikof Strait. This low lying segment is composed primarily of a broad low lying boulder reef. At low tide this portion of Douglas Reef may be 1500 meters long and roughly 500 meters wide but the majority of this reef is completely covered at high tide. Near the center of the reef is a low sea stack roughly 200 meters across. This feature is grass covered and retains driftwood but does not appear to be above supra-tidal influences. The survey was conducted near low tide so most of the reef was exposed upon our arrival but when the survey was completed the incoming tide was rapidly covering the reef. The southern portion of the segment was surveyed on foot. It was not possible to survey the northern half of the reef on foot due to the danger of entrapment by the incoming tide, therefore the northern half was surveyed by helicopter. No oil was observed on the broad lower intertidal boulders which compose 90% of the reef. Very little stain was located in the mid-intertidal zone. The upper intertidal zone is restricted to the sea stack region. Traces of splattered tar coats surround the sea stack however the greatest concentration of oil is found on the eastern side of the sea stack. A 5x10 meter area on the north eastern side of the sea stack retained a broken coat and cover totaling 50% coverage in that area. In a bedrock crack at the base of the coat and cover was 5x5 centimeter pocket of pooled mousse. This mousse was brown and at least 2 centimeters deep. Silver sheen was observed in the tidal pools below this relatively concentrated oil. The majority of the oil noted appeared stable, however random patches of mousse still appear to be sheening. Due to the low profile of this reef, the official segment lengths for this segment do not accurately reflect it's actual extent at low tide. (See sketch map.)

DATE May 12 90

CHECKLIST

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

LEGEND

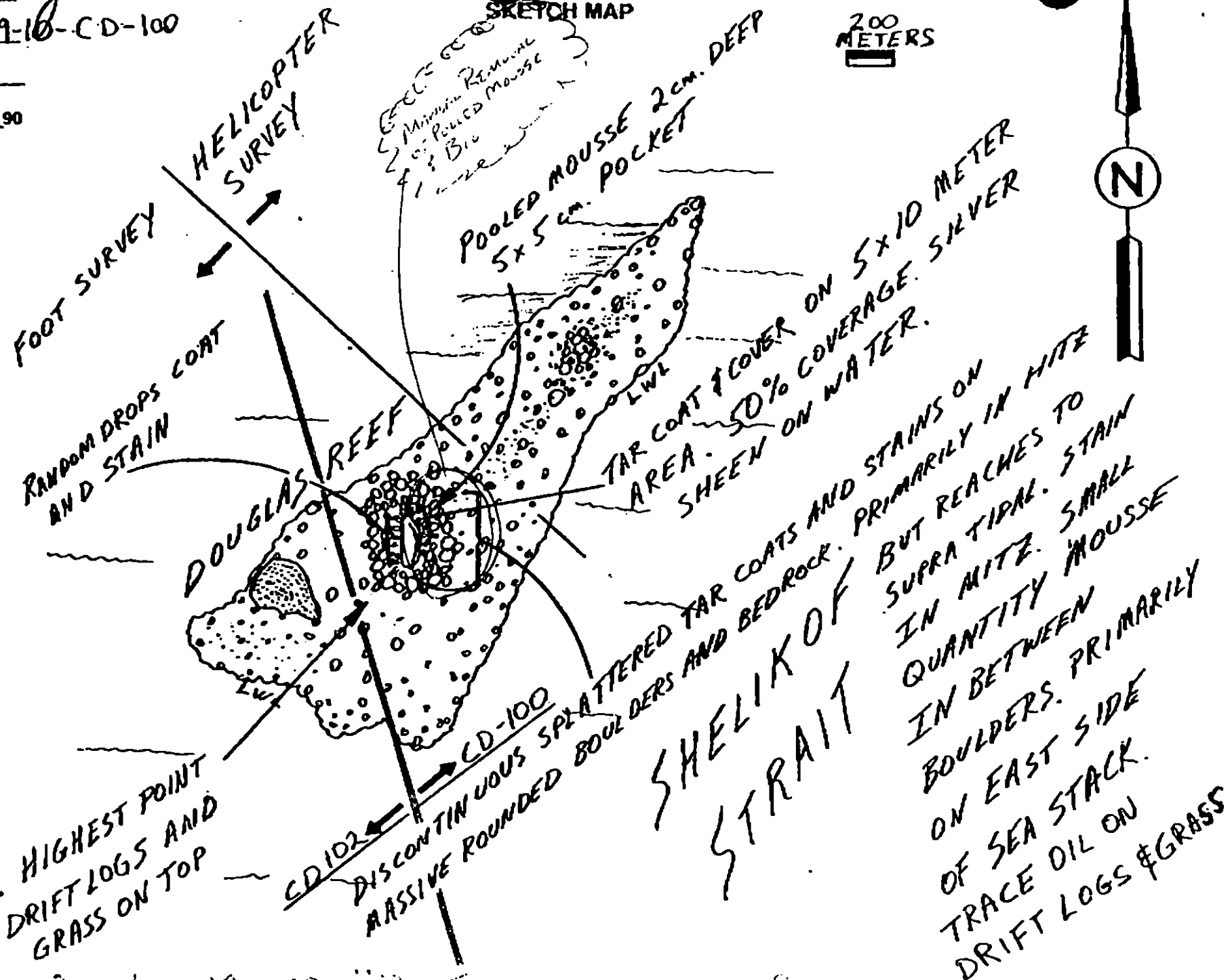
- 1 
 P1 - No Subsurface Oil
- 2 
 P1 - Subsurface Oil
- 
 Continuous Distribution
- 
 Broken Distribution
- 
 Patchy Distribution
- 
 Splashed Distribution
- 3 
 Oiled Vegetation
- 4 
 Photo location, direction,
 and number

PCN (core length) (m) AP 2 XU 1 CV 10 ST (SD) ST () MS 5 PT 3 () FL 3 NO ()

OPERATIONS SKETCH

SKETCH MAP

200
METERS



OG Riney Chaney
SEGMENT ST/ K09-10 - CD-100

SUBDIVISION A

DATE May 12 90

SKETCH MAP

200
METERS

CHECKLIST

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

LEGEND

1 Δ
Pit - No Subsurface Oil

2 Δ
Pit - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

CT/P
Patchy Distribution

CT/S
Splashed Distribution

Old Vegetation

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

FOOT SURVEY
HELICOPTER SURVEY

RANDOM DROPS
COAT
AND STAIN

DOUGLAS REEF

POOLED MOUSSE 2cm. DEEP
5x5cm. POCKET

TAR COAT & COVER ON 5x10 METER
AREA. 50% COVERAGE. SILVER
SHEEN ON WATER.

HIGHEST POINT
DRIFT LOGS AND
GRASS ON TOP

CD-100
DISCONTINUOUS SPLATTERED TAR COATS AND BEDROCK.
MASSIVE ROUNDED BOULDERS

SHELK OF
STRAIT

BUT REACHES TO
SUPRA TIDAL. STAIN
QUANTITY SMALL
IN BETWEEN
BOULDERS. PRIMARILY
ON EAST SIDE
OF SEA STACK.
TRACE OIL ON
DRIFT LOGS & GRASS

Oil Character Length (m): AP 0 PO 1 CV 10 CT 100 ST 400 MS 5 PT 0 TB 0 FL 0 NO 0

REVISION: 3/24/90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / K09-10 Subdivision CD-100 Date (mo / day / yr) 5/12/90
 Time (24 hr) 12:15 Biologist H. Davis

- (A) Substrate type and % of segments:
 (1) Bedrock 15 (2) Boulder 70 (3) Cobble 5 (4) Pebble 5 (5) Sand 5 (6) Silt —
- (B) Overall % cover of biota (% of segment): Dense 25% Moderate 50% Low 25% (80%)
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (O)

Photographs:

Roll No. ST-20-10Frames 34

BARNACLES moderate to sparse over most of the reef

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

NOT PRESENT
4, 5, 6

MYTILUS Rare patches but within the patch moderate-Dense

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

NOT PRESENT
3, 4, 5, 6

GASTROPODS Littorina - Moderate, limpets - Sparse, Nucella - Sparse

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

NOT PRESENT
4, 5, 6

FUCUS Patchy all across the segment

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

NOT PRESENT
4, 5, 6

Wildlife Observations/ General Comments: See attached page.

Biological Considerations: Not on the list of ecological constraints. There was a nest on the highest point of the reef. 2 adult eagles were in the area but there were no eggs. 8-10 Harbor seals were seen on the edge of the reef. Up higher there was a sandy area where they had been hauled out. They probably will be having pups on the reef. (See attached notes)

CD-100

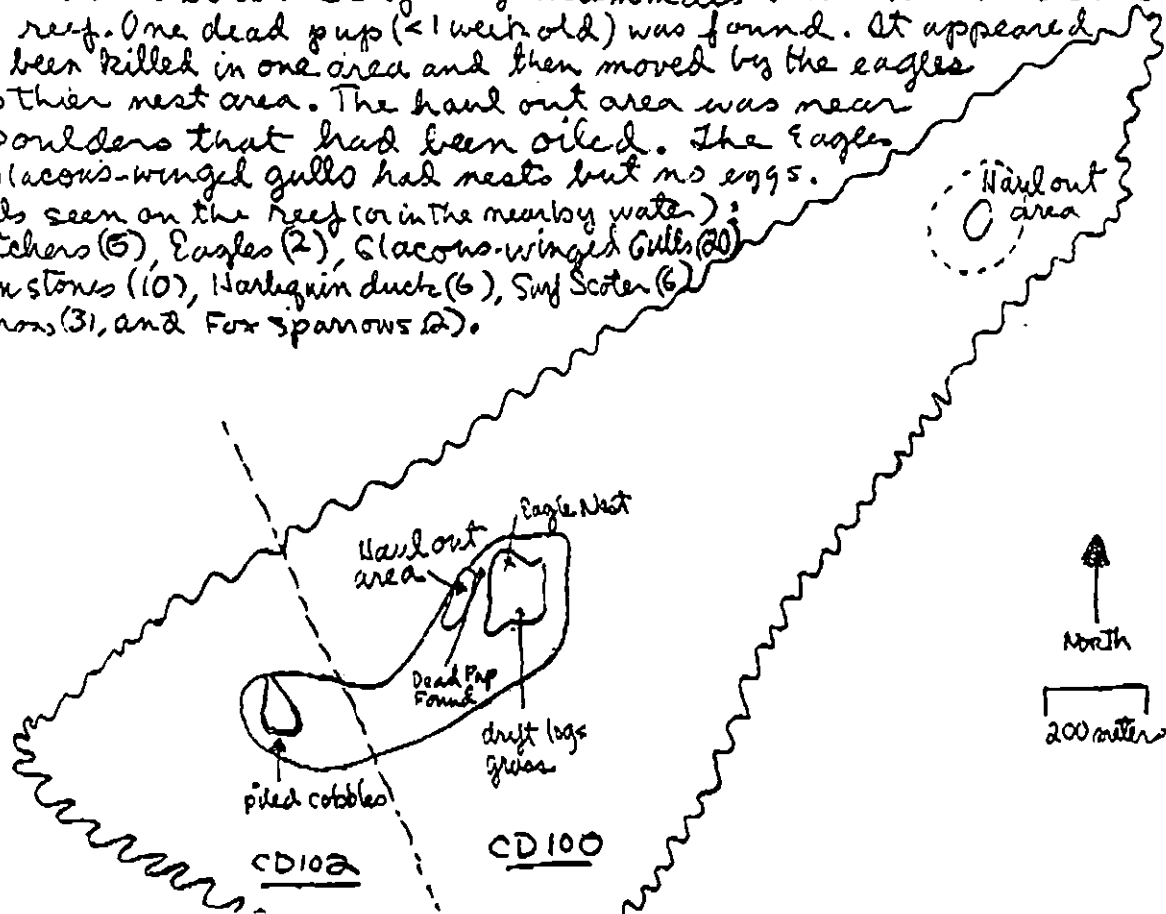
H. Davis

5/12/90

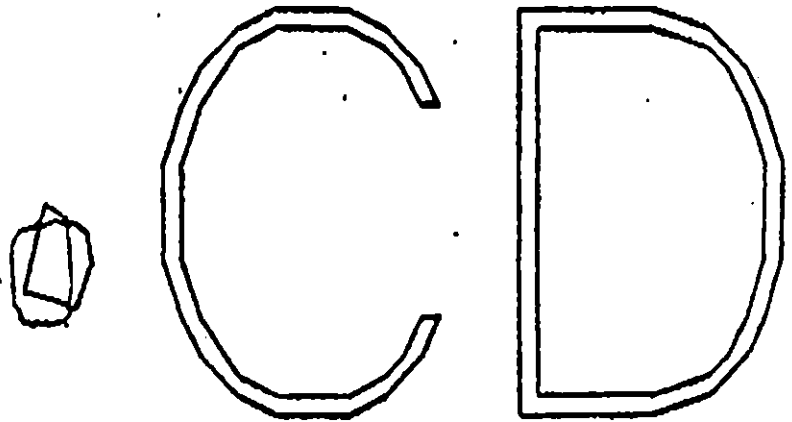
This segment is a low lying area, uncovered at low tide and almost completely covered at high tide. The lowest lying areas have a rock vase covered with shell hash, sand, boulders and some cobbles. The boulders and cobbles have a dense covering of algae on top: Rhodomela, Rhodomera, Fucus, Ulva, Halosaccion and Eridaea. Limpets - (*Notosacmea sentum* + *persona*) and *Littorina* (*pithana* and some *scutellata*) are under the algae cover. Under the boulders *heptasterius*, *Idotea*, *Circlana*? (pillbug), *Henricia*, *Spirobrus*, *hept-synaptia*, *Rhynchocoele* sp., *Anniculids* (both Scale-worms and *Nereis*) and *Eupentacta*. Growing on bedrock up through the shell hash was *Alaria*, *Zostera*, *Laminaria*, *Costaria*, *Eridaea*, *Anthopleura* (both *artemisia* and *canthogrammea*) and *Strongylocentrotus drobachensis* (in crevices). Coralline algae and the sponge *Nalochondria panacea* were in scattered patches throughout the reef (MTZ-MTZ). In the MTZ the flora was mainly: *Zostera*, *Pleurophyucus*, *Hedophyllum*, *Alaria*, *Odonthalia* and *Eridaea* growing on the bedrock between boulders. *Rhodomela*, *Rhodomera*, *Fucus*, *Gigartina*?, *Halosaccion* and *Scytosiphon* cover the boulders and cobbles. Under the boulders and cobbles *prickelbarks*, *sculpins*, *heptasterias*, *Isopods* (*Idotea* + *Circlana*), *limpets*, *Anniculids* (scaleworms and *Nereis*), *Platyhelminths* (a polyclad), *Membranoptera*, and *Nalothuroids* (*Eupentacta*) were all common. *Balanus cariosus*, *Balanus glandula*, *Mucella* sp., *Notosacmea* sp., *Buccina* sp., *Littorina*, *Carbacea*, and *Lancer oregonensis* were all found in tide pools. In the upper intertidal area *Balanus*, *Mucella*, *Littorina*, *limpets*, *Fucus*, *Scytosiphon*, *Chlorophyta*, and few patches of *Mytilus* were found.

There was no evidence of any mammals other than Harbor seals on the reef. One dead pup (<1 week old) was found. It appeared to have been killed in one area and then moved by the eagles closer to their nest area. The haul out area was near oiled boulders that had been oiled. The eagles and Glaucous-winged gulls had nests but no eggs.

Birds seen on the reef (or in the nearby water):
Oystercatchers (5), *Eagles* (2), *Glaucous-winged Gulls* (20)
Black Turnstones (10), *Harlequin ducks* (6), *Surf Scoters* (6)
Song sparrows (3), and *For sparrows* (2).



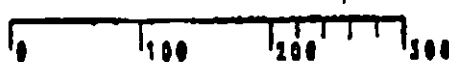
10 meters Medium



XXXX Wide
 /// Medium
 - Narrow
 TTTT Very Light

CD-100

ADEC Segment Length: 501



Map Key: AKP-CD-100

Name: Greg Chancy

Date: May 12 1990

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K09-10-CD-100 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	CLOSED
Bioremediation*	CLOSED

*Bioremediation with Customblen only – Do not use Inipol
If eagle constraint is lifted, NPS monitor is required.

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T Bald Eagle Nest

USFWS 4/9/90 map indicates an active nest in Subdivision A. Closed to manual pickup and bioremediation within 400m of active nest. No constraint to manual pickup and bioremediation more than 400m from active nest.

3N,O,P,Q Harbor Seal & Sea Lion
Pupping and Molting

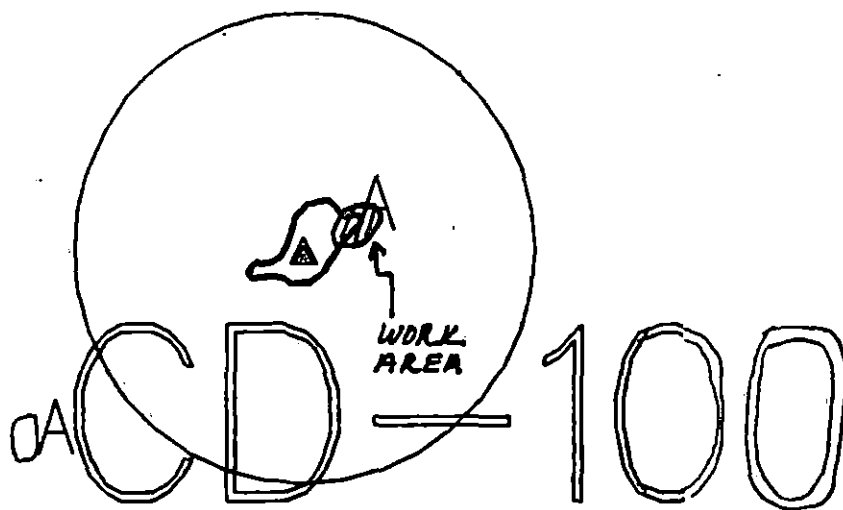
Closed to bioremediation prior to 7/1 and after 7/31. Closed to manual pickup and spot washing prior to 7/1 and after 8/15.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC [Signature] Date 7-11-90

Prepared by [Signature] Date 7/10/90



Exxon Company, USA
Map Keys AKP-CD-100



ECOLOGY MAP
SEGMENT K9N-10 CD-100
SUBDIVISION A (1 of 1)
METERS

★	Seabird Colony
▲	Active Eagle Nest
△	Inactive Eagle Nest

SHORELINE EVALUATION

SEGMENT ST/ K09-10-CD-100 SUBDIVISION A (1 OF 1) DATE 5/12/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
3N, 3P Harbor seal and sea lion pupping (5/10 to 7/1)
4LL State Marine Park National Parks 7/1 and from 8/1 - 9/15
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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: Charles J. Holmes DATE: June 27, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 22 m: Narrow 0 m: V.Light 521 m: No Oil 0 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommend treatment includes 1) manual pick up of pooled mousse
2) bioremediation of areas as indicated on sketch map. Work should be
conducted between 7/1 and 7/31 with approval of USFWS regarding eagle
nest.

SEE CONSTRAINTS ADDENDUM DATED 7/10/90

TAG COMMENTS:

TAG APPROVAL DATE: 5/31/90.

ADEC Art Weimer

EXXON Andy Bal

OAA Joseph Kibst

SCG G.A. PETER

FOSC: W L DATE: 7-10-90

In. pol not authorized to coordinate treatment
with F&W re environmental constraints.
NPS routing + permit required.

SHORELINE EVALUATION

SEGMENT ST/ K09-10-CD-100 SUBDIVISION A (1 OF 1) DATE 5/12/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ST All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
3N, 3P Harbor seal and sea lion pupping (5/10 to 7/1)
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d
l

SHPO SIGNATURE: Charles E. Horner DATE: June 27, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 22 m: Narrow 0 m: V. Light 521 m: No Oil 0 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommend treatment includes 1) manual pick up of pooled mousse
2) bioremediation of areas as indicated on sketch map. Work should be
conducted between 7/1 and 7/31 with approval of USFWS regarding eagle
nest.

TAG COMMENTS:

TAG APPROVAL DATE: 5/31/90.

ADEC Art Weiner

EXXON Andy Bal

NOAA Joseph Kibbitt

USCG G.A. Butler

FOSC: W L DATE: 7-10-90

Inv. pol not authorized. Coordinate treatment with F&WL re environmental constraints. NPS monitor + permit required.

OG Phoney
SEGMENT ST/ K09-10-CD-100

SUBDIVISION A

DATE May 12 90

CHECKLIST

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

LEGEND

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

OPERATIONS SKETCH

SKETCH MAP

200
METERS

FOOT SURVEY
HELICOPTER SURVEY

RANDOM DROPS
AND STAIN

DOUGLAS REEF

POOLED MOUSSE 2cm. DEEP
5x5m. POCKET

TAR COAT & COVER ON 5x10 METER
AREA. 50% COVERAGE. SILVER
SHEEN ON WATER.

SHELK OF
STRAIT

HIGHEST POINT
DRIFT LOGS AND
GRASS ON TOP

CD-100
DISCONTINUOUS SPLATTERED TAR COATS AND BEDROCK.
MASSIVE ROUNDED BOULDERS

BUT REACHES TO
SUPRA TIDAL. STAIN
QUANTITY SMALL
IN BETWEEN
BOULDERS. PRIMARILY
ON EAST SIDE
OF SEA STACK.
TRACE OIL ON
DRIFT LOGS & GRASS

OG Kline Chaney
SEGMENT ST/ K09-10-CD-100

SUBDIVISION A

DATE May 12 90

CHECKLIST

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

LEGEND

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

SKETCH MAP

200
METERS

FOOT SURVEY
HELICOPTER SURVEY

RANDOM DROPS COAT AND STAIN

DOUGLAS REEF

POOLED MOUSSE 2cm. DEEP
5x5 cm. POCKET

TAR COAT & COVER ON 5x10 METER AREA. 50% COVERAGE. SILVER SHEEN ON WATER.

HIGHEST POINT
DRIFT LOGS AND
GRASS ON TOP

CD-100
DISCONTINUOUS SPLATTERED
MASSIVE ROUNDED BOULDERS AND BEDROCK

SHELK OF
STRAIT

TAR COATS AND STAINS ON BUT REACHES TO SUPRA TIDAL. STAIN IN QUANTITY. SMALL IN BETWEEN BOULDERS. PRIMARYLY ON EAST SIDE OF SEA STACK. TRACE OIL ON DRIFT LOGS & GRASS

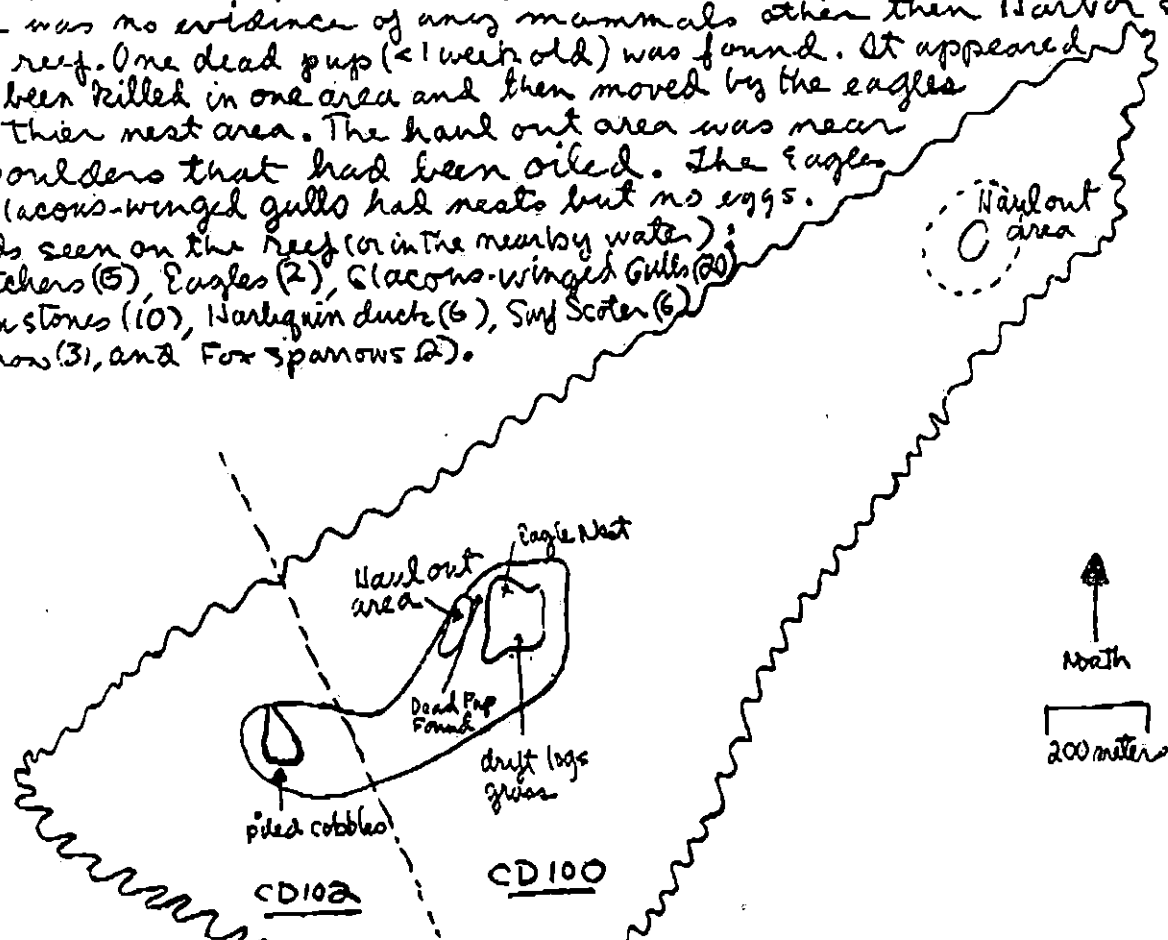


Oil Character Length (m): AP 0 PO 1 CV 10 CT 100 ST 400 MS 5 PT 0 TB 0 FL 0 NO 0

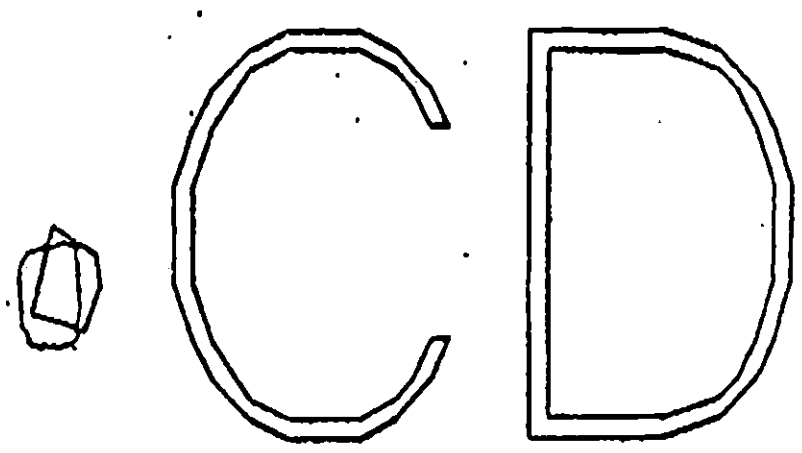
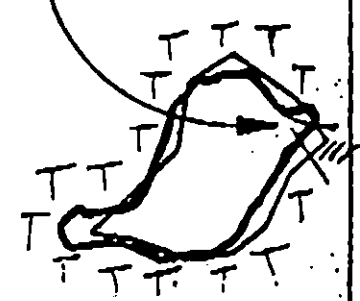
This segment is a low lying area, uncovered at low tide and almost completely covered at high tide. The lowest lying areas have a rock base covered with shell hash, sand, boulders and some cobbles. The boulders and cobbles have a dense covering of algae on top: Rhodomela, Rhodomelia, Fucus, Ulva, Halosaccion and Sargassum. Limpets - (Notoacmea scutum + persona) and Littorina (littorina and some scutulata) are under the algae cover. Under the boulders Leptasterias, Idotea, Cnidaria (pencil box), Henricia, Spirobrachia, Leptogobius, Rhynchocoele sp., Annelids (both Scale-worms and Nereis) and Eupentacta. Growing on bedrock up through the shell hash was Alaria, Zostera, Laminaria, Costaria, Sargassum, Anthopleura (both artemesia and xanthogramma) and Strongylocentrotus drobachensis (in crevices). Coralline algae and the sponge Halochondria panacea were in scattered patches throughout the reef (LTZ-UTZ). In the MTZ the flora was mainly: Zostera, Pleurophyllus, Hedophyllum, Alaria, Odonthalia and Sargassum growing on the bedrock between boulders. Rhodomela, Rhodomelia, Fucus, Gigartina, Halosaccion and Scytosiphon cover the boulders and cobbles. Under the boulders and cobbles pricklebarks, sculpins, Leptasterias, Isopods (Idotea + Cnidaria), Limpets, Annelids (Scaleworms and Nereis), Platyhelminths (A polyclad), Membranoptera, and Nematodes (Eupentacta) were all common. Balanus cariosus, Balanus glandula, Nucella sp., Notoacmea sp., Buccina sp., Littorina, Caridea, and Cancer oregonensis were all found in tide pools. In the upper intertidal area Balanus, Nucella, Littorina, Limpets, Fucus, Scytosiphon, Chlorophyta, and few patches of Mytilus were found.

There was no evidence of any mammals other than Harbor seals on the reef. One dead pup (<1 week old) was found. It appeared to have been killed in one area and then moved by the eagles closer to their nest area. The haul out area was near oiled boulders that had been oiled. The eagles and Glaucous-winged gulls had nests but no eggs.

Birds seen on the reef (or in the nearby water):
 Oystercatchers (5), Eagles (2), Glaucous-winged Gulls (20),
 Black Turnstones (10), Harlequin ducks (6), Surf Scoters (6),
 Song sparrows (3), and Fox sparrows (2).



10 meters Medium



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

CD-100

ADEC Segment Length: 501



Map Key: AKP-CD-100
Name: Doug Chancy
Date: May 12 1990



REGION: KODIAK

SEGMENT: ST/K09-10-CD-102

SUBDIVISION: A (1 of 1)

SHORELINE EVALUATION

SEGMENT ST/ K09-10-CD-102 SUBDIVISION A (1 OF 1) DATE 5/12/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

3N, 3P Harbor seal and sea lion pupping (5/10 to 7/1)

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

From Bio Comments Harbor Seal Haulout - restricted

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

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

4LL State Marine Park National Parks

From 5/10 to 7/1 & from 8/1 to 9/15.

Adjacent segments has a possible Bald Eagle Nest/All Eagle Nests (3/1 - 6/1)

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 0 m: No Oil 216 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 _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

KODIAK ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

MENT ST / K09-10-CD10 SUBDIVISION: A DATE May 12 1990

USCG

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Not Available

ADEC

NAME Francine T. Dennis SIGNATURE Francine T. Dennis

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

No one observed.

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Not Available

The segment was split in two after the Coast Guard rep. and land manager had left Kodiak. Neither is available for comment.

There was no oil observed on segment K09.10 ED 102 as the new division stands. I have included the original comment sheet for the segment before the division.

Heather Davis
Bio

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K09-10-CD(100) SUBDIVISION: A DATE 5/10/90

USCG

NAME Kenneth M. Trabue SIGNATURE K. Trabue

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

There is broken coat ~~off~~ and stain w/ patchy mussels and pooled oil in crevices in a 10 x 5 meter area of boulders. Splash stain on remaining upper inter-tidal zone. Cleanup not feasible.

ADEC

NAME Francine J. Renate SIGNATURE Francine J. Renate

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Concur with Coast Guard rep's comments. Any clean-up is not practical & would be more intrusive than it's worth.

LAND MANAGER / VPS.

NAME Will Treiber SIGNATURE Will Treiber

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Some mussels remain, wedged between boulders but will be difficult to remove. Any cleanup effort would have to be weighed against damage to resources. This is a bald eagle nesting site, gull nesting site and a bald eagle nesting site, although there are no eggs as of today.

SHORELINE OILING SUMMARY

REVISION NO. 04-12-90

OG Greg Chaney USCG Kenn Trolene SEGMENT ST/ K09-10-CD102
 BIO Heather Davis LAND REP Will Trosper (NPS) SUBDIVISION A (1 OF 1)
 EXXON - ADEC From Reports TIME 11:00 10 13:00
 TEAM NO. 20 TIDE LEVEL -0.5 to 0 ft DATE May 12 1990
 ST. SUBDIVISION LENGTH: 204 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☐ Forest ☒ Rock no point is above H173
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: West to East
 SURFACE SEDIMENTS: R 0 % B 90 % C 10 % P 0 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Lang 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 204 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	C	B	P	S	BR	BL	OW	OR	TL	SU	U	M	U
ASPHALT													
PAVEMENT													
POOLED													
COVER													
COAT													
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
LM													
NO OIL													

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE NONE#BAGS NONE

Photographs:

Roll No. ST-20-10Frames 34

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM CL)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (Y/N)	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	UC	BR	BL	OW	OR	TL	SU	U	M	U			
1	40					X	.								X					N	OPCG
							.														
							.														
							.														
							.														
							.														

COMMENTS

See attached

REVIEWED BAT DATE 24 May 90

COMMENTS
SEGMENT K0910-CD-102

Greg Chaney

May 12 1990

Segment K0910-CD-102 consists of the southern most portion of Douglas Reef in Shelikof Strait. This low lying segment is composed of a broad low lying boulder reef. At low tide this portion of Douglas Reef may be 500 meters long and roughly 500 meters wide but it is probably completely covered during an extreme high tide. Drift wood was not present and oil was not observed on this portion of the reef. Due to the low profile of this reef, the official segment lengths for this segment do not accurately reflect it's actual extent at low tide.

Photocopy of photograph ST-20-10 #34

Segment K0910 CD102 looking toward segment
K0910 CD100 on Douglas Reef.



OG *Greg Chaney*

SEGMENT ST/ *KO9-10-CD-102*

SUBDIVISION *A*

DATE *May 12 90*

CHECKLIST

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

LEGEND

1 Δ

Pt - No Subsurface Oil

2 Δ

Pt - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

Oiled Vegetation

1 $\Rightarrow$

Photo location, direction,
and number

SKETCH MAP

200
METERS



*No oil observed in
CD 102*

CD 102 DOUGLAS REEF

*HIGHEST POINT
DRIFT LOGS AND
GRASS ON TOP*

*SHELIX OF
STRAIT*

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

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / K09-10 Subdivision CD-102 Date (mo / day / yr) 5/12/90

(24 hr) 11:15 Biologist H. Davis

(A) Substrate type and % of segments:
(1) Bedrock 15 (2) Boulder 70 (3) Cobble 5 (4) Pebble 5 (5) Sand 5 (6) Silt —

(B) Overall % cover of biota (% of segment): Dense 25% Moderate 50% Low 25% (80%)

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

Photographs:
Roll No. ST-20-10

Frames 34

BARNACLES Moderate to sparse over most of the reef

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

NOT PRESENT
4, 5, 6

MYTILUS Rare patches but within the patch moderate-Dense

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

NOT PRESENT
3, 4, 5, 6

GASTROPODS Littorina - Moderate, limpets - Sparse, Nucella - Sparse

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

NOT PRESENT
4, 5, 6

FUCUS Patchy all across the segment

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

NOT PRESENT
4, 5, 6

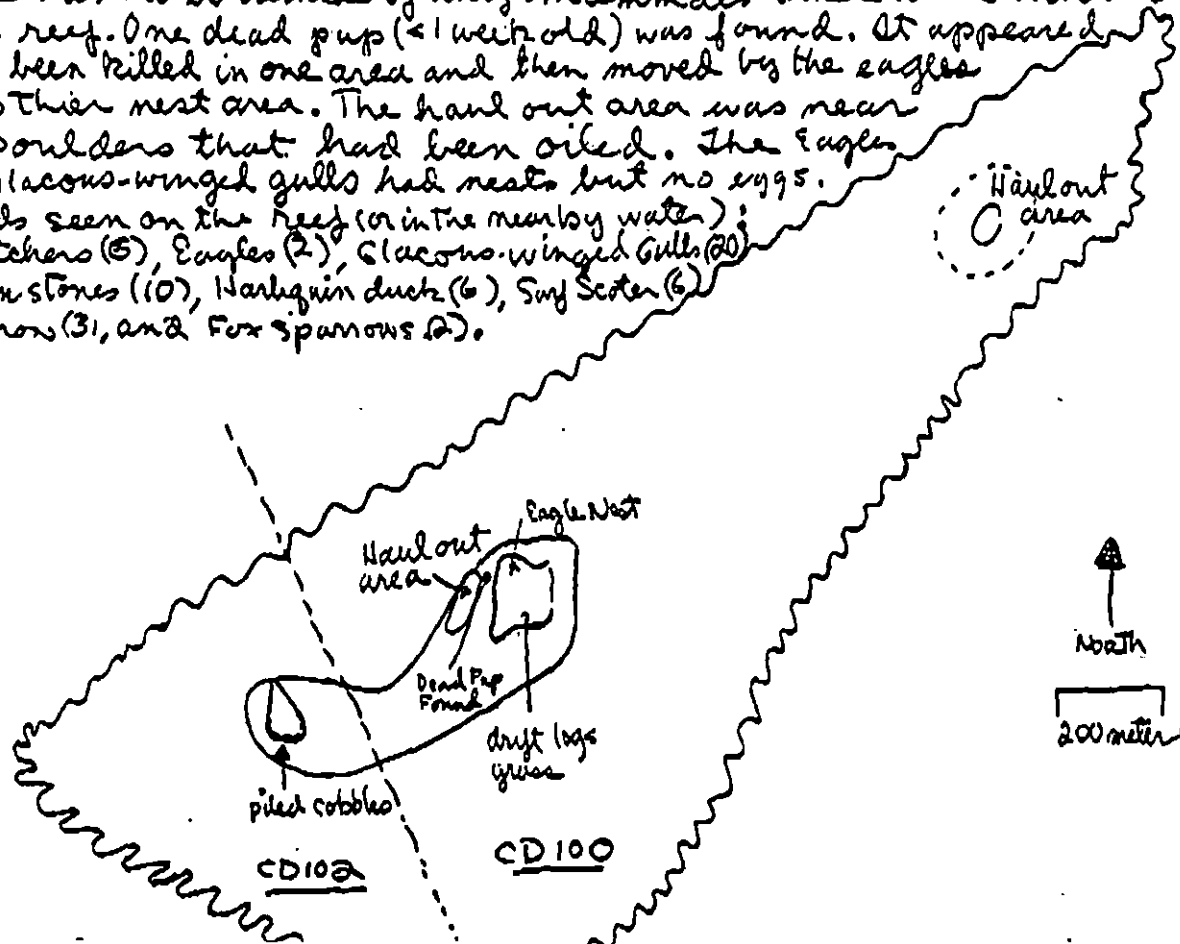
Wildlife Observations/ General Comments: See attached page.

Ecological Considerations: Not on the list of ecological constraints. There was a nest on the highest point of the reef. 2 adult eagles were in the area but there were no eggs. 8-10 Harbor seals were seen on the edge of the reef. Up higher there was a sandy area where they had been hauled out. They probably will be having pups on the reef. (See attached notes)

This segment is a low lying area, uncovered at low tide and almost completely covered at high tide. The lowest lying areas have a rock base covered with shell hash, sand, boulders and some cobbles. The boulders and cobbles have a dense covering of algae on top: Rhodomela, Rhodomenia, Fucus, Ulva, Halosaccion and Dridaea. Limpets - (*Notosacma sentum* + *persona*) and *Littorina* (*pilhana* and some *scutellata*) are under the algae cover. Under the boulders *heptasterius*, *Idotea*, *Ciridana*? (*pilthina*) *Henricia*, *Spirobrus*, *Leptosynapta*, *Rhynchocoela* sp., *Annelids* (both Scale-worms and *Nereis*) and *Eupentacta*. Growing on bedrock up through the shell hash was *Alaria*, *Zostera*, *Laminaria*, *Costaria*, *Dridaea*, *Anthopleura* (both *artemisia* and *xanthogramma*) and *Strongylocentrotus drobachianus* (*in crevices*). Coralline algae and the sponge *Halochondria panacea* were in scattered patches throughout the reef (LTZ-MTZ). In the MTZ the flora was mainly: *Zostera*, *Pleurophyucus*, *Hedophyllum*, *Alaria*, *Odonthalia* and *Dridaea* growing on the bedrock between boulders. *Rhodomela*, *Rhodomenia*, *Fucus*, *Gigartina*?, *Halosaccion* and *Scytosiphon* cover the boulders and cobbles. Under the boulders and cobbles *pricklebacks*, *sculpins*, *heptasterius*, *Isopods* (*Odestra* + *Ciridana*), *Limpets*, *Annelids* (scaleworms and *Nereis*), *Platyhelminths* (*Apogylad*), *Membranoptera*, and *Halothroids* (*Eupentacta*) were all common. *Balanus cariosus*, *Balanus glandula*, *Nucella* sp., *Notosacma* sp., *Buccina* sp., *Littorina*, *Carbarea*, and *Dancer oregonensis* were all found in tide pools. In the upper intertidal area *Balanus*, *Nucella*, *Littorina*, *limpets*, *Fucus*, *Scytosiphon*, *Chlorophyta*, and few patches of *Mytilus* were found.

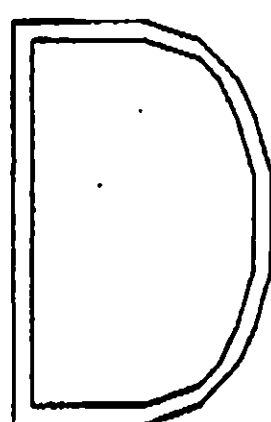
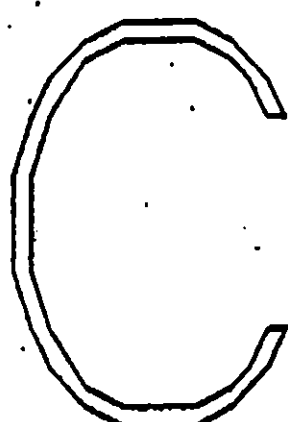
There was no evidence of any mammals other than Harbor seals on the reef. One dead pup (<1 week old) was found. It appeared to have been killed in one area and then moved by the eagles closer to their nest area. The haul out area was near oiled boulders that had been oiled. The eagles and Glaucous-winged gulls had nests but no eggs.

Birds seen on the reef (or in the nearby water):
Oystercatchers (5), *Eagles* (2), *Glaucous-winged Gulls* (20),
Black Turnstones (10), *Harlequin duck* (6), *Song Sparrows* (6),
Song Sparrows (3), and *For Sparrows* (2).



100-443887-1

PHOTOLOG.WK1 03/28/90 BAT



XXXX Wide
//// Medium
---- Narrow
● TT Very Light

K0910 - CD-102

ADEC Segment Length: 216m



Map Key: AKP-CD-102
Name: Greg Chancy
Date: May 12 1990

SHORELINE EVALUATION

SEGMENT ST/ K09-10-CD-102 SUBDIVISION A (1 OF 1) DATE 5/12/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

3N, 3P Harbor seal and sea lion pupping (5/10 to 7/1)
30, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
From Bio Comments Harbor Seal Haulout - restricted
5T(ST) All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
4LL State Marine Park National Parks
From 5/10 to 7/1 & from 8/1 to 9/15.

Adjacent segments has a possible Bald Eagle Nest/All Eagle Nests (3/1 - 6/1)

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: Rachel Dan Oren DATE: 6/1/90

SPILLING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 216 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 5/31/90

ADEC Art Weimer

EXXON Art Weimer

NOAA Joseph Talbot

USCG G.A. REITER

FOSC: DATE: 6-8-90

OG Greg Chaney

SEGMENT ST/ K09-10-CD-102

SUBDIVISION A

DATE May 12 90

CHECKLIST

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

LEGEND

1 Δ
Pit - No Subsurface Oil

2 Δ
Pit - Subsurface Oil

$\square$ CT/C
Continuous Distribution

$\square$ CT/B
Broken Distribution

$\square$ CT/P
Patchy Distribution

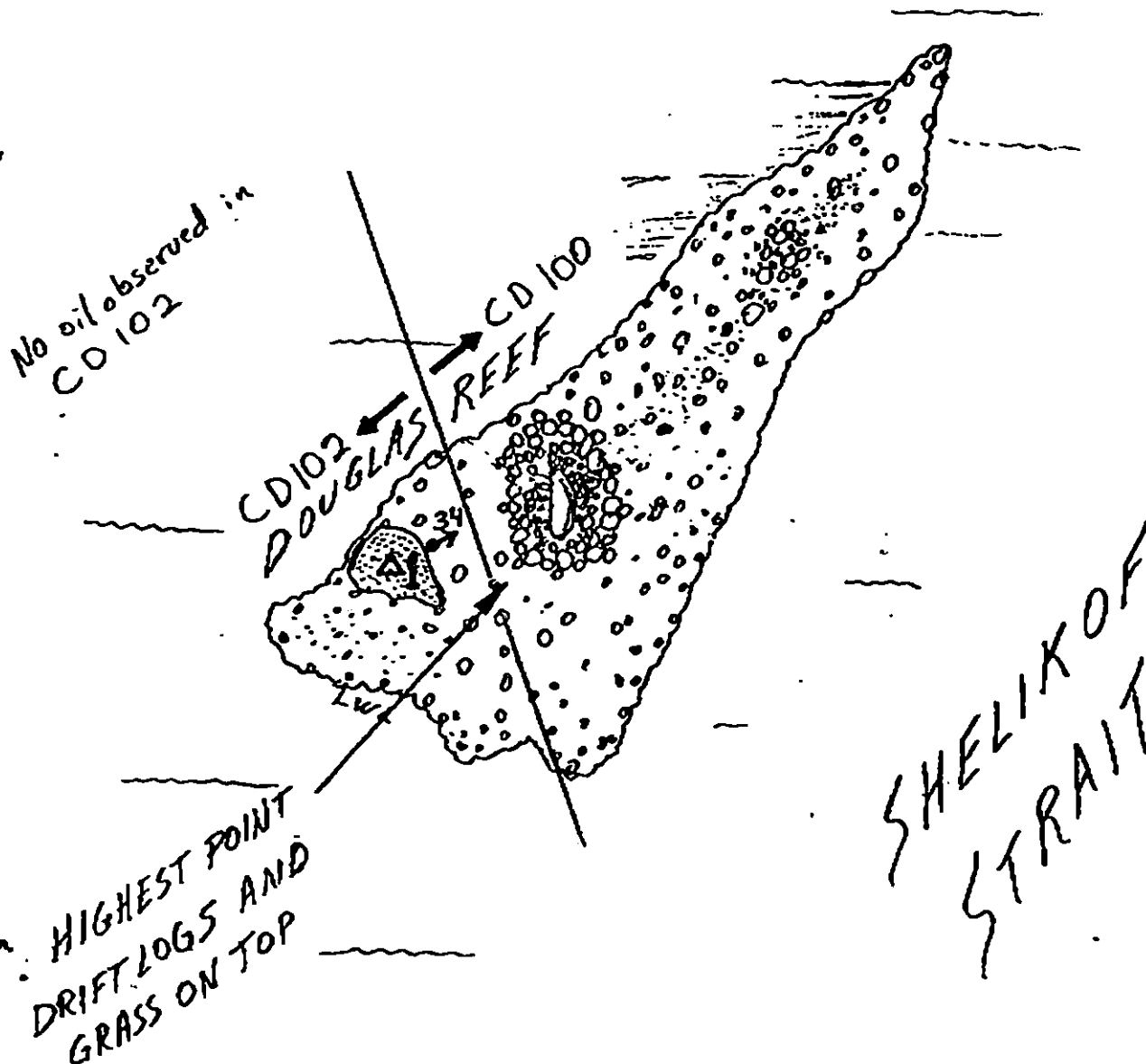
$\square$ CT/S
Splashed Distribution

Oiled Vegetation

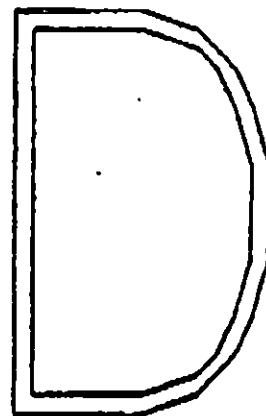
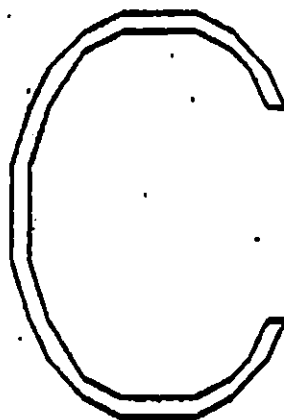
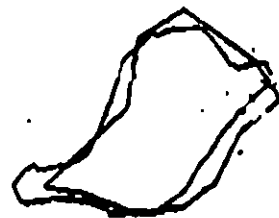
1 $\Rightarrow$
Photo location, direction,
and number

SKETCH MAP

200
METERS



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



XXXX Wide
/// Medium
- Narrow
TTTT Very Light

K0912 - CD-102

ADEC Segment Length: 216m

0 100 200 300

Map Key: AKP-CD-102

Name: Greg Chaney

Date: May 12 1990



ANADROMOUS FISH STREAM ASSESSMENT

REGION: KODIAK

SEGMENT: ~~K09~~-11-CD-018 K09-11-CD-018

STREAM NO: 262-10-10010

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/KN9-11-CD-018 STREAM NO: 262-10-10010 DATE 5/2/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

See above.

ARCHAEOLOGICAL CONSTRAINTS:

Cultural resource survey in progress. Shoreline treatment cannot proceed until field data have been assessed and a formal archaeological constraint entered on the shoreline evaluation form.

SHPO SIGNATURE: _____ DATE: _____

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: Recommend manual removal of tarmat, tarballs and patties as indicated on attached sketch map. Consult ADF&G for appropriate work windows.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

KODIAK ECOLOGICAL CONSTRAINTS

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

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

FIELD SHORELINE COMMENT SHEET

K-910
 SEGMENT ST/ CD-18 SUBDIVISION: ASC# 262-10-10100 DATE 02 MAY 90

USCG

NAME Herwin h. Dreher SIGNATURE CWO H.P. Dreher

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
 COMMENTS

Type A manual pick up. This stream runs through a large delta area. I suggest that NPS or ADEC supply a guide to show where the very small patches are located.

~~ADEC~~ → ADFG

NAME Edward W. Weiss SIGNATURE Edward W. Weiss

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
 COMMENTS

TYPE A MANUAL PICKUP AGREED. MONITOR AGREED NPS AND/ ADFG/HABITAT. ADFG PERMIT REQUIRED AND WILL HAVE MONITORS ON SITE OR VISITING DURING CLEANUP.

CONTINUOUS ASPHALTING AREAS ON GRASS/MUD BANK WILL BE EASIER TO FIND / CLEAN IF DONE PRIOR TO GRASS BEGINNING GROWTH. OTHERWISE WILL HAVE TO CUT/DI THROUGH GRASSES TO GET UP GRASS TO GET OIL. GRASS GROW SHOULD BE WELL UNDERWAY BY MID MAY. LAGOON IS LOW ENERGY

~~LAND MANAGER~~ → NPS

NAME Carl Schuch SIGNATURE Carl Schuch

~~☐ NO TREATMENT RECOMMENDED~~ ~~☐ TREATMENT SUGGESTED~~
 COMMENTS

This lagoon/estuary system is very protected and any remaining oil can be expected to persist for a long time. The observed oil is mostly laying on the surface. The various bands of mouse and mouse puffer should be removed with hand shovels. Cleanup crews can be directed to the sites by NPS monitors.

OG CAL LARSON USCG DREHER, CWE SEGMENT ST/ CD-014
 BIO KEN CRITCHLOW LAND REP BILL HIDA, CARLSCHMIDT STREAM 262-10-101001 OF 1
 EXXON DARL H. YOE ADFG ED WOLF TIME 10:30 10/2: 45
 TEAM NO. 14 TIDE LEVEL +3 FT DATE 5/12/90
 EST. SUBDIVISION LENGTH: 1000 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 10 % B 10 % C 10 % P 10 % G 10 % S 80 % M 10 % V 10
 SLOPE: Long 10 % Hang 10 % Vert 10 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 175 m VL 425 m NO 400 m

SURFACE OIL

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

PAVEMENT H F 85 sq. m by .2 a

PATTIES / TARBALLS 10 BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

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

Did you collect DEBRIS ☐ YES ☒ NO

TYPE 0

#BAGS 0

Photographs:

Roll No. _____

Frames _____

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SHEEN (Y/N)	▼	SURFACE : SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UB	UC	10/10	10/5	10/2	5/10	5/5	5/2	2/10	2/5	2/2	SU	SE	ME				
1	30					✓	•											✓							CR, M, 11/50
2	24					✓	•											✓							CR, PB/50
3	20					✓	•											✓							CR, PB/50
4	24					✓	•											✓							TR, CR, 50/50
5	22					✓	•											✓							CR, 50/50
6	4					✓	•											✓							SD, CR/50
7	5					✓	•											✓							SD, CR/50
COMMENTS						✓	•											✓							PB, CR, 50/50
E 30						✓	•											✓							GR/50

REVIEWED 7W

DATE 5/4/90

SEGMENT 57/ CD-018

STATION 262-10-10100

DATE 5/2/90

CHECKLIST

Area
Approx. Scale
Sediment Quality
Or DTL
Notes
Length
% Cover
Substrate Character
Etc. (Habitat)
SSL
Profile Location
Profile
Profile Location
Profile Location

LEGEND

1 A

2 A

3 A

4 A

5 A

6 A

7 A

8 A

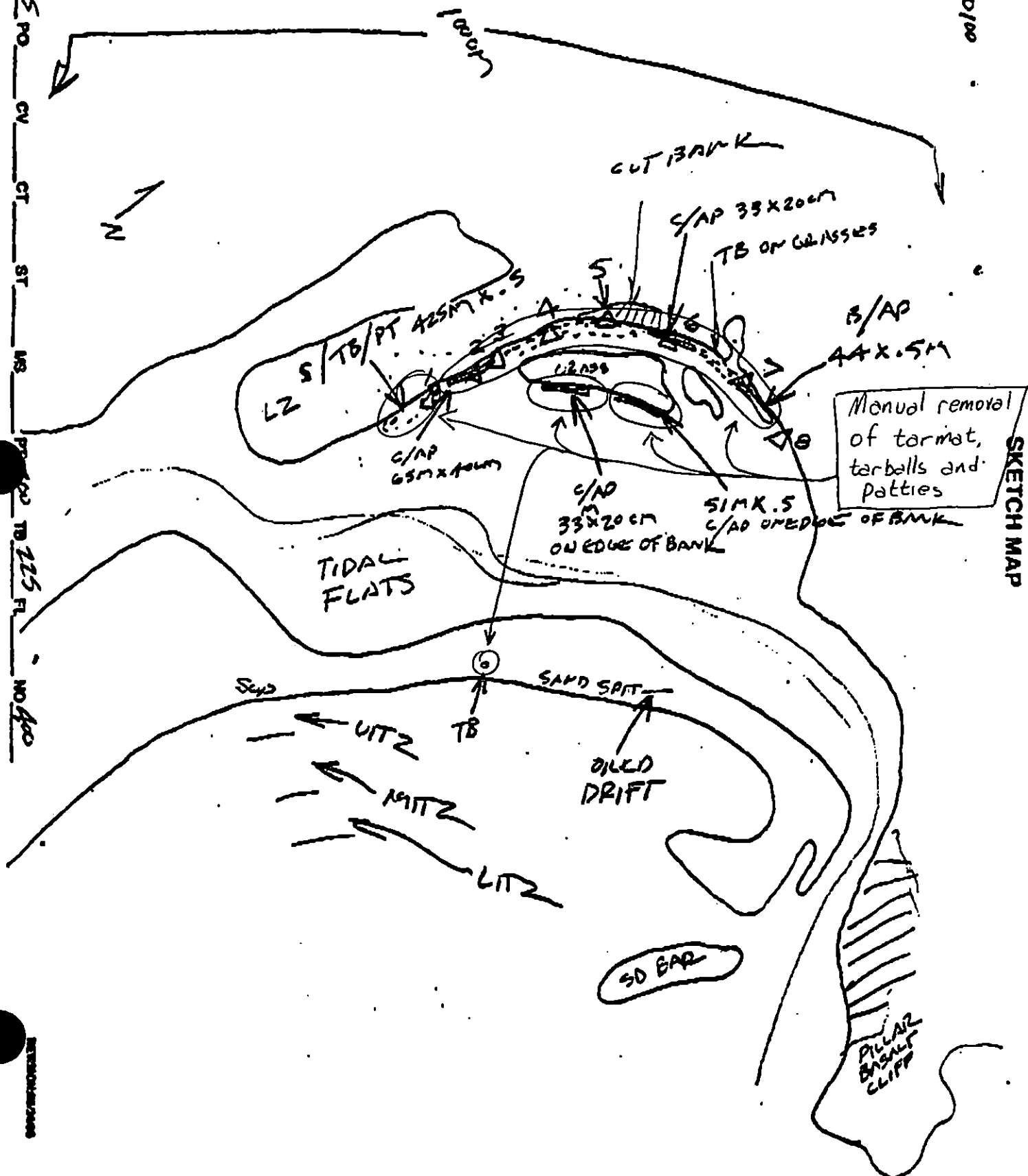
9 A

10 A

11 A

12 A

Of Character Length: AP 175 PO CV CT ST US 10000 TB 225 FL NO 400



SKETCH MAP

ADFG MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS DE TS AVS SCHM H995 PTA

2 REGION: PWS KP, CI K AP

METHOD: Aerial Ground Boat

3 DATE: 5/2/90

16 HIGH TIDE TIMES: 1

21 TEAM RECORDER: E. WEISS

4 START TIME: 1055

18 HIGH TIDE HTS: 1

22 OBSERVERS: K. SCHOCK, C. LARSEN

5 STOP TIME: 1250

17 LOW TIDE TIMES: 1550

23 AGENCY: ADFG/EXXON/NPS/L

6 SEGMENT #: CD018

19 LOW TIDE HTS: 1.9

24 PHOTOS TAKEN: Y N

7 STATION #: _____

10 TIDE HT AT SURVEY: _____

Roll #: _____ Frame: _____

8 K-UNIT: K0910
ebb Slack Flood Slack

25 VIDEO TAKEN: Y X TAPES: _____

9 STAT AREA: _____

20 USCG QUAD: AFOGNAK D-4

Starts: _____ Ends: _____

10 LAT: _____

11 LONG: _____

26 SAMPLES TAKEN: Y N Number

12 SOURCE: Map Loran

011
90EW0002 K
90EW0003 K

13 LOCATION: DOUGLAS CREEK LAGOON, CAPE DOUGLAS, AK PENN.

Sediment: _____

14 DESCRIPTION: _____

Biological: _____

Water: _____

EXTENT OF OIL

27 SURFACE COVERAGE

SHORELINE				STREAM			
L	W	H ²	S	L	W	H ²	S

28 SURFACE THICKNESS

29 PENETRATION

30 OVERALL OIL IMPACT: N VL L N N

31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain

32 OILED DEBRIS: Y N

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

34 WAVE EXPOSURE: High Moderate Low

35 SUBSTRATE TYPE: Bedrock _____ Boulder _____ Cobble _____

Gravel 55 Sand 25 Mud/silt 20

36 CATALOGED ANAD. FISH STREAM: X N

37 CATALOG #: 262-10-10100

38 STREAM NAME: DOUGLAS CREEK

39 OIL IN STREAM BED: X X

40 OIL ON STREAM BANKS: X N

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

42 OIL WITHIN 1 MILE OF STREAM: Y N

Where: _____

43 ANADROMOUS FISH PRESENT: Y N

44 ANADROMOUS FISH OBSERVATION

Species Aerial Ground

COMMENTS: BAND OF (TO PT AP/SOFT) / P TO B ALL SURFACE
NO SUBSURFACE. <3M BUT >10% COVERAGE. BAND
IS IN MID TO LOW TIDE LEVEL OF NORTH BANK OF
LAGOON. BAND OF MS/C 1-2' X ON MUD/GRASS
BANK CENTER OF LAGOON.

RECOMMEND: MANUAL CLEANUP E. WEISS

IN PROGRESS

FRAME(S)

DESCRIPTION

OIL MOUSSE / OT-TM ON NORTH BANK OF LAGOON
OIL MOUSSE

46 OIL DISTRIBUTION DIAGRAM

- Sample taken
- Photo frame # and shot direction.

pl of 2

Seg ID: CD-018

Subdiv: 262-10-10100

Survey Date: 5/2/90

Comments by: Ken Critchlow

Oil was observed in three principal locations at this site. The beach adjacent to the stream (Cape Douglas Creek) mouth is high energy with sand/gravel/pebble sediments. No oil was observed on the beach. The backshore, above the storm berm was littered with logs and a variety of debris; oil was present in this area as widely scattered small tarballs. A river otter was observed on the beach during the survey.

A large lagoon is present behind the storm berm; oil was observed along the seaward side of a grassland flat in mid-lagoon, and along the backshore of the lagoon. Asphalt pavement and tarballs occurred along the edge of the grassy area and in some locations had run down the face of the bank towards a side channel; oil along this face was nearly continuous. Tarballs were scattered among the newly emerging grasses which will obscure the oil in the next few weeks.

The backshore of the lagoon was more extensively oiled by asphalt pavement in the Uitz. This oil formed a largely continuous band up

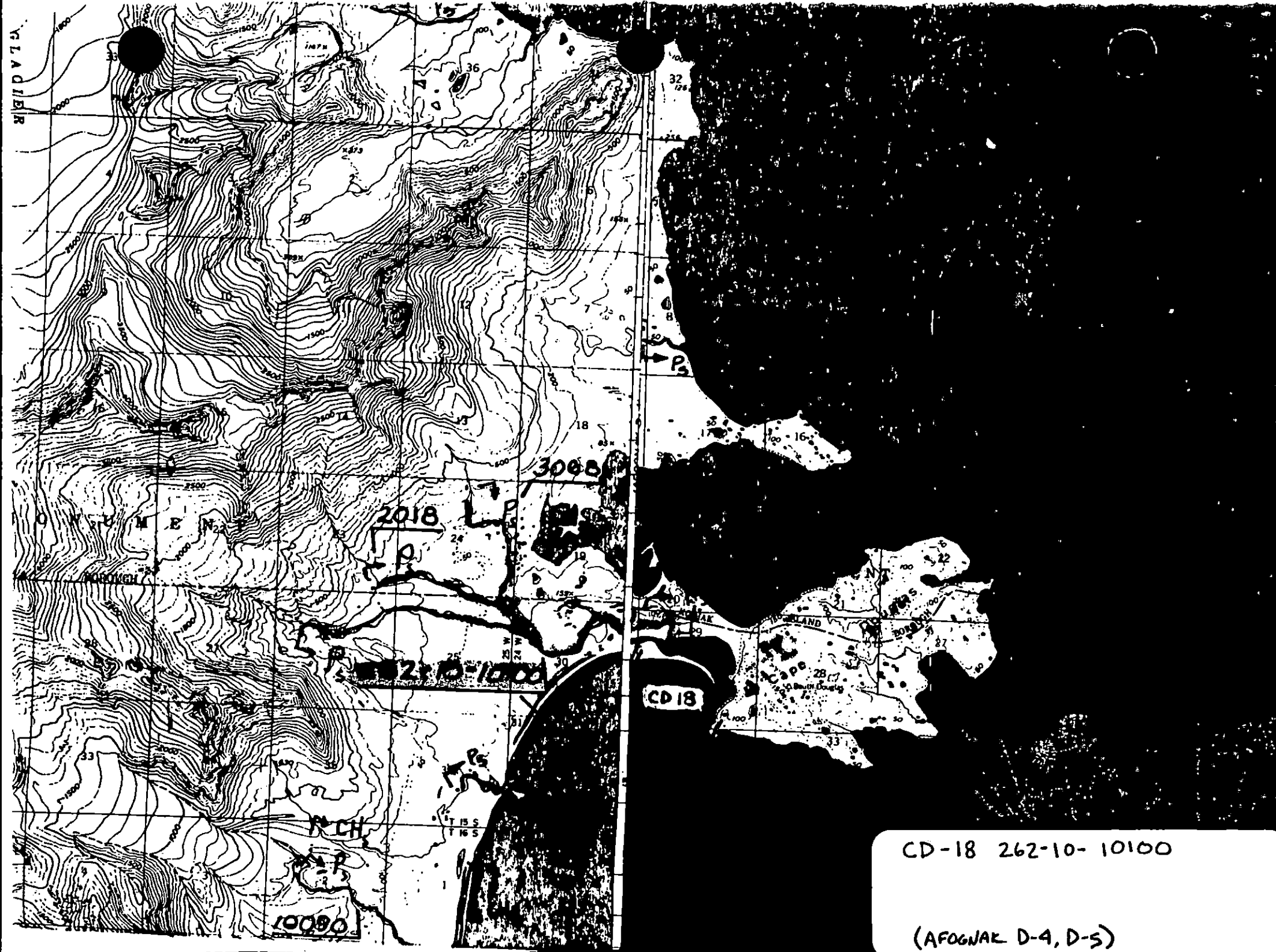
262-10-10/00

p 2 of 2

to a meter wide; pits indicated no subsurface oil. Small clams were commonly observed in the mudflats downshore of the oil band.

No ecological constraints were apparent.

KR Cutchlow



CD-18 262-10-10100

(AFOGNAR D-4, D-5)

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/CD-18 STREAM NO: 262-10-10100 DATE 5/2/90

Segment not split as of 5/6/90
so no subdivisions

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A, 1B

BAA

SUBDIVISION ECOLOGICAL CONSTRAINTS: See Above.

ARCHAEOLOGICAL CONSTRAINTS: Cultural resource survey in progress. Shoreline treatment cannot proceed until field data have been assessed and a formal archaeological constraint entered on the shoreline evaluation form.

SHPO SIGNATURE: _____ DATE: _____

Subsurface Oil Observed: Yes _____ No ☒ Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: Recommend manual removal of tarmat, tarballs and patties as indicated on the attached sketch map. Consult ADFIC for appropriate work window.

~~May need extra access only~~ ~~at this time~~

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____

EXXON WVS

OAA _____

USCG _____

FOSC: _____ DATE: _____

K09-11-CD-18
262-10-100107

REVISION 1 7/6/90

ANADROMOUS FISH RESTRICTION ADDENDUM

CONSTRAINT ON STREAM NO. 262-10-10100

SEGMENT K09-11-CD-18 SUBDIVISION A

WORK WINDOW

Manual Pickup
Tarmat Removal

WORK AFTER 7/11

Bioremediation Less Than 100m From Stream*

WORK 7/11 - 7/15
(ADF&G MONITOR REQ.)

Bioremediation More Than 100m From Stream*

WORK AFTER 7/11

*No Inipol - Customblen Only

NPS MONITOR REQUIRED

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 (262-10-10100) is in Subdivision A. Bioremediation less than 100m from stream work 7/11 - 7/15 with ADF&G Monitor present. Bioremediation more than 100m from stream work after 7/11. Manual pickup and tarmat removal work after 7/11.

OTHER ECOLOGICAL CONSIDERATIONS

No disturbance to stream bed or banks. Avoid any unnecessary disturbance or damage to unrolled biota and substrate. Sensitive Estuary. No flushing of pollutants or sediments into stream drainage; do not allow Inipol to enter stream flow. On-site examination and consultation by ADF&G monitor is required prior to bioremediation in order to authorize a setback distance from the stream during chemical application; if ADF&G monitor's presence is impossible, authorization may be given by the ADEC monitor.

SEE SUBDIVISION CONSTRAINT ADDENDUM K09-11-CD-18A
FOR ADDITIONAL CONSTRAINT INFORMATION.

FOSC

[Signature]

Date

7/6/90

Prepared by

Reg R. Coulter

Date

7/6/90

ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 262-10-10100

SEGMENT K09-11-CD-18 SUBDIVISION A

WORK WINDOW

Manual Pickup
Tarmat Removal

OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

Cultural Resource Survey in progress. Shoreline treatment cannot proceed until field data have been assessed and a formal archeological constraint entered on shoreline evaluation form.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

ADF&G catalogued anadromous stream (262-10-10100) is in Subdivision A. No constraint to manual pickup and tarmat removal.

OTHER ECOLOGICAL CONSIDERATIONS

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

SEE SUBDIVISION CONSTRAINT ADDENDUM K09-11-CD-18A
FOR ADDITIONAL CONSTRAINT INFORMATION.

FOSC

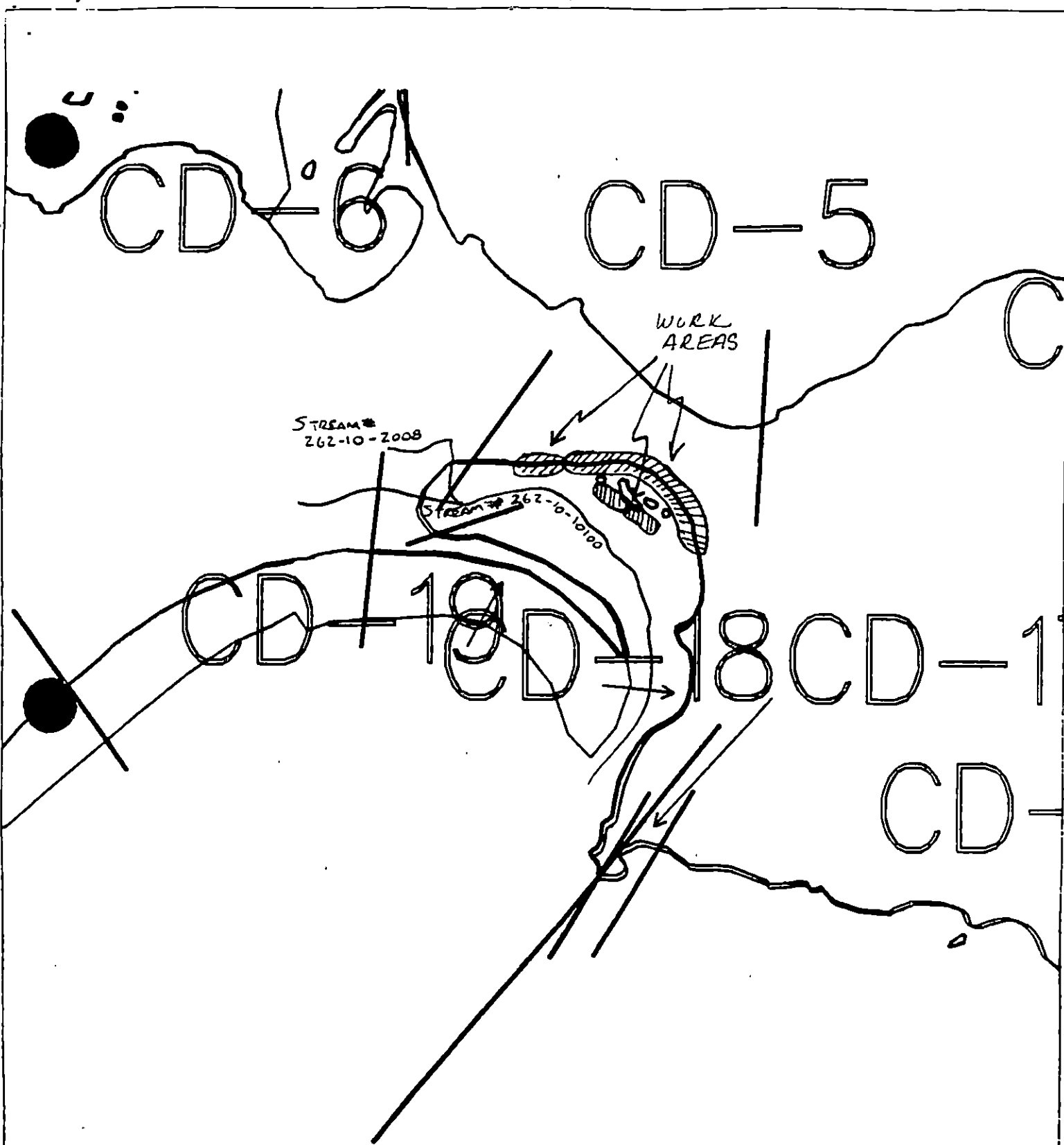
Date

6/29/90

Prepared by

Date

6-28-90



ANADROMOUS STREAM EVALUATION



Exxon Company, USA

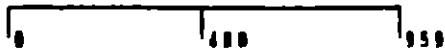
Map Key: ANP-CD-18

May 23, 1990



ECOLOGY MAP
SEGMENT CD-18
SUBDIVISION A (1 of 1)

METERS



Seabird Colony



Eagle Nest

1 inch = 1574 feet



United States Department of the Interior



NATIONAL PARK SERVICE

ALASKA REGIONAL OFFICE
2525 Gambell Street, Room 107
Anchorage, Alaska 99503-2892

Ref: K9N-10-CD18
(26210-10100)

July 5, 1990

The National Park Service (NPS) will agree to the treatment recommendation on the segment referenced above only under the conditions specified by this office on May 21, 1990. If the Technical Advisory Group specifies the constraints, then treatment can be approved. The specific constraints include:

- Environmental sensitivities restrict treatment prior to July 11.
- Due to the sensitivity of this area, the potential hazard by brown bears, and the probable damage to the intertidal flats by large crews, the NPS recommends accessing this estuary for one day only with helicopters.
- Bioremediation with Inipol is not approved for this segment.
- NPS on-site monitor will be required.
- Special Use Permit will be required.

Cordell J. Roy
Acting Chief, Office of Oil Spill Coordination

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/~~KN9-10~~-CD-018 STREAM NO: 262-10-10000 ^{check #'s → 10100} DATE 5/2/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

See above.

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.

ed
al

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

SHPO SIGNATURE: Charles Z. Hahn DATE: June 30, 1990

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommend manual removal of tarmat, tarballs and patties as indicated on attached sketch map. Consult ADF&G for appropriate work windows.

TAG COMMENTS: BLOOMSBATE (CUSTOMER) AS REQUIRED FOLLOWING TARMAT REMOVAL
SEE CONSTRAINT APPENDUM
(REVISION 1) DATED 7/6/90 AND
NPS LETTER DATED 7/5/90. Rex C.

TAG APPROVAL DATE: 5/23/90.

ADEC Art Weiner Dist. Weiner

EXXON Andy TEA

NOAA Byrl Wescott Ralph J. J. J.

USCG G.A. Reiter G.A. REITER

FOSC: [Signature] DATE: 7/5/90

SATISFY ENCLOSED NPS CONCERNS

for treatment per their let of 7/5/90 [Signature]

ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 262-10-10100

SEGMENT K09-11-CD-18 SUBDIVISION A

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

Cultural Resource Survey in progress. Shoreline treatment cannot proceed until field data have been assessed and a formal archeological constraint entered on shoreline evaluation form.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

ADF&G catalogued anadromous stream (262-10-10100) is in Subdivision A. No constraint to manual pickup and tarmat removal.

OTHER ECOLOGICAL CONSIDERATIONS

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

SEE SUBDIVISION CONSTRAINT ADDENDUM K09-11-CD-18A
FOR ADDITIONAL CONSTRAINT INFORMATION.

FOSC

[Signature]

Date

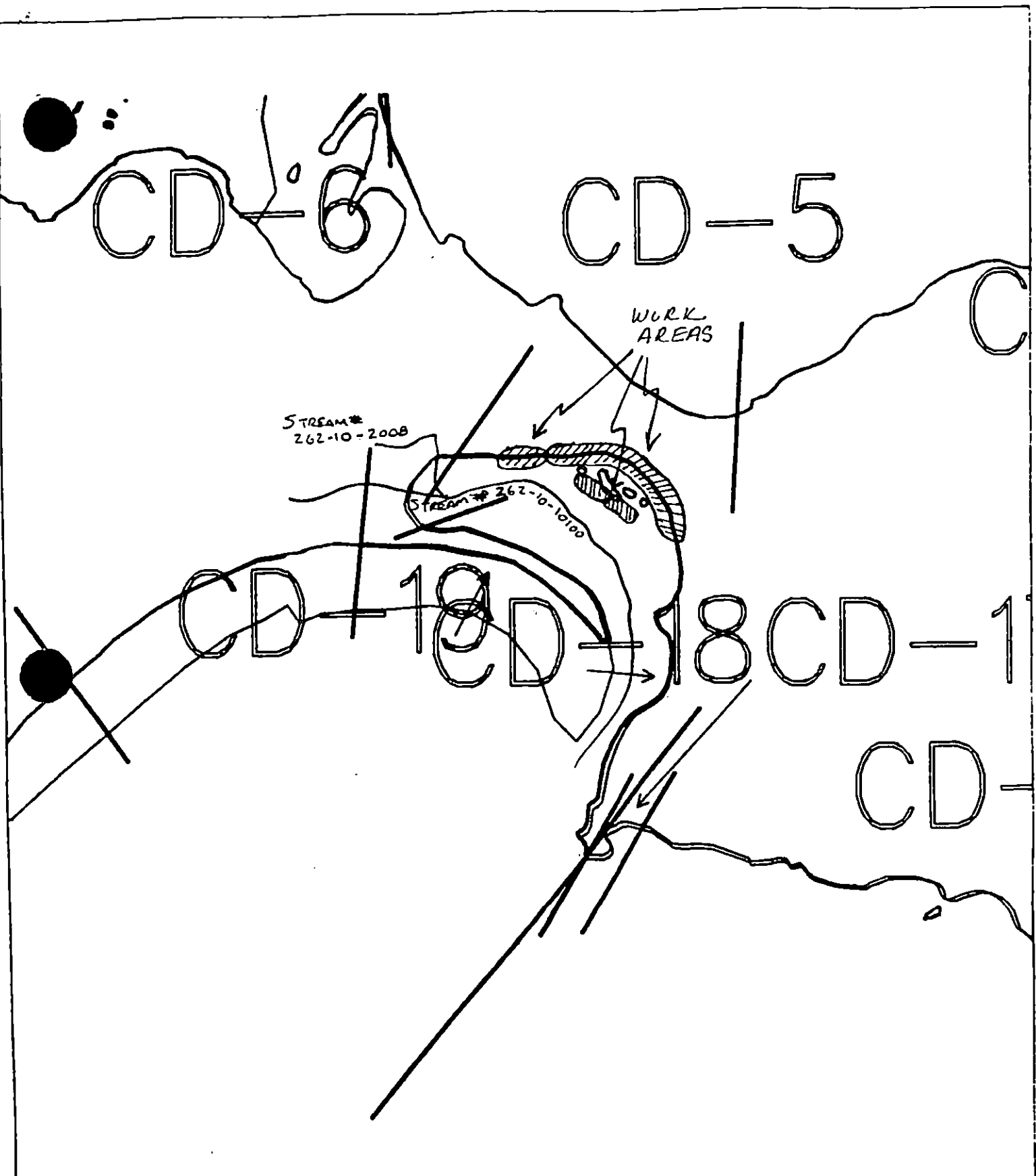
6/29/90

Prepared by

Ray D. Coe

Date

6-28-90



ANADROMOUS STREAM EVALUATION



Exxon Company, USA
Map Key: MAP-CD-18



ECOLOGY MAP
SEGMENT CD-18
SUBDIVISION A (1 of 1)
METERS

★	Seabird Colony
▲	Eagle Nest

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/~~KN9~~-11-CD-018 STREAM NO: 262-10-10010 DATE 5/2/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

See above.

ARCHAEOLOGICAL CONSTRAINTS:

Cultural resource survey in progress. Shoreline treatment cannot proceed until field data have been assessed and a formal archaeological constraint entered on the shoreline evaluation form.

SHPO SIGNATURE: _____ DATE: _____

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: Recommend manual removal of tarmat, tarballs and patties as indicated on attached sketch map. Consult ADF&G for appropriate work windows.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/~~KN9~~-10-CD-018 STREAM NO: 262-10-10000 DATE 5/2/90

check #'s → 10100

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

See above.

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.

ed
al

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

SHPO SIGNATURE: Charles Z. Hanner DATE: June 30, 1990

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: Recommend manual removal of tarmat, tarballs and patties as indicated on attached sketch map. Consult ADF&G for appropriate work windows.

TAG COMMENTS: BIOREMEDIATE (CUSTOMER) AS REQUIRED FOLLOWING TARMAT REMOVAL

TAG APPROVAL DATE: 5/23/90

ADEC Art Weiner Dan Weiner

EXXON Amel TER Paul

NOAA Byrl Wescott Bolphy

USCG G.A. Reiter G.A. REITER

FOSC: [Signature] DATE: 7/5/90

SATISFY ENCLOSED NPS CONCERNS
for treatment per their LTR of 7/5/90



United States Department of the Interior



NATIONAL PARK SERVICE

ALASKA REGIONAL OFFICE
2525 Gambell Street, Room 107
Anchorage, Alaska 99503-2892

REPLY REFER TO

Ref: K9N-10-CD18
(26210-10100)

July 5, 1990

The National Park Service (NPS) will agree to the treatment recommendation on the segment referenced above only under the conditions specified by this office on May 21, 1990. If the Technical Advisory Group specifies the constraints, then treatment can be approved. The specific constraints include:

- Environmental sensitivities restrict treatment prior to July 11.
- Due to the sensitivity of this area, the potential hazard by brown bears, and the probable damage to the intertidal flats by large crews, the NPS recommends accessing this estuary for one day only with helicopters.
- Bioremediation with Inipol is not approved for this segment.
- NPS on-site monitor will be required.
- Special Use Permit will be required.

Cordell J. Roy
Acting Chief, Office of Oil Spill Coordination

SEGMENT ST/ CD-010

STREAM 262-10-10100

DATE 5/2/90

CHECKLIST

- N. Area
- Approx. Grade
- Seepage Rate
- Of Day
- Water
- Length
- S. Cover
- Substrate Character
- Etc. Habitat
- SSL
- Photo Location(s)
- Photo(s)
- Photo Location(s)
- Photo Location(s)

LEGEND

1 A

Pr. - Substrate Of

2 A

Pr. - Substrate Of

CT/C

CT/B

Broken Distribution

CT/P

Pr. Distribution

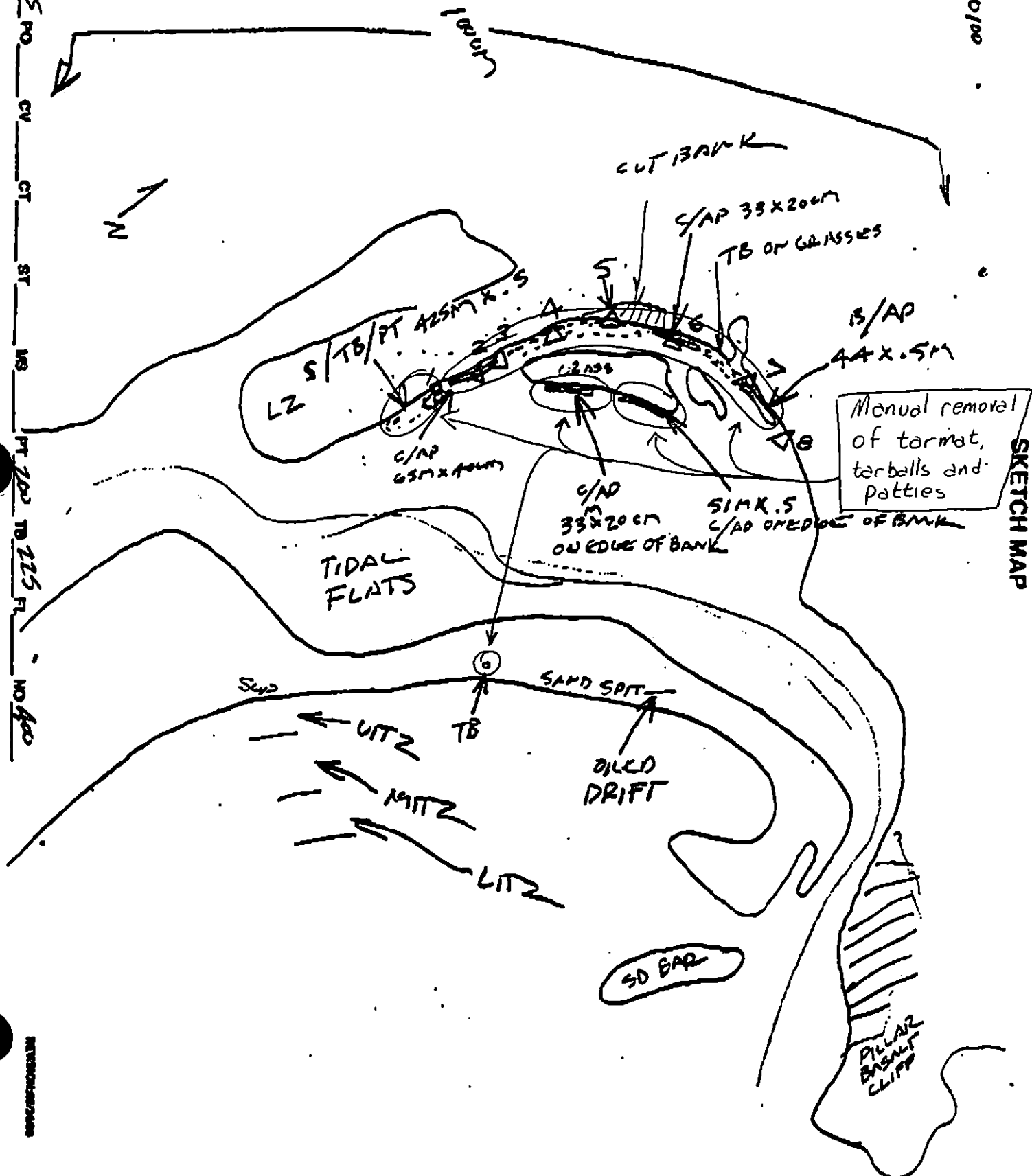
CT/S

Sp. Distribution

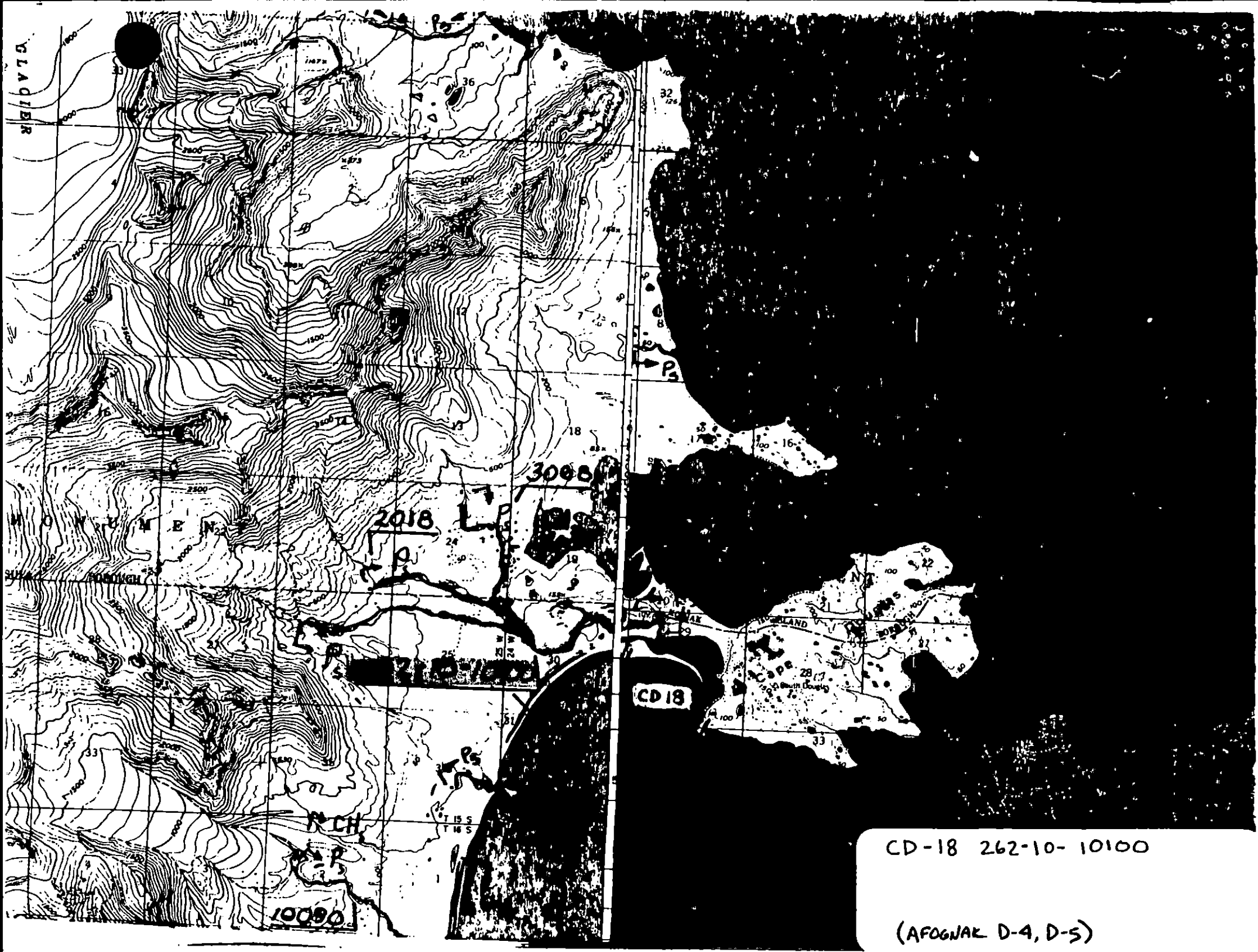
Dead Vegetation

Photo Location, Specimen, and Number

SKETCH MAP



Of Character Length (m): AP 175 PO CV CT ST NB PT 100 TB 225 FL NO 400



1991 MAYSAP EVALUATION

SEGMENT: K0911CD018 SUB: A REGION: KOD SURVEY DATE: 5/21/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) RESTRICTED 7/10 - 9/15

Ecological/Constraints (see page two for details) 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 _____

ADEC

NAME J. BARNHART, ADEC

SIGNATURE

Jeff Barnhart

- ☒ NTR The area on the marsh island (Area A) where the oil was removed in 1990 is NOT eroding. The vegetation is recovering. Only a trace amount of SOR remains along the edge of the cleaned area. Recommend no additional treatment. Area B is 400 m long x 4-8 m wide. TBL 17%. Friable patties broken apart. "wet" patties removed. Approx. 10-15 pounds of oil removed. Recommend no additional treatment.

EXXON

NAME R. HARRELSON, EXXON

SIGNATURE

- ☐ NTR

See next page

LANDMANAGER

NAME E. BENNISOF ND5

SIGNATURE

Janine J. Bennis

- ☒ NTR

Only small amounts of oil, in the form of SOR & weathered mousse, remain. VECO workers collected much of the oil observed, leaving friable mousse patties along the beach. Area that had been cleaned of oil at the edge of grass island showed no sign of erosion, & the grass showed signs of recovering.

USCG/NOAA

NAME CWO R. SPURR, SHIGENAKA

SIGNATURE

R. Spurr / Gary Shigenaka

- ☒ NTR Most of the SOR & Mousse was recovered during survey. No further treatment required in this segment

SURVEYED PORTION OF THE SEGMENT INCLUDED PART OF A BROAD MUDDY TIDAL FLAT (PART OF THE DELTA FOR DOUGLAS CREEK) AND PERIMETER COBBLE-PEBBLE-GRAVULE-SAND BEACH SURROUNDING IT. THE WEST SIDE OF THE DELTA/TIDAL FLAT SYSTEM ADJOINS A SAND BEACH THAT FACES SHELKOF STRAIT. A SMALL BAR/ISLET ON THE TIDAL FLAT WAS EXAMINED - THIS WAS THE SITE OF REMOVAL OF SUBSTRATE, OILING, AND MARSH GRASS IN 1990. THE AREAS THAT HAD BEEN EXCAVATED WERE APPARENT IN APPEARANCE: DEPRESSIONS WITH LITTLE VEGETATION. THERE WAS SOME SIGN OF RECOVERY OF THE GRASS, HOWEVER. SOME OIL RESIDUES (SOR, ASPHALT) WERE STILL PRESENT IN RELATIVELY MINOR AMOUNTS. THE BEACH AROUND THE PERIMETER OF THE FLAT WAS ALSO EXAMINED TO THE NORTHEAST. BEAR TRACKS WERE OBSERVED NEAR A SMALL STREAM DRAINING ONTO THE BEACH IN THE NORTHEAST CORNER. SOR WAS FOUND OCCASIONALLY ALONG THE BEACH, MOST OF IT HIGHLY WEATHERED AND FRIABLE. WEATHERED MATERIAL WAS BROKEN UP AND LEFT ON THE BEACH, WHILE ANY MOUSSE MORE COHESIVE MATERIAL WAS RECOVERED.

ADEC

NAME J. BARNHART, ADEC

SIGNATURE

Jeff Barnhart

- ☒ NTR The area on the marsh island (Area A) where the oil was removed in 1990 is not eroding. The vegetation is recovering. Only a trace amount of SOR remains along the edge of the cleaned area. Recommend no additional treatment. Area B is 400 m long x 4-8 m wide. TB 217. Friable patties broken apart. "wet" patties removed. Approx. 100 lb pounds of oil removed. Recommend no additional treatment.

EXXON

NAME R. HARRELSON, EXXON

SIGNATURE

R C Harrelson

- ☒ NTR Beach recovery is virtually complete.

LANDMANAGER

NAME E. BENNIS

OF NDS

SIGNATURE

Edward Bennis

- ☒ NTR

Only small amounts of oil, in the form of silt & weathered material, remain. VECO workers collected much of the oil observed, leaving friable material patties along the beach. Area that had been cleaned of oil at the edge of grass island showed no sign of erosion, & the grass showed signs of recovering.

USCG/NOAA

NAME CWO B. SPURR/S. SHIGENAKA

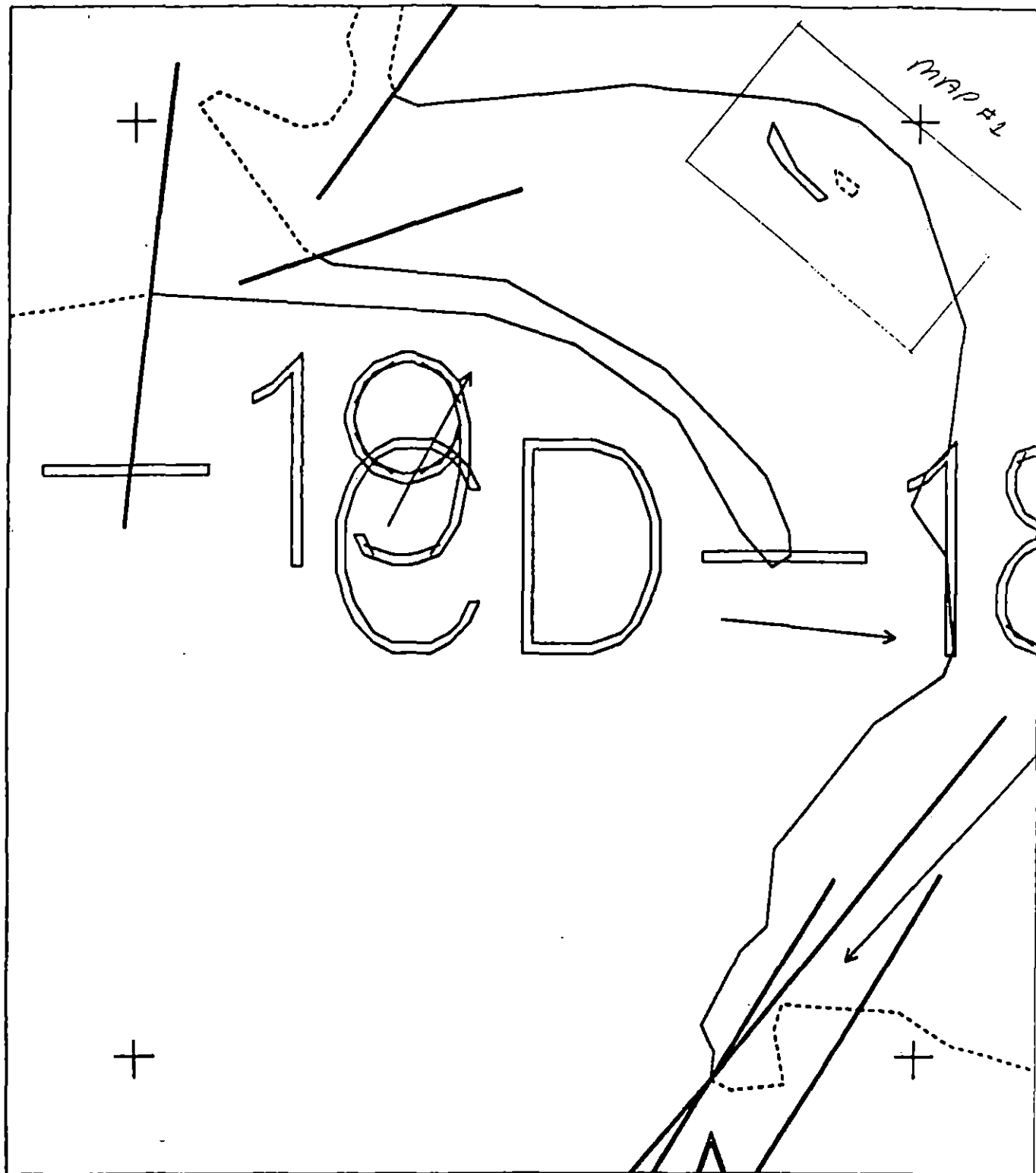
SIGNATURE

B. Spurr / S. Shigenaka

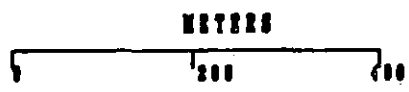
- ☒ NTR Most of the SOR & debris was recovered during Tiver. No further treatment required in this segment

SURVEYED PORTION OF THE SEGMENT INCLUDED PART OF A BROAD MUDDY TIDAL FLAT (PART OF THE DELTA FOR VOUGLAS CREEK) AND PERIMETER COBBLE-PEBBLE-GRAVEL-SAND BEACH SURROUNDING IT. THE WEST SIDE OF THE DELTA/TIDAL FLAT SYSTEM ADJOINS A SAND BEACH THAT FACES SHELKOF STRAIT. A SMALL BAR/ISLET ON THE TIDAL FLAT WAS EXAMINED - THIS WAS THE SITE OF REMOVAL OF SUBSTRATE OILING AND MARSH GRASS IN 1990. THE AREAS THAT HAD BEEN EXCAVATED WERE APPARENT IN APPEARANCE: DEPRESSIONS WITH LITTLE VEGETATION. THERE WAS SOME SIGN OF RECOVERY OF THE GRASS, HOWEVER. SOME OIL RESIDUES (SOR, ASPHALT) WERE STILL PRESENT IN RELATIVELY MINOR AMOUNTS. THE BEACH AROUND THE PERIMETER OF THE FLAT WAS ALSO EXAMINED TO THE NORTHEAST. BEAR TRACES WERE OBSERVED NEAR A SMALL STREAM DRAINING ONTO THE BEACH IN THE NORTHEAST CORNER. SOR WAS FOUND OCCASIONALLY ALONG THE BEACH, MOST OF IT HIGHLY WEATHERED AND FRAGILE. WEATHERED MATERIAL WAS BROKEN UP AND LEFT ON THE BEACH, WHILE ANY MOIST, MORE COHESIVE MATERIAL WAS RECOVERED.

Reviews: nc 5/19/93
reviewed 5.27.93



K0911 CD018 A



AK State Plane Zone 5

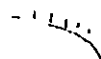
Subdivision Field Map

Map Key: COAXONICD018A

Name: O. Fitzgerald

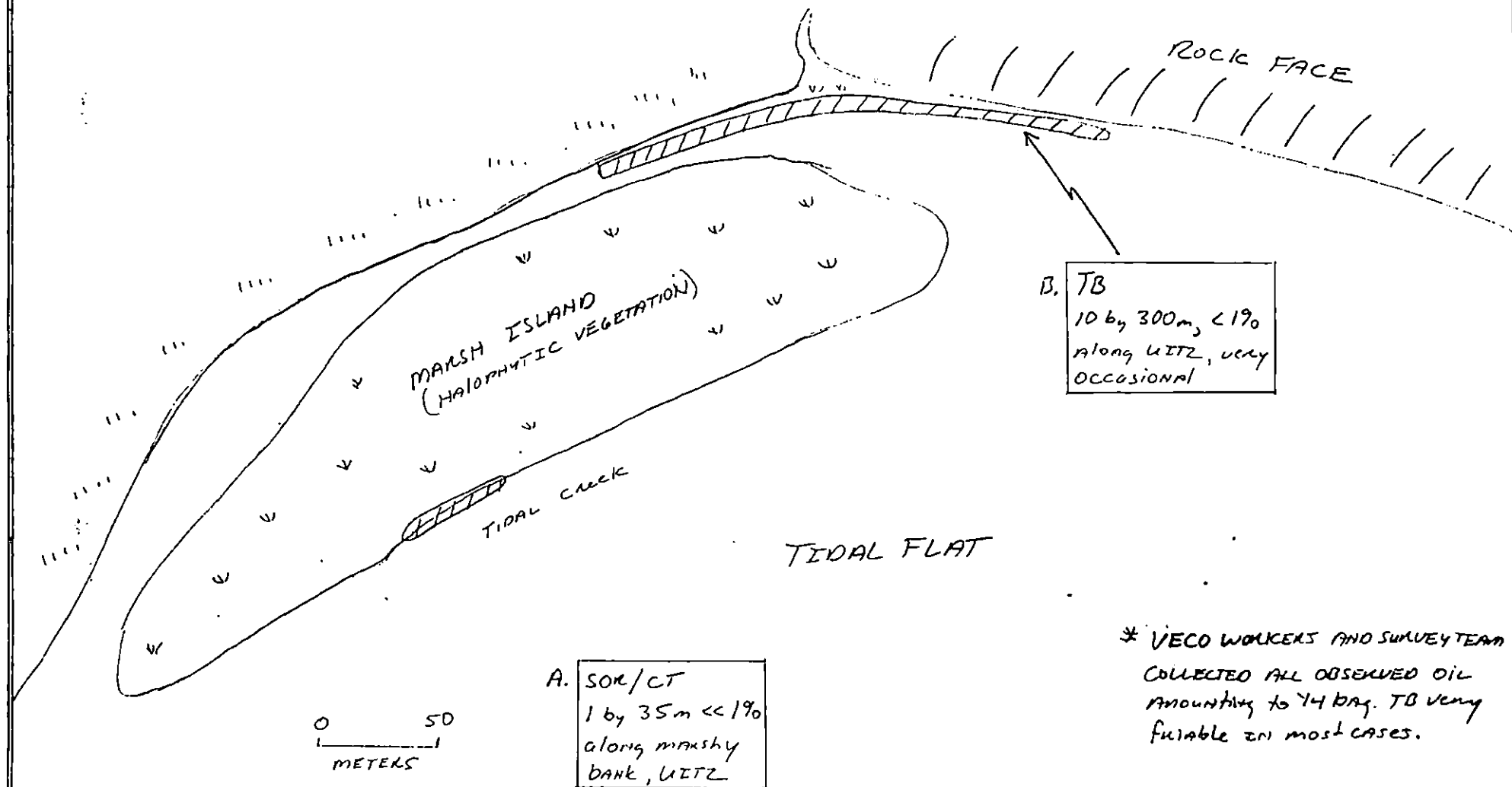
Date: 21 MAY 1991

reviewed 5.27 91

 VEGETATED DUNE
 GRASSY AREA
 PHOTO SITES

Sketch MAP 106
 K09-11-CD-18
 21 MAY 1991
 1605 - 1645
 D.M. FITZGERALD

CAPE DOUGLAS PENINSULA



* VECO WORKERS AND SURVEY TEAM
 COLLECTED ALL OBSERVED OIL
 AMOUNTING TO 14 BAG. TB VERY
 FUZZY IN MOST CASES.

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 21 1991

SEGMENT # K9N-11 CD-18

TIDAL HEIGHT (Range) 0-1 ft (16:10-16:50)

SUBDIVISION A

BIOLOGIST H. Davis

SEA STATE < 1 ft Calm

WIND SPEED/DIRECTION Light Breeze 10-20kt SE

PHOTOGRAPHS: ROLL # 6-19

FRAME # 18-20

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

This was a wide tidal flat with a gravel/sand perimeter and low muddy marsh islands covered with a grass (Spartina sp?). Waterfowl and shore birds were using this area extensively. Bear tracks went through the U12. Worm burrows (possibly lugworms) were below site B, with Mya arenaria beds further out. Mya a. beds were also below site A. The waterfowl and western sandpipers were feeding through out the area during the survey.

Clean up in this area would be much more disruptive than productive.

Wigeon (10) Pintail (6) Yellowlegs (3) Ravens (2)
Glaucous-winged Gulls (10) Kittiwakes (10) Western Sandpipers (20+) Black Brent (≈ 50)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	0		0
Seabirds	0		
Waterfowl	3	≈ 66	
Gulls/Kittiwakes	2	20	
Shorebirds	2	23+	
Corvids	1	2	
Other Birds			

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	0	Bear Tracks	
Pinnipeds (specify)	0		
Whales (specify)	0		

Shoreline subdivision map showing important biological features attached.

Reviewed M.B. 5/21

Bio Map
H. Davis

Sketch MAP (OG)
K09-11-CD-18
21 MAY 1991
1605 - 1645
D. M. FITZGERALD

CAPE DOUGLAS PENINSULA

VEGETATED
DUNE
GRASSY
AREA
PHOTO SITES



ROCK FACE

Grassy Dunes

Worm burrows
(lugworm?)

MARSH ISLAND
(HALOPHYTIC VEGETATION)
Heavy grazing by waterfowl

B. TB
10 by 300m, < 1%
along UETZ, very
OCCASIONAL

This site was in an
area of sparse birds.
Worm burrows were on
the flat below. Mya
arenaria were further
out

Mya arenaria
beds

TIDAL CREEK

TIDAL FLAT

0 50
METERS

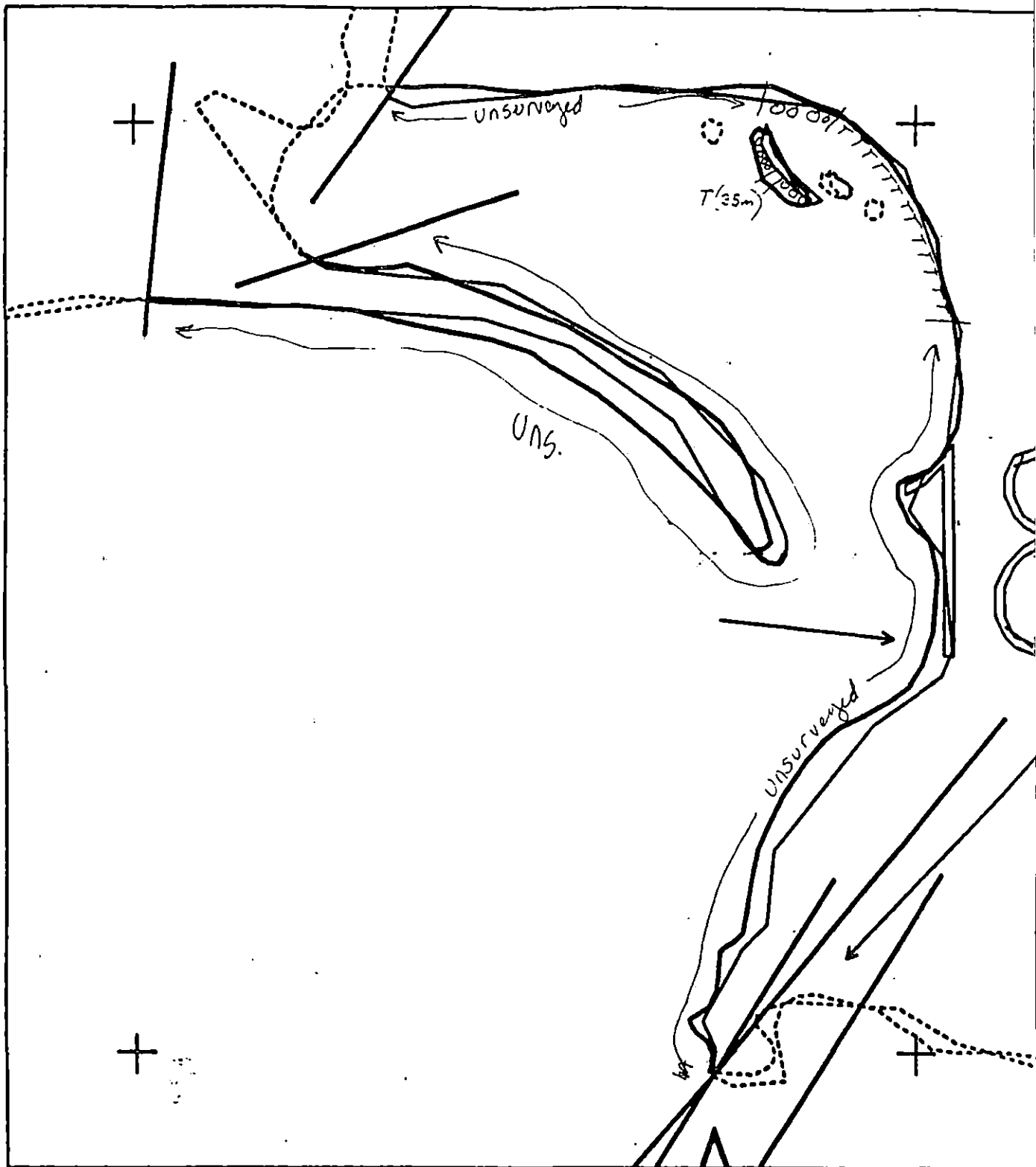
A. SOR/CT
1 by 35m < 1%
along marshy
bank, UETZ

This site is along the
edge of a marsh island.
above Mya arenaria beds.
Western sandpipers were
feeding in this area

* VECO WORKERS AND SURVEY TEAM
COLLECTED ALL OBSERVED OIL
AMOUNTING TO 74 bags TB very
friable in most cases.

Anadromous stream #262-10-10100
flows onto this flat. Pinkish speckle
in this stream

Reviewed M.B. r/h



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

K0911 CD018 A
 ADEC Subsegment Length: 4428m
 METERS

AK State Plane Zone 4
 100 200 400



Subdivision Field Map
 Map Key: 00A0011CD018A
 Name: D. Fitzgerald
 Date: 21 MAY 1991
 Date Entered:

Reviewed: MC 5/27/91
 Revised 5.27 94

1991 MAYSAP EVALUATION

SEGMENT: K0911CD018 SUB: A REGION: KOD SURVEY DATE: 5/21/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) RESTRICTED 7/10 - 9/15

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: Timothy A. Smith Date: 6/07/91

RECOMMENDATIONS:

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

COMMENTS:

INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE: JUNE 6 1991 FOSC APPROVAL DATE: 6/12/91

ADEC John Bauer

FOSC EE

EXXON Real

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

USCG Ed Mall

NOAA John

ADEC

NAME J. BARNHART, ADEC

SIGNATURE Jeff Barnhart

- ☒ NTR The area on the marsh island (Area A) where the oil was removed in 1990 is not eroding. The vegetation is recovering. Only a trace amount of SOR remains along the edge of the cleaned area. Recommend no additional treatment. Area B is 400 m long x 4-8 m wide. TB 61%. Friable patties broken apart. Wet patties removed. Approx. 10-15 pounds of oil removed. Recommend no additional treatment.

EXXON

NAME R. HARRELSON, EXXON

SIGNATURE _____

- ☐ NTR

See next page

LANDMANAGER

NAME F. BENNIS

OF NPS

SIGNATURE Francis Bennis

- ☒ NTR

Only small amounts of oil, in the form of SOR + weathered mousse, remain. VECO workers collected much of the oil observed, leaving friable mousse patties along the beach. Area that had been cleaned of oil at the edge of grass island showed no sign of erosion, + the grass showed signs of recovering.

USCG/NOAA

NAME CWO R. SPURR / G. SHIGENAKA

SIGNATURE R. Spurr / G. Shigenaka

- ☒ NTR Most of the SOR & Mousse was recovered during survey. No further treatment required in this segment

SURVEYED PORTION OF THE SEGMENT INCLUDED PART OF A BROAD MUDDY TIDAL FLAT (PART OF THE DELTA FOR DOUGLAS CREEK) AND PERIMETER COBBLE-PEBBLE-GRAVULE-SAND BEACH SURROUNDING IT. THE WEST SIDE OF THE DELTA/TIDAL FLAT SYSTEM ADJOINS A SAND BEACH THAT FACES SHELKOF STRAIT. A SMALL BAR/ISLET ON THE TIDAL FLAT WAS EXAMINED - THIS WAS THE SITE OF REMOVAL OF SUBSTRATE, OILING, AND MARSH GRASS IN 1990. THE AREAS THAT HAD BEEN EXCAVATED WERE APPARENT IN APPEARANCE. DEPRESSIONS WITH LITTLE VEGETATION. THERE WAS SOME SIGN OF RECOVERY OF THE GRASS, HOWEVER. SOME OIL RESIDUES (SOR, ASPHALT) WERE STILL PRESENT IN RELATIVELY MINOR AMOUNTS. THE BEACH AROUND THE PERIMETER OF THE FLAT WAS ALSO EXAMINED TO THE NORTHEAST. BEAR TRACKS WERE OBSERVED NEAR A SMALL STREAM DRAINING ONTO THE BEACH IN THE NORTHEAST CORNER. SOR WAS FOUND OCCASIONALLY ALONG THE BEACH, MOST OF IT HIGHLY WEATHERED AND FRIABLE. WEATHERED MATERIAL WAS BROKEN UP AND LEFT ON THE BEACH, WHILE ANY MOUSSE OR MORE COHESIVE MATERIAL WAS RECOVERED.

TEAM NO. 6 - HELD SEGMENT CD-1B

SUBDIVISION A

DATE 5/21/01

ADEC

NAME T. BARNHART, ADEC

SIGNATURE

Jeff Barnhart

NTR The area on the marsh island (Area A) where the oil was removed in 1990 is not eroding. The vegetation is recovering. Only a trace amount of SOR remains along the edge of the cleared area. Recommend no additional treatment. Area B is 400 m long x 4-8 m wide. TB 41%. Friable patties broken apart. "wet" patties removed. Approx. 10-15 pounds of oil removed. Recommend no additional treatment.

EXXON

NAME R. HARRELSON, EXXON

SIGNATURE

R C Harrelson



NTR Beach recovery is virtually complete.

LANDMANAGER

NAME E. BENNIS

OF NDS

SIGNATURE

Edward Bennis

☒ NTR

Only small amounts of oil, in the form of silt & weathered mouse, remain. VECO workers collected much of the oil observed, leaving friable mouse patties along the beach. Area that had been cleaned of oil at the edge of grass island showed no sign of erosion, & the grass showed signs of recovering.

USCG/NOAA

NAME CWO R. SPURR/S. SHIGENAKA

SIGNATURE

R Spurr / S Shigenaka

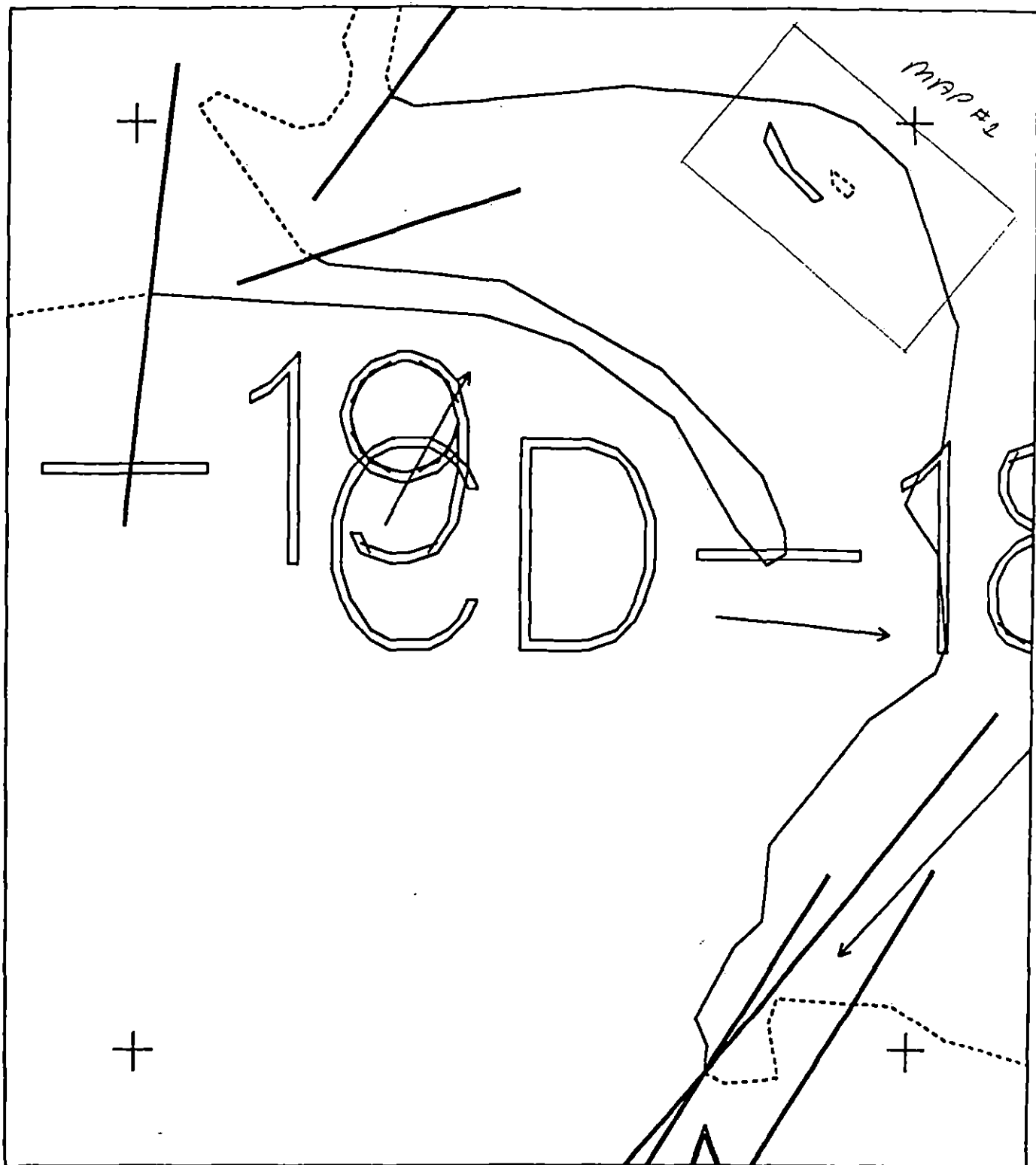


NTR Most of the SOR & mouse were recovered during survey. No further treatment required in this segment.

SURVEYED PORTION OF THE SEGMENT INCLUDED PART OF A BROAD MUDDY TIDAL FLAT (PART OF THE DELTA FOR DOUGLAS CREEK) AND PERIMETER COBBLE-PEBBLE-GRAVIL-SAND BEACH SURROUNDING IT. THE WEST SIDE OF THE DELTA/TIDAL FLAT SYSTEM ADJOINS A SAND BEACH THAT FACES SHELKOF STRAIT. A SMALL BAR/ISLET ON THE TIDAL FLAT WAS EXAMINED - THIS WAS THE SITE OF REMOVAL OF SUBSTRATE OILING AND MARSH GRASS IN 1990. THE AREAS THAT HAD BEEN EXCAVATED WERE APPARENT IN APPEARANCE: DEPRESSIONS WITH VEGETATION. THERE WAS SOME SIGN OF RECOVERY OF THE GRASS, HOWEVER. SOME OIL RESIDUES (SOR, AS IT WERE) WERE STILL PRESENT IN RELATIVELY MINOR AMOUNTS. THE BEACH AROUND THE PERIMETER OF THE FLAT WAS ALSO EXAMINED TO THE NORTHEAST. BEAR TRACES WERE OBSERVED NEAR A SMALL STREAM DRAINING ONTO THE BEACH IN THE NORTHEAST CORNER. SOR WAS FOUND OCCASIONALLY ALONG THE BEACH, MOST OF IT HIGHLY WEATHERED AND FRIABLE. WEATHERED MATERIAL WAS BROKEN UP AND LEFT ON THE BEACH, WHILE ANY MOUSE OR MORE COHESIVE MATERIAL WAS RECOVERED.

PAGE 1 OF 1

Reviews: nc 5/29/91
reviewed 5.27.92



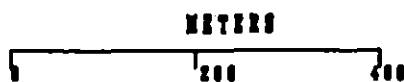
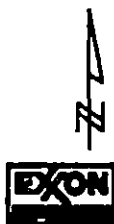
K0911 CD018 A

Subdivision Field Map

Map Key: COA0011CD018Aa

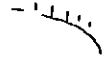
Name: O. Fitzgerald

Date: 21 May 1991



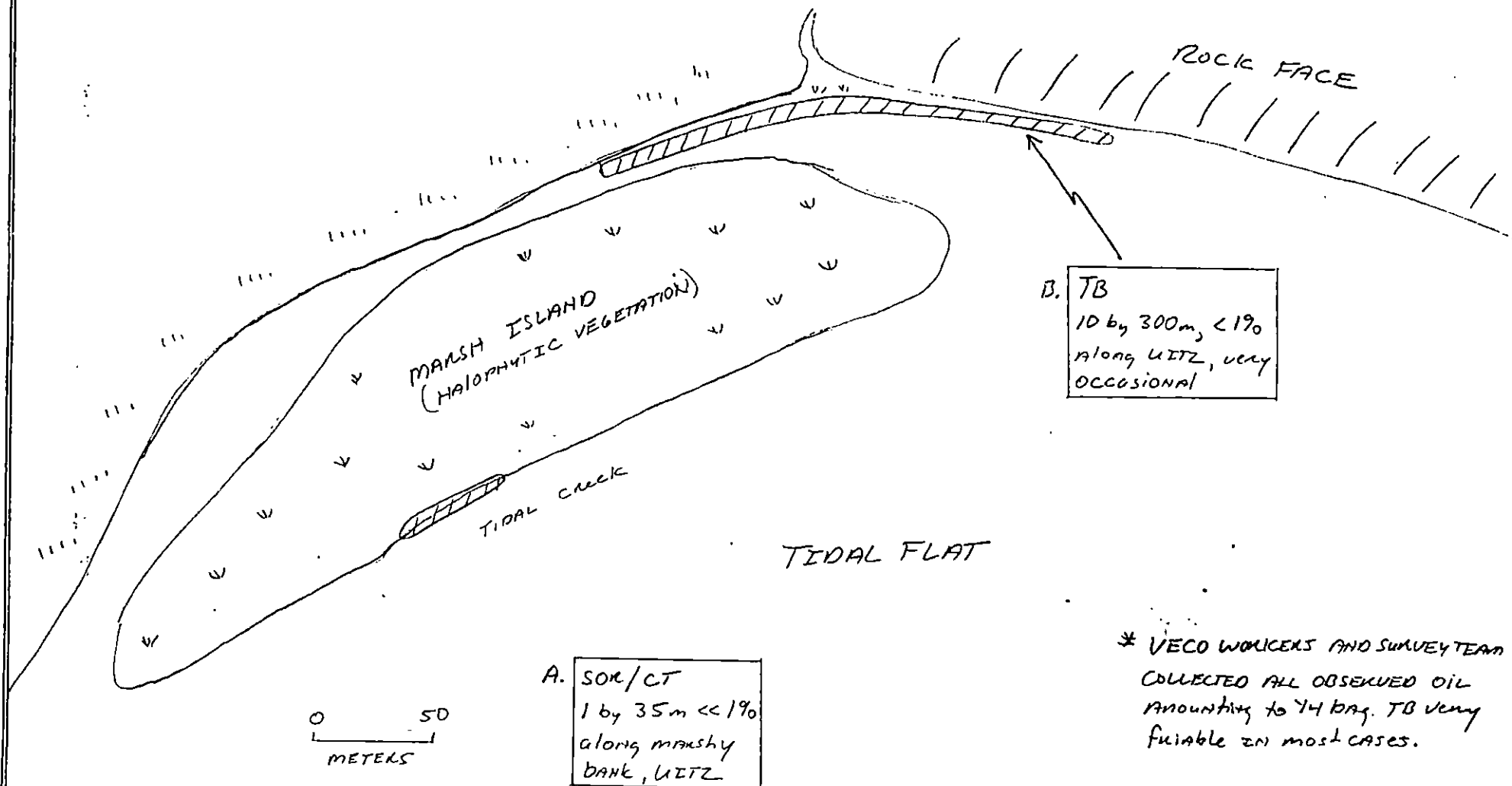
AK State Plane Zone 9
NAD 83

Reviewed 5.27.91

 ETATED DUNE
 GRASSY AREA
 PHOTO SITES

Sketch # 106
 K09-11-00-18
 21 MAY 1991
 1605 - 1645
 D.M. FITZGERALD

CAPE DOUGLAS PENINSULA



* VECO WORKERS AND SURVEY TEAM
 COLLECTED ALL OBSERVED OIL
 AMOUNTING TO 74 BAG. TB VERY
 FRAGILE IN MOST CASES.

Reviewed: 5/29/91
 reviewed 5.27.98

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 21 1991

SEGMENT # K9N-11 CD-18

TIDAL HEIGHT(Range) 0-1 ft (16:10-16:50)

SUBDIVISION A

BIOLOGIST H. Davis

SEA STATE <1 ft Calm

WIND SPEED/DIRECTION light breeze 10-20kt SE

PHOTOGRAPHS: ROLL # G-19

FRAME # 18-20

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

This was a wide tidal flat with a gravel/sand perimeter and low muddy marsh islands covered with a grass (Spartina sp?). Waterfowl and shore birds were using this area extensively. Bear tracks went through the UIZ. Worm burrows (possibly lugworms) were below site B, with Mya arenaria beds further out. Mya a. beds were also below site A. The waterfowl and western sandpipers were feeding throughout the area during the survey.

Clean up in this area would be much more disruptive than productive.

Wigeon (10) Pintail (6) Yellowlegs (3) Ravens (2)

Glaucous-winged Gulls (10) Kittiwakes (10) Western Sandpipers (20+) Black Brent (≈ 50)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	0		0
Seabirds	0		
Waterfowl	3	≈ 66	
Gulls/Kittiwakes	2	20	
Shorebirds	2	23+	
Corvids	1	2	
Other Birds			

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	0	Bear Tracks	
Pinnipeds (specify)	0		
Ceals (specify)	0		

Shoreline subdivision map showing important biological features attached.

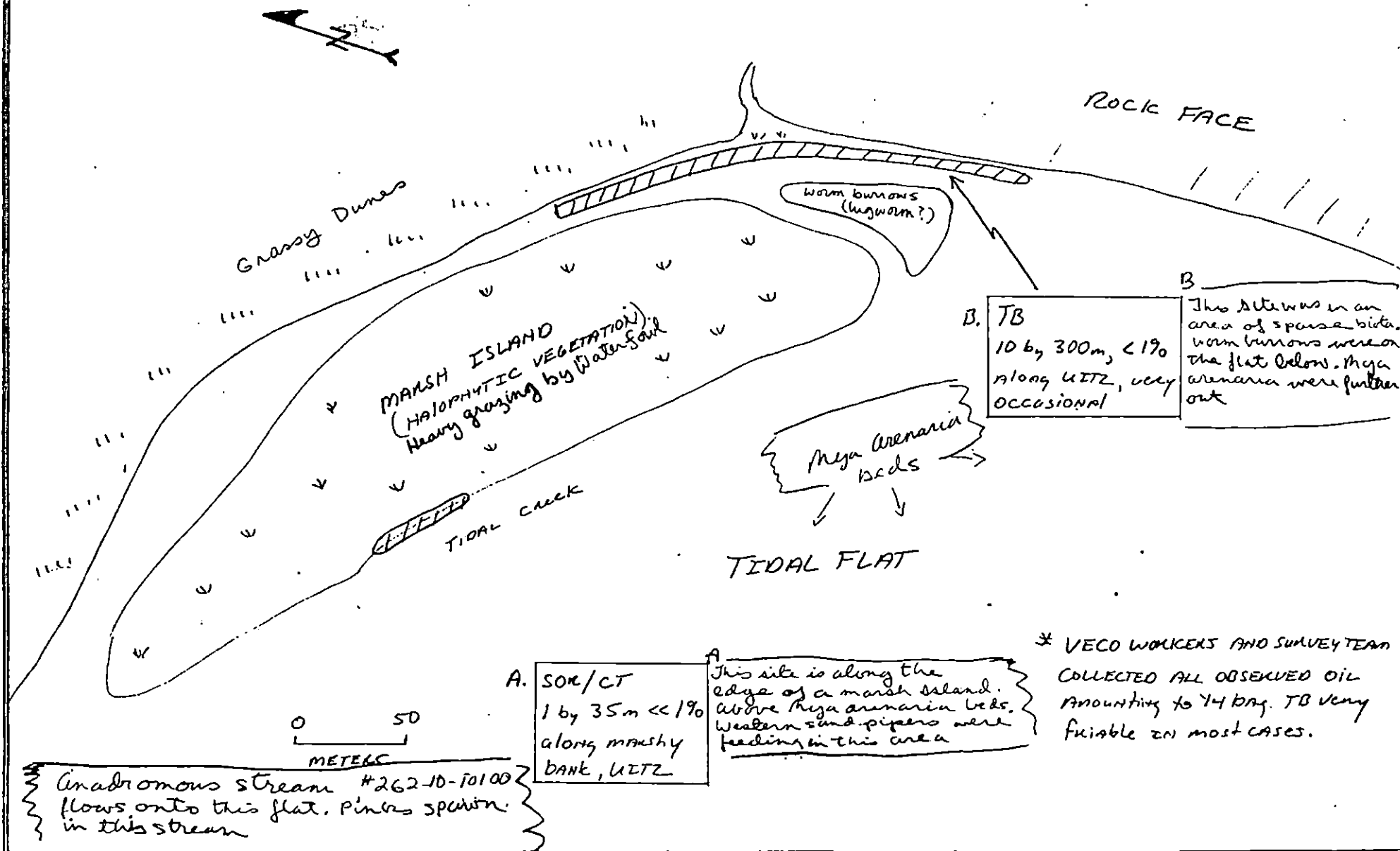
Revised M.B. scales

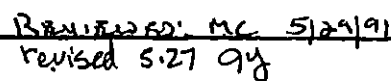
VEGETATED
DUNE
 W W GRASSY
AREA
 PHOTO SITES

Bio Map
H. Davis

Sketch MAP (OG)
K09-11-CD-18
21 MAY 1991
1605 - 1645
D. M. FITZGERALD

CAPE DOUGLAS PENINSULA





ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 262-10-10092

SEGMENT K09-11-CD-020 SUBDIVISION A

WORK WINDOW	
Manual Pickup	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, - PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

ADF&G catalogued anadromous stream (262-10-10092) is in Subdivision A. No constraint to manual pickup.

OTHER ECOLOGICAL CONSIDERATIONS

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

SEE SUBDIVISION CONSTRAINT ADDENDUM K09-11-CD-020A
FOR ADDITIONAL CONSTRAINT INFORMATION.

FOSC

[Signature]

Date

6-16-90

Prepared by

[Signature]

Date

6/15/90

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/K09-11-CD-020 STREAM NO: 262-10-10092 DATE 5/2/90

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)
8AA Sensitive estuary

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

No ecological constraints regarding intertidal biota.

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3276 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Rachel Dan Qu DATE: 5/22/90

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommend manual pick up of mousse and patties in the UITZ and SUTZ as indicated on the attached sketch map. Contact ADF&G for work window dates. SEE CONSTRAINT ADDENDUM dated 6/15/90/RD

TAG COMMENTS: MONITORS TO ASSESS SUTZ - SNOW COVERED DURING SSAT

TAG APPROVAL DATE: 5/18/90

ADEC ART WEINGER Art Weinger

EXXON AMY TAL Amy Tal

NOAA GARY PETROG Gary Petrog

USCG G.A. HEITER G.A. Heiter

FOSC: [Signature] DATE: MAY 25 1990

ANADROMOUS FISH STREAM ASSESSMENT

REGION: KODIAK

SEGMENT: K09-11-CD-020

SUBDIVISION: A

STREAM NO: 262-10-10092

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/K09-11-CD-020 STREAM NO: 262-10-10092 DATE 5/2/90

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)
8AA Sensitive estuary

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

No ecological constraints regarding intertidal biota.

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3276 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: _____ DATE: _____

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: Recommend manual pick up of mousse and patties in the UITZ and SUTZ as indicated on the attached sketch map. Contact ADF&G for work window dates.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

FIELD SHORELINE COMMENT SHEET

DRAFT

262-10-10092

SEGMENT ST / CD-20 A SUBDIVISION: not catalogued DATE 02 MAY 90

USCG

NAME Kerwin L. Dreher SIGNATURE cwo K. L. Dreher

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Type A manual removal.

ADEC → ADP/G

NAME EDWARD W. WEISS SIGNATURE Edward W. Weiss

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

STREAM LAGOON IS LOW ENERGY WITH MS FAT/P ON SOUTH BANK UPTO 700 M BACK INTO LAGOON. NORTH BANK HAS LIGHTER TB, ST/S.

RECOMMEND TYPE A MANUAL CLEANUP.

LAND MANAGER → NPS

NAME Carl Schach SIGNATURE Carl Schach

☒ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

This lagoon/estuary system is very protected and any remaining oil can be expected to persist for a long time. Bands and sporadic patches of mussels should be removed with shovels. Bands of stained pebbles should be left undisturbed. Oiled debris including fishing net should be cut free and removed.

OG CAL LARSON USCG DREHER, CWE SEGMENT ST/ CD-20A
 BIO KEN CRITCHLOW LAND REP CARL SCHOGU STREAM 202-10-UNLST (OF)
 EXXON DARL YOE ADFG GP. WAKS TIME 12:50 to 2:10
 TEAM NO. 14 TIDE LEVEL +3 FT DATE 5/2/90
 EST. SUBDIVISION LENGTH: 1500 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 0 % B 0 % C 10 % P 30 % G 30 % S 30 % M 0 % V 0 %
 SLOPE: Long 0 % Hang 100 % Vert 0 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 10 m VL 400 m NO 1100 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	R	B	P	S	SW	W	BL	GR	BR	SW	U	M	U
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT													
STAIN													
MOUSSE		X								X			
PATTIES													
TARBALLS													
FILM													
NO OIL													

PAVEMENT H F S 0 sq. m by 0 cmPATTIES / TARBALLS 10 BAGSNEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

Did you collect DEBRIS

☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. _____

Frames _____

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (Y/N)	V	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	UC	SW	W	BL	GR	BR	SW	U	M	U				

COMMENTS NO PITS DUE TO LACK OF OIL PENETRATIONREVIEWED JWDATE 5/4/90

OG CALIFORNIA
SEGMENT D-20A

STREAM 162-10- NO ASC NO.

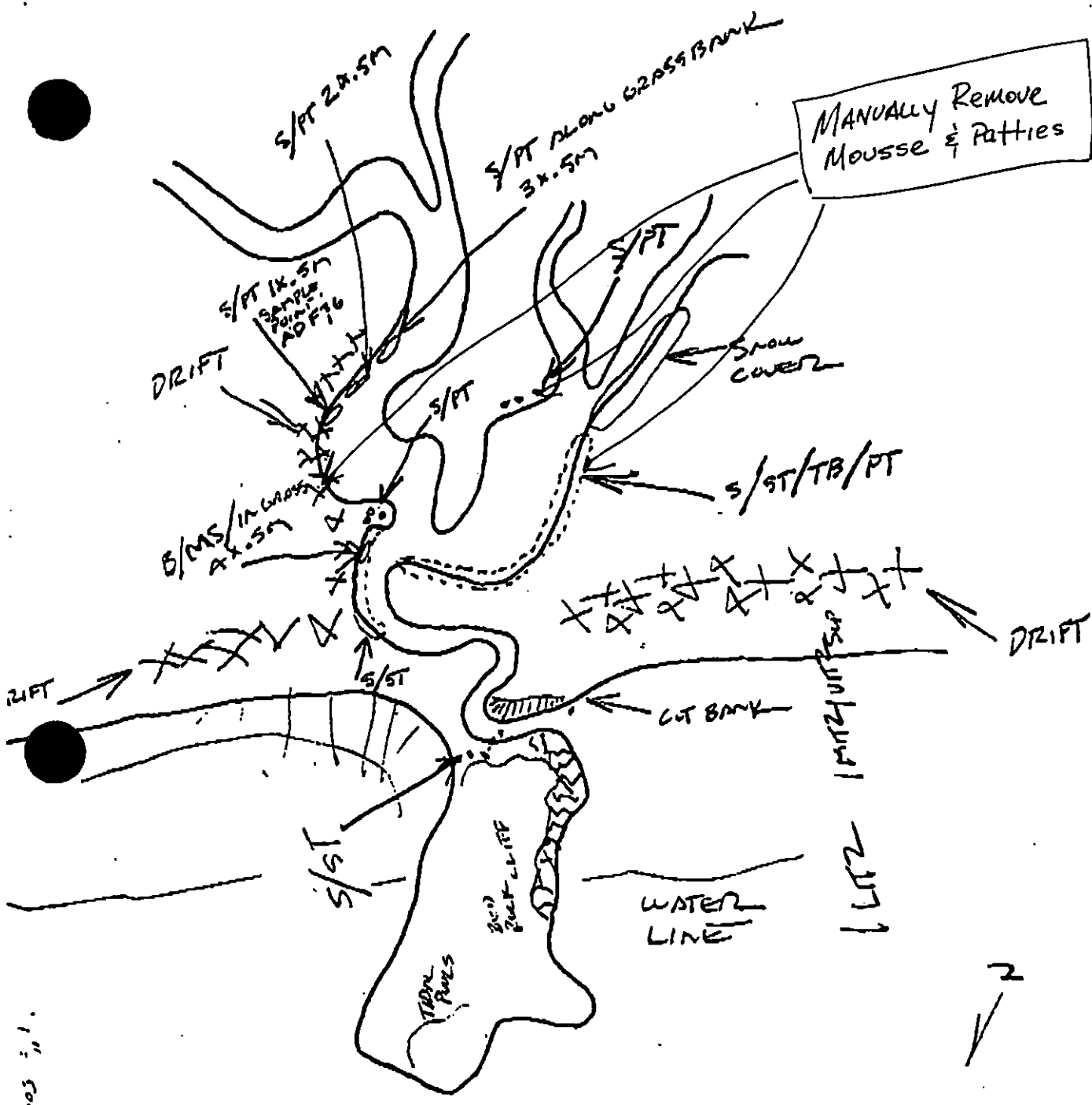
DATE 5/2/90

CHECKLIST

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

LEGEND

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



REVISED 10/90

OF Character Length (m): AP _____ PO _____ CV _____ CT _____ ST 340 MS _____ PT 10 _____ TB 50 _____ FL _____ NO _____

ASC 262-10-10090

ADFG MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS ☒ DS TS AVS SCHM NMS PTA

2 REGION: PWS KP, CI KAD

METHOD: Aerial ☒ Ground Boat

3 DATE: 5-2-90

15 HIGH TIDE TIMES: 1

31 TEAM RECORDER: E. WEISS

4 START TIME: 1253

16 HIGH TIDE HTS: 1

22 OBSERVERS: K. SHEROCK, C. LARSON
D. YOLS, K. KUTCHLOW

5 STOP TIME: 1415

17 LOW TIDE TIMES: 1550

23 AGENCY: ADFG/EXXON/NPS/WWC

6 SEGMENT #: CD20A

18 LOW TIDE HTS: 1.9

24 PHOTOS TAKEN: X N

7 STATION #:

19 TIDE HT AT SURVEY:

Roll #: 004-K Frame: #13-14

8 K-UNIT: ~~K9-11~~☒ Shallow ☐ Shallow ☐ Shallow ☐ Shallow

25 VIDEO TAKEN: Y X TAPE:

9 STAT AREA:

20 USCG QUAD: AFOGNAK D-S

Starts: Ends:

10 LAT:

11 LONG:

26 SAMPLES TAKEN Y X Number

12 SOURCE: Map Loren CAT

(011) 908W0004K

13 LOCATION:

Sediment:

14 DESCRIPTION: 2 mi. SSW OF DOUGLAS CREEK LAGOON

Biological:

EXTENT OF OIL

Water:

27 SURFACE COVERAGE

SHORELINE				STREAM			
L	H	M	S	L	H	M	S

35 CATALOGED ANAD. FISH SKELETAL X N

28 SURFACE THICKNESS

37 CATALOG #: 262-10-10092

29 PENETRATION

38 STREAM NAME: NONE

30 OVERALL OIL IMPACT: H VL L M H

39 OIL IN STREAM BED? X N

31 OIL TYPE: Pooled ☒ Tar Asphalt Sticky ☒ Stain

40 OIL ON STREAM BANKS? X N

32 OILED DEBRIS? X N

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

42 OIL WITHIN 1 MILE OF STREAM Y N

33 SHORELINE TYPE: Headland ☒ Low-lying Rocks ☒ Beach Cove

Where:

43 ANADROMOUS FISH PRESENT? Y N

34 WAVE EXPOSURE: High Moderate ☒ Low

44 ANADROMOUS FISH OBSERVATION

35 SUBSTRATE TYPE: Bedrock Boulder Cobble

Species Aerial Ground

Gravel Sand Mud/silt

COMMENTS: ST/S ON STREAM BED/BANKS. MS & PT/P IN
BEND OF STREAM BANK AFTER IT COMES OUT OF LAGOON AND
ALONG SOUTH BANK OF LAGOON. TB, ST, CV/S ON
BANK NORTH SIDE OF LAGOON & LAGOON BANK BEHIND
BEACHFRONT.

Seg ID: CD-020A

No ASC #
Subdiv: 262-10-~~1000~~

- 10092

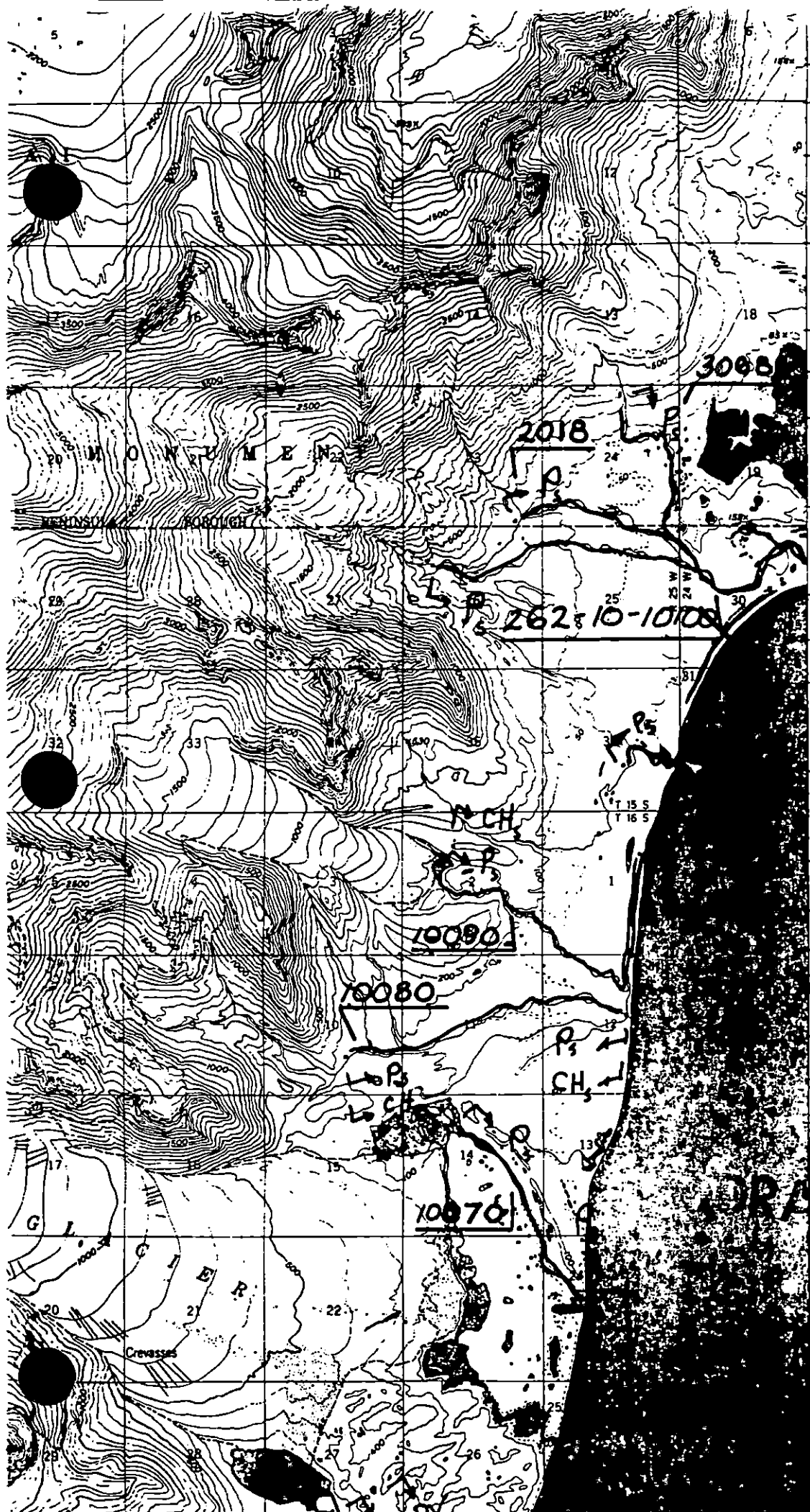
Survey Date: 5/2/90

Comments by: Ken Critchlow

This stream crosses a high energy beach backed by a significant storm berm and log jam. No oil was observed on this beach. Behind the storm berm the stream flows through a large lagoon. Within the lagoon right and left banks were observed to have been oiled by scattered, small patches, tar balls and stain. Most of the oil was observed at or near the edge of the STZ.

No ecological constraints were apparent.

KR Critchlow



K9N-11
CD 20

USGS Map
AFOGNAK (D-5)

Stream is
uncatalogued
262-10-10092

ANADROMOUS FISH STREAM ASSESSMENT

REGION: KODIAK

SEGMENT: ST/K09-¹¹~~22~~-CD-020

SUBDIVISON: A

STREAM NO: 262-10-10070

K911C020AS

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/K09-¹¹~~12~~-CD-020 STREAM NO: 262-10-10070 DATE 6/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
4LL State Marine Park National Parks
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

Subsurface Oil Observed: Yes X No _____ Maximum Depth 35+cm

RECOMMENDATIONS:

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

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

KODIAK ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

Monument Creek

SEGMENT ST 1 K 09 ¹¹ E - CD 24 SUBDIVISION: 262-10-10070 DATE 6/1/90

NOAA
USCG
NAME

Tom Callahan

SIGNATURE

Tom Callahan

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Occasional splatter, < 1 mm thick, on storm berm. High energy area which will continue to rework any remaining oil.

ADEC

NAME

Terry Ellsworth

SIGNATURE

Terry Ellsworth

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

I agree with NOAA comments. No treatment recommended.

LAND MANAGER

N.A.

NAME

SIGNATURE

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

FIELD SHORELINE COMMENT SHEET

K09-~~11~~

SEGMENT ST / LD C20B

SUBDIVISION: Monument Creek
262-10-10070

DATE 6/2/80

NAME

JEFFREY BARNHART

SIGNATURE

Jeffrey P Barnhart

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

See Analysis Form. Due to the nature of the oil
and the character of the stream mouth I do not
recommend cleanup.

Jeff Barnhart

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG J. Springer USCG-NOAA T. Callahan SEGMENT ST/ K-92/XX500
 BIO D. Lohse LAND REP J. Barnhart SUBDIVISION Monument Creek
 Exxon Park Service, R. Waveradek T. Ellsworth TIME 19:45 to 21:00
 TEAM NO.: 19 TIDE LEVEL: +5 to +6 DATE 06/01/190
 EST. SUBDIVISION LENGTH: 550 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☒ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 25 % B 50 % C 15 % P 5 % G 5 % S 5 % M 5 % V 5 %
 SLOPE: Lang 100 % Hang 5 % Vert 5 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 50 m M 50 m N 50 m VL 50 m NO 500 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	C	B	P	S	SL BL	DL RW	OL R	BLR TL	LBR	SU	U	M	L
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT				X		X				X			
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL											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	X		
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NO

TYPE _____

#BAGS _____

Photographs:

Roll No. _____

Frames _____

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR								PIT ZONE	A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SL	DL	OL	BL	TL	LR	SU	U	M	L	
1	20					X	-		X							X				CPG/CPG
2	35	X					5-35	X						X		X				BC/CPGS

COMMENTS

Lower and mid-intertidal zones not surveyed.

RAT 51 50

G. J. Springer

SKETCH MAP

EGMENT ST/ ~~3~~/XX500
UBDIVISION Monument Creek

ATE 06/01/90

CHECKLIST

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

LEGEND

1 Δ
It - No Subsurface Oil

2 Δ
It - Subsurface Oil

CT/C
continuous Distribution

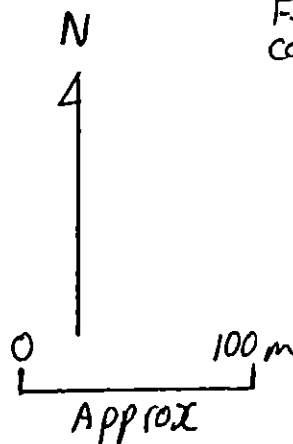
CT/B
broken Distribution

CT/P
patchy Distribution

CT/S
streaked Distribution

lll
littered Vegetation

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



Few pieces
of oiled debris.
Few splashes on
cobles in berm

berm with
logs

c B beach

oiled bird
feathers under
rock.

CT/S/DBL
40 X 50 m
1/2% cover

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

REVISION: 03/24/90

Anadkat

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS DS TS AVS SCHA MMS PTA

2 REGION: PWS KP,CI K(AP)

METHOD: Aerial Ground Boat3 DATE: 6/1/9015 HIGH TIDE TIMES: 10:00 AM 1 10:37 PM21 TEAM RECORDER: JEFF BARNHAR4 START TIME: 200016 HIGH TIDE HTS: 13.1 1 15.522 OBSERVERS: Dave Lohse, Jim Springer5 STOP TIME: 204517 LOW TIDE TIMES: 4:00 AM 1 4:06 PM23 AGENCY: WCC, WCC, DNR, NOAA, DEC, NPS6 SEGMENT #: CD020B18 LOW TIDE HTS: 3.9 1 3.424 PHOTOS TAKEN: Y (N)

7 STATION #:

19 TIDE HT AT SURVEY:

Roll #: Frame:

8 K-UNIT: K09-12Ebb Slack Flood Slack25 VIDEO TAKEN: Y (N) TAPES:9 STAT AREA: 162-1020 USCG QUAD: Afognak D-5

Starts: Ends:

10 LAT: 58° 46' 36"11 LONG: 153° 22' 42"26 SAMPLES TAKEN Y (N) Number12 SOURCE: Map Loren Anadkat

Oil

13 LOCATION: Douglas Reef Area Alaska Peninsula

Sediment

14 DESCRIPTION:

Biological

Water

EXTENT OF OIL

	SHORELINE				STREAM			
	L	W	N ²	%	L	W	N ²	%
27 SURFACE COVERAGE								
28 SURFACE THICKNESS								
29 PENETRATION								

36 CATALOGED ANAD. FISH SKELET? (Y) N37 CATALOG #: 162-10-1007038 STREAM NAME: Monument Creek39 OIL IN STREAM BED? Y (N)40 OIL ON STREAM BANKS? (Y) N41 OIL ON BEACH ADJACENT TO MOUTH? (Y) N
(within 50 meters)

42 OIL WITHIN 1 MILE OF STREAM? Y N

Where:

30 OVERALL OIL IMPACT: N (VL) L M H31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain32 OILED DEBRIS? (Y) N33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cove
Lagoon Marsh43 ANADROMOUS FISH PRESENT? Y (N)34 WAVE EXPOSURE: High Moderate Low44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground35 SUBSTRATE TYPE: Bedrock Boulder 15 Cobble 80Gravel 5 Sand Mod/silt

Species	Aerial	Ground

COMMENTS: ST CT TB / C Debris: L / LG C at high tide line. 2 meter band on N side of stream on beach front and continuing up to stream bank. Several test pits dug indicate oil penetration up to 2 feet. Oiled bird remains wet brown mousse spots up to 5mm, and tar staining/coat present on cobbles in the test pits. South side of stream/stream mouth shows ST CT TB / P oiled debris: LT. Also oiled bird remains. The entire stream mouth area is high energy. Cobbles being reworked.

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/K09-12-CD-020 STREAM NO: 262-10-10070 DATE 6/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
4LL State Marine Park National Parks
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Charles E. Hume DATE: June 19, 1990

Subsurface Oil Observed: Yes ☒ No ☐ Maximum Depth 35+cm

RECOMMENDATIONS:

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

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: 6/16/90

ADEC Ron Morris R.M.

EXXON ANDY TEAL Teal

NOAA Joseph Falkner

USCG ~~64 KEITER 34.7~~

FOSC: 174 DATE: 6-27-70

DATE: 6-27-70

J. Springer
MENT ST/ K
DIVISION Monument Creek

SKETCH MAP

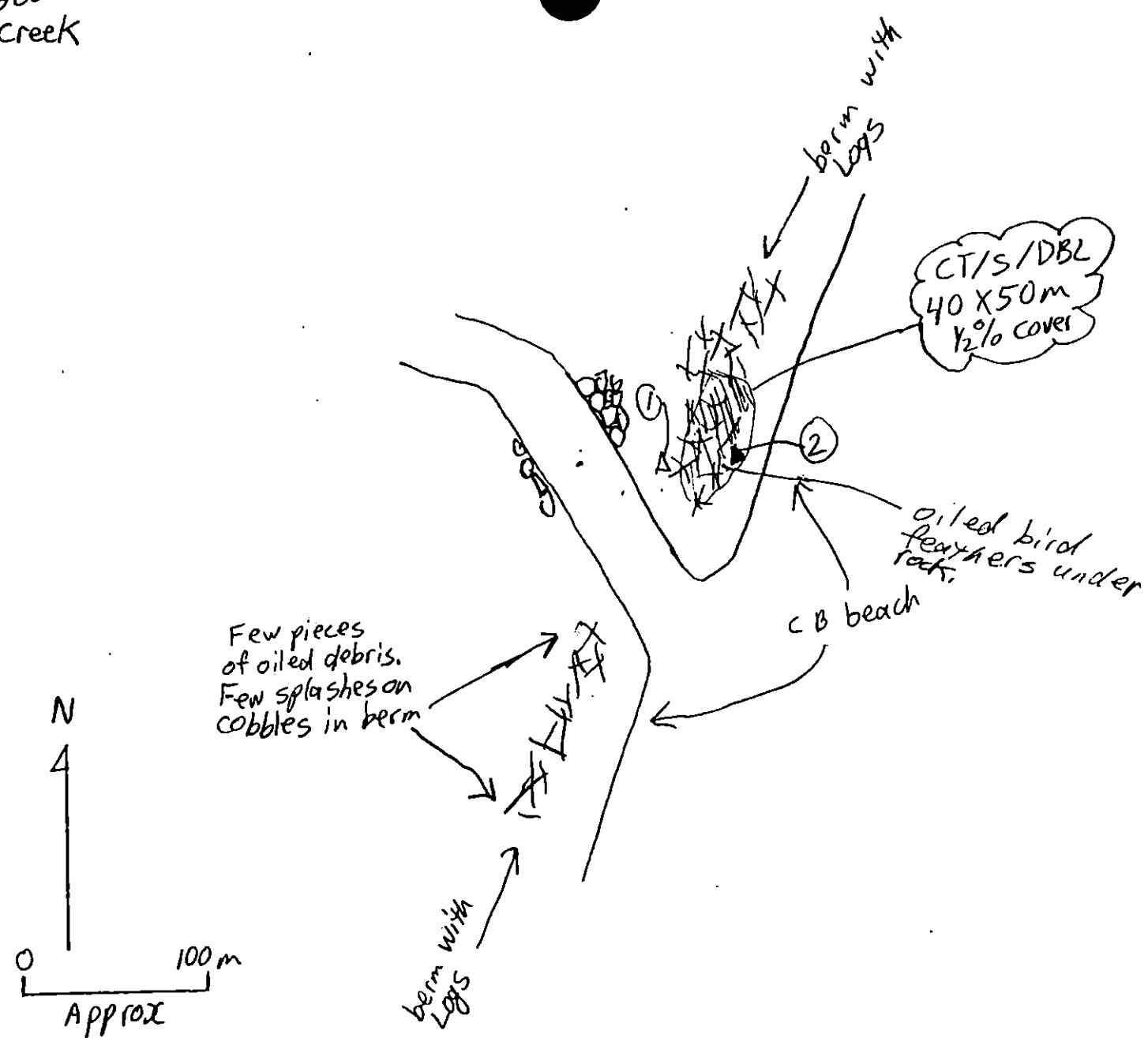
06/01/90

CHECKLIST

- Arrow
- approx. Scale
- eg/Sub Bndry
- Dist.
- fish
- length
- Cover
- substrate Character
- st. HWA/LWL
- SL
- rofile Location(s)
- rofile(s)
- il Location(s)
- hoto Location(s)

SEND

- 1 ▲
- to Subsurface Oil
- 2 ▲
- Subsurface Oil
- CT/C
- uous Distribution
- CT/B
- in Distribution
- CT/P
- y Distribution
- CT/S
- hed Distribution
- ee
- Vegetation
- location, direction, number



ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/K09-11-CD-020 STREAM NO: 262-10-10092 DATE 5/2/90

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)
8AA Sensitive estuary

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

No ecological constraints regarding intertidal biota.

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3276 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Rachel Dan Oue DATE: 5/22/90

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: Recommend manual pick up of mousse and patties in the UITZ and SUTZ as indicated on the attached sketch map. Contact ADF&G for work window dates.

TAG COMMENTS: Monitors to assess SUTZ - snow covered during SAT

TAG APPROVAL DATE: 5/18/90

ADEC ART WEINER Art Weiner

EXXON AMY TAL Amy Tal

NOAA GARY PETRAC Gary Petrac

USCG G.A. REITER G.A. Reiter

FOSC: [Signature] DATE: MAY 25 1990

OG CALLARSON

SEGMENT D-20A

STREAM 262-10- NO ASC NO.

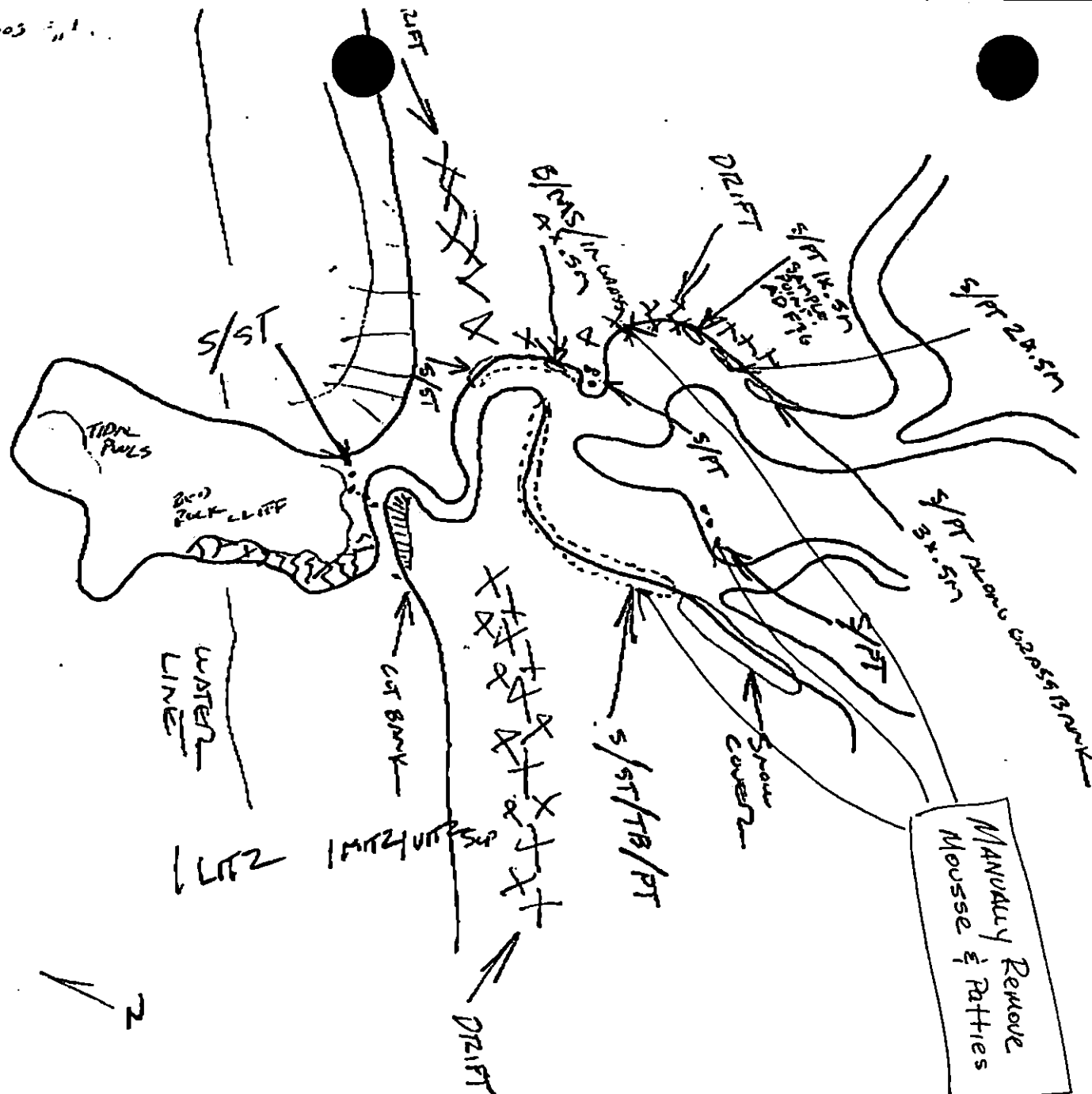
DATE 5/2/90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Sep/Sub Entry
- ☐ CE Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HAT/LVL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pt Location(s)
- ☐ Photo Location(s)

LEGEND

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



OE Character Length (m): AP _____ PO _____ CV _____ CT _____ ST 340 MS _____ PT 10 TB 50 FL _____ NO _____

REVISION 02/90

ANADROMOUS FISH STREAM EVALUATION

262-10-10080

SEGMENT ST/K09-11-CD-020 STREAM NO: 262-10-10090 DATE 5/2/90

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)
8AA Sensitive estuary

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

No ecological constraints regarding intertidal biota.

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3276 (Anchorage) or 229-1508 (24 hrs.)).

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

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommend manual pick up of mousse and cleanup debris as indicated on attached sketch map. Contact ADF&G for work window dates.

TAG COMMENTS:

TAG APPROVAL DATE: 5/18/90

ADEC ART WEINER Art Weiner

EXXON AMY TGA Real

NOAA Gary Petrac Gary Petrac

USCG G.A. REITER G.A. Reiter

FOSC: [Signature] DATE: MAY 25 1990

SEGMENT ST K-0912

DATE 7/21 80

Checklist

Name _____
 Approx. Age _____
 Sex/Race/Ethnicity _____
 On Day _____
 Weight _____
 Length _____
 % Chaper _____
 Subject Character _____
 Ear Implant _____
 SSN _____
 Profile Location(s) _____
 Profile _____
 PA Location(s) _____
 Photo Location(s) _____

Legend

1 Δ
PH - No Evidence On

23

VI - Substances Or

CTAC

Conflicts of Interest

27

Brotherly Love

ETN

Faculty Dispositions

12

Optimized Distribution

22

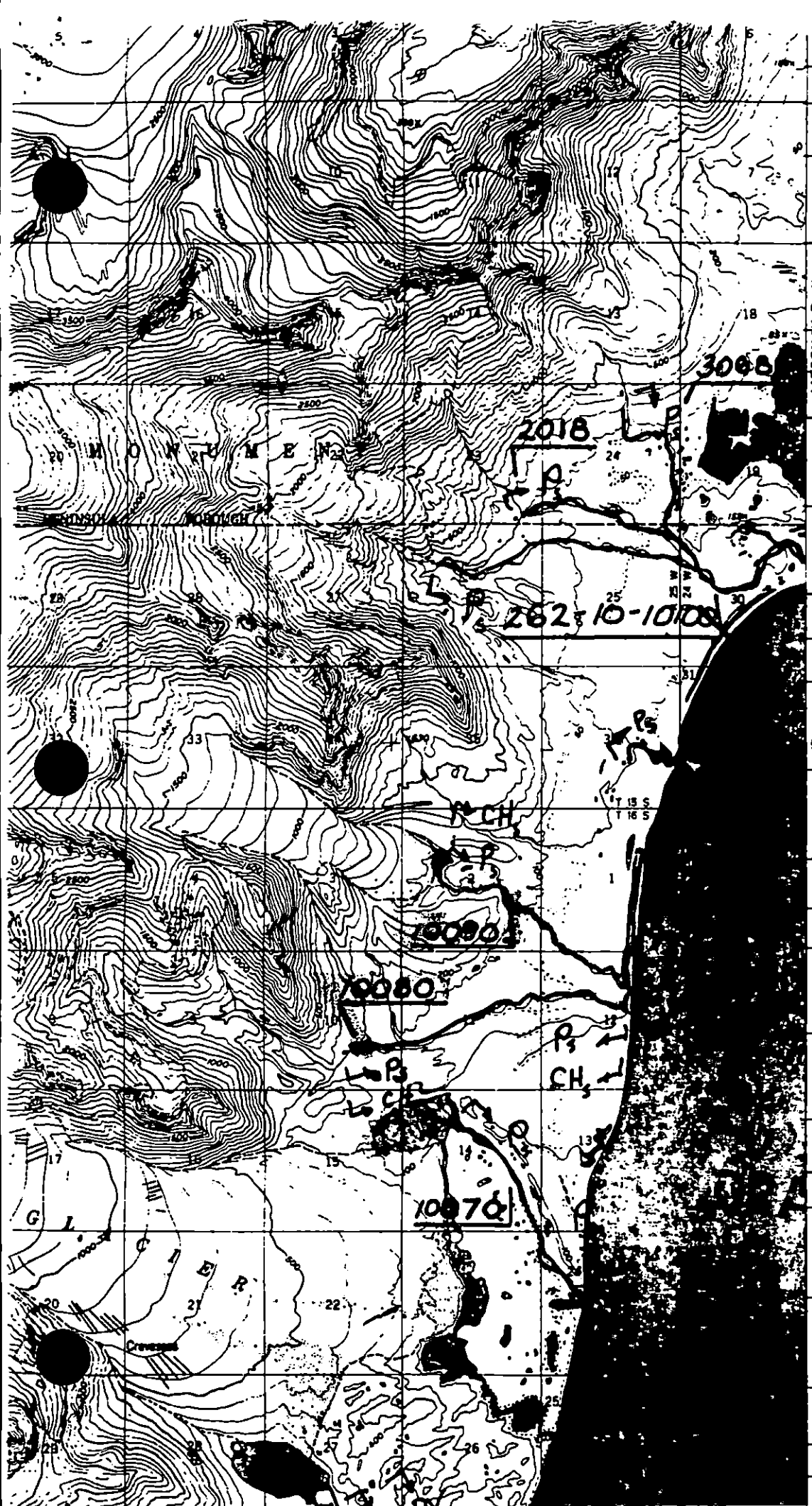
Other Vegetation

◆

Photo location, direction,
and number

Of Character Length (in): AP _____ PO _____ CV _____ CT _____ \$T 20 MS _____ ST 5 TB _____ FL _____ NO 875

123-770-0600



K9N-11
CD 20

USGS Map
AFOGNAK (D-5)

ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NOS. 262-10-10080 and 262-10-10090

SEGMENT K09-12-CD-020 SUBDIVISION A

WORK WINDOW	
Manual Pickup	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

ADF&G catalogued anadromous streams (262-10-10080 and 262-10-10090) are in Subdivision A. No constraint to manual pickup.

OTHER ECOLOGICAL CONSIDERATIONS

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

SEE SUBDIVISION CONSTRAINT ADDENDUM K09-12-CD-020
FOR ADDITIONAL CONSTRAINT INFORMATION.

FOSC

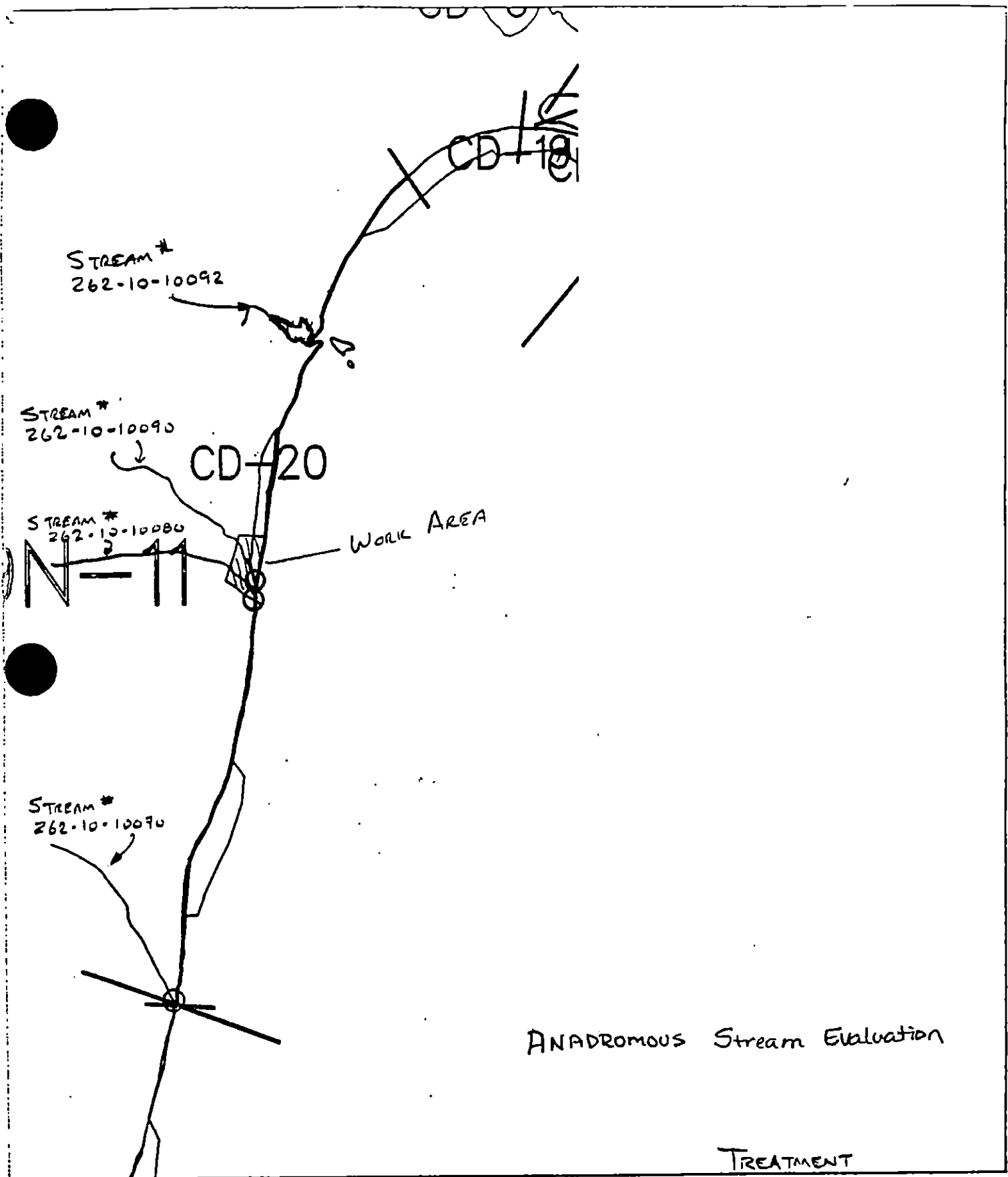
[Signature]
Prepared by *[Signature]*

Date

6-16-90

Date

6/15/90



Exxon Company, USA
 Map Key: ANP-CD-20
 June 08, 1990



ECOLOGY MAP
 SEGMENT K9N-11 CD-20
 SUBDIVISION A (1-101-1-1)
 METERS
 0 1225 2449

★	Seabird Colony
△	Active Eagle Nest
△	Inactive Eagle Nest

1 inch = 4018 feet

ANADROMOUS FISH STREAM EVALUATION

262-10-10080

SEGMENT ST/~~K09-11~~-CD-020 STREAM NO: 262-10-10090 DATE 5/2/90

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)
8AA Sensitive estuary

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

No ecological constraints regarding intertidal biota.

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3276 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Rebel Joan Orr DATE: 5/22/90

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: Recommend manual pick up of mousse and cleanup debris as indicated on attached sketch map. Contact ADF&G for work window dates.

SEE CONSTRAINT ADDENDUM DATED 6/15/90

TAG COMMENTS: _____

TAG APPROVAL DATE: 5/18/90

ADEC Ant Weiner Ant Weiner

EXXON Anthony Anthony

NOAA Gary Petree Gary Petree

USCG G.A. Beiter G.A. Beiter

FOSC: [Signature]

DATE: MAY 25 1990

ANADROMOUS FISH STREAM ASSESSMENT

REGION: KODIAK

SEGMENT: K09-12-CD-020

SUBDIVISION: A

STREAM NO: 262-10-10080
262-10-10090

ANADROMOUS FISH STREAM EVALUATION

262-10-10080

SEGMENT ST/~~K09-11~~-CD-020 STREAM NO: 262-10-10090 DATE 5/2/90

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)
8AA Sensitive estuary

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

No ecological constraints regarding intertidal biota.

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3276 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: _____ DATE: _____

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: Recommend manual pick up of mousse and cleanup debris as indicated on attached sketch map. Contact ADF&G for work window dates.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / CD-20 A SUBDIVISION: 262-10-10080 DATE 02 MAY 90
262-10-10090

USCG

NAME Kerwin L. Dreher SIGNATURE CWO K. L. Dreher

☐ NO TREATMENT RECOMMENDED
 COMMENTS

☒ TREATMENT SUGGESTED

Type A manual removal.

~~ADEC~~ → ADFdG

NAME Edward W. Weiss SIGNATURE Edward W. Weiss

☐ NO TREATMENT RECOMMENDED
 COMMENTS

☒ TREATMENT SUGGESTED

SUGGEST REMOVAL OF OILY DEBRIS (BOOM, ETC) AND
 SMALL BAND OF PATIES.

~~LAND MANAGER~~ NPS

NAME Carl Schoch SIGNATURE Carl Schoch

~~☐ NO TREATMENT RECOMMENDED~~
 COMMENTS

~~☐ TREATMENT SUGGESTED~~

This lagoon/estuary system is very protected and any
 oil and oiled debris can be expected to persist for
 a long time. A cleanup crew should be sent in to remove
 oiled drift, rope, sorbent boom and band of patchy mouse.

SHORELINE OILING SUMMARY (ANAO)

REVISION NO. 04/13/80

OG CAL LARSON USCG DREHER, CWE SEGMENT ST/ 160912 KAF50
 BIO KEN CRITCHLOW LAND REP CAL SCHUCH STREAM 202-10 * (OF)
 EXXON DARLHL YVES ADFG NO WIFE TIME 02:20 to 3:30
 TEAM NO. 14 TIDE LEVEL +1.9 FT DATE 5/2/90 *100% CLE
 EST. SUBDIVISION LENGTH: 900 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow CRACK
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 0 % B 0 % C 30 % P 30 % G 30 % S 10 % M 0 % V 0 %
 SLOPE: Long 0 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 25 m NO 875 m

SURFACE OIL

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

PAVEMENT H F S 0 sq. m by 0 cr

PATTIES / TARBALLS _____ 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					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (Y/N)	↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UO	1	2	3	4	5	SU	U	M	U				

COMMENTS NO PITS DUG DUE TO LACK OF OIL PENETRATION.REVIEWED 7WDATE 5/4/90

2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 1040 104

ASC 262-10-10070

AFSC MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: 06 06 06 TS AVE SCH HNS PTA2 REGION: PHS KP,CI K, 06METHOD: Aerial Ground Boat3 DATE: 5/2/9015 HIGH TIDE TIMES: 121 TEAM RECORDER: E. WEISS4 START TIME: 143416 HIGH TIDE HTS: 122 OBSERVERS: K. SCHOCK, C. LARSON
D. YORS, K. KRITCHEL5 STOP TIME: 152517 LOW TIDE TIMES: 155023 AGENCY: ADFG/EXXON/NAS/WJW6 SEGMENT #: CD20A18 LOW TIDE HTS: 1.9

24 PHOTOS TAKEN: Y N

7 STATION #: _____

19 TIDE HT AT SURVEY: _____

Roll #: _____ Frame: _____

8 K-UNIT: K0911Ed Stack Flood Stack25 VIDEO TAKEN: Y X TAPED: _____

9 STAT AREA: _____

26 USCG QUAD: AFOGNAX D-5

Starts: _____ Ends: _____

10 LAT: 38 48 2011 LONG: 153 22 728 SAMPLES TAKEN Y X Number12 SOURCE: Map Loran CATALOG

Oil _____

13 LOCATION: 24mi SW OF VABM "SOUTH DOUGLAS"

Sediment _____

14 DESCRIPTION: LEGAL DESCRIPTION S 16S 28W12

Biological _____

Water _____

EXTENT OF OIL

	SHORELINE				STREAM			
	L	N	NE	S	L	N	NE	S
27 SURFACE COVERAGE								
28 SURFACE THICKNESS								
29 PENETRATION								

30 OVERALL OIL IMPACT: N Y L M H36 CATALOGED ANAD. FISH SKELET X N31 OIL TYPE: Pooled Messy Tar Asphalt Sticky Stain

262-10-10090

37 CATALOG #: 262-10-1008038 STREAM NAME: CLEAR CREEK
MONUMENT CREEK32 OILED DEBRIS: X N39 OIL IN STREAM BED? Y X40 OIL ON STREAM BANK? X N41 OIL ON BEACH ADJACENT TO MOUTH Y N
(within 50 meters)

42 OIL WITHIN 1 MILE OF STREAM Y N

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

Where: _____

43 ANADROMOUS FISH PRESENT? Y N

34 WAVE EXPOSURE: High Moderate Low

44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground35 SUBSTRATE TYPE: Bedrock _____ Boulder _____ Cobble 60Gravel 40 Sand _____ Mud/silt _____

Species	Aerial	Ground

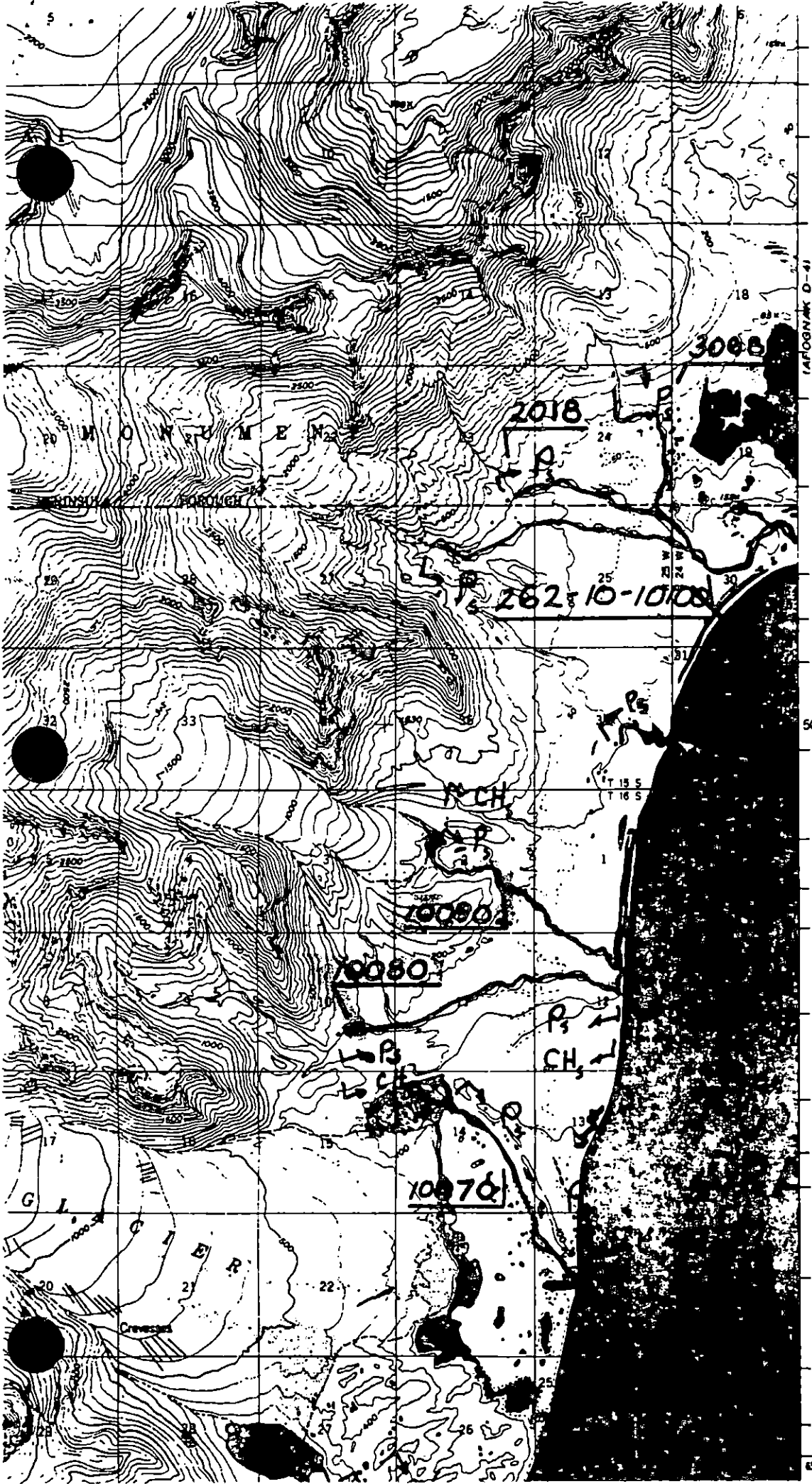
COMMENTS: ST/S ON COBBLE BANK SOUTH SIDE OF STREAM
MID TIDE AREA BELOW STORM BERM. WHERE STREAM
COMES FROM LAGOON. ALSO 3' SECTION OF OILED ABSORBENT
BOOM. ST/S ALSO 12M x 1M IN HEAD OF LAGOON.
SOME ST/L IN STORM DRIFT LINE.

Seg ID: CD-20A Subdiv: 262-10-10080 Monument Cr.
Survey Date: 5/2/90 262-10-10090 Clear Crk
Comments by: Ken Critchlow

Two streams, Monument (No.) and Clear (So) creeks feed into a common lagoon behind a large storm berm and log jam that protect the lagoon from high energy exposure that affects the fronting beach. No oil nor marine organisms was observed on the beach. The left (So.) bank of the stream where it crosses the beach was characterized by a heavy log jam at the base of which oil stain was observed along with some splatter. A sorbent boom stained by oil was found in this location. Some small areas of oiled drift, mousse, pattres and stain were observed near the water's edge in the lagoon.

No ecological constraints were apparent.

KR Critchlow



K9N-11
CD 20

USGS Map
AF06NAK (D-5)

U.S. Department
of Transportation
United States
Coast Guard



Federal On Scene Key
Coordinator
U. S. Coast Guard

Bank Bldg
601 W 5th Ave
Suite 500
Anchorage, AK
99501
(907) 277-3833

July 9, 1990

Ref: K0912-XX500, Stream # 262-10-10040

1. The Coast Guard agrees with the constraints outlined in the enclosed National Park Service letter of 7/2/90 for referenced segment. These constraints shall be adhered to during treatment procedures.

for D.E. Ciancaglino
D.E. CIANCAGLINI
Federal On-Scene Coordinator



IN REPLY REFER TO

United States Department of the Interior

NATIONAL PARK SERVICE

ALASKA REGIONAL OFFICE
2525 Gambell Street, Room 107
Anchorage, Alaska 99503-2892



Ref: K09-12-XX500
(262-10-10040)

July 2, 1990

The National Park Service (NPS) will agree to the treatment recommendation on the segment referenced above only under the conditions specified by this office on May 15 and 21, 1990. The Technical Advisory Group (TAG) did not recognize the constraints made by the NPS. If TAG specifies the constraints, then treatment can be approved. The specific constraints include:

- Viable/live marsh vegetation should be left intact.

- NPS on-site monitor will be required. We suggest additional ADF&G monitors be present during cleanup due to the extreme sensitivity of the impacted habitat and the difficulty of finding the submerged mousse/vegetation mats.

- Special Use Permit will be required.

Cordell J. Roy
Acting Chief, Office of Oil Spill Coordination

STATION 262-10-1040

SEGMENT ST/ K-912/XX500

SUBDIVISION A

DATE 06/01/90

CHECKLIST

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

LEGEND

1 ▲

PH - No Subsurface Oil

2 ▲

PH - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

Oil Vegetation

1 ●

Photo location, direction, and number

SKETCH MAP

Stream 262-10-1040
Tripple Lakes Creek

Re-Summit.

Not surveyed -
bear present.

Remove
oiled vegetation

occasional pieces of
oil-stained wood
throughout

cobble berm
2-3m high,

High-energy shoreline

TB/S/DBL
Submerged
30cm
splatters on
rocks and
stuck to pieces
of vegetation
1m x 100m
90% cover

TB/P/DBL
1x10m
30-50cm
submerged
splattered on
rocks

MS/B/DBR
3m x 8m
submerged
30-50cm
1 1/2 m from HWL
matted with vegetation

N
4
0 100m
Approx

oiled
ig

stained
drift

Bluffs

rocks

Area 1

Oil Character Length (m): AP PO CV CT ST MS 8 PT TB 110 FL NO 232 U 550

OG CAL L 30W

1 = 100

SKETCH MAP

SEGMENT ST/K-0912

STREAM 262-10-10040

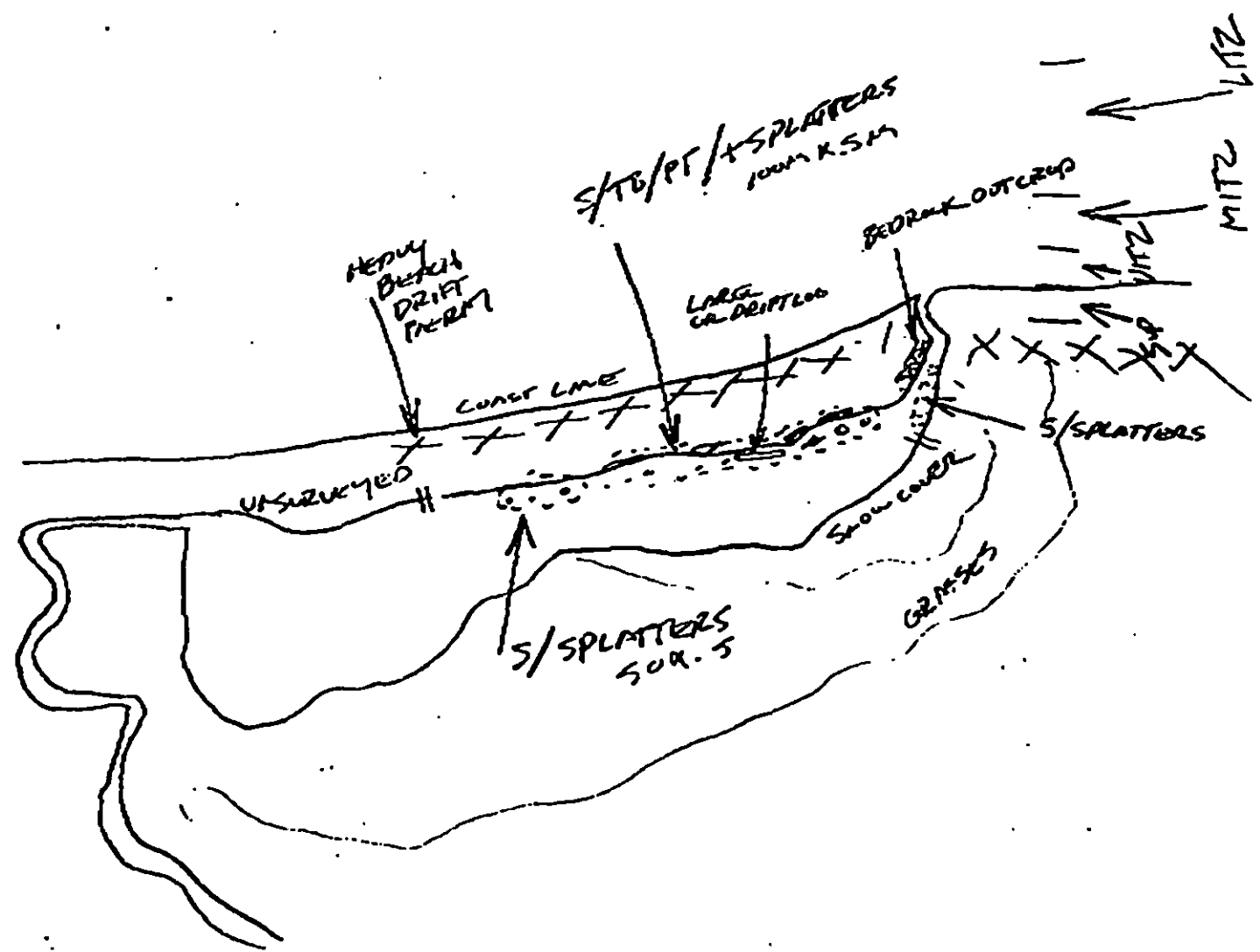
DATE 5, 2, 90

CHECKLIST

- ☐ N Area
- ☐ Approx. Scale
- ☐ Seg/Sub Boundary
- ☐ Oil Out
- ☐ Marsh
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Ext. HMT/LAWL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pit Location(s)
- ☐ Photo Location(s)

LEGEND

- 1 Δ
- 11 - No Subsurface Oil
- 2 Δ
- 11 - Subsurface Oil
- CT/C
- Continuous Distribution
- CT/B
- Spot Distribution
- CT/P
- Patchy Distribution
- CT/S
- Dashed Distribution
- lll
- Wet Vegetation
- 1 $\Rightarrow$
- oto location, direction, d number



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

REVISIONS

AFOGNAK (C-5) QUADRANGLE

ALASKA

63 500 SERIES (TOPOGRAPHIC)

1:50,000

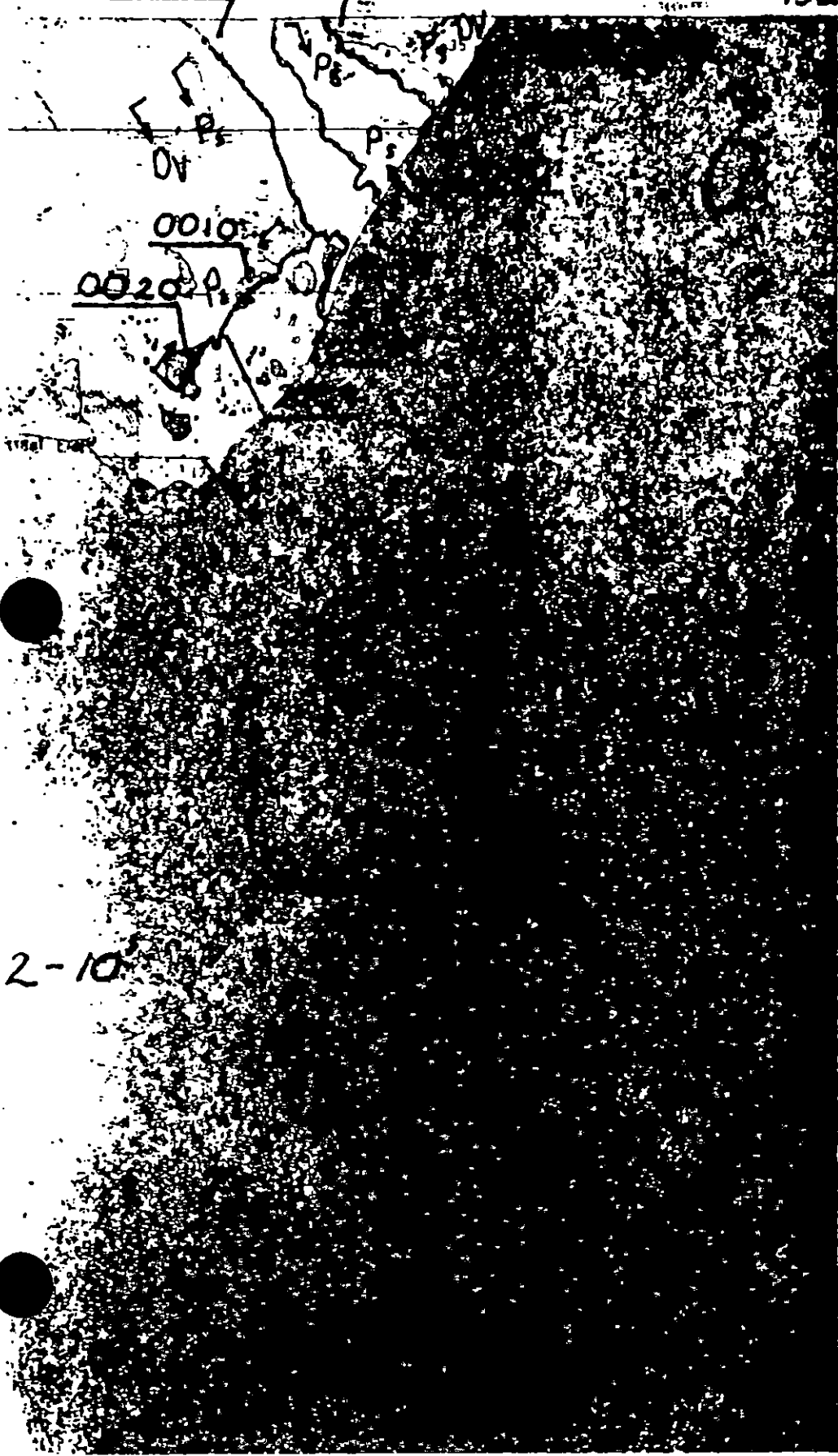
153° 20'
58° 45'

KRM

11/81

10040 FINAL

10060



2-10

ANADROMOUS FISH STREAM ASSESSMENT

REGION: KODIAK

SEGMENT: K09-12-XX-500

SUBDIVISION: A

STREAM NO: 262-10-10040

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/K09-12-XX-500 STREAM NO: 262-10-10040 DATE 5/2/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
5S Shorebird/waterfowl concentration (4/25 to 5/15)
See attached Ecological Constraint sheet for specific constraints and contracts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

See above.

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K-0912 SUBDIVISION: 262-10-10040 DATE 02 MAY 90

USCG

NAME Kerwin L. Dreher SIGNATURE CWO K. L. Dreher

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

NOTE: The west shore line of the larger lagoon was still snow covered. I suggest re-surveying this area after the snow melts back. The area I did survey (the east shore) had <1% stained driftwood and minimal very weathered/dry splatter on small submerged cobbles.

~~ADEG~~ → ADFG

NAME EDWARD W. WEISS SIGNATURE Edward W. Weiss

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

LAGOON SEGMENT IS LOW ENERGY AND PARTIES AND COVER ON COBBLES DO PRODUCE SLIGHT SHEEN WHEN RUBBED. THIS SHEEN DOES DISAPPEAR READILY IN WATER. STREAM NEEDS TO BE RESURVEYED FULLY WHEN SNOW COVER MELTS AND WATER LEVEL IS DOWN. BANDS OF (PT, TB, CV, ST) / P IS CURRENTLY 12-24" BENEATH WATER SURFACE. CLEANUP WOULD ALSO HAVE TO WAIT UNTIL WATER LEVEL RECEDES. OIL IS ONLY PARTIALLY VISIBLE DUE TO WATER DEPTH AND SILT.

~~LAND MANAGER~~ → NPS

NAME Carl Scheeh SIGNATURE Carl Scheeh

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

This lagoon should be resurveyed at a lower water level in order to determine the exact extent and degree of oiling. This document represents a partial survey only. Based on these findings the observed oil on debris and cobbles should be removed. This lagoon/estuary system is very protected and oil will persist for a long time unless removed. Oil can be removed by wiping with sorbent towels or removing with shovels. Cleanup should not begin until water recedes.

OG CAL LARSON USCG DREHER, CWE SEGMENT ST/K-0912 XX 500
 BIO KEN CRITCHLOW LAND REP CARL SCHOON STREAM 2.62-10-100450 (OF)
 EXXON DARRYL YOE ADFG ED K. GITS TIME 3:40:35
 TEAM NO. 14 TIDE LEVEL +1.9 DATE 5/12/90
 EST. SUBDIVISION LENGTH: 200 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R % B % C 00 % P 10 % G 5 % S 5 % M % V %
 SLOPE: Long 55 % Hang 45 % Vert % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 150 m NO 50 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	R	B	P	S	SW	W	BL	BR	LT	LT	LT	LT	SU	U	M	U
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN				✓		✓							✓			
MOUSSE																
PATTIES				✓		✓							✓			
TARBALLS				✓		✓							✓			
FILM																
NO OIL													✓		✓	✓

PAVEMENT H F S 0 sq. m by 0 cm

PATTIES / TARBALLS 2 BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

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

Did You Collect DEBRIS
☐ YES ☒ NO

TYPE 0

#BAGS 0

Photographs:

Roll No.

Frames

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SHEEN (Y/N)	T	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SW	W	BL	BR	LT	LT	LT	LT	SU	U	M	U				

COMMENTS DUE TO SPRING RUN OFF BACK TIDAL LAGOON AREA WATER LEVEL WAS HIGHER, OIL / DRIPS, SPATTER, PATTIES WERE UNDER WATER. OIL OBSERVED WAS HEAVILY WATERED. SOME OILED GRASSES WERE OBSERVED ALONG BANK OF BACK SHORE IN LAGOON. NO PITS DUG.

REVIEWED W

DATE 5/4/90

OG CALIFORNIA

SEGMENT ST/ R-0912

STREAM 262-10-10090

DATE 5, 2, 90

CHECKLIST

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

LEGEND

1 Δ

PH - No Subsurface Oil

2 Δ

PH - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

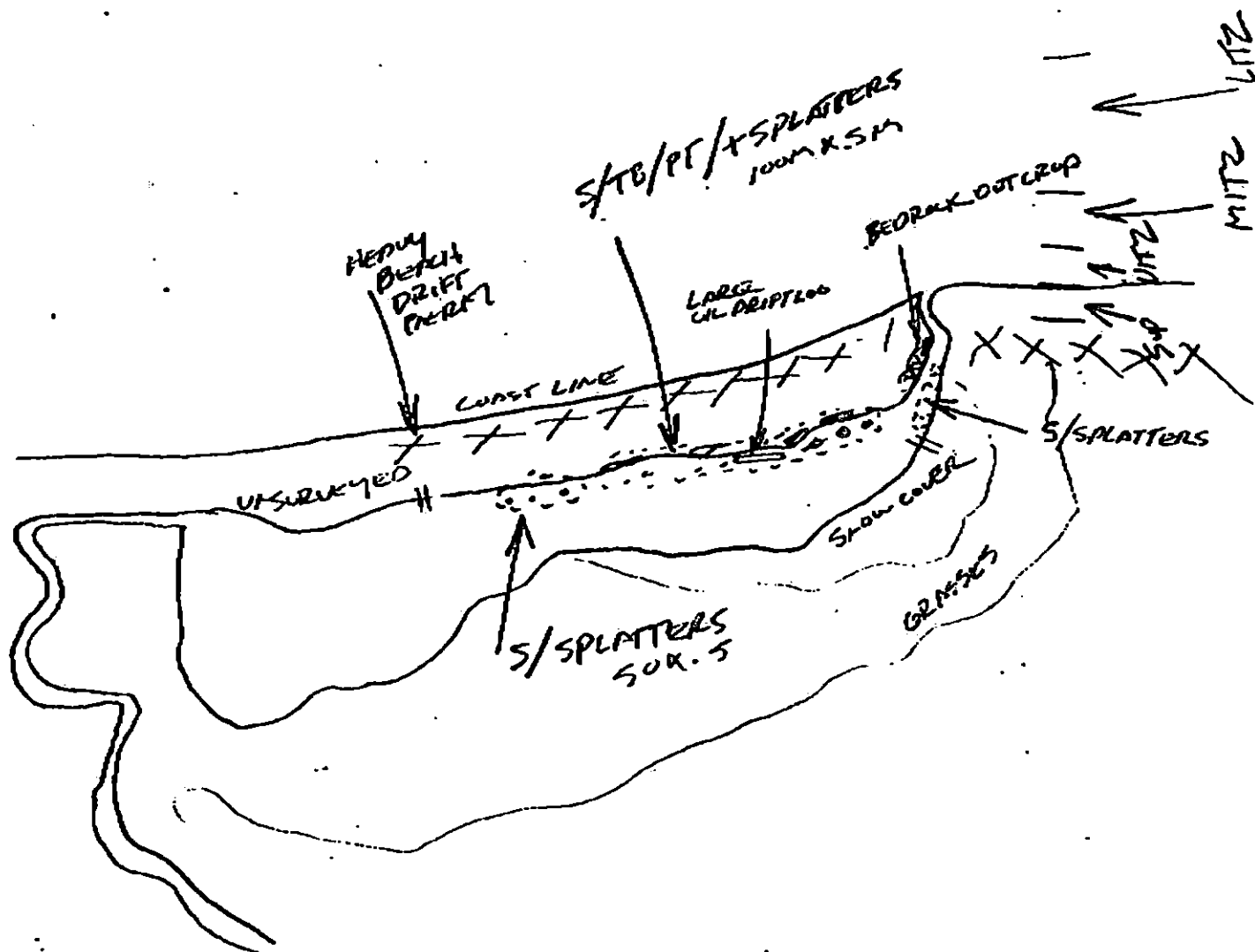
lll

Old Vegetation

1 →

Photo location, direction, and number

SEARCH MAP



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

REVISION 280498

ADFG MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: ES 43 DS TS AVS SCHA HSHS PTA2 REGION: FWS KP, CI K. DEMETHOD: Aerial Ground BoatsDATE: 5/2/9016 HIGH TIDE TIMES: 121 TEAM RECORDED: E. WEISS4 START TIME: 184018 HIGH TIDE HTS: 122 OBSERVERS: H. SCHOCK, C. CARSON
A. YOF3, K. KRITCHLOW5 STOP TIME: 163517 LOW TIDE TIMES: 155023 AGENCY: ADFG/EXXON/NAS/WWC6 SEGMENT #: XX50019 LOW TIDE HTS: 1

24 PHOTOS TAKEN: Y N

7 STATION #: _____

10 TIDE HT AT SURVEY: _____

Roll #: _____ Frames: _____

8 K-UNIT: K0912

Ebb Slack Flood Slack

25 VIDEO TAKEN: Y X TAPES: _____

9 STAT AREA: _____

20 USCG QUAD: AF09NAR C-5

Starts: _____ Ends: _____

10 LAT: _____

11 LONG: _____

26 SAMPLES TAKEN Y N Number

12 SOURCE: Map Loran

01190EW004K13 LOCATION: DOUGLAS REEF AREA, AK PENINSULA

Sediment _____

14 DESCRIPTION: ~1.3 NW OF VABM "DARK"

Biological _____

Water _____

EXTENT OF OIL

36 CATALOGED ANAD. FISH STREAMS Y N

37 CATALOG #: 262-10-1004038 STREAM NAME: TRIPLE LAKES CREEK

39 OIL IN STREAM BED? Y N

40 OIL ON STREAM BANKS? Y N

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

42 OIL WITHIN 1 MILE OF STREAM Y N

Where: _____

43 ANADROMOUS FISH PRESENT? Y N

44 ANADROMOUS FISH OBSERVATION

Species Aerial Ground

SURFACE COVERAGE

SHORELINE

STREAM

L

W

H

S

L

W

H

S

28 SURFACE THICKNESS

29 PENETRATION

30 OVERALL OIL IMPACT: N VL C N N31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Slain

32 OILED DEBRIS? Y N

33 SHORELINE TYPE: Headland Lagoon Low-lying Banks Beach Cove34 WAVE EXPOSURE: High Moderate Low35 SUBSTRATE TYPE: Bedrock _____ Boulder _____ Cobble 25Gravel 35 Sand _____ Mud/silt 40COMMENTS: BAND OFF TO CV, ST Y/P BEGINNING AT MOUTHCONTINUING ON AROUND EAST BANK OF LAGOON. BANDIS AT NORMAL LOW TIDAL AREA BUT DUE TO MELT OFFIS 12-24" BELOW WATER'S SURFACE OF LAGOON AT LOW TIDE.ONLY SURVEYED 1/3 OF LAGOON, 1/3 COVERED WITH SNOW, 1/3 UNSURVEYEDDUE TO TIME CONSTRAINTS. MOUSSE FAIRLY WEATHERED BUT STILL1/3 OF SURFACE 1/3 OF SURFACE 1/3 OF SURFACE 1/3 OF SURFACE 1/3 OF SURFACE

48 PHOTOLOG

FRAME(S)	DESCRIPTION

48 OIL DISTRIBUTION DIAGRAM

RECOMMEND: FULL SSAT / ANADSSAT SURVEY BE CONDUCTED AT LATER DATE, WHEN SNOW COVER MELTED AND WATER LEVEL DOWN. MANY PATCHES HARD TO SPOT DUE TO WATER DEPTH AND SILT COVER WOULD BE MORE VISIBLE WITH LOWER WATER.

ALSO RECOMMEND MANUAL PICKUP BASED ON $\frac{1}{3}$ SURVEYED BUT NOT UNTIL WATER GOES DOWN AND IMPACT IS ACCESSABLE.

ALSO HAD TB:ST/S AND ST CT/L/SM ON BANK OF LAGOON ABOVE WATER LEVEL. DW

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

STEVE COWPER, GOVERNOR

Rapifax 349-1723

333 RASPBERRY ROAD
ANCHORAGE, ALASKA 99518-1590
PHONE: (907) 344-0841

RAPIFAX TRANSMITTAL SHEET

TO: Tom KellyExxon - Anch.DATE: 5-19-90No. Pages: 3
(including this page)FROM: Ed WeissAFG Kodiak

MESSAGE:

DID NOT MAKE DIAGRAM USED
ANASSAT OF DIAGRAM.

STREAM 262-10-10040

DATE 5, 2, 90

CHECKLIST

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

LEGEND

1 Δ

Pit - No Subsurface Oil

2 Δ

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

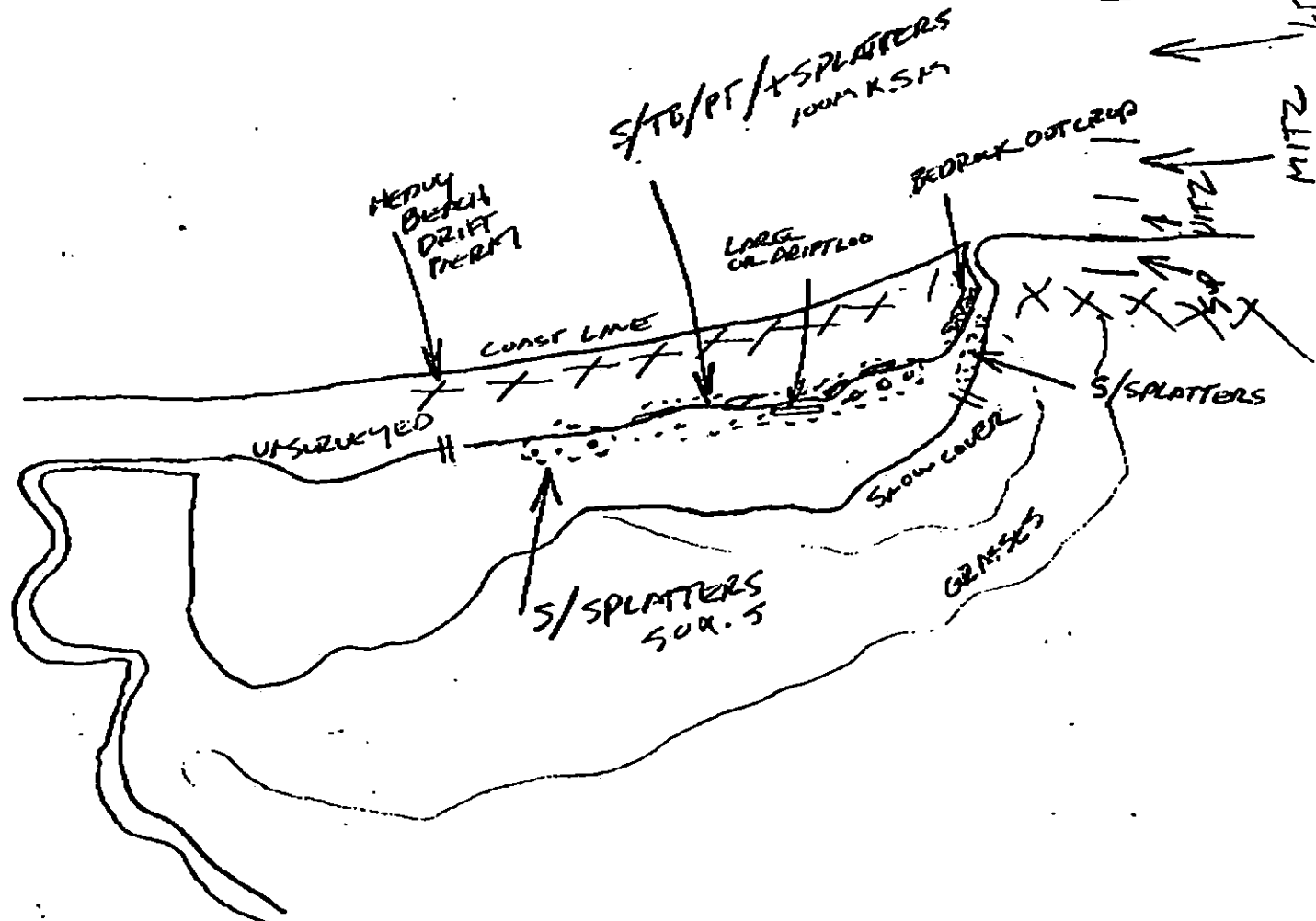
Splashed Distribution

lll

Old Vegetation

1 →

Photo location, direction, and number



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

Seg ID: XX-500

Subdiv: 262-10-10040

Survey Date: 5/2/90

Comments by: Ken Critchlow

The beach at this stream site is very high energy characterized by well-rounded pebble and cobble. A bedrock outcrop guards the stream mouth which breaks through a high storm berm and large log jam. The beach was depauperate.

A very large lagoon was present behind the storm berm. The backshore was about 50 percent covered by snow and couldn't be surveyed. About half of the remaining shore was surveyed. Small amounts of tarballs and patties were observed in the grass at the water's edge. Some mousse was present on submerged cobble in the lagoon. The extent of oring of submerged rocks couldn't be determined.

Large numbers of water fowl were observed at the north end of the lagoon. The area is obviously used for feeding and possibly nesting.

KR Critchlow

A brown bear skull (no mandible or teeth) was found at the water's edge in the lagoon. It was left in place.

AFOGNAK (C-5) QUADRANGLE
ALASKA
1:63,360 SERIES (TOPOGRAPHIC)

KRM

11/81

10040 FINAL

10060

53° 20'
158° 45'



2-10

1991 MAYSAP EVALUATION

SEGMENT: K0912XX500 SUB: M REGION: KOD SURVEY DATE: 5/20/91

ENVIRONMENTAL SENSITIVITIES:

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

Ecological/Constraints (see page two for details) 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**

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.

ADEC

NAME J. BARNHART ADFGSIGNATURE Jiff Barnhart☐ NTR ☒ Treatment Recommended

① The tar mat in Triple Lakes Creek (262-10-10040) was under approx. four feet of water. Recommend assessment at later date when water level is lower. ② AT Fourpeak Glacier (Stream 262-10-10060) The oiled area is located 20 meters from the stream bed. The band is 42 m long x 5 m wide, 50% oil coverage between the cobbles/boulders consisting of mousse/pooled oil, 9-15 cm in the thicker areas. Oil is oozing around and between cobbles. Brown oil pooled in small tidal pools. Treatment should consist of manual work with Trowels to remove the thick fluid oil from between the cobbles. Cobbles, where possible, should be rolled over and the mousse removed from under them. ③ This site is located north of Fourpeak Glacier. 6m x 2m, 30% oil coverage, mousse 25-5cm thick around cobbles/boulder. Treatment recommended using the same techniques as described for site #2.

☒ TREATMENT Suggested - CONCUR WITH ADFG/NPS Sean Gletton Kodiak Island Borough

EXXON

NAME R. HARRELSONSIGNATURE R C Harrelson

☒ NTR RECOVERY OF OILED MATERIAL AT SITE #2 WOULD BE A SLOW TEDIOUS PROCESS DUE TO THE BOULDER, COBBLE COMPOSITION OF THE BEACH. IT IS A HIGH ENERGY AREA AND AS THE BID REPORTS SHOW RECOVERY IS PROGRESSING WELL. AT SITE #3 VELD WORKERS REMOVED ALL READILY ACCESSIBLE OIL.

LANDMANAGER

NAME F. BENNETTOF NPSSIGNATURE F. Bennett☐ NTR ☒ Treatment Suggested.

SITE 1 - No oil observed. Oiled areas described from past surveys are under water.
SITE 2 - Band of oil 4-5 m wide x 42 m long is present 20 meters to the north of Four Peak Glacier Creek. This band has been previously undocumented. Oil exists in the lower part of the VITE as Mousse pooled under and between the C/B, varying in thickness from 1cm - 15cm, and as "SOR", ST, CT, and CV. Pending review by NPS, removal of recoverable oil in this location is suggested.

SITE 3 - Small 4m x 6m band of MS/IV, ST, CT, Mousse could be retrieved if a clean-up in the

USCG/NOAA

NAME CWO SPURIL G. SHIGENAKASIGNATURE R. T. Spuril / Gary Shigenaka

☐ NTR Removal of oil in site 2 is strongly recommended due to its proximity to anad stream (262-10-10060). While clean-up team is at segment it is also recommended that the 4mx6m band at site 3 be removed.

THREE SITES WITHIN THIS LENGTHY SEGMENT WERE TARGETED FOR EXAMINATION. SITE 1 WAS A STREAM-FED LAGOON THAT FLOWED ACROSS A ROUNDED COBBLE BEACH. PORTIONS OF THE LAGOON SHORELINE WERE FOUND TO BE OILED IN PREVIOUS SURVEYS; UNFORTUNATELY, A LARGE LOGJAM AT THE SOUTH END OF THE LAGOON CAUSED THOSE PORTIONS TO BE SUBMERGED AND UNSURVEYABLE. SITE 2 CONSISTED OF A BOULDER BEACH ADJACENT TO AN ANADROMOUS STREAM, TO THE NORTHEAST OF SITE 1. A WIDE BAND OF OILING WAS ENCOUNTERED HERE, NEAR THE NORTHERN BANK OF THE STREAM—THIS SOR AND MOUSSE UNDER BOULDERS WAS MADE OBVIOUS IN THE RARE SUNSHINE ENJOYED TODAY, AS THE HEAT TENDED TO MOBILIZE THE RESIDUES INTO A MORE FLUID FORM. THE EXTENT OF OILING EXCEEDED THE CAPABILITIES OF THE VECO CREW AND SURVEY TEAM TO REMEDIATE—CONSENSUS OF THE TEAM WAS THAT A DEDICATED CLEANUP TEAM WOULD BE APPROPRIATE. SITE 3, FARTHER TO THE NORTHEAST, WAS A BOULDER BEACH THAT CONTAINED A PREVIOUSLY IDENTIFIED SECTION OF OILING—THIS WAS RELOCATED UNDER A PATCH OF BOULDERS COVERED WITH FILAMENTOUS GREEN ALGA, AND THIS PATCH WAS SIMILAR IN CHARACTER TO THE OILING OBSERVED AT SITE 2: SOR WITH LIQUID MOUSSE UNDER BOULDERS. NONE OF THIS MATERIAL WAS RECOVERED, AS IT ALSO EXCEEDED THE LIMITED CAPABILITIES OF THE SURVEY TEAM.

Reviewed: MC 5/25/91
Reviewed 5.25.91

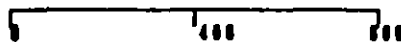
SITE #1
(NO OIL)

Driftwood and gravel
have formed a large
high ridge at the
outlet to Triple Lake
Creek. This has raised
the level of pond and
according to J. BARNHART
(NOFG) the oiled regions
of the pond are now
UNDER WATER. NO OIL
WAS FOUND AT THIS SITE
by the SURVEY TEAM.
NO SHEETS WERE SEEN AS
WELL.



K0912 XX500 AM

METERS



AK State Plane Zone 5
9802250000-5

Subdivision Field Map

Map Key: 60400012250000

Name: D. Fitzgerald

Date: 20 MAY 1991

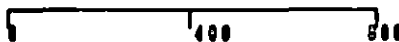
K9N-12

SITE #2



K0912 XX500 AM

METERS



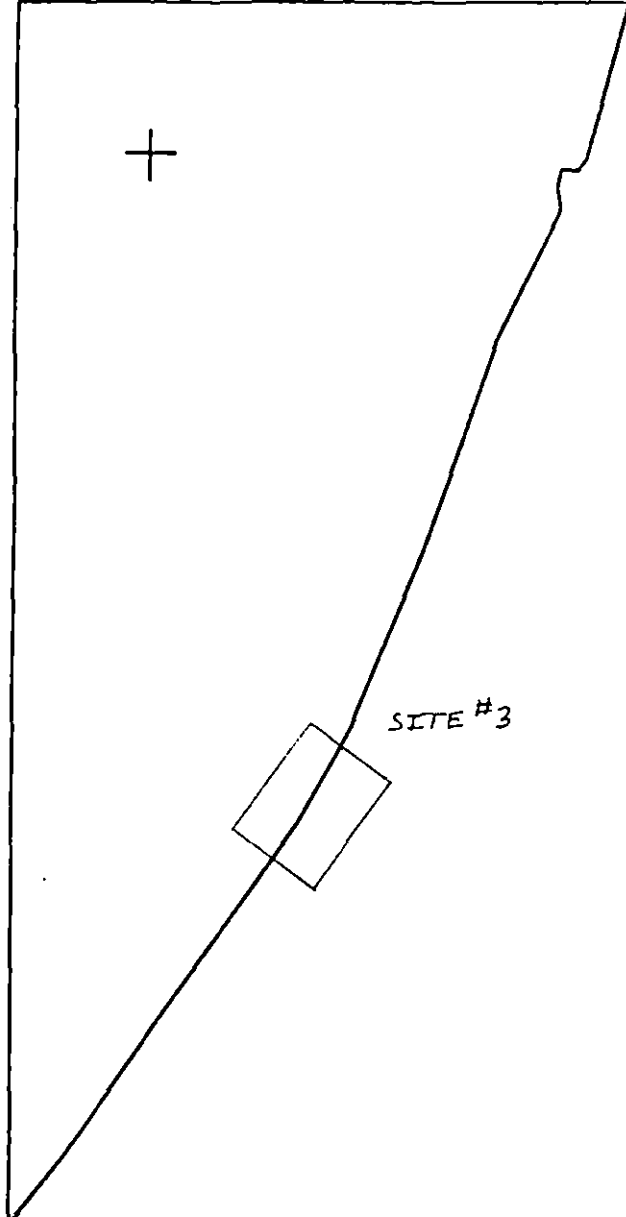
AK State Plane Zone 4
800122250000

Subdivision Field Map

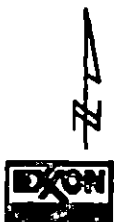
Map Key: 604200122250000

Name: D. Fitzgerald

Date: 20 MAY 1991

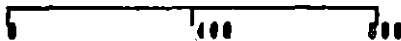


SITE #3



K0912 XX500 A M

METERS



AK State Plane Zone 4
900121150600-P.4

Subdivision Field Map

Map Key: 60A00121150600

Name: D. FITZGERALD

Date: 20 MAY 1991

\ \ \ BUSHES
 \ \ \ GRASSY
 \ \ \ AREA
 ——— LOGS
 ——— PHOTO SITES

SKETCH MAP (OG
 K9-12-XX-500-AN
 D.M. FITZGERALD
 20 MAY 1997
 1445-1650

ALASKA
PENINSULA

SITE #2

0 20
 METERS

A. MS/SOK
 4-5 by 40m, 3-10%
 I/u Boulder/Cobbles
 EXPOSED MS FLOWS IN
 HOT SUN. MS BURIED
 IN SOME AREAS BY
 5-15cm pebbly SAND

MLW

SHELIKOF
STRAIT

SITE #3

B. MS/SOK
 2 by 6m, 2-4%
 I/u Boulders
 MIXED w/ FINE
 SEDIMENT

0 50
 METERS

RU. & VECO WORKERS
 RETRIEVED 1/2 BAY
 OF OILED SEDIMENTS

REVIEWERS: MC 5/15/91 reviewed 5-25-91

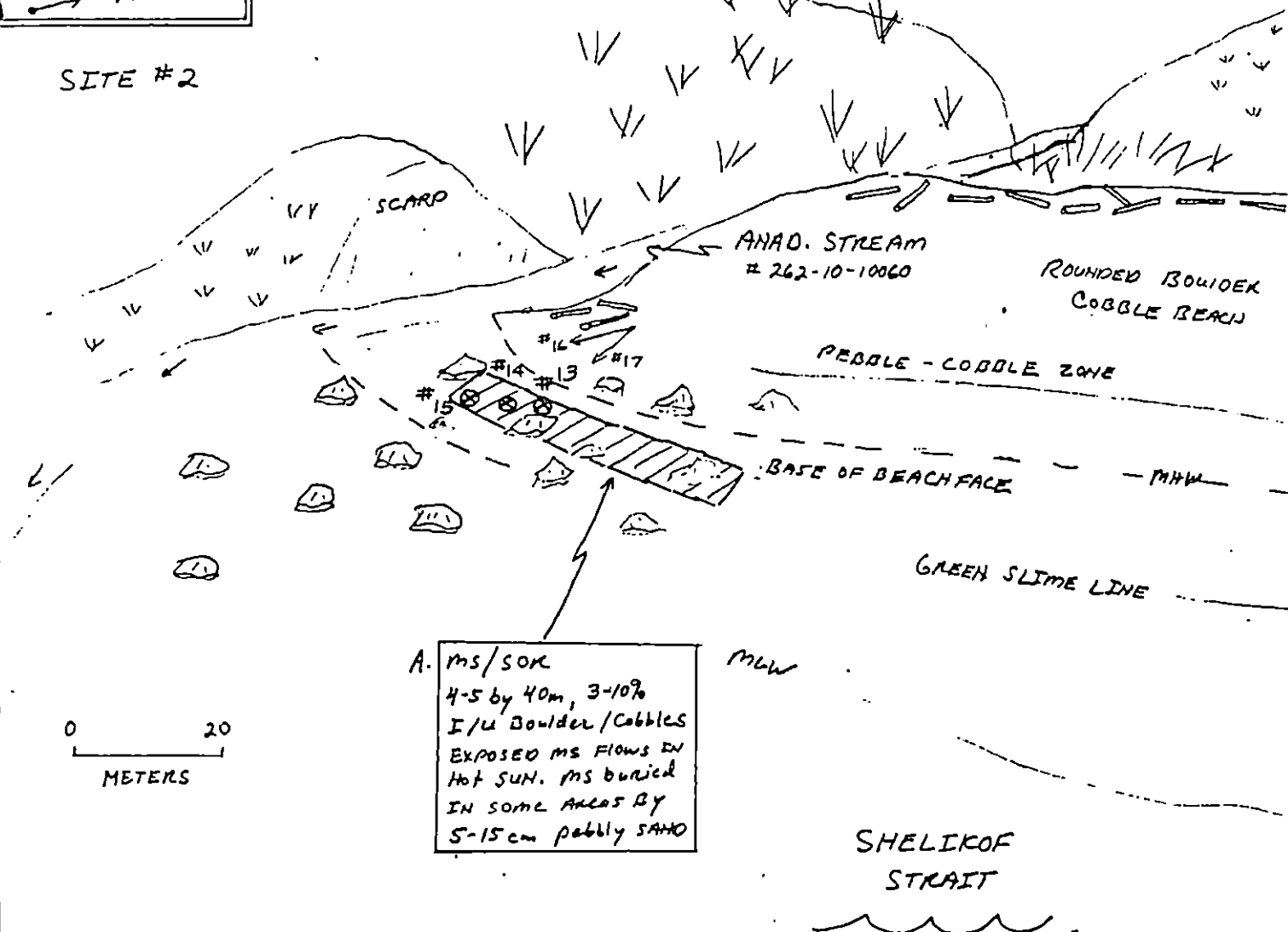
↓ ↓ ↓ BUSHES
 v v v GRASSY
 AREA
 ——— LOGS
 → PHOTO SITES

PHOTO SITES, K9-12-XX500A
ROLL 6-18, FRAMES 13 THRU 19

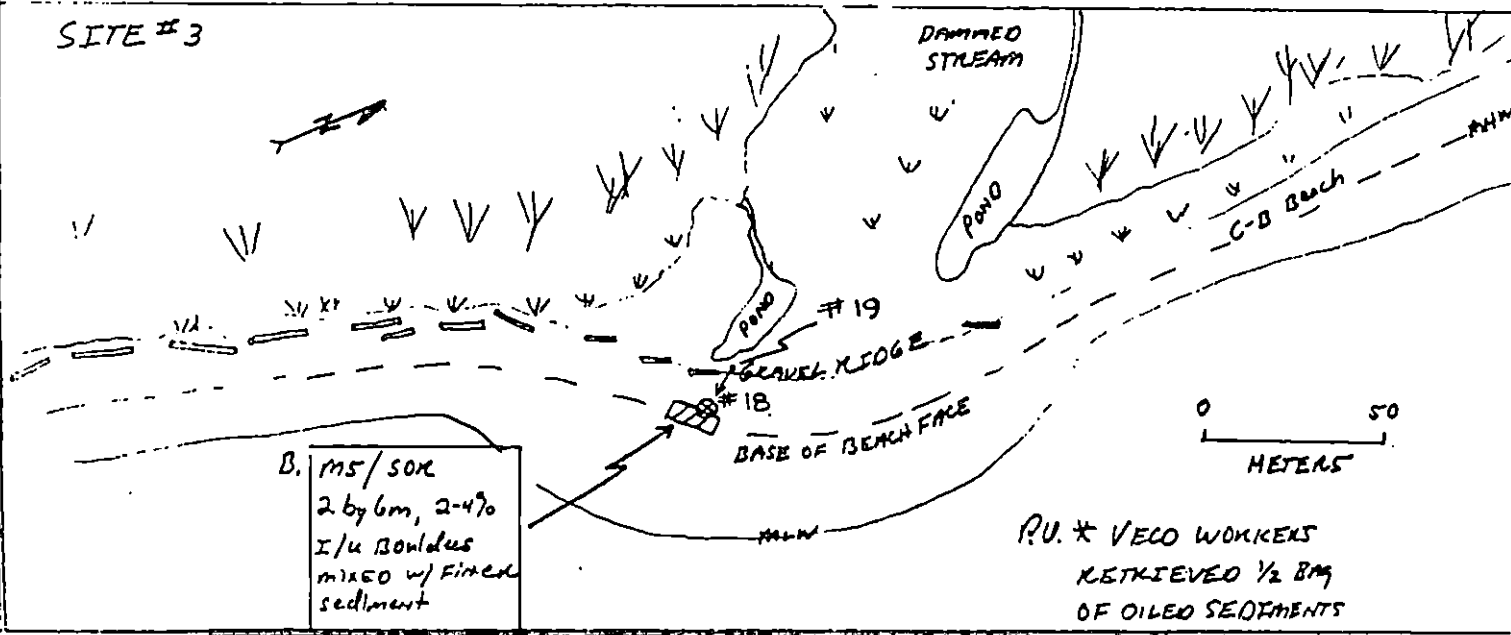
ALASKA
PENINSULA

SKETCH MAP (OG)
 K9-12-XX-500-AM
 D.M. FITZGERALD
 20 MAY 1991
 1445-1650

SITE #2



SITE #3



TEAM # 6 Helo

DATE May 20 1991

SEGMENT # K9N-12 Xx500

TIDAL HEIGHT (Range) 0-3 ft (14:45-16:50)

SUBDIVISION A/M

BIOLOGIST H. Davis

SEA STATE < 1 ft calm

WIND SPEED/DIRECTION 5-10 kts light breeze NW

PHOTOGRAPHS: ROLL # 6-18

FRAME # 13-19

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

Site 1 was a dammed up lagoon. As the helicopters landed waterfowl were flushed from the lagoon. No oil was visible due to the recit of the water. Growth around the area was following its normal pattern.

Site 2(A) This spot is next to (boulders) on Anadromous stream # 262-10-10060. The MS/SOR begins at the top of the littorine zone. Barnacles (*Balanus* + *Brachius*), littorines, limpets (*S. digitalis* N. perona) some Nucella and amphipods dominate the UETZ. Lower down in the MITZ. *Fucus*, *Scytosiphon*, *Odonthalia*, *Ulva*, *Rhodomela* and coralline algae become prevalent. Under rocks *N. perona*, amphipods, ideota, littorina eggs, Nucella eggs, and flatworms can be found. Generally a normal and healthy intertidal community for this type of shore.

Site 2(B) There was a much sparser biota in this area than there was at site 2. Barnacles, limpets, littorine, filamentous green algae were on boulders and cobbles but very little else.

Pintail (6) Surf Scoter (2) S. Scoter (20) Pelagic Cormorant (1) Harlequin (4) Red Necked Grebe (2) Kittiwake (10) Glaucous-winged Gull (5) Sandpiper (2) Wandering Tattler (2) Sparrows (4)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	1 seen, No Nest seen	Sculpin
Seabirds	1	1	
Waterfowl	5	34	
Gulls/Kittiwakes	2	15	
Shorebirds	2	4	
Corvids	0	0	
Other Birds <i>sparrows</i>	1	4	

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	0	Fox + River Otter tracks	—
Pinnipeds (specify)			
Steller's Sea Lions	6		
Whales (specify)	0		

Shoreline subdivision map showing important biological features attached.

B. Davis 5:35 PM

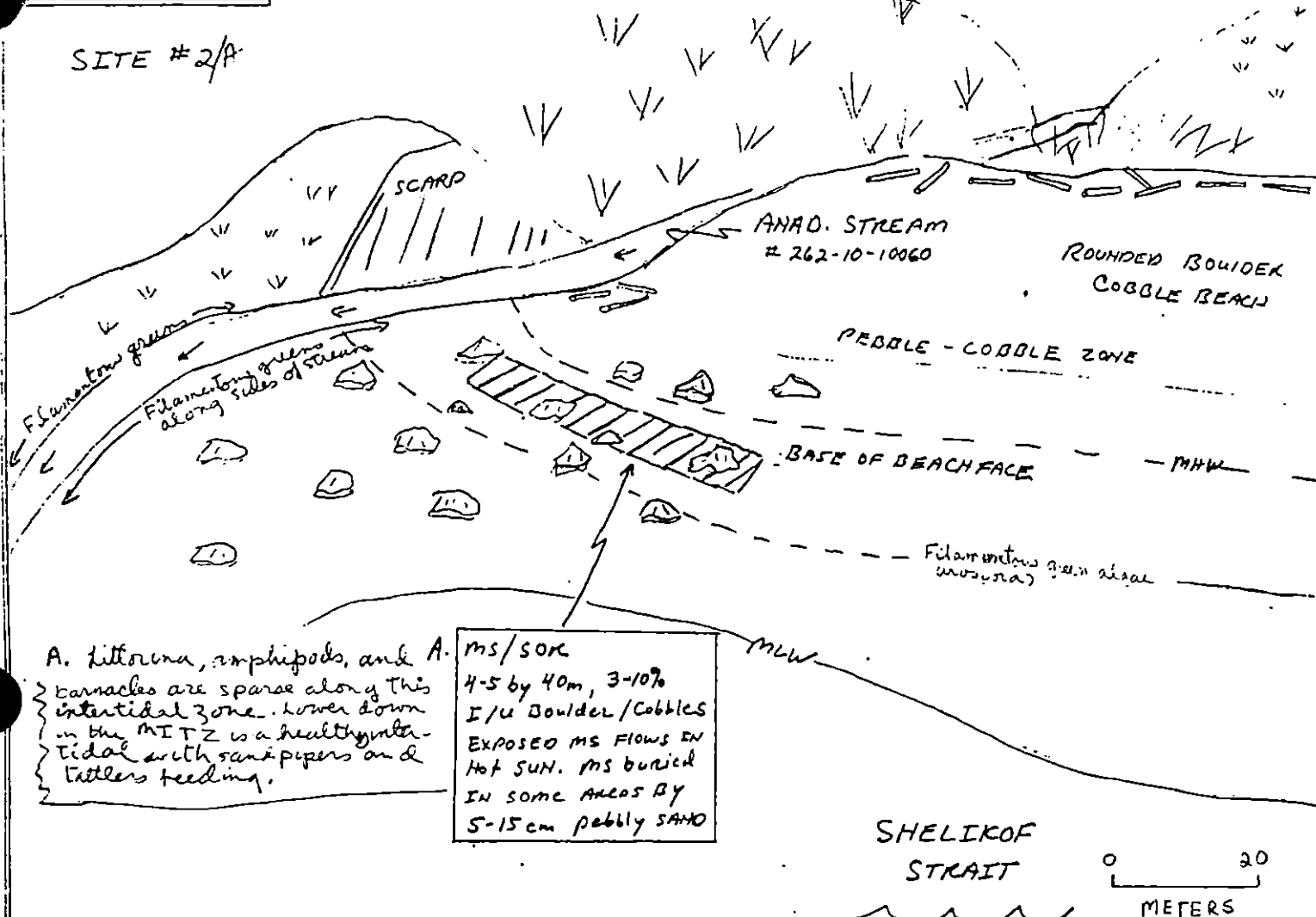
\ \ \ BUSHES
 \ \ \ GRASSY
 AREA
 — LOGS
 — PHOTO SITES

H. Davis

ALASKA
PENINSULA

SKETCH MAP (K9-12-XX-500-AM)
 D.M. FITZGERALD
 20 MAY 1991
 1445-1650

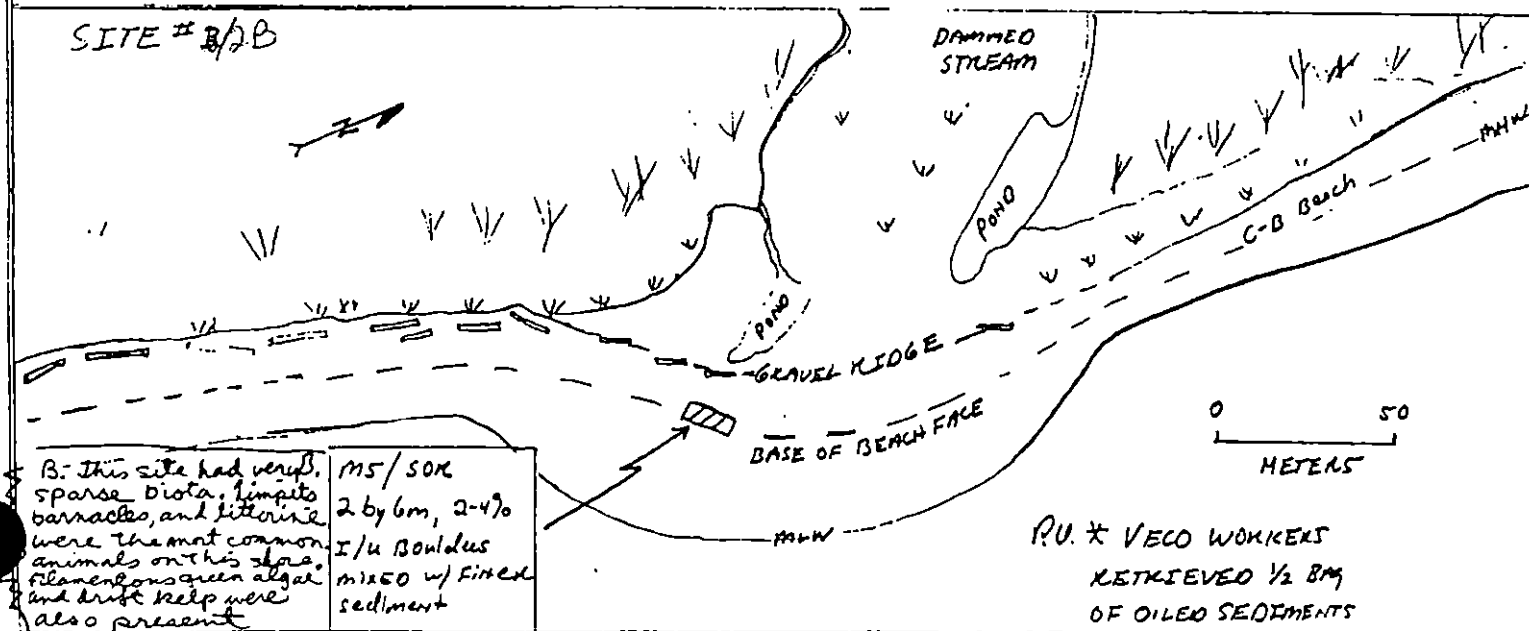
SITE #2/A



A. littorina, amphipods, and A. barnacles are sparse along this intertidal zone. Lower down in the MITZ is a healthy intertidal with sandpipers and tattlers feeding.

MS/SORC
 4-5 by 40m, 3-10%
 I/U Boulder/Cobbles
 EXPOSED MS FLOWS IN HOT SUN. MS BURIED IN SOME AREAS BY 5-15cm pebbly SAND

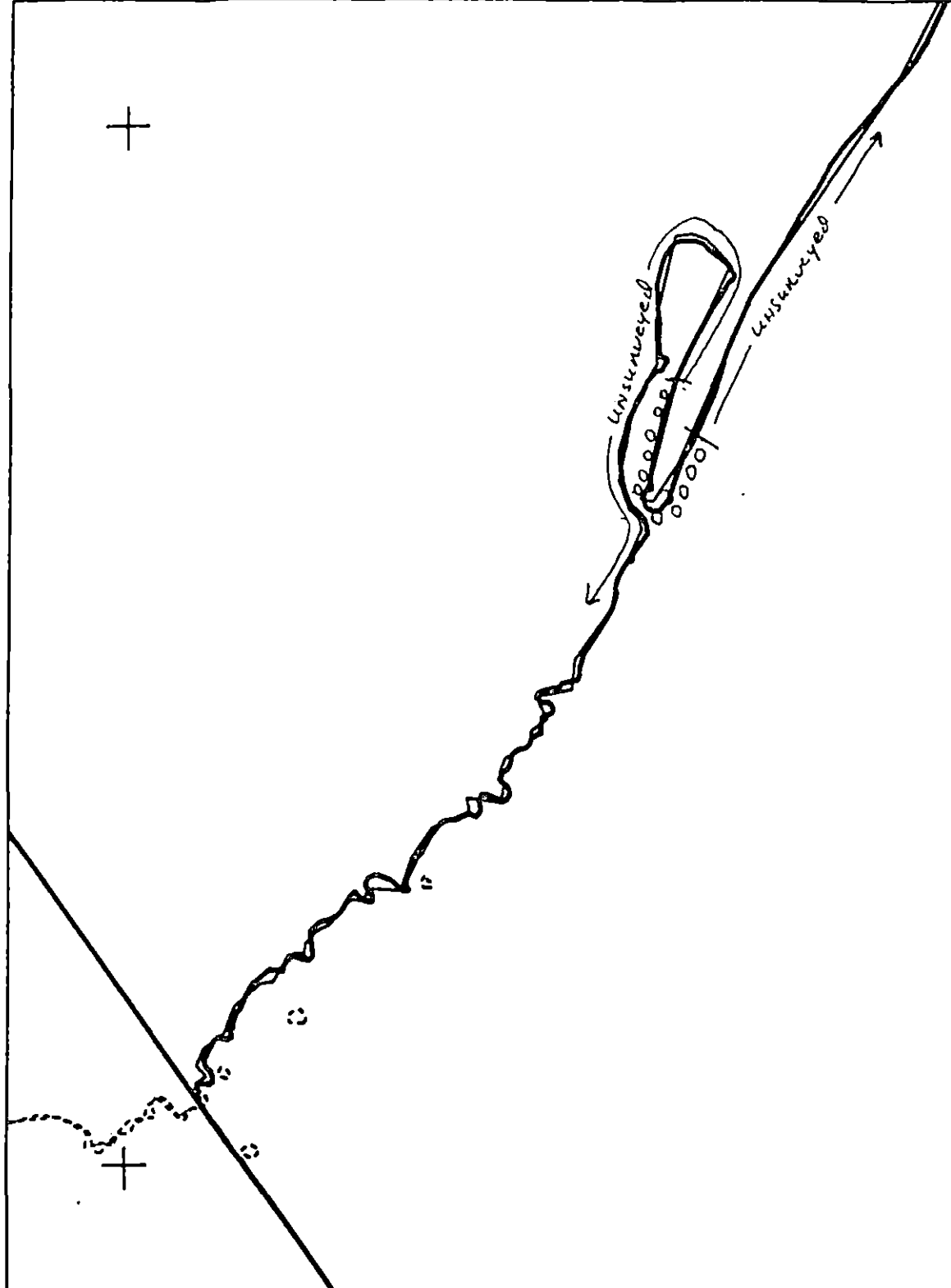
SITE #3/B



B: This site had very sparse biota. limpets, barnacles, and littorina were the most common animals on this shore. Filamentous green algal and brist kelp were also present

MS/SORC
 2 by 6m, 2-4%
 I/U Boulder mixed w/ fine sediment

PU. * VECO WORKERS
 RETRIEVED 1/2 BM
 OF OILED SEDIMENTS



XXXX	Wide	K0912 XX500 A	Subdivision Field Map
////	Medium	ADEC Subsegment Length: 10863m	Map Key: 00AK0012XX500Aa
----	Narrow	METERS	Name: <u>D. Fitzgerald</u>
TTTT	Very Light	0 400 800	Date: <u>20 MAY 1991</u>
0000	No Oil	AK State Plane Zone 4 90912xx500aa-1 . . .	Date Entered:



Reviewed: MC 5/25/91
 reviewed 5-25-91

K9N-12

ANAD.
STREAM
UNSUBSIDIZED
40m
MEDIAN

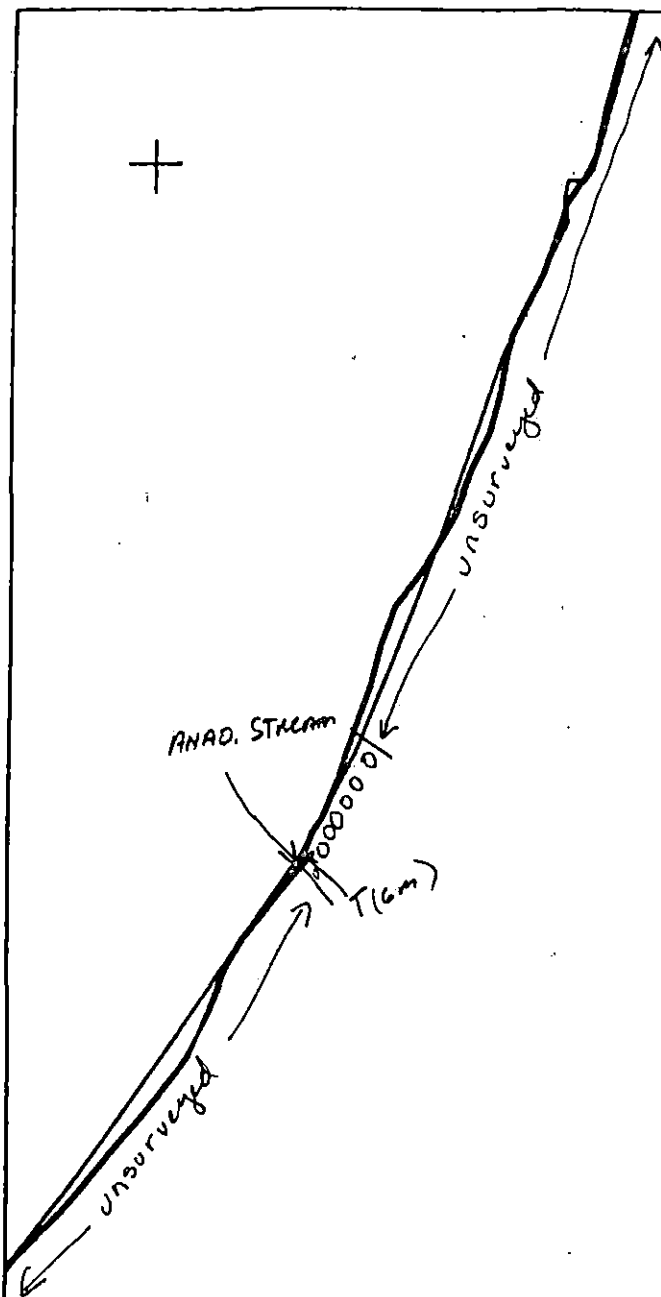
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

K0912 XX500 A
ADEC Subsegment Length: 10963m
METERS
AK State Plane Zone 4
90912xx500ab

Subdivision Field Map
Map Key: 00AK0012XX500AB
Name: D. Fitzgerald
Date: 20 MAY 1991
Data Entered:



REVIEWED: MC 5/25/91
reviewed 5.25.91



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

K0912 XX500 A
 ADEC Subsegment Length: 10963m
 METERS
 0 400 800
 AK State Plane Zone 4
 90912xx500ac- . . .



Subdivision Field Map
 Map Key: 00AK0012XX500Ac
 Name: D. Fitzgerald
 Date: 20 MAY 1991
 Date Entered:

REVIEWED: MC 5/25/91
 revised 5.25 Gy

1991 MAYSAP EVALUATION

SEGMENT: K0912XX500 SUB: M REGION: KOD SURVEY DATE: 5/20/91ENVIRONMENTAL SENSITIVITIES:Work Window(s) OPEN 5/1 - 7/10; RESTRICTED 7/10 - 9/15Ecological/Constraints (see page two for details) Anadromous streamARCHAEOLOGICAL 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 Odom for SHPO 6/04/91

RECOMMENDATIONS:

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

COMMENTS:INITIAL:

TAG: MANUAL P/U OF EASILY ACCESSIBLE MS/AP/HBOR
AT SITES 2 + 3. IF POSSIBLE ASSESS SITE 1.
IF MS/AP PRESENT P/U

FOSC: TAG APPROVAL DATE: June 4 1991FOSC APPROVAL DATE: 6/9/91ADEC *John Bane*FOSC *ECF*EXXON *Beal*

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

USCG *Edna*NOAA *John*

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

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. 6-HELO SEGMENT K9N-12-XX-500 SUBDIVISION AM DATE 20/ May 191

ADEC

NAME J. BARNHART ADFGSIGNATURE Jeff Barnhart☐ NTR ☒ Treatment Recommended

① The Tar mat in Triple Lakes creek (262-10-10040) was under approx. four feet of water. Recommend assessment at later date when water level is lower. ② AT Fourpeak Glacier (stream 262-10-10060) The oiled area is located 20 meters from the stream bed. The band is 42 m long x 5 m wide, 50% oil coverage between the cobbles/boulders consisting of mousse/pooled oil, 9-15 cm in the thicker areas. Oil is oozing around and between cobbles. Brown oil pooled in small tidal pools. Treatment should consist of manual work with Trowels to remove the thick fluid oil from between the cobbles. Cobbles, where possible, should be rolled over and the mousse removed from under them. ③ This site is located north of Fourpeak Glacier. 6m x 2m, 20% oil coverage, mousse 2-5 cm thick around cobbles/boulder. Treatment recommended using the same techniques as described for site #2.

☒ TREATMENT Suggested - CONCUR WITH ADFG/NPS) Seaton Shotton KODIAK Island Borough

EXXON

NAME R. HARRELSONSIGNATURE R C Harrelson☒ NTR

RECOVERY OF OILED MATERIAL AT SITE #2 WOULD BE A SLOW, TEDIOUS PROCESS DUE TO THE BOULDER, COBBLE COMPOSITION OF THE BEACH. IT IS A HIGH ENERGY AREA AND RE THE BID REPORTS SHOWS RECOVERY IS PROGRESSING WELL. AT SITE #3 VELD WORKERS REMOVED ALL READILY ACCESSIBLE OIL.

LANDMANAGER

NAME F. BENNISOF NPSSIGNATURE F. Bennis☐ NTR☒ Treatment suggested.

Site 1 - No oil observed. Oiled areas described from past surveys are under water.
 Site 2 - Band of oil 4-5 m wide x 42 m long is present 20 meters to the north of Four Peak Glacier Creek. This band has been previously undocumented. Oil exists in the lower part of the UITE as Mousse pooled under and between the C/B, varying in thickness from 1 cm - 15 cm, and as "SOR", ST, CT, and CV. Pending review by NPS, removal of recoverable oil in this location is suggested.

Site 3 - Small 4m x 6m band of MS/IV, ST, ST, Mousse could be retrieved if a clean-up crew in the area.

USCG/NOAA

NAME CWO SPURIL / G. SHIGENAKA SIGNATURE G. Shigenaka☐ NTR

Removal of oil in site 2 is strongly recommended due to its proximity to a stream (262-10-10060). While clean-up team is at segment it is also recommended that the 4m x 6m band at site 3 be removed.

THREE SITES WITHIN THIS LENGTHY SEGMENT WERE TARGETED FOR EXAMINATION. SITE 1 WAS A STREAM-FED LAGOON THAT FLOWED ACROSS A ROUNDED COBBLE BEACH. PORTIONS OF THE LAGOON SHORELINE WERE FOUND TO BE OILED IN PREVIOUS SURVEYS; UNFORTUNATELY, A LARGE LOGJAM AT THE SOUTH END OF THE LAGOON CAUSED THOSE PORTIONS TO BE SUBMERGED AND UNSURVEYABLE. SITE 2 CONSISTED OF A BOULDER BEACH ADJACENT TO AN ANAEROBIC STREAM, TO THE NORTHEAST OF SITE 1. A WIDE BAND OF OILING WAS ENCOUNTERED HERE, NEAR THE NORTHERN BANK OF THE STREAM - THIS SOR AND MOUSSE UNDER BOULDERS WAS MADE OBVIOUS IN THE RARE SUNSHINE ENJOYED TODAY, AS THE HEAT TENDED TO MOBILIZE THE RESIDUES INTO A MORE FLUID FORM. THE EXTENT OF OILING EXCEEDED THE CAPABILITIES OF THE VECO CREW AND SURVEY TEAM TO REMEDIATE - CONSENSUS OF THE TEAM WAS THAT A DEDICATED CLEANUP TEAM WOULD BE APPROPRIATE. SITE 3, FARTHER TO THE NORTHEAST, WAS A BOULDER BEACH THAT CONTAINED A PREVIOUSLY IDENTIFIED SECTION OF OILING - THIS WAS RELOCATED UNDER A PATCH OF BOULDERS COVERED WITH FILAMENTOUS GREEN ALGA, AND THIS PATCH WAS SIMILAR IN CHARACTER TO THE OILING OBSERVED AT SITE 2: SOR WITH LIQUID MOUSSE UNDER BOULDERS, NONE OF THIS MATERIAL WAS RECOVERED, AS IT ALSO EXCEEDED THE LIMITED CAPABILITIES OF THE SURVEY TEAM.

PAGE 1 OF 1

DATE 20 / MAY / 91

USCG/NOAA CWO SPURR/G. SLIGENAKA

ENERGY LEVEL: ☒ H ☐ M ☐ L

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

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

EST. OIL CATEGORY LENGTH: W 1 m M 40 m N 92 m VL 6 m NO 554 m US 10363 m

SITE #2
SITE #3

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

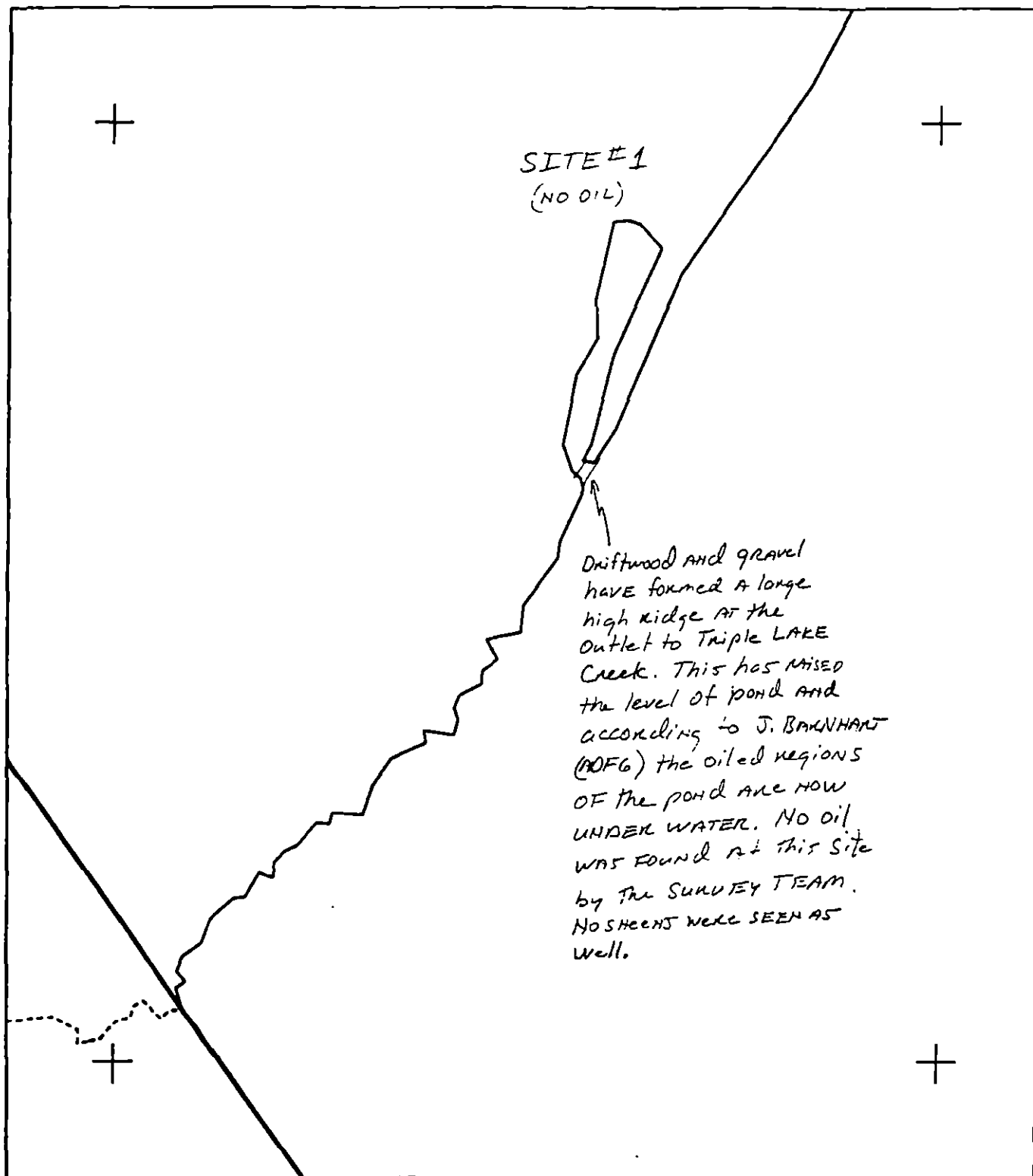
SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE PHOTO ROLL # MAYSAP- 6 - 18 FRAMES 13-19

[illegible]

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

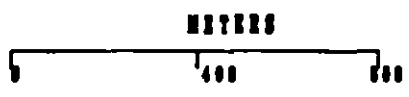
OG COMMENTS: This segment is an exposed shoreline south of Cape Douglas. The sites visited along this segment included three stream mouths. At site #1 a gravel ridge has dammed the stream and raised the water level in the pond. No oil was observed at this site. At the other two sites MS/SOR occurred in a 40 and 6 m length of the shoreline in the LITZ along the beachface in boulder-cobble areas. In some instances, a thin layer of pebbly sand covers the oil. In the warm sun the mousse produces flowing ribbons and small pools of oil.

Reviewed: MC 5/25/91
Reviewed 5.25.98



K0912 XX500 AM

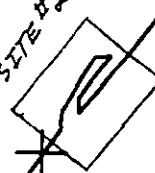
Subdivision Field Map
Map Key: COA0012XX001a
Name: D. Fitzgerald
Date: 20 MAY 1991



AK State Plane Zone 4
90012250000-0000

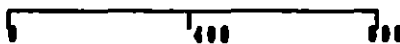
K9N-12

SITE #2



K0912 XX500 AM

METERS



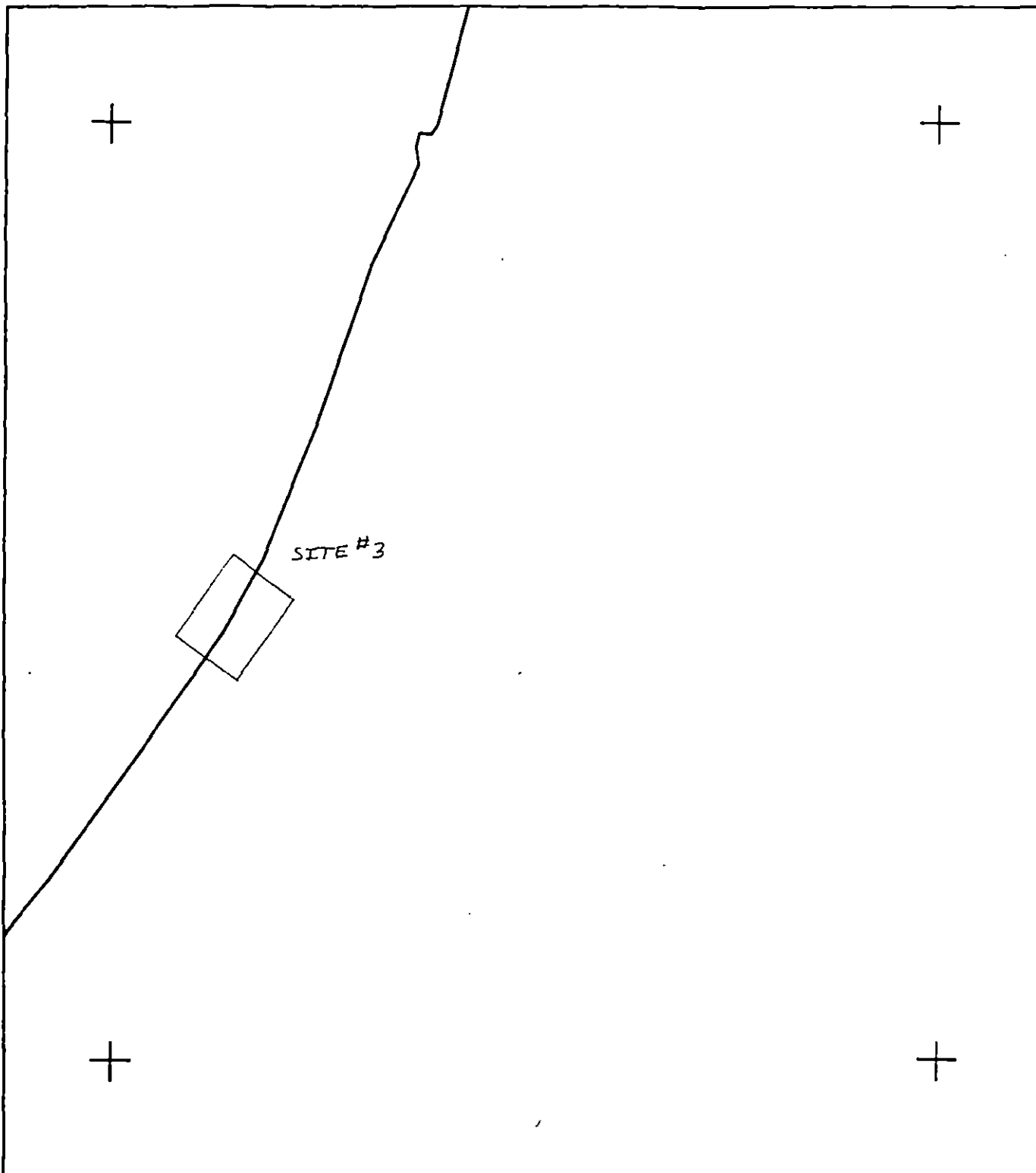
AK State Plane Zone 14
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Subdivision Field Map

Map Key: COAX0012XX500000

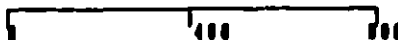
Name: D. F. Fitzgerald

Date: 20 MAY 1991



K0912 XX500 A M

METERS



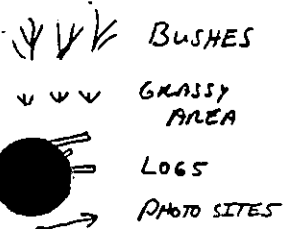
AK State Plane Zone 5
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Subdivision Field Map

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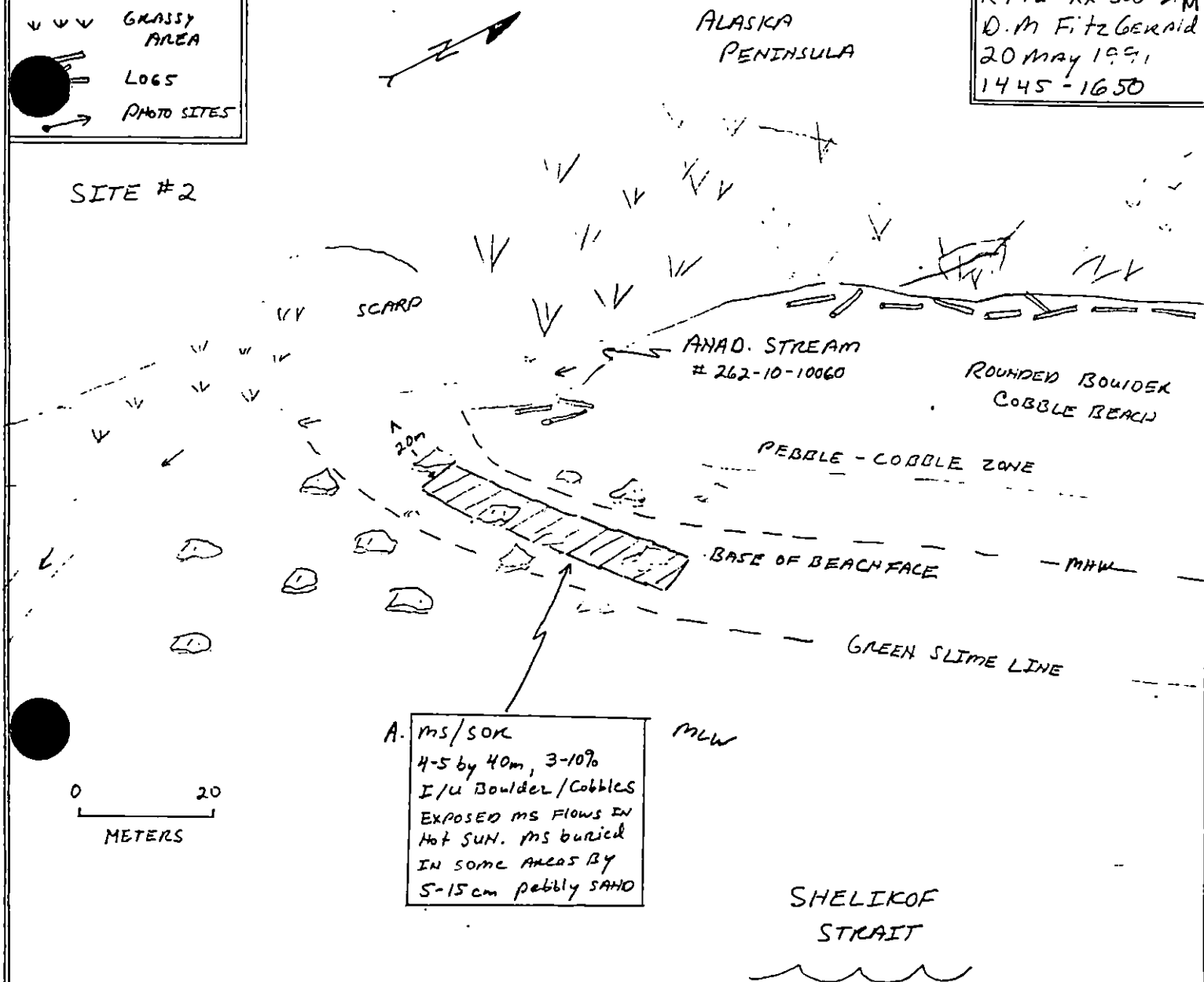
Name: D. FITZGERALD

Date: 20 MAY 1991



SKETCH MAP (OG.
 K9-12-XX-500-AM
 D.M. FITZGERALD
 20 May 1991
 1445-1650

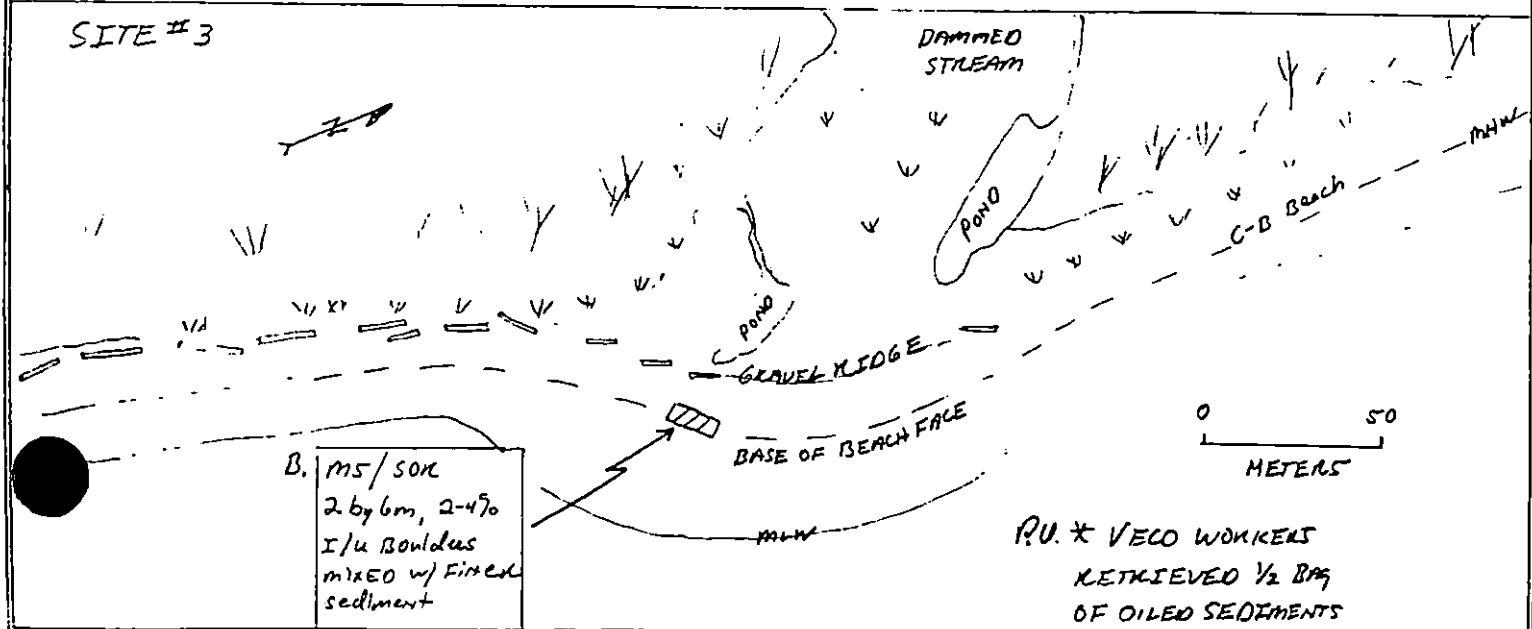
SITE #2



A. MS/SOK
 4-5 by 40m, 3-10%
 I/u Boulder/Cobbles
 EXPOSED MS FLOWS IN
 HOT SUN. MS BURIED
 IN SOME AREAS BY
 5-15cm pebbly SAND

SHELIKOF STRAIT

SITE #3



B. MS/SOK
 2 by 6m, 2-4%
 I/u Boulders
 MIXED w/ FINE
 sediment

P.U. * VECO WORKERS
 RETRIEVED 1/2 BAG
 OF OILED SEDIMENTS

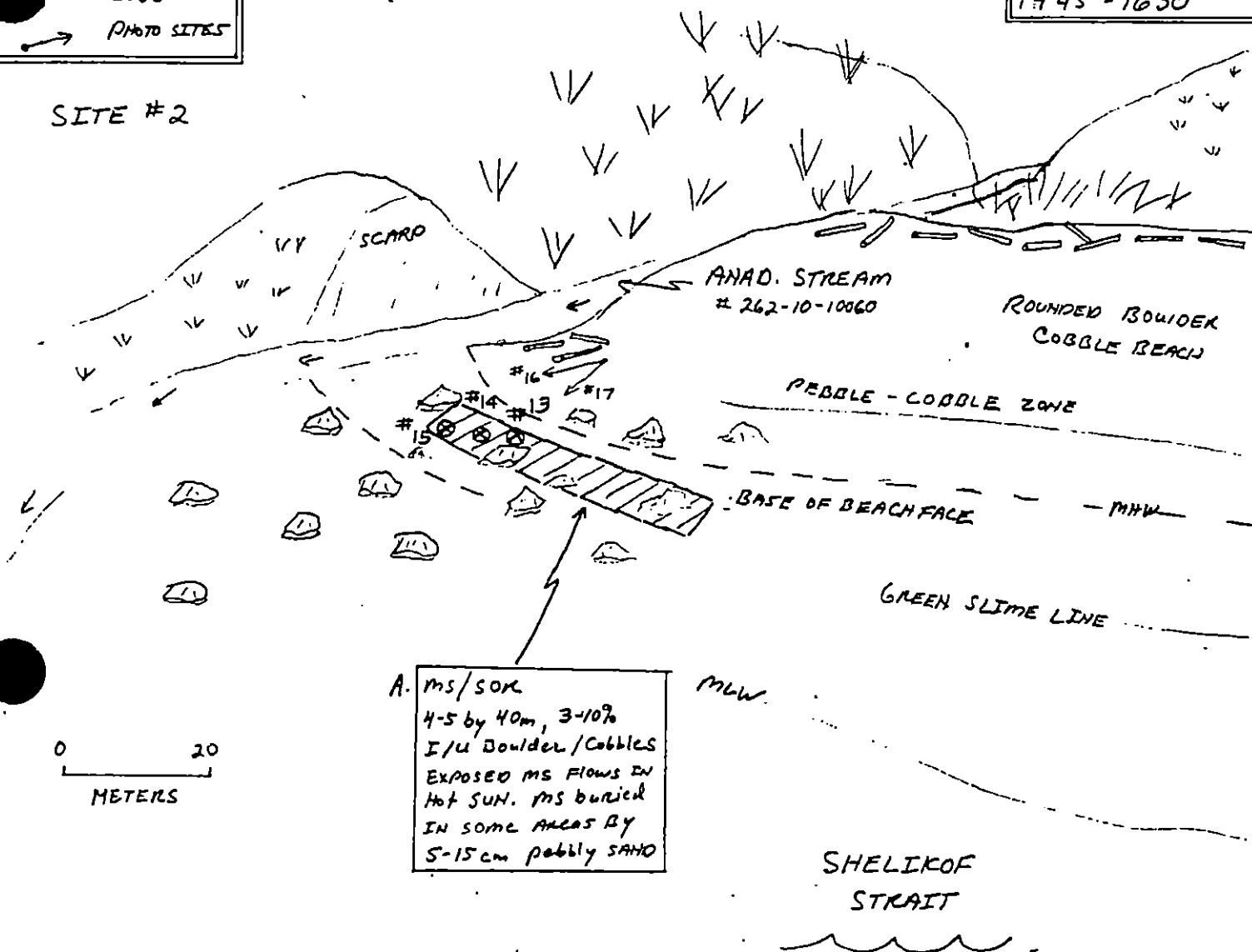
- BUSHES
- GRASSY AREA
- LOGS
- PHOTO SITES

PHOTO SITES, K9-12-XX500A
ROLL 6-18, FRAMES 13 THRU 19

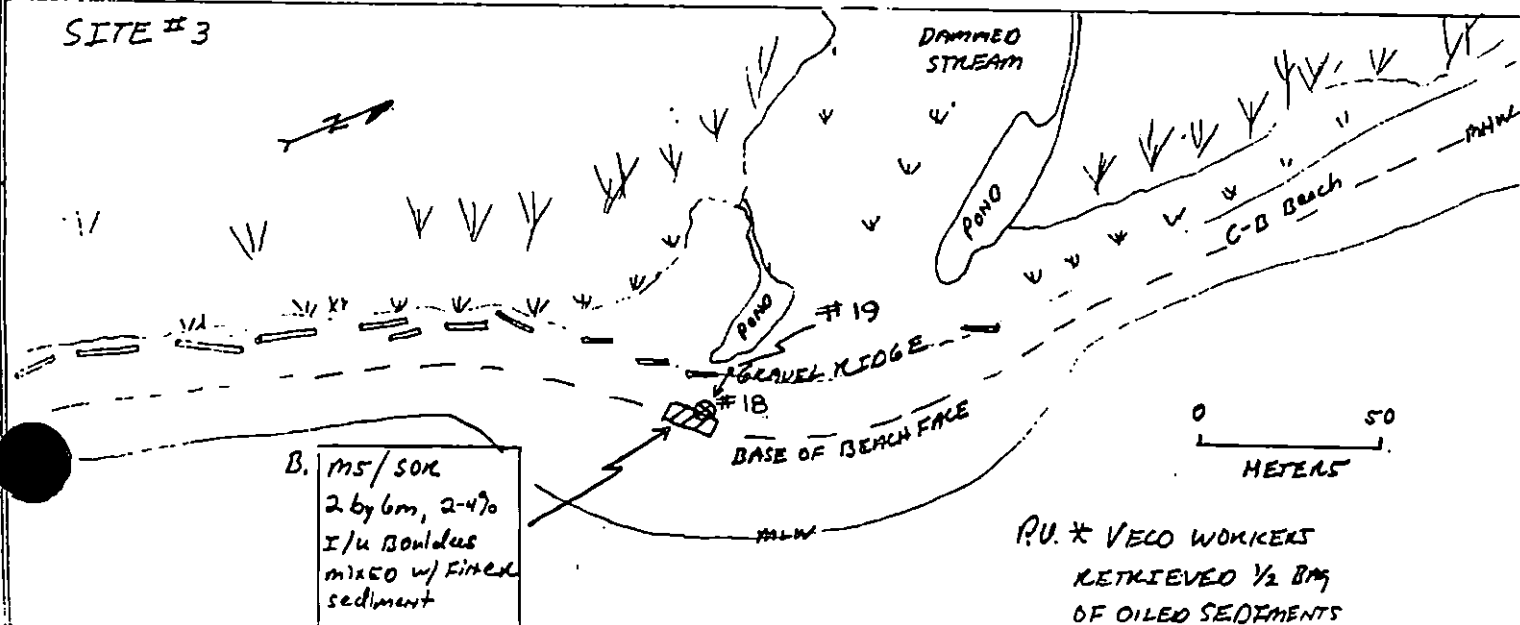
ALASKA
PENINSULA

SKETCH MAP (OG)
K9-12-XX-500-AM
D.M. FITZGERALD
20 MAY 1991
1445-1650

SITE #2



SITE #3



MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 20 1991

SEGMENT # K9N-12. XX500

TIDAL HEIGHT (Range) 0-3 ft (14:45-16:50)

SUBDIVISION *A.M.*

BIOLOGIST H. Davis

SEA STATE < 1/2 calm

WIND SPEED/DIRECTION S-10KTS light breeze UW

PHOTOGRAPHS: ROLL # 6-18

FRAME # 13-19

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

Site 1 - was a dammed up lagoon. As the helicopters landed waterfowl were flushed from the lagoon. No oil was visible due to the height of the water. Growth around the area was following its normal pattern.

Site 2(A) This spot is next to (20 meters) an Anadromous stream # 262-10-10060. The MS/SOR begins at the top of the littorine zone. Barnacles (*Balanus* + *Balanus*), Littorines, limpets (*C. digitalis*, *N. perovra*), some *Nucella* and amphipods dominate the MITZ. However down in the MITZ. *Fucus*, *Scytosiphon*, *Odonthalis*, *Ulva*, *Rhodomela* and coralline algae become prevalent. Under rocks *N. perovra*, amphipods, ideoea, littorina eggs, *Nucella* eggs, and flatworms can be found. Generally a normal and healthy intertidal community for this type of shore.

Site 2(B) There was a much sparser biota in this area than there was at site 1. Barnacles, limpets, Littorina, filamentous green algae were on boulders and cobbles but very little else.

Pintail (6) Surf Scoter (2) ? Scoter (20) Pelagic Cormorant (1) Harlequin (4) Red Winged Greb (2)
Kittiwake (10) Glaucous-winged Gull (5) Sandpiper (2) Wandering Tattler (2) Sparrows (4)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	1 seen in Nest seen	Sculpin
Seabirds	1	1	
Waterfowl	5	34	
Gulls/Kittiwakes	2	15	
Shorebirds	2	4	
Corvids	0	0	
Other Birds <i>seamons</i>	1	4	

MARINE MAMMALS

OBSERVED

LAND MAMMALS SPECIES

OBSERVED

Sea Otters	0	Fox + River Otter tracks	—
Pinnipeds (specify)			
Steller's Sea Lions	6		
Birds (specify)	0		

Shoreline subdivision map showing important biological features attached.

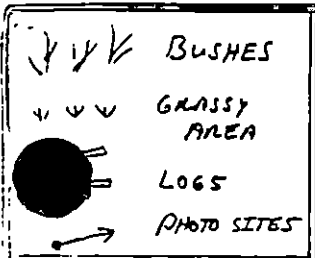
P.

BIO MAP

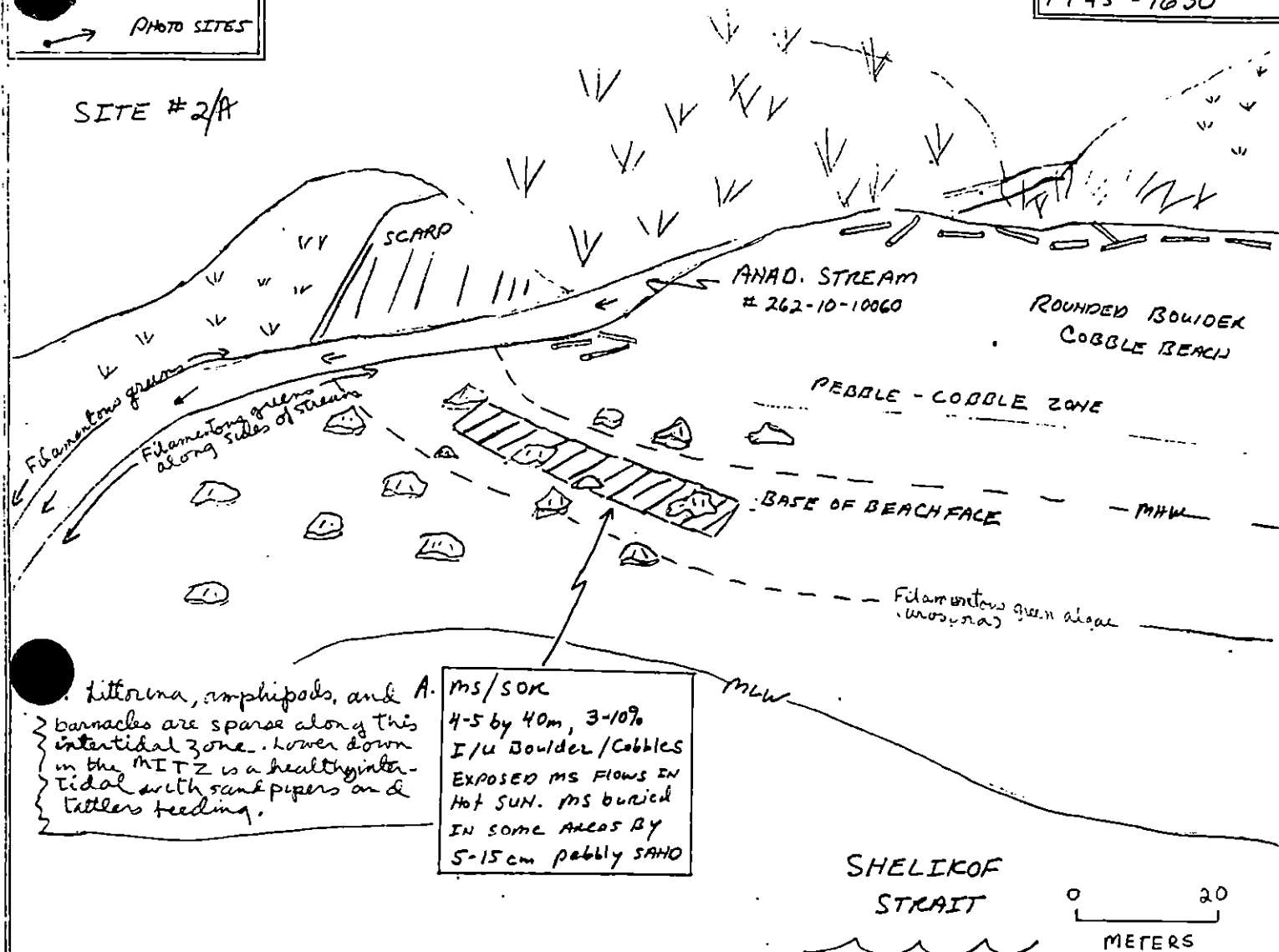
H. Davis

ALASKA
PENINSULA

SKETCH MAP (REV)
K9-12-XX-500-AM
D.M. FITZGERALD
20 May 1991
1445-1650



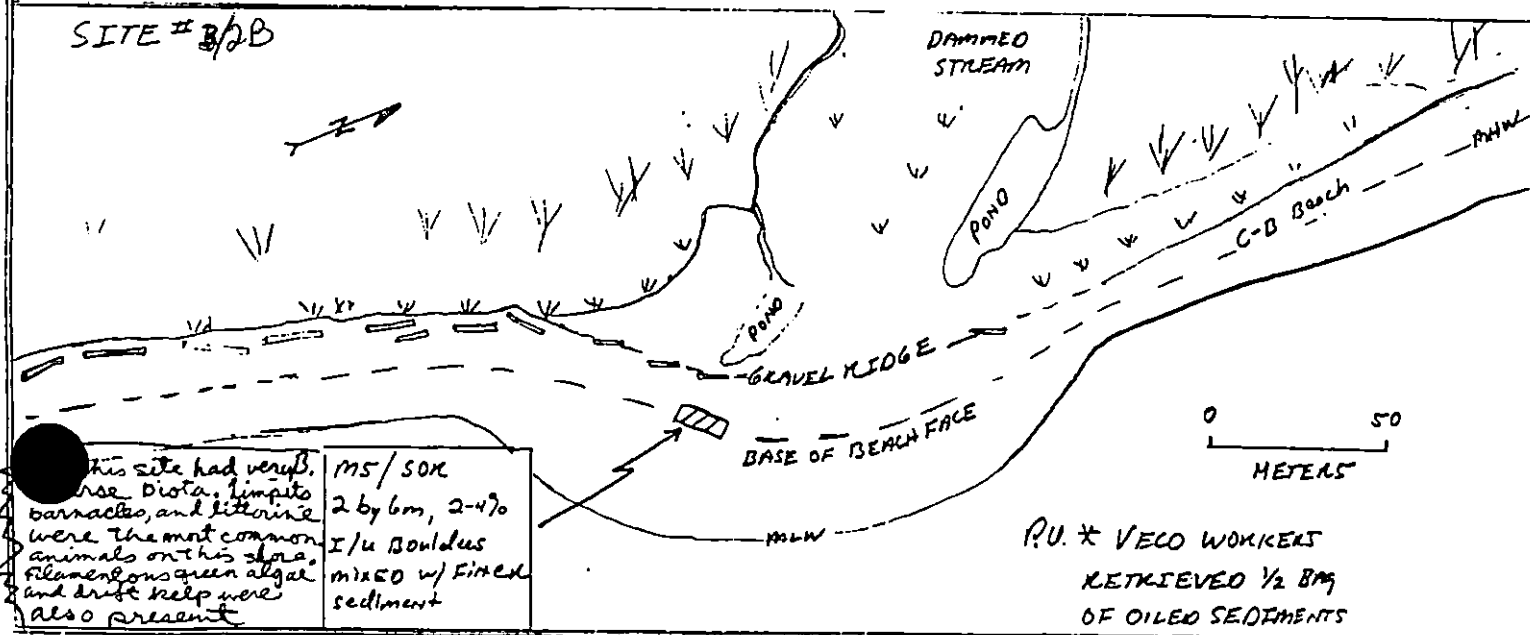
SITE #2/A



Littorina, amphipods, and A. barnacles are sparse along this intertidal zone. Lower down in the MIZ is a healthy intertidal with sandpipers and eiders feeding.

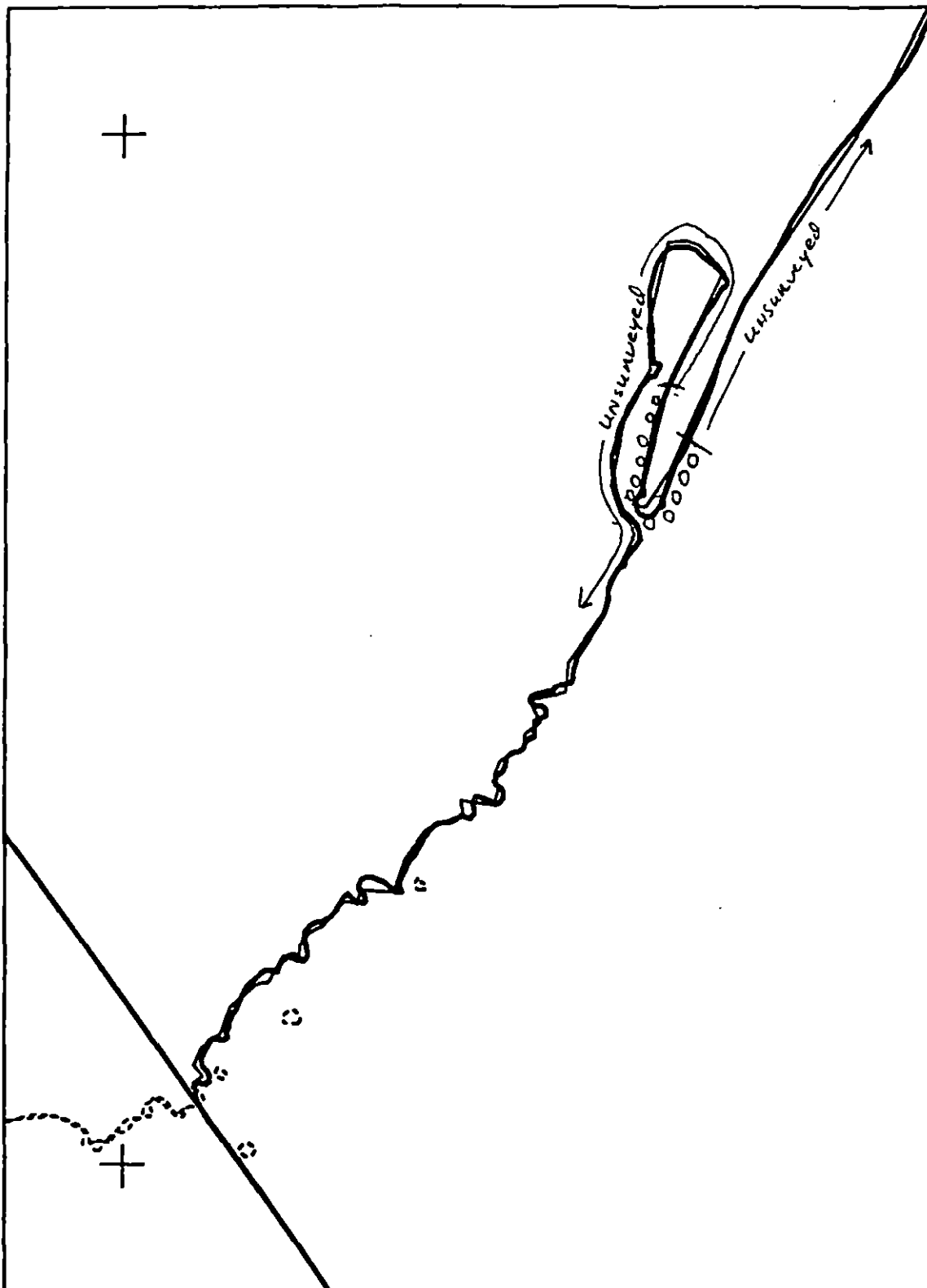
MS/SOK
 4-5 by 40m, 3-10%
 I/u Boulder/Cobbles
 EXPOSED MS FLOWS IN HOT SUN. MS BURIED IN SOME AREAS BY 5-15cm pebbly SAND

SITE #3/B



This site had very few Diptera, limpets, barnacles, and Littorina were the most common animals on this shore. Filamentous green algae and drift kelp were also present.

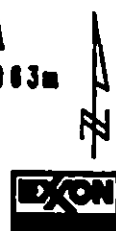
MS/SOK
 2 by 6m, 2-4%
 I/u Boulders
 MIXED w/ FINE sediment



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

K0912 XX500 A
 ADEC Subsegment Length: 10963m
 METERS

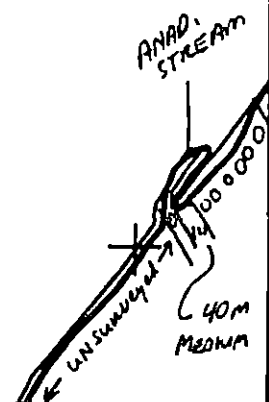
AK State Plane Zone 4
 90012xx500m



Subdivision Field Map
 Map Key: 60AK0012XX500A
 Name: D. Fitzgerald
 Date: 20 MAY 1991
 Data Entered:

Reviewed: MC 5/25/91
 reviewed 5.25 gy

K9N-12



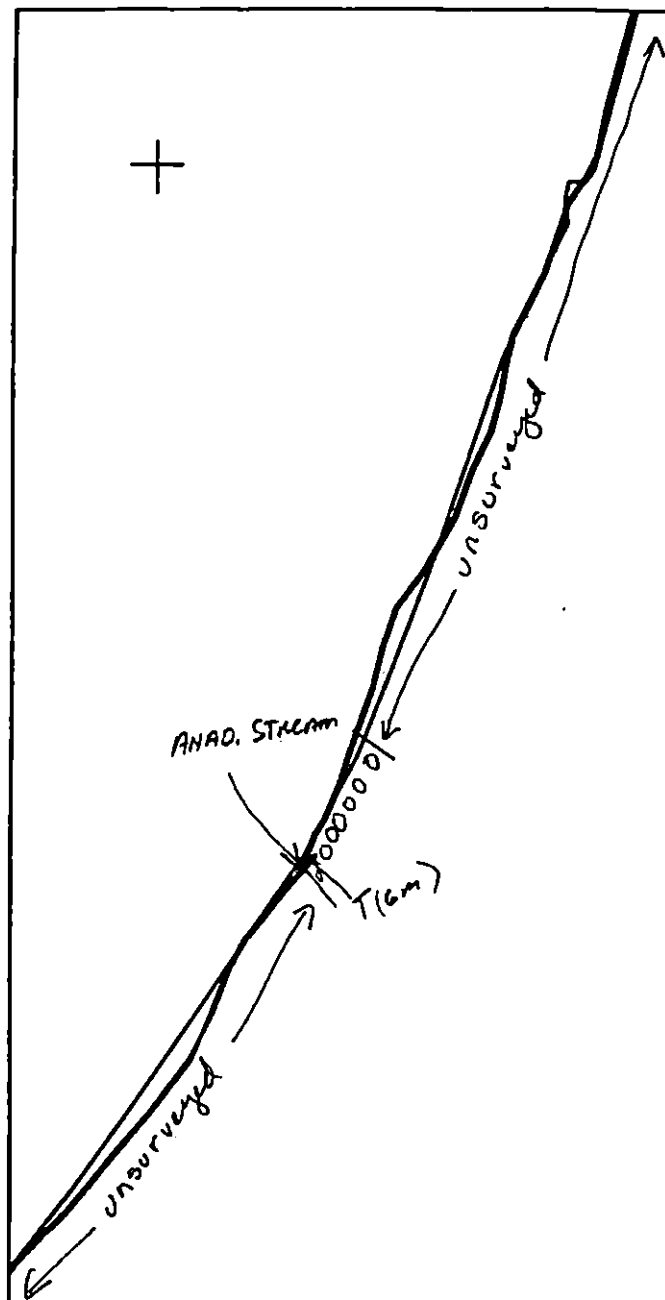
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

K0912 XX500 A
ADEC Subsegment Length: 10063m
METERS
AK State Plane Zone 4
90012xx500ab



Subdivision Field Map
Map Key: 60AK0012XX500Ab
Name: D. Fitzgerald
Date: 20 MAY 1991
Date Entered:

Revised: MC 5/25/91
reviewed 5.25.91



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

K0912 XX500 A
 ADEC Subsegment Length: 10983m
 METERS
 0 400 800
 AK State Plane Zone 4
 90912xx500ac



Subdivision Field Map
 Map Key: 00AK0012XX500Ac
 Name: D. Fitzgerald
 Date: 20 MAY 1991
 Date Entered:

Reviewed: MC 5125791
 revised 5.25 94

ANADROMOUS FISH STREAM ASSESSMENT

REGION: KODIAK

SEGMENT: ST/K09-12

SUBDIVISION: A

STREAM NO: 262-10-10040

K0912 X 500 AS

THIS IS A TWO PART SURVEY DUE TO SNOW
COVER DURING THE FIRST SURVEY.

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/K09-12 STREAM NO: 262-10-10040 DATE 6/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
5S Shorebird/waterfowl concentration (4/25 to 5/15)
See attached Ecological Constraint sheet for specific constraints and contracts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

See above.

ARCHAEOLOGICAL CONSTRAINTS:

Cultural resource survey in progress. Shoreline treatment cannot proceed until field data have been assessed and a formal archaeological constraint entered on the shoreline evaluation form.

SHPO SIGNATURE: _____ DATE: _____

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment is manual removal of mousse, patties and oiled debris as shown on attached sketch map.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

FIELD SHORELINE COMMENT SHEET

Triple Lakes Creek

SEGMENT ST 1 K-912/XX500 SUBDIVISION: Stream # 262-10-10040 DATE 6/1/90

NORA
USCG
NAME

Tom Callahan SIGNATURE Tom Callahan

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

The storm berm has moved and partially blocked the stream mouth, causing the lagoon level to rise. This occurred after ~~mousse~~ mousse floated in and settled along an edge of the lagoon. As a result, mousse was found incorporated with flooded vegetation in 2-3 ft of water. This mousse/vegetation mixture is recoverable and is still able to ~~create~~ ^{cause} a sheen when disturbed. Suggest this be removed prior to salmon spawning in the area containing mousse.

ADEC

NAME Terry Ellsworth SIGNATURE Terry Ellsworth

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Oil occurs as cu-ct-st on cobbles, driftwood and trash and as a mousse-vegetation mat within the lagoon. The oiled cobbles and ms-veg. mat are presently submerged under 30 cm of water ~~at~~ 3m from the present shoreline. A thin film of silt covers the area making it difficult to see. Water level in the lagoon is not influenced by daily tidal action. Survey was not completed due to a bear on the nearby beach. Manual removal of ms-veg mat and driftwood and cleaning of heavy coat-cover on cobbles is recommended before fish spawn. If assessment is not completed before treatment, it should be completed before crew finishes in the area.

LAND MANAGER

N.A.

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

FIELD SHORELINE COMMENT SHEET

262-10-10040

SEGMENT ST 1 KC9-12 +500 SUBDIVISION: Triple Lakes Creek DATE 6/2/90

ADFG

NAME JEFFREY P. BARNHART

SIGNATURE

Jeffrey P Barnhart

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

See ADF&G Analysis Form for complete details.

Recommend ^{manual} removal of oiled vegetative mats from under the water. Oiled cobble / pebble should be removed from the water cleaned and replaced.

The oiled cobble / pebble / vegetative mats are difficult to located as a thin film of silt covers them under the water.

ADFG Habitat Division personnel need to be present during cleanup to locate the problem areas.

A complete survey needs to be conducted as it is suspected additional oiled vegetative mats / oiled cobble are present in this low energy lagoon.

Jeff Barnhart

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG J. Springer USCG NOAA T. Callahan SEGMENT ST/ K-912/XX500
 BIO D. Lohse LAND REP J. Barnhart SUBDIVISION A / Stream 262-10-10045
 EXXON Park Service R. Waver ADEC T. Ellsworth TIME 18:20 to 19:30
 TEAM NO.: 19 TIDE LEVEL: +2 to +4 DATE 06/01/1990
 EST. SUBDIVISION LENGTH: 900 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 60 % B 10 % C 20 % P 10 % G 20 % S 10 % M 20 % V 20 %
 SLOPE: Long 100 % Hang 550 m % Vert 8 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 8 m M 10 m N 100 m VL 232 m NO 232 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	IC	IS	IP	IR	SB	BR	BL	OW	OL	OB	TL	LB	SU	US	ME	U
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
MOUSSE		X								X			X			
PATTIES																
TARBALLS				X		X							X			
FILM																
NO OIL														X		

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

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

DEBRIS COLLECTED
☐ YES ☒ NOTYPE #BAGS

Photographs:

Roll No. Frames

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SB	BR	BL	OW	OL	OB	TL	LB	SU	US	ME	U		
							.																
							.																
							.																
							.																
							.																
							.																

COMMENTS Oil is submerged in lagoon. "Tarballs" occur as black spatters clinging to cobbles. "Mousse" occurs in matts clumped together with vegetation.

Lagoon is in supratidal zone isolated from daily tidal action. Lower and mid-intertidal zones were not surveyed.

The survey of 5/12/90 did not cover supratidal zone or most of backshore. This survey completed the supratidal and backshore

REVIEWED DATE 5/1/90

SKETCH MAP

SEGMENT ST/ K-912/XX500

SUBDIVISION A

DATE 06/01/90

Stream 262-10-10040
Tripple Lakes Creek.

CHECKLIST

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

LEGEND

1 ▲

Pht - No Subsurface Oil

2 ▲

Pht - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

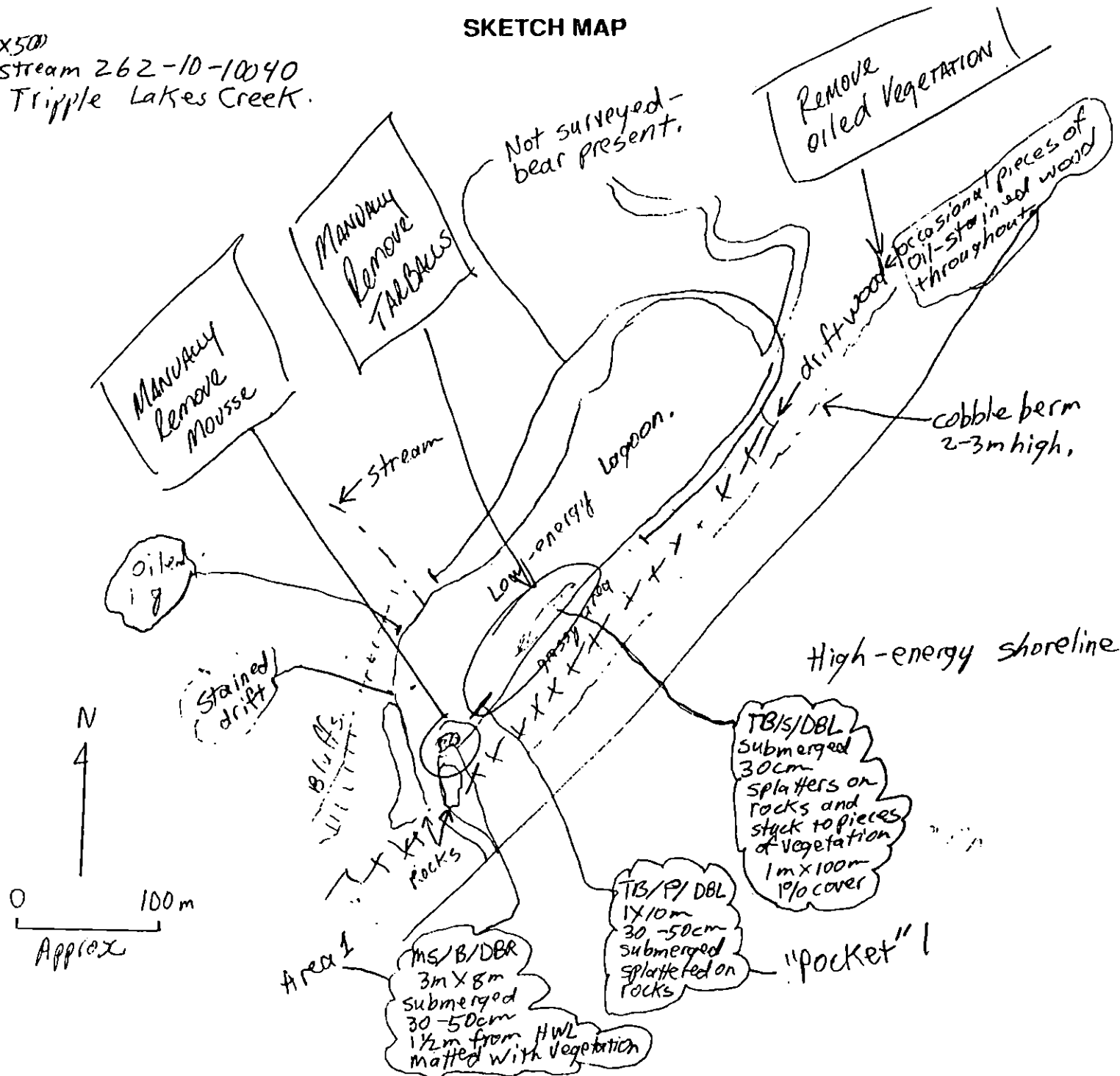
CT/S

Splashed Distribution

Oil Vegetation

1 ➔

Photo location, direction, and number



Oil Character (m): AP PO CV CT ST MS T TB 110 FL NO 232 U 550

REVISION: 03/24

Due to bear activity - no stream

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS (SS) DS TS AVS SCH MMS PTA

2 REGION: PWS KP, CI K (AP)

METHOD: Aerial Ground Boat

3 DATE: 6/1/90

16 HIGH TIDE TIMES: 10:00 AM / 10:37 PM

21 TEAM RECORDER: JEFF BARNHART
DAVE Lohse, Jim Springer

4 START TIME: 1836

18 HIGH TIDE HTS: 13.1 1 15.5

22 OBSERVERS: Mike Goodwin, Tom Callahan
Terry Ellsworth Ray Waver

5 STOP TIME: 1930

17 LOW TIDE TIMES: 4:00 AM / 4:06 PM

23 AGENCY: WCC, WCC, DNR, NOAA, DEC, NP.

6 SEGMENT #: X500

19 LOW TIDE HTS: 3.9 1 3.4

24 PHOTOS TAKEN: Y (N)

7 STATION #:

10 TIDE HT AT SURVEY:

Roll #: Frame:

8 K-UNIT: K09-12

Ebb Slack Flood Slack

25 VIDEO TAKEN: Y (N) TAPES:

9 STAT AREA: 262-10-10040

20 USCG QUAD: Alagnak C-5

Start: Ends:

10 LAT: 58° 43' 24"

11 LONG: 153° 25' 26"

26 SAMPLES TAKEN: Y (N) Number

12 SOURCE: Map Loren Anadkat

Oil

13 LOCATION: Douglas Reef Area, AK Peninsula

Sediment

14 DESCRIPTION: ~1.5 miles N.W. of "ABIM" DARK

Biological

Water

EXTENT OF OIL

	SHORELINE				STREAM			
	L	M	H	S	L	M	H	S
27 SURFACE COVERAGE								
28 SURFACE THICKNESS								
29 PENETRATION								

35 CATALOGED ANAD. FISH STREAM? (Y) N

37 CATALOG #: 262-10-10040

38 STREAM NAME: Triple Lakes creek

39 OIL IN STREAM BED? (Y) N

40 OIL ON STREAM BANKS? (Y) N

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

42 OIL WITHIN 1 MILE OF STREAM? Y N

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

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

32 OILED DEBRIS? (Y) N

Where:

33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cove
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 Cobble 40

Gravel 30 Sand Mud/silt 30

Species	Aerial	Ground

COMMENTS: Oil character: ST TBCT/P on cobble along shore of lagoon and under 1 to 2 ft. of water. In addition to areas, one 3m x 8m (75% coverage) and a second 1m x 10m (40% coverage) contain mats of vegetation and sticky Tar in 1-2 feet of water. Oiled debris: LV/P/MD. Survey incomplete due to presence of bear. NPS, RPD decision Recommend removal of oiled vegetative mats from under the water. Oiled cobble/pebble should be removed from the water cleaned and replaced. IT is suspected additional oiled vegetative mats are present in the lagoon.

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/K09-12 STREAM NO: 262-10-10040 DATE 5/2/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
5S Shorebird/waterfowl concentration (4/25 to 5/15)
See attached Ecological Constraint sheet for specific constraints and contracts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

See above.

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: DATE:

Subsurface Oil Observed: Yes No ☒ Maximum Depth

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE:

ADEC

EXXON

NOAA

USCG

FOSC: DATE:

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K-0912 SUBDIVISION: 262-10-10040 DATE 02 MAY 90

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

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

NOTE: The west shore line of the larger lagoon was still snow covered. I suggest re-surveying this area after the snow melts back. The area I did survey (the east shore) had <1% stained driftwood and minimal very weathered/dry splinter on small submerged cobbles.

~~ADEG~~ → ADFG
NAME EDWARD W. WEISS SIGNATURE Edward W. Weiss

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

LAGOON SEGMENT IS LOW ENERGY AND ARTIES AND COVER ON COBBLES DO PRODUCE SLIGHT GREEN WHEN RUBBED. THIS GREEN DOES DISAPPEAR READILY IN WATER. STREAM NEEDS TO BE RESURVEYED FULLY WHEN SNOW COVER MELTS AND WATER LEVEL IS DOWN. BAND OF (PT, TB, CV, ST) / P IS CURRENTLY 12-24" BENEATH WATER'S SURFACE. CLEANUP WOULD ALSO HAVE TO WAIT UNTIL WATER LEVEL RECEDES. OIL IS ONLY PARTIALLY VISIBLE DUE TO WATER DEPTH AND SILT.

~~LAND MANAGER~~ → NPS
NAME Carl Schech SIGNATURE Carl Schech

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

This lagoon should be resurveyed at a lower water level in order to determine the exact extent and degree of oiling. This document represents a partial survey only. Based on these findings the observed oil on debris and cobbles should be removed. This lagoon/estuary system is very protected and oil will persist for a long time unless removed. Oil can be removed by wiping with sorbent towels or removing with shovels. Cleanup should not begin until water recedes.

OG CAL LARSON USCG DREHER, CWE SEGMENT ST/ K-012 WX 500
 BIO KEN CRITCHLOW LAND REP CARL SCHOCH STREAM 292-10-10040 (OF)
 EXXON DARLUE YOE ADFG ED WIGGS TIME 3:40:35
 TEAM NO. 14 TIDE LEVEL +1.9 DATE 5/2/90
 EST. SUBDIVISION LENGTH: 200 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R % B % C 00 % P 10 % G 5 % S 5 % M % V %
 SLOPE: Long 55 % Hang 45 % Vert % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 150 m NO 50 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	W	M	N	S	SW	W	U	M	U	SW	U	M	U
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT													
STAIN				✓		✓					✓		
MOUSSE													
PATTIES				✓		✓					✓		
TARBALLS				✓		✓					✓		
FILM													
NO OIL										✓		✓	✓

PAVEMENT H F S 0 sq. m by 0 cm

PATTIES / TARBALLS 2 BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

Did you collect DEBRIS

☐ YES ☒ NO

TYPE 0

#BAGS 0

Photographs:

Roll No.

Frames

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SHEEN (Y/N)	V	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SW	W	U	M	U	SW	W	U	M	U	SW	U				

COMMENTS DUE TO SPRING RUN OFF BACK TIDAL LAGOON AFTER WATER LEVEL WAS HIGHER, OIL / DRIPS, SPLATTER, PATTIES WERE UNDER WATER. OIL OBSERVED WAS HEAVILY WEATHERED. SOME OILED GRASSES WERE OBSERVED ALONG BANK OF BACK SHORE IN LAGOON. NO PITS DUG.

REVIEWED JW

DATE 5/4/90

OG CALLARSON

1 = 100'

SKETCH MAP

SEGMENT STA 912

STREAM 262-10-1040

DATE 5/2/90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Ext. HAZ/AVL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PI Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

PI - No Subsurface Oil

2 Δ

PI - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

[CT/P]

Patchy Distribution

[CT/S]

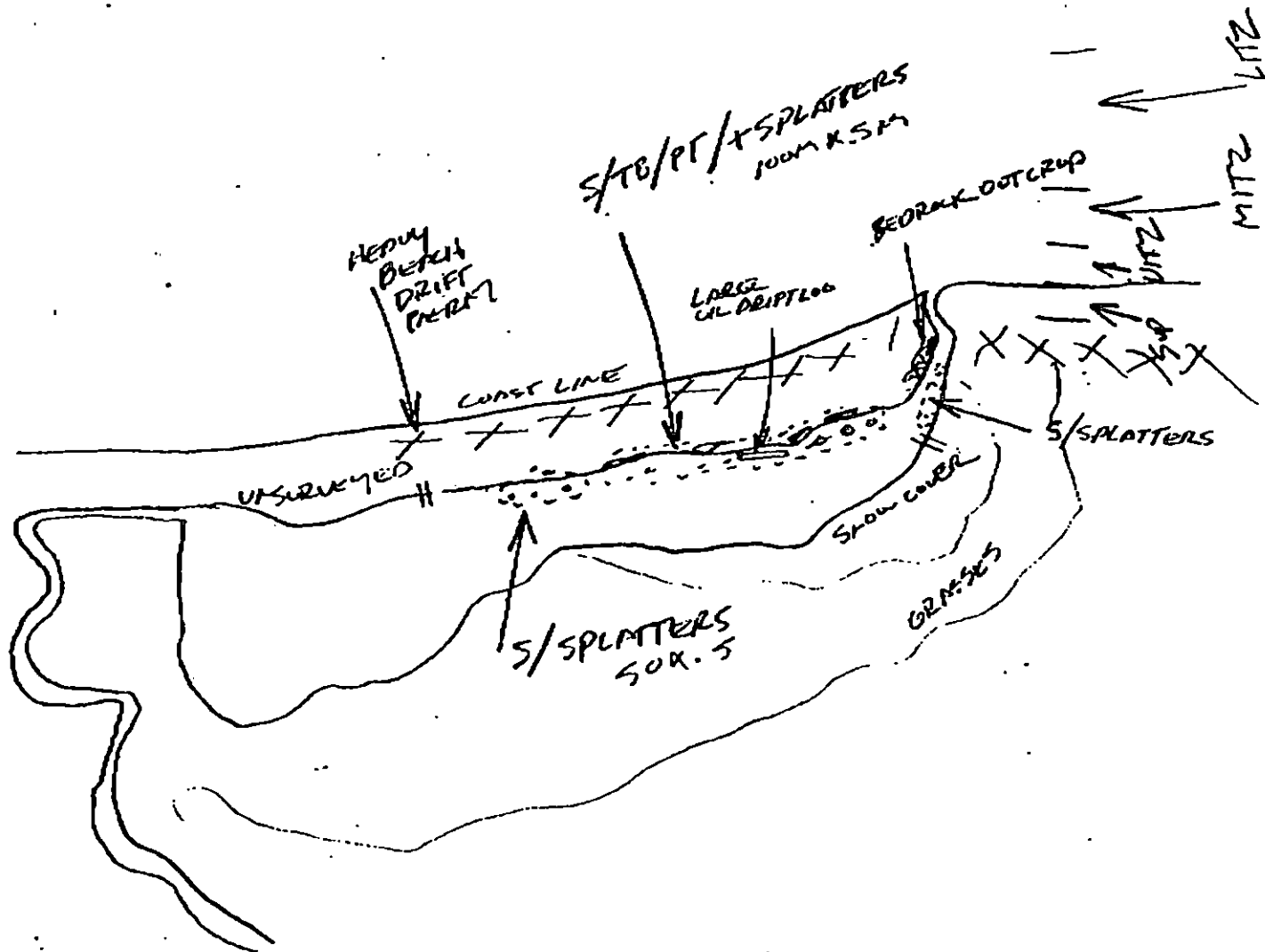
Spashed Distribution

eee

Dead Vegetation

1 $\rightarrow$

Photo location, direction, and number



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

REVISION 22/34/90

ADFG MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS AS DS TS AVS SCHA MMS PTA2 REGION: PWS KP, CI K, DEMETHOD: Aerial Ground Boat3 DATE: 5/2/9016 HIGH TIDE TIMES: 121 TEAM RECORDER: E. WEISS4 START TIME: 184018 HIGH TIDE HTS: 122 OBSERVERS: K. SCHOCK, C. CARSON, A. YOFIS, K. RITCHLOW5 STOP TIME: 163517 LOW TIDE TIMES: 155023 AGENCY: ADFG/EXXON/NAS/WWC6 SEGMENT #: XX50019 LOW TIDE HTS: 1

24 PHOTOS TAKEN: Y N

7 STATION #: _____

10 TIDE HT AT SURVEY: _____

Roll #: _____ Frames: _____

8 K-UNIT: K0912

Ebb Slack Flood Slack

25 VIDEO TAKEN: Y X TAPES: _____

9 STAT AREA: _____

20 USCG QUAD: AF09NAR C-5

Starts: _____ Ends: _____

10 LAT: _____

11 LONG: _____

26 SAMPLES TAKEN Y N Number

12 SOURCE: Map Loran

011 90E6W004K13 LOCATION: DOUGLAS REEF AREA, AK PENINSULA

Sediment _____

14 DESCRIPTION: ~1.5 NW OF VABM "DARK"

Biological _____

Water _____

EXTENT OF OIL

	SHORELINE				STREAM			
	L	M	HP	S	L	M	HP	S
27 SURFACE COVERAGE								
28 SURFACE THICKNESS								
29 PENETRATION								

30 OVERALL OIL IMPACT: N VL C N N

35 CATALOGED ANAD. FISH STREAM Y N

31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain37 CATALOG # 262-10-10040

32 OILED DEBRIS Y N

38 STREAM NAME: TRIPLE LAKES CREEK33 SHORELINE TYPE: Headland Lagoon Low-lying Rocks Beach Cove

39 OIL IN STREAM BED? Y N

34 WAVE EXPOSURE: High Moderate Low

40 OIL ON STREAM BANKS? Y N

36 SUBSTRATE TYPE: Bedrock _____ Boulder _____ Cobble 2541 OIL ON BEACH ADJACENT TO MOUTH? Y N
(within 50 meters)Gravel 35 Sand _____ Mud/silt 40

42 OIL WITHIN 1 MILE OF STREAM Y N

Where: _____

43 ANADROMOUS FISH PRESENT? Y N

44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground

COMMENTS: BAND OFF PT. CV, ST. Y/P BEGINNING AT MOUTHCONTINUING ON AROUND EAST BANK OF LAGOON. BAND

IS AT NORMAL LOW TIDAL AREA BUT DUE TO MELT OFF
IS 12-24" BELOW WATERS SURFACE OF LAGOON AT LOW TIDE.
ONLY SURVEYED 1/3 OF LAGOON, 1/3 COVERED WITH SNOW, 1/3 UNSURVEYED
DUE TO TIME CONSTRAINTS. MOUSSE FAIRLY WEATHERED BUT STILL

45 PHOTOLOG

FRAME(S)	DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM

RECOMMEND: FULL SSAT/ANASSAT SURVEY BE CONDUCTED AT LATER DATE, WHEN SNOW COVER MELTED AND WATER LEVEL DOWN. MANY PATCHES HARD TO SPOT DUE TO WATER DEPTH AND SILT COVER WOULD BE MORE VISIBLE WITH LOWER WATER.

ALSO RECOMMEND MANUAL PICKUP BASED ON $\frac{1}{3}$ SURVEYED BUT NOT UNTIL WATER GOES DOWN AND IMPACT IS ACCESSABLE.

ALSO HAD TB:ST/S AND ST CT/L/SM ON BANK OF LAGOON ABOVE WATER LEVEL. *D Wein*

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

STEVE COWPER, GOVERNOR

Rapifax 349-1723

333 RASPBERRY ROAD
ANCHORAGE, ALASKA 99518-1580
PHONE: (907) 344-0861

RAPIFAX TRANSMITTAL SHEET

TO: TOM KELLY
EXXON - ANCH.

DATE: 5-19-90

No. Pages: 3
(including this page)

FROM: ED WEISS
AAFG KODIAK

MESSAGE:

DID NOT MAKE DIAGRAM USED
ANASSAT OF DIAGRAM.

OG CAL LARSON

1 = 100'

SEGMENT ST/ 912

SKETCH MAP

STREAM 262-10-10090

DATE 5, 2, 90

CHECKLIST

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

LEGEND

1 Δ

VI - No Subsurface Ch

2 Δ

VI - Subsurface Ch

CT/C

Continuous Distribution

CT/B

Discrete Distribution

CT/P

Patchy Distribution

CT/S

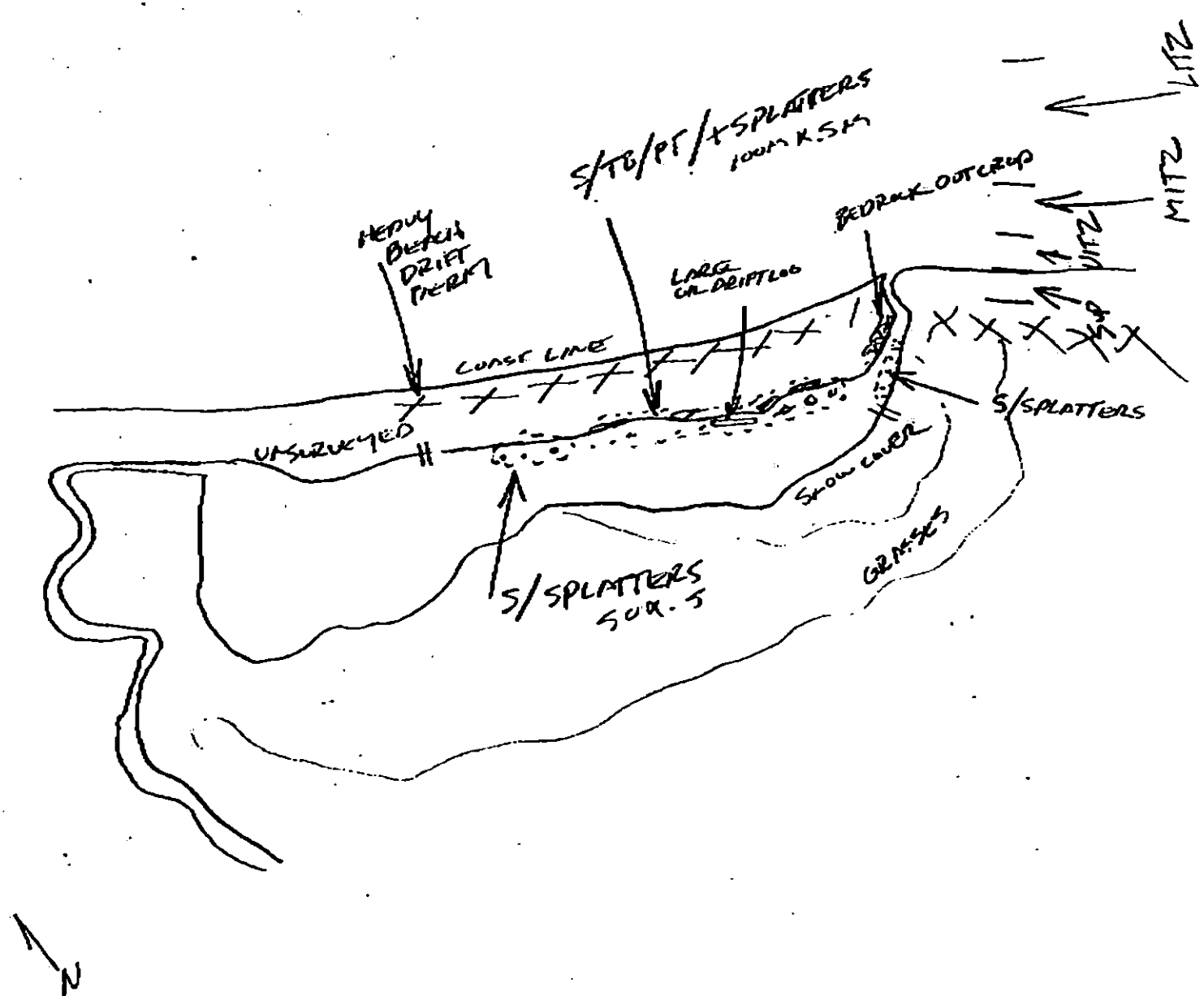
Spaced Distribution

ree

Wd Vegetation

→

No location, direction,
number



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

REVISION 02/90

Seg ID: XX-500

Subdiv: 262-10-10040

Survey Date: 5/2/90

Comments by: Ken Critchlow

The beach at this stream site is very high energy, characterized by well-rounded pebble and cobble. A bedrock outcrop guards the stream mouth which breaks through a high storm berm and large log jam. The beach was depauperate.

A very large lagoon was present behind the storm berm. The backshore was about 50 percent covered by snow and couldn't be surveyed. About half of the remaining shore was surveyed. Small amounts of tarballs and patties were observed in the grass at the water's edge. Some mousse was present on submerged cobble in the lagoon. The extent of oiling of submerged rocks couldn't be determined.

Large numbers of water fowl were observed at the north end of the lagoon. The area is obviously used for feeding and possibly nesting.

KR Critchlow

A brown bear skull (no mandible or teeth) was found at the water's edge in the lagoon. It was left in place.

KRM

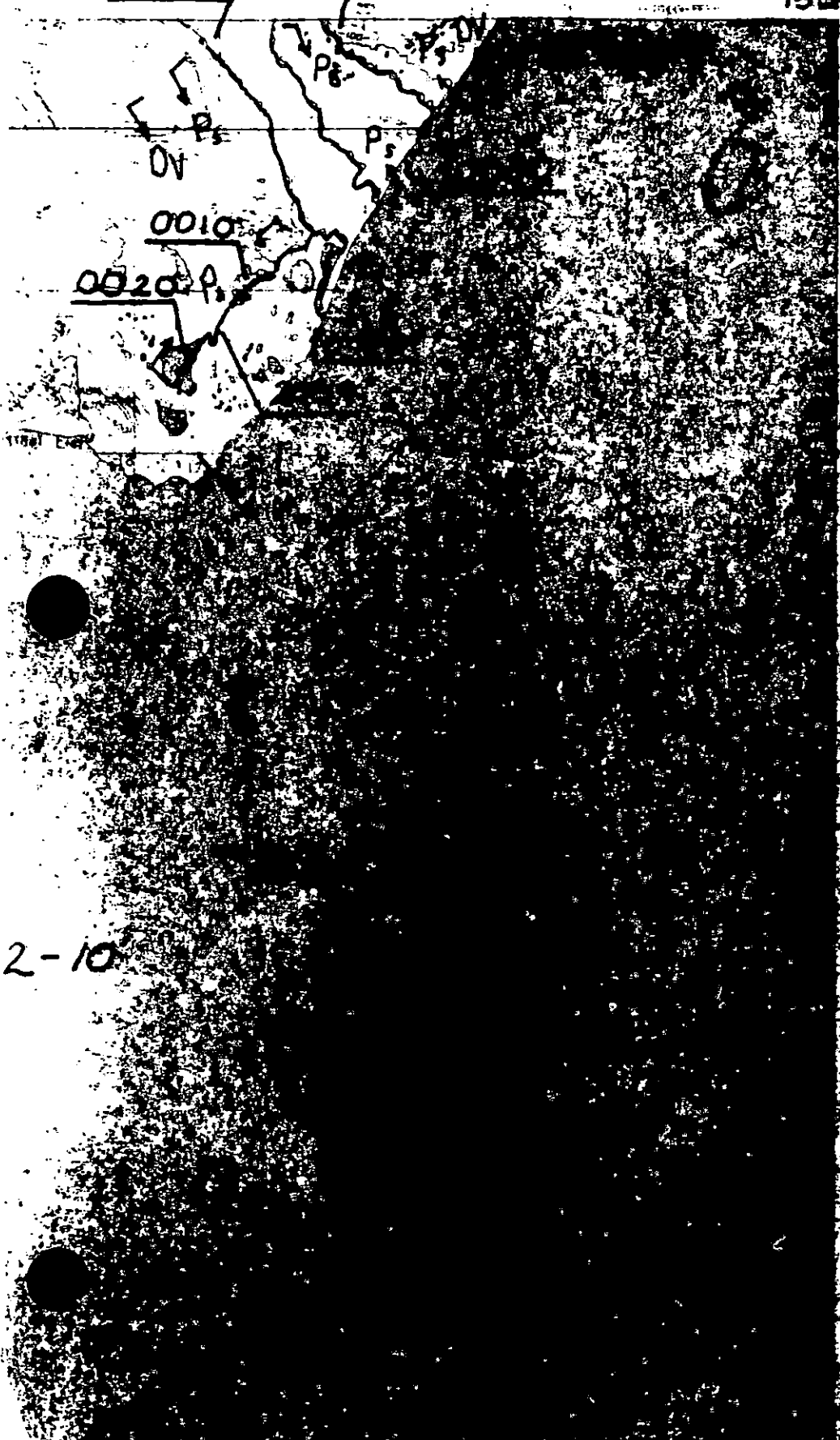
11/81

AFOGNAK (C-5) QUADRANGLE
ALASKA
63 580 SERIES (TOPOGRAPHIC)

153° 20'
58° 45'

10040 FINAL

10060



2-10

REGION: KODIAK

SEGMENT: ST/K09-14-SK-101

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ K09-14-SK-101 SUBDIVISION A (1 OF 1) DATE 4/26/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

No specific constraints identified.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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 349 m: Narrow 28 m: V.Light 1545 m: No Oil 4329 m
Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual pickup of mousse,
oiled debris, oiled trash and oiled bags followed by bioremediation.
No specific ecological time constraints identified.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1 ¹⁴ ~~K9-14~~ SK101 SUBDIVISION: _____ DATE 4-26-90

SCG

NAME DD. Haven Jr. 6m3, USCGR SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

All oiled areas are very minimal and are in a high energy environment that will probably dissipate naturally, except for one patch on the NW side of island that could use some attention.

ADEC

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

COMMENTS

Manual pick-up of moose-saturated sediments is recommended for an area 10m x 100m on the NW side of Kivkapalik.

This island received a heavy impact of oil. The north, & East side of Kivkapalik is an extremely high energy environment composed primarily of bedrock & boulder. There is little oil reasonably retrievable on this north, east, & south sides. However, a small crew can collect oil on the island's NW side. SSAT field map should accompany Clean-up crew.

LAND MANAGER

NAME WILL TROYER SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

I checked this island a number of times last summer and was surprised winter storms removed most of the oil. There is some more on the NW side that could be manually picked up but most of the main remaining on the rest of the island is down below huge boulders and little exposed, he removed. It appears heavy effort would be more productive in other areas.

SHORELINE OILING SUMMARY

REVISION NO. 04/13/90

OG Acton USCG Haven SEGMENT ST/ K9-14-SK-101
 BIO Davis LAND REP NPS Trooper, James SUBDIVISION K9-14-SK-101A (1 OF 1)
 EXXON Avery ADEC Dennis TIME 7:30 10:12:30
 TEAM NO. 20 TIDE LEVEL -3.5 to +6 DATE 4/25/90
 EST. SUBDIVISION LENGTH: 6177 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: Clockwise to from N end
 SURFACE SEDIMENTS: R 35 % B 55 % C 4 % P 2 % G 2 % S 2 % M 0 % V 0 %
 SLOPE: Lang 30 % Hang 40 % Vert 30 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 400 m N 35 m VL 1715 m NO 4027 m

SURFACE OIL

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

 PAVEMENT H F S 0 sq. m by 0 cm

 PATTIES / TARBALLS 0 BAGS

 NEAR SHORE SHEEN? (NO) BR RW SL TL

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

DID YOU COLLECT DEBRIS?

 YES ☐ NO ☒

 TYPE 0

 #BAGS 0

Photographs:

 Roll No. ST-20-7

 Frames 8-20, 28-30

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SHEEN (Y/N)	SURFACE SUBSURFACE SEDIMENTS
		OP	OR	OL	OP	NO		UO	UC	SP	BR	OR	OL	OP	NO	SU	U	M	L			
1	5					✓	.		✓							✓						G, R
2	5					✓	.		✓							✓						G, R
3	5					✓	.		✓							✓						G, C.
4	5					✓	.		✓							✓						G, R
5	5					✓	.		✓							✓						G, R
6	5					✓	.		✓							✓						G, R

COMMENTS Areas depicted in sketch maps 2 and 3 (N end of island) had more mousse than in areas depicted in sketch maps 4 and 5 (E end of island), probably due to increased exposure to wave energy and/or last year's summer cleanup.

Island shoreline is primarily rock platform w/ boulder/rubble veneer, which limited pit depth. Very little fine sediment existed on rock platforms, with mousse collected between boulders, rocks, or cobbles directly on top of the rock platform.

 REVIEWED 7W DATE 4/27/90

OG

SEGMENT ST/ K9-15-5K-101

SUBDIVISION K9-15-5K-101A

DATE 4 / 25 90

CHECKLIST

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

LEGEND

1 ▲

Pit - No Subsurface Oil

2 ▲

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

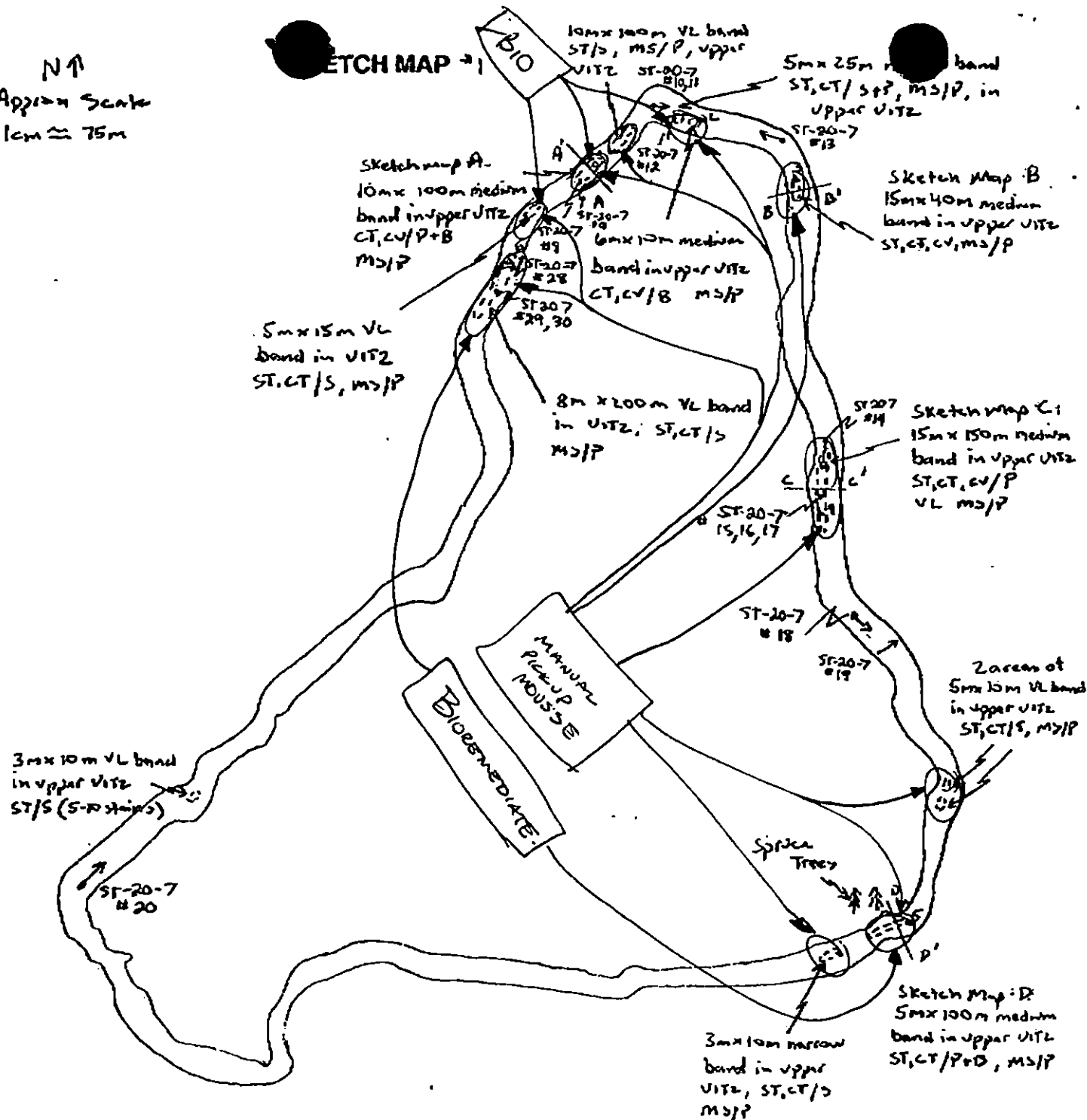
Oil Vegetation

1 ➔

Photo location, direction, and number

N ↑
Approx Scale
1cm ≈ 75m

ETCH MAP



Oil Character Length (m): AP _____ PO _____ CV 2250 CT 2250 ST 2250 MS 2250 PT _____ TB _____ FL _____ NO 4027

REVISION 000470

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/75

Segment ST / 1009-10 Subdivision SK101 Date (mo / day / yr) 4/25/90Time (24 hr) 7:30 Biologist H. Davis(A) Substrate type and % of segments:
(1) Bedrock 35 (2) Boulder 55 (3) Cobble 4 (4) Pebble 4 (5) Sand 2 (6) Silt —(B) Overall % cover of biota (% of segment): Dense 25% Moderate 25% Low 50% (30%)

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

Photographs:
Roll No. ST-20-7Frames 8-20, 28-30

BARNACLES continuous around the island. Sparse mod on the Eastern side. Western side is Dense Mod.

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

MYTILUS sparse patch in crevices and pools. More numerous on the Western side of Kvikovik

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

GASTROPODS continuous around the island. Much more numerous on the Western side

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

FUCUS small area of moderate-sparse patches. Some new growth.

Dense			Moderate			Sparse			Rare			NOT PRESEN 3,4,5,6
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
X	X	2	X	X	3	X	X	3	2	2	2	
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
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: Short-eared owls seen on bluffs. Mergansers, Harlequin, Pair of Rough-legged Hawks, 6 osprey nesters, 3 Glaucous gulls and 30-40 Glaucous-winged gulls. The oil found was above the level of intertidal fauna and flora. Large mortalities of herring in the LTZ (Balanus cariosus) Harbor seals, 1 sea lion, 5-6 sea otters and a whale (sp?) were seen off shore. Crows, plovers were up on the bluffs.

Ecological Considerations: Seabird colony (Glaucous winged gulls), Eagle nest in spruce tree. Nest last year only one eagle there this year. Pair of Rough-legged Hawks nesting on cliffs. Harbor seals hauled out in area. 5-6 sea otters feeding in the area.

DATE 4/25/90 TIME 07:30 - 12:30 TIDE HEIGHT -3.5 to +6

1 = BEDROCK 2 = BOULDER 3 = COBBLE 5 = SAND 6 = SILT

FLORA:

SPECIES	UITZ	MITZ	LITZ	COMMENTS
BOSSIELLA/CORALLINA	1	1, 2	1, 2, 3	Confined to pools in the UITZ
CALLIARTHRON/CORALLINA	1	1, 2	1, 2, 3	"
CLADOPHORA SPP	—	1, 2, 3	1, 2, 3	
COSTARIA SPP	—	—	—	
ENDOCLADIA MURICATA	1, 2	—	—	
FILAMENTOUS GREENS	1, 2, 3	1, 2	1, 2, 3	
FILAMENTOUS REDS	—	2, 3	1, 2	
GLOIOPELTIS FURCATA	1, 2	1	—	
HALOSACCION GLANDIFORME	—	1, 2	1, 2	
LAMINARIA SPP	—	1	1, 2	
LITHOTHAMNION	—	—	—	
NEREOCYSTIS SPP	—	—	—	In drift and off shore
PORPHYRA SPP	1, 2, 3	1	—	
RALPHSIA/HILDENBRANDIA	—	—	—	
RHODOMELA LARIX	1, 2	1	—	
RHODOMENTA PALMATA	1, 2	1, 2	1, 2	
SCYTOSIPHON SPP	1, 2, 3	1, 2, 3	—	
ULVA SPP	1, 2	1, 2	1	
ZOSTERA MARINA	—	—	—	
ENTEROMORPHA	—	1	—	

FAUNA:

ANTHOPLEURA SPP	1	1	1, 2	
(SEMI) BALUNUS CARIOSUS	1	1	1, 2	
B. GLANDULA	1, 2	1, 2, 3	—	
BRYOZOANS	—	—	—	
CHITONS (other than K. TUNICATA)	—	1	—	Mytilus sp. in pool
CLAMS	—	—	—	Shells of Clinocardium nuttallii, Pseudocardium sp.
CRABS	—	—	—	Squilla tigrina
DERMASTRIAS IMBRICATA	—	—	—	
KATHARINA TUNICATA	1	1, 2	—	
LEPTASTERIAS HEXACTIS	—	—	—	
LIMPETS	1, 2	1, 2, 3	1, 2, 3	
LITTORINA SPP	1, 2	1, 2, 3	1, 2, 3	
NUCELLA SPP	1, 2	1, 2, 3	—	Very few in crevices
PAGURUS SPP	1	1, 2	1	In pools
PISASTER OCHRACEUS	—	—	—	
POLYCHAETES	—	—	—	
PYCNOPODIA HELIANTHOIDES	—	—	—	
SEARLESIA DIRA	—	—	—	One shell used by periwinkle
SERPULIDS	—	—	—	
SIPHONARIA THERSITES	—	—	—	
TEALIA	1, 2	1, 2	1, 2	
Epistaxis prolifera	1, 2, 3	1, 2	—	Very numerous

OG

Short Profile Sketches 2-5 SKETCH MAP

SEGMENT ST/ K9-18-SK-101

SUBDIVISION K9-15-SK-101A

DATE 4 / 25 90

CHECKLIST

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

LEGEND

1 Δ

Pit - No Subsurface Oil

2 Δ

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

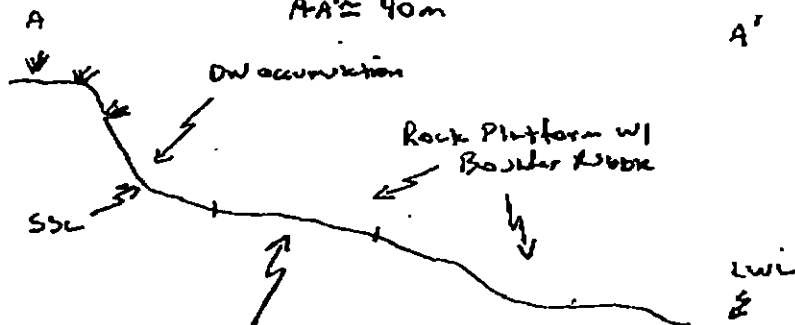
Oiled Vegetation

1 →

Photo location, direction,
and number

Sketch Map A

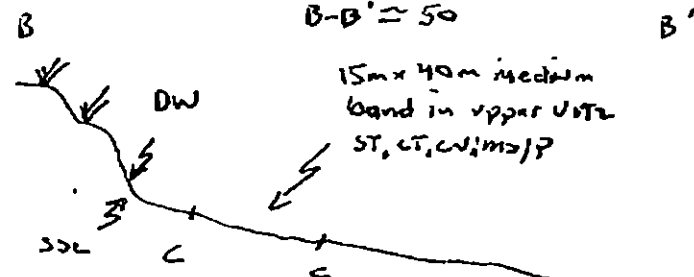
A-A' ≈ 40m



10m x 100m medium
band in upper VITZ
CT, CV/P+B msp/p

Sketch Map B

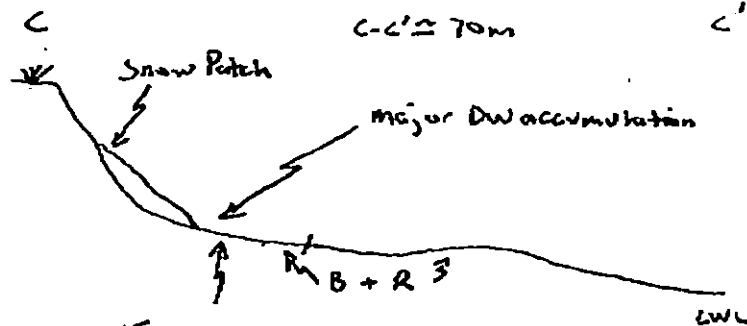
B-B' ≈ 50



major Driftwood accumulation at this location

Sketch Map C

C-C' ≈ 70m

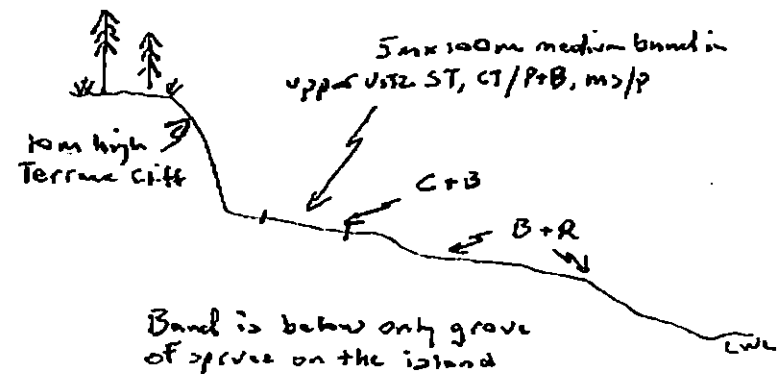


15m x 150m medium band
in upper VITZ ST, CT, CV/P
w/ VL msp/p

oil may be under snow also

Sketch Map D

D-D' ≈ 60m

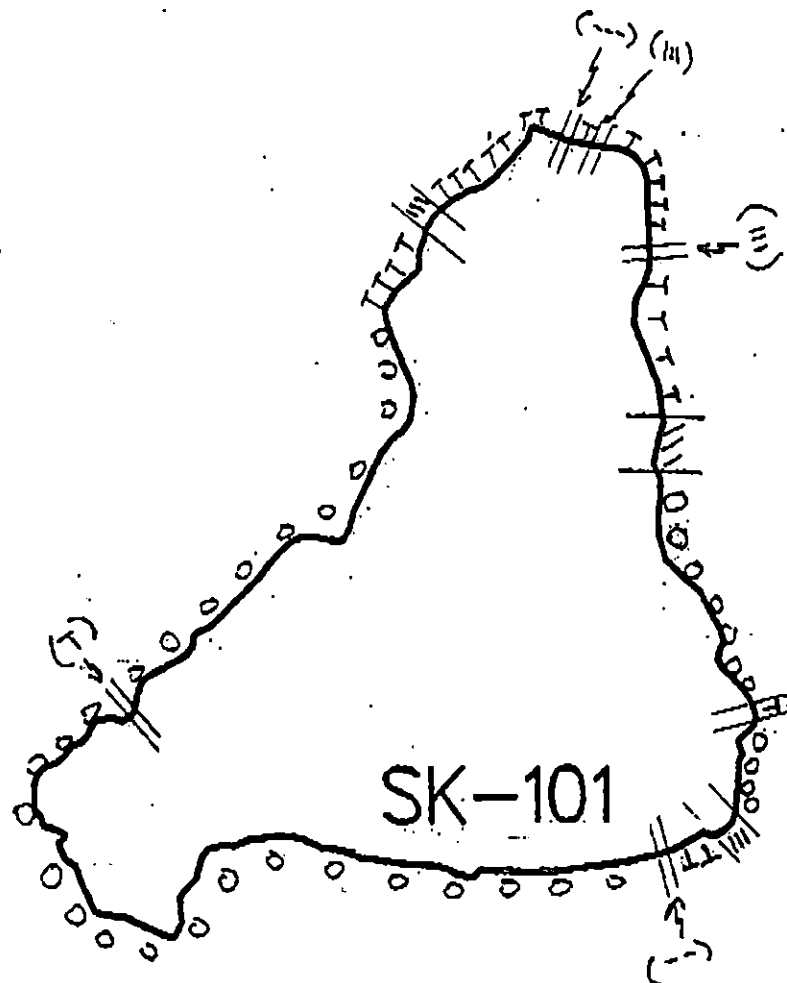


Band is below only grove
of spruce on the island

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

REVISION: 03/24/90

K9-15-SK-101A



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

SK-101

ADEC Segment Length: 6243m



K9-~~15~~¹⁴ SK-101A
 Map Key: GOA-267
 Name: Acton
 Date: 4-25-90
 Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ K09-14-SK-101 SUBDIVISION A (1 OF 1) DATE 4/26/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

No specific constraints identified.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

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

OILING CATEGORIZATION:

Wide 0 m: Medium 349 m: Narrow 28 m: V.Light 1545 m: No Oil 4329 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual pickup of mousse,
oiled debris, oiled trash and oiled bags followed by bioremediation.
No specific ecological time constraints identified.

TAG COMMENTS:

TAG APPROVAL DATE: 5/4/90

ADEC Art Weimer Art Weimer

EXXON ANDY TAN Andy Tan

NOAA Gary Petrac Gary Petrac

USCG G.A. REITER G.A. Reiter

FOSC: *WJL* DATE: 5-11-90

Treat before 1 June or after 15 Aug.
Do not use Twpol. CUSTOMERS IS APPROVED.
No beach burning of logs/oily debris. Access
shorelines by boat only.

OG 14
 SEGMENT ST/ K9-15-SK-101
 SUBDIVISION K9-15-SK-101A

DATE 4 / 25 90

CHECKLIST

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

LEGEND

1 Δ

Plt - No Subsurface Oil

2 Δ

Plt - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Spashed Distribution

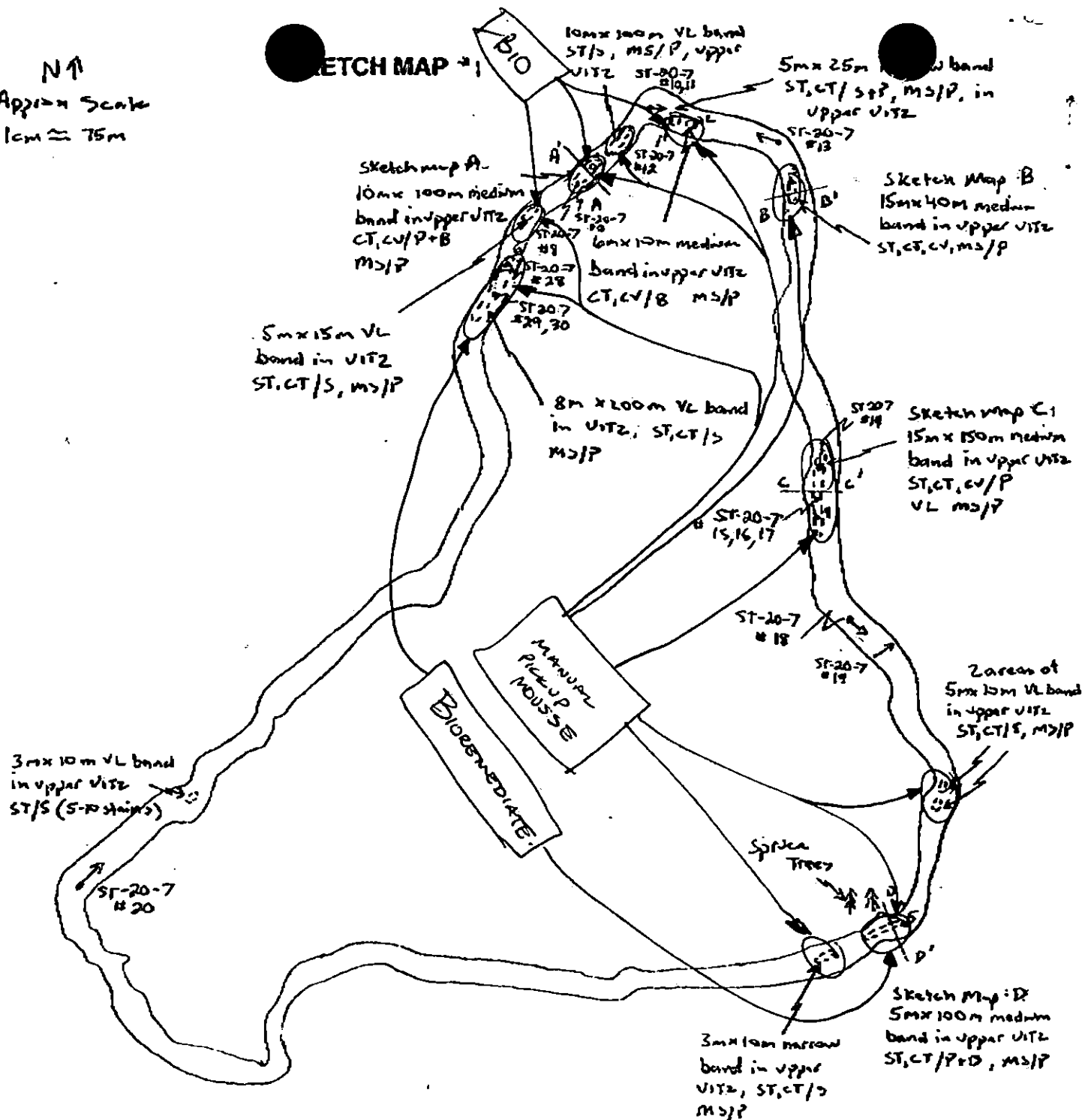
Oil Vegetation

1 $\rightarrow$

Photo location, direction, and number

N $\uparrow$
 Approx Scale
 1cm $\approx$ 75m

SKETCH MAP #1



Oil Character Length (m): AP 2250 PO 2250 CV 2250 CT 2250 ST 2250 MS 2250 PT 2250 TB 2250 FL 2250 NO 4027

REVISION: 03/24/90

OG 19
SEGMENT ST/ K9-MB-SK-101

SUBDIVISION K9-15-SK-101A

DATE 4 / 25 / 90

Sketch Map

CHECKLIST

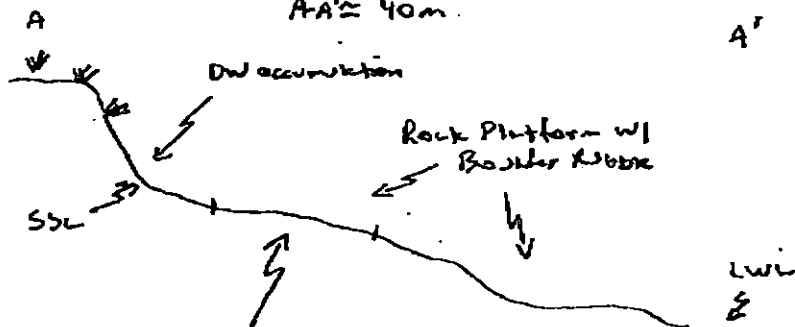
- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HWH/LWL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pit Location(s)
- ☐ Photo Location(s)

LEGEND

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

Sketch Map A

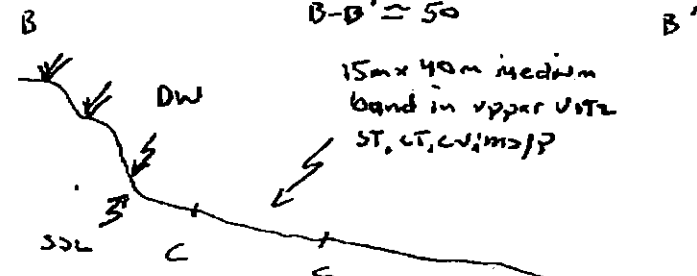
A-A' $\approx$ 40m



10m x 100m medium band in upper VITZ CT, CV/P+B msp

Sketch Map B

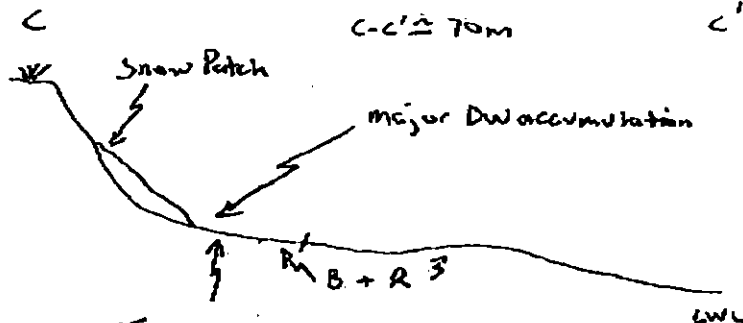
B-B' $\approx$ 50



Major Driftwood accumulation at this location

Sketch Map C

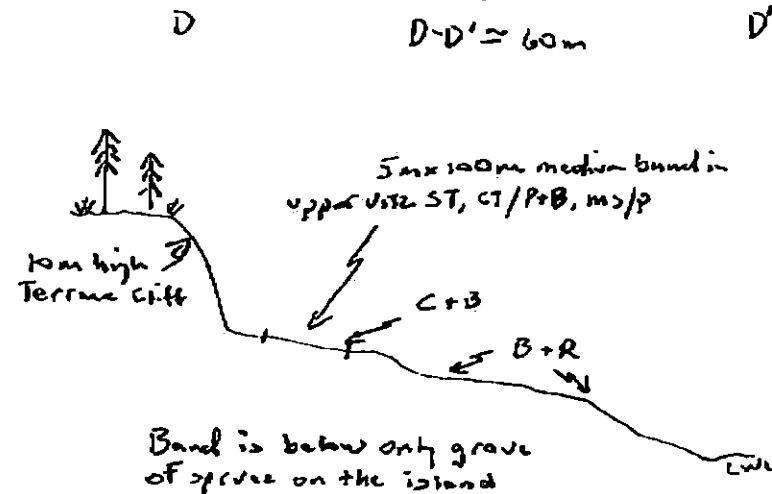
C-C' $\approx$ 70m



Oil may be under snow also

Sketch Map D

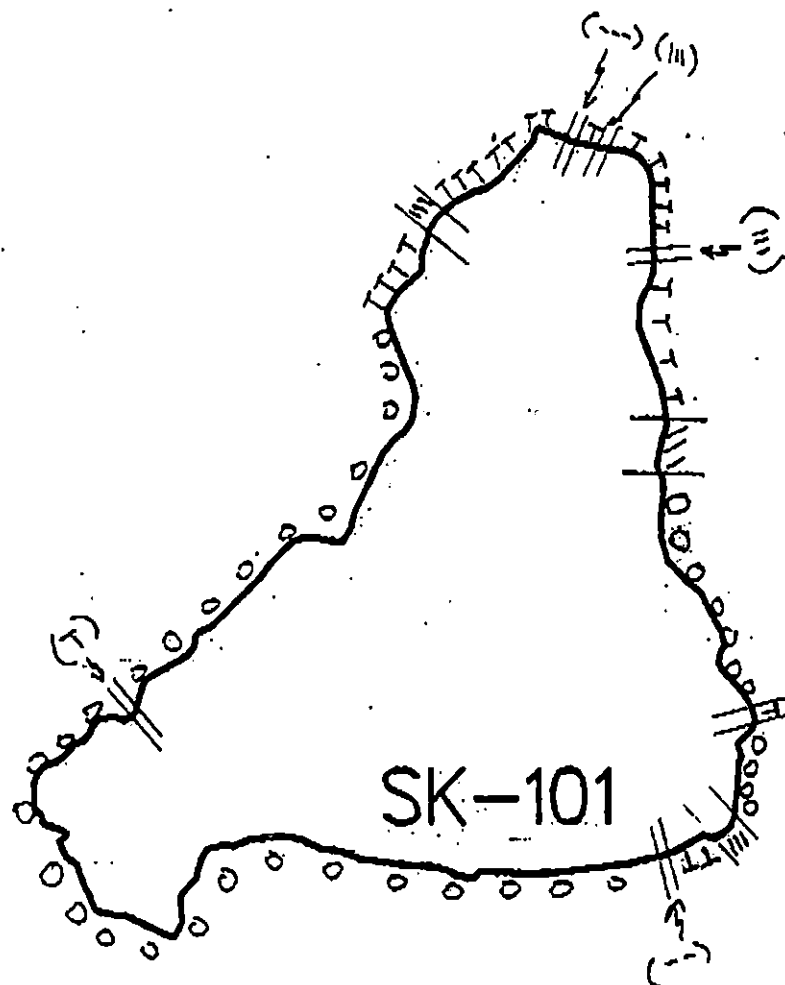
D-D' $\approx$ 60m



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

REVISION: 03/24/90

K9-15-SK-101A



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

SK-101

ADEC Segment Length: 6243m



METERS

K9-15-SK-101A

Map Key: GOA-267

Name: ActonDate: 4-25-90

Data Entered:

"REVISED" ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K09-14-SK-101 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup Less Than 400m From Active Nest	CLOSED PRIOR TO 7/1
Manual Pickup Less Than 400m From Active Nest	WORK AFTER 7/1 (USFWS MONITOR REQ.)
Manual Pickup More Than 400m From Active Nest	OPEN
Bioremediation Less Than 400m From Active Nest	CLOSED PRIOR TO 7/1
Bioremediation Less Than 400m From Active Nest	WORK AFTER 7/1 (USFWS MONITOR REQ.)
Bioremediation More Than 400m From Active Nest	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5R	Seabird Colony	NO CONSTRAINT. Work site is more than 800m from seabird colony.
5T	Bald Eagle Nest	USFWS 4/9/90 map indicates an active nest in Subdivision A. Closed to manual pickup and bioremediation within 400m of active nest until 7/1. No constraint to manual pickup and bioremediation more than 400m from active nest. All work areas open to manual pickup and bioremediation after 7/1 with USFWS Monitor present.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

Date

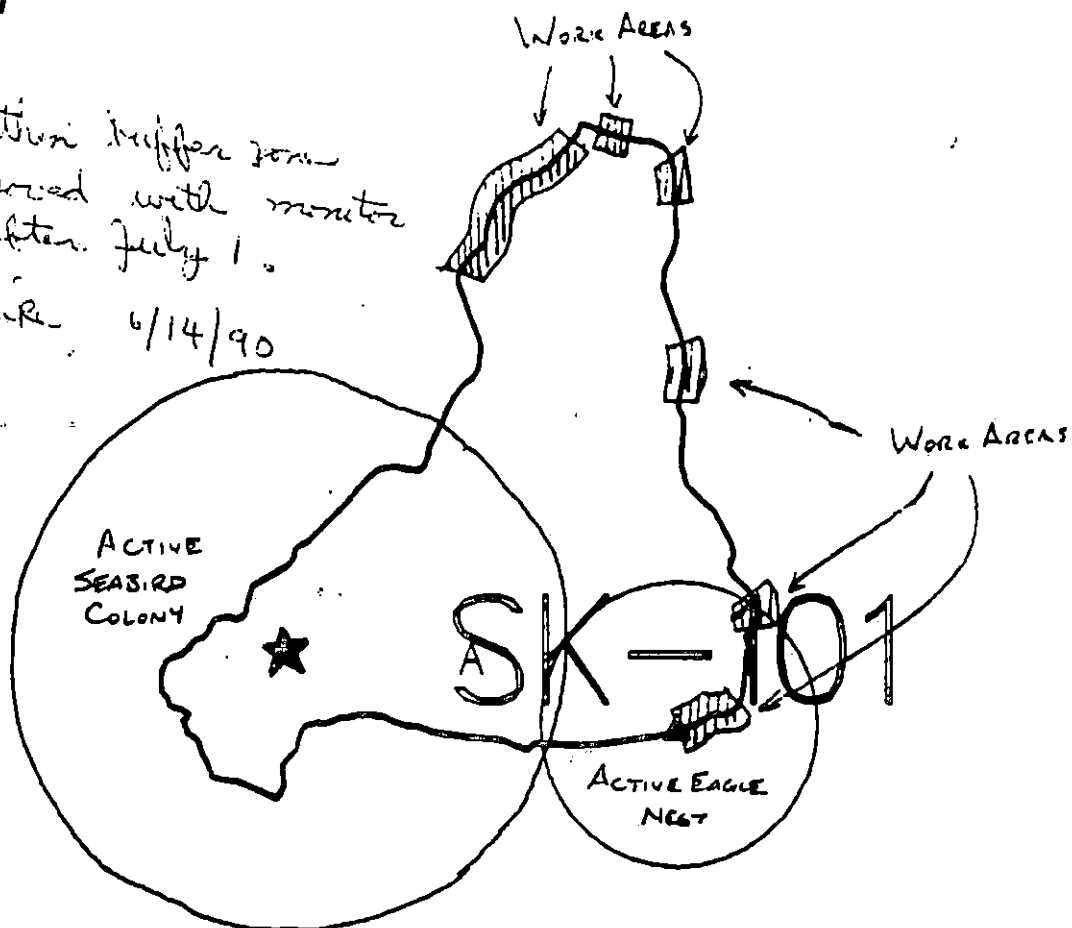
6-22-90

Prepared by

Date

6/27/90

Work within buffer zone
area approved with monitor
on site after July 1.
Mike Luke, 6/14/90



USFWS INFO. FROM
6/15/90 LETTER TO REG. OFFICE
FROM REG. DIRECTOR (SEABIRD INFO)

TREATMENT



Exxon Company, USA
N. 1001 W. 101



ECOLOGY MAP
SEGMENT K9N-14 SK-101
SUBDIVISION A (L-01-L-1)
METERS

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

SHORELINE EVALUATION

SEGMENT ST/ K09-14-SK-101 SUBDIVISION A (1 OF 1) DATE 4/26/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

No specific constraints identified.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Charles E. Dine

DATE: 5/5/90

OILING CATEGORIZATION:

Wide 0 m: Medium 349 m: Narrow 28 m: V. Light 1545 m: No Oil 4329 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual pickup of mousse, oiled debris, oiled trash and oiled bags followed by bioremediation.
No specific ecological time constraints identified.

 SEE CONSTRAINTS ADDENDUM DATED 6/16/90. JP

REVISION 1

TAG COMMENTS: SEE CONSTRAINTS ADDENDUM DATED 6/20/90 JP

TAG APPROVAL DATE: 5/14/90

ADEC Art Wagon

EXXON Andy Ten

AA Gary Petras

CG G.A. HEITER

FOSC: W L

DATE: 5-12-90

Treat before 1 June or after 15 Aug.
Do not use Twp. pol. CUSTOMER IS APPROVED.
no beach burning of logs/oily debris. access
shoreline by boat only.

1991 MAYSAP EVALUATION

SEGMENT: K0914SK101 SUB: A REGION: KOD SURVEY DATE: 5/24/91

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 A. Smith Date: 6/04/91

RECOMMENDATIONS:

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

COMMENTS:

INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE: JUNE 4 1991

FOSC APPROVAL DATE: 6/8/91

ADEC

FOSC

EXXON

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

USCG

NOAA

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

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

ADEC

NAME J. BARNHART ADEC

SIGNATURE

Jeff Barnhart

- ☒ NTR Despite the rugged coastline and high exposure environment of Kiupalik Island, oil persists at a number of sites in the form of MS, CU, CT, ST. Occasional ST, CT can be found along most of the survey area. VECO personnel removed approx 50 pounds of oil. Recoverable oil exists in this segment. Additional cleanup is not recommended at this time, due to the sensitive nature of the island.

EXXON

NAME R. BOYER, EXXON

SIGNATURE

Randall E. Boyer

- ☒ NTR KIUPALIK ISLAND IS A WELL EXPOSED COASTLINE THAT CONTAINED RUGGED POCKETS OF LARGE BOULDERS AND BEDROCK. A LARGE VARIETY OF WILDLIFE WAS SEEN ON THE SURVEY. MANY SHORE BIRDS AND OTTERS WERE IDENTIFIED. WEATHERED AND THIN SURFACE RESIDUE WAS HARD TO LOCATE. APPROXIMATELY 4000 METERS WAS WALKED AND TRACES OF OIL MAY APPEAR ~~HERE~~ ^{PLS} ABOUT 45 MINUTES BETWEEN OILED SITES. THE VECO SURVEY CREW REMOVED EASILY ACCESSIBLE AMOUNTS IN ONE AREA. TREATMENT OF THIS SUBDIVISION WOULD NOT SERVE ANY ENVIRONMENTAL BENEFIT.

LANDMANAGER

NAME F. BENNIS

OF NPS

SIGNATURE

F. Bennis

- ☒ NTR

Of the areas described on OG map, substantive oil persists in sites C + G.

Here, mousse is scattered + pooled in rock crevices + boulder/cobble interstices, + appeared to "bleed" in the warm temperatures. A thin weathered surface covered mousse - sticky + "fresh-looking". ST, CT, CU, SOR also present. The crew discovered a dead eagle at site C (OG map). USFWS collected it.

Despite the high energy exposure of much of this island's shore, oil remains in the protected areas of boulder/cobble bank + bedrock crevice. Although recoverable oil persists, further disturbance to Kiupalik is not justifiable.

USCG/NOAA

NAME CWO R. SPURR / G. SHIGENAKA SIGNATURE

SIGNATURE

R. Spurr / G. Shigenaka

- ☒ NTR

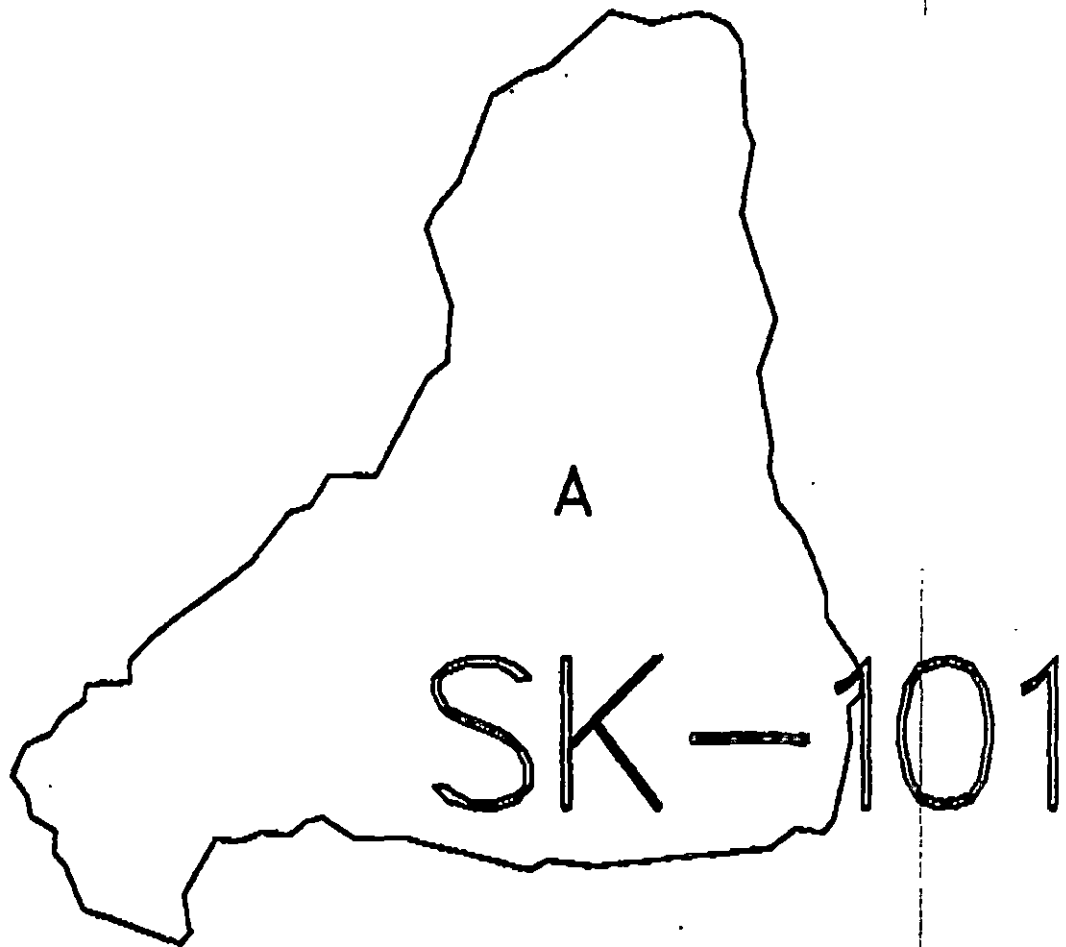
Due to the eagle sensitivity and the small amount of oil remaining on Kiupalik Island, no further treatment should be considered

SURVEYED PORTION OF THE SEGMENT COMPRISED ABOUT 2/3 OF THE SHORELINE OF KIUPALIK ISLAND. THE CHARACTER OF THIS COAST WAS RUGGED: BEDROCK AND BOULDER, WHILE INTERIOR PORTIONS OF THE SMALL ISLAND WERE LARGELY GENTLE GRADE AND GRASSY. TWO EAGLE NESTS WERE LOCATED IN A STAND OF TREES AT THE SOUTH-EAST END OF THE ISLAND. BOTH WERE FOUND BY A USFWS REP TO BE EMPTY, ALTHOUGH AN ADULT EAGLE WAS SEEN CIRCLING THAT END OF THE ISLAND. A LIKELY EXPLANATION FOR THE SITUATION COULD LIE IN THE DISCOVERY OF A FAIRLY FRESH ADULT EAGLE CARCASS FOUND IN THE SUPRATIDAL AT THE NORTH END OF THE ISLAND. THE CARCASS WAS RECOVERED BY THE USFWS REP. OIL RESIDUES WERE MOST COMMONLY SEEN IN THE NORTHERN 1/2 OF THE ISLAND, WITH HEAVIEST AMOUNTS (MOUSSE, SOR) FOUND IN THE BOULDER SUBSTRATE OF THE UUTZ AT THE NORTHERN TIP. VECO WORKERS RECOVERED OILED MATERIAL FROM THIS SITE DURING THE PERIOD OF THE SURVEY (4 1/2 BAGS). SCATTERED OCCURRENCES OF COAT STAIN, AND MOUSSE WERE OBSERVED ON THE NORTHWEST SIDE AND ALONG THE EASTERN COAST. A RELATIVELY HEAVIER BAND OF MOUSSE, SOME FLOWING FREELY, WAS FOUND AT THE SOUTHEAST CORNER OF THE ISLAND, ALMOST DIRECTLY BELOW THE EAGLE NESTS. THE FACT THAT THIS ISLAND IS HIGHLY EXPOSED TO WEATHER IN SHELKOF STRAIT, AND GIVEN THE POSSIBLY TENUOUS SITUATION OF THE REMAINING BALD EAGLE THERE, FURTHER DISTURBANCE FOR ASSESSMENT AND/OR TREATMENT (*PERSONAL OPINION FOLLOWS,*) WOULD NOT BE WARRANTED OR JUSTIFIABLE.

PAGE 1 OF 1

REVIEWED: MC 5/28/91
revised 5.27 91

MAP # 1



K0914 SK101 A

METERS



AS SHOWN BY THE SURVEY.

Subdivision Field Map

Map Key: COAR0014SK101A

Name: D. Fitzgerald

Date: 24 May 1991

reviewed 5.27.97

Bedrock
Cliff

Grassy
Uplands

PHOTO
SITES

EVERGREEN

SHELIKOF STRAITS

Sketch MAP'06.
K9-14-SK-101-A
D.M.F. ZGENI
24 May 1991
820-1050

0 200
METERS

* VECO WORKERS
COLLECTED 3 1/2 bags
of oiled sediment
at site C.

B. CT/ST
5 by 100m, <1%
ON B-BR at
UITZ

C. MS/SOR
CT/ST
5 by 25m, <1%
I/U IN B-C-BR

A. CT/ST
MS
10 by 100m, <1%
UITZ IN BR-B
ZONE, BASE of Cliff

D. CT/ST
SOR, v. Light
8 by 30m, <1%
SOR highly
weathered

E. CT/ST
MS
10m by 40m, <1%
v. small pockets
of mouse

F. CT/ST
MS
5 by 50m, <1%
v. small pockets
of mouse

PU. * 1 roll of
50 plastic
BAGS

Bedrock
WAVE-CUT
PLATFORM
(with boulder/cobble
VENUE AT SOME
SITES)

KIUKPALIK
ISLAND

EAGLES
NEST

G. MS
CT/ST
5-10 by 30m, 1-5%
I/U IN B-BR

H. ST/CT
5-10m by 50m, <1%
ON B-BR

UNSURVEYED

UNSURVEYED

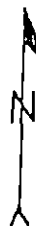
reviewed 5.27 99

PHOTO SITES, SK-101A
ROLL 6-22, FRAMES 1 THRU 7

Sketch MAP: CG
K9-14-SK-101-A
D. M. FITZGERALD
24 May 1991
820-1050

SHELIKOF STRAITS

0 200
METERS



* VECO WORKERS
COLLECTED 3 1/2 bags
of oiled sediment
at site C.

B. CT/ST
5 by 100m, <1%
ON B-BR at
UITZ

C. MS/SOR
CT/ST
5 by 25m, <1%
I/U IN B-C-BR

A. CT/ST
MS
10 by 100m, <1%
UITZ IN BR-B
ZONE, BASE of Cliff

D. CT/ST
SOR, v. Light
8 by 30m, <1%
SOR highly
weathered

E. CT/ST
MS
10m by 40m, <1%
v. small pockets
of mouse

F. CT/ST
MS
5 by 50m, <1%
v. small pockets
of mouse

Bedrock
WAVE-CUT
PLATFORM
(with boulder/cobble
VENEEN AT SOME
SITES)

KIUKPALIK
ISLAND

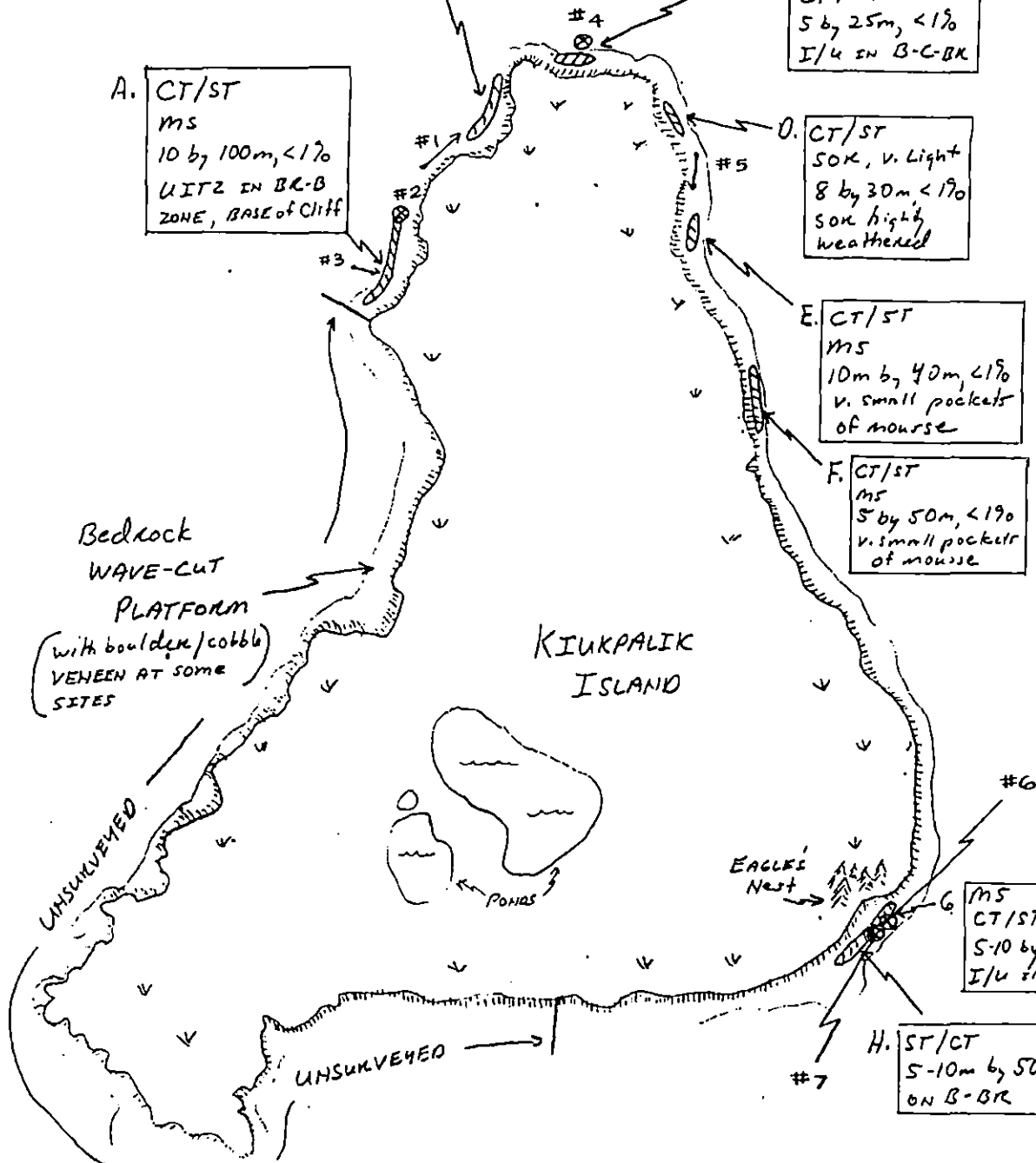
UNSURVEYED

UNSURVEYED

EAGLE'S
NEST

G. MS
CT/ST
5-10 by 30m, 1-5%
I/U IN B-BR

H. ST/CT
5-10m by 50m, <1%
ON B-BR



MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 24 1991

SEGMENT # K90-14 SK101

TIDAL HEIGHT(Range) 1.3-7.5 (8:20-10:50)

SUBDIVISION A

BIOLOGIST H. Davis

SEA STATE 1 ft slight chop

WIND SPEED/DIRECTION 20kt Breeze SW

PHOTOGRAPHS: ROLL # 6-22

FRAME # 1-7

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

Located just offshore from Cape Douglas Kintapaleba has a high energy shore of bedrock platforms with boulder/cobble cover. Moss and lichens are in the SITZ. *Ulva* begins in the SITZ and extends down to the MITZ. In the MITZ the ubiquitous littorine, barnacle, limpet bands are present but not dense. *Porphyra*, *Fucus*, and *Gelidium* are patchy throughout the MITZ. In the MITZ, *Fucus*, *Sargassum*, *Katharina*, *Tonicia*, *Pagurus*, *Ulva*, *Rhodomenia*, *Anthopleura* (x2), *Mopalia*, *Nucella* and *Corallina* sp. are found. The LITZ was not observed extensively, but *Rhodomenia*, *Alaria*, *Ulva*, *Laminaria*, *Anthopleura* (x1), *Telia*, and *Tetractylita* were seen.

All of the Sites A-H, were located in the upper intertidal. *Ulva*, littorine barnacles, limpets and amphipods are the most numerous organisms in these sites. Shell debris (*Nucella* lim + band, *Fractitum* *piegonensis*, *Neptunea* *lyrata*, and *Hydrobia* *ulvae*) from oystercatchers and Gull feeding were found on rocks in sites E-H. Filamentous green alga grew in sites A+B where fresh water streams ran.

1 dead Sooty Shearwater Oystercatchers (6) Harlequin (5) Sandpiper sp (2) Scoter (3) sp? Eagle (1) (1 dead) Ravens (4) Song Sparrows (4) Glaucous-winged Gulls (>40) Kittiwakes (10) (8 dead)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	1	Sculpins
Seabirds	(1)	(1 dead Shearwater, sooty)	
Waterfowl	2	8	
Gulls/Kittiwakes	2	> 50 (+8 dead Kittiwakes)	
Shorebirds	2	8	
Corvids	1	4	
Other Birds Ravens, Sparrows	2	4	

LAND MAMMALS

MARINE MAMMALS	# OBSERVED	SPECIES	# OBSERVED
Sea Otters	5 adults 2 pups	0	
Pinnipeds (specify)			
Harbor Seals	3		
Seals (specify)	0		

Shoreline subdivision map showing important biological features attached.

Bio Maps
H. Davis

Sketch MAP(OG)
K9-14-SK-101-A
D.M. FITZGERALD
24 May 1991
820-1050

SHELIKOF STRAITS

0 200
METERS

Bedrock
Cliff
Grassy
Uplands
PHOTO
SITES
EVERGREEN

* Veco Workers
collected 3 1/2 bags
of oiled sediment
at Site C.

A+B

Verucaria, *Littorina*, *B. glandula*, very
few *B. cariosus*, *N. persona* and a
few *N. scutum*. Filamentous greens were
growing in areas where fresh water
ran through the site.

B.

CT/ST
5 by 100m, <1%
ON B-BR. of
UITZ

Sea Otters
+ Pups

C. MS/SOR
CT/ST
5 by 25m, <1%
I/U EN B-C-BR

Most of site C was
above the level of
the intertidal community,
some *Verucaria* and
a few *Littorina* were
here.

A.

CT/ST
MS
10 by 100m, <1%
UITZ EN B-B
ZONE, BASE OF CLIFF

Dead Eagle
Found Here

Barber
Seals.

D. CT/ST
SOR, v. Light
8 by 30m <1%
SOR highly
weathered

D-H *Verucaria*, *Littorina*,
B. cariosus, some *B. glandula*,
Notoacmea scutum, some
N. persona and shell
debris were all found
at these sites.

E. CT/ST
MS
10m by 40m, <1%
v. small pockets
of mouse

Almost no algal
drift was found
although *Amphipods*
were found under
rocks.

F. CT/ST
MS
5 by 50m, <1%
v. small pockets
of mouse

Gulls
Nesting
Here

KIUKPALIK
ISLAND

Bedrock
WAVE-CUT
PLATFORM
(with boulder/cobble
VENUE AT SOME
SITES)

UNSURVEYED

POND

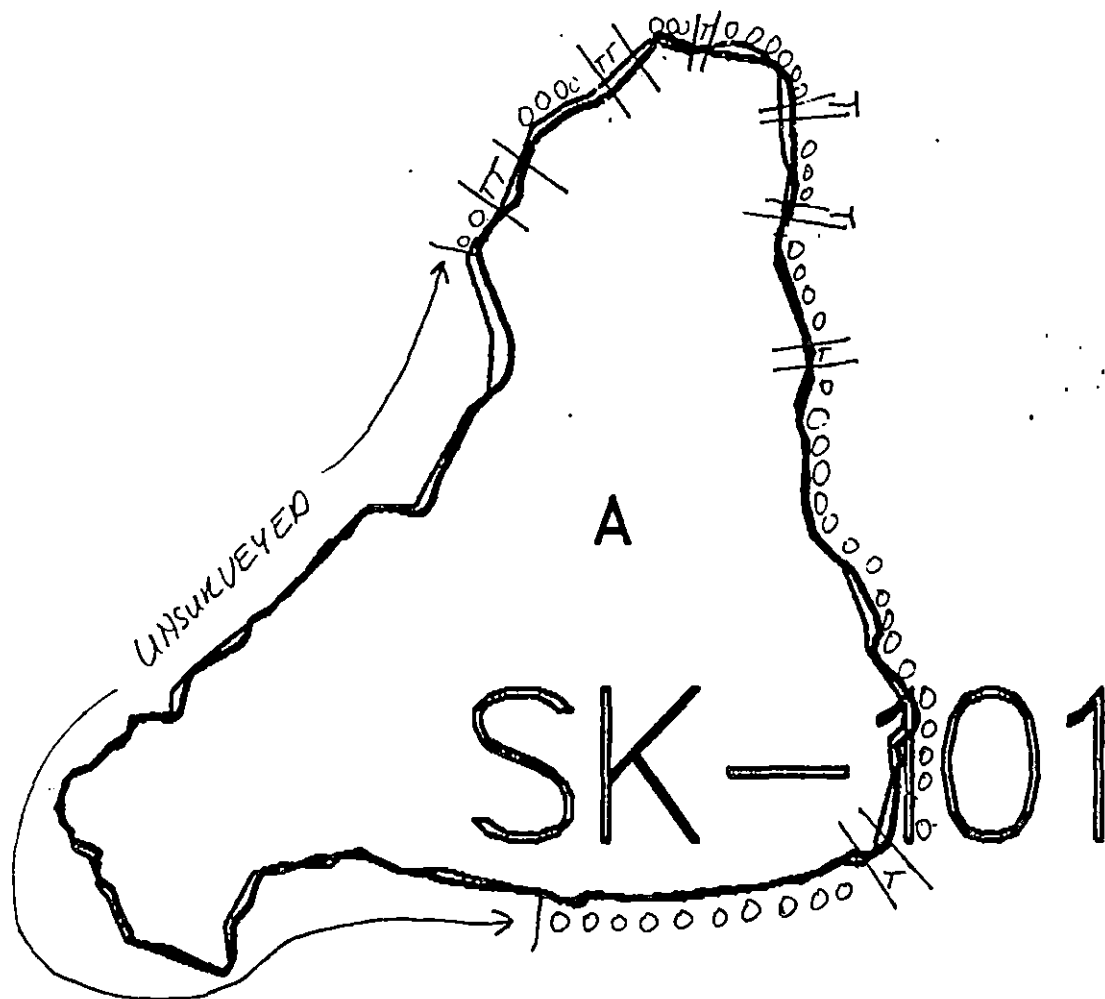
EAGLE
Nest
Empty

G. MS
CT/ST
5-10 by 30m, 4-5%
I/U EN B-BR

Rough-legged
Hawks
were nesting
here last year

UNSURVEYED
Eagle seen soaring
over this area.

H. ST/CT
5-10m by 50m, <1%
ON B-BR



XXXX
////

TTTT
0000

Wide
Medium
Narrow
Very Light
No Oil

K0914 SK101 A
ADEC Subsegment Length: 6251m
METERS

AK State Plane Zone 4
90014081010



Subdivision Field Map

Map Key: 00AK0914SK101A

Name: D. Fitzgerald

Date: 24 MAY 1991

Date Entered:



REVIEWED: MC 5/28/91
revised 5.27 91

1991 MAYSAP EVALUATION

SEGMENT: K09148K101 SUB: A REGION: KOD SURVEY DATE: 5/24/91

ENVIRONMENTAL SENSITIVITIES:

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

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: _____ Date: _____

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL: _____

TAG: _____

FOSC: _____

TAG APPROVAL DATE: _____

FOSC APPROVAL DATE: _____

ADEC _____

FOSC _____

EXXON _____

USCG _____

NOAA _____

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

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

ADEC

NAME J. BARNHART, ADECSIGNATURE Jiff Barnhart

- ☒ NTR Despite the rugged coastline and high exposure environment of Kiupalik Island, oil persists at a number of sites in the form of MS, CV, CT, ST. Occasional ST, CT can be found along most of the survey area. VECO personnel removed approx 50 pounds of o.i. Recoverable oil exists in this segment. Additional cleanup is not recommended at this time, due to the sensitive nature of the island.

EXXON

NAME R. BOYER, EXXONSIGNATURE Randall E. Boyer

- ☒ NTR KIUPALIK ISLAND IS A WELL EXPOSED COASTLINE THAT CONTAINED RUGGED POCKETS OF LARGE BOULDERS AND BEDROCK. A LARGE VARIETY OF WILDLIFE WAS SEEN ON THE SURVEY. MANY SHORE BIRDS AND OTTERS WERE IDENTIFIED. WEATHERED AND THIN SURFACE RESIDUE WAS HARD TO LOCATE. APPROXIMATELY 4000 METERS WAS WALKED AND TRACES OF OIL MAY APPEAR ~~HERE~~ ^{PER} ABOUT 45 MINUTES BETWEEN OILED SITES. THE VECO SURVEY CREW REMOVED EASILY ACCESSIBLE AMOUNTS IN ONE AREA. TREATMENT OF THIS SUBDIVISION WOULD NOT SERVE ANY ENVIRONMENTAL BENEFIT.

LANDMANAGER

NAME E. BENNISOF NPSSIGNATURE Juanita J. Bennis

- ☒ NTR

OF the areas described on OG map, substantive oil persists in sites C + G. Here, mousse is scattered + pooled in rock crevices + boulder/cobble interstices, + appeared to "bleed" in the warm temperatures. A thin weathered surface covered mousse - sticky + "fresh-looking". ST, CT, CV, SOR also present. The crew discovered a dead eagle at 'site C' (OG map). USFWS collected it.

Despite the high energy exposure of much of this island's shore, oil remains in the protected areas of boulder/cobble + bedrock crevices. Although recoverable oil persists, further disturbance to Kiupalik is not justified.

USCG/NOAA

NAME CWO R. SPURR / G. SHIGENAKASIGNATURE R. Spurr / G. Shigenaka

- ☒ NTR

Due to the eagle sensitivity and the small amount of oil remaining on Kiupalik Island, no further treatment should be considered.

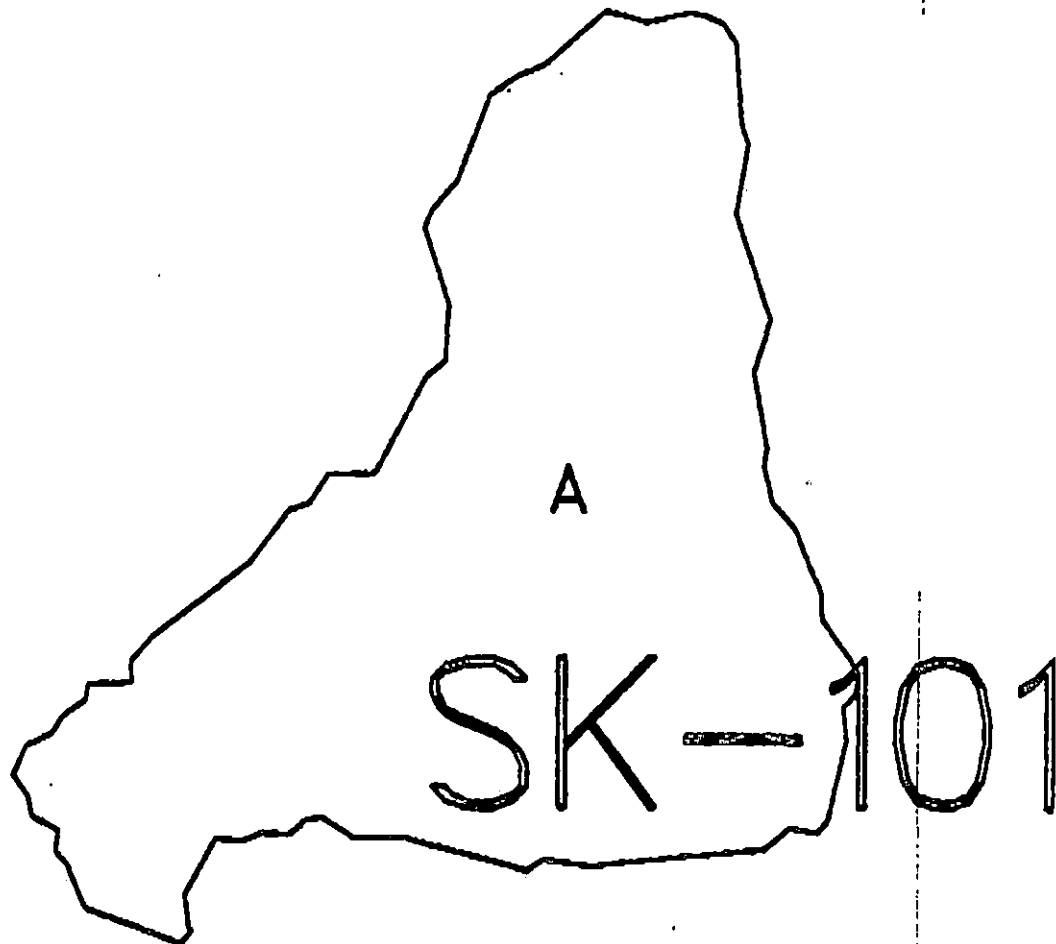
SURVEYED PORTION OF THE SEGMENT COMPRISED ABOUT 2/3 OF THE SHORELINE OF KIUPALIK ISLAND. THE CHARACTER OF THIS COAST WAS RUGGED: BEDROCK AND BOULDER, WHILE INTERIOR PORTIONS OF THE SMALL ISLAND WERE LARGELY GENTLE GRADE AND GRASSY. TWO EAGLE NESTS WERE LOCATED IN A STAND OF TREES AT THE SOUTH EAST END OF THE ISLAND. BOTH WERE FOUND BY A USFWS REP TO BE EMPTY, ALTHOUGH AN ADULT EAGLE WAS SEEN CIRCLING THAT END OF THE ISLAND. A LIKELY EXPLANATION FOR THE SITUATION COULD LIE IN THE DISCOVERY OF FAIRLY FRESH ADULT EAGLE CARCASS FOUND IN THE SUPPATDAL AT THE NORTH END OF THE ISLAND. THE CARCASS WAS RECOVERED BY THE USFWS REP. OIL RESIDUES WERE MOST COMMONLY SEEN IN THE NORTHERN 1/2 OF THE ISLAND, WITH HEAVIEST AMOUNTS (MOUSSE, SOR) FOUND IN THE BOULDER SUBSTRATE OF THE UUTZ AT THE NORTHERN TIP. VECO WORKERS RECOVERED OILED MATERIAL FROM THIS SITE DURING THE PERIOD OF THE SURVEY (4 1/2 BAGS). SCATTERED OCCURRENCES OF COAT STAIN, AND MOUSSE WERE OBSERVED ON THE NORTHWEST SIDE AND ALONG THE EASTERN COAST. A RELATIVELY HEAVIER BAND OF MOUSSE, SOME FLOWING FREELY, WAS FOUND AT THE SOUTHEAST CORNER OF THE

ISLAND, ALMOST DIRECTLY BELOW THE EAGLE NESTS. THE FACT THAT THIS ISLAND IS HIGHLY EXPOSED TO WEATHER IN SHELIKOF STRAIT, AND GIVEN THE POSSIBLY TENUOUS SITUATION OF THE REMAINING BALD EAGLE THERE, FURTHER DISTURBANCE FOR ASSESSMENT AND/OR TREATMENT (*PERSONAL OPINION FOLLOWS*) WOULD NOT BE WARRANTED OR JUSTIFIABLE.

+

+

MAP # 1



+

+



K0914 SK101 A

METERS



AS 11/11/71 11/11/71 11/11/71

Subdivision Field Map

Map Key: 6040014SK101A

Name: J. Fitzgerald

Date: 24 May 1991

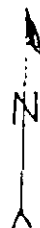
reviewed 5.27 91

Bedrock
Cliff
 v v v Grassy
Uplands
 PHOTO
SITES
 1/4 1/4 1/4
Everglades

SHELIKOF STRAITS

Sketch MAP
 K9-14-SK-10
 D M F. 26EN
 24 May 1991
 820-1050

0 200
 METERS



* VECO WORKERS
 COLLECTED 3 1/2 bags
 of oiled sediment
 at site C.

B. CT/ST
 5 by 100m, <1%
 ON B-BR at
 UITS

C. MS/50R
 CT/ST
 5 by 25m, <1%
 I/U in 3-C-BR

A. CT/ST
 MS
 10 by 100m, <1%
 UITS IN BR-B
 ZONE, BASE of Cliff

D. CT/ST
 50R, v. Light
 8 by 30m, <1%
 50R h-g-h
 weathered

E. CT/ST
 MS
 10m by 40m, <1%
 v. small pockets
 of mouse

F. CT/ST
 MS
 5 by 50m, <1%
 v. small pockets
 of mouse

PU. * 1 roll of
 50 plastic
 BAGS

Bedrock
 WAVE-CUT
 PLATFORM
 (with boulder/cobble
 VENEER AT SOME
 SITES)

KIUKPALIK
 ISLAND

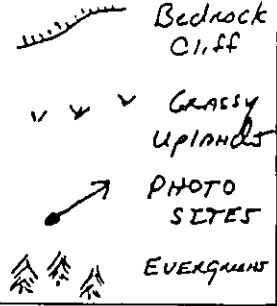
EAGLE'S
 NEST

MS
 CT/ST
 5-10 by 30m, 1-
 I/U in B-BR

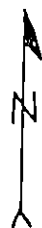
H. ST/CT
 5-10m by 50m, <1%
 ON B-BR

reviewed 5.27.9

SHELIKOF STRAITS



0 200
METERS



* VECO WORKERS
COLLECTED 3 1/2 BAGS
of oiled sediment
at site C.

B. CT/ST
5 by 100m, <1%
ON B-BR at
UITZ

C. MS/SOR
CT/ST
5 by 25m, <1%
I/U IN B-C-BR

A. CT/ST
MS
10 by 100m, <1%
UITZ IN BR-B
ZONE, BASE of Cliff

D. CT/ST
SOR, v. Light
8 by 30m, <1%
SOR highly
weathered

E. CT/ST
MS
10m by 40m, <1%
v. small pockets
of mouse

F. CT/ST
MS
5 by 50m, <1%
v. small pockets
of mouse

Bedrock
WAVE-CUT
PLATFORM
(with boulder/cobble
VENEEN AT SOME
SITES)

KIUKPALIK
ISLAND

G. MS
CT/ST
5-10 by 30m, 1-5
I/U IN B-BR

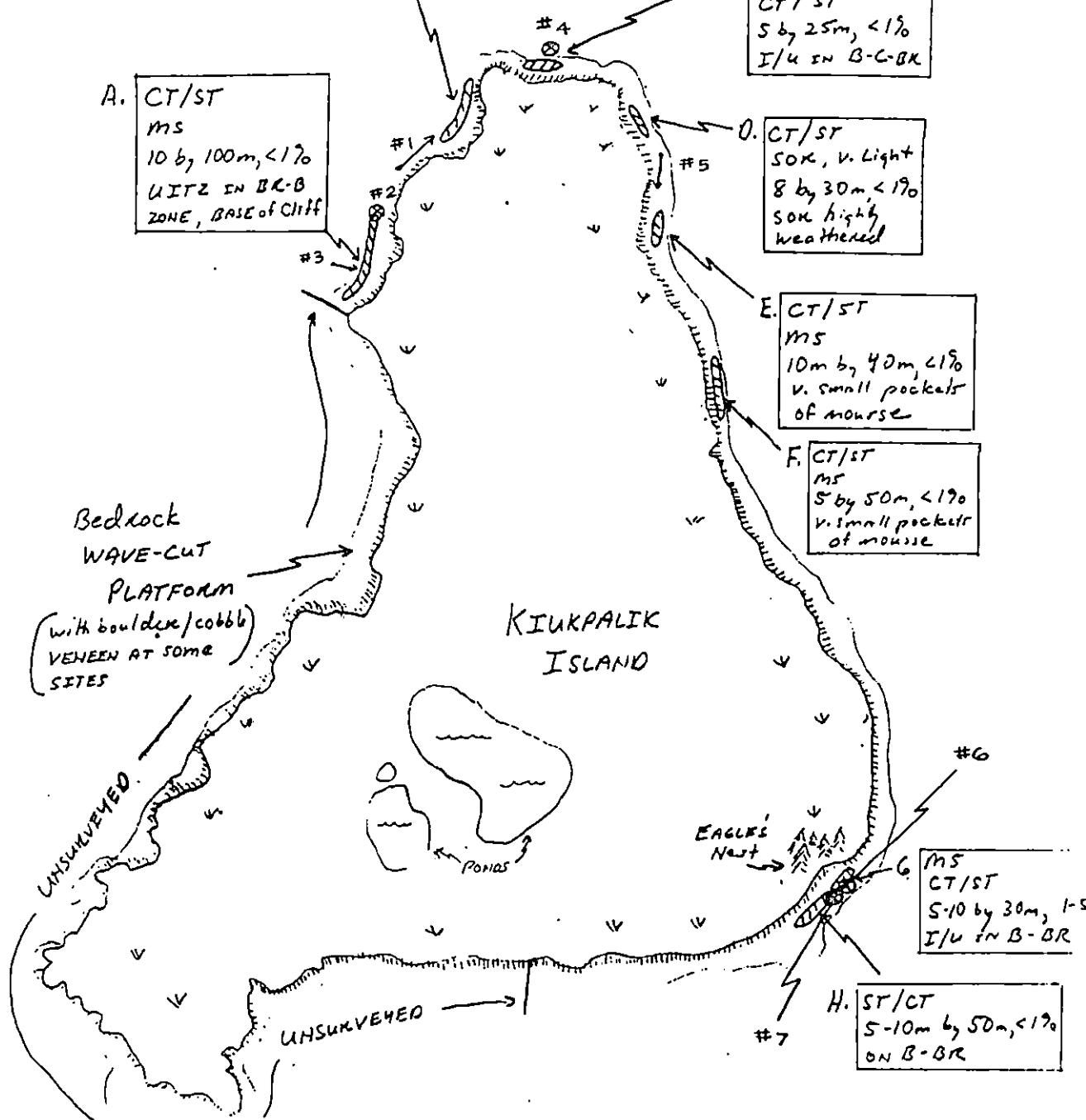
H. ST/CT
5-10m by 50m, <1%
ON B-BR

UNSURVEYED

UNSURVEYED

EAGLE'S
NEST

POND



MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 24 1991

SEGMENT # K9N-14 SK101

TIDAL HEIGHT (Range) 1.3 - 7.5 (8.20 - 10.50)

SUBDIVISION A

BIOLOGIST H. Davis

SEA STATE 1 ft slight chop

WIND SPEED/DIRECTION 20 kt Breeze SW

PHOTOGRAPHS: ROLL # 6-22

FRAME # 1-7

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

located just offshore from Cape Douglas. Kintopalemba has a high energy shore of intertidal platforms with boulder/cobble cover. Moss and lichens are in the SITZ. *Verrucaria* begins in the SITZ and extends down to the MITZ. In the MITZ the ubiquitous littorine, barnacle, limpet bands are present but not dense. *Porphyra*, *Fucus*, and *Loio-pelta* are patchy throughout the MITZ. In the MITZ, *Fucus*, *Sargosiphon*, *Katharina*, *Tonicia*, *Pagurus*, *Uva*, *Rhodomenia*, *Anthopleura* (a+x), *Mopalia*, *Nucella* and *Corallina* are found. The LITZ was not observed extensively, but *Rhodomenia*, *Alaria*, *Ulva*, *Laminaria*, *Anthopleura* (a+v), *Telia*, and *Tetractita* were seen.

All of the Sites A-H₂ were located in the upper intertidal. *Verrucaria*, littorine barnacles, limpets and amphipods are the most numerous organisms in these sites. Shell debris (*Nucella* lim + bandora, *Frustitron oregonensis*, *Neptunea lyra*, and *Notodonta person*) from oystercatchers and Gull feeding were found on rocks in sites E-H. Filamentous green alga grew in sites A+B where fresh water streams ran.

1 dead Sooty Shearwater Oystercatchers (6) Harlequin (5) Sandpiper sp (2) Scoter (3) sp? Eagle (1) (1 dead) Ravens (4) Song Sparrows (4) Glaucous-winged Gulls (>40) Kittiwakes (10) 8 dead

WILDLIFE OBSERVATIONS

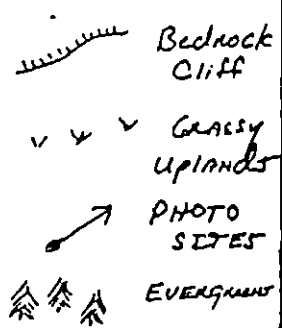
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	1	Sculpins
Seabirds	(1)	(1 dead Shearwater, sooty)	
Waterfowl	2	8	
Gulls/Kittiwakes	2	>50 (+8 dead Kittiwakes)	
Shorebirds	2	8	
Corvids	1	8 4	
Other Birds ⁵ Raven Sparrows	2 1	8 4	

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	5 adults 2 pups	0	
Pinnipeds (specify)			
Harbor Seals	3		
Whales (specify)	0		

Shoreline subdivision map showing important biological features attached.

Rev'd 5/27/91 DM



* Veco Workers collected 3 1/2 bags of oiled sediment at Site C.

SHELIKOF STRAITS

Bio Maps
H Davis

Sketch MAPS
K9-14-SK-10
D. M. FITZGERALD
24 May 1991
820-1050

0 200
METERS

A+B

Terrecaria, *Villosina*, *B. glandula*, very few *B. cariosus*, *N. persona* and a few *N. scutum*. Filamentous greens were growing in areas where fresh water ran through the sites.

Mainland

B. CT/ST
5 by 100m, <1%
ON B-BR. of
UITZ

Sea Otters
+ Pups

C. MS/SOR
CT/ST
5 by 25m, <1%
I/U IN B-C-BR

Most of site C above the low tide line the intertidal zone some *Terrecaria* a few *Villosina* here.

A. CT/ST
MS
10 by 100m, <1%
UITZ IN B-B
ZONE, BASE OF CLIFF

Dead Eagle
Found Here

Harbor
Seals.

D. CT/ST
SOR, V. Light
8 by 30m, <1%
SOR highly
weathered

D-H were *Terrecaria*, little *B. cariosus*, some *B. scutum*, *N. persona* and debris were all at these sites almost no a drift was although were found rocks.

E. CT/ST
MS
10m by 40m, <1%
V. small pockets
of mouse

F. CT/ST
MS
5 by 50m, <1%
V. small pockets
of mouse

KIUKPALIK
ISLAND

Bedrock
WAVE-CUT
PLATFORM
(with boulder/cobble
between at some
sites)

Gulls
Nesting
Here

EAGLE'S
Nest
Empty

G. MS
CT/ST
5-10 by 30m, <1%
I/U IN B-BR

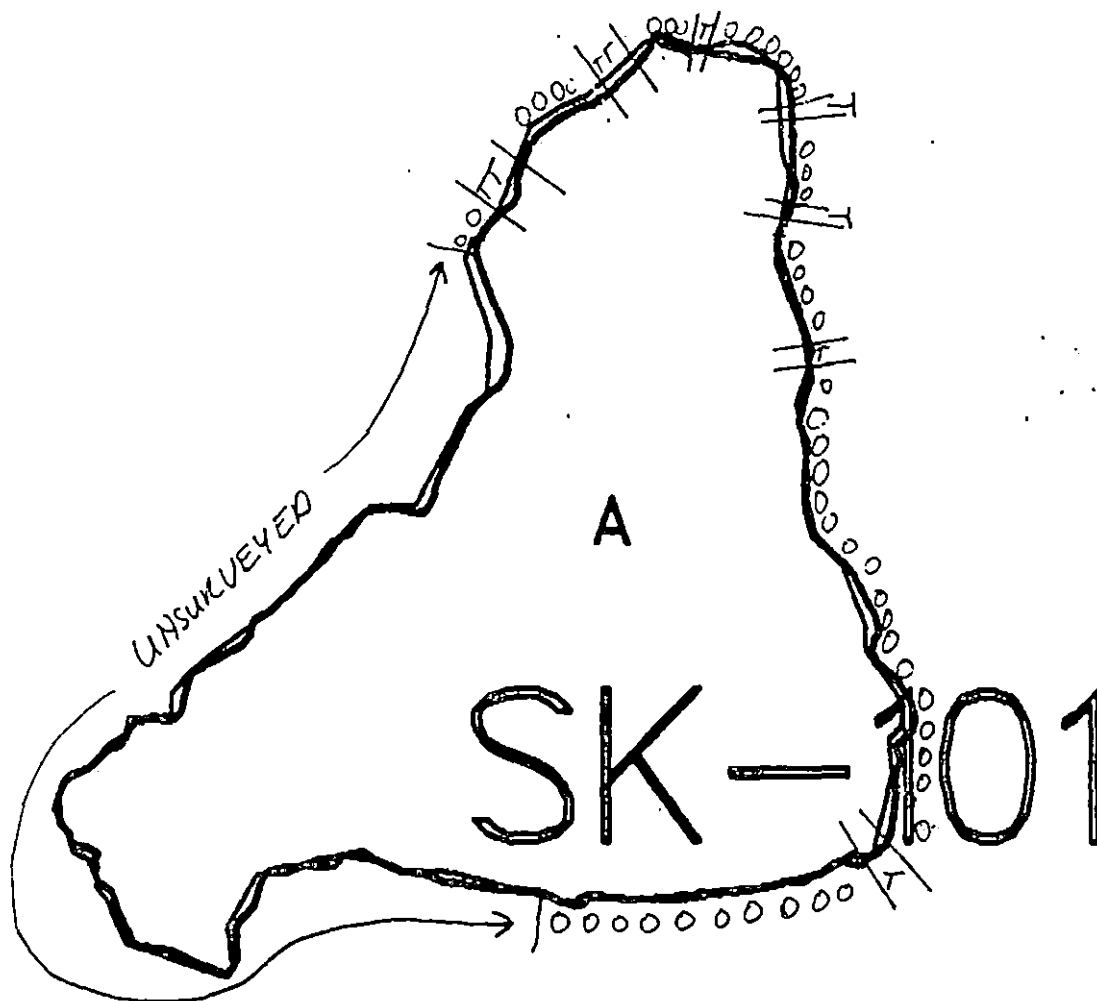
UNSURVEYED

Rough-legged
Hawks
were nesting
here last
year

UNSURVEYED

Eagle seen soaring
over this area.

H. ST/CT
5-10m by 50m, <1%
ON B-BR



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

K0914 SK101 A
 ADEC Subsegment Length: 0251m
 METERS

0 400 800

AK State Plane Zone 4
 9014061010-...



Subdivision Field Map

Map Key: 00AK0914SK101A

Name: D. Fitzgerald

Date: 24 May 1991

Date Entered:

Reviewed by: MC 5/28/91
 revised 5.27.91

WORK PLAN ADDENDUM

Segment K09-15-SB-101

Subdivision A

Dated 5/22/90

MODIFICATION

1. REASON FOR MODIFICATION

- FOSC Request
- Landowner comments

2. ADJUSTMENT TO WORK PLAN

- No bioremediation

SHPO APPROVAL NEEDED YES _____ SHPO SIGNATURE _____
NO X

TAG APPROVAL DATE 5/31/90

ADEC ART WEINER Art Weiner

EXXON ANDY TGA Andy

NOAA Joseph Talbot Joe

USCG G.A. REITER G.A. Reiter

FOSC [Signature] DATE 5/31/90

SHORELINE EVALUATION

SEGMENT ST/ K09-15-SB-101 SUBDIVISION A (1 OF 1) DATE 4/28/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

3N,3P Harbor seal and sea lion pupping (5/15 to 7/1)
30,3Q Harbor seal and sea lion molting (8/15 to 9/15)
4LL National Parks
5R Seabird colony (5/1 to 9/1)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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

SHPO SIGNATURE: Michael Outcrop DATE: 5/15/90

OILING CATEGORIZATION:

Wide 34 m: Medium 0 m: Narrow 47 m: V.Light 469 m: No Oil 1179 m
Subsurface Oil Observed: Yes X No Maximum Depth 20 cm

RECOMMENDATIONS:

 No Treatment Recommended
X Treatment Recommended
 Manual Pickup
X Bioremediation df 5/11/90
 Tarmat Removal

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

COMMENTS: Recommended treatment includes 1) bioremediation of area indicated on attached sketch map. Work should be conducted between 7/1 and 8/15 based on pinniped constraints with approval of USFWS regarding seabird colony.

TAG COMMENTS: BIOREMEDIATION AREAS OF TP 5, 7, + 8

TAG APPROVAL DATE: 5/15/90

ADEC Att. Warden

EXXON Andy T. Galt

NOAA Joseph T. Galt

USCG G.A. Heiter

FOSC:

DATE: 5-28-90

monitor, evaluate need for treatment at time of intended application.

Hang R and
Lang R / Lang B

Lang C/P G/S
CT/S ST/S SITZ
Smart oiled logs

Lang B/Hang R
CT/S ST/S SITZ
Smart oiled logs

Hang / Lung R

Hang R

photo 27
Lang R/B/C/P
CT/P 3m wide
ST/S 30m long
SITZ

Lang S L-SITZ

Lang S L-UITZ
Hang B SITZ
TB/S SITZ

Lang S L-UITZ
Vert R SITZ
30 m long

Lang R/B/C/P CT/S ST/S SITZ oiled logs
Lang B CT/S ST/S SITZ

Hang B
CV/S 2m wide
CT/P 10m long photo 24

Lang B/C CT/S ST/S SITZ oiled logs

Lang B/C CT/S ST/S SITZ oiled logs

Lang B/R CT/P 3m wide 5m long SITZ

Lang B/R ST/S CT/S SITZ

Hang R ST/S SITZ

Lang B/R/C

Lang R ST/S SITZ

Lang S L-MITZ
Lang B/C U-SITZ
ST/S SITZ

Hang R/B
CT/S SITZ on backside
ST/S of rock face

OIL CHARACTER LENGTHS (m):



CV 2

CT 293

ST 100

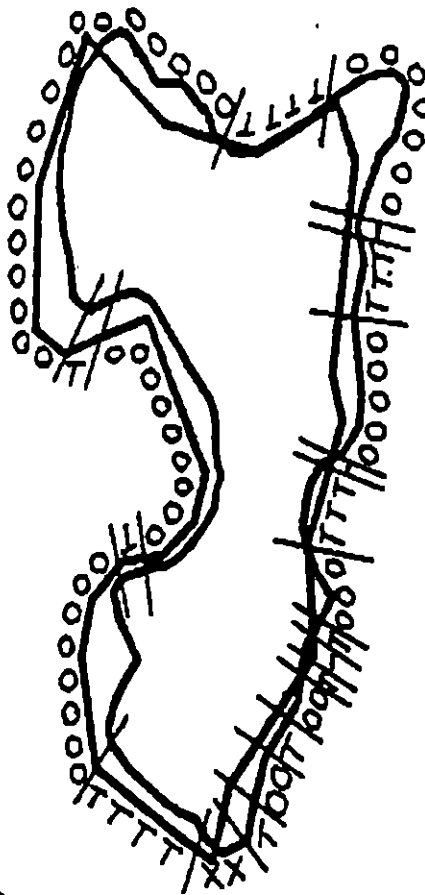
TB 40

NO 1333

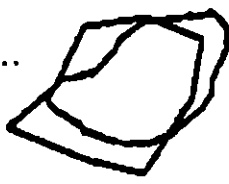
Lang S/B L-MITZ
Lang B/C/S U-SITZ
CT/S U-SITZ
ST/S 10m wide 50m long
No subsurface oiling

SB-101-A
1662m





S



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

SB-101-A
 EXXON SEGMENT LENGTH: 1662m
 Approx. Segment Length: 1695m



Map Key: AXP-SB-101
 Name: C. DILLON
 Date: 4/28/90
 Date Entered:

REGION: KODIAK

SEGMENT: ST/K09-15-SB-101

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ K09-15-SB-101 SUBDIVISION A (1 OF 1) DATE 4/28/90

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)

4LL National Parks

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

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 34 m: Medium 0 m: Narrow 47 m: V.Light 469 m: No Oil 1179 m
Subsurface Oil Observed: Yes X No _____ Maximum Depth 20 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 1) bioremediation of area indicated on attached sketch map. Work should be conducted between 7/1 and 8/15 based on pinniped constraints with approval of USFWS regarding seabird colony.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

KODIAK ECOLOGICAL CONSTRAINTS

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

K0915

SEGMENT ST/ SB-101 SUBDIVISION: A DATE 4/28/90**USCG**NAME AEC Vandepels SIGNATURE AEC Vandepels☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED**ADEC**NAME Michelle Baer SIGNATURE MBaer☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Recommend a small crew (<10) recover TB's, and spots with CV on underlying layer. Hand-size CB should also be recovered with 50%+ CT. Area can be found by referencing map descriptions and pit #'s. Concentrate efforts on East side, with pickups of TB's made at designated areas on West side. Keep crews off areas above SUTZ to avoid disturbing bird colonies.

LAND MANAGERNAME Janis Meldeum SIGNATURE Janis Meldeum☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

Tar balls and oil covered ~~rock~~ cobble and sediment could be manually removed with shovels.

OG C. DILLON USCG AEC Vandepels SEGMENT ST/ K045
 BIO P. Crank LAND REP Janis Meldrum (NPS) SUBDIVISION A (1 OF 1)
 EXXON T. Tamblin ADEC Michele Baer TIME 19:00 to 12:30
 TEAM NO. 5 TIDE LEVEL -0.5 to +1 DATE 04/28/90
 EST. SUBDIVISION LENGTH: 1662 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock Island chain connected by tidal flats
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 35 % B 30 % C 15 % P 10 % G 5 % S 5 % M 0 % V 0 %
 SLOPE: Lang 75 % Hang 25 % Vert 0 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 50 m M 0 m N 45 m VL 300 m NO 1333 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	R	B	P	H	1	2	3	4	5	SU	U	M	L
ASPHALT PAVEMENT													
POOLED													
COVER					X	X				X			
COAT			X	X	X	X				X	X		
STAIN			X	X	X	X	X			X	X		
MOUSSE													
PATTIES													
TARBALLS				X			X			X			
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	X		
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☒ NO ☐

TYPE Oiled driftwood

#BAGS 1

Photographs:

Roll No. ST-5-7

Frames 27, 29

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR					PIT ZONE				AN A	DEPT (m)	↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OH	OL	OF	NO		UG	UC	1	2	3	4	5	SU	U	M	L				
1	40					X	.		X						X					N	-	S-S
2	60					X	.		X						X					N	-	S-S
3	30					X	.		X							X				N	-	P/S-S/P
4	60					X	.		X							X				N	-	C/P-P/S
5	25	X					0-10	X	X						X					N	-	C-C/P
5	25				X		10-20	X			X				X					N	-	C-C/P/G

THE MAJORITY OF THE SUBDIVISION IS LANG AND HANG ROCK AND BOULDER - UNOILED OR WITH OCCASIONAL SMALL SPLATTERS OF COAT AND STAIN ALONG THE SITZ. THE WEST SIDE OF THE ISLET IS MOSTLY UNOILED WITH THE EXCEPTION OF SMALL, SOFT SANDY TAR BALLS ON THE HANG BOULDERS BORDERING THE LARGE SANDY BEACH IN THE CENTER. THE NORTH SIDE OF THE ISLET HAS A SMALL LANG COBBLE/PEBBLE/GRANULE/SAND AND A LANG B/C BEACH WITH SPLASHES OF STAIN/COAT AND OILED DRIFTWOOD ON THE SITZ. OILED LOGS

REVIEWED FAST DATE 2 MAY 90

SEGMENT ST/ SB-101 SUBDIVISION A (1 OF 1)

[illegible]

COMMENTS
THE EAST SIDE OF THE ISLET HAS 3 LANG BOULDER/COBBLE BEACHES WITH BOULDER SHOULDERS. THE COATING BECOMES PATCHY ON THE BOULDER SHOULDERS AND WIDENS TO 3m WIDTH ALONG THE SITZ FOR LENGTHS OF 5, 10 AND 30m. THE 10m LONG AREA IN THE VICINITY OF PIT 8 HAS A FEW COBBLES AND BOULDERS WHOSE INTERSTICES HAVE A SHINY, UNWEATHERED COVER. THE SOUTHERNMOST B/C BEACH AREA HAS A 10m WIDE X 50m LONG

U/S	ST/S

 ALONG THE U-SITZ BUT NO SUBSURFACE PENETRATION. ALL OIL (EXCEPT THE COVER) IS EXTREMELY WEATHERED AND THE COAT IS ALMOST DRIED TO A STAIN. MOST OILING IS IN THE FORM OF SPORADIC SPLASHES AND SPOTS BETWEEN 2 CM DIAMETER AND 20 CM DIAMETER. NO SKETCHES INCLUDED DUE TO LIGHT & UNIFORM OILING & GEOMORPH. REVIEWED BAL DATE 2 MAY 90

Hang R and
Lang R | Lang B

Lang C | P | G | S
CT S ST S SITZ
Sm. amt. oiled logs

Lang B | Hang R
CT S ST S SITZ
Sm. amt. oiled logs

Hang | Lang R

Hang R

photo 27
Lang R | B | C | P
CT P 3m wide
ST S 30m long
SITZ

Lang R | B | C | P CT S ST S SITZ
Lang B CT S ST S SITZ
SITZ oiled logs

Lang S L-SITZ

Lang S L-UITZ
Lang B SITZ
TB S SITZ

Lang S L-UITZ
Vert R SITZ
30 m long

Hang B
CV S 2m wide
CT P 10m long
photo 24

Lang B | C CT S ST S SITZ oiled logs

Lang B | C CT S ST S SITZ oiled logs

Lang B | R CT P 3m wide
5m long SITZ

Lang B | R ST S CT S SITZ

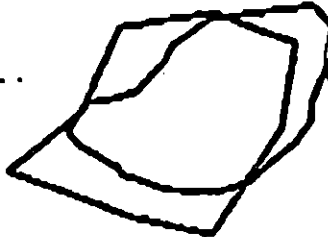
Hang R ST S SITZ

Lang B | R | C

Lang R ST S SITZ

Lang S L-MITZ
Lang B | C U-SITZ
ST S SITZ

Hang R | B
CT S SITZ on backside
ST S of rock face



OIL CHARACTER LENGTHS (m):

- CV 2
- CT 293
- ST 100
- TB 40
- NO 1333

Lang S | B L-MITZ
Lang B | C | S U-SITZ
CT S U-SITZ
ST S 10m wide
50m long
No subsurface oiling

N
SB-101-A
1662m

Time (24 hr) 0850-1230 Biologist Cranl pg 1 of 4

(A) Substrate type and % of segments:
 (1) Bedrock 35 (2) Boulder 30 (3) Cobble 15 (4) Pebble 10 (5) Sand 10 (6) Silt

(B) Overall % cover of biota (% of segment): Dense 10 Moderate 15 Low 75

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

Photographs: Roll No. ST-5-7

Frames 24-31

BARNACLES

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

MYTILUS

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

GASTROPODS

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

FUCUS

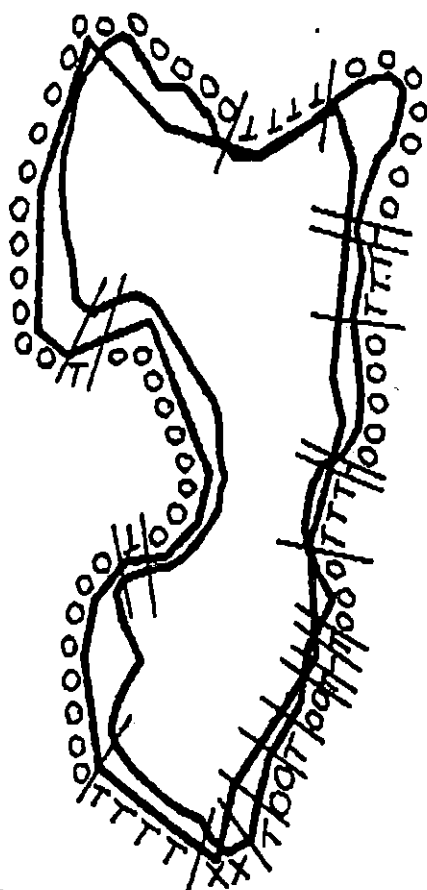
Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	~~2~~	2	2	~~2~~	2	NOT PRESENT 3,4,5
3	3	3	3	3	3	3	~~3~~	3	3	~~3~~	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

Wildlife Observations/ General Comments: - Otter in U172 cobble appeared to be in labor
 >100- Gulls - Glaucous-winged and Mew? (much smaller than G.W. gull) visible breeding dot in hi.
 14 Barrows Goldeneye
 20- Oystercatchers
 10 Harlequin
 4- Cormorants
 8- Dippers?
 1- Raven
 1- Sealion
 4 Seal
 7 Others
 Counts made only for flying birds. Did not enter onto colony.
 NPS rep. found fresh-dead gull in U172 - no apparent oiling.

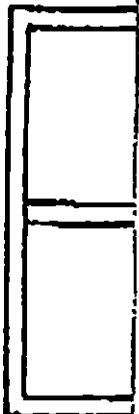
Ecological Considerations:
 Sea Bird Colony
 Eelgrass bed
 Kelp bed
 2 Pigeon Guillemot
 18- other small Alcids
 7- Swallows - heard.

General Comments

- Subdivision is an exposed islet with 2 sandy beach areas (one on the SE corner and the other on the west side), an extensive rock bench (along the east side) and small rock and boulder headlands. Above the rock bench, the MITZ and UITZ comprises of boulder fields and bedrock. The uplands appear to be grassy and a breeding area for gulls. Several other species of birds were also observed but not in the great numbers as the gulls. I did not walk into the uplands; therefore, nesting information not available.
- On the Southern end of the islet in the upper UITZ cobble there was an otter present. It appeared to be in labor as abdominal contractions were visible and although it made hissing noises it did not leave.
- At the Northern End of the Islet there is a *Zostera* bed; on the East side a Laminarian bed (beginning at the -4' tide level). 70% Bladed reds cover on the LITZ rock & boulders.
- Throughout the MITZ there are sporadic sparse patches of *Fucus*.
- Mussels not observed on West side of Islet; on east side a rare individual was found under cobble and there were 3 1m² patches in the MITZ boulder on SW end.
- *Littorina* sparse on sand but throughout rest of Segment substrate and in all zones this was the most dense population I've seen this spring.
- Segment appears healthy.



S



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

SB-101-A

EXXON SEGMENT LENGTH: 1662m
Approx. Segment Length: 1695m



Map Key: AKP-SB-101

Name: C. DILLON

Date: 4/28/90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ K09-15-SB-102 SUBDIVISION A (1 OF 1) DATE 4/28/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

30,30 Harbor seal and sea lion molting (8/15 to 9/15)

4LL Set net sites (6/11 to 7/25)

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

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Michael A. Longoria DATE: 5/15/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 1162 m: No Oil 0 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

X No Treatment Recommended

Treatment Recommended

Manual Pickup

Manual 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: 5/15/90.

ADEC Art Walker Art Weems

EXXON Amv 15/12 Seal

NOAA, Joseph T. Gault

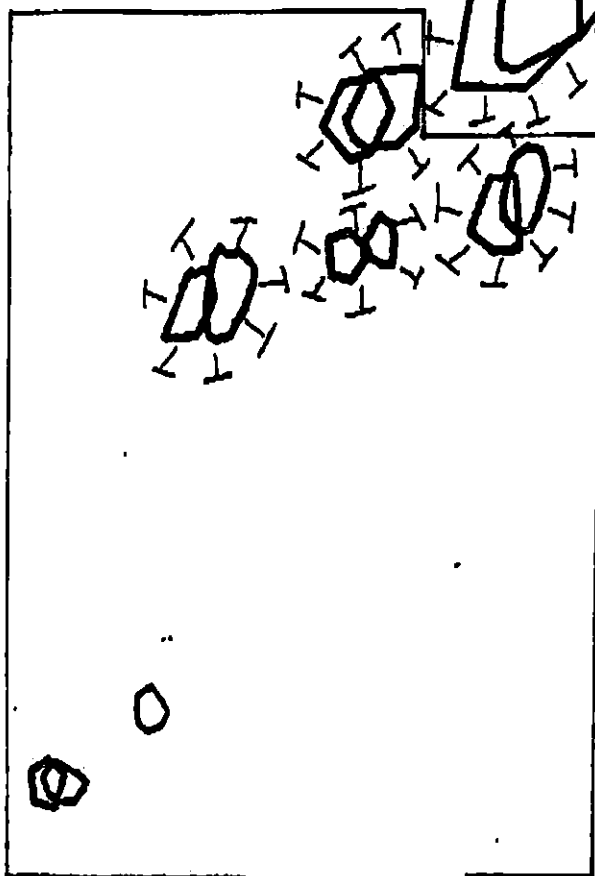
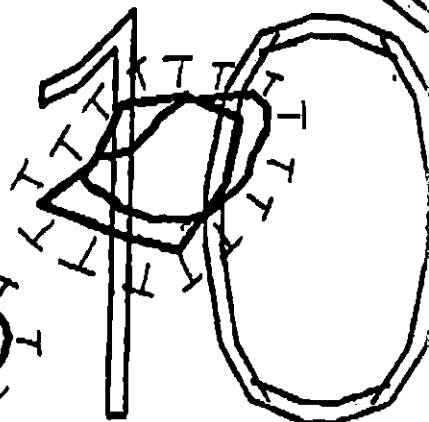
USCGC

FOSC: ✓ L DATE: 5-18-80

DATE: 5-18-90

SB

—



← NOT SURVEYED - DUE TO
UNIFORM ENVIRONMENTAL
AND GEOMORPHOLOGICAL
CONDITIONS, THE OILING IS
CONSIDERED UNIFORM WITH
THE NORTHERNMOST ISLETS
(VERY LIGHT STAIN/COAT SPOTS
SPARSELY SCATTERED ALONG
THE SITE ROCK/BOULDERS)

(COMBINED OILING IS SO LIGHT THAT IT OCCUPIES
LESS THAN 1% OF THE SURFACE SEDIMENTS.)

OIL CHARACTER LENGTHS (m): CT 907 ST 907 ND 0

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

SB-102-A

EXXON SEGMENT LENGTH: 1814m

Approx. Segment Length: 1858m



METERS

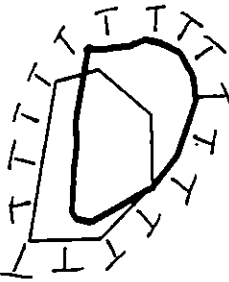
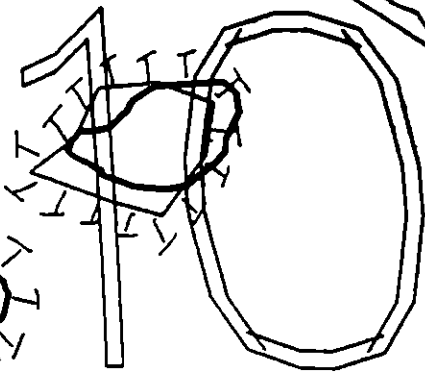
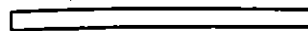
Map Key: AXP-SB-102

Name: C. DILLON

Date: 4/28/90

Date Entered:

SB



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

SB-102

Approx. Segment Length: 1814m



K0915 was XX-2, XX501
Map Key: AKP-SB-102
Name: C. DILLON
Date: 4/28/90
Data Entered:

REGION: KODIAK

SEGMENT: ST/K09-15-SB-102

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ K09-15-SB-102 SUBDIVISION A (1 OF 1) DATE 4/28/90

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)
4LL Set net sites (6/11 to 7/25)
5R Seabird colony (5/1 to 9/1)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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 1162 m: No Oil 0 m
Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: _____

TAG COMMENTS: _____

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

FOSC: _____ DATE: _____

KODIAK ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1 K0915 SB-102 SUBDIVISION: A DATE 4/28/96

USCG

NAME AEC Vandepelt SIGNATURE AEC Vandepelt

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADEC

NAME Michele Baer SIGNATURE M Baer

☒ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

No treatment recommended due to very light, sporadic, small droplet sizes of CT and ST splatters throughout segment. Area is very high energy. Suggest treatment left to natural wave energy.

LAND MANAGER

NAME Janis Meldrum SIGNATURE Janis Meldrum

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

A comprehensive survey of islands in this segment was not completed due to the rising tide. Oil observed was in a weathered state and could only reasonably be removed by intensive scrubbing of rock surfaces.

SHORELINE OILING SUMMARY

REVISION NO. 04-13-90

OG C. DILLON USCG AEC Vandepels SEGMENT ST/ K0915
 BIO P. Crank LAND REP Janis Meldrum (NPS) SUBDIVISION SB-102
 EXXON T. Tomblin ADEC Michele Baer TIME 12:30 to 13:30
 TEAM NO. 5 TIDE LEVEL +1 to +4 DATE 4/1/28/90
 EST. SUBDIVISION LENGTH: 1814 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock Islet chain connected by tidal flats
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 40 % B 35 % C 5 % P 5 % G 5 % S 10 % M 0 % V 0 %
 SLOPE: Lang 25 % Hang 50 % Vert 25 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 1814 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	IC	IS	IP	IR	SP	PR	OR	GR	BL	BR	TR	LR	SU	U	M	L
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT				X						X			X			
STAIN				X						X			X			
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL													X	X	X	

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE —#BAGS —

Photographs:

Roll No. None.Frames —

SUBSURFACE OIL

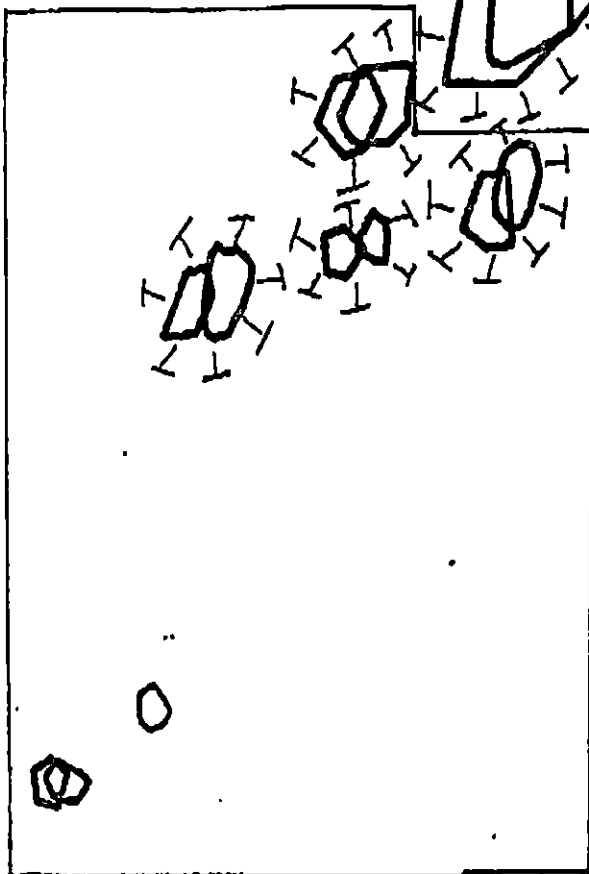
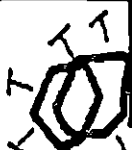
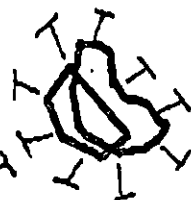
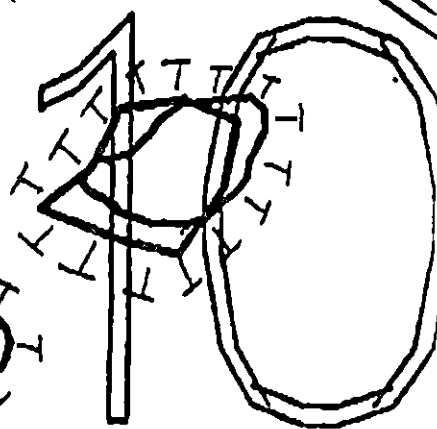
NONE - ALL HANG/LANG/VERT ROCK AND BOULDER/RUBBLE

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SHEEN (Y/N)	↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SP	PR	OR	GR	BL	BR	TR	LR	SU	U	M	L				

COMMENTS THE SUBDIVISION CONSISTS OF SEVERAL (8-10) SMALL ISLETS WITH M-SITZ OF HIGH ANGLE BOULDER/ROCK AND SOME VERTICAL ROCK. AT LOW TIDE THE ISLETS ARE SURROUNDED AND CONNECTED BY LOW ANGLE ROCK AND BROAD SANDY TIDAL FLATS. THE NORTHERNMOST 4 ISLETS WERE SURVEYED BY FOOT AND WERE CONSISTENTLY SPOTTED WITH VERY LIGHT AND SPORADIC SMALL DROPLET SIZE STAIN AND COAT SPLATTERS. THE 4 (OR 6?) SMALL SOUTHERN ISLETS WERE NOT SURVEYED REVIEWED BA DATE 3 MAY 90
 DUE TO RISING TIDE AN INACCESSABILITY BY FOOT. DUE TO THE UNIFORM CONDITIONS OF THE ENVIRONMENT(SHORELINE, OILING IS CONSIDERED UNIFORM).

SB

—



← NOT SURVEYED - DUE TO
UNIFORM ENVIRONMENTAL
AND GEOMORPHOLOGICAL
CONDITIONS, THE OILING IS
CONSIDERED UNIFORM WITH
THE NORTHERNMOST ISLETS
(VERY LIGHT STAIN/COAT SPOTS
SPARSELY SCATTERED ALONG
THE SITE ROCK/BOULDERS)

(COMBINED OILING IS SO LIGHT THAT IT OCCUPIES)
LESS THAN 1% OF THE SURFACE SEDIMENTS.

OIL CHARACTER LENGTHS (m): CT 907 ST 907 NO 0

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

SB-102-A

EXXON SEGMENT LENGTH: 1814m

Approx. Segment Length: 1858m



Map Key: AXP-SB-102

Name: C. DILLON

Date: 4/28/90

Date Entered:

SHORELINE ECOLOGICAL SUMMARY

REVISION: 10/25/80

K0915

Segment ST 1 SB 102 Subdivision A Date (mo / day / yr) 4/28/90

Time (24 hr) 1230-1320 Biologist Crank

pg 1 of 4

(A) Substrate type and % of segments:
(1) Bedrock 40 (2) Boulder 35 (3) Cobble 5 (4) Pebble 5 (5) Sand 5 (6) Silt

(B) Overall % cover of biota (% of segment): Dense 10 Moderate 15 Low 75

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

Photographs: Roll No. ST-5-7

Frames 32

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:

Uplands did not appear to be part of breeding colony. Only a few Gulls were obs.

- High after use on west side more than 100 dgs obs.
- Intertidal similar to SB 101 A.

Ecological Considerations:

Segment: S7/K0915/SB102 A Length: 1858 m

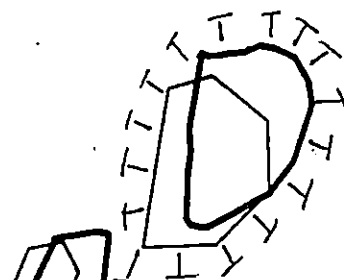
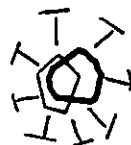
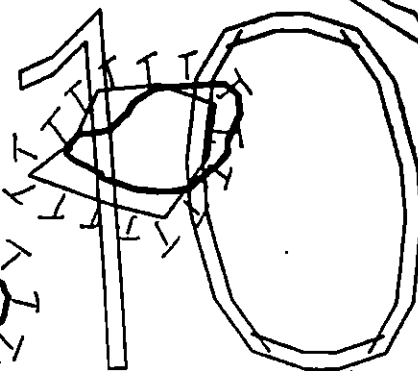
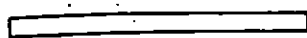
Biologist: Crank

Date: 4/28/90 Time: 1230-1320

Tide Height: +1 $\rightarrow$ +4'General Comments

- Segment is connected at extreme low tide to SB101 by a hard flat on the N end. There is another sand beach on the SW side of SB102A. Between sand areas is bordered by...
- On the SW side there was a 10m² area dense with other dig - >100. = High tide was seen.
- Between sand area, segment is mainly boulder/stable field. In LITZ the b/c are 90% covered by algae; 70% of this are black red.
- Intertidal organisms and distribution almost exact to SB101A. Sand dollar tests found on SB102A, not found on SB101A being the only observed difference.
- Segment appears healthy.

SB



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

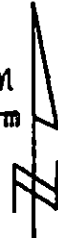
0000 No Oil

SB-102

Approx. Segment Length: 1814m



METERS



KB915 was XX-2, XX501

Map Key: AKP-SB-102

Name: C. DILLON

Date: 4/28/90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ K09-15-SB-103 SUBDIVISION A (1 OF 1) DATE 4/28/90

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)
4LL National Parks
5R Seabird colony (5/1 to 9/1)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Michael Outenbury DATE: 5/15/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 708 m
Subsurface Oil Observed: Yes No X Maximum Depth

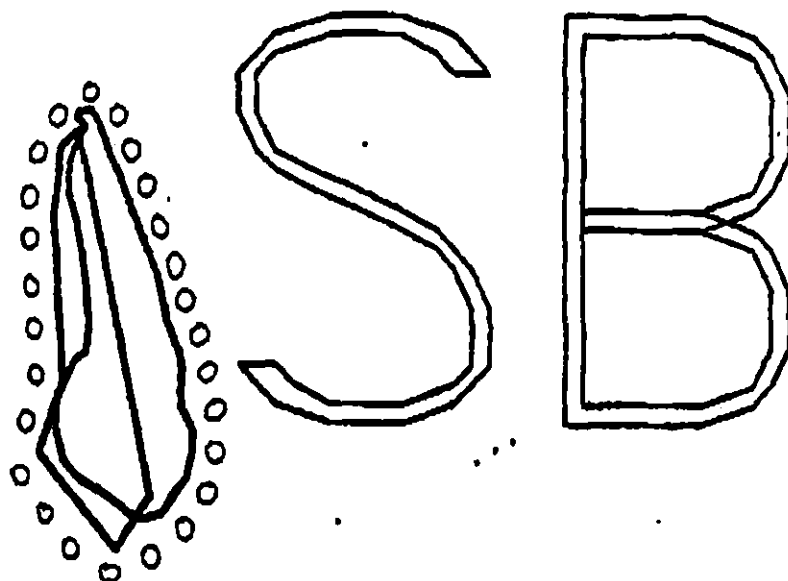
RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 5/15/90.
ADEC Art Weimer Det Weimer
EXXON Andy Ter FOSC: DATE: 5-18-90
NOAA Joseph Tuller
USCG G.A. FELTER



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

SB-103-A

EXON SEGMENT LENGTH: 674m
Approx. Segment Length: 681m



Map Key: AKP-SB-103

Name: C. DILLON

Date: 4/28/90

Date Entered:

REGION: KODIAK

SEGMENT: ST/K09-15-SB-103

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ K09-15-SB-103 SUBDIVISION A (1 OF 1) DATE 4/28/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

30,3Q Harbor seal and sea lion molting (8/15 to 9/15)

4LL National Parks

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

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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 708 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 _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

KODIAK ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K0915 SB-103 SUBDIVISION: A DATE 4/28/90

USCG

NAME AEC Vandepelt SIGNATURE AEC Vandepelt

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Survey was done from skiff because
it was not possible to walk on rock walls.

ADEC

NAME Michelle Baer SIGNATURE MBaer

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

No oiling observed from skiff.

LAND MANAGER

NAME Janis Meldeum SIGNATURE Janis Meldeum

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Island circumnavigated by skiff; no oil observed. If a foot
survey had been possible, it is likely that oil may have
been observed in the form and quantity documented in segments
SB 101 and ~~SB 102~~. Such oiling would not be easily spotted
from a skiff.

OG C. Dillon USCG AEC 1 Vanderpelt SEGMENT ST/ SB-103
 BIO B. Crank LAND REP Janis Meldrum (NPS) SUBDIVISION A (LOF 1)
 EXXON T. Tomblin ADEC Michele Baer TIME 13:30 to 13:45
 TEAM NO. 5 TIDE LEVEL +4 to +5 DATE 4/28/90
 EST. SUBDIVISION LENGTH: 694 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock Rocky Islet
 SURVEYED FROM: ☐ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 75 % B 25 % C 0 % P 0 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 0 % Hang 80 % Vert 20 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 674 m

SURFACE OIL

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

PAVEMENT H F S _____ sq. m by _____ cm

PATTIES / TARBALLS _____ BAGS

NEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒

TYPE _____

#BAGS _____

Photographs:

Roll No. None

Frames _____

SUBSURFACE OIL NONE (MOSTLY DUE TO LACK OF SUBSURFACE BEDS)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR					PIT ZONE				ANALYSIS (GAL)	↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OP	NO		UG	UC	1	2	3	4	5	BU	U	M	L			

COMMENTS THE ENTIRE SUBDIVISION IS AN ISLET OF VERTICAL AND HIGH ANGLE ROCK AND HIGH ANGLE BOULDER. THE SUBDIVISION WAS SURVEYED ENTIRELY BY SKIFF AT CLOSE PROXIMITY AND NO OIL WAS OBSERVED. FOOT ACCESS IS NOT POSSIBLE IN MOST PLACES AND DIFFICULT IN THE REST (BOULDERS ALONG E. SIDE). IF A FOOT SURVEY WAS PERFORMED ALONG THE LARGE BOULDERS OR CLOSER TO THE ROCK CREVICES IT IS UNLIKELY THAT ANY OIL WOULD BE MORE THAN SPORADIC STAIN/COAT.
 REVIEWED BAT DATE 2 May 90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 06/23/90

K0915
Segment ST / SB 103 Subdivision A Date (mo / day / yr) 4/28/90

Time (24 hr) 1320-1340 Biologist Crane pg 1 of 2

(A) Substrate type and % of segments:
(1) Bedrock 75 (2) Boulder 25 (3) Cobble (4) Pebble (5) Sand (6) Silt

(B) Overall % cover of biota (% of segment): Dense Moderate 20 Low 80

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)
Photographs: No photos
Roll No.
Frames

BARNACLES

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

NOT PRESENT

MYTILUS

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

Wildlife Observations/ General Comments:

*20 Gulls

LTZ unexpected

Ecological Considerations:

Possible Small Gull

- Entire Segment surveyed by skiff; not able to make gastropod observations

- Fucus in a discontinuous 1/2 m band in MITZ. 80% of population sporlings.

- Mussel in a 50m x 1/3 m band with a sparse concentration. Unable to make recruitment or mortality obs.

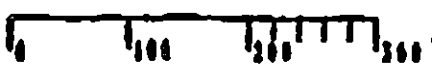
- Barnacles in continuous moderate band 30% spawning. Unable to make recruitment or mortality obs.



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

SB-103-A

EXXON SEGMENT LENGTH: 674m
 Approx. Segment Length: 681m



Map Key: AXP-SB-103

Name: C. DILLON

Date: 4/28/90

Note Entered.

ARLIS
Alaska Resources
Library & Information Services
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