

K9-17 CCOOI AFS 262-15-10040

Chiniak lagoon 1990

ACE 1950364

SHORELINE EVALUATION

SEGMENT ST/ K09-17-CC-001 SUBDIVISION A (1 OF 1) DATE 5/3/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
Stream ID # 262-15-10030
8AA Sensitive estuary
9LM Other: Land mammals
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 Jean Date

DATE: 5/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V. Light 2980 m: No Oil 1783 m
Subsurface Oil Observed: Yes X No Maximum Depth 7cm

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)

TRASH

COMMENTS: Recommended treatment includes 1) manual removal of bags of oiled sand and tarballs 2) manual pick up of tarballs and patties on surface followed by *3) manual raking to aid in locating and removal of buried tarballs and patties as indicated on the attached sketch map. Consult ADF&G for appropriate work dates, regarding raking near anadromous stream.

TAG COMMENTS: MONITORS TO ASSESS THE LOGS

TAG APPROVAL DATE: 5/24/90
ADEC ART WEINER
EXXON ANDY KARL
NOAA BILL ALBERT
USCG M. J. HALL

FOSC: [Signature]

DATE: 6/4/90

ACE 1950365

+15/FF

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
- 3N, 3P Harbor seal and sea lion pupping (5/10 to 7/1)
 3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2208
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (5/1 to 9/15)
 6V Anchorages (5/1 to 9/15)
 6W Forest Service cabins (5/1 to 9/15)
 6X Lodge (5/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
 7-HH Finfish harvesting
 7H Deer harvesting (5/1 to 1/7)
 7JJ Invertebrate harvesting
 7KK Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 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

ACE 1950366

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ K09-17-0001 SUBDIVISION: A DATE 5/3/90NOAA
~~USCG~~NAME STEPHEN LEHMANN SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED.

COMMENTS

Several areas of the UITZ had concentrations of TB + PT. - These should be removed from the area. Several bags of oiled sand were observed - these should be removed.

ADEC

NAME

Terry Ellsworth

SIGNATURE

Terry Ellsworth☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

I concur with the comments of NPS and NOAA. I recommend manual removal of the mouse patties and tarballs (see sketch map) as well as the 4 bags of oiled sediment.

LAND MANAGER

NAME

Carl Schech

SIGNATURE

Carl Schech☐ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

ACE 1950367

COMMENTS

Recoverable oil consists primarily of mouse patties and tarballs. Several concentrated patches of mouse patties exist at the upper edge of the upper intertidal as indicated on the sketch map. Four bags of oiled sand and mouse patties were found. The condition of the oil lends itself to rapid and easy removal. This segment could be walked end to end and patties/tarballs removed with shovels. The observed mouse patties and tarballs are apparently migrating up the beach face and being buried in

SHORELINE OILING SUMMARY

REVISION NO. 1.0

OG G. HEYMAN ^{NOAA} ~~USCG~~ S. LEHMAN SEGMENT ST/ K 09-17-C001
 BIO L. SHARMAN LAND REP C. SCHOSH SUBDIVISION A (1 OF 1)
 EXXON Not Present ADEC T. ELSWORTH TIME 17:30 to 19:45
 TEAM NO. 19 TIDE LEVEL +2 to +3.5 DATE 5 / 03 / 90
 EST. SUBDIVISION LENGTH: 4771 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 0 % B 0 % C 5 % P 10 % G 15 % S 70 % M 0 % V 0 %
 SLOPE: Long 100 % Hang — % Vert — % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 20 m VL 2980 m NO 1771 m
 JRE

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	10	15	19	25	30	35	40	45	50	SU	U	M	L
ASPHALT PAVEMENT													
POOLED													
COVER				X	X					X	X		
COAT				X	X					X	X		
STAIN				X	X					X	X		
MOUSSE													
PATTIES				X	X					X	X		
TARBALLS			X	X	X					X	X		
FILM													
NO OIL												X	X

PAVEMENT H F S 0 sq. m by 0 cmPATTIES / TARBALLS 20 BAGSNEAR SHORE SHEEN? NO BR RW SL TL

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

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE —#BAGS —

Photographs:

Roll No. 55-19Frames —

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	30	35	40	45	50	SU	U	M	L				
1	30					X	0-0	X							X				N	-	-	GP/GS
2	25			X			9-11	X		X					X				N	-	-	G/GPS
3	30					X	0-0	X							X				N	-	-	G/GPS
4	25			X			5-7	X		X					X				N	-	-	S/GPS
							.															
							.															

COMMENTS

ACE 1950368

REVIEWED BAT DATE 10 May 90

This segment consists of a predominantly sand beach with a sand-granule-pebble-cobble storm berm and grassy uplands extending from Chinick Lagoon to the first creek encountered approximately 4771m to the north.

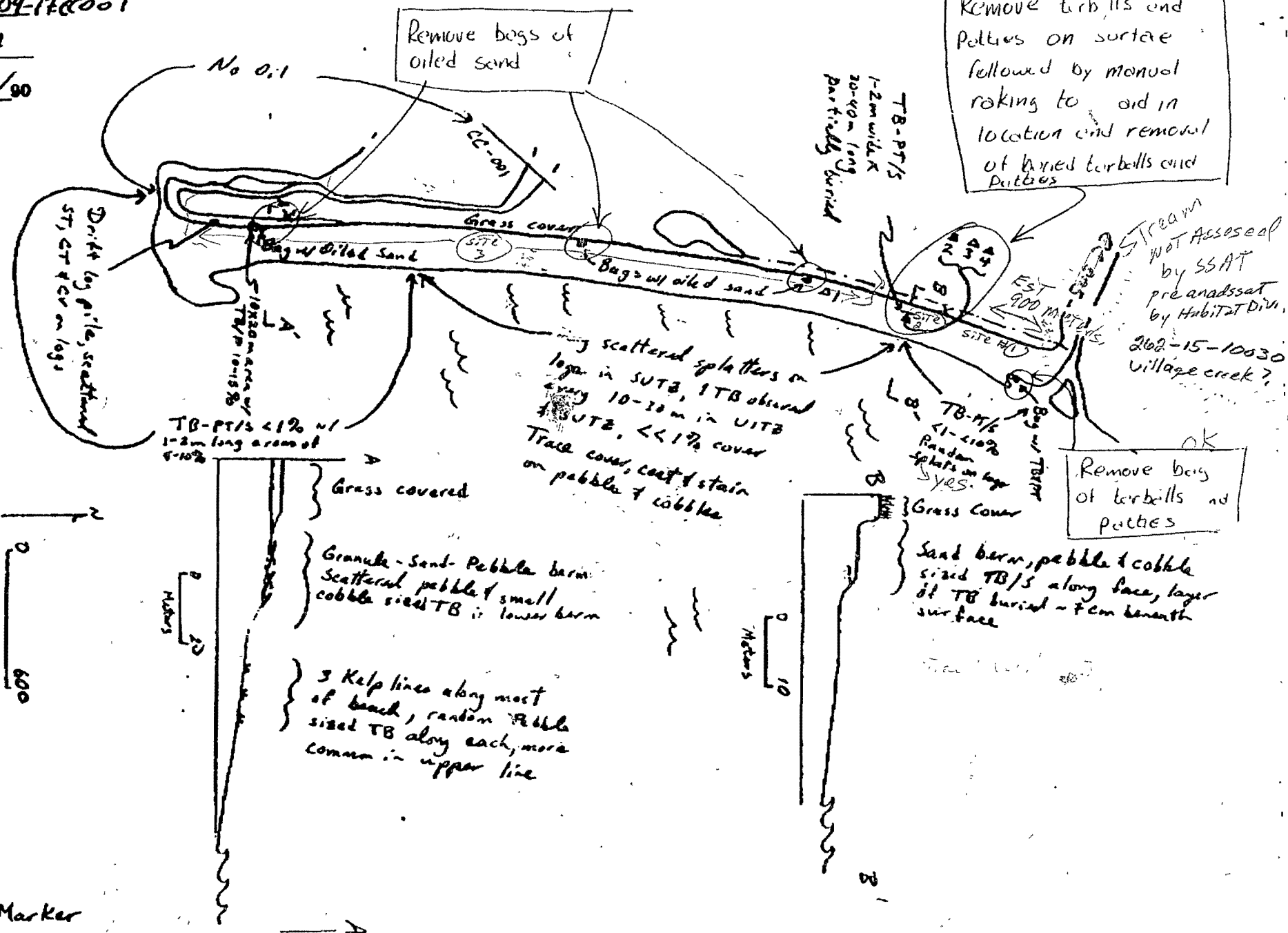
Oiling along the segment consists of TB & PT in the lower SUTZ & upper UITZ along the Kelp lines. The TB & PT typically have an appearance similar to flattened pebbles and cobbles with rounded edges. These "clasts" are DBL on the outside & DBL-DBR inside and are easily broken apart. There is a lot of sand incorporated within the TB & PT. ST, CT & CV were also observed on pebbles, cobbles and logs randomly along the segment, with the CT & CV appearing as a sand entrained layer on the clasts.

Along most of the segment the oiling concentration was << 1%. At the southern and northern ends, concentrations were higher with 1-2m long areas ranging to 10%. One area at the southern end was observed with 10-15% coverage (~10 x 20m maximum dimension) and an area to the north was observed where the TB & PT's had been covered by 5 to 9 cm of sand.

Note that 4 garbage bags of oiled sand were also observed along this segment and are located on the sketch map.

REVISION 12/24/93

Remove bag
of tarbills and
patches



SHORELINE ECOLOGICAL SUMMARY (Page 1 of 6)

REVISION 03.22

Segment ST/ CC-1 Subdivision A Date (mo / day / yr) 5/3/90Time (24 hr) 1730-1945 Biologist SHARMAN(A) Substrate type and % of segments: SUBDIV.
(1) Bedrock (2) Boulder (3) Cobble 5 (4) Pebble 10 (5) Sand 85 (6) Silt ^{+gravel}(B) Overall % cover of biota (% of segment): Dense Moderate Low X
SUBDIV.

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

Photographs:
Roll No. Frames

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS (NUCELLA, LITTORINA, LIMPAETS)

Dense			Moderate			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

ACE 1950371

Wildlife Observations/ General Comments: ~ 25 shorelarks, 10 scups, 15 glaucous-winged gulls, 1 golden plover, 1 yellowlegs, 30 pintails, 1 subadult eagle at N. end of segment (stream) sitting in willows. Brown bear, fox, and river otter tracks very common in supratidal and UTE sand - otters are transiting back & forth to backshore ponds. 2-3 fairly thin & sparse drift lines in UTE include occasional Paracystis woods, along with some (cont.)

Ecological Considerations:

Please refer to attached Eco. Maps. Generally, the identified sensitivities relate to the Chinook lagoon estuary at the S. end of the segment with its anadromous stream, and the catalogued anadromous stream at the N. end of the segment. The former (lagoon) gives the codes 8AA (sensitive estuary) and 9LM (hard mudflats), and the latter (stream) gives the codes 1A (fry outmigration) and 1B (spawning). As related in this section of the summaries for CC-100 & CC-2, the lagoon estuary is a special concern due to ecological importance/productivity, as well as sensitivity to human intrusion/physical disturbance. In addition, the backshore area of this segment appears to be of considerable importance to terrestrial mammals - particularly river otters.

Shorman
5/3/90General Comments (cont.):

Fucus, Alaria, Halosaccion. This is a wide, low-angle sandy exposed beach - much like PB-8 + CC-4, for example. In general, Comments for these segments (intertidally) are probably interchangeable. Invertebrate shells/taste/etc. include: Saxidomus giganteus, Mytilus edulis, Tresus capax, Chiocardium nuttallii, Siliqua patula, Protothaca staminea, Macoma spp., Mya spp., Spisula polyzona, Fusitriton orizonensis, Conax magister, Telmessus, Serpula tubes, large dried clam siphons (at least some - maybe all - are Mya (truncata?)), Dendroaster / Echinorachneus (probably the latter), old dried Suberites ficus (hermit sponge), Podocornus, dried clusters of egg cases of large subtidal snails (Fusitriton / Neptunes / Buccinum). Generally normal + healthy Intertidal Community, given the exposure, beach dynamics, and substrate types.

ECOLOGY MAP

(1 of 4)

CC-1

(Page 3 of 6)

8AA - sensitive estuary

9LM - land mammals

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

1B - stream mouth (spawning) 4/15 → 7/10 (peak 8/15)

SB

ACE 1950373

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CC-1

Approx. Segment Length: 4771m

0 100 200 300
METERS

Map Key: AKP-CC-1a

Name: _____

Date: _____

Data Entered: _____

CC



1

ECOLOGY MAP
(2 of 4)
See map page 1.

CC-1
(Page 4 of 6)

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CC-1

Approx. Segment Length: 4771m



ACE 1950374

Map Key: AKP-CC-1c

Name: _____

Date: _____

Data Entered: _____

ECOLOGY MAP
(3 of 4)

See map page 1.

CC-1
(Page 5 of 6)

Side
Medium
Arrow
Very Light
Oil

CC-1

Approx. Segment Length: 4771m

0 100 200 300
METERS



No.

Name

Date

Data

ACE 1950375

→ - - - - - →
Anadromous
stream (ADF&G # 262-15-10030)
"Village Creek"

ECOLOGY MAP

(4 of 4)

CC-1

(Page 6 of 6)

See map page 1.

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CC-1

Approx. Segment Length: 4771m



ACE 1950376

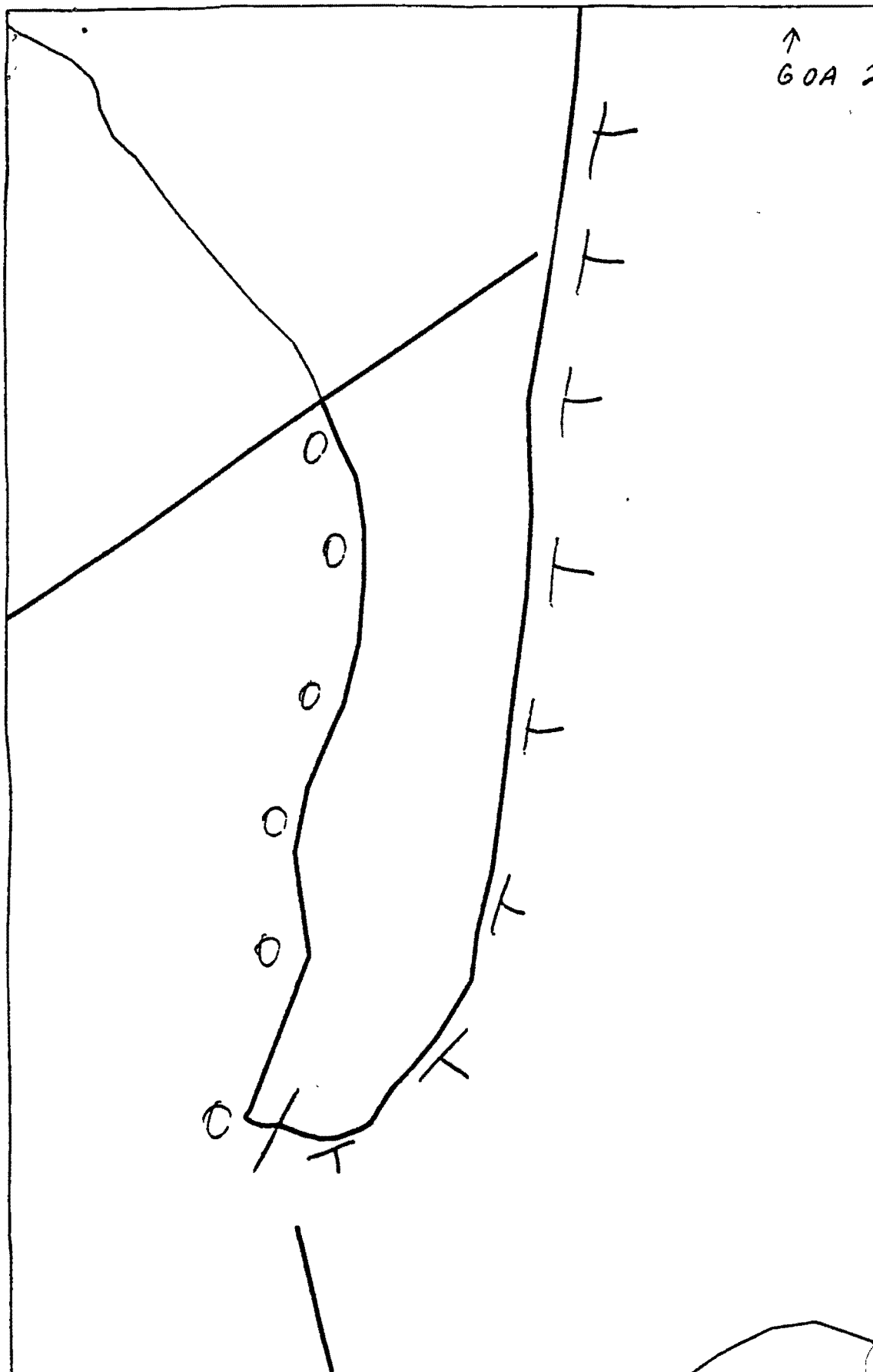
Map Key: AKP-CC-1f

Name: _____

Date: _____

Data Entered: _____

↑
GOA 25 C



ACE 1950377

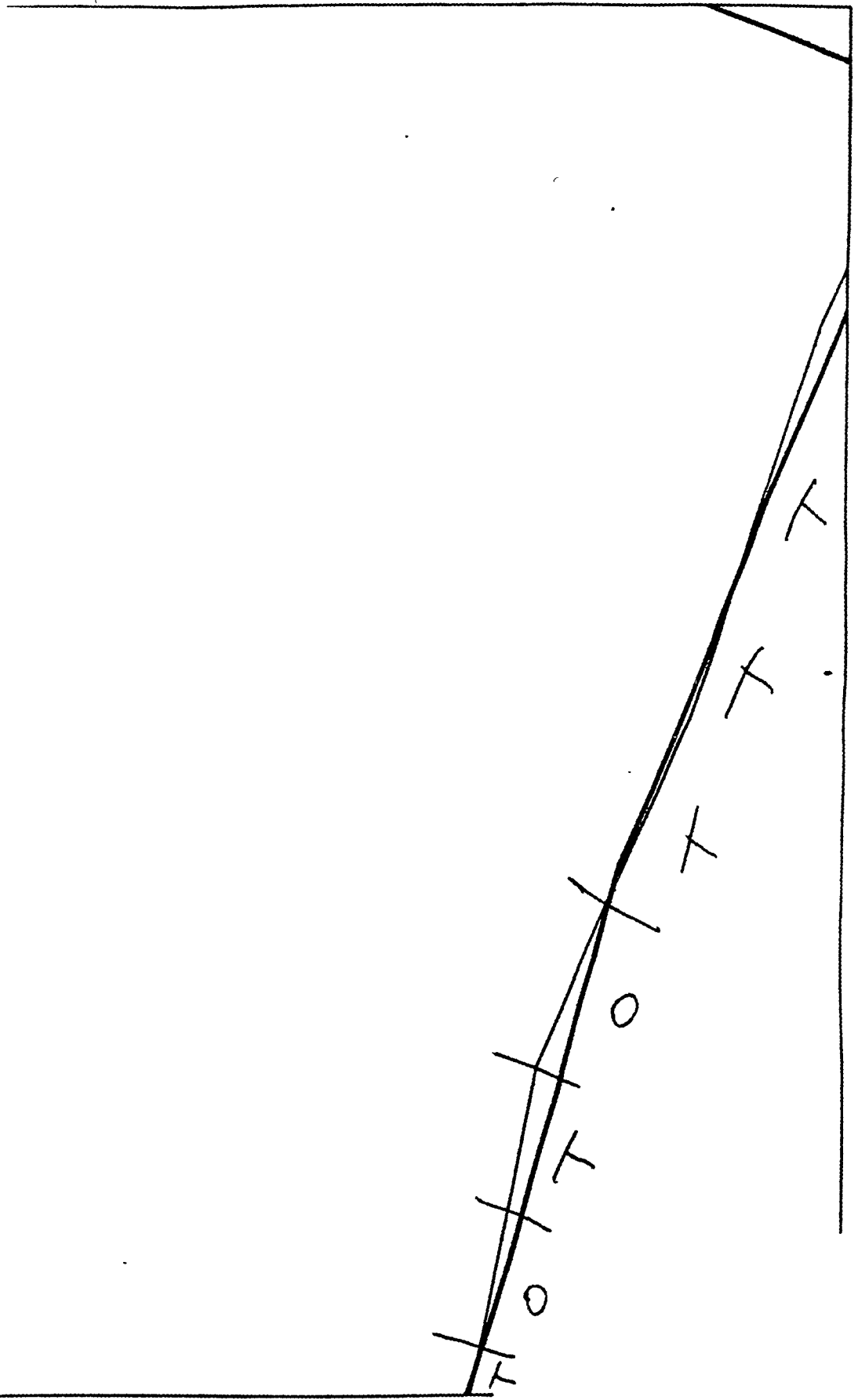
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
OOOO No Oil

CC-1

ADEC Segment Length: 476⁷¹m



Map Key: GOA-25a
Name: HEYMAN
Date: 3 MAY 90
Data Entered:



Side
Medium
Arrow
Very Light
Oil

CC-1

Approx. Segment Length: 4771m



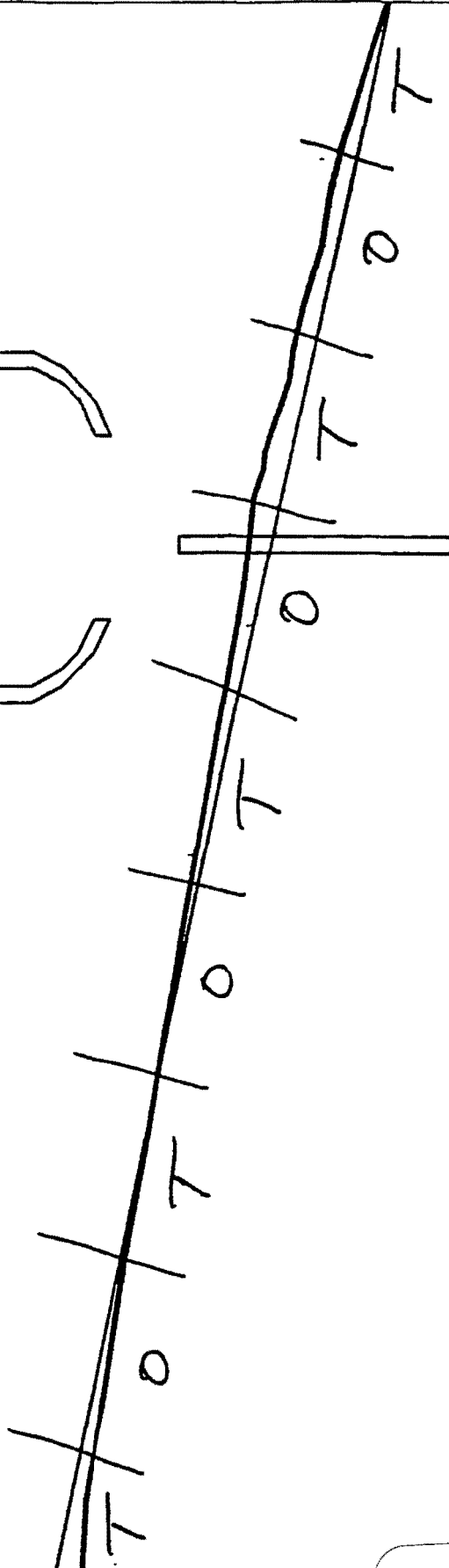
No
Name
Date

HEYMAN
3 MAY 90

ACE 1950378

CC

1



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

OOOO No Oil

CC-1

Approx. Segment Length: 4771m



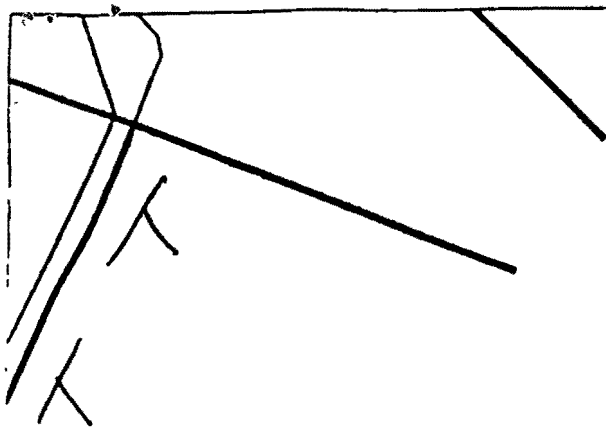
ACE 1950379

Map Key: AKP-CC-1c

Name: HEYMAN

Date: 3 MAY 90

Date Entered:



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

CC-1

Approx. Segment Length: 4771m



ACE 1950380-15

Map Key: AKP-CC-11

Name: HEYMAUN

Date: 3 MAY 90

Date Entered:

ASC NUMBER:

SEGMENT NUMBER: CC-001

YR CATALOGED:

LOCATION:

STREAM NAME:

KODIAK K-UNIT:

USGS QUADRANGLE:

SHORELINE TYPE: Beach

LATITUDE:

LONGITUDE:

LEGAL:

WAVE EXPOSURE: H

ASC NUMBER: 262-15-10040

SURVEY TYPE: CL

METHOD: F

DATE: 7/5/90 + 7/11/90

START TIME:

STOP TIME:

TEAM RECORDER: JEFFREY P. BARNHART

OBSERVERS: Fred Byars, Jim Davis, Terry Ellsworth
Howard Overton, Dick Wydoski

AGENCY (IES): ADF&G, Exxon, USCG, ADEC, NPS, USF&WS

PHOTOS TAKEN? N

Roll #:

Frames:

VIDEO TAKEN? N Tape Number:

Counter Start:

SAMPLES TAKEN? N

SAMPLE I.D. NUMBERS: 1.

2.

3.

4.

5.

6.

OILING DATA

	LENGTH	WIDTH	M2	%	THICK	FEN	OIL TYPE
SITE 1	900 m	2 m	1800	< 1	1.5 cm	surface	TB
SITE 2	95 m	1 m	95	10	1.5 cm	15 cm	TB
SITE 3	2100 m	2 m	4200	< 1	1.5 cm	surface	TB, PT
SITE 4							
SITE 5							

OVERALL OIL IMPACT: L

OIL IN STREAM CHANNEL? N

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SUBSTRATE

Bedrock	Granule
Boulder	Sand 70
Cobble 5	Silt
Pebble 25	Veget.

SPECIES	PS	BRNB			
COUNT	Numerous	2			

COMMENTS: 4,000 pounds of oil/oiled sediment removed. On 7/11/90 Adult pink salmon were observed jumping adjacent to this segment. The segment is bounded on the north by Village Creek AFS 262-15-10030 and the south by Chinitak Lagoon AFS 262-15-10040. Sporadic tarballs < 1% were located and removed from the mouth of Village Creek south along the beach for a distance of 900 meters. At this point subsurface TB to a depth of 15 cm were located in the upper intertidal, lower supratidal zone in a band extending a minimum of 95 meters in length by 1 meter in width. Splashes of oil can be found on logs along the entire segment. From the area of subsurface oiling south along 2100 meters of beach up to Chinitak Lagoon AFS 262-10-10040 surface tarballs and patties were located and removed. Most were located in the upper intertidal, lower supratidal zone.

Subsurface oil is difficult to locate but present on this beach. On 7/11/90 the Exxon representative was concerned about the amount of time expended raking to locate the subsurface oil. Raking was discontinued. An undetermined amount of subsurface oil remains on this beach.

EVOS CLEANUP MONITORING, 1990.

REGION: Alaska Peninsula

REPRESENTATIVES

K-UNIT: K09-17

Exxon: FRED BYARS

SEGMENT: CC-001

USCG: Jim Davis

LOCATION: Chiniak Lagoon

DEC: Terry Ellsworth

STREAM NAME: Chiniak Lagoon

NPS: Howard Overton

ANAD. STREAM CAT. # : 262-15-10040

USFWS: Dick Wydoski

ANAD. FISH STREAM PERMIT ISSUED: NO

ADFG: Jeff Barnhart

DATE(S) WORKED: 7/5/90 and 7/11/90

OTHER:

SQUAD # : 9 Holo

HOURS WORKED: 7.25

SQUAD SIZE: 6

TOTAL MAN HOURS WORKED: 43.5

NUMBER OF BAGS COLLECTED: N/A DATE WORK ORDER ISSUED 6/4/90

POUNDS OF OIL/OILED SEDIMENT REMOVED: 4,000

TREATMENT TECHNIQUES: MANUAL REMOVAL ☒ BIOREMEDIATION

OTHER

OIL BANDS

DEMOS DATE: 7/11/90

L 95m W 1m D 1.5cm m² 95

% oil cover 10 V

OIL SAMPLE # N/A

L 900m W 2m D 1.5cm m² 1800

% oil cover <1 V

OIL TYPE: TB PT

L 2100 W 2m D 1.5cm m² 4200

% oil cover 1 V

SUBSTRATE TYPE: C=5% G=15% L

W D m²

% oil cover V

S=70% P=10%

L W D m²

% oil cover V

PHOTOLOG

Roll #

FRAME #

DESCRIPTION

N/A

PROBLEMS: Subsurface oil is difficult to locate but present on this beach. On 7/11/90 The Exxon representative was concerned about the amount of time ^{raking} expended to locate the subsurface oil. Raking was discontinued. An undetermined amount of subsurface oil remains on this beach. I recommend an assessment of the entire segment in 1991 with special emphasis placed on determining the extent of ^{the} subsurface oiling. As the oil was located ^{along the beach} between the two stream systems I did not issue a work authorization permit.

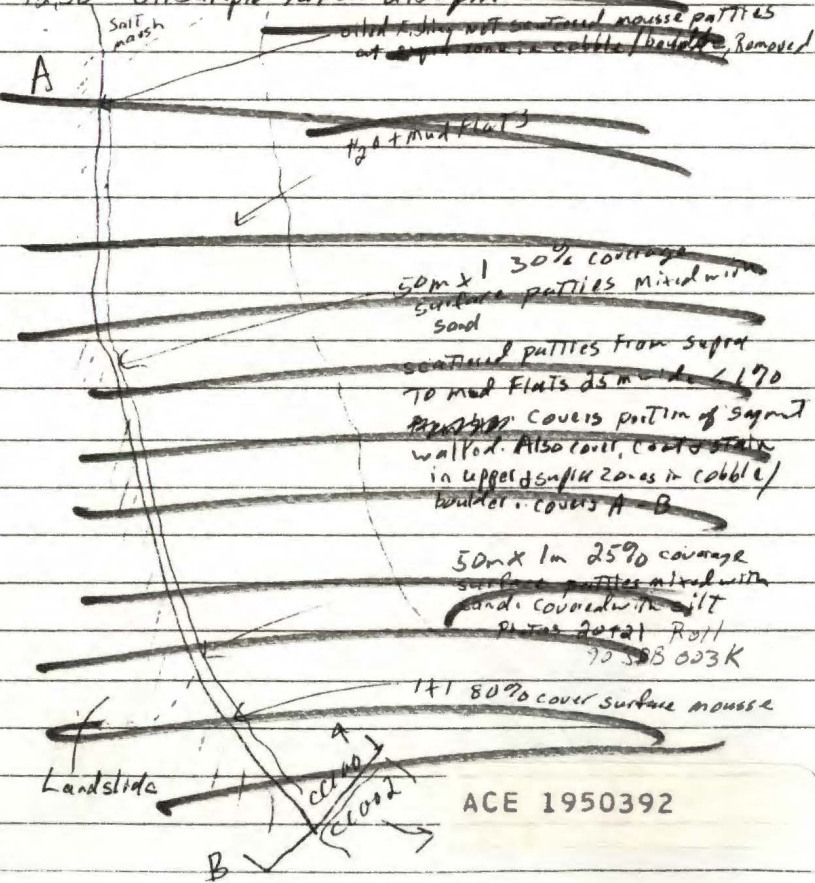
OBSERVATIONS: on 7/11/90 adult pink salmon were observed jumping adjacent to this segment. The segment is bounded on the north by Village Creek AFS 262-15-10030 and the south by Chiniak Lagoon AFS 262-15-10040. Random, sporadic Tarballs & 10% were located and removed from ^{the mouth of} Village Creek south 900 meters. At this point subsurface TB's ^{to a depth of 15cm} were located in the upper intertidal, lower, supratidal zone in a band extending a minimum of 95 meters in length by 1 meter in width. Sporadic splashes of oil can be found on logs along the entire segment. From the area of subsurface oiling south along 2100 meters of beach sporadic surface Tarballs & patties were located and removed. Most were located in the upper intertidal, lower supratidal zone in a band 2m wide, with an average oil coverage of 41%.

SIGNED: Jff Barnhart

JPB

Wed. 7/11/90.

Arrive at office 7:45 AM. Tie up loose ends with ~~M. H. Hensel~~. 8:45 AM ^{Arrive} Drive to JCP. 9:15 AM in helicopter. Briefing. Depart Kotik Airstrip 9:45 AM. 10:20 AM Arrive Chiniak Lagoon CC100, A/K Pon crew start work 11:00 AM. Stop 12:00 start 1:30 Oil sample taken 2:30 pm



ACE 1950392

~~26 + 30 + 21 + 24 = Total CC100~~

of Bags 1st bag 50, 2nd 26 (35-40 pounds each)
3rd 24 4th 24, 5th 24

up until 3:30 pm we had 4 workers then Bill + another worker arrived for a total of 5 workers plus Foreman. Done with CC100 4:30 pm.

Evacuate beach + Land in CC001 4:45 pm

From this Air approx 9 AM Bill Parks and Todd S. went with helicopter to sling super sacks from Douglas creek, Triple Lakes creek, Chiniak Lagoon, That's all

0:70 M/V Alberta Tide. They arrived at Chiniak Lagoon beach 3:30 pm.

I walked CC001 From point where we stopped last time, to the Lagoon Chiniak mouth. Scattered mouse/tor patties Done work 7:30 pm. Also oiled drift + oiled Rope Rott 10:1. Depart CC001 7:50 pm. Land Kotik 8:35 pm

Plan for Tomorrow morning. Pick up paperwork Drive State Rig to office. Done 9:30 pm via Lunch break photos Franc # 18, 19, 20, 21

ACE 1950393

7/5/90

~~No signal work order. Depart 10:55 PM~~

Land North end CC001 11:30 AM

Saw numerous lat? bears from helicopter

To landing, Larry King VECO to arrive

soon - Time 1:40 PM Did not issue a stream

permit for stream on north boundary of CC001

The stream was not satiated, should be

surveyed. Larry King Flow by 4 times taking

video of our work crew. Stopped up the beach

at 509 EH spoke to FRED. Banded well site

2:34 PM spoke to Bill Parks. Crew stop work

5:15 PM. Found subsurface parties 95 x 1 m ^{10%} cover

band (area indicated on sketch map) down to

6". Band continues south, will finish another

Day. Depart 5:30 PM

Crew started CC001 12:30 PM

Land Kodiak Airport 6:25 PM Had to

hold outside control zone for a few

minutes awaiting a "special" VFR to

Land at Airport. Went IFR when

were over at Manzanilla. Depart 7:30 PM

103 bags

JLB.

SHORELINE EVALUATIONSEGMENT ST/ K09-17-CC-001 SUBDIVISION A (1 OF 1) DATE 5/3/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 Stream ID # 262-15-10030

8AA Sensitive estuary

9LM Other: Land mammals

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 Joa DaleDATE: 5/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 2980 m: No Oil 1783 m
 Subsurface Oil Observed: Yes X No Maximum Depth 7cm

RECOMMENDATIONS:

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

TRASH

COMMENTS: Recommended treatment includes 1) manual removal of bags of oiled sand and tarballs 2) manual pick up of tarballs and patties on surface followed by *3) manual raking to aid in locating and removal of buried tarballs and patties as indicated on the attached sketch map. Consult ADF&G for appropriate work dates, regarding raking near anadromous stream.

TAG COMMENTS: Monitors to assess the logsTAG APPROVAL DATE: 5/24/90ADEC ART WEINEREXXON ANDY GRNOAA BILL WICKERTUSCG M.J. HALLFOSC: [Signature]DATE: 6/4/90

ACE 1950383+ / 5

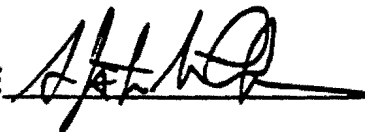
FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K09-17-0001 SUBDIVISION: A DATE 5/3/90~~NOAA~~
~~USCG~~

NAME

STEPHEN LEHMANN

SIGNATURE

☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED.

COMMENTS

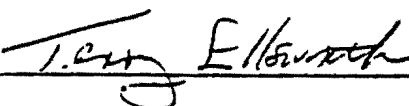
Several areas of the UITZ had concentrations of TB + PT. - These should be removed from the area. Several bags of oiled sand were observed - these should be removed.

ADEC

NAME

Terry Ellsworth

SIGNATURE

☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

I concur with the comments of NPS and NOAA. I recommend manual removal of the mousse patches and tarballs (see sketch map) as well as the 4 bags of oiled sediment.

LAND MANAGER

NAME

Carl Schach

SIGNATURE

☐ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Recoverable oil consists primarily of mousse patches and tarballs. Several concentrated patches of mousse patches exist at the upper edge of the upper intertidal as indicated on the sketch map. Four bags of oiled sand and mousse patches were found. The condition of the oil lends itself to rapid and easy removal. This segment could be walked end to end and patches/tarballs removed with shovels. The observed mousse patches and tarballs are apparently migrating up the beach face and being buried in

ACE 1950384

REVISION NO. 03/21/90

This segment consists of a predominantly sand beach with a sand-granule-pebble-cobble storm berm and grassy uplands extending from Chinick Lagoon to the first creek encountered approximately 4771m to the north.

Oiling along the segment consists of TB & PT in the lower SUTZ & upper UITZ along the Kelp lines. The TB & PT typically have an appearance similar to flattened pebbles and cobbles with rounded edges. These "clasts" are DBL on the outside & DBL-DBR inside and are easily broken apart. There is a lot of sand incorporated within the TB & PT. ST, CT & CV were also observed on pebbles, cobbles and logs randomly along the segment, with the CT & CV appearing as a sand entrained layer on the clasts.

Along most of the segment the oiling concentration was $< 1\%$. At the southern and northern ends, concentrations were higher with 1-2m long areas ranging to 10%. One area at the southern end was observed with 10-15% coverage ($\sim 10 \times 20$ m maximum dimension) and an area to the north was observed where the TB & PT's had been covered by 5 to 9 cm of sand, ACE 1950385-15

Note that 4 garbage bags of oiled sand were also observed along this segment and are located on the sketch map.

[illegible]

JUL-12-1990 09:55 FROM EXXON OPERATIONS ANCH TO KODIAK CLINTAND P.03

NOTES

DAIRY CARNITIES

[illegible]

**** 1 Supersack - 45 CF, report in tenths of sack (i.e. 0.1)**

NA Not Applicable/Recommended for this segment status
 R Recommended but not started
 W Stated and Working
 % Percentage complete (used on large work scopes)
 C Work complete

ACE 1.950386

EXXON FLIGHT PLAN

1. AIRCRAFT TAIL NUMBER: N507EH DATE: July 14, 1990
2. AIRCRAFT COLOR: Red/BL/White TYPE AIRCRAFT: BH 212
3. TOTAL NUMBER OF PEOPLE ON BOARD (INCLUDING CREW): 8
4. DEPARTURE POINT: ADQ ETD: 0900 L
5. ROUTE OF FLIGHT (SHOW ALL WAYPOINTS): Chivial Lagoon,
ALINCHAK ADQ
6. FINAL DESTINATION: ADQ ETA: 1600 L
7. FUEL ON BOARD: 2 HRS + 45 MINUTES
8. ANTICIPATED DELAYS (WAYPOINT/TIME): Chivial Lagoon - 7+00
ALINCHAK - 2+00
9. COMPLETE MANIFEST AND ATTACH OR USE FORM BELOW: ✓ (check complete)
10. DRAW ROUTE WITH DIRECTION ARROWS AND ATTACH: ✓ (check complete)
11. EXECUTE IDEMNIFICATION AGREEMENT IF REQUIRED (reference page F-4) AN ATTACH. REQUIRED? YES NO ✓
12. FAX (266-6471) COMPLETE FLIGHT PLAN AND ATTACHMENTS TO TRANSPORTATION FOLLOWING OR CALL (266-6582). IF DELAYED MORE THAN 30 MIN., AMEND ETD...

NAME	COMPANY	WEIGHT	BAG WT	DESTINATION
BYARS, FRED	EXXON	200	20	ADQ
ELLSWORTH, TERRY	ADEC	200	20	↓
DAVIS, JIM	USCG	200	20	
WYDOSKI, DICK	USFA	200	20	
BARNHART, Jeff	ADEG	200	20	
OVERTON, HOWARD	NPS	200	20	
PILOTS NAMES:		TOTALS	1200	120
J. LAIRD		TOTAL PASS & BAGGAGE		
A. WALLFORD		1320		

1. AIRCRAFT TAIL NUMBER: 511EH DATE: 7/11/90
2. AIRCRAFT COLOR: R/W/B TYPE AIRCRAFT: B-212
3. TOTAL NUMBER OF PEOPLE ON BOARD (INCLUDING CREW): 8
4. DEPARTURE POINT: ADQ ETD: 09:00
5. ROUTE OF FLIGHT (SHOW ALL WAYPOINTS): CHINI AK LAGOON, →
CAPE DOUGLAS → KUKAK → CAPE DOUGLAS → CHINI AK → ADQ
6. FINAL DESTINATION: ADQ ETA: 20:00
7. FUEL ON BOARD: 02 HRS + 15 MINUTES
8. ANTICIPATED DELAYS (WAYPOINT/TIME): CHINI AK (30 mins)
CAPE DOUGLAS (3 HRS., SING LANDING) KUKAK (30 mins)
9. COMPLETE MANIFEST AND ATTACH OR USE FORM BELOW: ☒ (check complete)
10. DRAW ROUTE WITH DIRECTION ARROWS AND ATTACH: ☒ (check complete)
11. EXECUTE IDEMNIFICATION AGREEMENT IF REQUIRED (reference page F-4) AN ATTACH. REQUIRED? YES ☐ NO ☒
12. FAX (266-6471) COMPLETE FLIGHT PLAN AND ATTACHMENTS TO TRANSPORTATION FOLLOWING OR CALL (266-6582). IF DELAYED MORE THAN 30 MIN., AMEND ETD...

NAME	COMPANY	WEIGHT	BAG WT	DESTINATION
BILL PARKS	VECO	300	200	ADQ
ROBERT STEPHAN		195		
JOHN ANDERSON		190		
RON AREMAS		210		
TODD SKOGLUND		195		
Hamid Hogabry	↓	170	↓	↓

PILOTS NAMES:

J. ZANIS
T. Ridley

TOTALS	1260	200
TOTAL PASS & BAGGAGE	1460	

E-6.

OPERATIONS DAILY REPORT **SQUAD 9 - SEATRADER/HELICOPTER**

FROM: Fred BYARS
 TO: VESSEL COMMAND NETWORK
 FAX No: (907) 266-6490

DATE OF WORK:

7/11/90WORK HOURS: START 0830 TO: 2130

WEATHER CONDITIONS:

Wind Speed (Knts)

Wave Height (Ft)

GENERAL

TIDES:

HIGH

Time

HIGH

Time

LOW

Time

LOW

Time

GENERAL LOCATION:

SAFETY
INCIDENTS

For Day

Fatality	
Lost Time	
Restricted	
Medical Treatment	
Total Recordable	

(Transmit Details Separately)

SCHEDULED WORK DAY

HOURS (ex Break) =

Vessel

Helo

Working	
Weather Downtime	
Transit Time	
Mechanical Downtime	
Other:	

12

12

VESSEL
REPRESENTATIVES NAMES

ADEC	
Exxon	
USCG	
OOPS	
Other	

MANPOWER AND BILLETING STATUS (# of People)

Berthing Vessel	PAX * Beds	Exxon Reps	OOPS	Agency Reps	Other	Beach Wkrs Wkg	Idle	Open Beds
Sea Trader	16							

* COI Passenger Beds (includes Service Personnel)

	Boat Crews
Berthing Vessels	
LCV/Production	
Work Boats	
TOTALS	

Helicopter # of Workers
6

HELICOPTER
REPRESENTATIVES NAMES

ADEC	<u>Terry Ellsworth</u>
Exxon	<u>Fred BYARS</u>
USCG	<u>Jim Davis</u>
Other	<u>Jeff Barnhart ADFG</u> <u>Howard Overton NPS</u> <u>Dick Wycloski USF&H</u>

Helicopter Tail #'s
507 EH
357 EH
Work Areas
K9-17 CC100
K9-17 CC001

511 EH

VESSEL STATUS (# of Vessels)

Vessel Type	Total Assigned	In Transit	Total Working	Not Used	Mech Down	Weath Down
Berthing						
LCV/Production						
Work Boat						
TOTALS						

VESSELS ASSIGNED:

Vessel Name	Vessel Type	# People Berthed
Sea Trader	Berthing	

NEXT SQUAD MOVE: LOCATION

Alinuk with Sea TraderDATE OF MOVE 7/12/90

DATE OF LAST CREW CHANGE

PORT FOR CREW CHANGE

SCHEDULED DATE FOR NEXT CREW CHANGE

PORT FOR CREW CHANGE

VISITORS (Name/Affiliation)

STATUS OF SUPPLIES/STORAGE CAPACITIES:

NUMBER OILED/DEAD BIRDS FOUND

Alive

NUMBER OILED/DEAD MAMMALS FOUND

Alive

OTHER*

* Such as discovery of dead oiled birds/mammals, Archeological Artifacts, Wildlife incidents, etc.

ACE 1950389

SQUAD 9 - HELICOPTER

DATE OF WORK: 7/6/90

WORK HOURS: START 0530 TO: 1730

MANUAL AND MECHANICAL OPERATIONS

[illegible][illegible][illegible]

• The date that the Manual/Mechanical portion of the Work Order has been completed and acknowledged. A separate acknowledgement will be made for the Bioremediation portion of the Work Order.

**** 1 Supersack = 45 CF, report in tenths of sack (i.e. 0.1)**

STATUS CODES

NA Not Applicable/Not recommended for this segment/division
N Recommended but not started
W Started and Working
Percentage complete (used on large work scopes)
C Work complete

ACE 1950390

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K-09-17-CC-001 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	OPEN
Manual Raking	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 (262-15-10030 and 262-15-10040) are more than 100m from work site. No constraint to manual pickup and manual raking.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

[Signature]

Date

6-18-90

Prepared by

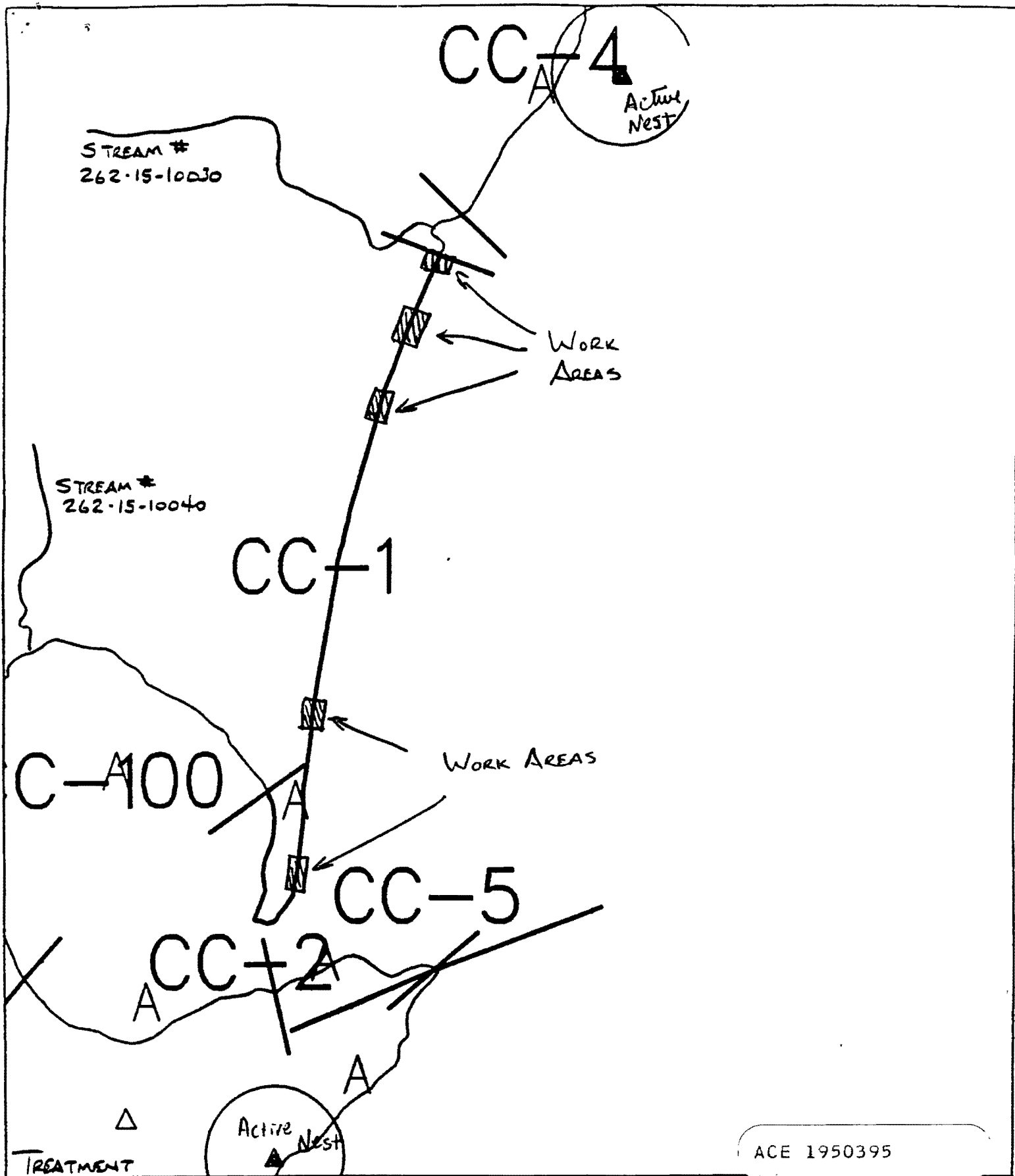
[Signature]

Date

6/15/90

ACE 1950394 +

[Signature]



ACE 1950395



Exxon Company, USA
Map Key: MP-CC-1

ECOLOGY MAP SEGMENT K9N-17 CC-1 SUBDIVISION A (1 of 1) METERS

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

SHORELINE EVALUATION

SEGMENT ST/ K09-17-CC-001 SUBDIVISION A (1 OF 1) DATE 5/3/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1 Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
Stream ID # 262-15-10030
8AA Sensitive estuary
9LM Other: Land mammals
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 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 Joa Dan DATE: 5/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 2980 m: No Oil 1783 m
Subsurface Oil Observed: Yes X No Maximum Depth 7cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual removal of bags of oiled sand and tarballs 2) manual pick up of tarballs and patties on surface followed by *3) manual raking to aid in locating and removal of buried tarballs and patties as indicated on the attached sketch map. Consult ADF&G for appropriate work dates, regarding raking near anadromous stream. SEE CONSULTANT ADDENDUM dated 6/15/90 J.P.

TAG COMMENTS: MONITORS TO ASSESS THE LOGS

ACE 1950396 -15

TAG APPROVAL DATE: 5/24/90
ADEC ART WEINER
EXXON ANDY GIL
NOAA BILL ALBRECHT

FOSC: [Signature]

DATE: 6/4/90

FIELD SHORELINE COMMENT SHEET

ASAP

K09-17

SEGMENT AS/ CC001 SUBDIVISION: A SITE: 1 DATE AUG. 3, 1990

USCG

NAME J. FAZIO

SIGNATURE

J. Fazio Bm'☐ YES☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

ADEC

NAME F. BENNIS

SIGNATURE

F. Bennis☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

There had been buried mousse removed by work crew in this sandy beach, as well as surface oil. The S.A.P. work saw additional MS patties after the work crew's treatment, suggesting there is more oil present which may be alternately uncovered + buried. If there is no more oil present, another assessment would confirm this.

LAND MANAGER

NAME W. TROYER

SIGNATURE

Will Troyer☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

This site had a lot of oil buried under the sand. It is unclear how much may remain or possible resurface by next spring. Therefore I feel it should be assessed to determine this unknown.

EXXON

NAME R. COULTER

SIGNATURE

Reg. R. Coulter☐ YES☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

ALL TAR BALLS AND PATTIES FOUND WERE REMOVED.

FIELD SHORELINE COMMENT SHEET

K09-17

SEGMENT AS/ CC001 SUBDIVISION: A SITE: 2 DATE Aug. 3, 1990

USCG

NAME J. FAZIO SIGNATURE J. D. Fazio Bm'

☐ YES

☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

ADEC

NAME F. BENNIS SIGNATURE F. Bennis

☐ YES

☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

LAND MANAGER

NAME W. TROYER SIGNATURE Will Troyer

☐ YES

☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

EXXON

NAME R. COULTER SIGNATURE Rev R. Coulter

☐ YES

☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

ALL TAR BALLS AND PATTIES FOUND WERE REMOVED.

ASAP SHORELINE OILING SUMMARY

TEAM NO 5 KODIAK EXXON R. COULTER SEGMENT AS. CC-1
 OG D. FITZGERALD USGS J. FAZIO SUBDIVISION A
 ADEC F. BENNIS LAND REP W. TROYER TOTAL NO. SITES 2
 DATE AUG 1 03 1990 TIME 14:40 to 16:20 TIDE LEVEL 330 to 230 cm ABOVE MLW
 TOTAL EST LENGTH OF SHORELINE SURVEYED: 2200 m
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WEATHER: ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 OIL CATEGORY LENGTH: W m M m N m VL 500 m NO 1700 m US m

SURFACE OIL

SITE 1

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SU	UI	MI	LI
ASPHALT								
S.O.R.								
POOLED								
COVER								
COAT								
STAIN								
MOUSSE								
PATTIES/T.B.				X	X			
FILM								
NO OIL						X	X	X
EST. SITE LENGTH					400			

SITE 2

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SU	UI	MI	LI
ASPHALT								
S.O.R.								
POOLED								
COVER								
COAT								
STAIN								
MOUSSE								
PATTIES/T.B.				X	X			
FILM								
NO OIL								
EST. SITE LENGTH					100			

SITE 3

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SU	UI	MI	LI
ASPHALT								
S.O.R.								
POOLED								
COVER								
COAT								
STAIN								
MOUSSE								
PATTIES/T.B.								
FILM								
NO OIL								
EST. SITE LENGTH								

SUBSURFACE OIL

SITE NO.	PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER				OILED INTERVAL (cm)	CLEAN BELOW (Y/N)	PIT ZONE				SURFACE SUBSURFACE SEDIMENTS
			OP	OR	OF	NO			SU	UI	MI	LI	
1	1	30				X	.						S-6-P
	2	30				X	.						S-6
2	1	40				X	.						S-6
							.						
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							.						
							.						

Photographs:

Roll No. BAT-06-13

Frames # 30-34

COMMENTS

Both of these sites had areas with very sporadic tar balls and patties in the UITS. All that were seen were picked up and bagged and the ASAP crew spent 30-40 minutes at each patrolling for tar balls and patties.

REVISION NO. 7/27/88

ACE 1950402

SKETCH MAP

3MENT ST/ K 09-170001

DIVISION A

TE 513/90

HECKLIST

N Arrow
Approx. Scale
Seg/Sub Entry
Of Dist.
Width
Length
% Cover
Substrate Character
Est. INFLUENCE
SSE
Profile Location(s)
Profile(s)
PR Location(s)
Photo Location(s)

LEGEND

1 Δ
No Subsurface Oil

2 ▲ Subsurface Oil

CT/C

CT/D

Mass Distribution

CT/P

die Distribution

7-7

ETAS
World Distribution

222

4 Vegetation

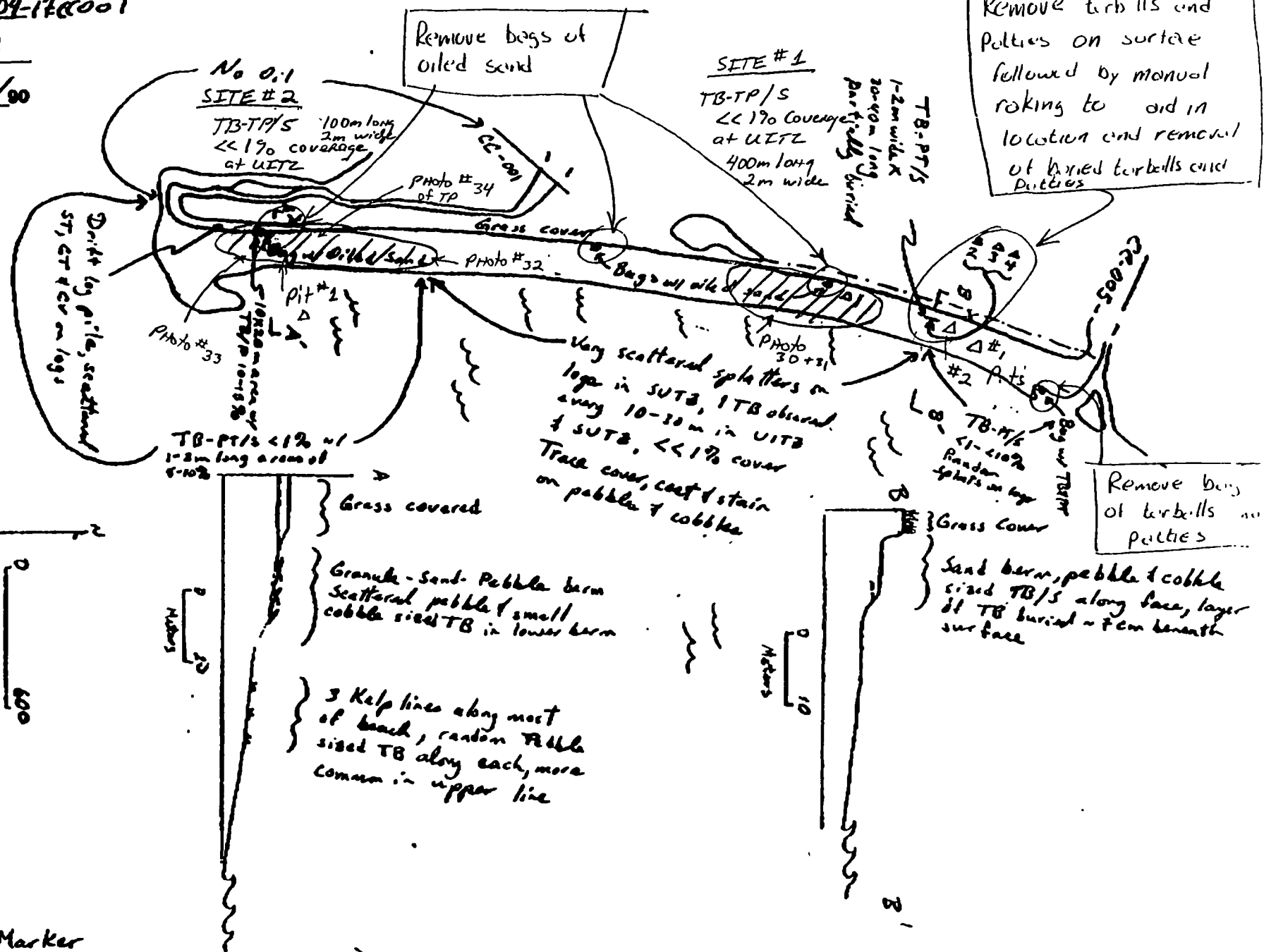
to location, direction,
number

Regulatory Marker

ACE 1950403

haracter Langan (m): AP — PO — CV 3 CT 3 ST 4 MS — PT 6.10 ps.2304FL — NO 1771

REVISION 03/24/90



N-17

CC-1

A

TP-TB/S
« 1% Coverage

A

CC-100

TP-TB/S
« 1% Coverage

CC-5

CC-2

A

ACE 1950404

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

K9N-17 CC-1 A
ADEC Subsegment Length: 4763m

METERS

0 457 914

AK State Plane Zone 4 1:18000
K9N-17cc1aa



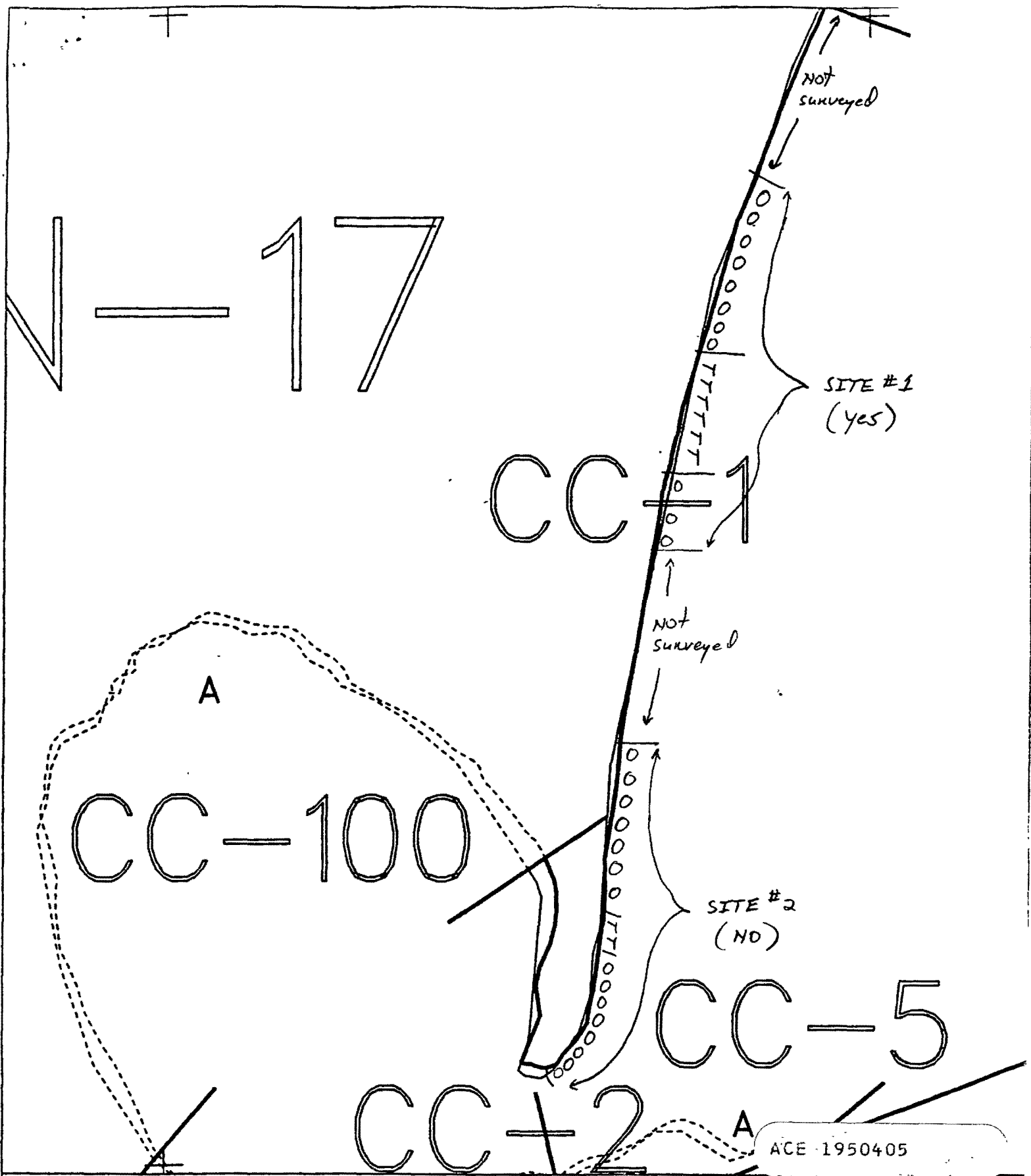
Subdivision Field Map

Map Key: AKPK9N-17CC-1Aa

Name: D. Fitzgerald

Date: 3 Aug 90

Data Entered:

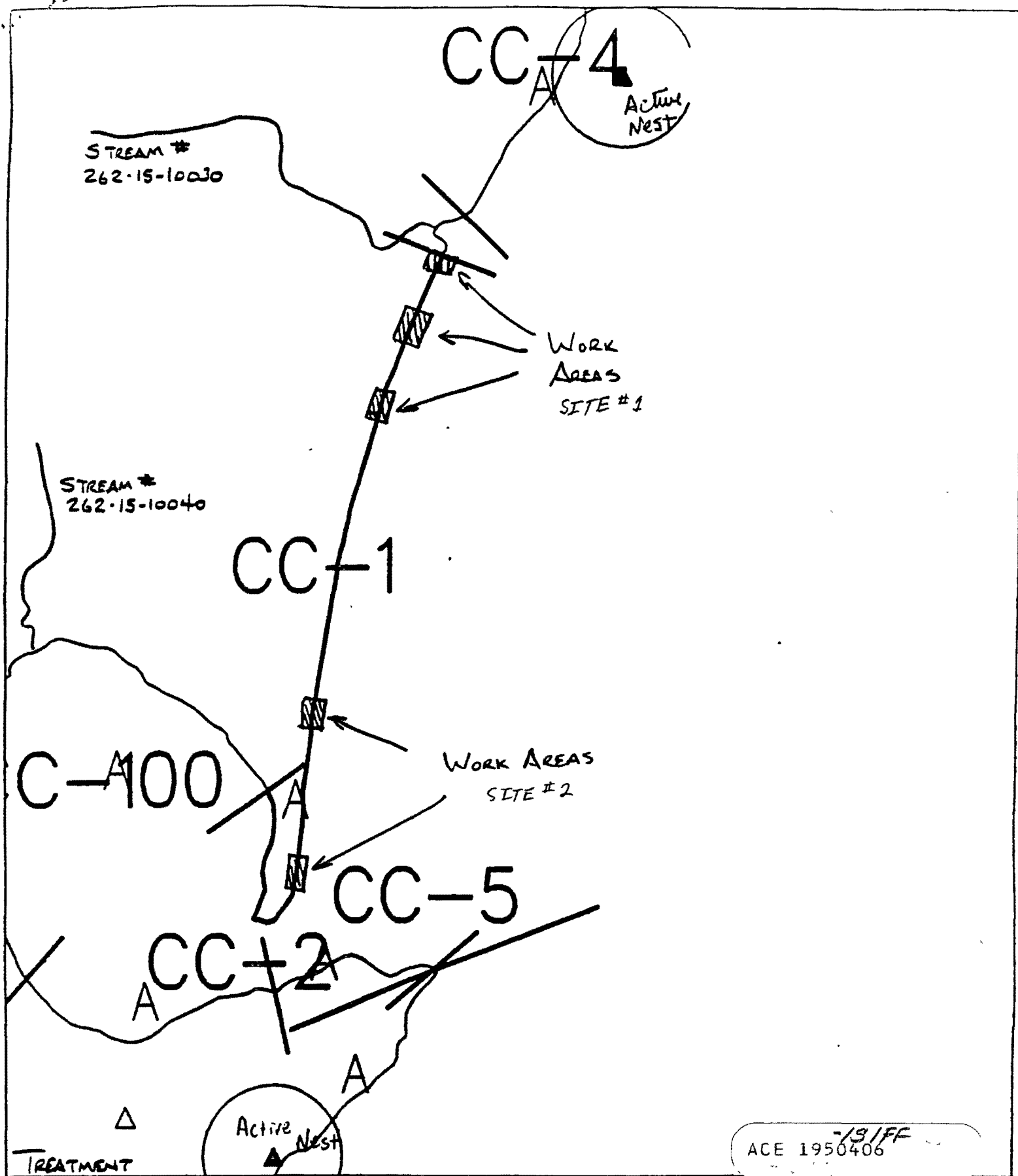


XXXX Wide
 //// Medium
 ---- Narrow
 TTTT Very Light
 0000 No Oil

K9N-17 CC-1 A
 ADEC Subsegment Length: 4763m
 METERS
 0 457 914
 AK State Plane Zone 4 1:18000
 a9n-17cc1aa

Subdivision Field Map
 Map Key: AKPK9N-17CC-1Aa
 Name: D. Fitzgerald
 Date: 3 Aug 1990
 Data Entered:





Exxon Company, USA
Map Key: AKP-CC-1

ECOLOGY MAP SEGMENT K9N-17 CC-1 SUBDIVISION A (1 of 1) METERS

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

ADF&G MULTI-ASSESSMENT DATA FORM

- 1) SURVEY TYPE: BS SS 2) REGION: PWS KP, CI K, AP
- 3) METHOD: Aerial Ground Boat
- 4) DATE: 5-20-91 16) HIGH TIDE TIME: 0801/2111 22) TEAM RECORDER: J. Barnhart
- 5) START TIME: 1315 17) HIGH TIDE HTS: 15.7/16.1 23) OBSERVERS: F. Pennis, D. Spurr, R. Merdten and others.
- 6) STOP TIME: 1415 18) LOW TIDE TIMES: 0157/1429 24) AGENCY: ADF&G, NPS, USCG, Exxon
- 7) SEGMENT #: CC-001 19) LOW TIDE HTS: 3.7/0.2 25) PHOTOS TAKEN: Y N
- 8) K-UNIT: K9-17 20) TIDE HT AT SURVEY: _____ ROLL #: _____ FRAMES: _____
- 9) LAT: _____ Ebb Slack Flood Slack 26) VIDEO TAKEN: Y N
- 10) LONG: _____ 21) USCG QUAD: _____ TAPE #: _____
- 11) ASC #: 262-15-10040 START: _____ STOP: _____
- 12) STREAM NAME: Village creek 27) SAMPLES TAKEN? Y N
- 13) LOCATION: Approx 3600 meters N of Chiniak Lagoon, AK Pen. SAMPLE I.D. _____
- 14) WAVE EXPOSURE: High Moderate Low _____
- 15) SHORELINE TYPE: Headland Low-lying Rocks Beach _____
- Cove Lagoon Marsh _____

28) EXTENT OF OIL

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1							
SITE 2							
SITE 3							
SITE 4							
SITE 5							

29) OVERALL OIL IMPACT:

H = >6m band with $\geq 50\%$ oil coverageM = >6m band with $\leq 50\%$ oil coverage or $\geq 3\text{m}$ to $\leq 6\text{m}$ with $\geq 10\%$ oil coverageL = <3m band with $> 10\%$ oil coverageVL = $\leq 10\%$ oil coverage regardless of band width

N = No oil observed

30) OIL IN STREAMBED: Y N31) OIL ON BEACH ADJACENT TO MOUTH: Y N

32) SUBSTRATE TYPE (PERCENT):

Bedrock _____ Boulder _____ Gravel 25 Sand 70 Cobble 5 Mud/Silt _____

35) COMMENTS: The stream mouth area where the oil was located during the 1990 cleanup has changed completely over the winter of 90-91. Picked up approx. 2 frozen TB's at stream mouth. They ranged in thickness from 1cm to 5cm. Oil stain on a few logs at stream mouth. TB's located at upper ITZ.

33) ANADROMOUS FISH PRESENT: Y N

34) WILDLIFE OBSERVATION

Species _____ Number _____

36) PHOTOLOG

FRAME(S)

DESCRIPTION

▲ = Sample Taken
 2/ = Photo Frame # and
 Shot Direction

Note: Test pits were not dug to determine presence of subsurface oil known to exist after the 1990 cleanup. Winds were heavy and the holo blades were kept running during 80% of the time spent on the beach. The beach has been completely reworked since July 1990. The berm that held the subsurface oil no longer exists.

363-15-10030
Village Creek

Picked up approx
2 dozen TB's at stream mouth
Also, trace amounts of oil stain
on a few logs at stream mouth

Note: The remaining
5 bags of oil were
removed on 5/22/91

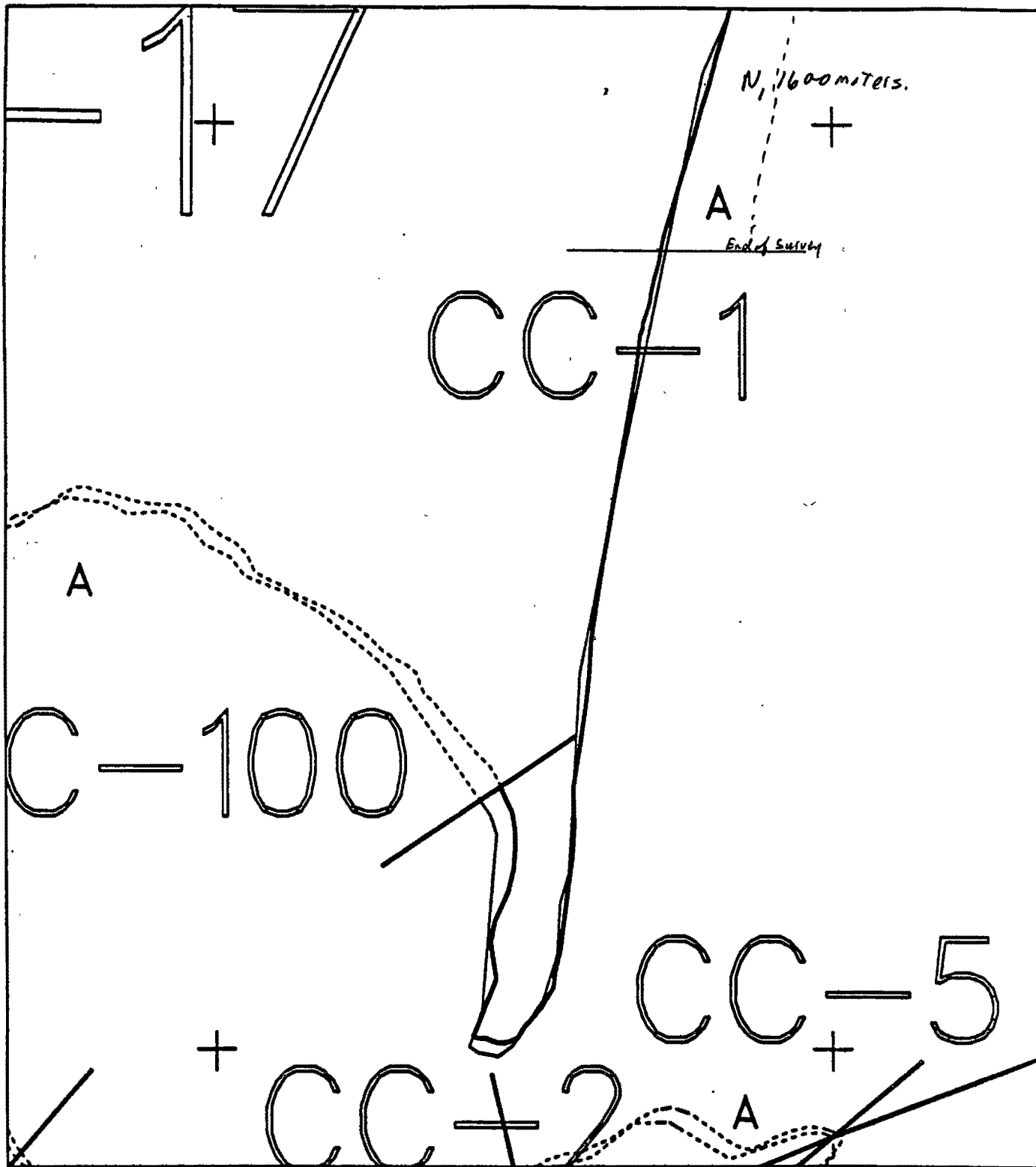
Located 7 veco
cleanup bags filled with oil. The bags are
taped shut and partially buried. Two bags
were removed, 5 remain. The two bags removed
were held between 20-90 pounds of oil.

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

K0917 CC001 A
ADEC Subsegment Length: 4763m
1mm = 16 meters METERS
AK State Plane Zone 4
90917cc001ab



Subdivision Field Map
Map Key: 60AK0017CC001Ab
Name: _____
Date: _____
Date Entered: _____



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

K0917 CC001 A
 ADEC Subsegment Length: 4763m
 1mm = 16meters
 METERS

0 400 800

AK State Plane Zone 4
 90017cc001a-

Subdivision Field Map
 Map Key: 60AK0017CC001A
 Name: _____
 Date: _____
 Date Entered: _____



1. 6-Helo SEGMENT K9N-17-CC-1 SUBDIVISION A DATE 20 MAY 1991

C
 IE J. BARNHART ADEG SIGNATURE Jiff Barnhart

☒ NTR ☐ Treatment suggested

Scattered TB's at mouth of Village creek, stream #262-15-10030 were removed by VECO crew. Seven (7) large bags of oil, remaining from previous cleanup activities were located on 5-20-91. Two (2) bags were removed on this date. On 5/28/91 the remaining 5 bags of oil were removed from the lower ITZ.

EXXON

NAME R. HARRELSON

SIGNATURE Re Harrelson

☒ NTR VECO workers removed all oiled material found in this area.

LANDMANAGER

NAME F. BENNIS

OF NPS

SIGNATURE F. Bennis

☒ NTR

Scattered small mouse patties observed south of the stream have been removed by VECO workers. Seven bags of oiled wastes discovered half-buried in the LITZ have been recovered. These bags were left from previous clean-up operations, possibly from 1989.

USCG/NOAA

NAME CWO SPURK / G. SHIGENAKA

SIGNATURE R.P. Spurr G. Shigenaka

☒ NTR

SURVEYED PORTION OF THE SEGMENT CONSISTED OF THE MOUTH OF AN ANADROMOUS STREAM AND THAT PORTION OF THE SAND BEACH LYING TO THE SOUTH. A FEW SCATTERED SOB PATTIES WERE FOUND AND RECOVERED IN THE UITE AND SUPRA NEAR THE STREAM MOUTH, AND ONE OLD BAG OF OILED DEBRIS WAS ALSO LOCATED AND RECOVERED. THE ONLY OTHER OILED MATERIAL ENCOUNTERED WAS 7 OLD BAGS OF OILED DEBRIS FOUND IN THE MITE. TWO OF THESE WERE RETRIEVED; HIGH WINDS OF CONCERN TO THE HELO PILOTS PRECLUDED MORE EXTENSIVE BEACH-LEVEL OPS. THE REMAINING FIVE BAGS SHOULD BE FAIRLY EASILY VISIBLE BOTH FROM THE AIR AND ON THE BEACH, UNLESS SHIFTING BEACH SANDS BURY THEM. ONE BAG THAT WAS OFFERED FOR WEIGHT REVISION IN 10/90 LOADING INTO THE HELICOPTER CONTAINED OILED SAND AND COBBLES THAT STILL GENERATED SHEEN. ADDENDUM 5/22/91- THE SURVEY TEAM RETURNED TO THE SITE AND RECOVERED THE FIVE REMAINING BAGS OF MATERIAL.

K9-17 CC-005 AFS 262-15-10040

Chiniak Lagoon 1990

ACE 1950290

'89 Stream survey

ASC NUMBER:	SEGMENT NUMBER:	YR CATALOGED:
LOCATION:		
STREAM NAME:		LATITUDE:
KODIAK K-UNIT:	LOCAL STREAM #:	LONGITUDE:
USGS QUADRANGLE:		LEGAL:
SHORELINE TYPE:		WAVE EXPOSURE:

ASC NUMBER: 262-15-10040
 SURVEY TYPE: SS
 METHOD: F
 DATE: 7-3-89
 START TIME: 0830
 STOP TIME: 1100

TEAM RECORDER: EDWARD WEISS
 OBSERVERS: Terry Giegerich

AGENCY(IES): ADF&G

PHOTOS TAKEN? Y
 Roll #: 89EWW018K Frames: 11-28
 VIDEO TAKEN? Y Tape Number: SSKAP-01
 Counter Start:

SAMPLES TAKEN? Y

SAMPLE I.D. NUMBERS: 1. KAP-3-1-1- 2. KAP-3-1-2 3.
 4. 5. 6.

OILING DATA

	LENGTH	WIDTH	M2	%	THICK	FEN	OIL TYPE
SITE 1			6400+	5	2.54cm	1.27cm	MS
SITE 2			36,000	25	3.81cm	35cm	MS
SITE 3							
SITE 4							
SITE 5							

OVERALL OIL IMPACT: M

OIL IN STREAM CHANNEL? Y

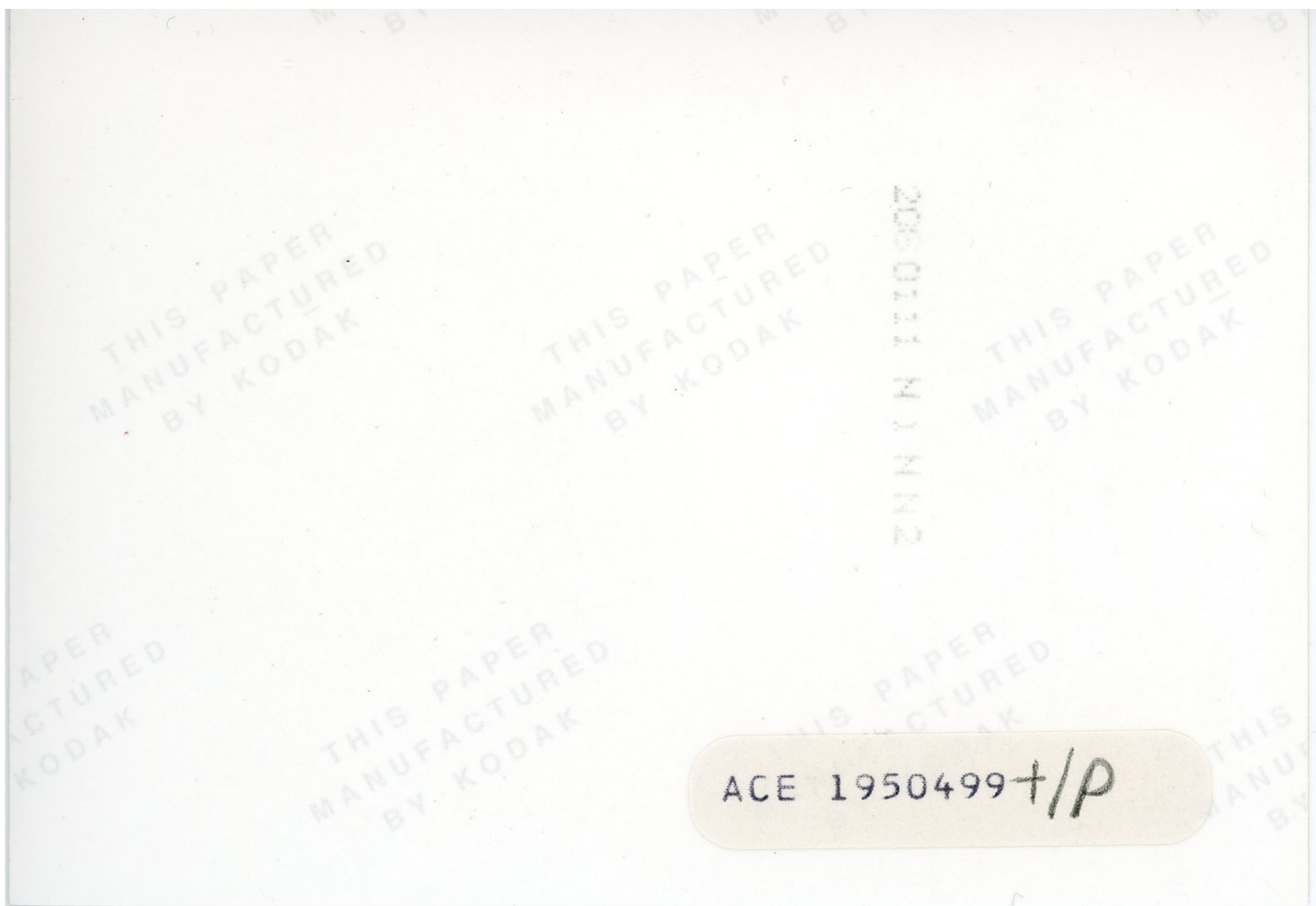
SUBSTRATE

Bedrock	Granule
Boulder	Sand
Cobble 20	Silt 50
Pebble 30	Veget.

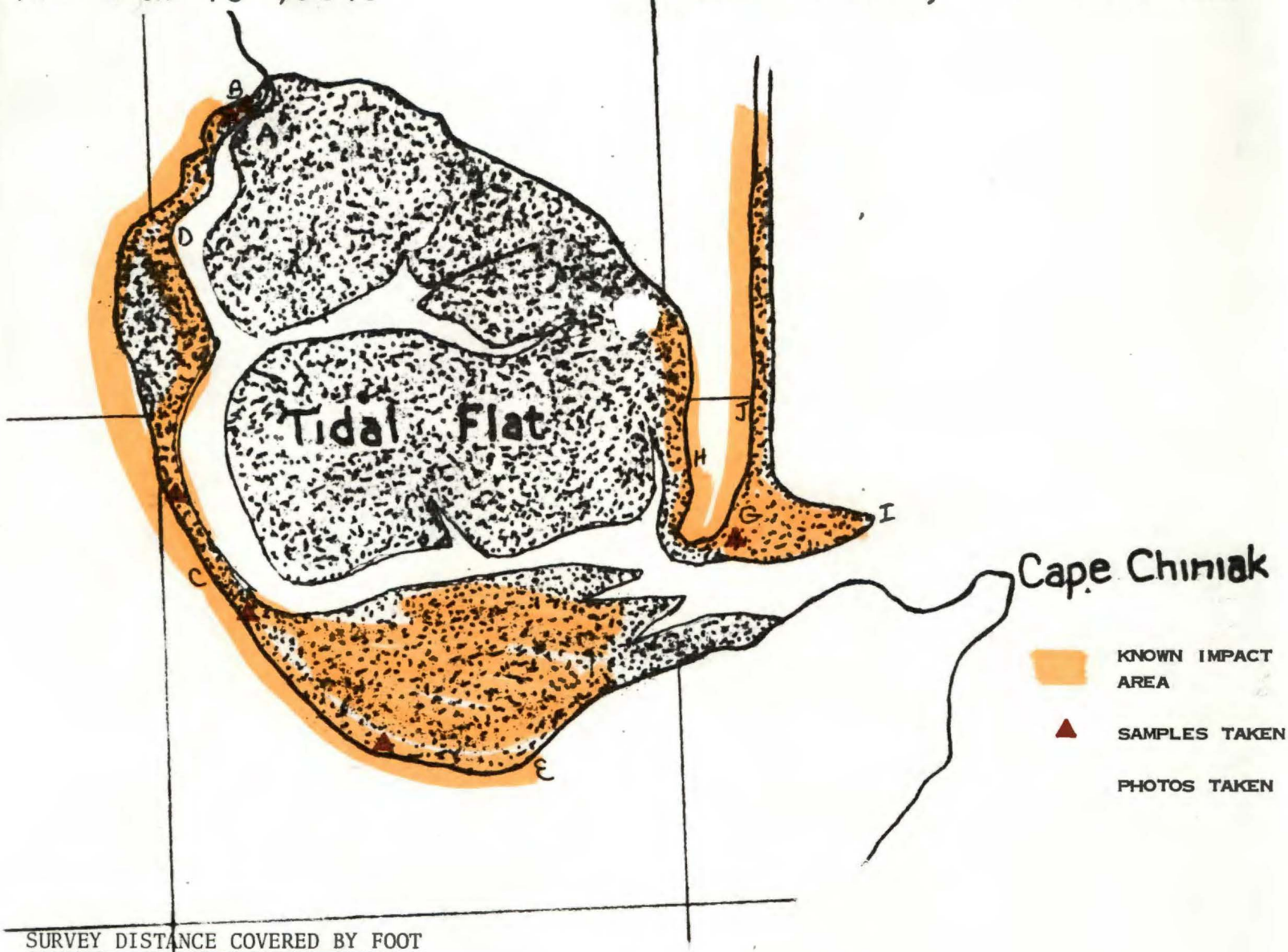
OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SPECIES	PS				
COUNT	1500				

COMMENTS:







- A - 250M (oval circuit along SE stream bank and out onto mud flats)
 B - 100M (along bank and mud flat area)
 D-C-E $\approx$ 1 mile
 F - 400M (2-200M oval circuits)
 G-H 150M (circuit around end of spit and back)
 G-J 100M
 G-I 100M (circuit bisects mud flats and return up bank)

IMPACT DISCRIPTIONS

- A - no oil observed
 B - 100M scattered oil mousse patties 1-4" diameter. Less dense than west side of lagoon. Gray mud like patties due to glacial sediments.
 D-C-E 30+M x 1 mile impact consisted of several bands. Impact in high tide zone was mixed oil mousse splattering patties, and pooling on and around boulder substrate. Patties were 1-8" in diameter and pooling in crevices to 6". In mid tide zone, 2M band of aged and fresh (< 1 day) oil mousse patties ranging in size from 1"-6" on gravel substrate. In low tidal zone band width varies extending out onto mud tidal flats. Impact is oil mousse 1-20" in diameter. Patties are gray and look like mud/clay out crops due to sediment coloration and aging.
 F - oil mousse patties 1/5ft scattered on mud tidal flats.
 G-H 2.5M x 150M band of VL scattered oil mousse patties and oiled debris.
 G-J 20M x 100+M scattered oil mousse patties and oiled debris from extreme high tide down 2/3ft² area.
 G-I Scattered patties on delta 1-3" diameter. Frequency 1/10ft² to 6/10ft²

FISH HABITAT ASSESSMENT FORM

 REGION: PWS KP, CI K ☒ AP OBSERVER(S) E. WEISS
T. GIEGERICH

 SITE NO. AKP-3-1 AERIAL PHOTO NO. K1-1 CAT NO. 262-15-1004C

 STREAM NAME N/A LAT 58° 31' 9" N LONG 153° 56' 6" W

 DATE 9-3-89 TIME 0830 TIDE: Low slack Flood High slack ☒ Ebb

 CATALOGED ANADROMOUS STREAM? ☒ Y N ANAD. FISH FOUND? ☒ Y N

 OIL FOUND IN STREAM? ☒ Y N OIL FOUND NEAR STREAM (1 MI.)? ☒ Y N

 OIL SAMPLES TAKEN? ☒ Y N ID NOS. KAP-3-1-1+2

 35 mm PICTURES TAKEN? ☒ Y N ROLL NO(S). A-04

EXPOSURE NO. DESCRIPTION

<u>11+12</u>	<u>AERIAL VIEW OF MOUTH OF LAGOON + LAGOON</u>
<u>13-21</u>	<u>OIL MOUSSE IMPACTS ON WEST SIDE OF LAGOON</u>
<u>22+23</u>	<u>NORTH + SOUTH VIEWS OF SHORE WEST SIDE OF LAGOON</u>
<u>24-28</u>	<u>OIL IMPACTS ON OUTSIDE OF SPIT AT MOUTH OF LAGOON.</u>

 VIDEO FOOTAGE TAKEN? ☒ Y N CASSETTE NO(S). SSKAP-01

 DESCRIPTION: OIL IMPACTS ON WEST SHORE OF
LAGOON.

ACE 1950502

	ANADROMOUS FISH OBSERVATIONS							
	PINK	CHUM	RED	KING	COHO	DOLLY		
Aerial	1500							
Ground								

 COMMENTS: AERIAL COUNT OF LAGOON AREA AND
1/4 MI. UPSTREAM FROM POINT WHERE STREAM
RUNS INTO LAGOON. MOST FISH IN STREAM.

OIL OBSERVATIONS

EXTENT OF OIL:

	WITHIN STREAM	OUTSIDE STREAM
SURFACE COVERAGE	<u>5% of 6400+m²</u>	<u>25% of 36000+m²</u>
SURFACE THICKNESS	<u>1.0"</u>	<u>1.5"</u>
PENETRATION	<u>.5"</u>	<u>2.0"</u>

OIL DISTRIBUTION DIAGRAM
(SHOW SAMPLING SITES)PREDOMINANT
SUBSTRATE TYPE:

1. Bedrock
2. Boulder
3. Cobble
4. Gravel
5. Sand
- ☒ 6. Mud
7. Other _____

COMMENTS: _____

ACE 1950503

"Rite in the Rain"
ALL-WEATHER WRITING PAPER ©



ALL-WEATHER

LEVEL

Notebook No. 311-M

"Rite in the Rain" - A unique All-Weather Writing Paper created to shed water and enhance the written image. It is widely used throughout the world for recording critical field data in all kinds of weather.

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STREAM SURVEY LOG

STREAM 262-15-154

CAT. # 262-15-10040

58° 31.9' N 153° 56.6' W

NO NAME, CAPE CHINAK

ACE 1950504

SITE AKA-3-1 9-3-89 0830

TOOK 2 AERIALS OF MOUTH
+ LAGOON.

AERIAL COUNT OF LAGOON
+ 1/4 mile UP STREAM

1300 FISH.

LAND AT HEAD OF LAGOON

WHERE STREAM RUNS IN.
COVERED 250 M ON SALT WHERE
STREAM RUNS INTO LAGOON AND
ADJACENT MUD FLATS NO OIL
OBSERVED.

STOP # 2 WEST SIDE OF LAGOON

OIL MOUSSE PRESENT ALL
ALONG SHORELINE. WALKED
≈ 1 mi. OIL MOUSSE PRESENT
FROM HIGH TIDE LINE ALL THE
WAY TO EXT. LOW TIDE
WATERS EDGE. MOUSSE IN
HIGHER TIDE LINES CONSIST
OF SPATTERING ON ROCKS
AND BOULDERS AND MOUSSE
PATTIES. THIS OIL IS
AGEING BECOMING TAR LIKE
ON OUTER SURFACE IN

ACE 1950505

MANY INSTANCES BUT INTERIOR IS STILL GROWN GOOEY MOUSSE. FRESH MOUSSE AND MOUNDING OF MOUSSE IN AND AROUND BOUNCES AND CREVICES ALSO PRESENT TO DEPTH OF 6" IN SOME CASES.

FRESH MOUSSE PARTIES ALONG W/OILIER PARTIES IN MIDDLE RANGE LAYING ON GRAVEL SUBSTRATE.

OIL MOUSSE IN LOWER LEVELS AND ON TIDAL MUD FLATS ARE FULL OF SEDIMENTS

(SANDY CLAY + MUD) IN MOST CASES. EXTERIOR IS GRAYISH AND WEATHERED TARRY LOOKING. INTERIOR IS OPEN SEDIMENT LABENT BUT STILL

GOOEY OR VOLITILE IN MANY CASES. BAND IS 30 YDS WIDE FROM EXTREME HIGH TO OUT ON TIDAL MUD FLATS. WAS PRESENT ALONG WHOLE MILE WE WALKED. SUSPECT IT EXTEND

ON AROUND WHOLE SIDE FROM MOUTH OF LAGOON TO MOUTH OF CREEK. PATTY/OIL OCCURANCE WITHIN THE ZONE VARIED FROM 1/5 FT² TO 10/5 FT². BLOBS AND PARTIES RANGED IN SIZE FROM 1" TO 20" IN DIAMETER.

STOP #2 WAS ON WEST SIDE OF CREEK ~~WHERE IT~~ ^{WHERE IT} RUNS INTO LAGOON. SAME GRAYISH OIL MOUSSE PARTIES WERE PRESENT HERE IN MUD FLATS + BANK. SMALLER SIZED 1-4" DIAMETER AND LESS DENSE THAN ON WEST SIDE.

STOP #4 ON EAST SIDE OF LAGOON. SAME GRAY OIL MOUSSE PARTIES PRESENT ON TIDAL MUD FLATS. BANKS ARE SANDY DUNES OF SPIT MERGING INTO MUD BANKS OF MARSH GRASS AREA. WALKED 175 M IN THIS

ACE 1950506

ACE 1950507

4
AREA.

NO OIL OBSERVED ON THESE BANKS. OCCURENCE OF OIL PARTIES ON MUD FLATS WAS APPROX. 1 EVERY 3-5' ALONG LINE THAT WAS WALKED.

STOP #5 WAS ON SPIT AT MOUTH OF LAGOON. WALKED 250 M + AROUND FRONT BEACH AND END OF SPIT TO BACK SIDE. PLUS OUT ONTO MUD DELTA AT MOUTH. IMPACT RANGED FROM A FEW SCATTERED MOUSSE PARTIES AND PIECES OF OILED DEBRIS ON BACK SIDE OF SPIT, INCREASING AS COME AROUND TO FRONT. ON FRONT SIDE (BEACH OUTSIDE LAGOON) BAND INCREASES IN WIDTH FROM 2.5 M TO 20 M OF SCATTERED MOUSSE PARTIES AND OILED DEBRIS. EXTENDS FROM STORM TIDE LINE DOWN. PARTIES 1-2/3 FT² CONTINUES UP BEACH 100+ M.

ACE 1950508

5 ENVR.

~~WALKED 175 M IN THIS~~
OIL MAUSER BLOBS ALSO LOCATED ON TIDAL LAGOON DELTA AT MOUTH. 1-3" DIAMETER 5-6/10 FT² IN SOME PLACES, AND DOWN BEACH TO 1/10 FT² IN OTHERS.

ATE LUNCH AND LEFT 1122

ACE 1950509

PHOTOS TAKEN A-04 11-28

- 11+12 AERIAL VIEW OF MOUTH
13-21 OIL MOUSSE IMPACTS ON
WEST SIDE OF LAGOON
22+23 SHORE VIEWS OF WEST
BANK OF LAGOON
24-28 OIL IMPACTS ON OUTSIDE
OF SPIT AT MOUTH OF
LAGOON.

SAMPLES TAKENOIL

KAP 3-1-1

KAP 3-1-2

VIDEO TAKEN

SSKAP - 01

9-3-89

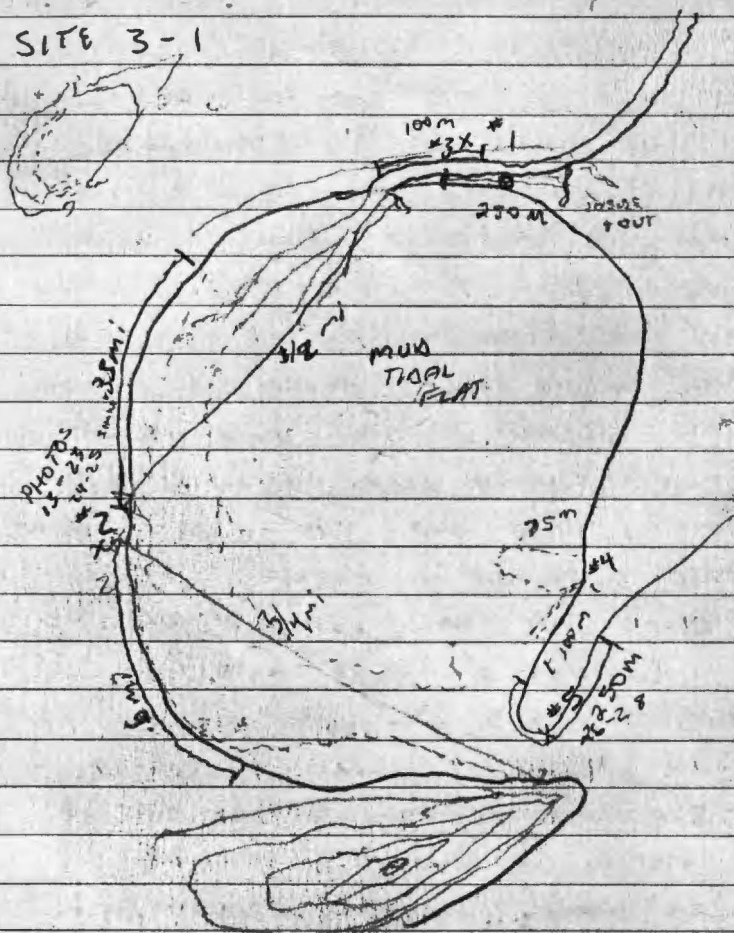
24

TAKE OFF GEOGRAPHIC HARBOR 0745

HEADED FOR STREAM 262-35-351

KULIAK BAY. WEATHER: CAVU W: 5

SITE 3-1



SPLATTERING
MOUSSE PATTIES PRESENT ALL ALONG S+W
SIDE OF LAGOON. FROM HIGH TIDE TO WATERLINE
LOW TIDE. HIGHER STUFF CONSIST OF OLDER WEATHERED

25

OUTER LAYERS (FARREY) PATTIES + SPLATTERING

W/ FRESH BODY INTERIORS LOWER STUFF

IS SAME WEATHERED EXTERIOR WITH 1" DIA.

GRAYISH TINT POSSIBLY FLAM MIXING WITH

CLAY SEDIMENTS. LOOKS LIKE CLAY PATTIES OR

OLD TAR EXTERIOR. SAME ALL ALONG WEST SIDE

1/5 FT² TO 10/5 FT². SAME GRAY MOUSSE

DOTTED AT #3 1"-4" DIA LESS

DENSE ALL ALONG MUD FLAT BANKS

EAST SIDE: HAD GRAY PATTIES OUT IN MUD FLATS

1"-5" DIA. 1 EVERY 3-5' SAND BANKS

NOT MUCH SEEN THERE.

#5 - A FEW SCATTERED MOUSSE PATTIES AND

OILED DEBRIS IN VARIOUS TIDELINES UPPER

+ MID. THIS FROM POINT AROUND TO BACK

SIDE 150 M HEAVY MOUSSE PATTIES +

SPLATTERING AND OILED DEBRIS IN UPPER STORM

LINE 2.5 M BAND X MODERATE SCALE

OLDER ALL WASHED UP, INTO HIGH TIDE, MOUSSE

PATTIES MIXED W/ SAND. THIS BAND CONTINUES

AROUND FRONT OF SPIT EXPANDS WIDTH TO

20 YDS OF SCATTERED MOUSSE PATTIES

FROM STORM/DEBRIS LINE DOWN. PATTIES 1/3 FT²

CONTINUES UP BEACH 100 M +.

BLOBS 1"-3"-DIA OUT ON TIDAL STREAM

DELTA 5-6/10 FT² DOWN TO 1/10 FT².

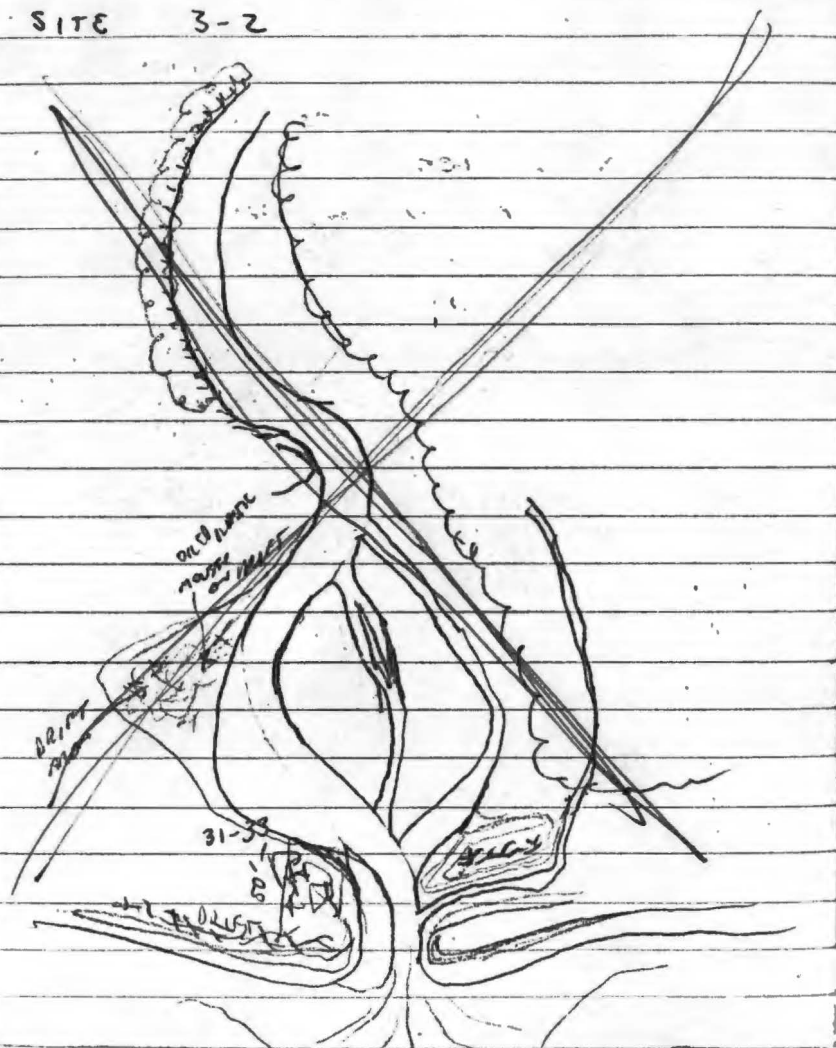
ACE 1950512

ACE 1950511 +/S

ON WEST SW. SIDE POOLING OF WATER
UNDER BAULDER ROCK OUTCROPS, SPATTERING ON
RX'S POOLING TO DEPTH OF 6".

LEAVE 1122 LUNCH 1100-1122

SITE 3-2



BAND OF MUD/SAND RATTLES & OILED DEBRIS
OUTSIDE STREAM ALONG BEACH 5 M X BAND
X 200+ M 30-45% COVERAGE WITHIN BAND
BAND CONTINUES DOWN BEACH ON OTHER SIDE
OF STREAM (SW SIDE) ALSO

NO SIGNS OF OIL OR IN ACTUAL STREAM
BED. BAND ON SW SIDE OF STREAM
COMES TO END IN 2' OF STREAM ON
CUT BANK. ALSO FOUND OILED DRIFT
& DEBRIS 60 M UP IN STREAM TOWARD
ON BANK IN LOW DEPRESSION IN
DRIFT ACCUMULATION AREA.

31-33 ZONE IN RELATION TO

34 - OIL DRIFT MUD

35 - DRIFT ZONE EDGE/
CUT BANK

ACE 1950513

ACE 1950514-15

also includes CC 005,
CC-001, CC-002,

ANADROMOUS FISH STREAM EVALUATION

RDDIAK
Cape Chinick

SEGMENT ST/K19-17-CC-100 STREAM NO: 262-15-10040 DATE 5/3/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

ADF&G Anadromous stream # 262-15-10040

Sensitivity code and general time constraints. See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Do not trample or disturb marsh area.

ARCHAEOLOGICAL CONSTRAINTS:

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

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

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: _____

TAG COMMENTS: NO OIL OBSERVED IN AREA OF STREAM. HOWEVER
WORK TO BE COMPLETED IN ADJACENT AREAS TO THE STREAM + LAGOON
SEE SBAT PACKAGES 19-17-CC-180A + 02A FOR RECOMMENDED
WORK - MINIMIZING DISTURBANCE + WORK CREW SIZE.

TAG APPROVAL DATE: 5/23/90.

ADEC Art Wernick
EXXON Andy Earl
NOAA Bail Wessett
USCG G.A. Reiter

FOSC: [Signature]

DATE: 5/31/90

ACE 1950590
+151FF

OG G. Heyman

SEGMENT ST/K 09 17 CC 100

SUBDIVISION A

DATE 5 / 3 90

CHECKLIST

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

LEGEND

AP-PT/S in up to
1X2 m area &
MS/P/S in 1/2 m x

2 m area discontinuous
on upper mud flats,
Silt/mud veneer < 5 m
thick commonly

AP/P-2
1X20 m
30% Cover
1 cm

PT/S
LANDSLIDE
SCAR

STEEP
SLOPE COVERED
W/ ALDER

CC-100

CC-002

CC-005

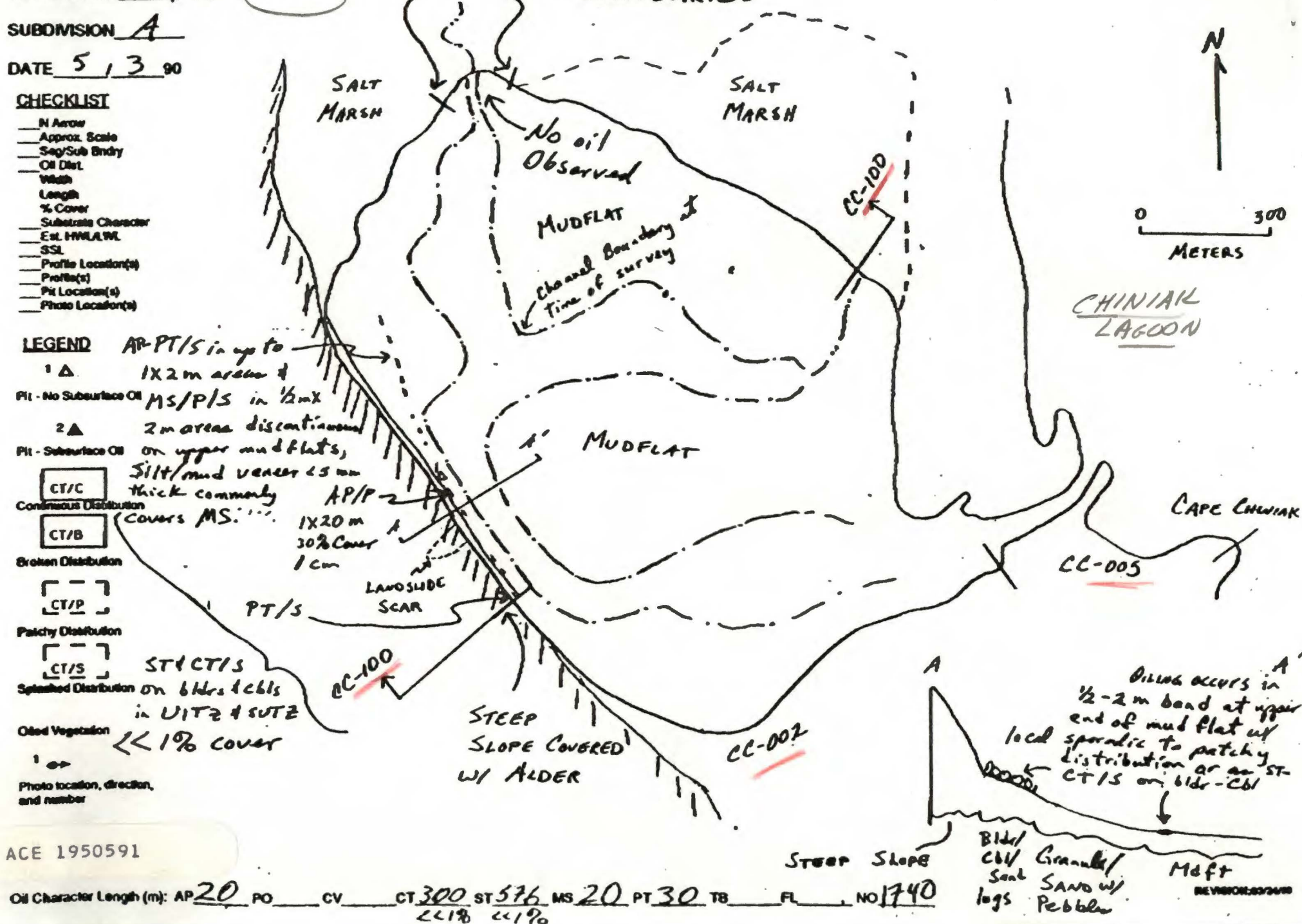
CC-100

CC-002

ACE 1950591

Oil Character Length (m): AP 20 PO CV CT 300 ST 576 MS 20 PT 30 TB FL NO 1740
CC18 CC190

ANADSCAT SKETCH MAP BOUNDARIES



OG G. Heyman

SEGMENT STI K0917 CC 005

SUBDIVISION A

DATE 5/3/90

CHECKLIST

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

LEGEND

1 Δ
 Pt - No Subsurface Oil

2 Δ
 Pt - Subsurface Oil

$\boxed{CT/C}$
 Continuous Distribution

$\boxed{CT/B}$
 Broken Distribution

$\boxed{CT/P}$
 Patchy Distribution

$\boxed{CT/S}$
 Splashed Distribution

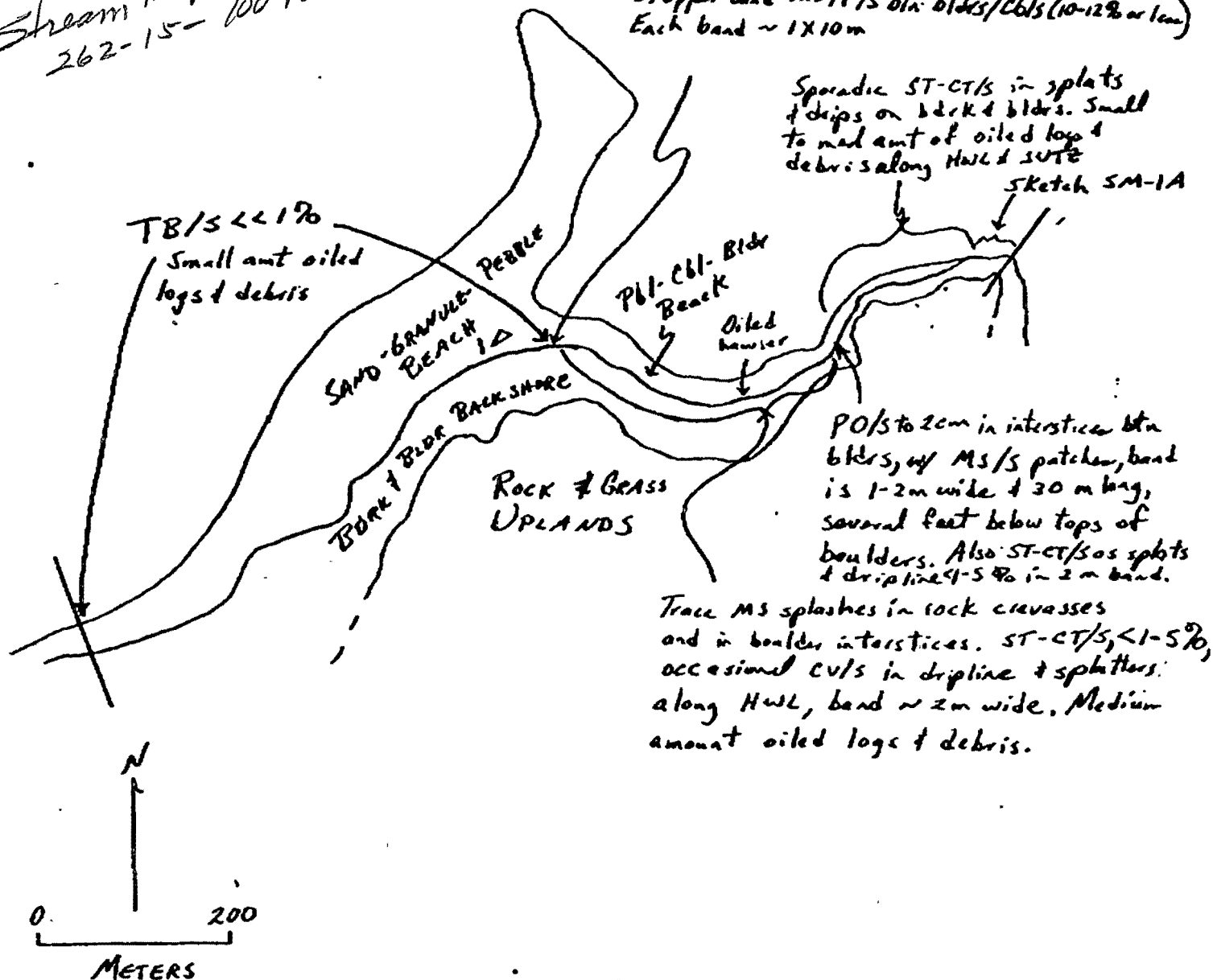
Oiled Vegetation

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

SKETCH MAP-1

Stream # 262-15-10040 ?

2 bands MS
 1) lower band MS/S in Cbl/Pbl
 2) upper band MS/P/S bti bldrs/Cbbs (10-12% or less)
 Each band ~ 1X10m



ACE 1950592

Oil Character Length (m): AP — PO 10 CV 62 CT 250 ST 200 MS 52 PT — TB 500 FL — NO 0

REVISION: 03/24/90

OG G. Heyman

SEGMENT ST/ K 0917 CC005

SUBDIVISION A

DATE 5/3/90

CHECKLIST

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

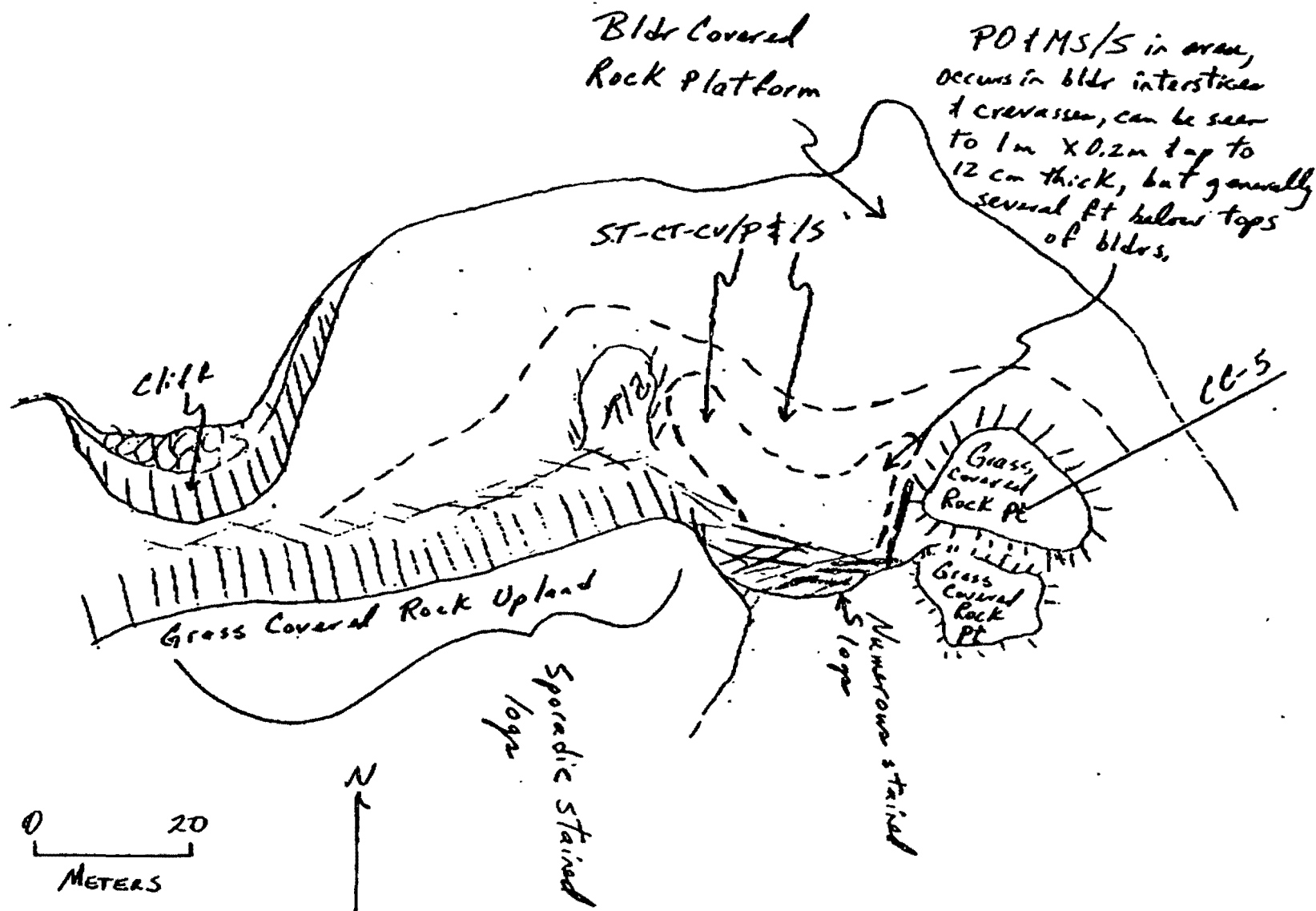
CT/P
Pachy Distribution

CT/S
Splashed Distribution

Oiled Vegetation

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

SKETCH MAP 5M-1A



ACE 1950593

Oil Character Length (m): AP _____ PO _____ CV _____ CT _____ ST _____ MS _____ PT _____ TB _____ FL _____ NO _____ See 5M-1

REVISION: 03/24/98

SEGMENT STICK 09-178001

SUBDIVISION A

DATE 5/3/90

CHECKLIST

- ☐ N Arrow
- ☐ Seg. Scale
- ☐ Seg/Seb Body
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HML/LWL
- ☐ SST
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PR Location(s)
- ☐ Photo Location(s)

LEGEND

1. **A**

PH - No Subsurface CH

2 ▲

Ptg - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT15

Suggested Distribution

eee

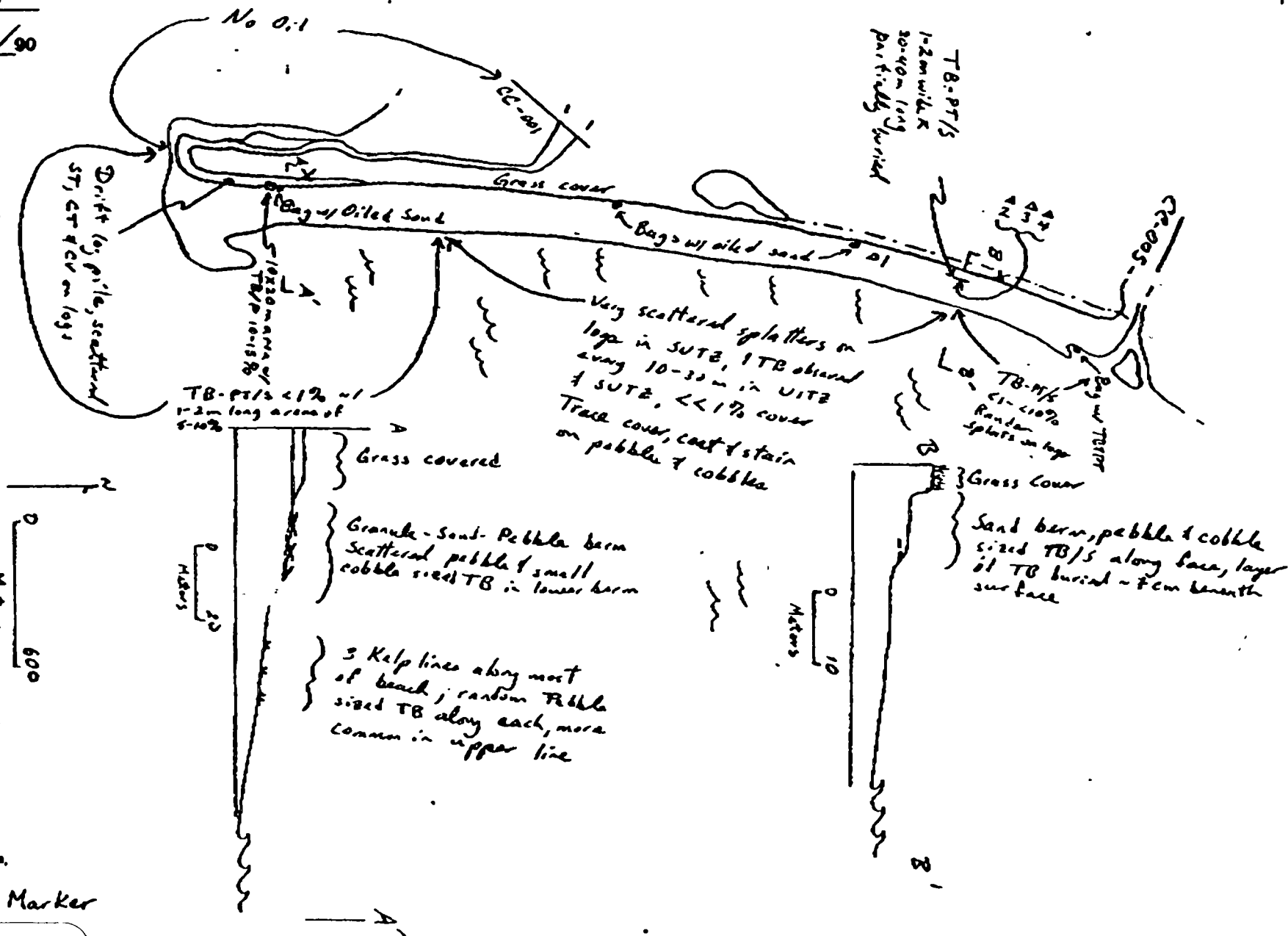
Cold Vegetation

1.

**Photo location, direction,
and number**

x Regulatory Marker

SKETCH MAP



ACE 1950594

Oil Character Length (m) AP — PO — CV 3 CT 3 ST 4 MS — PT 6.20 RS 2300 FL — NO 1771

PREVIOUS: 10074500

OGG, Heyman

SEGMENT ST/ K0917 CC002

SUBDIVISION A

DATE 5/3/90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Brdry
- ☐ Oil Dist
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HW/LW/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

Scattered Distribution

Oiled Vegetation

Photo location, direction,
and number

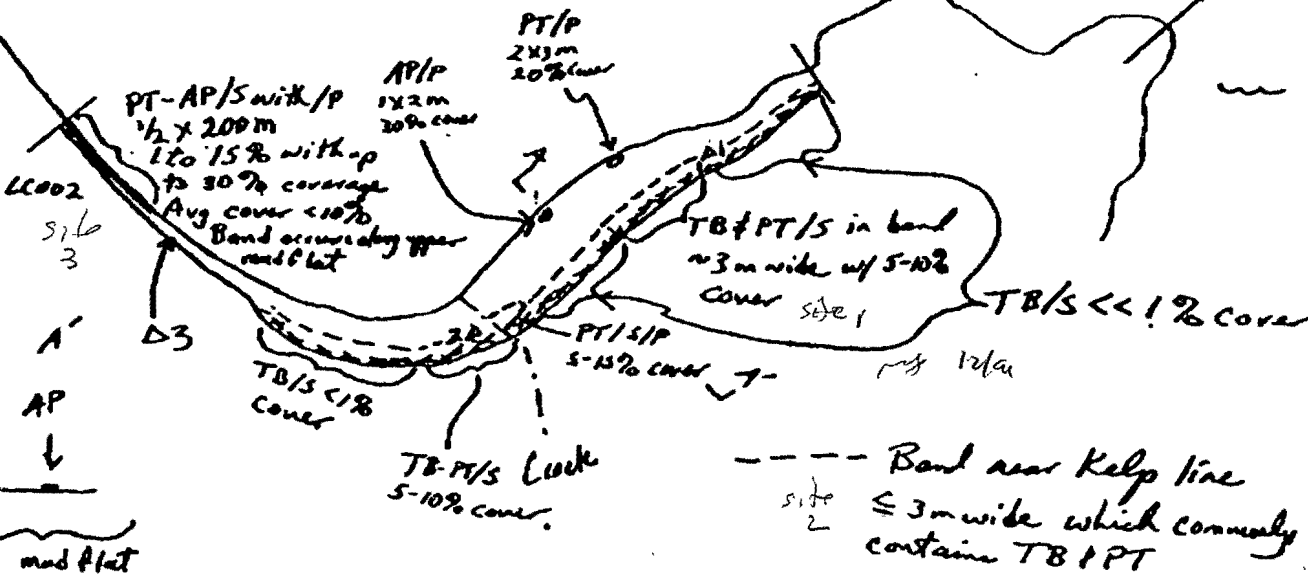
SKETCH MAP

SALT MARSH

SALT MARSH

LAGOON

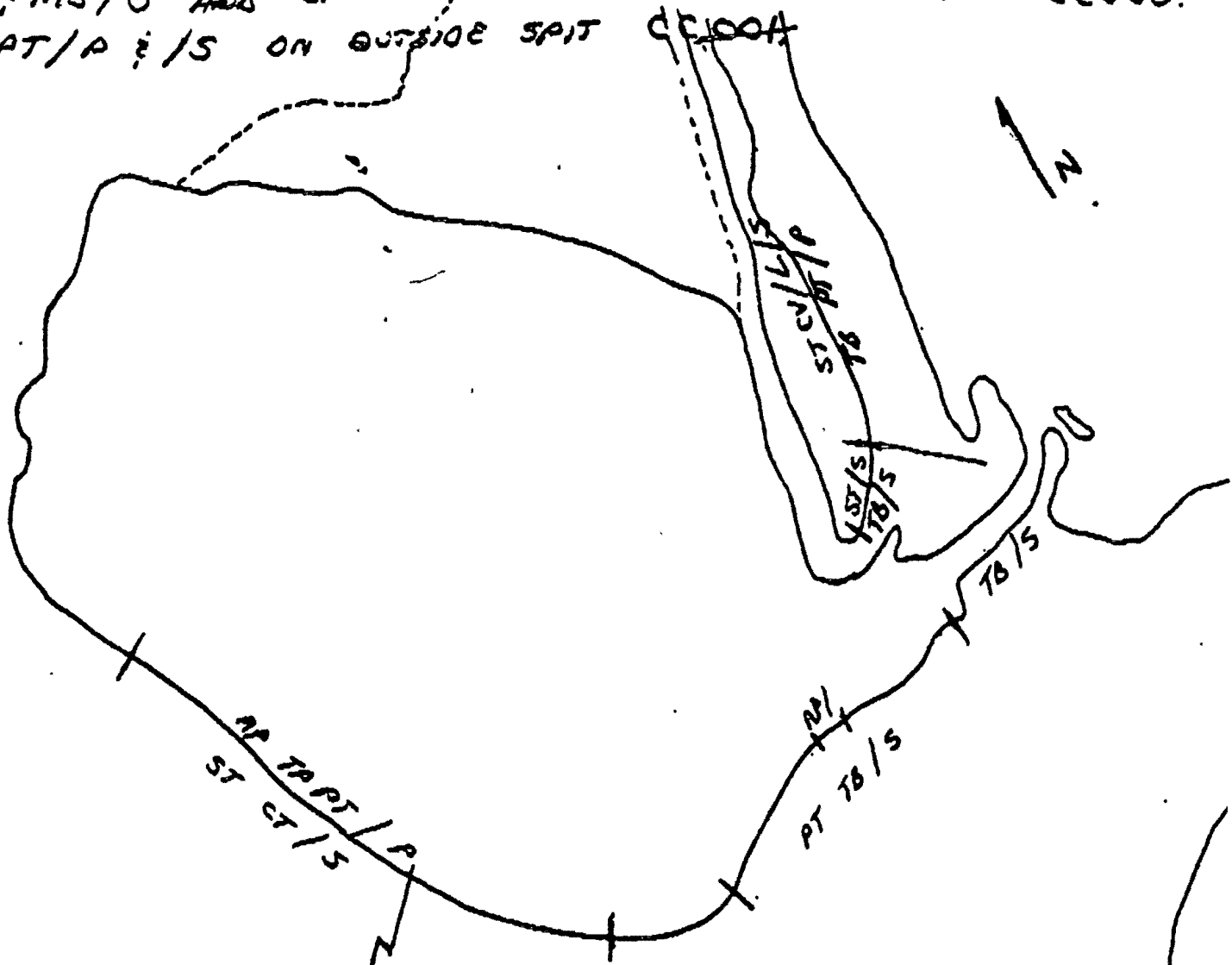
0 300
Meters



Oil Character Length (m): AP 10 PO — CV — CT ST MS PT 450 TB 450 FL — NO 215

REVISION: 5/12/90

CLEANUP SHOULD TAKE PLACE IN ^{48 OIL DISTRIBUTION DIAGRAM} CC002, CC005, CC001, BUT ONLY ON THE WEST/SOUTHWEST SIDE OF CC100, (WEST/SOUTHWEST SIDE OF LAGOON) UP TO BUT NOT INCLUDING GRASS/MARSH AREA AT NW CORNER OF LAGOON. ~~DO NOT~~ DO BEACH OUTSIDE LAGOON CC005. TB/AT/A & /S ON OUTSIDE SPIT CC100A



AP PT IN UPPER EDGE OF MUD FLAT WHERE IT MEETS

- Sample taken
- Photo frame # and shot direction.

90 Cleanup

ASC NUMBER: LOCATION: STREAM NAME: KODIAK K-UNIT: USGS QUADRANGLE: SHORELINE TYPE: *Lagoon*

SEGMENT NUMBER: *CC-005* YR CATALOGED: LATITUDE: LONGITUDE: LEGAL: WAVE EXPOSURE: *L*

LOCAL STREAM #:

ASC NUMBER: *262-15-10040*
 SURVEY TYPE: *CL*
 METHOD: *F*
 DATE: *8/6/90*
 START TIME: *0925*
 STOP TIME: *1200*

TEAM RECORDER: *JEFFREY P. BARNHART*
 OBSERVERS: *Floyd Avery, Vince Guise, Terry Ellsworth*
Dave Stiegelmeier
 AGENCY (IES): *ADF&G, Exxon, USCG, ADEC, NPS*

PHOTOS TAKEN? *N*
 Roll #: Frames:
 VIDEO TAKEN? *N* Tape Number:
 Counter Start:

SAMPLES TAKEN? *N*

SAMPLE I.D. NUMBERS: 1. 2. 3.
 4. 5. 6.

OILING DATA

	LENGTH	WIDTH	M2	%	THICK	FEN	OIL TYPE
SITE 1	<i>10m</i>	<i>3m</i>	<i>30</i>	<i>3</i>	<i>2cm</i>	<i>surface</i>	<i>MS</i>
SITE 2	<i>(1 foot)</i> <i>0.304801m</i>	<i>(2 feet)</i> <i>0.609602m</i>	<i>(2 sq feet)</i> <i>.609602m</i>	<i>100</i>	<i>12.5cm</i>	<i>12.5cm</i>	<i>MS</i>
SITE 3							
SITE 4							
SITE 5							

OVERALL OIL IMPACT: *L*

OIL IN STREAM CHANNEL? *Y*

SUBSTRATE

Bedrock *10* Granule
 Boulder *80* Sand
 Cobble *10* Silt
 Pebble Veget.

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? *Y*

SPECIES	<i>PS</i>				
COUNT	<i>Numerous</i>				

COMMENTS: *200 pounds oil/oiled sediment removed. Area # 2 on the sketch map indicates 2 bands of MS, we located only one band (upper) in boulders. Terry Ellsworth ADEC indicated lower band is now covered with Gravel*

EVOS CLEANUP MONITORING, 1990.

REGION: Alaska Peninsula

REPRESENTATIVES

K-UNIT: K09-17

EXXON: Floyd Avery

SEGMENT: CC-005

USCG: Vince Guise

LOCATION: Cape Chiniak

DEC: Terry Ellsworth

STREAM NAME: Chiniak Lagoon

NPS: Dave Stiegelmeier

ANAD. STREAM CAT. # 262-15-10040

USFWS: N/A

ANAD. FISH STREAM PERMIT ISSUED: 8/6/90 ADFG: Jeff Barnhart

DATE(S) WORKED: 08/06/90

OTHER:

SQUAD # 9 Helo

HOURS WORKED: 2.5

SQUAD SIZE: 5

TOTAL MAN HOURS WORKED: 12.5

NUMBER OF BAGS COLLECTED: 5

DATE WORK ORDER ISSUED: 7/10/90

POUNDS OF OIL/OILED SEDIMENT REMOVED: 200

TREATMENT TECHNIQUES: MANUAL REMOVAL X BIOREMEDIATION

OTHER

OIL BANDS

DEMOS DATE: 8/6/90

L 10m W 3m D 2cm m² 30 %oil cover 3.0 VV

OIL SAMPLE # N/A

L 30cm W 60cm D 12.5cm m² 1800 %oil cover 10.0 VV

OIL TYPE: MS

L W D m² %oil cover 2.0 VV

SUBSTRATE TYPE: Boulder 80

L W D m² %oil cover 0.0 VV

Bedrock 10 Cobble 10

L W D m² %oil cover 0.0 VV

PHOTOLOG

Roll #

FRAME #

DESCRIPTION

N/A.

PROBLEMS: Work area #1 on the sketch map indicates 2 bands of MS. We only located one band (upper) in boulders. Band was 10x3, 3rd oil cover, in crevasses. Terry Ellsworth ADEC indicated lower band was now buried by gravel.

OBSERVATIONS:

SIGNED:

Jeff Barnhart

SHORELINE EVALUATION

SEGMENT ST/ K09-17-CC-005* SUBDIVISION A (1 OF 1) DATE 5/3/90

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)
Stream ID 262-15-10040 on CC100
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 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 E. Holmes DATE: June 27, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 30 m: Narrow 15 m: V.Light 982 m: No Oil 0 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual pick up of mousse, oiled vegetation and debris, 2) spot washing, and 3) bioremediation of areas shown on attached sketch map. Work should be conducted with approval of ADF&G regarding anadromous stream constraints.

TAG COMMENTS: Monitors to #88553 ~ LOGS

TAG APPROVAL DATE: 5/21/90
ADEC Art Weiner
EXXON Ann Teal
NOAA Joseph Takett
USCG G.A. Deiter
*Originally designated as SB-104

ACE 1950294+1/3

FOSC: DATE: 7-10-90

IN, POL NOT authorized. work out with NPS + ADF&G monitor requirements.

FIELD SHORELINE COMMENT SHEET

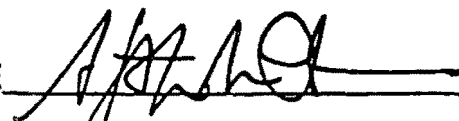
SEGMENT ST/K0917 CC5 SUBDIVISION: A DATE 5/3/90

~~NOAA~~
~~USCG~~

NAME

STEPHEN LENMANN

SIGNATURE

☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

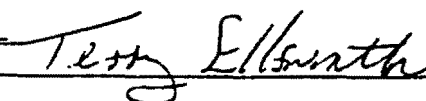
Generally agree with ADEC. Pooled oil should be removed - as many of these areas are not readily accessible - manual removal may be difficult. Caution should be shown regarding the beginning of the lagoon (at the end of the segment). Clean up should be concentrated at the eastern end of the segment.

ADEC

NAME

Terry Ellsworth

SIGNATURE

☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

Recoverable mousse and/or pooled oil occurs in three areas in the segment. The largest area is 20m wide x 30+ m long just west of the segment boundary at Cape Chiniak. The second area is x 200m west of the segment boundary and a third area of much smaller extent is found approximately midway in the segment. Very scattered tarballs occur in the east half of the segment on the sand-pebble beach. Manual removal is recommended although recovery of much of the pooled oil and mousse will be difficult as it is located between boulders up to 2m in size. Oiled trash + debris should be collected as well as heavily oiled small wood debris.

LAND MANAGER

NAME

Carl Scheeh

SIGNATURE

☐ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Recoverable oil consists of pooled mousse deep in interstitial spaces between large angular boulders. Oiled logs, nets and rope should be removed. Tarballs and oiled wood along the western portion of the segment could be removed quickly and easily.

ACE 1950295

SHORELINE OILING SUMMARY

REVISION NO 04.12.90

OG G. HEYMAN ~~NOAA~~ USCG S. LEHMANN SEGMENT ST/ K 0917 CCS
 BIO L. SHARMAN LAND REP C. SCHACH NPS SUBDIVISION A (LOFL)
 EXXON ON LEAVE ADEC T. ELSWORTH TIME/3: 3010/4.45
 TEAM NO. 19 TIDE LEVEL +6.5 to +8 DATE 5/03/90
 EST. SUBDIVISION LENGTH: 1012 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 40 % B 30 % C 15 % P 10 % G 5 % S 0 % M 0 % V 0 %
 SLOPE: Lang 40 % Hang 35 % Vert 5 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 32 m N 10 m VL 970 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	C	B	P	S	SL BR	DEL FW	GY	SL	DEL TL	BR	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		
PATTIES														
TARBALLS				X		X						X	X	
FILM														
NO OIL											X			X

PAVEMENT H F S 0 sq. m by 0 cmPATTIES / TARBALLS 3 BAGSNEAR SHORE SHEEN? NO BR RW SL TL

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

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE 0#BAGS 0

Photographs:

Roll No. —Frames —

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SHEEN (Y/N)	▼	SURFACE - SUBSURFACE SEDIMENTS	
		OP	OR	OL	OF	NO		UO	UC	SB BR	DB BW	GY SL	GR TL	LR	SU	U	M	L						
1	10					X	0.0		X							X					N	-	-	PG/G
							.																	
							.																	
							.																	
							.																	
							.																	

COMMENTS

ACE 1950296

REVIEWED BAT DATE 9 May 90

This Segment extends from the point of Cape Chiniak westward approximately 1012 m to a large bedrock outcrop at the south entrance of Chiniak Lagoon. Two beach types were generally encountered, a narrow bedrock-boulder-cobble beach to the east and a broader granule-pebble-cobble beach to the west.

Most oiling was observed along the eastern bedrock-boulder-cobble beach. Immediately west of the point, a pocket was observed with pooled MS & MS, CV, CT & ST about 32 m long X 20 m wide. The pooled areas were observed in boulder interstices and crevasses up to 1 X 0.2 m & 12 cm thick. MS patches have a similar occurrence. ST, CT & CV were also common with a patch distribution. The more heavily impacted area was up to approximately 10 m wide. This was surrounded by an area of ST-CT-CV/S also approximately 10 m wide. The MS & PO was observed in interstices relatively deep below the surface and most was only accessible with our shovel. ACE 1950297

One additional concentration of PO-MS and a second accumulation of MS in 2 bands are shown on Sketch Map 1. The rest of the oiling in the rock-boulder-cobble area was a near continuous band of ST-CT-CV-MS, <1% coverage, about 1-3 m wide. As we walked this section, areas would have very random splatters or drips.

On the granule-cobble beach, TB are randomly scattered near the HWC & logs in the SUTZ have splatters of CT-CV.

General Comments (cont.):

and Anthopleura elegantissima, artemisia, and xanthogramma. Surprisingly, essentially no Fucus (very rare). Barnacle spat are present but very rare. Nucella eggs are occasional, and mussels are recruiting quite successfully locally where adults are established in bands (discontinuous). The UTZ is very depauperate except for sparse littorinids (recruiting well). This rocky intertidal community appears to be normal & healthy, and recruiting normally with no unusual mortality beyond what would be normally expected. The oiled zone on this portion of the segment is above any intertidal biota (essentially all extreme UTZ & supratidal) - outstanding organisms do not appear to be affected. The W. 1/2 of the segment is open low-angle sandy beach, largely devoid of much macrobiota intertidally. (Back to E. rocky 1/2: natural barnacle mortality due to mechanical disturbance from seaweed/log scouring is locally up to 25%). Empty bivalve shells in the drift on the sandy portion include: Solidum giganteum, Mytilus edulis, Modiolus modiolus, Tresus capax, Chionocardium nestalli, Siliqua patula, Protothaca staminea, Macoma spp. (incl. baltica), Mya spp. (incl. truncata), Spisula polygonus. There are also some Frustraria, carcasses of Cancer magister (small) and (probably) Telmessus, one Strongylocentrotus purpuratus test, and lots of large dried clam siphons (at least some, maybe all, are Mya truncata). The UTZ drift line is very sparse, containing Fucus, Alaria, ulva, Scytosiphon. River otter scats in supratidal (contain mussel & other bivalve shell fragments, Telmessus fragments). There were supratidal & UTZ brown bear, fox, & wolf tracks, & one brown bear leg bone. Birds include ~ 20 glaucous-winged gulls, one fox sparrow in the intertidal zone, and a mixed flock of ~ 150 ducks (~ 100 pintails, 30 green-winged teal, 10 shovellers, 10 scaup). 1 adult eagle. Again, a normal, healthy sand beach community.

SG G. Heyman

SEGMENT ST/K0117 CC 005

SUBDIVISION A

DATE 5/3/90

CHECKLIST

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

LEGEND

1 Δ

Pit - No Subsurface Oil

2 Δ

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

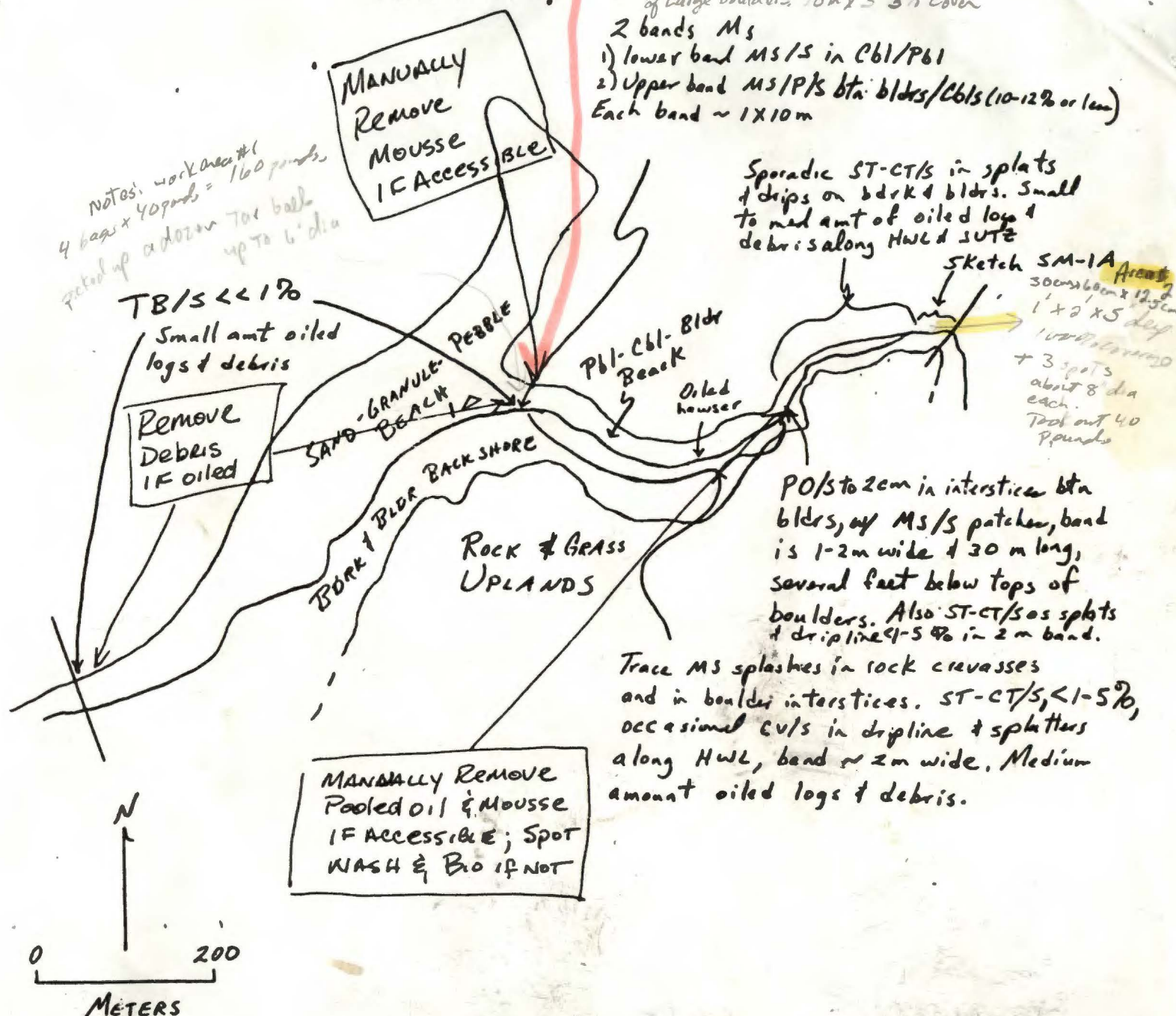
Splashed Distribution

Oiled Vegetation

1 $\rightarrow$

Photo location, direction, and number

SKETCH MAP - 1



ACE 1950299

Oil Character Length (m): AP — PO 12 CV 62 CT 250 ST 200 MS 52 PT — TB 500 FL — NO 0

REVISION: 03/24/90

OG G. Heyman

SKETCH MAP SM-1A

SEGMENT ST/K 0917 CC 005

SUBDIVISION A

DATE 5/3/90

CHECKLIST

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

LEGEND

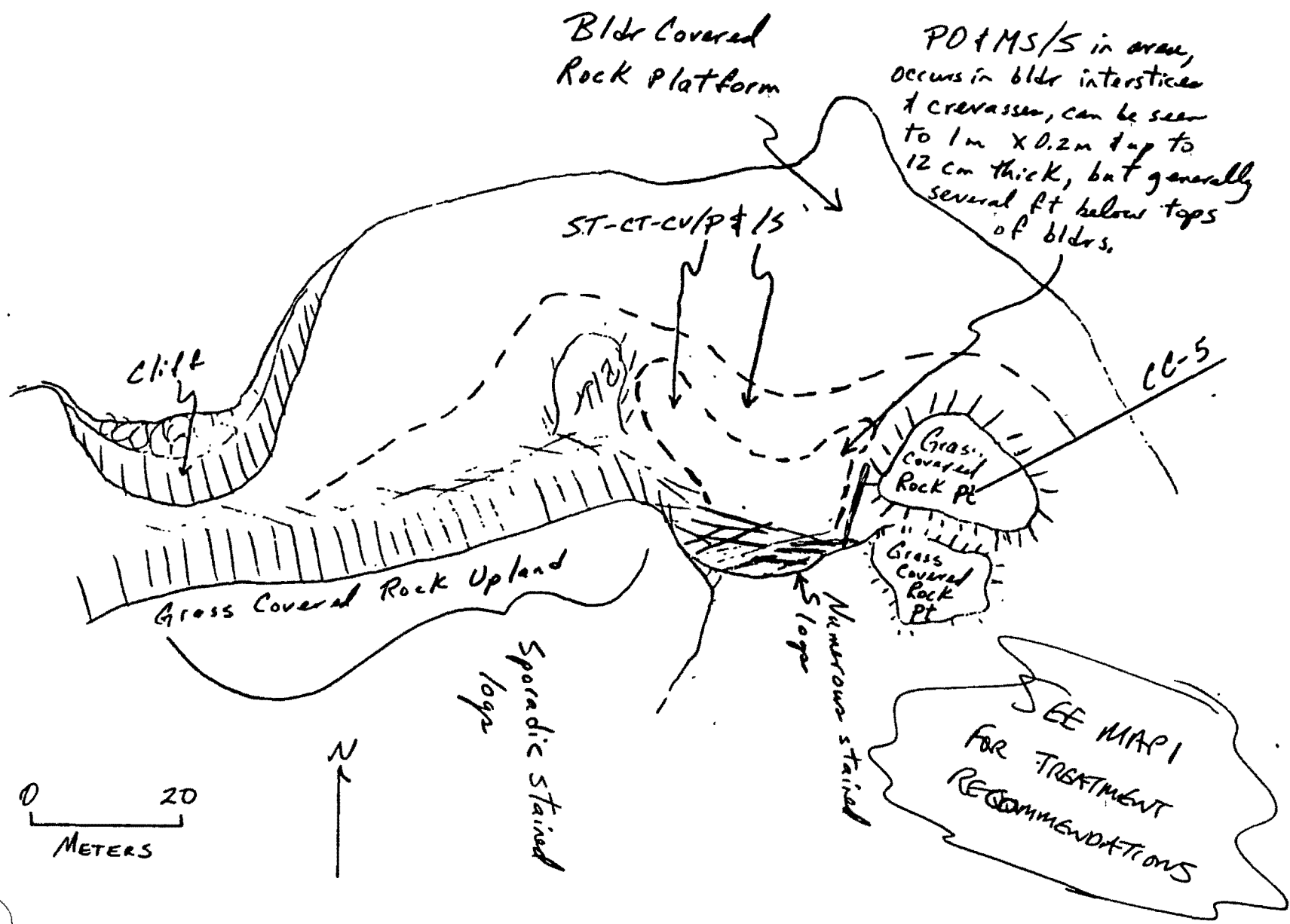
- 1 Δ
Pli - No Subsurface Oil
- 2 Δ
Pli - Subsurface Oil
- CT/C

Continuous Distribution
- CT/B

Broken Distribution
- CT/P

Patchy Distribution
- CT/S

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



ACE 1950300

Oil Character Length (m): AP _____ PO _____ CV _____ CT _____ ST _____ MS _____ PT _____ TB _____ FL _____ NO _____ See SM-1

Segment ST / CC-5 Subdivision A Date (mo / day / yr) 5/3/90Time (24 hr) 1330-1500 Biologist SHARMAN(A) Substrate type and % of segments: SUBDIV.
(1) Bedrock 40 (2) Boulder 30 (3) Cobble 15 (4) Pebble 10 (5) Sand 5 (6) Silt granules(B) Overall % cover of biota (% of segment): Dense SUBDIV. Moderate Low X

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

Photographs: Roll No. Frames

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS (ANCELLA, LITTORINA, LIMAETS)

Dense			Moderate			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: the above information is for the E. 1/2 (rocky) portion of the segment only. These organisms are essentially abundant from the remainder of the segment (sandy) except as (loose drift). The rocky portion is biotically sparse, intertidally, except for some MTZ tidepools which include: Adonthechia, Fithothamnium, Halichondria, barnacles, muscle, Littorina, limpate, Ancella, Tonicella, Pagurus, Metridium, (cont.)

Ecological Considerations:

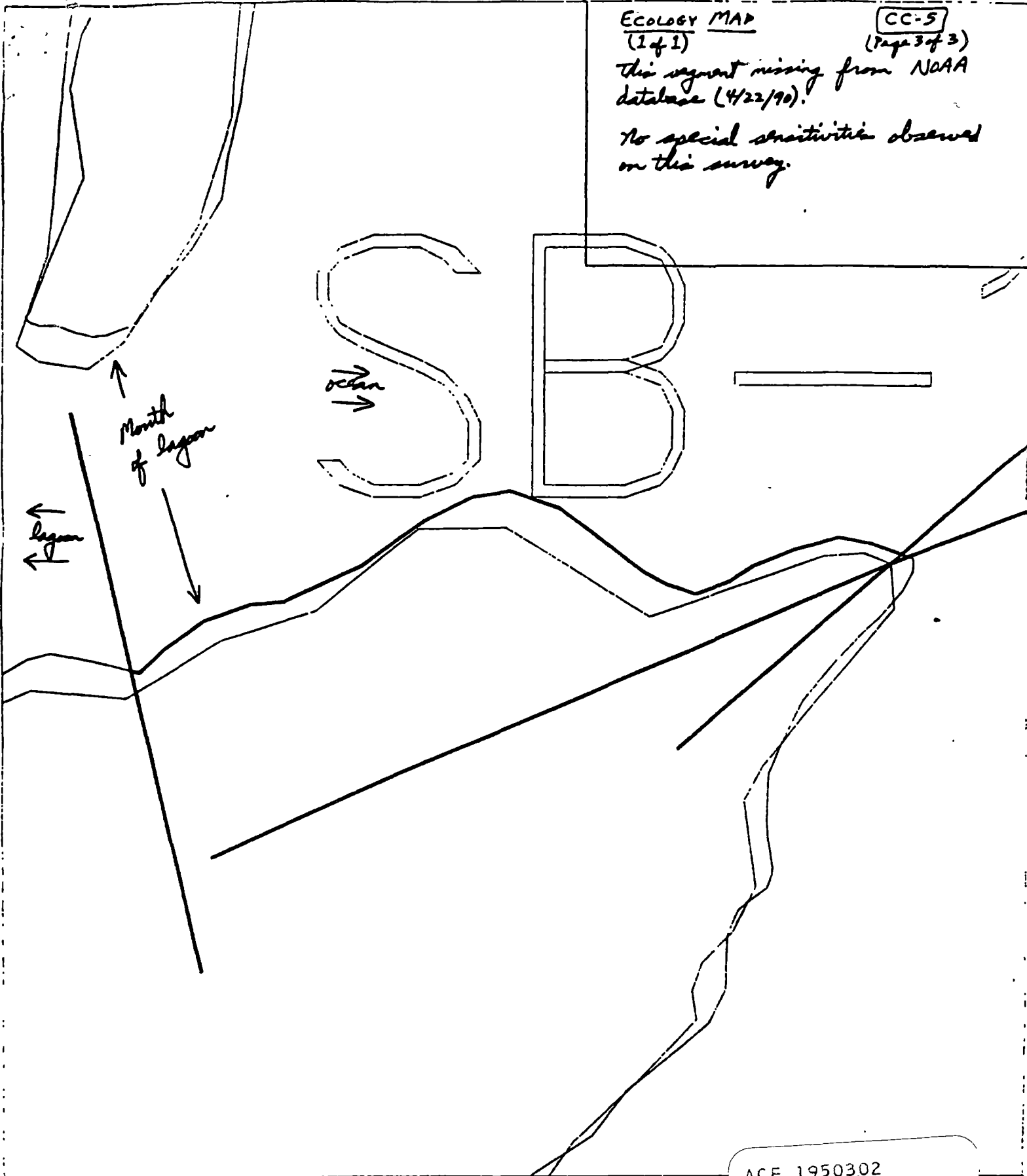
Please see attached Eco. Map. We had no information re. previously identified resource sensitivities. No particular sensitivities observed on this survey, but note that this segment comprises half of the Chinik lagoon entrance, and the lagoon should be considered generally sensitive to disturbance (please refer to this section of the YCC-100 summary).

adjacent

ACE 1950301

this segment missing from NOAA
database (4/22/90).

No special sensitivities observed
on this survey.



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

Approx. Segment Length: 1012m

K0917

0 100 200 300

METERS

ACE 1950302

Map Key: AKP-SB-104

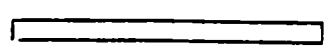
Name: _____

Date: _____

Data Entered: _____

SB

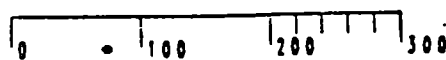
12/10m Narrow



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

SB-104 cc-5
K09-17

Approx. Segment Length: 1012m



ACE 1950303-15

Map Key: AKP-SB-104

Name: G. Heyman

Date: 5-3-90

Data Entered:

gpb CC-005.

8/6/90 0730 hours at ICP. Depart 357EH
Crew: Floyd Avery Exxon

Tessy Ellsworth DEC, JEFF BARNHART ADETC
Dave Stiegelmeyer NPS, Vince Guise USCG
Depart Airport 8:20 AM. Land CC 005 9:10 AM
Start work 9:25 Est 12 noon. Depart 12:15 pm

4 works + 1 foreman Land Cape Douglas 12:35
Depart Poughkeepsie 2 pm Land Big Bay 2:25 pm
Fuel Hold at Big Bay Depart 2:55 pm.
Land Kodiak 3:25 pm Complete work - addition
etc Done 4:20 pm. Removed 160 pounds oil from
mouth of Lagoon + 40 pounds just S. of mouth = 200 pounds
oil very little sediment.

8/7/90 Arrive ICP 0730 For Flight To KA 003

Kashuik Bay, O. Hold For weather. Zero
ASAP surveys. Problem with missing surveys.
Seems like all the streams are missing from DEC
file. will have to work on that at a later date.

Finally Fog lifted. Load helicopter. Depart Kodiak
Airport 10:00 AM. Fog precluded a straight
shot to Kashuik. Had to go down whale pass
Then back again to Port Lions then to
Vickoda, Ugavik and into the straits. Down
to 300 feet due to Fog Layer. Completed
permit form in Bowtie. Turned back due to

(version 4/29/89)

Page 1

SHORELINE OIL EVALUATIONDate: 9 May 89 Time: 1800-1900Observer: Bob DuganSurveyed From: (Foot)/Boat/Helio/PlaneWeather: (Sun)/Cloud/Rain/Snow/FogLOCATIONLOCATION South shore
Chiniak LagoonSEGMENT NUMBER CC-2LENGTH OF SHORELINE SEGMENT: 1500 mACCESS: (Foot/Vehicle)/Boat/Barge/Helio/Float PlaneSHORELINE:Shoreline Type: SPI/(BEA)/COV/HLD/STRTSlope: (LANG)/HANG/VERWave Exposure: High/Med/(Low)Sediment: B___% / C___% / P50% / G___% / S50% / M___% / R___%Drift Debris on Beach: (Yes)/NoSupra/(Upper)/Mid/Lower Type logsOILDegree of Oiling: Heavy/(Moderate)/(Light)/No Oil/UnobservedArea of Beach Impact: SU / SP / (H) / (M) / LContinuous: (Y)/N % of Segment 100 Width of Band: 2-5 mSporadic: Y/(N) % of Segment Est. Oil Thickness where > 1cm: 1-10 cm Est. Oil Penetration: 1 cmPooled Oil: 10 % "Free" Oil: 100 % Coated: H___% / M___% / L___%Fresh _____% Mousse 100 % Tar Formation: _____%Drift Debris Oiled? (Yes)/No Supra/(Upper)/Mid/Lower Amount: H/(M)/L/

Comments:

- Scattered blobs on floor of lagoon (very light)
- ① Cleanup priority: high; intense beach use, fox, etc
Several hundred yd ~~of~~ of contaminated beach
to be picked up.
- ② Mode of cleanup = manual picking & mechanical picking
recommended. On site burial of oil should be
seriously considered if thorough, rapid cleanup is to be
achieved.

ACE 1950244+13

DOCUMENTATION:Map/Aerial photo marking segment boundaries See Attached

VTR: Y/N Tape Number(s) _____

Photography: (Y/N) Roll Number(s) T1B-9Sample Numbers Collected: None

LIST OF KEY CODES USED ON SHORELINE CLEANUP EVALUATION FORMS

ISLANDS (Locations)		* GEOLOGIC SEDIMENT TYPE	
Naked Is.	NA	Boulder (>256mm)	B
Peak Is.	PE	Cobble (64-256)	C
Stoney Is.	ST	Pebble (4-64)	P
Eleanor Is.-	EL	Granule (2-4)	G
Ingot Is.	IN	Sand (0.06-2)	S
Block Is.	BL	Mud (less 0.06)	M
Entrance Is.	EN	Rock	R
Sphinx Is.	SP		
Disk Is.	DI		
Knight Is.	KN	** DEGREE OF OILING	
Smith Is.	SM		
Seal Is.	SE	Heavy	HV
Applegate Is.	AP	Moderate	MD
Green Is.	GR	Light	LT
L. Green Is.	LG	No Oil	NO
Agnes (Bass) Is.	AB	Unobserved	UN
L. Smith Is.	LS		
Gore Point	GP	AREA OF BEACH IMPACT	
Montague Is.	MN		
Aguliak Is.	AG	Supratidal (+SHWL)	SU
Squirrel Is.	SL	HWL to SHWL	SP
New Year Is.	NY	Upper 1/3 ITZ	H
Murray Is.	MU	Middle 1/3 ITZ	M
Squire Is.	SQ	Lower 1/3 ITZ	L
Crafton Is.	CR		
Pt. Nowell	PN		
Junction Is.	JU	ADEC IMPACT SURVEY	
Chenega Is.	CH		
Pleiades Is.	PL	Heavy	HVY
Bainbridge Is.	BA	Moderate	MOD
Flemming Is.	FL	Light	LT
Evans Is.	EV	No Oil	NO
Elrington Is.	ER	Unobserved	UNOBS
Latouche Is.	LA		
Danger Is.	DA	SHORELINE TYPE	
		Beach	BEA
		Cove	COV
		High Angle	HANG
		Low Angle	LANG
		Vertical	VER
		Headland	HLD
		Spit	SPI

Comments:

* Multiple entry is acceptable, use decreasing order of type found.
(ie. C/G/S where C is most predominant type and S is the least one.)

** Heavy (>6m wide and/or >1.0 cm thick)
Moderate (3-6m wide and/or 0.2-1.0 cm thick)
Light (0.1 -3m wide and/or <0.2 cm thick)
No Oil (free of visible oil)

ACE 1950246

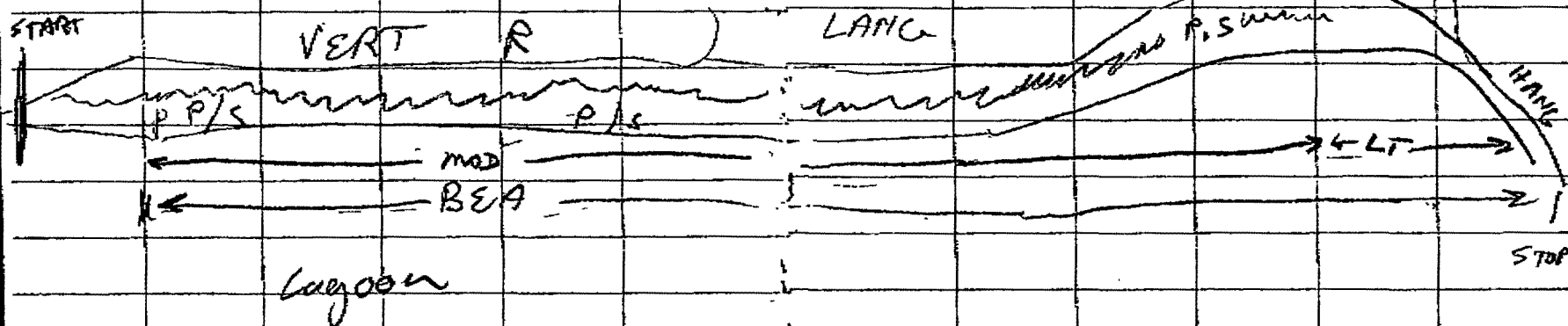
9 May 89

TIME	1800 - 1900
------	-------------

SEGMENT : CC-2 (East, Heliopt)

TIDE	High
------	------

mm	:	mousse band (brown)
----	---	---------------------



oil: 2-5 meter band of mousse; a HITZ stand line - up to 10 cm thick

= moderate, scattered peak; melts into sediment in sunlight

- H₂O - scattered 1-50 cm blocks covering 2% of ground surface

probably figural Sec. 1 mitz two

penetration = .5 to 25 cm depending on degree of melting &

buried by waves/wind.

- debris: lots of bags, many; have mouse on them

- Priority = high - more can be picked up earlier, inference can use

1. Carrying 1 manual pickup ATV's or colleagues would help

ECOLOGICAL EVALUATION

LOCATION: SOUTH SHORE CHINIAK LAGOON SITE: _____ OBSERVER: D. McCoemick
LOCATION PREFIX: _____ SEG. NO.: CC-2 LENGTH: 1500 (M)
DATE: 5/9/89 TIME (HHMM): 1800 TIDE HT.: +2.0 (M)
OILED ZONE: Splash High Medium Low
SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Most Fucus seen as debris along strand line - oil coated

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Most Myt seen as debris at high ITZ.

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Littorina

Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS: razor clam shells; lots of mousse in high / mid ITZ and sparse in low ITZ; bird clean-up crew reports seeing bald eagles feeding on oiled birds - may be feeding their young with this!

CLEANUP PRECAUTIONS: Avoid cross-contamination to clean areas, particularly lagoon area, during manual clean-up.

MAMMALS: Otters ^{sea otters (2)} ~~land otters (1)~~ Harbor Seals _____ Sea Lions _____ Whales _____
Other Beaver (2), fox (1)

BIRDS: Ducks, bald eagles

GENERAL OBSERVATIONS: Known areas of clams, dangerous crabs; this area is very rich in fauna - should be given a very high cleanup priority to avoid further impact to lagoon fauna and scavenging of oiled birds.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATIONDate 5-9-89 Location Chinik Lagoon Site South Shore - Chinik LagoonLocation Prefix CC Segment # 2 Length 1500 m

Survey Method:

Air ✓ (A - indicate on map) Boat _____ (A - indicate on map)Ground ✓ (G - indicate on map)Known cultural resources (AHRS #) AFO - 001 Data Source AHRS FilesOil conditions/beach visibility Light scattered oilWidth of beach zone surveyed 5 m Tree fringe surveyed up to 50 mCultural resources observed in beach zone (AHRS code) NoneCultural resources observed in tree fringe (AHRS code) MON, PAD, HSP, BRL

General observations justifying survey method and segment's site probability:

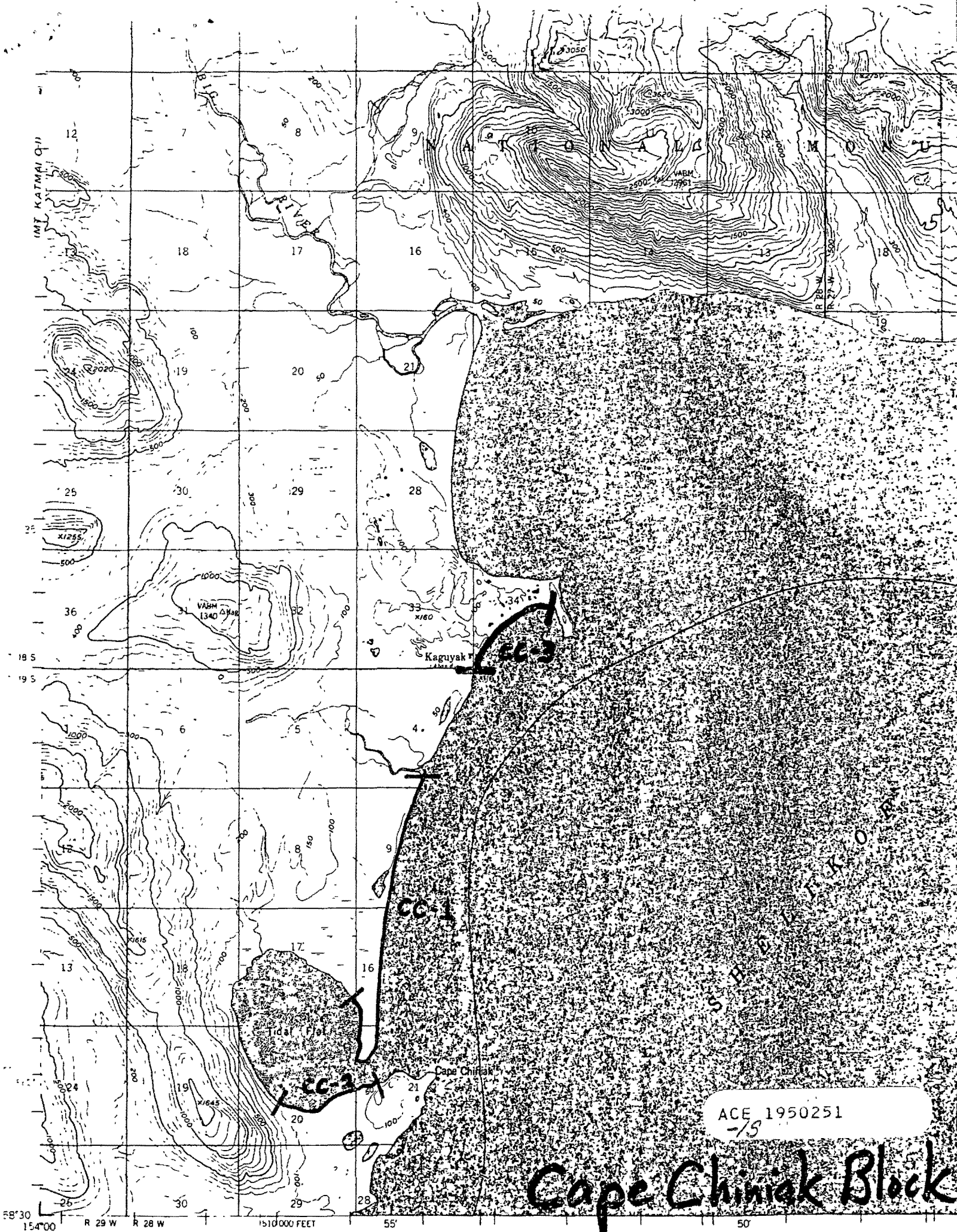
Shore Profile Eight meter high terrace above a 35 m wide beach strandFresh Water Sources Small stream at western end of segmentSea Exposure Protected in Chinik LagoonAccess/Safety Easily Accessible, ProtectedProbability of undiscovered sites in beach zone (circle one) 1 2 3 4 5Monitoring during cleanup needed yes/no Collection yes noPhotos: Color Roll # T1B - 9 Frames _____

B/W Roll # _____ Frames _____

Observer(s) Mike VanBoroughTime survey started 6:00 pm Time survey ended 7:00 pm

Cultural resource considerations/restraints:

No access above the active beach. Site should be monitoredduring cleanup. IF heretofore undiscovered cultural remains arediscovered during cleanup, contact EXXON'S Director or FieldArchaeology immediately.



ACE 1950251
-75

Cape Chiniak Block

SQUAD #9 *Helo.*

WORK HOURS: START , _____ TO: _____

		MS-0	Granular
--	--	------	----------

[illegible]

* The date that the Bioremediation portion of the Work Order has been completed and acknowledged. Multiple treatments should be acknowledged after EACH treatment

W Started and Working
 % Percentage complete (used on on large work scopes)
 C Work complete

ACE 1950304 + 90

WORK PLAN MODIFICATION RECOMMENDATION

SEGMENT: K-9-17 SUBDIVISION: CC-005A DATE: 8-6-90.

MODIFICATION

1. REASON FOR MODIFICATION:

NO Bioremediation OR Press Wash Necessary
Due to minimal Amount of Recoverable Mousse

2. SUGGESTED ADJUSTMENT TO WORK PLAN:

NO Bioremediation
NO Pressure Washing

3. TIMING ISSUES:

N/A

USCG BSI [Signature]

ADEC Terry Ellsworth

LAND MANAGER _____ (If field representative is on site)

EXXON: Floyd A. Avery

ADF&G: Jeffrey P. Barnhart

SQUAD 9 - HELICOPTER

WORK HOURS: START 0900 TO: 12:00

MANUAL AND MECHANICAL OPERATIONS

SEE: Deletion of Spot Wash & BioMediation
Work Modification Recommendation
8-6-90
J. Arney

[illegible]

AGFF
J. Barnhart

• The date that the Manual/Mechanical portion of the Work Order has been completed and acknowledged. A separate acknowledgement will be made for the Bioremediation portion of the Work Order.

**** 1 Supersack = 45 CF, report in tenths of sack (i.e. 0.1)**

STATUS CODES

C Work complete

ACE 1950306

EXXON FLIGHT PLAN

1. AIRCRAFT TAIL NUMBER: 357EH DATE: 6 AUG 90
2. AIRCRAFT COLOR: WHT & RD/BLK TYPE AIRCRAFT: R212
3. TOTAL NUMBER OF PEOPLE ON BOARD (INCLUDING CREW):
4. DEPARTURE POINT: KODIAK ETD: 0800
5. ROUTE OF FLIGHT (SHOW ALL WAYPOINTS): KODIAK - CAPE CHINIAK,
KODIAK
6. FINAL DESTINATION: KODIAK ETA: 2000
7. FUEL ON BOARD: 2 HRS + 40 MINUTES
8. ANTICIPATED DELAYS (WAYPOINT/TIME): CAPE CHINIAK 8100
9. COMPLETE MANIFEST AND ATTACH OR USE FORM BELOW: ✓ (check complete)
10. DRAW ROUTE WITH DIRECTION ARROWS AND ATTACH: ✓ (check complete)
11. EXECUTE IDEMNIFICATION AGREEMENT IF REQUIRED (reference page F-4) AN ATTACH. REQUIRED? YES NO ✓
12. FAX (266-6471) COMPLETE FLIGHT PLAN AND ATTACHMENTS TO TRANSPORTATIO. FOLLOWING OR CALL (266-6582). IF DELAYED MORE THAN 30 MIN., AMEND ETD...

NAME	COMPANY	WEIGHT	BAG WT	DESTINATION
FLOYD AVERY	EXXON	225		KODIAK
T. Mc MAHON	USCG	1		
TERLY ELLSWORTH	ADEC	1		
JEFF BARNHART	ADF6G	1		
Dave Stiegelmeier	NPS	1		
VINCE GUISIE	USCG	1		

ILOTS NAMES:

FULKERSON, L

CLUTTON, W

TOTALS

1175

TOTAL PASS & BAGGAGE

1175

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

STEVE COWPER, GOVERNOR

333 RASPBERRY ROAD
ANCHORAGE, ALASKA 99518-1599
PHONE: (907) 344-0541

EXXON Valdez Oilspill Cleanup

Anadromous Fish Stream Authorization

Date August 6, 1990

EXXON Authorized Representative Floyd Avery

Shoreline Segment K09-17-CC-005 Chiniak Lagoon

Anadromous Fish Stream Number(s) 262-15-10040

chiniak lagoon

Approved Cleanup Techniques Manual removal of all oil of any form within the stream channel and bottom substrate, and on the stream banks. Minimize removal of stream bank substrate and surface components to that required for removing oil.

Approved Cleanup Period August 6, 1990

Alaska Department of Fish and Game

Jeffrey P. Barnhart
Authorized Officer

Floyd A. Avery
Permittee's Signature

ACE 1950308

FIELD SHORELINE COMMENT SHEET

ASAP

K-09-17

SEGMENT AS1 EC-5 SUBDIVISION: A SITE: 10F4 DATE 6 Aug 90USCGNAME J. FAZIO SIGNATURE J. P. Fazio Bm1☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

USE BIO here will help alot

NADECNAME F. BENNIS SIGNATURE F. Bennis☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

No further manual treatment recommended at this time. Area should be reassessed to observe effectiveness of bio and winter storms.

LAND MANAGERNAME C. Schoch SIGNATURE Carl Schoch☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Pooled mousse remains in boulder interstices but is not easily accessible. Reassessment is warranted based on the volume of remaining oil and to determine the effectiveness of bioremediation treatment.

EXXONNAME W. Stillings SIGNATURE Wm Stillings☐ YES☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Area can use Customblen - helo team will apply as a class 1 when they address site 3 pick up.

No other work practical - high energy coast

REVISION NO. 7/26/90

ACE 1950309 #/S

FIELD SHORELINE COMMENT SHEET

K09-17
SEGMENT AS1 CC-5 SUBDIVISION: A SITE: 3 of 4 DATE 6 Aug 90USCGNAME J. FAZIO SIGNATURE J P Fazio Dr☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

Mousse is present at time of Reassessment as of 6 Aug 90
Site is Not Clean enough for Demob.

ADECNAME F. BENNIS SIGNATURE Franco Bennis☒ YES ☐ NO ~~PRIORITY~~ SITE FOR REASSESSMENT IN 1991
REASON:

Area should be reassessed to determine effectiveness of
winter storms. Clean-up work had been performed same day
as S.A.P. observations.

LAND MANAGERNAME C. Schoch SIGNATURE Carl Schoch☒ YES ☐ NO ~~PRIORITY~~ SITE FOR REASSESSMENT IN 1991
REASON:

Work crews are scheduled to return to this site for
additional manual removal. Reassessment is warranted
following this treatment or in April 1991 to determine
extent of remaining oil.

EXXONNAME W. Stillings SIGNATURE Wm Stillings☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

Safety Risk with access - no practical work
Remains - after pick up by Hula team
Planned for 8/7/90 - CLASS I

FIELD SHORELINE COMMENT SHEET

1009-17

SEGMENT AS1 CC-5 SUBDIVISION: A SITE: 4 of 4 DATE 6 Aug 90USCGNAME J. FAZIO SIGNATURE [Signature]☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:ADECNAME F. BENNIS SIGNATURE [Signature]☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:LAND MANAGERNAME C. Schoch SIGNATURE [Signature]☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

No further work or assessment is warranted
at this site

EXXONNAME W. Stillings SIGNATURE [Signature]☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

No oil remains

TEAM NO Kodiak #5 EXXON W Stillings SEGMENT AS. CC-5
 OG D Fitzgerald USGS J. FAZIO SUBDIVISION A
 ADEC F Bennis LAND REP C. Schoch TOTAL NO. SITES 4
 DATE 6 Aug 190 TIME 16:45 to 18:45 TIDE LEVEL 310 to 175
 TOTAL EST LENGTH OF SHORELINE SURVEYED: 1027 m
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WEATHER: ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 OIL CATEGORY LENGTH: W m M m N m VL 100 m NO 927 m US m

SURFACE OIL					SITE 1				SITE 2					SITE 3																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
CHARACTER	DISTRIBUTION				OILED ZONES																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			

SEGMENT AS/ CC-5 SUBDIVISION A

SITE									
CHARACTER	DISTRIBUTION				OILED ZONES				
	/C	/B	/P	/S	SU	UI	MI	LI	
ASPHALT									
S.O.R.									
POOLED									
COVER									
COAT									
STAIN									
MOUSSE									
PATTIES/T.B.									
FILM									
NO OIL									
EST. SITE LENGTH					0				

[illegible]

ACE 1950313

CC

CC-5

A

ACE 1950314

SEGMENT K9N-17 CC-5 Segment Location Map

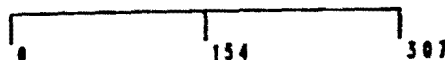
Map Key: AKPK9N-17CC-5

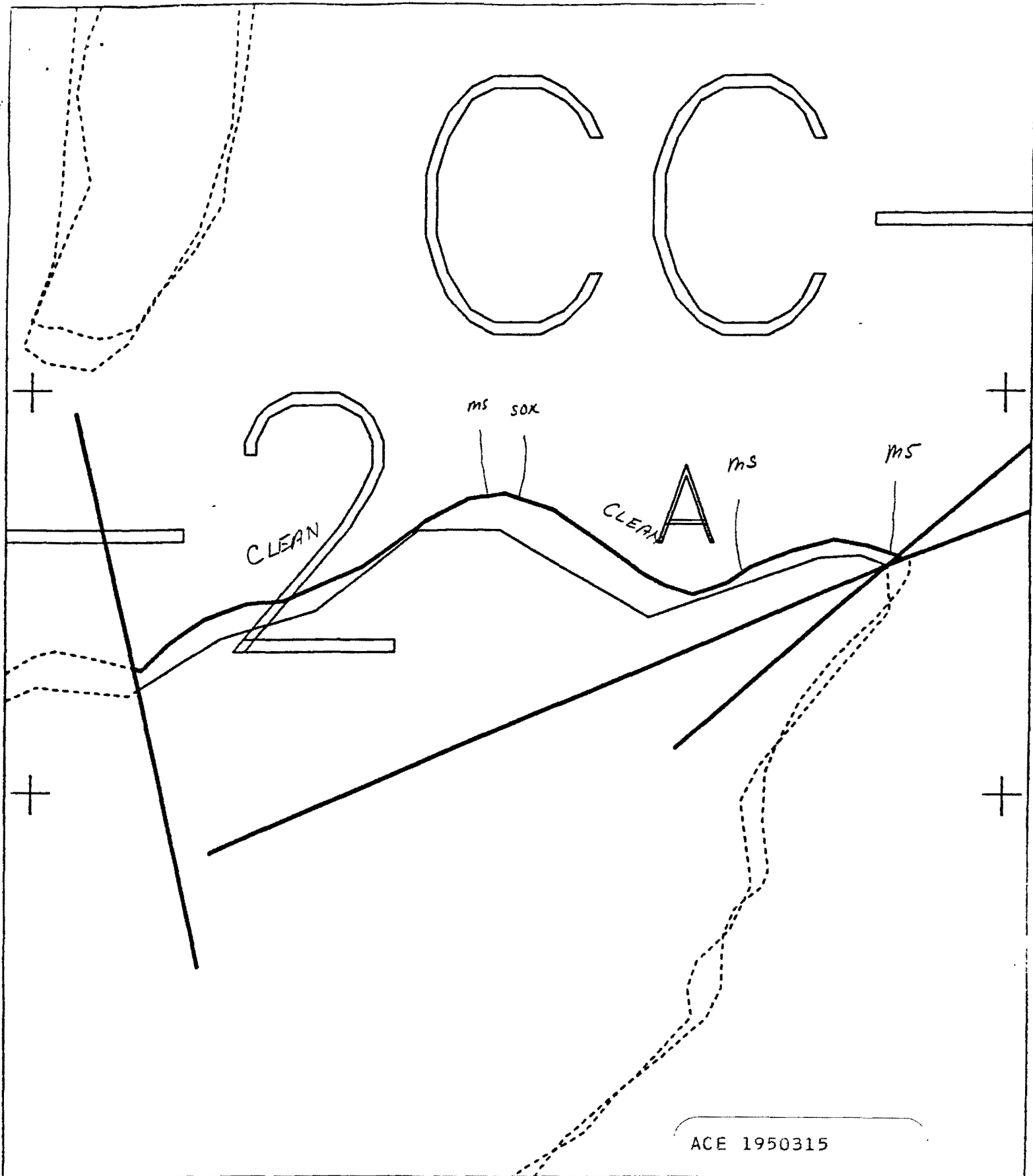
July 18, 1990

1:6044



METERS





ACE 1950315

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

K9N-17 CC-5 A
 ADEC Subsegment Length: 1027m

METERS

0 154 307

AK State Plane Zone 4 1:6044
 49N-17CC50



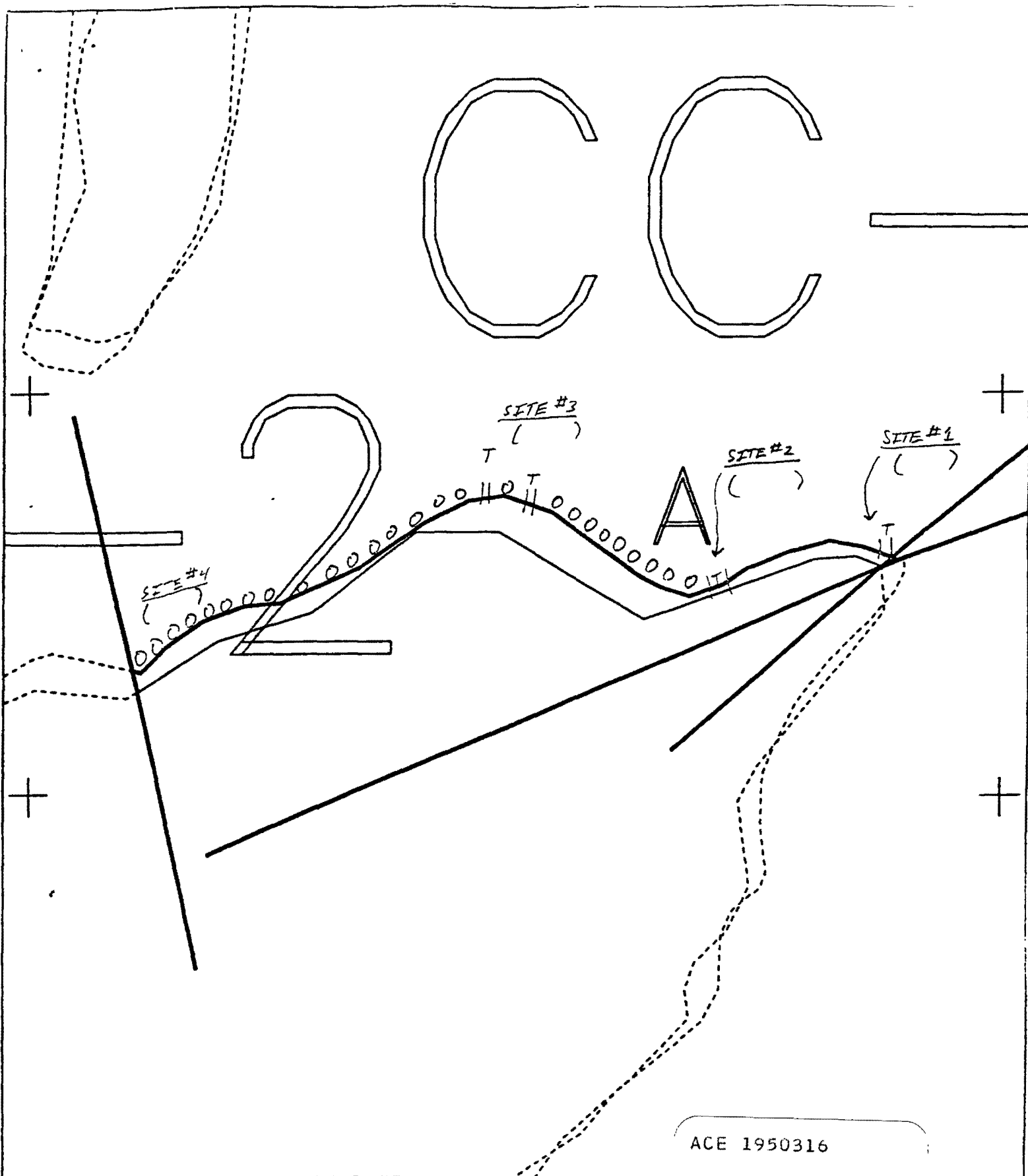
Subdivision Field Map

Map Key: AKPK9N-17CC-5A

Name: D. F. LEXALL

Date: 6 August 1990

Date Entered:



ACE 1950316

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

K9N-17 CC-5 A
 ADEC Subsegment Length: 1027m
 METERS
 0 154 307
 AK State Plane Zone 4 1:8044
 89a-17cc5a



Subdivision Field Map
 Map Key: AKPK9N-17CC-5A
 Name: D. F. K. GERALD
 Date: 6 August 1990
 Date Entered:

SUBDIVISION ADATE 5/3/90

CHECKLIST

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

LEGEND

1 Δ

Pit - No Subsurface Oil

2 Δ

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

Oiled Vegetation

1 $\Rightarrow$

Photo location, direction, and number

ACE 1950317

SITE #3

- MS/S, patches in MITZ < 1% on pebble beach.
- SOL/S, 1-2 m x 10 m at UIZ along lower portion of boulder slope.

- Photo # 9 TB/S < 1%

Small amt oiled logs & debris

Remove Debris IF oiled

MANUALLY Remove Mousse IF Accessible

SITE #4

- No oil observed here

0 200
METERS

- 2 bands MS
- 1) lower band MS/S in Cbl/Pbl
 - 2) Upper band MS/P/S bta. bldrs/Cbls (10-12% or less)
- Each band ~ 1x10m

Sporadic ST-CT/S in splats & drips on bdrk & bldrs. Small to med amt of oiled logs & debris along HML & UIZ

Sketch SM-1A

SITE #1

- MS/P-S (Iru)
- At UIZ w/ very large boulders
- 20 by 4m
- 16 lbs Customblen
- Photo # 6 + 7

PO/S to 2cm in interstices bta bldrs, w/ MS/S patches, band is 1-2m wide & 30m long, several feet below tops of boulders. Also ST-CT/S as splats & dripline 4-5% in 2m band.

Trace MS splashes in rock crevasses and in boulder interstices. ST-CT/S, < 1-5%, occasional CV/S in dripline & splatters along HML, band ~ 2m wide. Medium amount oiled logs & debris.

SITE #2

MS/P-S at UIZ up under very large boulders 30m by 1-2m
Photo # 8

MANUALLY Remove Pooled oil & Mousse IF Accessible; SPOT WASH & Bio IF NOT

SAND BEACH
 GRANULE BEACH
 PEBBLE
 Pbl-Cbl-Bldr Beach
 Oiled house
 ROCK & GRASS UPLANDS
 BDRK & BDR BACK SHORE

Oil Character Length (m): AP — PO 10 CV 62 CT 250 ST 200 MS 52 PT — TB 500 FL — NO 0

10. Surveyman

SKETCH MAP SM-1A

SEGMENT ST/ K0917 CC005

SUBDIVISION A

DATE 5/3/90

CHECKLIST

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

LEGEND

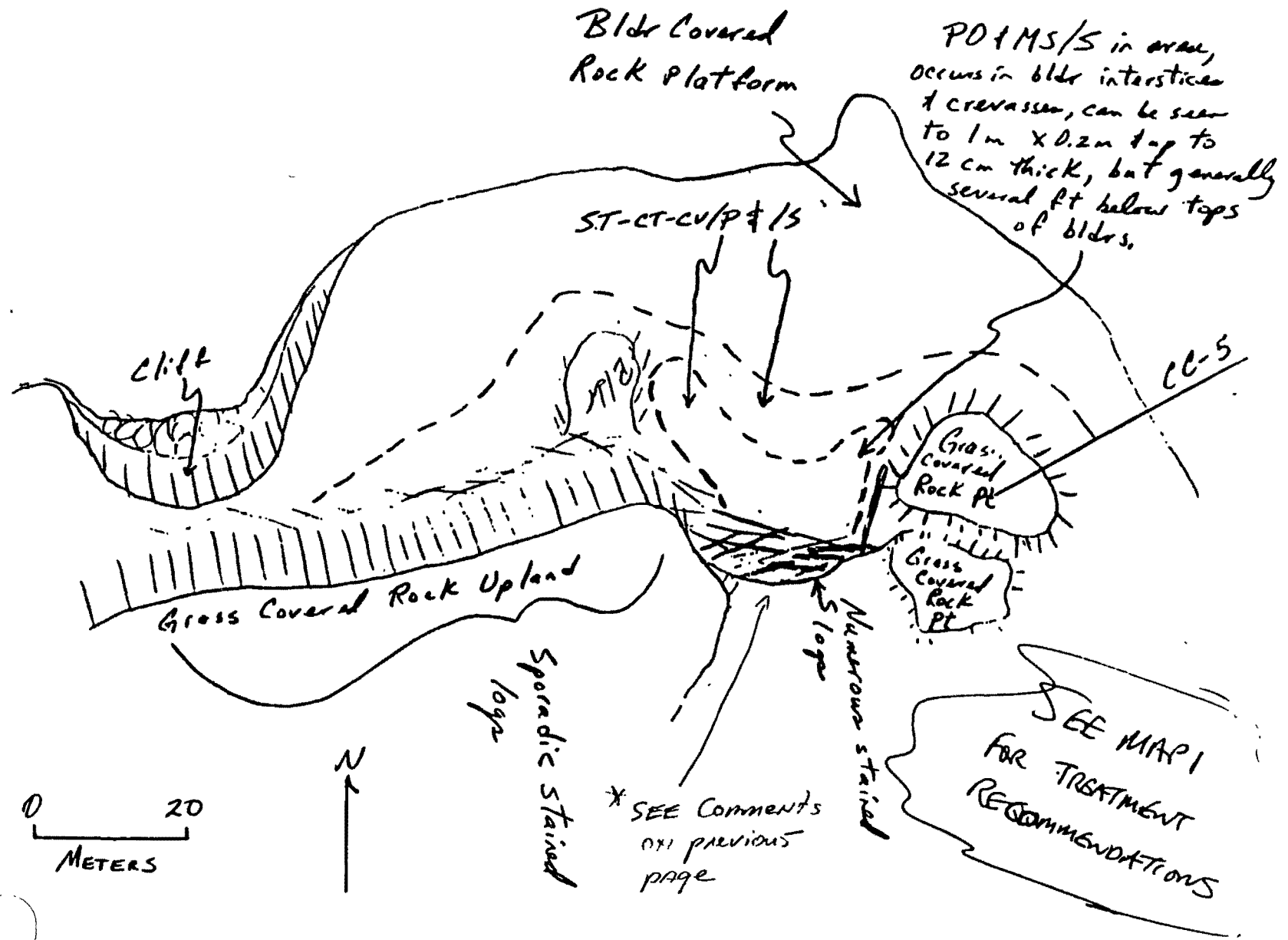
- 1 Δ
Pli - No Subsurface Oil
- 2 Δ
Pli - Subsurface Oil
- CT/C

Continuous Distribution
- CT/B

Broken Distribution
- CT/P

Patchy Distribution
- CT/S

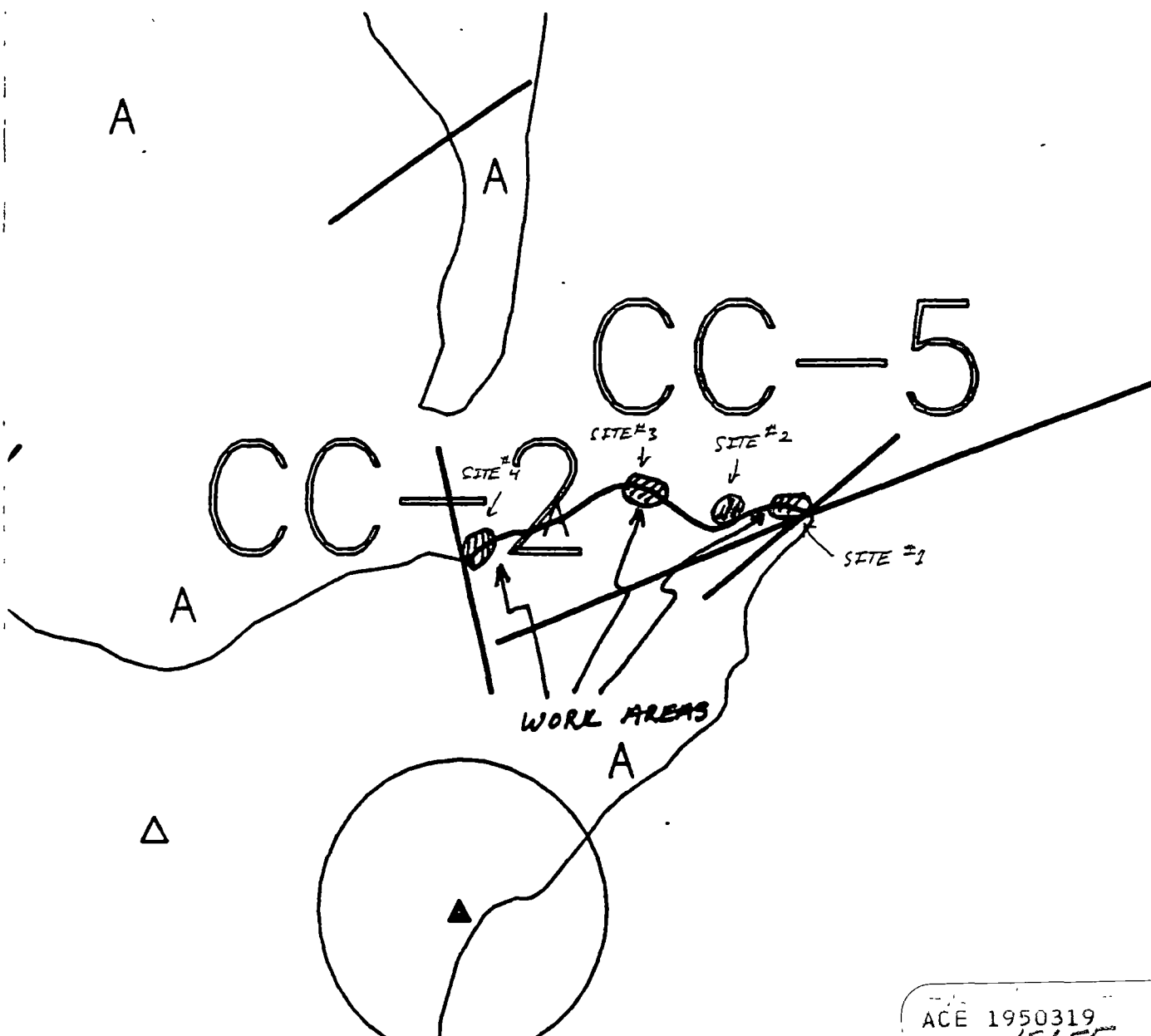
Splashed Distribution
- 
Oil Vegetation
- 
Photo location, direction, and number



ACE 1950318

Oil Character Length (m): AP _____ PO _____ CV _____ CT _____ ST _____ MS _____ PT _____ TB _____ FL _____ NO _____ See SM-1

REVISION: 02/24/90



Exxon Company, USA

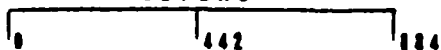
Map Key: AKP-CC-5

June 10, 1990



ECOLOGY MAP
SEGMENT K9N-17 CC-5
SUBDIVISION A (1 of 1)

METERS



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

ACE 1950319
-15/FF

1 inch = 1450 feet

K09-17 CC-001 Chiniak Lagoon
(Also general Chiniak maps) 2621510040

**ADEC DEMOBILIZATION REPORT
FOR PHYSICAL/MECHANICAL TREATMENT AND CUSTOMER**

To: Alaska Department of Environmental Conservation
Oil Spill Response Center
Anchorage, Alaska
Attn: John Bauer
FAX 265-4666, 265-4656

RE: SEGMENT NUMBER K09-17 CC001SUBSEGMENT NUMBER ADEC REP Terry EllworthUSCO REP Jim DavisEXXON REP Fred Byars

BOAT NAME/SQUAD NUMBER _____

Has work been completed as stated on the work order? If your answer is no please explain in detail how the work performed was different from the work order language.

yes

Is there additional oil remaining which can be removed with further physical/mechanical treatment? If yes what is the recommended treatment method.

no

Describe the amount of oil remaining (type, size of area and location).

Approximately 700m south of N segment Boundary mouse patches and Tarballs are buried in eroding sediments in the Su + UETZ (see OG Sketch). This band is ~ 150-200m long. Several test pits in the band indicate that the Ms patches + Tarballs are not present in concentrations great enough to warrant digging up this beach.

Additional Comments (keep objective) _____

signature Terry EllworthDate and time of demobilization from segment 7-11-90 / 11:30

Shoremon\55 8-12-90

K09-17

SEGMENT AS/ CC001 SUBDIVISION: A SITE: 1 DATE AUG 3, 1990USCGNAME J. FAZIOSIGNATURE J. D. Fazio Sm'☐ YES☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

ADECNAME F. BENNISSIGNATURE F. Bennis☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

There had been buried mousse removed by work crew in this sandy beach, as well as surface oil. the S.A.P. work saw additional MS patties after the work crew's treatment, suggesting there is more oil present which may be alternately uncovered + buried. If there is more oil present, another assessment would confirm this.

LAND MANAGERNAME W. TROYERSIGNATURE Will Troyer☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

This site had a lot of oil buried under the sand. It is unclear how much may remain or possible resurface by next spring. Hence I feel it should be assessed to determine this unknown.

EXXONNAME R. COULTERSIGNATURE Reg. R. Coulter☐ YES☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

ALL TAR BALLS AND PATTIES FOUND WERE REMOVED.

FIELD SHORELINE COMMENT SHEET

K09-17

SEGMENT AS / CC001 SUBDIVISION: A SITE: 2 DATE Aug. 3, 1990

USCG

NAME J. FAZIO

SIGNATURE

J. Fazio Bm'

☐ YES
REASON:

☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

ADEC

NAME F. BENNIS

SIGNATURE

F. Bennis

☐ YES
REASON:

☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

LAND MANAGER

NAME W. TROYER

SIGNATURE

Will Troyer

☐ YES
REASON:

☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

EXXON

NAME R. COULTER

SIGNATURE

Rev R. Coulter

☐ YES
REASON:

☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

ALL TAR BALLS AND PATTIES FOUND WERE REMOVED.

CG DETROIT USGS J. FAZIO SUBDIVISION 1
ADEC F. BENNIS LAND REP W. TROYER TOTAL NO. SITES 2
DATE AUG / 03 / 90 TIME 14:40 to 16:20 TIDE LEVEL 33.0 to 23.0 cm ABOVE MLLW
TOTAL EST LENGTH OF SHORELINE SURVEYED: 2200 m
SURVEYED FROM: ☒ Foot ☐ Boat ☒ Helo WEATHER: ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
SLOPE CATEGORY LENGTH: W m M m N m VL 500 m NO 1700 m US m

SURFACE OIL

CHARACTER	DISTRIBUTION				OLED ZONES			
	/C	/B	/P	/S	SU	UL	MP	LI
ASPHALT								
S.O.R.								
POOLED								
COVER								
COAT								
STAIN								
MOUSSE								
PATTIES/T.B.				X	X			
FILM								
NO OIL						X	X	X
EST. SITE LENGTH					400			

SITE 2

DISTRIBUTION				OILED ZONES			
/C	/B	/P	/S	SU	UI	M	LJ
			x	x			
					x	x	x
				100			

SITE 3

[illegible]

1BSURFACE OIL

[illegible]

Photographs:

Roll No. BAT-06-13

Frames [#] 30-34

○ COMMENTS Both of these sites had areas with very sporadic tar balls and patties in the UETZ. All that were seen were picked up and bagged and the ASAP crew spent 30-40 minutes at each patrolling for tar balls and patties.

N-17

CC-1

TP-TB/S
« 1% Coverage

CC-100

CC-5

CC-2

XXXX
////

TTTT
0000

Wide
Medium
Narrow
Very Light
No Oil

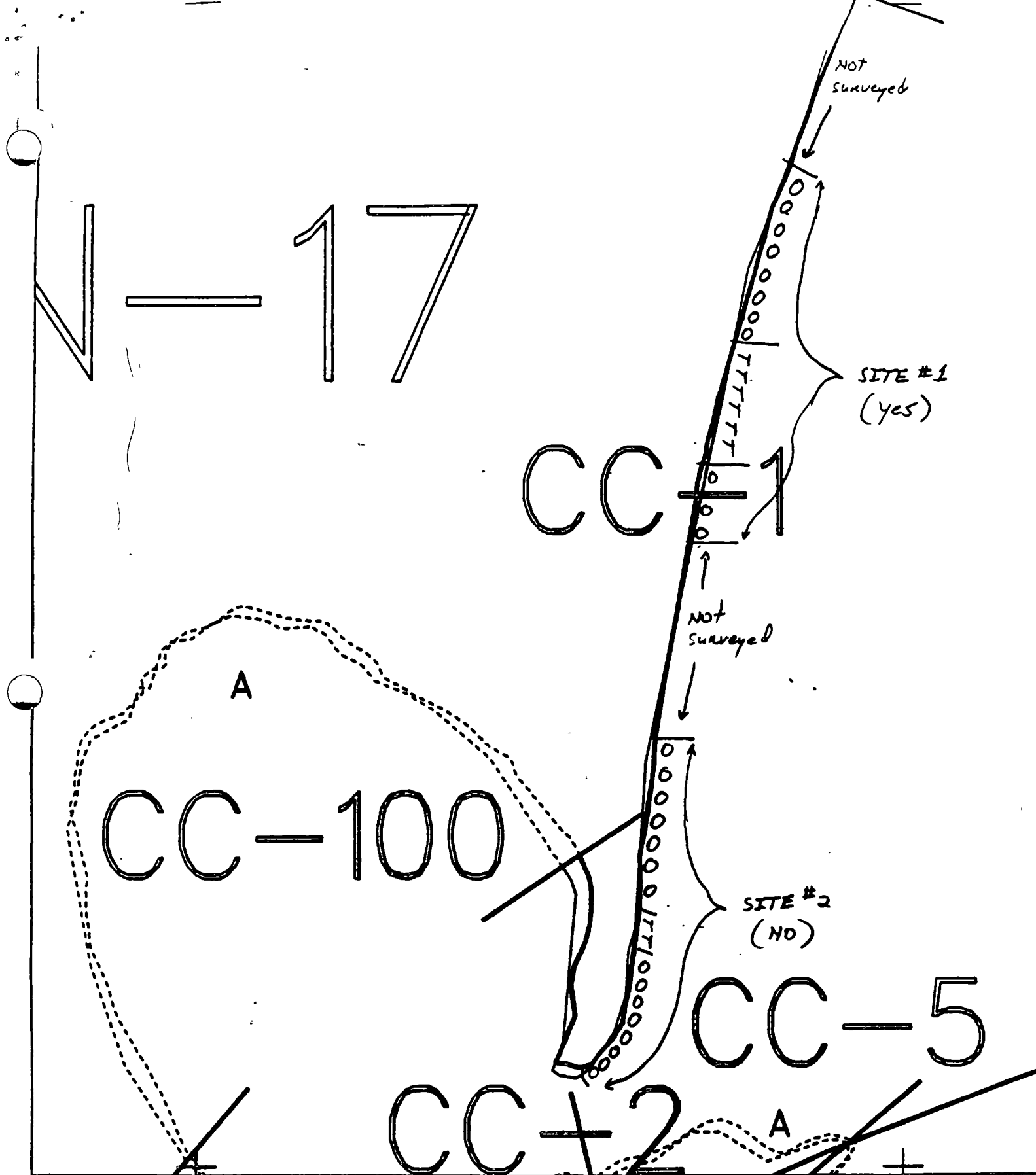
K9N-17 CC-1 A
ADEC Subsegment Length: 4763m

METERS

0 457 914
AK State Plane Zone 4 1:10000
a9n-17cc1a



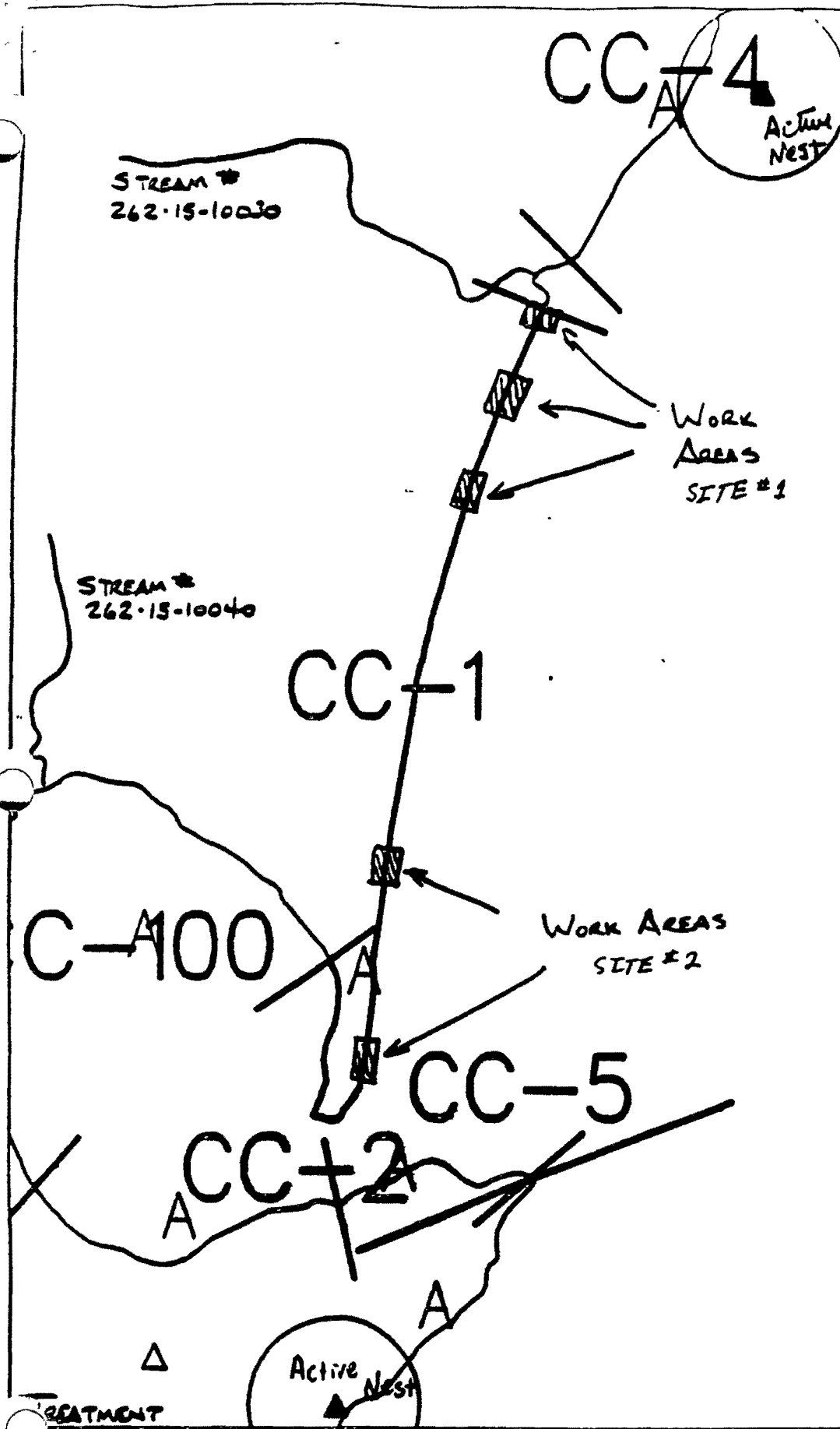
Subdivision Field Map
Map Key: AKK9N-17CC-1Ae
Name: D. Fitzgerald
Date: 3 Aug 90
Date Entered:



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

K9N-17 CC-1 A
 ADEC Subsegment Length: 4763m
 METERS
 0 487 914
 AK State Plane Zone 4 1:10000
 c9n-17cc1a

Subdivision Field Map
 Map Key: AKPK9N-17CC-1Aa
 Name: D. Fitzgerald
 Date: 3 Aug 1990
 Date Entered:

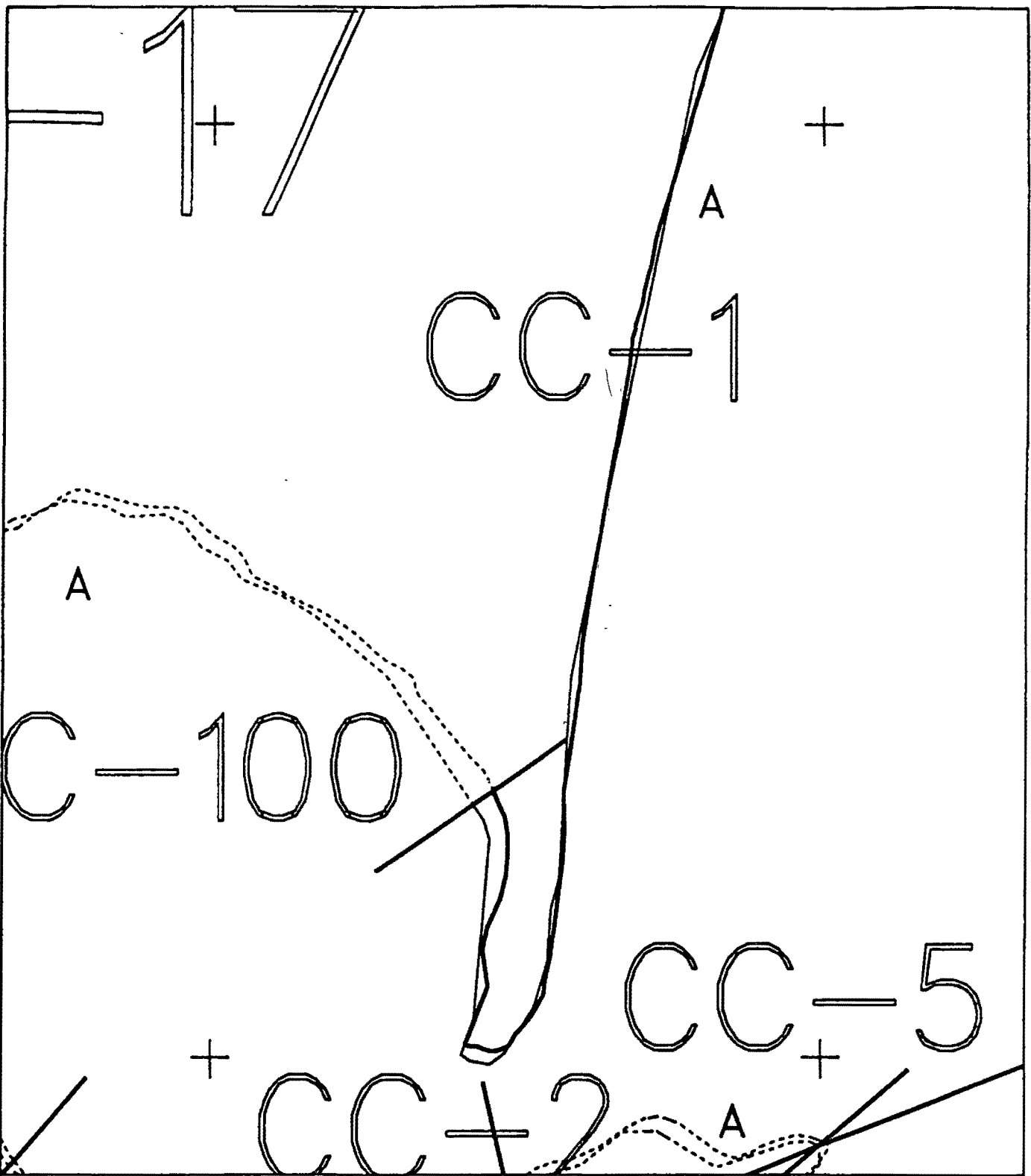


Exxon Company, USA
Map Key: NP-CC-1



ECOLOGY MAP
SEGMENT K9N-17 CC-1
SUBDIVISION B (1-1-1)
METERS

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



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

K0917 CC001 A
 ADEC Subsegment Length: 4783m
 METERS

0 400 800
 AK State Plane Zone 4
 90917cc001a-...



Subdivision Field Map
 Map Key: 60AK0917CC001Aa
 Name: _____
 Date: _____
 Date Entered: _____

EVOS CLEANUP MONITORING, 1990.

REGION: Alaska Peninsula REPRESENTATIVES
 K-UNIT: K09-17 Exxon: FRED BYARS
 SEGMENT: CC-001 USCG: Jim Davis
 LOCATION: Chiniak Lagoon DEC: Terry Ellsworth
 STREAM NAME: Chiniak Lagoon NPS: Howard Overton
 ANAD. STREAM CAT. #: 262-15-10040 USFWS: Dick Wydoski
 ANAD. FISH STREAM PERMIT ISSUED: NO ADF&G: Jeff Barnhart
 DATE(S) WORKED: 7/5/90 and 7/11/90 OTHER:
 SQUAD # : 9 Holo HOURS WORKED: 7.25
 SQUAD SIZE: 6 TOTAL MAN HOURS WORKED: 43.5
 NUMBER OF BAGS COLLECTED: N/A DATE WORK ORDER ISSUED 6/4/90
 POUNDS OF OIL/OILED SEDIMENT REMOVED: 4,000

TREATMENT TECHNIQUES: MANUAL REMOVAL ☒ BIOREMEDIATION

OTHER

OIL BANDS

DEMOL DATE: <u>7/11/90</u>	L <u>95m</u> W <u>1m</u> D <u>1.5cm</u> m ² <u>95</u>	% oil cover <u>10</u>	V
OIL SAMPLE # <u>N/A</u>	L <u>900m</u> W <u>8m</u> D <u>1.5cm</u> m ² <u>1800</u>	% oil cover <u><1</u>	V
OIL TYPE: <u>TB PT</u>	L <u>2100</u> W <u>2m</u> D <u>1.5cm</u> m ² <u>4200</u>	% oil cover <u>1</u>	V
SUBSTRATE TYPE: <u>C=5% G=15% L</u>	W D m ²	% oil cover	V
<u>S=70% P=10%</u>	L W D m ²	% oil cover	V

PHOTOLOG

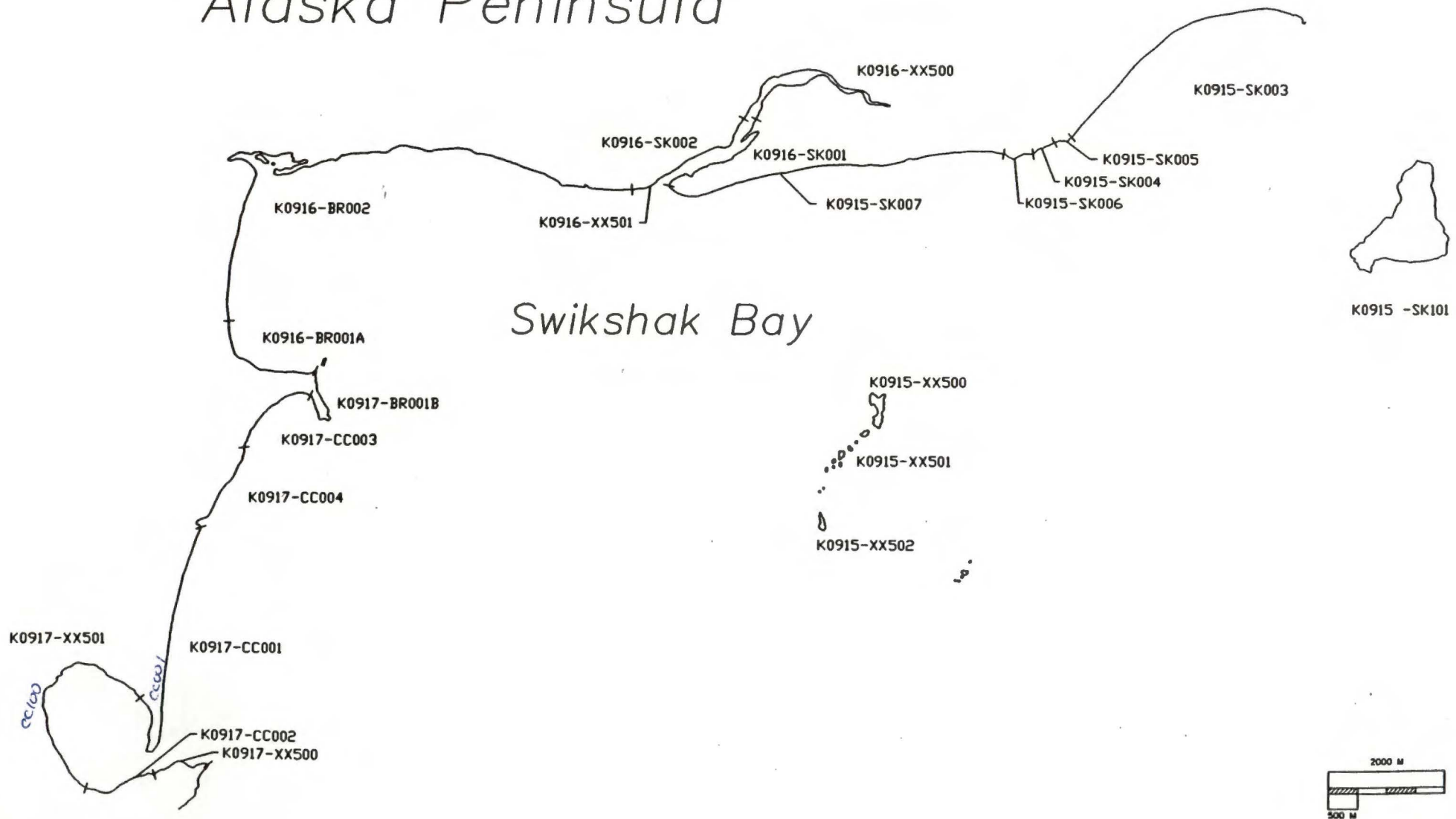
Roll #	FRAME #	DESCRIPTION
<u>N/A</u>		

PROBLEMS: Subsurface oil is difficult to locate but present on this beach. On 7/11/90 the Exxon representative was concerned about the amount of time expended ^{raking} to locate the subsurface oil. Raking was discontinued. An undetermined amount of subsurface oil remains on this beach. I recommend an assessment of the entire segment in 1991 with special emphasis placed on determining the extent of ^{the} subsurface oiling. As the oil was located ^{along the beach} between the two stream systems I did not issue a work authorization permit.

OBSERVATIONS: on 7/11/90 adult pink salmon were observed jumping adjacent to this segment. The segment is bounded on the north by Village Creek AFS 262-15-10030 and the south by Chiniak Lagoon AFS 262-15-10040. Random, sporadic Tarballs $\leq 1\%$ were located and removed from ^{the mouth of} Village Creek south 900 meters. At this point subsurface TB^s ^{to a depth of 15cm} were located in the upper intertidal, lower supratidal zone in a band extending a minimum of 95 meters in length by 1 meter in width. Sporadic splashes of oil can be found on logs along the entire segment. From the area of subsurface oiling south along 2100 meters of beach sporadic surface Tarballs & patties were located and removed. Most were located in the upper intertidal, lower supratidal zone in a band 2m wide, with an average oil coverage of $\leq 1\%$.

SIGNED: Jeff Barnhart

Alaska Peninsula



OG Gi. Heyman

SEGMENT STIK 09 17 CC 100

SUBDIVISION A

DATE 5, 3 90

CHECKLIST

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

LEGEND

AP-PT/S in up to 1x2 m area & MS/P/S in 1/2 m x 2 m area discontinuous on upper mud flats, silt/mud veneer 1-5 mm thick commonly

1 ☐ CT/C Continuous Distribution

2 ☐ CT/B Broken Distribution

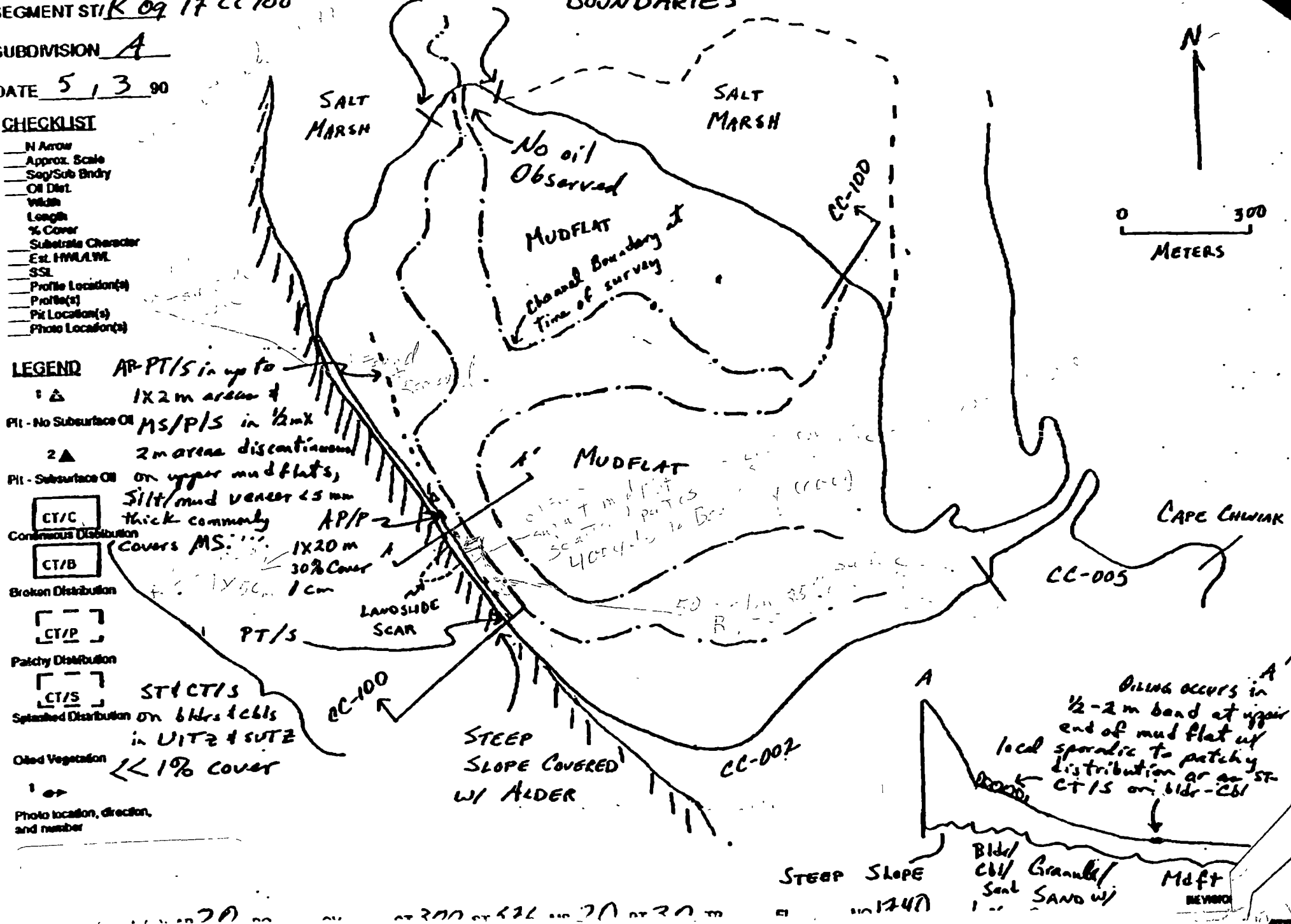
☐ CT/P Patchy Distribution

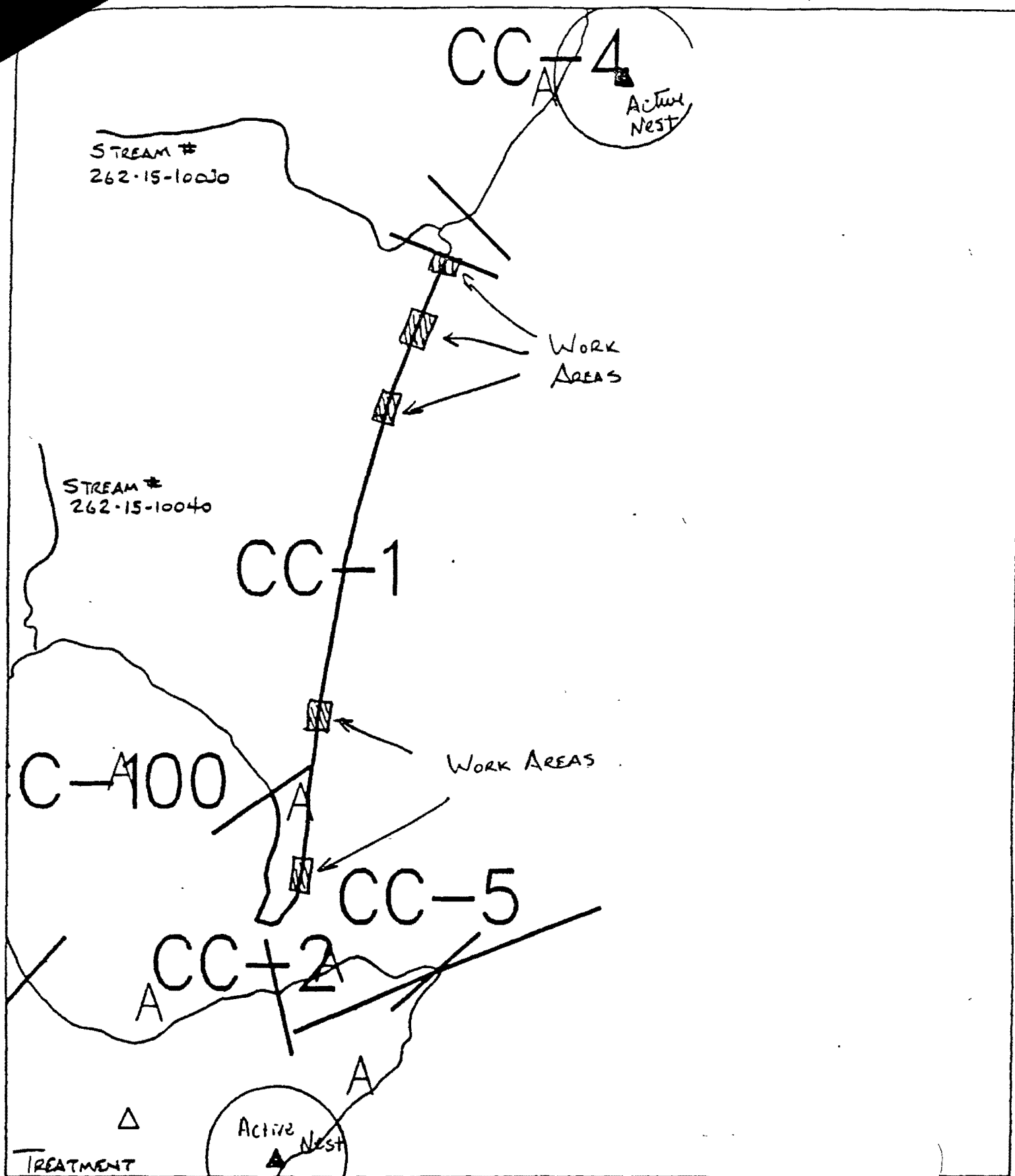
☐ CT/S Splinted Distribution

Oiled Vegetation < 1% cover

Photo location, direction, and number

ANADSCAT SKETCH MAP BOUNDARIES



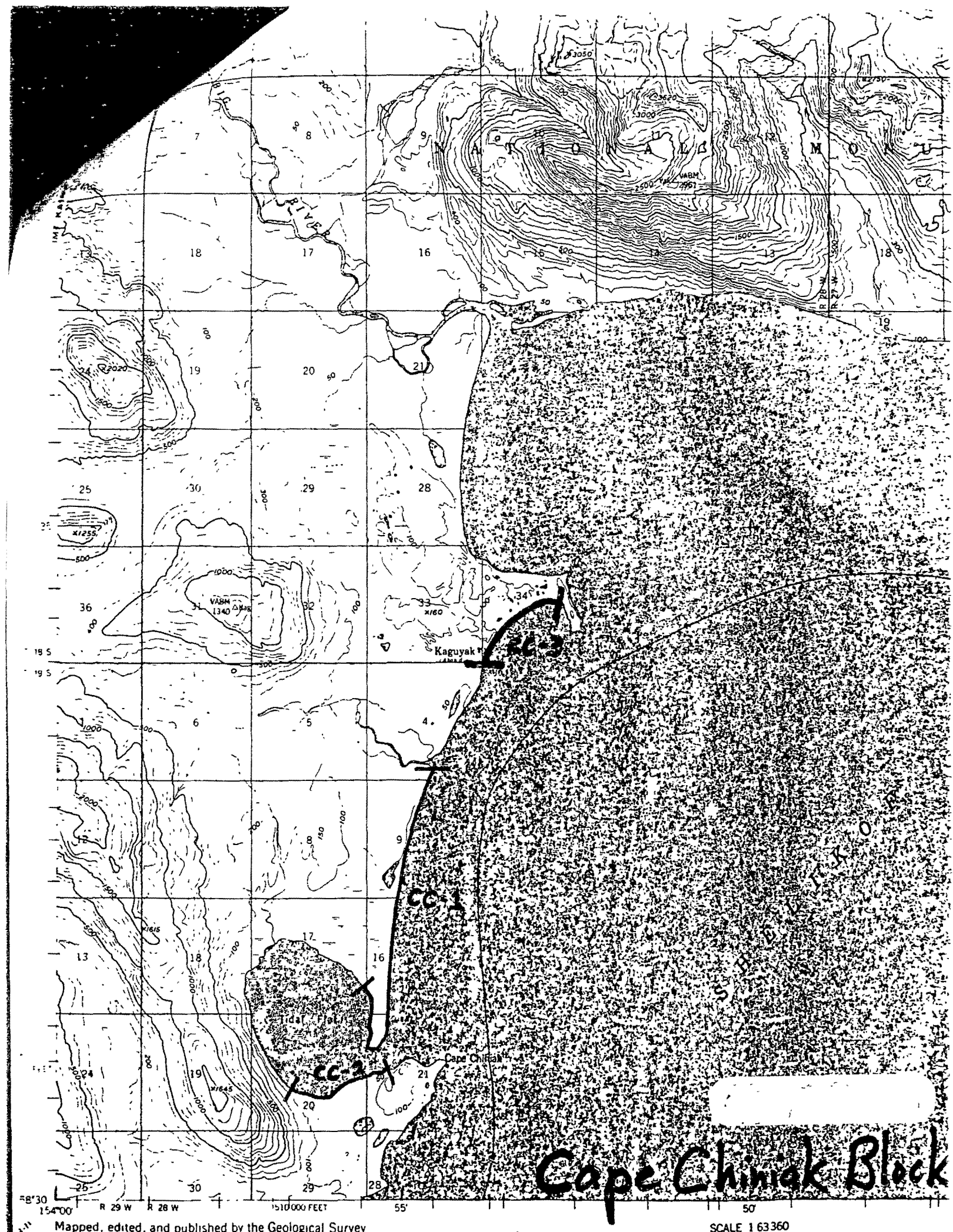


Exxon Company, USA
Map Key: MCP-CC-1

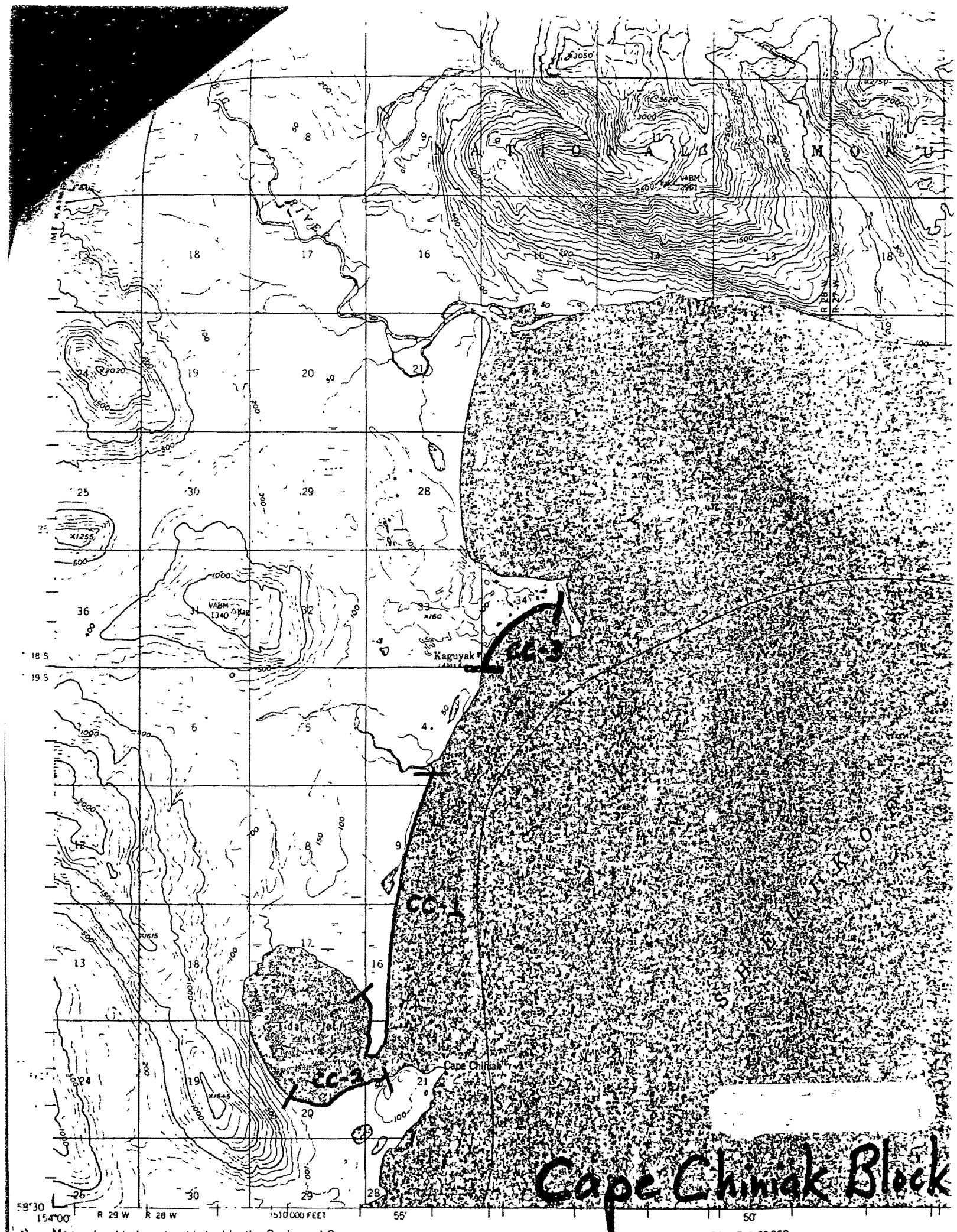


ECOLOGY MAP
SEGMENT K9N-17 CC-1
SUBDIVISION A (1 of 1)
METERS

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



Cape Chiniak Block



SHORELINE EVALUATIONSEGMENT ST/ K09-17-CC-001 SUBDIVISION A (1 OF 1) DATE 5/3/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 Stream ID # 262-15-10030

8AA Sensitive estuary

9LM Other: Land mammals

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 Joa DoreDATE: 5/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V. Light 2980 m: No Oil 1783 m
 Subsurface Oil Observed: Yes X No Maximum Depth 7cm

RECOMMENDATIONS:

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

TRASH

COMMENTS: Recommended treatment includes 1) manual removal of bags of oiled sand and tarballs 2) manual pick up of tarballs and patties on surface followed by *3) manual raking to aid in locating and removal of buried tarballs and patties as indicated on the attached sketch map. Consult ADF&G for appropriate work dates, regarding raking near anadromous stream.

TAG COMMENTS: MONITORS TO ASSESS THE LOGSTAG APPROVAL DATE: 5/24/90ADEC ART WEINER Dick WeinerEXXON ANDY GR PaulNOAA Burt Abbott Burt AbbottUSCG M. J. HALL M. J. HallFOSC: [Signature] DATE: 6/4/90

SEGMENT ST/ K09-17-0001 SUBDIVISION: A DATE 5/3/90

NOAA

~~USCG~~NAME STEPHEN LEHMANN SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED.

COMMENTS

Several areas of the UITZ had concentrations of TB & PT. - These should be removed from the area. Several bags of oiled sand were observed - these should be removed.

ADEC

NAME Terry Ellsworth SIGNATURE Terry Ellsworth☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

I concur with the comments of NPS and NOAA. I recommend manual removal of the mouse patches and tarballs (see sketch map) as well as the 4 bags of oiled sediment.

LAND MANAGER

NAME Carl Schoch SIGNATURE Carl Schoch☐ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Recoverable oil consists primarily of mouse patches and tarballs. Several concentrated patches of mouse patches exist at the upper edge of the upper intertidal as indicated on the sketch map. Four bags of oiled sand and mouse patches were found. The condition of the oil lends itself to rapid and easy removal. This segment could be walked end to end and patches/tarballs removed with shovels. The observed mouse patches and tarballs are mostly migrating up the beach face and being buried in

This segment consists of a predominantly sand beach with a sand-granule-pebble-cobble storm berm and grassy uplands extending from Chinick Lagoon to the first creek encountered approximately 4771m to the north.

Oiling along the segment consists of TB & PT in the lower SUTZ & upper UITZ along the Kelp lines. The TB & PT typically have an appearance similar to flattened pebbles and cobbles with rounded edges. These "clasts" are DBL on the outside & DBL-DBR inside and are easily broken apart. There is a lot of sand incorporated within the TB & PT. ST, CT & CV were also observed on pebbles, cobbles and logs randomly along the segment, with the CT & CV appearing as a sand entrained layer on the clasts.

Along most of the segment the oiling concentration was < 1%. At the southern and northern ends, concentrations were higher with 1-2m long areas ranging to 10%. One area at the southern end was observed with 10-15% coverage (~10 x 20m maximum dimension) and an area to the north was observed where the TB & PT's had been covered by 5 to 9 cm of sand.

Note that 4 garbage bags of oiled sand were also observed along this segment and are located on the sketch map.

SHORELINE EVALUATION

SEGMENT ST/ K09-17-CC-001 SUBDIVISION A (1 OF 1) DATE 5/3/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
Stream ID # 262-15-10030

8AA Sensitive estuary

9LM Other: Land mammals

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 Jean Oate

DATE: 5/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V. Light 2980 m: No Oil 1783 m
Subsurface Oil Observed: Yes X No Maximum Depth 7cm

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)

TRASH

COMMENTS: Recommended treatment includes 1) manual removal of bags of oiled sand and tarballs 2) manual pick up of tarballs and patties on surface followed by *3) manual raking to aid in locating and removal of buried tarballs and patties as indicated on the attached sketch map. Consult ADF&G for appropriate work dates, regarding raking near anadromous stream.

TAG COMMENTS: MONITORS TO ASSESS THE LOGS

TAG APPROVAL DATE: 5/24/90
ADEC ART WEINER
EXXON ANDY EAR
NOAA BILL ALBERT
USCG M.J. HALL

FOSC: [Signature]

DATE: 6/4/90

This segment consists of a predominantly sand beach with a sand-granule-pebble-cobble storm berm and grassy uplands extending from Chinick Lagoon to the first creek encountered approximately 4771m to the north.

Oiling along the segment consists of TB & PT in the lower SUTZ & upper UITZ along the Kelp lines. The TB & PT typically have an appearance similar to flattened pebbles and cobbles with rounded edges. These "clasts" are DBL on the outside & DBL-DBR inside and are easily broken apart. There is a lot of sand incorporated within the TB & PT. ST, CT & CV were also observed on pebbles, cobbles and logs randomly along the segment, with the CT & CV appearing as a sand entrained layer on the clasts.

Along most of the segment the oiling concentration was < 1%. At the southern and northern ends, concentrations were higher with 1-2m long areas ranging to 10%. One area at the southern end was observed with 10-15% coverage (~10 x 20m maximum dimension) and an area to the north was observed where the TB & PT's had been covered by 5 to 9 cm of sand.

Note that 4 garbage bags of oiled sand were also observed along this segment and are located on the sketch map.

K09-17CC002 AFS 262-15-10040

Chiniak Lagoon 1990

ACE 1950320

'90 cleanup

ASC NUMBER:
LOCATION:
STREAM NAME:
KODIAK K-UNIT:
USGS QUADRANGLE:
SHORELINE TYPE: Lagoon

SEGMENT NUMBER: C002
LOCAL STREAM #:

YR CATALOGED:
LATITUDE:
LONGITUDE:
LEGAL:
WAVE EXPOSURE: L

ASC NUMBER: 262-15-10040
SURVEY TYPE: CL
METHOD: F
*DATE: 7/3/90
START TIME:
STOP TIME:

TEAM RECORDER: JEFFREY P. BARNHART
OBSERVERS: Fred Byars, Jim Davis, Terry Ellsworth,
John Haller
AGENCY(IES): ADF&G, Exxon, USCG, ADEC, NPS

PHOTOS TAKEN? Y
Roll #: 90JPB002K Frames: 28-34
VIDEO TAKEN? N Tape Number:
Counter Start:

SAMPLES TAKEN? N

SAMPLE I.D. NUMBERS: 1. 2. 3.
4. 5. 6.

OILING DATA

	LENGTH	WIDTH	M2	%	THICK	FEN	OIL TYPE
SITE 1	900m	4m	3600	<1	1.5cm	surface	TB, PT
SITE 2	30m	30m	900	20	2.5cm	surface	TB, PT
SITE 3	70m	33m	2310	10	2.5cm	surface	TB, PT
SITE 4	200m	6m	1200	2	2.5cm	surface	TB, PT
SITE 5	16m	.5	8	85	5cm	2.5cm	TB, PT

OVERALL OIL IMPACT: M

OIL IN STREAM CHANNEL? Y

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SUBSTRATE

Bedrock	Granule
Boulder	Sand 70
Cobble	Silt
Pebble 30	Veget.

SPECIES	SSFR	REFO			
COUNT	8	1			

COMMENTS: 4,360 pounds of oil/oil sediment removed

Observations: From the eastern boundary of CC-002 westward the first 900m x 4m exhibited <1% oil coverage. The oiled area by the feeder stream is 100m long x 63m wide, 10% oil coverage, extending from the supratidal to lower intertidal zone at the mud flats. A subarea of 30m x 30m within this band exhibited 20% oil coverage. Salmon fry were observed rearing in the oiled feeder stream. The next band was located west of the feeder stream, 200m in length by 6m wide 2% oil coverage. The next band was .5m by 16m, 85% oil coverage. This was followed by an area 184m by .5m with an average oil coverage of 20%. Problems: The SSAT report described the oiled areas as tar mats, which they were not. Following protocol, the TAG recommended bioremediation after tar mat removal. A work plan modification recommendation was submitted on 7/3/90 and 7/12/90 recommending no bioremediation. Three areas of oiling as described on the SSAT map were not located. These were: 1 x 2 30% cover, 2 x 3m 20% cover and a band of unknown length 3m wide 5-10% cover.

ASC NUMBER:	SEGMENT NUMBER:	YR CATALOGED:
LOCATION:		
STREAM NAME:		LATITUDE:
KODIAK K-UNIT:	LOCAL STREAM #:	LONGITUDE:
USGS QUADRANGLE:		LEGAL:
SHORELINE TYPE:		WAVE EXPOSURE:

ASC NUMBER: *262-15-10040*
 SURVEY TYPE: *CL*
 METHOD:
 DATE: *7/3/90*
 START TIME: *1200*
 STOP TIME: *1700*

TEAM RECORDER:
 OBSERVERS:
 AGENCY(IES):
 PHOTOS TAKEN?
 Roll #: Frames:
 VIDEO TAKEN? Tape Number:
 Counter Start:

SAMPLES TAKEN?

SAMPLE I.D. NUMBERS: 1. 2. 3.
 4. 5. 6.

OILING DATA

	LENGTH	WIDTH	M2	%	THICK	FEN	OIL TYPE
SITE 1	<i>184 m</i>	<i>.5</i>	<i>92</i>	<i>20</i>	<i>2.5</i>	<i>surface</i>	<i>TB, PT</i>
SITE 2							
SITE 3							
SITE 4							
SITE 5							

OVERALL OIL IMPACT:

OIL IN STREAM CHANNEL?

SUBSTRATE

Bedrock	Granule
Boulder	Sand
Cobble	Silt
Pebble	Veget.

OIL ON BEACH WITHIN 50M OF STREAM MOUTH?

SPECIES					
COUNT					

COMMENTS:

EVOS CLEANUP MONITORING, 1990.

REGION: Alaska Peninsula

REPRESENTATIVES

K-UNIT: K9-17 C

Exxon: Fred Byars

SEGMENT: CC-002

USCG: Jim Davis

LOCATION: Chiniak Lagoon

DEC: Terry Ellsworth

STREAM NAME: Chiniak Lagoon

NPS: John Haller

ANAD. STREAM CAT. # 262-15-10040

USFWS: N/A

ANAD. FISH STREAM PERMIT ISSUED: 7/3/90 ADFG: Jeff Barnhart

DATE(S) WORKED: 7/3/90

OTHER:

SQUAD # 9 Helo

HOURS WORKED: 4.5

SQUAD SIZE: 6

TOTAL MAN HOURS WORKED: 27

NUMBER OF BAGS COLLECTED: 109

POUNDS OF OIL/OILED SEDIMENT REMOVED: 4,360

TREATMENT TECHNIQUES: MANUAL REMOVAL X BIOREMEDIATION

OTHER

OIL BANDS

DEMOS DATE: 7/3/90

L 900m W 4cm D 1.5cm m² 3600 %oil cover 41 V

OIL SAMPLE # N/A

L 30 W 30 D 2.5cm m² 900 %oil cover 20 V

OIL TYPE: MS TB PT

L 70 W 33 D 2.5cm m² 2310 %oil cover 10 V

SUBSTRATE TYPE: G 30% Sand 70%

L 200 W 6 D 2.5cm m² 1200 %oil cover 2 V

L 116 W .15 D .5cm m² 8 %oil cover 85 V

L 184 W .15 D 2.5cm m² 92 %oil cover 20 V

PHOTOLOG

Roll #

FRAME #

DESCRIPTION

90JPB002 K

28

oil in Tributary creek and adjacent area

90JPB002 K

29

oil in Tributary creek and adjacent area

90JPB002 K

30

salmon fry rearing in oiled Tributary creek

90JPB002 K

31

Red fox at oiled Tributary creek

90JPB002 K

32

Red fox at oiled Tributary creek

90JPB002 K

33

Red fox at oiled Tributary creek

90JPB002 K

34

oil band removed from Lagoon.

+151FF
ACE 1950321

PROBLEMS: The SSAT report described the oiled areas as tar mats, which they were not. Following protocol, the TAG recommend bioremediation after tar mat removal. A work plan modification recommendation was submitted on 7/3/90 and 7/12/90 recommending no bioremediation.

Three areas of oiling as described on the SSAT map were not located; 1x2m 30% cover, 2x3m 20% cover, and a band of unknown length 3m wide 5-10% cover.

OBSERVATIONS: From the eastern boundary of CC-002^{westward} the first 90 meters by 44 meters exhibited ^{oil} 61% coverage, T.B. 1. The oiled area by the feeder stream is 100m long by 63m wide ^{70% oil coverage} extending from the supratidal to lower intertidal zone of the mud flats. A subarea of 30m x 30m within this band exhibited 20% oil coverage. Salmon fry^{were} observed rearing in the oiled feeder stream. The next band was ^{located} west of the feeder stream, 200m in length by six meters wide, 2% oil coverage. The next band was .5m by 16m, 85% oil coverage. This was followed by an area 184m by .5m with an average oil coverage of 20%.

SIGNED: Jeff Barhurst

OG G. Heyman

SKETCH MAP

SEGMENT ST/ K0917 C0002

SUBDIVISION A

DATE 5/3/90

CHECKLIST

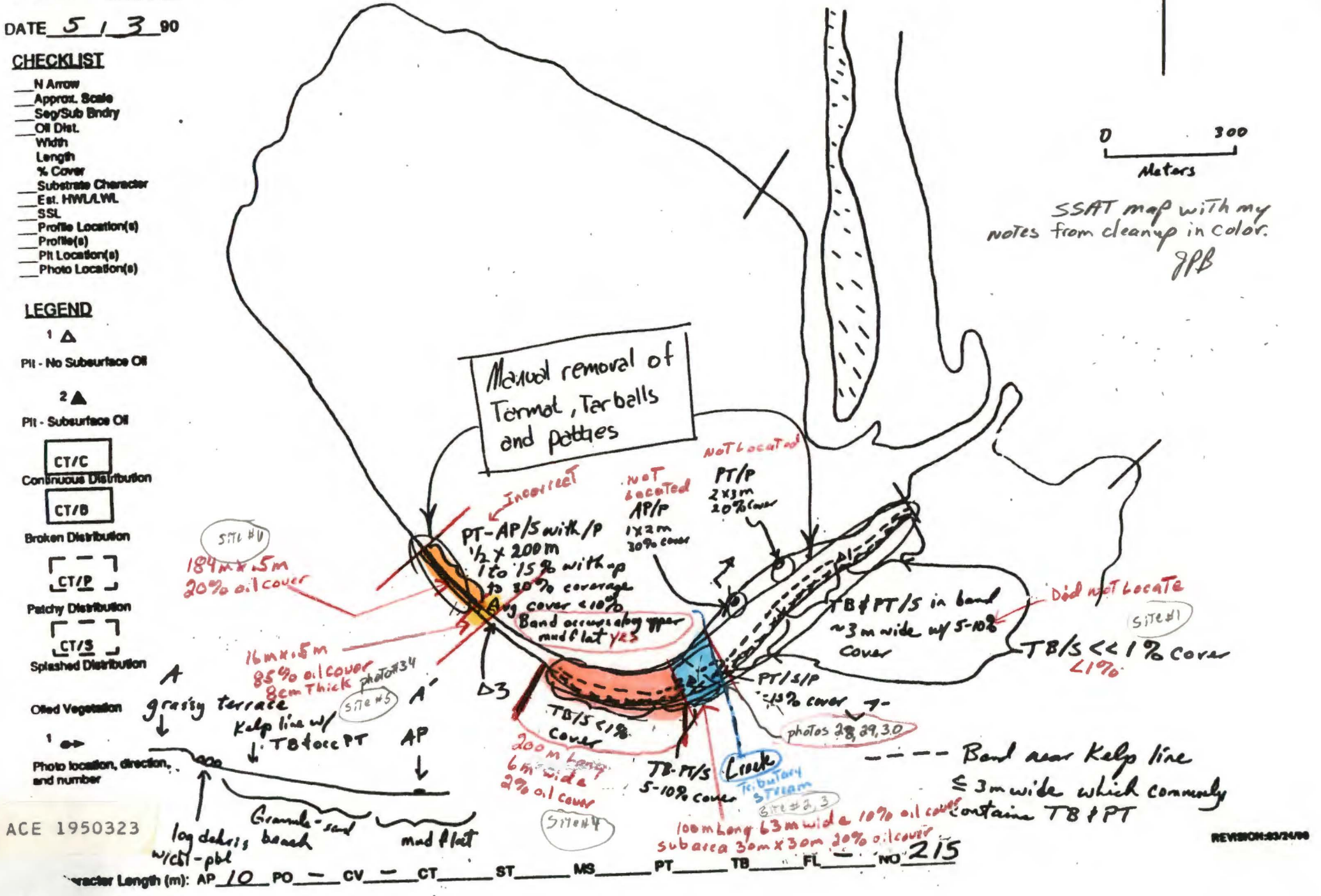
- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Seg/Sub Bndry
- ☒ Oil Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HWL/LWL
- ☒ SSL
- ☒ Profile Location(s)
- ☒ Profile(s)
- ☒ PH Location(s)
- ☒ Photo Location(s)

LEGEND

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



SSAT map with my notes from cleanup in color.
JPB



Cape Chiniak Lagoon, Alaska Peninsula.

K0917 CC002

AFS 262-15-10040

8/3/90. JPB

① First Approx 900x meters. TBS L170 coverage.

② Den area by feeder stream. 63m wide 100m long
Tar balls / patties from supra ~~the~~ stretching down beach into
mud flats 5-10% cover. Heaviest area is 30m x 30m
20% coverage. Substrate gravel 30% sand 70%.

Salmon fry rearing in feeder stream. All surface no subsurface.

Film Roll # 90-JPB-002-K

#28 1300 hours photo of feeder stream ^{segment} CC002 Tar Balls / patties
in stream and around adjacent ^{beach} area. (Looking upstream)

#29 1300 photo of Feeder stream (Looking downstream)

#30 1300 hrs. Salmon fry ~~in~~ in pool ^{of water} ~~above~~ supra zone. Same
Feeder stream as #28 #29.③ The next 200 meters 6m x 200m ~~1-3%~~ coverage
Surface Tar balls / patties④ The last 200 m of this segment ^{1/2-} 1m x 200m or
Tar ~~balls~~ patties / Tar/mousse patches. No subsurface observed.
Oil-Surface to 2". Photo #34 first 1/2m x 16m85% coverage. ^{the} Band occurs along upper mud flats in the
LITZ. The band is discontinuous, but occurring at the
same location throughout the band. Remainder of the 200m
band L170-30% coverage. ~~Segment~~ ~~beginning of~~

Frames 31, 32, 33 Red Fox at Feeder stream (same stream as #28, 29, 30)

Additional comments: segment starts at Lagoon mouth at the
Black cliffs & extends to where the long ~~is~~ is tied to the
lugs. 204-40 pound bags ~~of~~ oil & sediment were
removed. All agencies signed off.

Page #2.
Cape Chinial Lagoon
K09-17 - CC002.

Crew start 12 Noon

Crew stop 4:30

slay bags To uplands. Depart 5:14pm.

Recommend no bioremediation.

7/3/90 JPB

7/3/90 7:00 Am To ICP. Zeeux work orders.
In 509EH 8:05 briefing. Crew: Dave Kirkby,
USFWS, Terry Ellsworth DEC, John Haller NPS,
Jim Davis USCG.

weather CAVU. Depart Kodiak Airport 8:30 AM
Land 9:00 AM. Big Fort creek KI-1

SI-014. Stop work 10:15. Had to evacuate
beach using Twin star due to tide coming
in. Cleanup complete. No. Bags Total 13 odd pieces.
Also Fred Byrnes & Mike Gerdwin picked up
plastic bags & pom pom as indicated on
KI-1 SI013 work order.

Depart Big Fort Island Stop by circa 10:50 AM
Land Cape Creek 11:30 AM. CC002

crowstart 12 noon. Found 30x30 area at Feeder
stream 30% coverage. Total width of band 6.3m x 100

5-10% coverage surface ~~more~~ Tan balls/patties. Same
in Feeder stream. Salmon fry in Feeder stream
photo taken. Other notes on Field sheet of work
order. Done work 4:30 pm. Slings bags with
heteropis. 109 40 pound sacks -

Depart 5:14 pm. Land Kodiak Airport 5:15 pm
Planning / paperwork Done 6:45 pm

CC-002

Other notes on Tablet
Paper This File.

JPB

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

STEVE COWPER, GOVERNOR

333 RASPBERRY ROAD
ANCHORAGE, ALASKA 99518-1599
PHONE: (907) 344-0541

EXXON Valdez Oilspill Cleanup

Anadromous Fish Stream Authorization

Date 7/3/90

EXXON Authorized Representative Fred D. BYARS

Shoreline Segment K09-17-CC002 Cape Chiniuk Lagoon

Anadromous Fish Stream Number(s) 262-15-10040

Approved Cleanup Techniques manual pickup of mousse &
Tar patties, Tar balls, Trash and debris.

Approved Cleanup Period 7/3/90 - 7/10/90

Alaska Department of Fish and Game

Jeffrey P. Barnhart
Authorized Officer

Fred D. Byars
Permittee's Signature

ACE 1950347

FRAME#	DATE	TIME	SEGMENT#	STATION#	LOCATION	REASON FOR TAKING PHOTO
23	06/29/90	1200	PB-016	2627010010	Helen Creek-Paule Bay, Alaska Peninsula K10-07	Sheening in test pit dug at edge of stream.
24	06/29/90	1201	PB-016	2627010010	Helen Creek-Paule Bay, Alaska Peninsula K10-07	Julie Carlson of ADEC taking sample of mousse from stream bank.
25	06/29/90	1215	PB-016	2627010010	Helen Creek-Paule Bay, Alaska Peninsula K10-07	Tarballs and patties north of stream mouth.
26	06/29/90	1245	PB-016	2627010010	Helen Creek-Paule Bay, Alaska Peninsula K10-07	View looking upstream. Heavily oiled area between sample box and stream.
27	06/29/90	1246	PB-016	2627010010	Helen Creek-Paule Bay, Alaska Peninsula K10-07	Test pit sheening. Sand, mousse and pebble substrate removed from test pit.
28	07/03/90	1300	CC-002	2621510040	Chiniak Lagoon, Alaska Peninsula K09-17	Oil in tributary creek and adjacent area.
29	07/03/90	1300	CC-002	2621510040	Chiniak Lagoon, Alaska Peninsula K09-17	Oil in tributary creek and adjacent area.
30	07/03/90	1300	CC-002	2621510040	Chiniak Lagoon, Alaska Peninsula K09-17	Salmon fry rearing in oiled tributary creek.
31	07/03/90	1400	CC-002	2621510040	Chiniak Lagoon, Alaska Peninsula K09-17	Red fox at oiled tributary creek.
32	07/03/90	1400	CC-002	2621510040	Chiniak Lagoon, Alaska Peninsula K09-17	Red fox at oiled tributary creek.
33	07/03/90	1400	CC-002	2621510040	Chiniak Lagoon, Alaska Peninsula K09-17	Red fox at oiled tributary creek.
34	07/03/90	1520	CC-002	2621510040	Chiniak Lagoon, Alaska Peninsula K09-17	Oil band removed from lagoon.
35	07/05/90	1015	CD-018	2621010100	Douglas Creek, Alaska Peninsula K09-11	Band of oil along edge of island in lagoon.
36	07/05/90	1015	CD-018	2621010100	Douglas Creek, Alaska Peninsula K09-11	Vegetation and oil being removed from island in lagoon.
37	07/06/90	1105	CD-018	2621010100	Douglas Creek, Alaska Peninsula K09-11	Vegetation and oil removed from island in lagoon.

SEGMENT K09-17-002 SUBDIVISION A DATED 3 July 90
 MODIFICATION

1. REASON FOR MODIFICATION

NOT ENOUGH OIL ON BEACH TO BIOREMEDIATE.
 BEACH WAS WORKED - CLEAN SAND WAS LEFT IN WORKING
 AREA

2. SUGGESTED ADJUSTMENT TO WORK PLAN
 NO BIOREMEDIATION

3. TIMING ISSUES

Post-It™ brand fax transmittal memo 7671		# of pages > 1
To ADFEG	From ICP KODIAK	
Co. JEFF BARNHART	Co. VAC MARTIN	
Dept.	Phone # 487-4000	
Fax # 486-5044	Fax # 487-4918	

ADEC Terry Ellsworth

EXXON Paul D. Byers

USCG James B. DAVENPORT BM3

LAND MANAGER John NPS (If field rep is on scene)

USF&G Jeffrey P Barnhart

File

NOXXE 00:00 1000

ACE 1950349

WORK PLAN MODIFICATION RECOMMENDATION

SEGMENT: K09-17-CC-002 SUBDIVISION: _____ DATE: 7/12/90

MODIFICATION

1. REASON FOR MODIFICATION:

Bioremediation. not approved by Land Manager

2. SUGGESTED ADJUSTMENT TO WORK PLAN:

Do not bioremediate

3. TIMING ISSUES:

None

USCG _____

ADEC _____

LAND MANAGER _____ NPS (If field representative is on site)

EXXON: Fred E. Byers

ADF&G: Jeffrey P. Barnhart

ACE 1950350

SEGMENT K09-17-0-002

SUBDIVISION A

DATED 3 July 90

MODIFICATION

1. REASON FOR MODIFICATION

NOT ENOUGH OIL ON BEACH TO BIOREMEDIATE.

BEACH WAS WORKED - CLEAN SAND WAS LEFT IN WORKING AREA

2. SUGGESTED ADJUSTMENT TO WORK PLAN

NO BIOREMEDIATION

3. TIMING ISSUES

ADEC Terry Ellsworth

EXXON Frank D. Byers

USCG James B. Davis BM3

LAND MANAGER Miller NPS (if field rep is on scene)

USF&G Jeffrey P. Barnhart

ACE 1950351

FROM: T. TOMBLIN

TO: VESSEL COMMAND NETWORK

FAX No: (907) 286-6490

OPERATIONS DAILY REPORT SQUAD 9 - SEATRADER/HELICOPTER

DATE OF WORK:

7/3/90

WORK HOURS: START

1200

TO:

2230

WEATHER CONDITIONS:

TIDES: HIGH 15.3
LOW 2.5

Wind Speed (knts)

25-35

Wave Height (ft)

3-5

GENERAL

PC/clr

GENERAL LOCATION:

KASHUEIC BAY

SAFETY
INCIDENTS

For Day

Fatality	0
Lost Time	0
Restricted	0
Medical Treatment	0
Total Recordable	0

(Transmit Details Separately)

SCHEDULED WORK DAY

HOURS (ex Break) -

Vessel

Helo

Working	10
Weather Downtime	
Transit Time	2
Mechanical Downtime	
Other:	

12
9
3

VESSEL

REPRESENTATIVES NAMES

ADEC BARBRA WINKLEY

Exxon JIMMY TOMBLIN

USCG RAYMOND COLLETT

OOPS

Other RICHARD SPONER

HELICOPTER

REPRESENTATIVES NAMES

ADEC TERRY ELLSWORTH

Exxon FRED SVARIS

USCG JIM DAVIS

Other JEFF BARNHART ADPAC

DAVE KIRK BLUSFNO

MIKE GOODWIN ANR

MANPOWER AND BILLETING STATUS (# of People)

Berthing Vessel	PAX Beds	Exxon Reps	OOPS	Agency Reps	Other	Beach Wks Wkg	Open Beds
Sea Trader	16	1		3	1	9	2

* COI Passenger Beds (includes Service Personnel)

	Boat Crews
Berthing Vessels	7
LCV/Production	
Work Boats	5
TOTALS	12

Helicopter
of Workers
6

Helicopter Tail #'s
509 EH
511 EH
Work Areas
K101 SZ13
K101 SZ14
K917 CC002

VESSEL STATUS (# of Vessels)

Vessel Type	Total Assigned	In Transit	Total Working	Not Used	Mech Down	Weath Down
Berthing	1		1			
LCV/Production						
Work Boat	2		1	1		
TOTALS	3		2	1		

VESSELS ASSIGNED:

Vessel Name	Vessel Type	# People Berthed
Sea Trader	Berthing	20
KING DAVID	WORK	3
CYCLOPE	WORK	2

NEXT SQUAD MOVE: LOCATION

ALINCHAIK

DATE OF MOVE PM 7/4/90

DATE OF LAST CREW CHANGE

7/2/90

PORT FOR CREW CHANGE

KODIAK

SCHEDULED DATE FOR NEXT CREW CHANGE

7/16/90

PORT FOR CREW CHANGE

KODIAK

VISITORS (Name/Affiliation)

STATUS OF SUPPLIES/STORAGE CAPACITIES:

AIR LIFT SMALL FOOD ITEMS TOMORROW

NUMBER OILED/DEAD BIRDS FOUND 0 # Alive

OTHER*

NUMBER OILED/DEAD MAMMALS FOUND 0 # Alive

* Such as discovery of dead oiled birds/mammals, Archeological Artifacts, Wildlife Incidents, etc.

ACE 1950352 +/S

JUL-04-1990 10:46 FROM EXAMIN OF ENTAILMENTS FROM

7/3/90

1200

2230

MANUAL AND MECHANICAL OPERATIONS

[illegible][illegible][illegible]

* The date that the Manual/Mechanical portion of the Work Order has been completed and acknowledged. A separate acknowledgement will be made for the Bioremediation portion of the Work Order.

**** 1 Supersack = 45 CF, report in terms of sack (ie. 0.1)**

STATUS CODES

- NA** Not Applicable/Recommended for this segment/division
R Recommended but not started
W Started and Working
% Percentage complete (used on large work scopes)
C Work complete

ACE 1950354-5

Jm

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K09-17-CC-002 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN*
Bioremediation	OPEN*

*Observe NPS recommendations regarding bear sensitivity and access

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

ADF&G catalogued anadromous stream (262-15-10040) is more than 100m from work site. No constraint to manual pickup, tarmat removal and bioremediation.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

D. Faraghi

Date

6-16-90

Prepared by

Phillips

Date

6/15/90

ACE 1950355+/*S*

STREAM #
262-15-10040

CC-100

WORK AREA

CC-2

CC-5

EMP 1

ACE 1950356

TREATMENT

TREATMENT



Exxon Company, USA
Map Key: AKP-CC-2



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

- ★ Seabird Colony
- ▲ Eagle Nest

SHORELINE EVALUATION

SEGMENT ST/ K09-17-CC-002 SUBDIVISION A (1 OF 1) DATE 5/3/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

8AA Sensitive estuary
9LM Other: Land mammals
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:

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

SHPO SIGNATURE: Rachel Joan Oase DATE: 5/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 69 m: V.Light 1348 m: No Oil 207 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>X</u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommended manual removal of tarmat, tarballs and patties as indicated on the attached sketch map. No specific ecological time constraints identified. MANUAL PICKUP OF TRASH + DEBRIS.
SUB CONSTRAINT ADDENDUM DATED 6/15/90 JPP.

TAG COMMENTS: BIOREMEDIATE (CUSTOMER) AS REQUIRED FOLLOWING TARMAT REMOVAL

TAG APPROVAL DATE: 5/24/90
ADEC ART WEINER Art Weiner
EXXON Andy Tsch Andy Tsch
NOAA Bruce Wierhoff Bruce Wierhoff
USCG M. J. HALL M. J. HALL

Observe NPS record regarding bear sensitivity & access.
FOSC: J. J. J. J. DATE: 6/8/90

ACE 1950357 - 18

FIELD SHORELINE COMMENT SHEET

ASAP

K09-17
SEGMENT AS / CC002 SUBDIVISION: A SITE: 1 DATE AUG. 3, 1990

USCG

NAME J. FAZIO SIGNATURE J. J. Fazio Sr.☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

ADEC

NAME F. BENNIS SIGNATURE F. Bennis☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

LAND MANAGER

NAME W. TROYER SIGNATURE Will Troyer☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

EXXON

NAME R. COULTER SIGNATURE Ray R. Coulter☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

REMOVED ALL TAR BALLS AND PATTIES FOUND.

ACE 1950358 +/S

TEAM NO 5-KODIAK EXXON R. COULTER SEGMENT AS. CC-2
 BOG D. FITZGERALD USGS J. FAZIO SUBDIVISION A
 ADEC F. BENNIS LAND REP W. TROYER TOTAL NO. SITES 1
 DATE AUG 103 190 TIME 16 35 to 17:15 TIDE LEVEL 220 to 190 cm ABOVE MLW
 TOTAL EST LENGTH OF SHORELINE SURVEYED: 1624 m
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WEATHER: ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 OIL CATEGORY LENGTH: W m M m N m VL m NO 1624 m US m

SITE 3

SUBSURFACE OIL

Photographs:

Roll No. BAT-06-13

Frames #35-37

#35 - General view looking
into Cove

#36 Close up of removed
tax patch

#37 General view looking
further into the
COVE

COMMENTS The ASAP crew fanned out between the LITZ and SUTZ while walking along this segment and picked up several tin patties and balls that the work detail had left behind. The beach was left clean.

NG G. Heyman

SEGMENT ST/ K0917 C0002

SUBDIVISION A

DATE 5 / 3 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)
- ☐ Pli Location(s)
- ☐ Photo Location(s)

LEGEND

1 ▲

Pit - No Subsurface Oil

2 ▲

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

Oiled Vegetation

Photo location, direction, and number

ACE 1950360

grassy terrace
Kelp line w/
TB & PT
log debris beach
w/cht-pbl
Granule-sand
mud flat

A

A'

AP

AP

AP

AP

AP

AP

AP

AP

AP

Manual removal of
Ternat, Tarballs
and patties

PT-AP/S with/p
1/2 x 200 m
1 to 15% with-p
to 30% coverage
Avg cover < 10%
Band occurs along upper
mud flat

AP/P
1x2 m
30% cover

PT/P
2x3 m
20% cover

TB & PT/S in band
~3 m wide w/ 5-10%
cover

TB/S < 1% cover

PT/S/P
5-15% cover

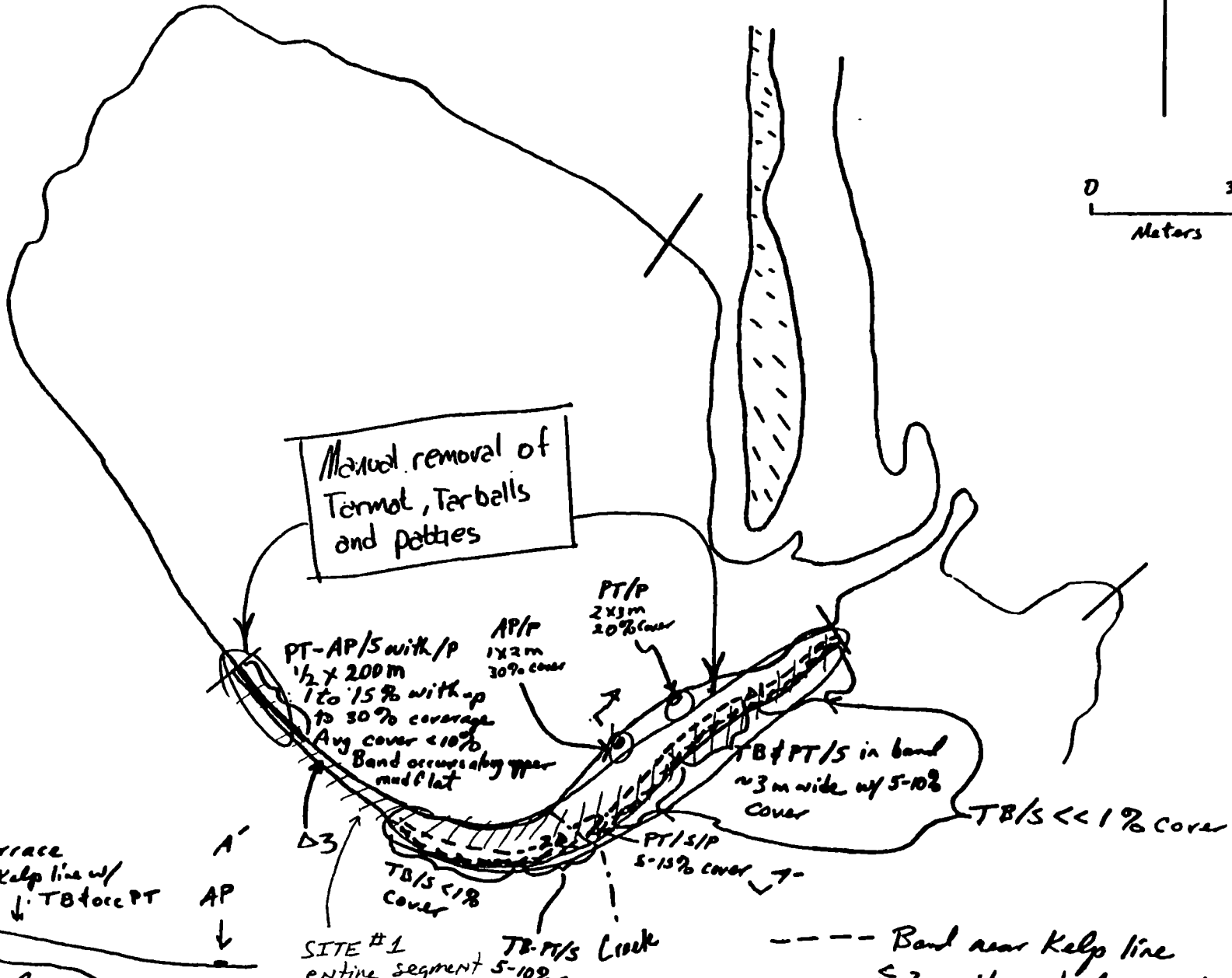
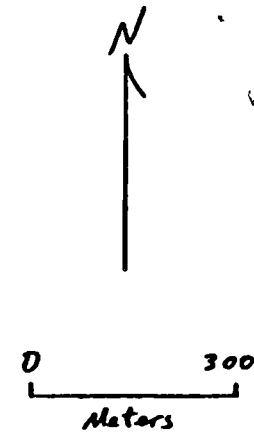
TB/S < 1%
cover

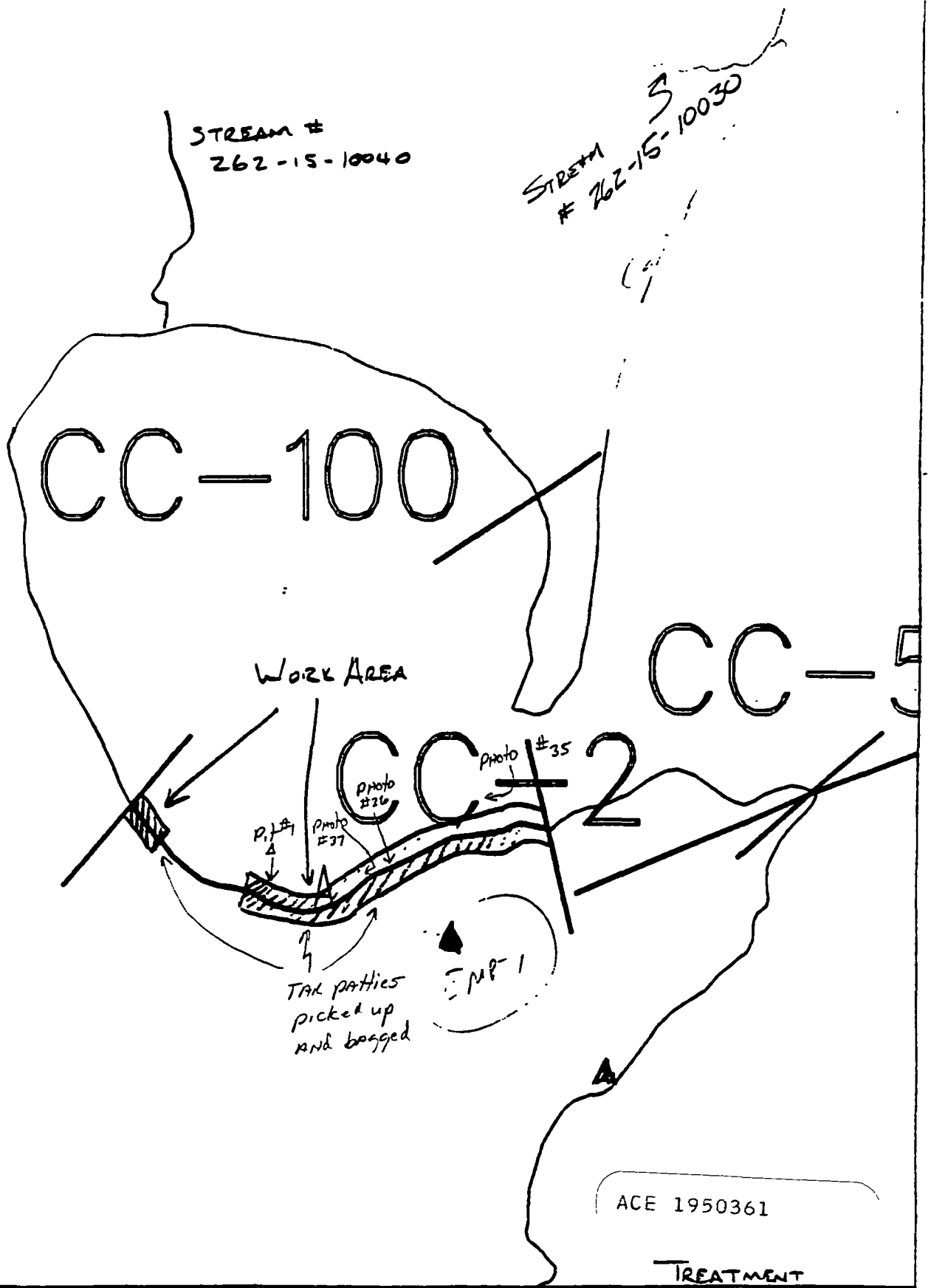
SITE #1
entire segment 5-10% cover
clean, all TP+TB
were picked up
by ASAP crew

----- Band near Kelp line
≤ 3 m wide which commonly
contains TB & PT

Oil Character Length (m): AP 10 PO - CV - CT ST MS PT TB FL - NO 215

SKETCH MAP

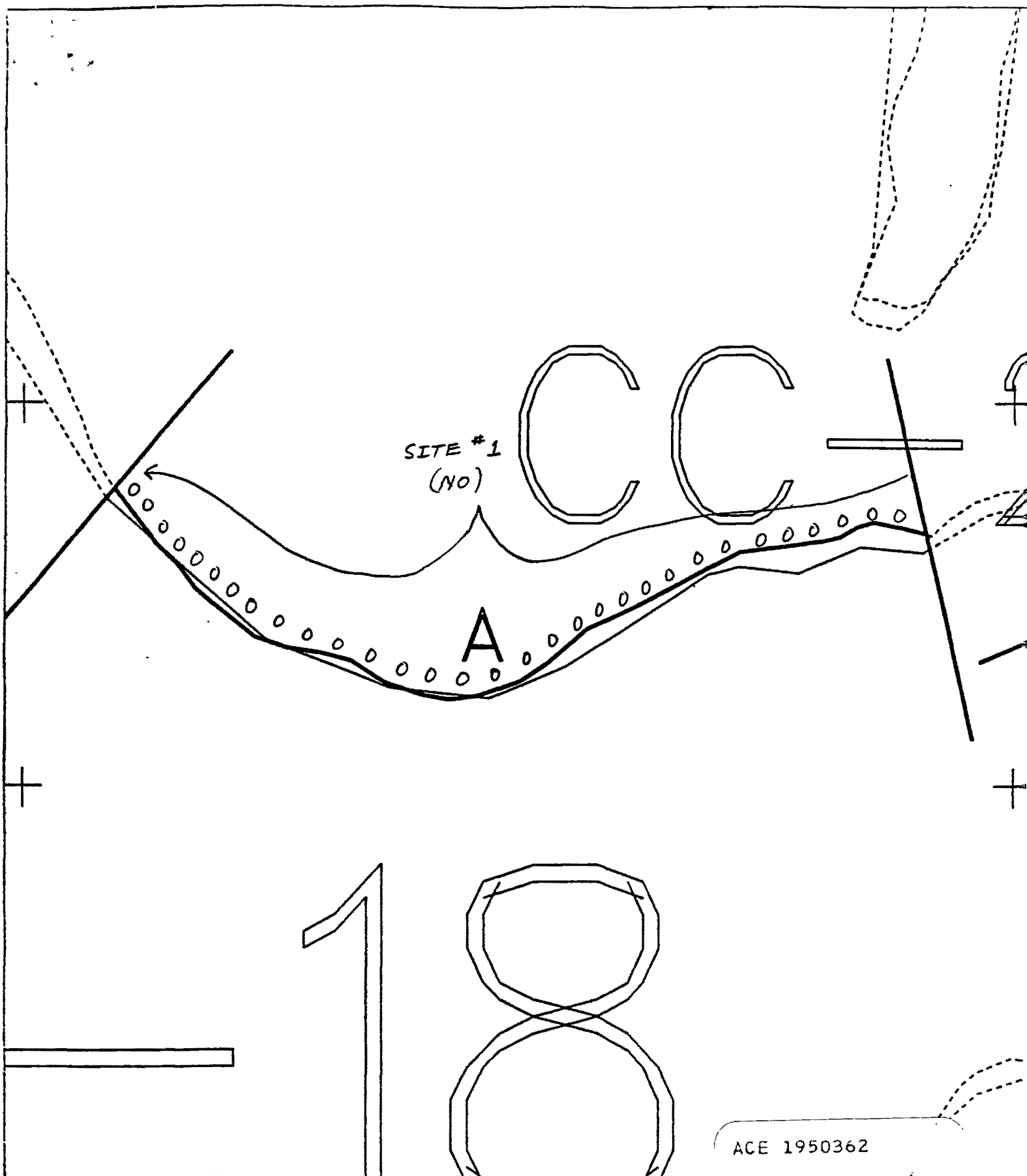




on Company, USA
Map Key: AKP-CC-2

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

- ★ Seabird Colony
- ▲ Eagle Nest



ACE 1950362

XXXX
////

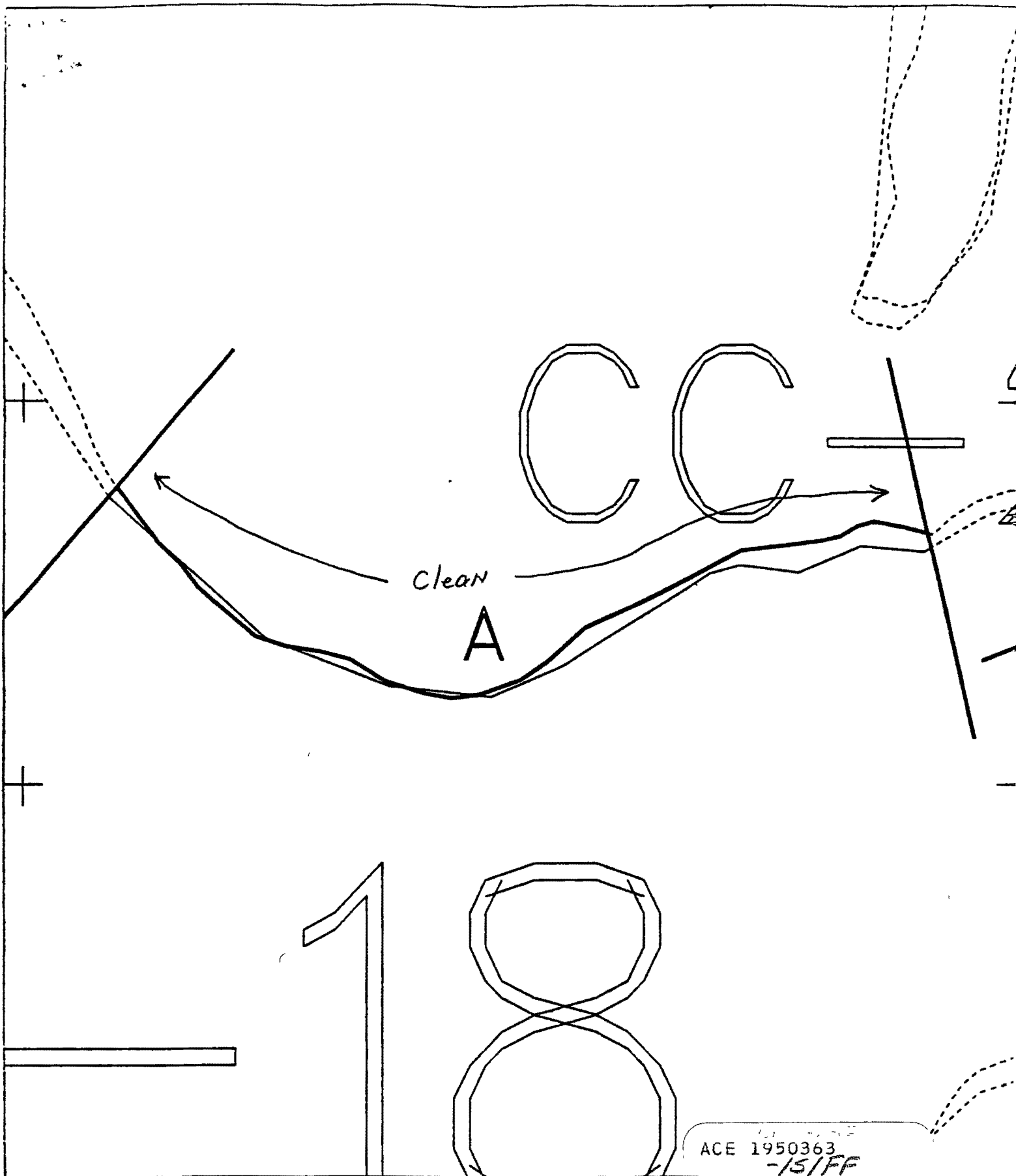
TTTT
0000

Wide
Medium
Narrow
Very Light
No Oil

K9N-17 CC-2 A
ADEC Subsegment Length: 1624m
METERS
0 224 448
AK State Plane Zone 4 1:8817
e9n-17cc2a



Subdivision Field Map
Map Key: AKPK9N-17CC-2A
Name: Fitz Gerald
Date: 3 Aug 97
Data Entered:



ACE 1950363
-15/FF

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

K9N-17 CC-2 A
 ADEC Subsegment Length: 1624m
 METERS

0 224 448

AK State Plane Zone 4 1:8817
 a9n-17cc2a



Subdivision Field Map
 Map Key: AKPK9N-17CC-2A
 Name: FitzGerald
 Date: 4 August 90
 Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ K09-17-CC-002 SUBDIVISION A (1 OF 1) DATE 5/3/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

8AA Sensitive estuary
9LM Other: Land mammals
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:

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

SHPO SIGNATURE: Rachel Joan Oare DATE: 5/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 69 m: V. Light 1348 m: No Oil 207 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>X</u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommended manual removal of tarmat, tarballs and patties as indicated on the attached sketch map. No specific ecological time constraints identified. MANUAL PICKUP OF TRASH + DEBRIS

TAG COMMENTS: BIOREMEDIATE (CUSTOMER) AS REQUIRED FOLLOWING TARMAT
REMOVAL NO Bioremediate.

TAG APPROVAL DATE: 5/24/90
ADEC ART WEINER Art Weiner
EXXON AWAY TAYLOR
NOAA Buckley
USCG M. J. HALL

Observe NPS record regarding bear, sensitivity & access.
FOSC: R. J. J. J. DATE: 6/8/90

+15/P
ACE 1950329

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/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
- 3N, 3P Harbor seal and sea lion pupping (5/10 to 7/1)
 3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31)
 Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Rothy 267-2208
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (8/1 to 9/15)
 6V Anchorages (8/1 to 9/15)
 6W Forest Service cabins (8/1 to 9/15)
 6X Lodge (8/1 to 9/15)
 6Y Special use destination
- 7Z Subistence area: Salmon harvesting (8/1 to 9/30)
 7HH Finfish harvesting
 7I Deer harvesting (8/1 to 1/7)
 7JJ Invertebrate harvesting
 7KK Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

ACE 1950330

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1K09-17-CC002 SUBDIVISION: ADATE 5/03/90~~NOAA~~~~USCG~~NAME STEPHEN LEHMANN SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED.

COMMENTS

Further human intervention into this lagoon area could do more harm than good given the slight nature of the oiling and the sensitivity of the area. Small bank of tar balls and occasional small mouse patches were located, but not heavy enough to warrant disturbance by crews.

~~ADEC~~NAME Terry EllsworthSIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

This segment contains a band of tar balls and patches in concentrations of $<1\%$ with two areas of up to 15% in the upper inter tide zone from the SE segment boundary to $\approx 400\text{m}$ west of the small creek. In the upper mud flat an area $.5\text{m} \times 2\text{m}$ of patty to asphalt with up to 30% coverage is located at the SW end of the segment and two patches up to $2\text{m} \times 3\text{m}$ are located in the SE part of the segment. Manual removal is recommended. Due to the high sensitivity of this area a small crew should be used and no more than 2-3 persons should be treating the mud flat areas or working beyond the mouth of the small creek.

~~LAND MANAGER~~NAME Carl SchechSIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

The oil in the south and southwest side of this segment is in a very protected lagoon/estuary system and will persist on the surface for a long time. A small crew should use shovels to remove the mouse patches and tarballs on either both sides of the creek (within 100 meters) and the mouse patch at the north west end of the segment.

SHORELINE OILING SUMMARY

REVISION NO. 04-13-80

OG GI. HEYMAN NOAA USCG S. LEHMANN SEGMENT ST/ K0917 CC 002
 BIO L. SHARMAN LAND REP C. SCHOCK NPS SUBDIVISION A (1 OF 1)
 EXXON ON LEAVE ADEC T. ELLSWORTH TIME 14:45 to 16:00
 TEAM NO. 19 TIDE LEVEL +4 to +2.44 DATE 5/03/90
 EST. SUBDIVISION LENGTH: 1619 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 0 % B 5 % C 10 % P 20 % G 20 % S 20 % M 25 % V 0 %
 SLOPE: Lang 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 20 m VL 1384 m NO 215 m

SURFACE OIL

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

PAVEMENT H F S10 sq. m by 2 cmPATTIES / TARBALLS 15 BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

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

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE 0#BAGS 0

Photographs:

Roll No. —Frames —

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SHEEN (Y/N)	▽	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SP	BP	OP	BP	TL	LR	LR	LR	SU	U	M	U				
1	30					X	0.0		X									X				N	—	—	P/P
2	15					X	0.0		X									X				N	—	—	P/S
3	25					X	0.0		X									X				N	—	—	P/S/S
							.																		
							.																		
							.																		

COMMENTS

ACE 1950332

REVIEWED BAT DATE 8 May 90

This segment lies along the southern end of Chiniak Lagoon. The west boundary was difficult to determine from the maps provided, but was chosen at a large tree which had fallen across the narrow beach. The segment extends eastward to the southern entrance to the lagoon. Most of the segment consisted of a wide sand-granule-pebble beach. This narrows in the western 400-500 meters to a narrow beach with mudflats extending to near a steep alder covered scarp.

Oiling in the segment was observed along the UITZ Kelp line along the wider sand-granule-pebble beach as turballs and patties in a band up to 3 m wide. This band was continuous, but coverage was commonly $< 1\%$. Specific areas noted on the sketch maps had up to 15% coverage. The TB & PT had the appearance of pebbles and cobbles with a dull black exterior with sand incorporated in the surface. The inside was shiny black to dark brown and sticky. The "pebbles and cobbles" were typically flattened with rounded edges. Stain, coat, and occasional cover with entrained sand was sporadically observed on logs in the SUTZ.

ACE 1950333

Oiling was also observed at the top of the mudflats. Where the beach was wider, 2 small areas were observed with PT/P (2x3m, 20% cover) and AP/P (1x2m, 30% cover). Also, a narrow band of PT-AP / S with IP (1/2 x ~200m) with < 1 to 15% cover. The cover ranged to 30%, but averaged $< 10\%$. The PT & AP had similar appearances, with DBR-DBL exterior and

OG Comments K 09 17 CC002 (10 f.) 5/3/90 OGH pg 2
a shiny mouse-like interior with sand and mud
entrained. The PT & AP was very soft and
pliable. This narrow band extended from
a point about 200 to 300 m west of where
the beach narrows to the segment boundary
at the fallen tree.

OG G. Heyman

SEGMENT ST/ K0917 CC002

SUBDIVISION A

DATE 5/3/90

CHECKLIST

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

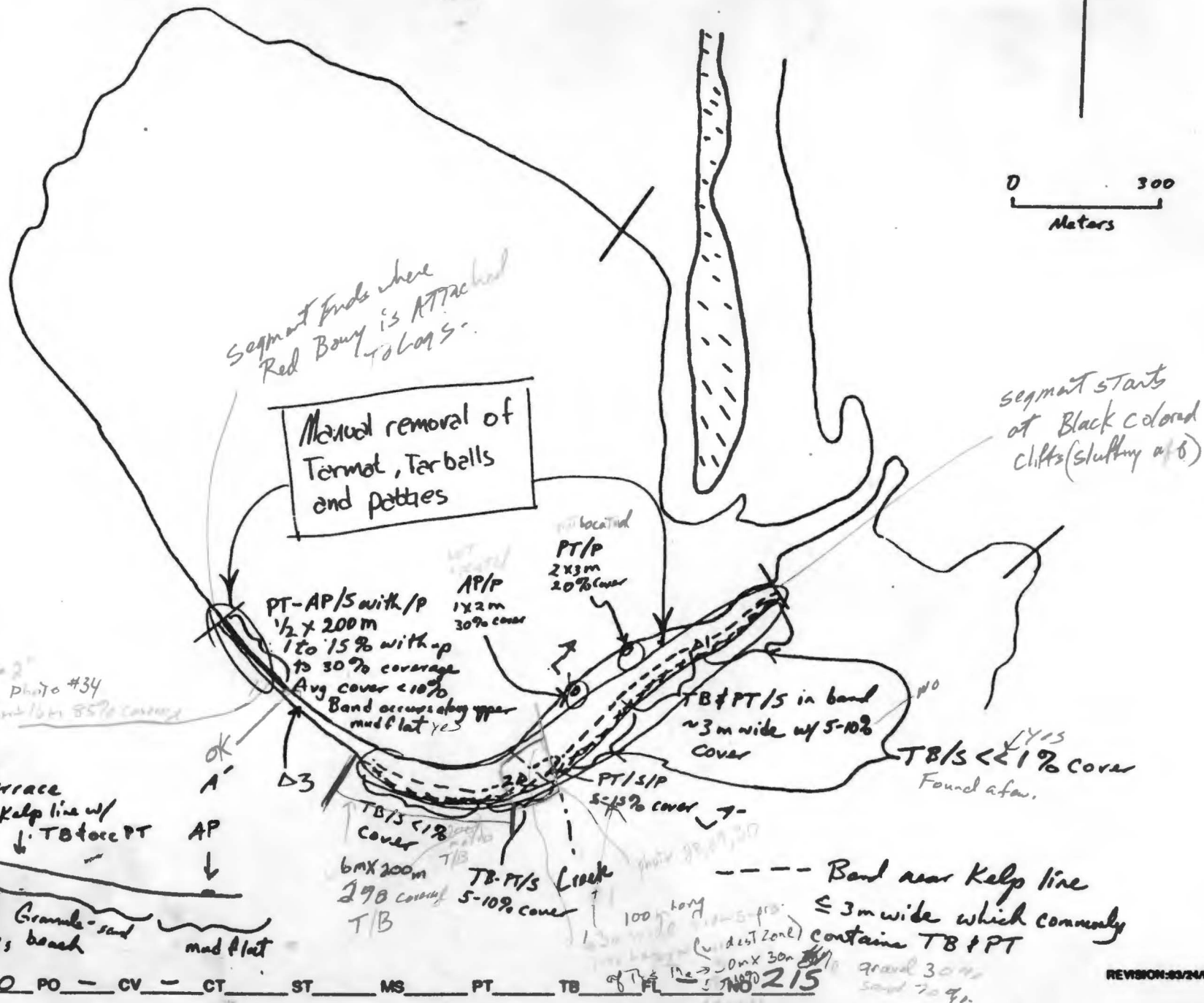
Splashed Distribution

Oiled Vegetation

1 →

Photo location, direction, and number

SKETCH MAP



SHORELINE ECOLOGICAL SUMMARY (Page 2 of 4)

REVISION: 03/22/90

Segment ST / CC-2 Subdivision A Date (mo / day / yr) 5/3/90

Time (24 hr) 1500-1600 Biologist SHARMAN

(A) Substrate type and % of segments: SUBDIV.
(1) Bedrock (2) Boulder 5 (3) Cobble 10 (4) Pebble 20 (5) Sand 40 (6) Silt 25 ^{+ gravel mud}

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

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

Photographs: Roll No.

Frames

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS (NANCELLA, LITTORIANA, LIMPAETE)

Dense			Moderate			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: Fox sparrows foraging in supratidal. Some 150 ducks rafted up as in CC-2 (100 pintails, 30 green-winged teal, 10 shovellers, 10 scup). 10 glaucous-winged gulls. Brown bear, fox, wolf, and moose tracks in sandy UTE + supratidal. This is a wide, low angle strand flat within Chirikof Lagoon. There are rare exposed boulders + cobbles exposed, some of which have barnacles - no spat. (cont.)

Ecological Considerations:

Please refer to attached Eco. Maps. Previously identified ecological sensitivities include codes 8AA (sensitive estuary) and 9LM (land mammals). Clearly the lagoon is both very biologically productive + important, as well as quite sensitive to human disturbance (both via direct intrusion and actual physical disturbance of the fine-grained substrate - the latter is probably more important in the longer term). The area is also very important as foraging + resting habitat for shorebirds + seabirds, residents as well as migrants. Also a critical nursery/ rearing area for marine species, many of economic importance. Further intrusion here should be considered with caution (see also this section of CC-100 summary).

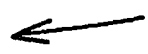
ACE 1950336

General Comments (cont.) :

The remainder of any macroscopic intertidal biota is generally limited to a thin, sparse drift line and locally dense populations of Arctiocola out on the sand/mud flat. There are a few excavations in these beds, presumably by beaver/wolver/foxes - small holes partially filled back in by the tide (20x20x20 cm). The thin drift includes Fucus, Nereocystis, Halosaccus, Alaria, some fine reds (Ptilota, etc.). Shells observed are the same as those on CC-5 (see that summary) - Saxidomus, Mytilus, Tresus, Macoma, Mya, etc. This is a normal, healthy sand/mud flat intertidal.

S B

CC-2



ECOLOGY MAP
(1 of 2)

CC-2
(Page 3 of 4)

8AA - sensitive estuary
9LM - land mammals

X Wide
/ Medium
- Narrow
T Very Light
O No Oil

CC-2

Approx. Segment Length: 1619m



Map Key

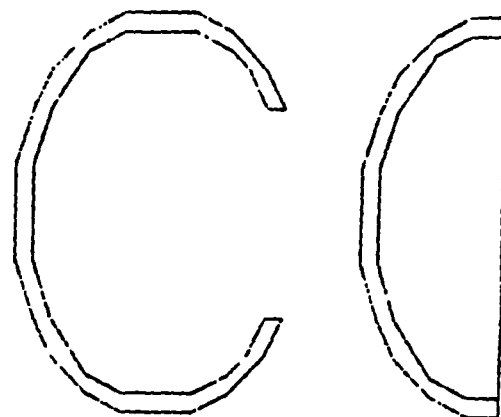
Name: _____

Date: _____

Data Entry

ACE 1950338

Chiniah Lagoon



ECOLOGY MAP

(2 of 2)

CC-2

(Page 4 of 4)

BAA - sensitive estuary
9 LM - land mammals

<XX Wide
// Medium
--- Narrow
TT Very Light
OO No Oil

CC-2

Approx. Segment Length: 1619m



Map Key:

Name: _____

Date: _____

Data Enter

ACE 1950339

SB

3 m Narrow

T T T T

X Wide
/ Medium
- Narrow
T Very Light
O No Oil

CC-2

Approx. Segment Length: 1619m



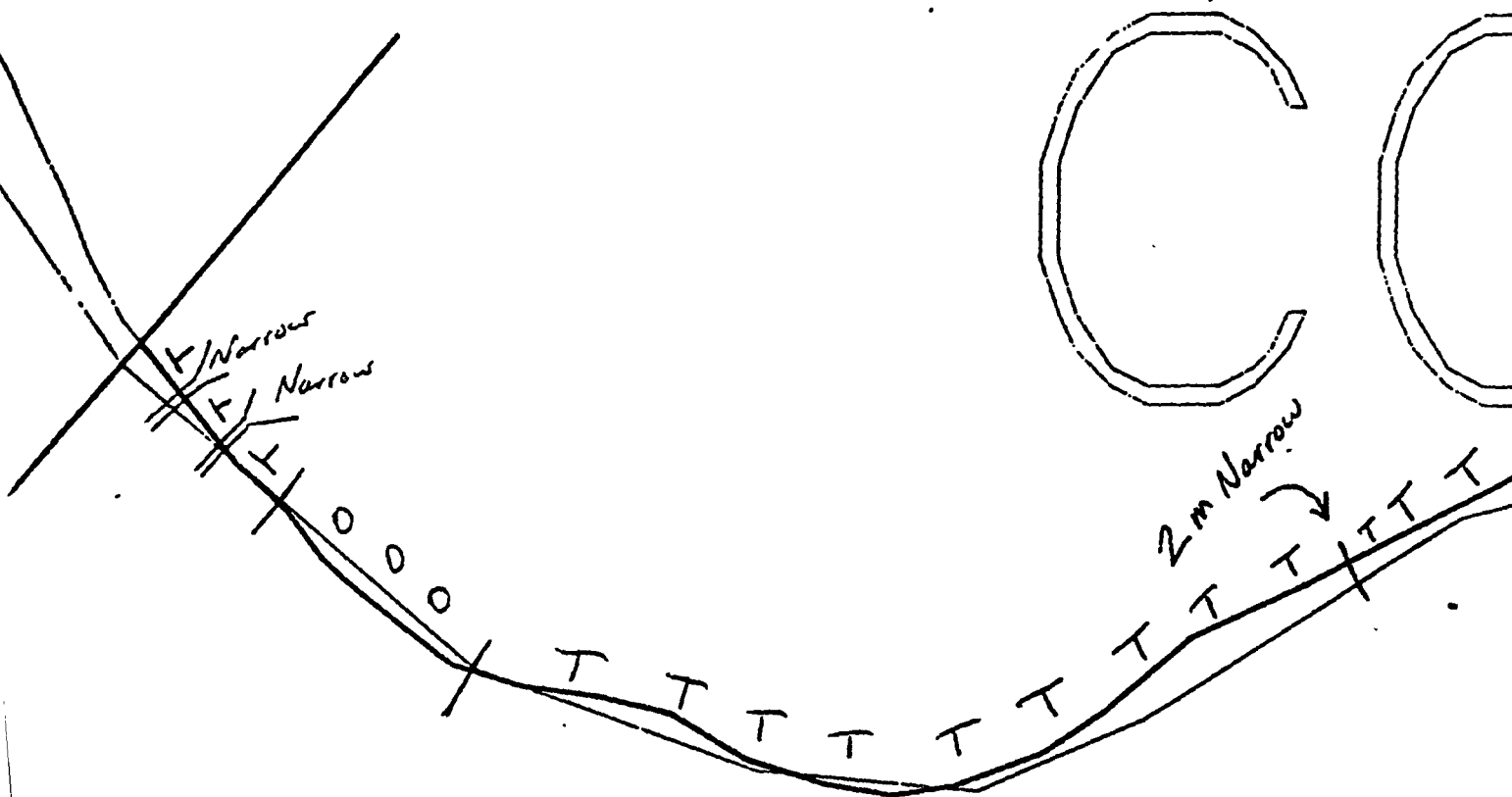
Map Key

Name: G. Heyman

Date: 5-3-90

Data Ento.

ACE 1950340



XX Wide
 // Medium
 -- Narrow
 TT Very Light
 OO No Oil

CC-2

Approx. Segment Length: 1619m



Map Key:

Name: G. Hayman

Date: 5-3-90

Data Enter

ACE 1950341

EXXON FLIGHT PLAN

1. AIRCRAFT TAIL NUMBER: N504EH DATE: 7-3-90
2. AIRCRAFT COLOR: Red/Black/White TYPE AIRCRAFT: B212
3. TOTAL NUMBER OF PEOPLE ON BOARD (INCLUDING CREW): 6
4. DEPARTURE POINT: ADQ KODIAK ETD: 0800
5. ROUTE OF FLIGHT (SHOW ALL WAYPOINTS): D → PETRIKOV POINT →
CAPE CHINIAC → KODIAK
6. FINAL DESTINATION: KODIAK ETA: 1900
7. FUEL ON BOARD: 2 HRS + 40 MINUTES
8. ANTICIPATED DELAYS (WAYPOINT/TIME): Spend the day All day
AT/NEAR PETRIKOV POINT
9. COMPLETE MANIFEST AND ATTACH OR USE FORM BELOW: ☒ (check complete)
10. DRAW ROUTE WITH DIRECTION ARROWS AND ATTACH: ☒ (check complete)
11. EXECUTE IDEMNIFICATION AGREEMENT IF REQUIRED (reference page F-4) AN ATTACH. REQUIRED? YES ☐ NO ☒
12. FAX (266-6471) COMPLETE FLIGHT PLAN AND ATTACHMENTS TO TRANSPORTATION FOLLOWING OR CALL (266-6582). IF DELAYED MORE THAN 30 MIN., AMEND ETD...

NAME	COMPANY	WEIGHT	BAG WT	DESTINATION
FRED BYARS	EXXON	235	0	ADQ
JOHN HALLER	NPS	"		
TERRY ELLSWORTH	ADEC	"		
JIM DAVIS	USCG	"		
LARRY GOODWIN	DNR	"		
DAVE KIRKBY	USFWS			
JEFF BARNHART #16	ADFG			
FRED BYARS #16	EXXON			

ILOTS NAMES:

LARRY FULKERSON

KEN STROIN

TOTALS

TOTAL PASS & BAGGAGE

ACE 1950342

DATE OF WORK: 7/3/90

WORK HOURS: START 0700 TO: 1900

WORK STATUS	
1	WORKING
2	NOT WORKING
3	ON LEAVE
4	RETIRED
5	UNEMPLOYED
6	OTHER

[illegible][illegible][illegible]

*** The date that the Manual/Mechanical portion of the Work Order has been completed and acknowledged. A separate acknowledgement will be made for the Bioremediation portion of the Work Order.**

**** 1 Supersack = 45 CF, report in tenths of sack (i.e. 0.1)**

NA Not Applicable/Recommended for this segment/division
N Recommended but not started
W Started and Working
#% Percentage complete (used on large work scopes)
C Work complete

ACE 1950343 - 5

AFS 262-15-10040
CAPE CHINIAK, AK PENINSULA
SITE 3 AKP 3-1

262-15-154

CHINIAK LAGOON

ACE 1950407

(version 4/29/89)

SHORELINE CLEANUP PROGRAMDATE 5/8/89SHORELINE SEGMENT CC-1LOCATION: (see enclosed map) Beach north of Cape Chinik

ADEC NO. _____ SHORELINE ASSESSMENT DATE: _____

Recommended Cleanup Activity(ies):

- Manually scoop up tar balls along the high-tide swash line. Oiled combustibles should be buried onsite if possible from a permit standpoint.
- Rolligons would be well suited to transport cleaned-up oil and tarry sand & gravel, also to support Sikel users.

Priorities Considerations:

- High priority: ① Bears and other scavengers are eating the numerous dead birds killed by the oil.
 ② The tar balls are being buried by wave action & wind blown sand.

Ecological Constraints (from site survey): None. Manual cleanup of high zone will not impact uncontaminated mid/lower zones on Beach #1. Take precautions to leave lagoon channel areas undisturbed (Beach #8) during cleanup of channel banks.

Archeological Constraints (from site survey):

If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon archaeologist C. Mobley and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

The conditions for type A - lightly oiled shorelines should be applied to the cleanup of this segment.

State Historic Preservation Officer *

Date: _____

EXXON: _____

Date: _____

FOSC: _____

Date: _____

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

(version 4/29/89)*

Page 1

SHORELINE OIL EVALUATIONDate: 8 May 89 Time: 1300 - 1530Observer: R. DuganSurveyed From: Foot/Boat/Helio/PlaneWeather: Sun/Cloud/Rain/Snow/FogLOCATIONLOCATION Beach north of
Cape ChiniahSEGMENT NUMBER CC-1LENGTH OF SHORELINE SEGMENT: 5000 mACCESS: Foot/Vehicle/Boat/Barge/Helio/Float PlaneSHORELINE:Shoreline Type: SPI/BEA/COV/HLD/STRTSlope: LANG/HANG/VERWave Exposure: High/Med/LowSediment: B___% / C___% / P50% / G___% / S50% / M___% / R___%Drift Debris on Beach: Yes/NoSupra/Upper/Mid/Lower Type driftwood
dead birds
seaweedOILDegree of Oiling: Heavy/Moderate/Light/No Oil/UnobservedArea of Beach Impact: SU / SP (H) (M) / LContinuous: Y/N % of Segment 80 Width of Band: 2-10 m
in HITZSporadic: Y/N % of Segment 20Est. Oil Thickness where > 1cm: 10 cm Est. Oil Penetration: 2-5 cmPooled Oil: 100 % ^{far balls} "Free" Oil: ___% Coated: H___% / M___% / L___%Fresh ___% Mousse 100 % Tar Formation: ___%Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H(M)/L/

Comments:

ACE 1950237

Oil occurs as far balls ranging from
1 cm to 400 cm diameter. Tar balls are
 concentrated in the swash line left by a high
 tide and are widely scattered in the M & L ITZ's.
 Wind & waves are covering the tar balls & mixing
 with them. Manual pickup of tar balls & oiled
 debris is recommended. Priority is high as scavengers
 (beats etc) are eating the oiled dead birds & animals. Tar is

DOCUMENTATION:Map/Aerial photo marking segment boundaries USGS: KATMAIVTR: Y/~~N~~ - Tape Number(s) _____Photography: ~~Y~~/N Roll Number(s) T1B-9Sample Numbers Collected: None

LIST OF KEY CODES USED ON SHORELINE CLEANUP EVALUATION FORMS

pg-3

4-13

ISLANDS (Locations)

* GEOLOGIC SEDIMENT TYPE

Naked Is.	NA	Boulder (>256mm)	B
Peak Is.	PE	Cobble (64-256)	C
Stoney Is.	ST	Pebble (4-64)	P
Eleanor Is.--	EL	Granule (2-4)	G
Ingot Is.	IN	Sand (0.06-2)	S
Block Is.	BL	Mud (less 0.06)	M
Entrance Is.	EN	Rock	R

Sphinx Is. SP

Disk Is. DI

Knight Is. KN

Smith Is. SM

Seal Is. SE

Applegate Is. AP

Green Is. GR

L. Green Is. LG

Agnes (Bass) Is. AB

L. Smith Is. LS

Gore Point GP

Montague Is. MN

Aguliak Is. AG

Squirrel Is. SL

New Year Is. NY

Murray Is. MU

Squire Is. SQ

Crafton Is. CR

Pt. Nowell PN

Junction Is. JU

Chenega Is. CH

Pleiades Is. PL

Bainbridge Is. BA

Flemming Is. FL

Evans Is. EV

Elrington Is. ER

Latouche Is. LA

Danger Is. DA

** DEGREE OF OILING

Heavy	HV
Moderate	MD
Light	LT
No Oil	NO
Unobserved	UN

AREA OF BEACH IMPACT

Supratidal (+SHWL)	SU
HWL to SHWL	SP
Upper 1/3 ITZ	H
Middle 1/3 ITZ	M
Lower 1/3 ITZ	L

ADEC IMPACT SURVEY

Heavy	HVY
Moderate	MOD
Light	LT
No Oil	NO
Unobserved	UNOBS

SHORELINE TYPE

Beach	BEA
Cove	COV
High Angle	HANG
Low Angle	LANG
Vertical	VER
Headland	HLD
Spit	SPI

Comments:

* Multiple entry is acceptable, use decreasing order of type found.
(ie. C/G/S where C is most predominant type and S is the least one.)

** Heavy (>6m wide and/or >1.0 cm thick)
Moderate (3-6m wide and/or 0.2-1.0 cm thick)
Light (0.1 -3m wide and/or <0.2 cm thick)
No Oil (free of visible oil)

ACE 1950239

Cape Chiniak, CC

ECOLOGICAL EVALUATION

LOCATION: Beach north of Cape Chinick SITE: _____ OBSERVER: D. McCoenick

LOCATION PREFIX: _____ SEG. NO.: CC-1 LENGTH: 5000 (M)

DATE: 5/8/89 TIME (HHMM): 1300 TIDE HT.: -0.5 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y/N) Contin. (Y/N) Dense (Y/N) Sparse (Y/N) None (Y/N)

Fucus observed primarily in debris at seaward line.

Mytilus (Mussels): Patchy (Y/N) Contin. (Y/N) Dense (Y/N) Sparse (Y/N) None (Y/N)

Sparse clumps in lagoon channel

Balanus (Barnacles): Patchy (Y/N) Contin. (Y/N) Dense (Y/N) Sparse (Y/N) None (Y/N)

Noted in stream lagoon channel.

Littorina

Patchy (Y/N) Contin. (Y/N) Dense (Y/N) Sparse (Y/N) None (Y/N)

Noted in lagoon channel.

Limpets: Patchy (Y/N) Contin. (Y/N) Dense (Y/N) Sparse (Y/N) None (Y/N)

OTHER OBSERVATIONS: Bear tracks observed along lagoon channel banks; few jellyfish (non-oiled) in lower ITZ; approximately 30 dead oiled birds

CLEANUP PRECAUTIONS: None for Beach #1; avoid lagoon channel when cleaning oiled areas on banks (Beach #2)

MAMMALS: Otters _____ Harbor Seals _____ Sea Lions _____ Whales _____
Other minnows seen in lagoon channel

BIRDS: _____

GENERAL OBSERVATIONS: This segment consists of 2 beaches - #1 is a 200m wide gravel/sand high impact beach; #2 is a lagoon beach behind (west of) Beach #1. Lagoon channel flows out to the south of Beach #1

6/13

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date May 8, 1989 Location Cape Chiniah Site Beach north of Cape Chiniah
Location Prefix CC Segment # 1 Length 5,000 m
Survey Method:
Air ✓ (A - indicate on map) Boat _____ (A - indicate on map)
Ground ✓ (G - indicate on map)
Known cultural resources (AHRS #) NONE Data Source _____
Oil conditions/beach visibility TAR BALLS
Width of beach zone surveyed 10 - 20 m Tree fringe surveyed up to 20 m
Cultural resources observed in beach zone (AHRS code) NONE
Cultural resources observed in tree fringe (AHRS code) NONE
General observations justifying survey method and segment's site probability:
Shore Profile FLAT, High ENERGY BEACH OF SAND AND GRAVEL
Fresh Water Sources NONE OBSERVED IN PORTION OF SEGMENT WALKED
Sea Exposure Exposed to the EAST
Access/Safety BROAD FLAT BEACH, DIFFICULT LANDING in high seas
Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5
Monitoring during cleanup needed yes (no) Collection yes (no)
Photos: Color Roll # _____ Frames _____
B/W Roll # _____ Frames _____
Observer(s) Mike VABOROUGH
Time survey started 12:52 pm Time survey ended 3:00 pm
Cultural resource considerations/restraints:
The conditions for Type A - Lightly oiled shorelines (attached)
should be applied to the cleanup of this segment.

Segment : Church

DATE : MAY 8

TIME : 1300

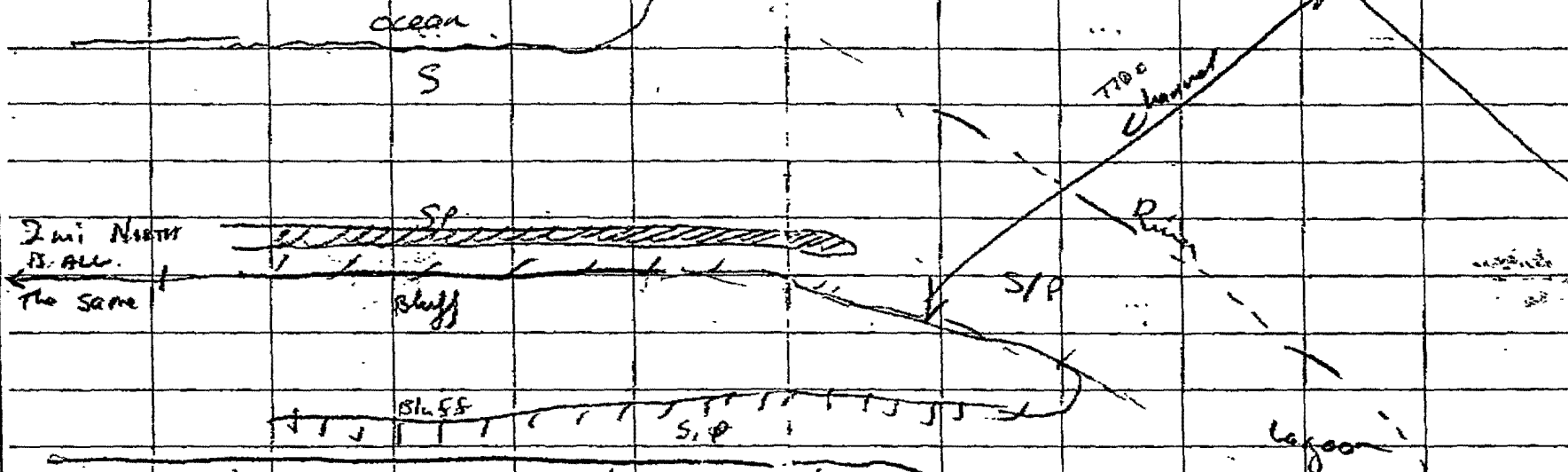
TIDE : MID. TIDE

Scale

100m

N ←

oiled zone



Oiling : Heavy, sporadic, HML, 172

Type : Brown tar balls, 1m to several meters

Occurrence : left in concentrated bank by high tides 1-10 meters

H - continuous - 2-10 m band, thickness 1-10 cm

M - scattered blobs 1-400 cm in diameter, 1-10 cm thick, 100 meters wide

L - scattered blobs - some as M but probably less of it; 100 meters wide

ACE 1950242

MAY 13 '85 20:47 EXXON (KODIRK)

P16

7 of 13



ACE 1950243-18

Cape Chiniak Block

SHORELINE EVALUATIONSEGMENT ST/ K09-17-CC-001 SUBDIVISION A (1 OF 1) DATE 5/3/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 Stream ID # 262-15-10030
 8AA Sensitive estuary
 9LM Other: Land mammals
 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 cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3274 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Rachel Jan DanDATE: 5/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V. Light 2980 m: No Oil 1783 m
 Subsurface Oil Observed: Yes X No Maximum Depth 7cm

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)

TRASH

COMMENTS: Recommended treatment includes 1) manual removal of bags of oiled sand and tarballs 2) manual pick up of tarballs and patties on surface followed by *3) manual raking to aid in locating and removal of buried tarballs and patties as indicated on the attached sketch map. Consult ADF&G for appropriate work dates, regarding raking near anadromous stream.

TAG COMMENTS: MONITOR TO 10:00 AM THE 4:00 PMTAG APPROVAL DATE: 5/24/90

ADEC ART WOOD
 EXXON ART WOOD
 NOAA BILL WOOD
 USCG M. J. HALL

FOSC: DATE: ACE 1950408 +/FF

SHORELINE EVALUATION

SEGMENT ST/ K09-17-CC-004 SUBDIVISION A (1 OF 1) DATE 5/4/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15) (Adjacent
segment - #262-15-10030)
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: Rachel Dean Omer DATE: 5/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 1502m: No Oil 0 m
Subsurface Oil Observed: Yes _____ No ☒ _____ Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: 5/24/90.
ADEC Art Wernim Art Wernim
EXXON Amy Tate Amy Tate
NOAA Paul Wernim Paul Wernim
USCG Mr. J. Hall Mr. J. Hall

FOSC: _____ **DATE:** _____

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K-09-17-CC-001 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	OPEN
Manual Raking	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 (262-15-10030 and 262-15-10040) are more than 100m from work site. No constraint to manual pickup and manual raking.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

[Signature]

Date

6-18-90

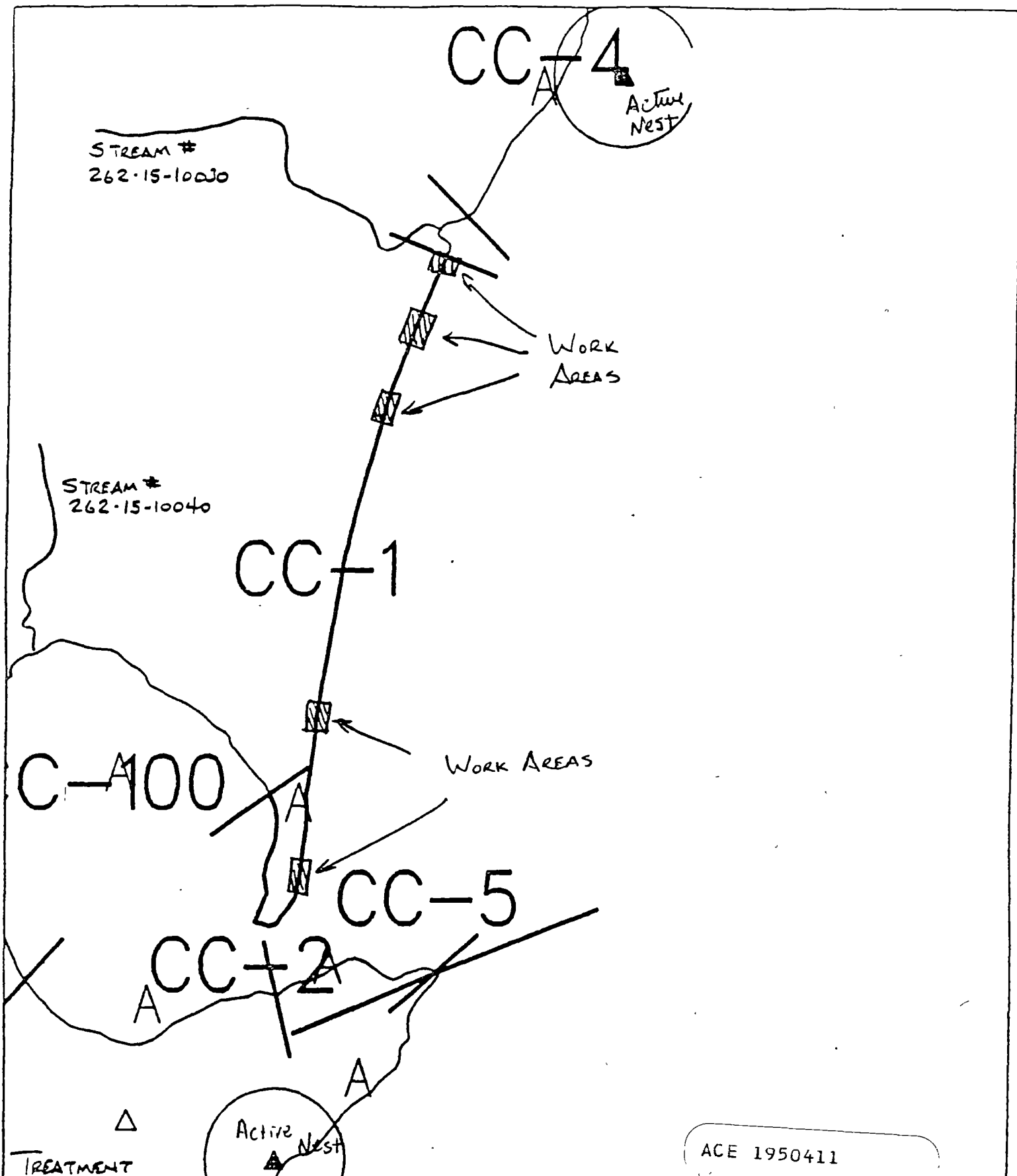
Prepared by

[Signature]

Date

6/15/90

ACE 1950410 +/S



Exxon Company, USA
The Kona, AK-CC-1

ECOLOGY MAP SEGMENT K9N-17 CC-1 SUBDIVISION A (1 of 1) METERS

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

SHORELINE EVALUATION

SEGMENT ST/ K09-17-CC-001 SUBDIVISION A (1 OF 1) DATE 5/3/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
Stream ID # 262-15-10030
8AA Sensitive estuary
9LM Other: Land mammals
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: Rebecca Jane Orr DATE: 5/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 2980 m: No Oil 1783 m
Subsurface Oil Observed: Yes X No Maximum Depth 7cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual removal of bags of oiled sand and tarballs 2) manual pick up of tarballs and patties on surface followed by *3) manual raking to aid in locating and removal of buried tarballs and patties as indicated on the attached sketch map. Consult ADF&G for appropriate work dates, regarding raking near anadromous stream. SEE COMMENTS ADDENDUM dated 6/15/90 PP.

TAG COMMENTS: MONITORS TO ASSESS THE LOGS

ACE 1950412-15

TAG APPROVAL DATE: 5/24/90

ADEC ART WEINER Dick Weiner

EXXON ANDY GIL Andy Gil

NOAA Paul Librecht Budd Librecht

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

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K09-17-CC-002 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN*
Bioremediation	OPEN*

*Observe NPS recommendations regarding bear sensitivity and access

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

ADF&G catalogued anadromous stream (262-15-10040) is more than 100m from work site. No constraint to manual pickup, tarmat removal and bioremediation.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

[Signature]

Date

6-16-90

Prepared by

[Signature]

Date

6/15/90

ACE 1950413+/S

STREAM #
262-15-10040

CC-100

WORK AREA

CC-5

CC-2

CAMP 1

ACE 1950414

TREATMENT

TREATMENT



Exxon Company, USA
Map Key: AKP-CC-2

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

- ★ Seabird Colony
- ▲ Eagle Nest

SHORELINE EVALUATION

SEGMENT ST/ K09-17-CC-002 SUBDIVISION A (1 OF 1) DATE 5/3/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

8AA Sensitive estuary
9LM Other: Land mammals
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:

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

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

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 69 m: V.Light 1348 m: No Oil 207 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>X</u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommended manual removal of tarmat, tarballs and patties as indicated on the attached sketch map. No specific ecological time constraints identified.
MANUAL PICKUP OF TRASH + DEBRIS
SPT CONSTRAINT ADDENDUM DATED 6/15/90 JPP

TAG COMMENTS: BIOREMEDIATE (CUSTOMER) AS REQUIRED FOLLOWING TARMAT REMOVAL

TAG APPROVAL DATE: 5/24/90
ADEC ART WEINER
EXXON Amoy Tarr
NOAA Buckley
USCG M. J. HALL

Observe NPS record regarding bear sensitivity & access.
FOSC: R. J. J. J. DATE: 6/8/90

ACE 1950415-15

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/^N~~K~~9-17-CC-100 STREAM NO: 262-15-10040 DATE 5/3/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

ADF&G Anadromous stream # 262-15-10040.

Sensitivity code and general time constraints. See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Do not trample or disturb marsh area.

ARCHAEOLOGICAL CONSTRAINTS:

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

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

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: _____

TAG COMMENTS: NO OIL OBSERVED IN AREA OF STREAM. HOWEVER
WORK TO BE COMPLETED IN ADJACENT AREAS TO THE STREAM + LAGOON
SEE SSAT PACKAGES 19-17-CC-180A + 02A FOR RECOMMENDED
WORK - MINIMIZING DISTURBANCE + WORK CREW SIZE.

TAG APPROVAL DATE: 5/23/90.
ADEC Art Weimer Art Weimer
EXXON Andy Earl
NOAA Bart Wiggott
USCG G.A. Reiter G.A. Reiter

FOSC: [Signature] DATE: 5/31/90

File
copy

ACE 1950416+1/3

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
- 3N, 3P Harbor seal and sea lion pupping (5/10 to 7/1)
3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
ADF&G Tom Roth 267-2208
- 5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 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)
7JJ Invertebrate harvesting
7KK Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

ACE 1950417

ANAD SCAT

ADF#G# 262-15-10040

SEGMENT ST/ K0917CC100 SUBDIVISION ADATE May 4, 1990~~NOAA~~
~~USCG~~NAME STEPHEN LEHMANN SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Oiling was very light except for one section (identified by the DG) where oil appeared at surface. Given the sensitivity of this area and the disturbance required to remove this section of oil - treatment is not suggested.

ADEC

NAME Terry Ellsworth SIGNATURE Terry Ellsworth☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

Oiling in this segment is confined to the SW portion of the segment. The most significant occurrence is a 20m x 1m area of asphalt of patchy distribution. Patches occur sporadically along the SW portion of the segment in areas up to 1m x 2m. Manual removal of the Asphalt and mouse patches is recommended. Due to the extreme sensitivity of this area to human disturbance, only 2-3 persons should work this area. Work should not extend beyond the shore bordered by steep alder slope.

LAND MANAGER

NAME Carl Schach SIGNATURE Carl Schach☐ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Oil remaining in this lagoon/estuary system can be expected to persist for a long time unless removed. However this critical habitat is sensitive to intrusion. The oil/mouse patches should be removed as soon as possible to avoid disturbing summer bear populations. A small crew of no more than five personnel should access the mouse patches on foot and remove by scraping the substrate with shovels. The mud flats adjacent below the oiled area and the salt marshes to the north should not be disturbed.

FIELD SHORELINE COMMENT SHEET

CC001/CC002
 SEGMENT ST/CC100/CC005 SUBDIVISION: ANADSSAT DATE 5-11-90

ADFG

NAME EDWARDS W. WEISS SIGNATURE Edward W. Weiss

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

THIS EXXON/SSAT ANADSSAT REPORT ONLY REFLECTS THE OILING CONDITIONS WITH IN 100 M EITHER SIDE OF WHERE THE STREAM BED ENTERS THE UPPER LAGOON (CC100). IN THIS SHORT SECTION OF SEGMENT CC100 THERE INDEED WAS NO OIL FOUND, BUT IT DOES NOT REFLECT THE CONDITIONS WITH IN SEGMENTS CC002, 005, 001 NOR THE SOUTH AND WEST PORTIONS OF CC100. THESE SEGMENTS ARE WITHIN THE LAGOON WHICH IS PART OF THE ANADROMOUS STREAM. CONSEQUENTLY ADFG HABITAT PERSONNEL SHOULD BE INVOLVED IN THE TAG GROUP FOR ALL FOUR SEGMENTS (CC001, CC002, CC005, CC100) & ADFG PERMITS NEED TO BE OBTAINED TO DO ANY WORK IN THESE FOUR SEGMENTS. THE FIELD SKETCHES SHOWING THE IMPACTS IN THESE OTHER SEGMENTS ARE INCLUDED IN THIS ANADSSAT REPORT. THESE AND THE SSAT REPORTS FOR THESE SECTIONS SHOULD BE CONSULTED WHEN CLEANING UP THIS ANADROMOUS STREAM.

MANUAL TYPE A CLEANUP SHOULD BE CONDUCTED IN FOLLOWING SEGMENT AREAS;

ACE 1950419

THE SOUTH & WEST PORTION OF CC100 ALONG THE STEEP ALDER COVERED BANK TO THE POINT WHERE IT FALLS AWAY FROM THE LAGOON AND THE MARSH GRASS STARTS. CLEANUP SHOULD NOT TAKE PLACE IN THE MARSH GRASS SECTION OF CC100 (NO OIL FOUND DURING SSAT AND SENSITIVE MARSH AREA). AP, PT, MS/P WITH BARTS LOCALLY /B, IN THE SOUTH & WEST PART OF CC100

SEGMENT CC002. ALSO FROM MP, '1, '1' TO
ITS WESTERN MOST HALF. THESE IMPACTS
ALSO HAVE LOCALLY HEAVIER IMPACTS WITH SOME
AP, PT/C AND /B. THE IMPACT IS LIGHTER
AS YOU MOVE TOWARDS THE LAGOON/STREAM MOUTH
(TOWARDS CC003) BECOMING MORE TB & PT/S.

SEGMENT CCOOS. TB/S IN THE WESTERN PORTION OF CCOOS WHICH IS WITHIN THE STREAM/LAGOON MOUTH AREA. ALSO MANUAL PICKUP.

NOTE THAT PO/S; ST & CT/S; MS/S OCCUR IN THE REST OF CCOOS, WHICH IS IMMEDIATELY ADJACENT TO THE LAGOON MOUTH. BEFORE ANY CLEANUP METHOD BESIDES "MANUAL" IS IMPLEMENTED HERE HABITAT DIVISION PERSONNEL MUST BE NOTIFIED AND PERMISSION GRANTED.

SEGMENT CC001. - THE OUTSIDE SPIT AREA
MANUAL PICKUP OF TB/P IN 'SUTZ, UITZ, AND
MITZ. ALSO BAGS OF OILED SAND & MOUSSE.

ALSO RECOMMEND THAT ADFG OR NAS MONITOR BE PRESENT. SOMEONE WHO IS FAMILIAR WITH SITE KNOWS WHERE THE OILING IS. AP, AT, IN CC002 & CC100 IS IN LITZ AT BREAK BETWEEN MUDFLAT AND SAND/GRAVEL BEACH AND IS COMMONLY PARTIALLY COVERED BY SILT. SOMETIMES HARD TO FIND BUT CAN BE FOUND AND EASILY REMOVED.

DLW
5-11-50

SHORELINE OILING SUMMARY

REVISION NO. 06/12/90

OG G. HEYMAN NOAA S. LEHMANN USCG E. WEISS ADFEG SUBDIVISION K0917 CC100A (1 OF 1)
 BIO L. SHARMAN LAND REP E. WEISS ADFEG SUBDIVISION K0917 CC100A (1 OF 1)
 EXXON NOT PRESENT ADEC T. E. SCHWAB NPS TIME 16:00:12:30
 TEAM NO. 19 TIDE LEVEL +2 1/4 to +1 3/4 DATE 5/13/90
 EST. SUBDIVISION LENGTH: 200 m (2640) ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 0 % B 0 % C 0 % P 0 % G 0 % S 0 % M 100 % 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 200 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													
COAT													
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL										X	X	X	X

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

OILED DEBRIS	AMOUNT			DID YOU COLLECT DEBRIS?
	SM	MD	LG	
Logs				
Vegetation				
Trash				
Debris				

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE 0BAGS 0

Photographs:

Roll No. Frames

SUBSURFACE OIL

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

COMMENTS No pits dug.

ACE 1950421

This anadromous stream (ADFG # 262-15-10040) was surveyed with E. Weiss of ADFEG as part of the SSAT assessment of CC-100A. The anadromous SCAT assessment was restricted to 100m on each side of the stream. Sketch maps for the entire Chinik Lagoon are included with this form. See the respective SSAT reports for more information.

REVIEWED DATE 5/15/90

OG G. Heyman

SEGMENT ST/K 09 17 CC 100

SUBDIVISION A

DATE 5, 3 90

CHECKLIST

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

LEGEND

AP-PT/S in up to 1X2 m area

Pit - No Subsurface Oil MS/P/S in 1/2 m x 2 m area discontinuous

2 Pit - Subsurface Oil on upper mud flats, silt/mud veneer < 5 mm thick commonly

CT/C Continuous Distribution

CT/B Broken Distribution

CT/P Patchy Distribution

CT/S Splashed Distribution

Oiled Vegetation

Photo location, direction, and number

ST & CT/S on bldrs & cbls in UITE & SUTZ

< 1% cover

Oil Character Length (m): AP 20 PO CV CT 300 ST 576 MS 20 PT 30 TB FL NO 1740

ACE 1950422

Oil Character Length (m): AP 20 PO CV CT 300 ST 576 MS 20 PT 30 TB FL NO 1740

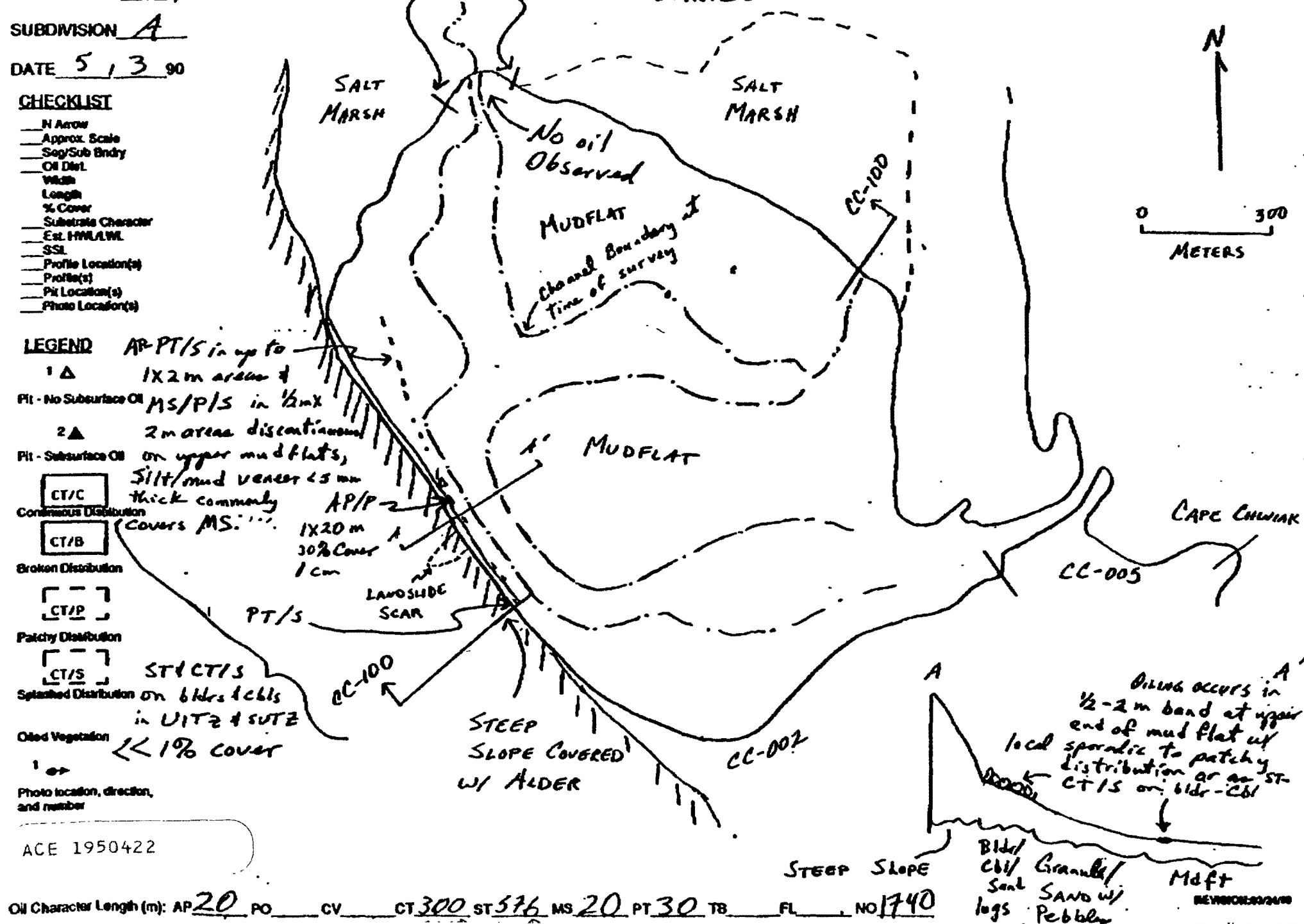
Oil Character Length (m): AP 20 PO CV CT 300 ST 576 MS 20 PT 30 TB FL NO 1740

Oil Character Length (m): AP 20 PO CV CT 300 ST 576 MS 20 PT 30 TB FL NO 1740

Oil Character Length (m): AP 20 PO CV CT 300 ST 576 MS 20 PT 30 TB FL NO 1740

Oil Character Length (m): AP 20 PO CV CT 300 ST 576 MS 20 PT 30 TB FL NO 1740

ANADSCAT SKETCH MAP BOUNDARIES



OG G. Heyman

SEGMENT ST K0917 CC 005

SUBDIVISION A

DATE 5/3/90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Body
- ☐ CR Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HML/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

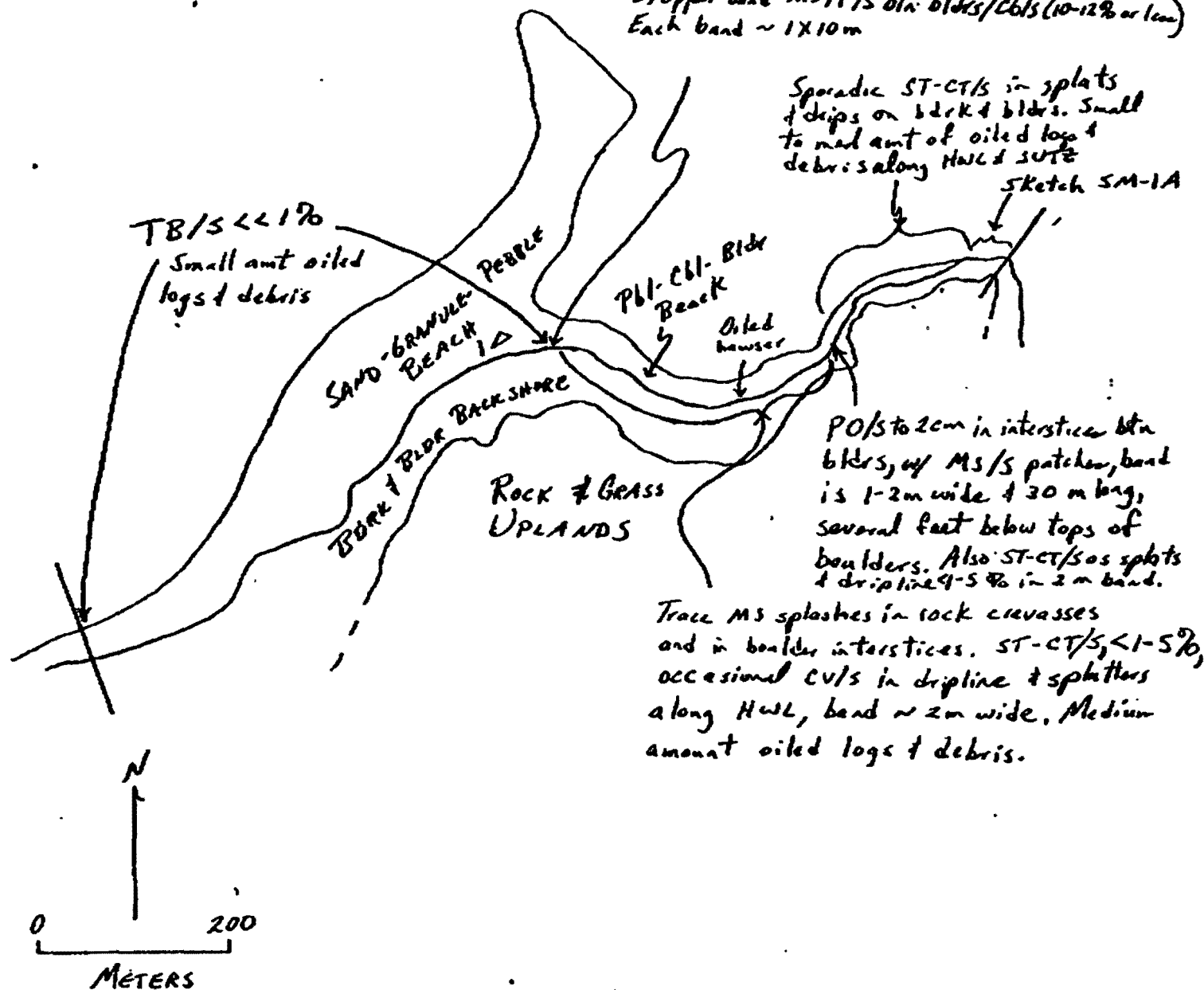
Oiled Vegetation

1 $\Rightarrow$

Photo location, direction, and number

SKETCH MAP-1

2 bands MS
1) lower band MS/S in Cbl/Pbl
2) Upper band MS/P/S bti bldrs/Cbls (10-12% or less)
Each band ~ 1x10m



ACE 1950423

Oil Character Length (m): AP — PO 10 CV 62 CT 250 ST 200 MS 52 PT — TB 500 FL — NO 0

REVISION: 03/24/90

OG G. Heyman

SEGMENT ST K 0117 CC 005

SUBDIVISION A

DATE 5/3/90

SKETCH MAP SM-1A

CHECKLIST

- ☐ H Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Bndry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HW/LA/WL
- ☐ 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

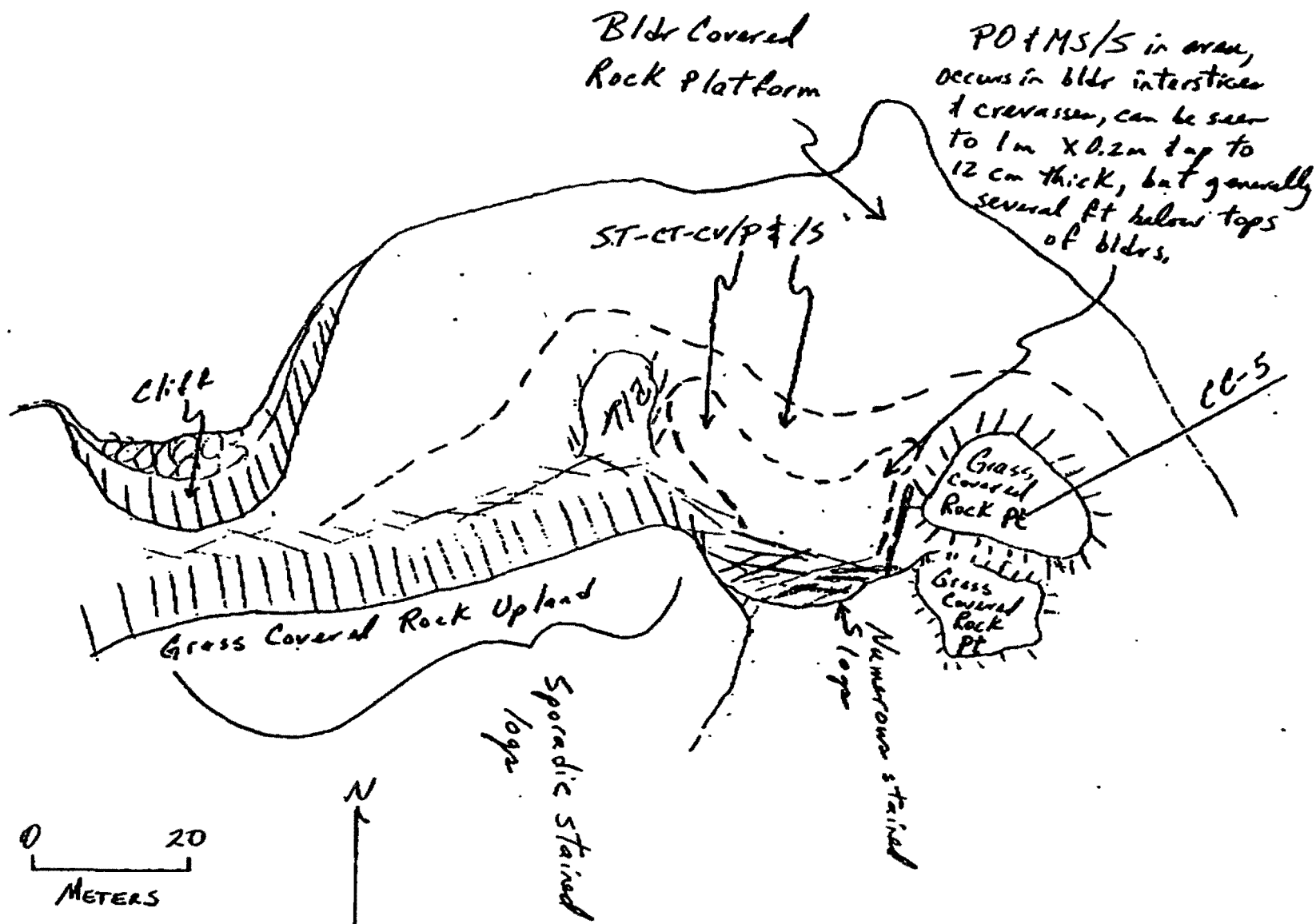
CT/B
Broken Distribution

CT/P
Patched Distribution

CT/S
Spitzed Distribution

Oiled Vegetation

1 →
Photo location, direction,
and number



ACE 1950424

Oil Character Length (m): AP PO CV CT ST MS PT TB FL NO See SM-1

REVISION: 01/24/90

U.S. Freyman

SKETCH MAP

SEGMENT ST/K 09-178001

SUBDIVISION A

DATE 5/3/90

CHECKLIST

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

LEGEND

1 Δ
Pt - No Subsurface Oil

2 Δ
Pt - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

CT/P
Patchy Distribution

CT/S
Splashed Distribution

Oil Vegetation

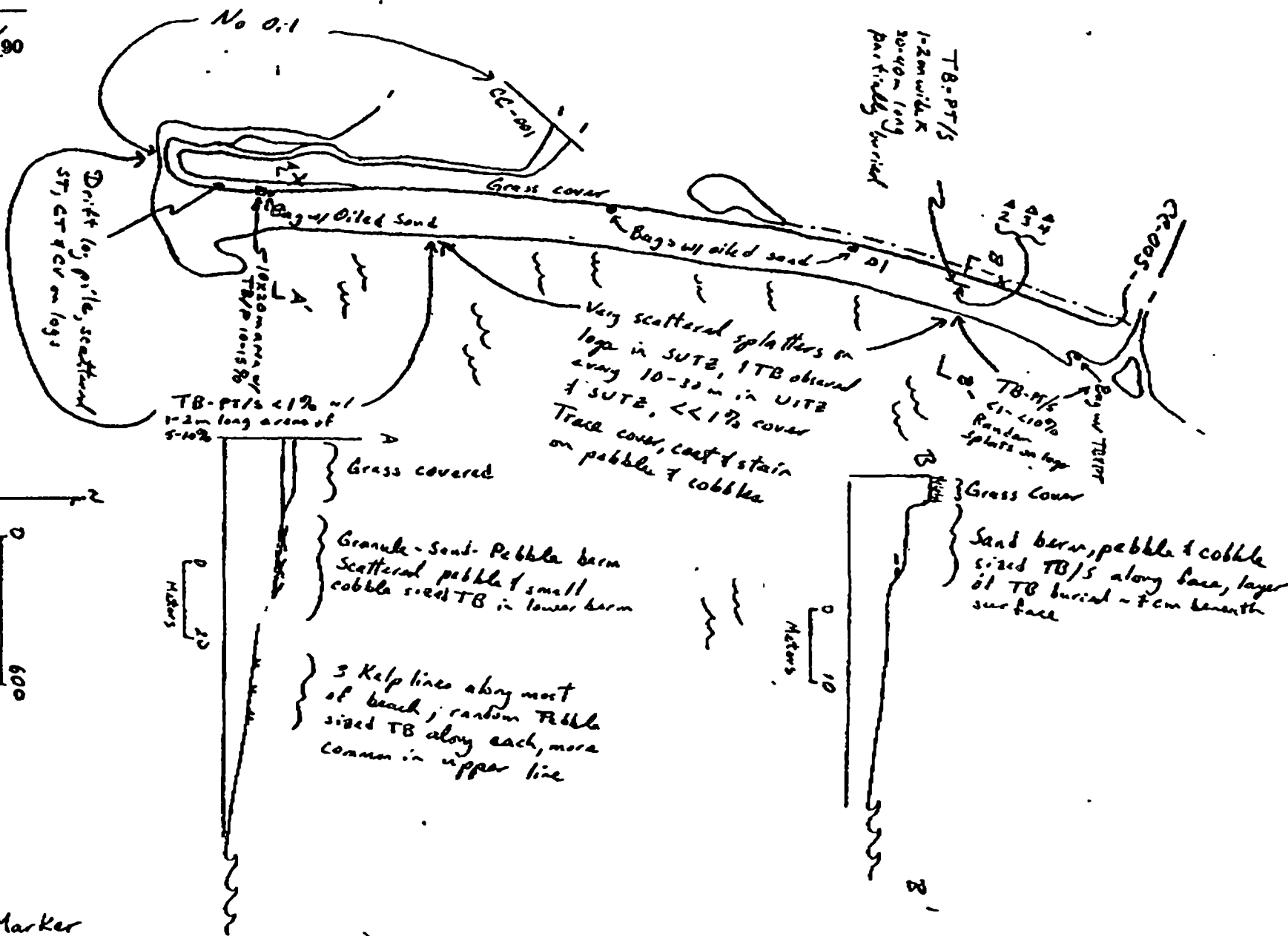
Photo location, direction, and number

X Regulatory Marker

ACE 1950425

Oil Character Length (m): AP — PO — CV 3 CT 3 ST 4 MS — PT 6 20 13 2300 FL — NO 1771

REVISION 007000



OG G. Heyman

SEGMENT ST/ K0917 C0002

SUBDIVISION A

DATE 5/3/90

CHECKLIST

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

LEGEND

1 Δ

Pit - No Subsurface Oil

2 Δ

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

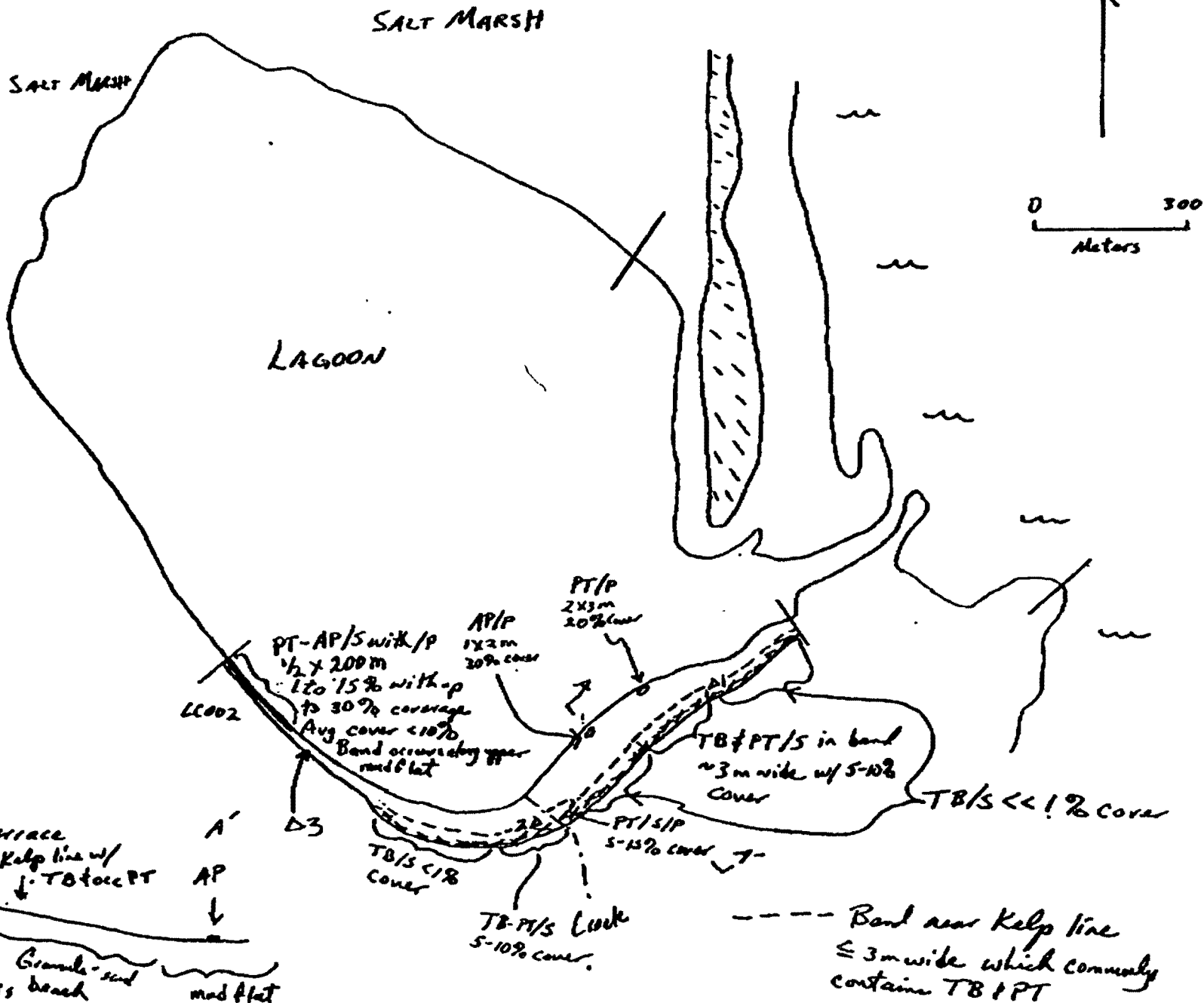
CT/S

Scattered Distribution

Oiled Vegetation

1 →
Photo location, direction,
and number

SKETCH MAP



ACE 1950426

Oil Character Length (m): AP 10 PO - CV - CT - ST - MS - PT 450 TB 450 FL - NO 215

REVISION: 2/2/90

ADFG MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS (S) DS TS AVE SCHA MMS PTA

2 REGION: PWS KP, CI K (AP)

METHOD: Aerial (Ground) Boat

3 DATE: 5/3/90

15 HIGH TIDE TIMES: 1

21 TEAM RECORDER: E. WEISS

4 START TIME: 1335

16 HIGH TIDE HTS: 1

22 OBSERVERS: K. SCHOCK,

5 STOP TIME: 1800

17 LOW TIDE TIMES: 1709,

23 AGENCY: AAFG/NPS/WWC/ASEC

6 CC100 CC001

6 SEQUENCE #: CC002

18 LOW TIDE HTS: 1.69,

24 PHOTOS TAKEN: Y X

7 STATION #:

19 TIDE HT AT SURVEY:

Roll #: Frame:

8 K-UNIT: K0917

Ebb Slack Flood Slack

25 VIDEO TAKEN: Y X TAPES:

9 STAT AREA:

20 USCG QUAD: AROGNAK C-6

Starts: Ends:

10 LAT:

11 LONG:

26 SAMPLES TAKEN Y X Number

12 SOURCE: Map Loran

011

13 LOCATION: CHINIAR LAGOON, CAPE CHINIAR, AK P.00140.

Sediment

14 DESCRIPTION:

Biological

EXTENT OF OIL

Water

	SHORELINE				STREAM			
	L	V	N	H	L	V	N	H
27 SURFACE COVERAGE	1000+	10m		5%			2600	10%

36 CATALOGED ANAD. FISH BREAST? X N

37 CATALOG #: 262-15-10040

38 STREAM NAME: CHINIAR LAGOON

28 SURFACE THICKNESS	2cm			1cm		
----------------------	-----	--	--	-----	--	--

39 OIL IN STREAM BED? Y X

29 PENETRATION	— SURFACE —					
----------------	-------------	--	--	--	--	--

40 OIL ON STREAM BANKS? X N

30 OVERALL OIL IMPACT: N VL (1) N H

41 OIL ON BEACH ADJACENT TO MOUTH? X N
(within 50 meters)

31 OIL TYPE: Pooled (House) Tar (Asphalt) Sticky (Seal)

42 OIL WITHIN 1 MILE OF STREAM? X N

32 OILED DEBRIS? X N

Where:

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

43 ANADROMOUS FISH PRESENT? Y X

34 WAVE EXPOSURE: High Moderate (Low)

44 ANADROMOUS FISH OBSERVATION

35 SUBSTRATE TYPE: Bedrock 10 Boulder Cobble 10

Species Aerial Ground

Gravel 20 Sand Mud/silt 60

ACE 1950427

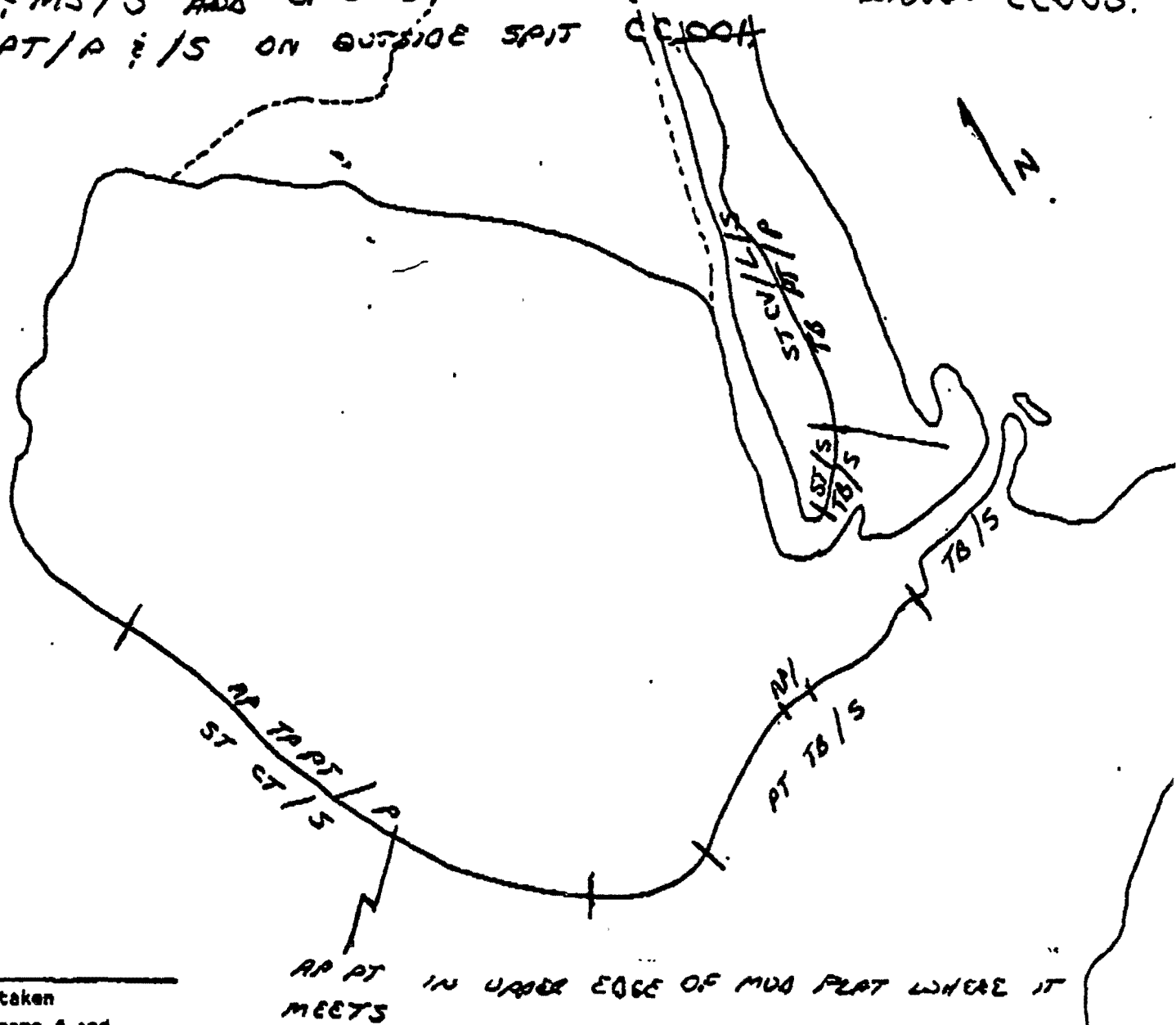
COMMENTS: SCATTERED TAR BALLS PATCHES SOME ASPHALT/SOFT ON SOUTH BANK. SOUTHWEST AND WEST BANK HAS TAR BALLS PATCHES ASPHALT THAT IS PATCHY AND LOCALLY BROKEN. OT CV/S IN SUPRA COBBLE TIDE ZONE.

* RECOMMEND: MANUAL TYPE A CLEANUP WITH MONITOR. (NPS & ADFG) MONITOR SHOULD BE FAMILIAR WITH SITE AND OIL LOCATION AS IT IS SOMETIMES HARD TO SPOT. (OVER)

FRAME(S)

DESCRIPTION

CLEANUP SHOULD TAKE PLACE IN ⁴⁸ OIL DISTRIBUTION DIAGRAM CC002, CC005, CC001, BUT ONLY ON THE WEST/SOUTHWEST SIDE OF CC100, (WEST/SOUTHWEST SIDE OF LAGOON) UP TO BUT NOT INCLUDING GRASS/MARSH AREA AT NW CORNER OF LAGOON. ~~DO NOT~~ DO & MS/S AND ST CT CV/A ON BEACH OUTSIDE LAGOON CC005. TB/AT/A & /S ON OUTSIDE SPIT CC100A



- Sample taken
- Photo frame # and shot direction.

ACE 1950428

ADF#G #

262-15-10040

SHORELINE ECOLOGICAL SUMMARY

Segment ST / K917CQ100 Subdivision

A

Date (mo / day / yr) 5/3/90

Time (24 hr) 1600-1730 Biologist SHARMAN

(A) Substrate type and % of segments: SUBDIV.

(1) Bedrock (2) Boulder (3) Cobble (4) Pebble (5) Sand (6) Silt 100

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

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

Photographs:

Roll No. -

Frames -

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS (ALCELA, LITTORINA, LYMNAEAE)

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments: See above. The stream mouth finally opens out into a sand/mud gray tidal flat. No particularly unusual biological observations. The surrounding Clinch Fagoon proper was surveyed in much detail (See Shoreline Ecological Summaries for CC-3, CC-2, CC-300, and CC-1).

Ecological Considerations:

ACE 1950429-5

ADF#G Catalog # 262-15-10040 anadromous stream ("Clinch Fagoon stream"). No additional local (within 100m) ecological sensitivities other than the usual concern for sensitive & productive estuarine tidal areas. It may be useful to refer to this section of the regular SSAT survey of CC-100.

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

STEVE COWPER, GOVERNOR

Rapifax 349-1723

333 RASPBERRY ROAD
ANCHORAGE, ALASKA 99518-1599
PHONE: (907) 344-0541

RAPIFAX TRANSMITTAL SHEET

TO: Ken / Dick
Anch Habitat

DATE: 5/14/90

No. Pages: 12
(including this page)

FROM: J. Barnhart
Kodiak Habitat

MESSAGE: Chiniak Lagoon
AFS 262-15-10040
Segment CC100A

ACE 1950430+/S

SHORELINE OILING SUMMARY

REVISION NO. 04/13/90

OG G. HEYMAN NOAA S. LEHMANN USCG SEGMENT ST/262-15-10040
 BIO L. SHARMAN LAND REP E. WEISS ADFG SUBDIVISION K0917 CC100A (1 OF 1)
 EXXON NOT PRESENT ADEC T. E. Schuch NPS TIME 16:00017:30
 TEAM NO: 19 TIDE LEVEL +2 1/4 to +1 3/4 DATE 5 / 3 / 90
 EST. SUBDIVISION LENGTH: 200 m (2640) ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 0 % B 0 % C 0 % P 0 % G 0 % S 0 % M 100 % 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 200 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	IC	IB	IP	IS	DBL BR	DBL RW	GY	SL DBL	TL	LBL	SU	UI	MI	LI
ASPHALT PAVEMENT														
POOLED														
COVER														
COAT														
STAIN														
MOUSSE														
PATTIES														
TARBALLS														
FILM														
NO OIL											X	X	X	X

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

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

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	SHEEN (Y/N)	▼	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		uo	uc	SBL BR	OBL RW	GY SL	DBR TL	LBK	SU	UI	MI	LI							
							.																		
							.																		
							.																		
							.																		
							.																		
							.																		
							.																		
							.																		

COMMENTS No Pits Dug.

ACE 1950431

This anadromous stream (ADFXG # 262-15-10040) was surveyed with Ed Weiss of ADFG as part of the SSAT assessment of CC-100 A. The anadromous SCAT assessment was restricted to 100m on each side of the stream. Sketch maps for the entire Chinik Lagoon are included with this form. See the respective SSAT reports for more information.

REVIEWED

DATE

FIELD SHORELINE COMMENT SHEET

ANAD SCAT

ADF#G# 262-15-10040

SEGMENT ST / KO917CC100

SUBDIVISION: A

DATE May 4, 1990

~~NORA~~
~~USCG~~NAME STEPHEN LEHMANN SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Oiling was very light except for one section (identified by the DG) where oil appeared at surface. Given the sensitivity of this area and the disturbance required to remove this section of oil-treatment is not suggested.

ADEC

NAME Terry Ellsworth SIGNATURE Terry Ellsworth☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

Oiling in this segment is confined to the SW portion of the segment. The most significant occurrence is a 20m x 1m area of asphalt of patchy distribution. Patches occur sporadically along the SW portion of the segment in areas up to 1m x 2m. Manual removal of the asphalt and mouse patches is recommended. Due to the extreme sensitivity of this area to human disturbance, only 2-3 persons should work this area. Work should not extend beyond the shore bordered by steep alder slope.

LAND MANAGER

NAME Carl Schech SIGNATURE Carl Schech☐ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Oil remaining in this lagoon/estuary system can be expected to persist for a long time unless removed. However this critical habitat is sensitive to intrusion. The oil/mouse patches should be removed as soon as possible to avoid disturbing summer bear populations. A small crew of no more than five personnel should access the mouse patches on foot and remove by scraping the substrate with shovels. The mud flats should below the oiled area and the salt marshes to the north should not be disturbed.

REVISION NO. 03/21/90

ACE 1950432

OG G. Heyman

SEGMENT ST/K 09 17 CC 100

SUBDIVISION A

DATE 5 / 3 90

CHECKLIST

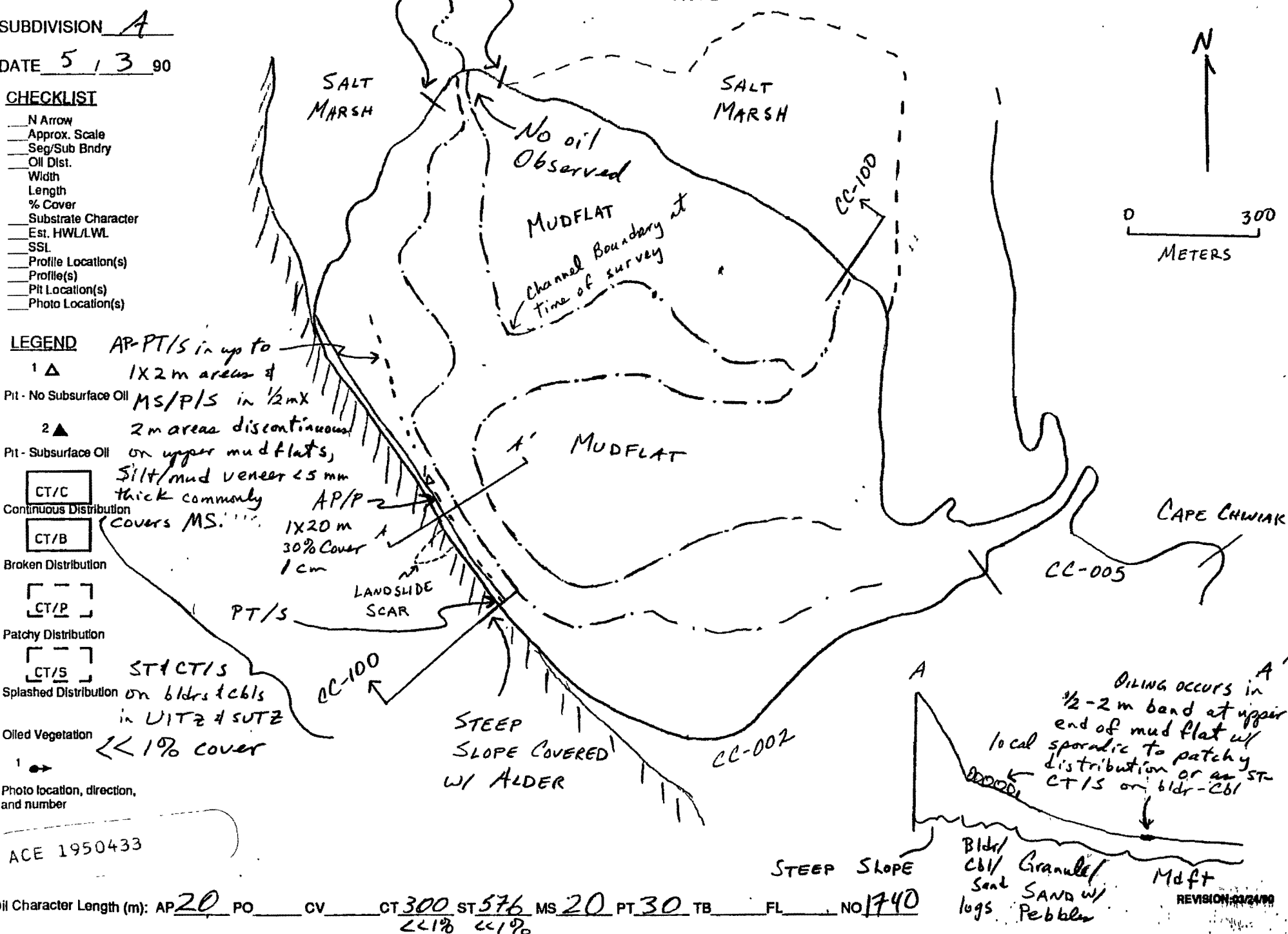
- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Bndry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HWL/LWL
- ☐ SSI
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pit Location(s)
- ☐ Photo Location(s)

LEGEND

- 1 Δ AP-PT/S in up to 1X2 m areas & MS/P/S in 1/2 mX 2 m areas discontinuous on upper mud flats, silt/mud veneer < 5 mm thick commonly covers MS.
- 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
- Photo location, direction, and number

ACE 1950433

ANADSCAT SKETCH MAP BOUNDARIES



Oil Character Length (m): AP 20 PO CV CT 300 ST 576 MS 20 PT 30 TB FL NO 1740
 CC 1% CC 1%

REVISION 02/24/90

GENERAL DATA

ANAD SCAT
Stream # 262-15-10040
K0917

SEG ID: CC-100 SUBDIV: A TEAM: 19 SURVEY DATE: 5/3/90
PAVEMENT: CHAR - AREA 0 THICKNESS 0 TARBALLS 0
OILED: LGS - VEG - TRH - DBR - WAVE EXP: LW X MD - HG -
FAX RCVD: - DT: - AGENCY DISAGREE: -
EST SUBDIV LGTH: 200 OIL CATEGORY: W 0 M 0 N 0 VL 0 NO 200 U 0

SURFACE DATA

SURFACE SEDIMENT: BRK 0 BLD 0 COB 0 PEB 0 GRN 0 SAN 0 MUD 100 VEG 0

CHAR #: 1 OIL CHAR: No OIL DIST: CONT - BRKN - PTCH - SPLH -
OIL CLR: - FILM CLR: - TIDAL ZONE: SU X UI X MI X LI X

CHAR #: - OIL CHAR: - OIL DIST: CONT - BRKN - PTCH - SPLH -
OIL CLR: - FILM CLR: - TIDAL ZONE: SU - UI - MI - LI -

CHAR #: - OIL CHAR: - OIL DIST: CONT - BRKN - PTCH - SPLH -
OIL CLR: - FILM CLR: - TIDAL ZONE: SU - UI - MI - LI -

CHAR #: - OIL CHAR: - OIL DIST: CONT - BRKN - PTCH - SPLH -
OIL CLR: - FILM CLR: - TIDAL ZONE: SU - UI - MI - LI -

CHAR #: - OIL CHAR: - OIL DIST: CONT - BRKN - PTCH - SPLH -
OIL CLR: - FILM CLR: - TIDAL ZONE: SU - UI - MI - LI -

CHAR #: - OIL CHAR: - OIL DIST: CONT - BRKN - PTCH - SPLH -
OIL CLR: - FILM CLR: - TIDAL ZONE: SU - UI - MI - LI -

CHAR #: - OIL CHAR: - OIL DIST: CONT - BRKN - PTCH - SPLH -
OIL CLR: - FILM CLR: - TIDAL ZONE: SU - UI - MI - LI -

CHAR #: - OIL CHAR: - OIL DIST: CONT - BRKN - PTCH - SPLH -
OIL CLR: - FILM CLR: - TIDAL ZONE: SU - UI - MI - LI -

Segment ST / K0917CC100 Subdivision A Date (mo / day / yr) 5/3/90Time (24 hr) 1600-1730 Biologist SHARMAN(A) Substrate type and % of segments: SUBDIV.
(1) Bedrock (2) Boulder (3) Cobble (4) Pebble (5) Sand (6) Mud 100(B) Overall % cover of biota (% of segment): Dense Moderate Low X
SUBDIV.

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

Photographs:
Roll No. -Frames -

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS (NUCELLA, LITTORINA, LIMPETS)

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments: See above. The stream mouth quickly opens out into a sand/mud grassy tidal flat. No particularly unusual biological observations. The surrounding Chinik lagoon proper was surveyed in more detail (see Shoreline Ecological Summaries for CC-5, CC-2, CC-100, and CC-1).

Ecological Considerations:

ADF&G Catalog # 262-15-10040 anadromous stream ("Chinik lagoon stream"). No additional local (within 100m) ecological sensitivities other than the usual concern for sensitive + productive estuarine tidal areas. It may be useful to refer to this section of the regular SSAT survey of CC-100.

OG G. Heyman

SEGMENT ST/K0917 CC 005

SUBDIVISION A

DATE 5/3/90

SKETCH MAP-1

CHECKLIST

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

LEGEND

1 Δ
Pit - No Subsurface Oil

2 $\blacktriangle$
Pit - Subsurface Oil

CT/C
Continuous Distribution

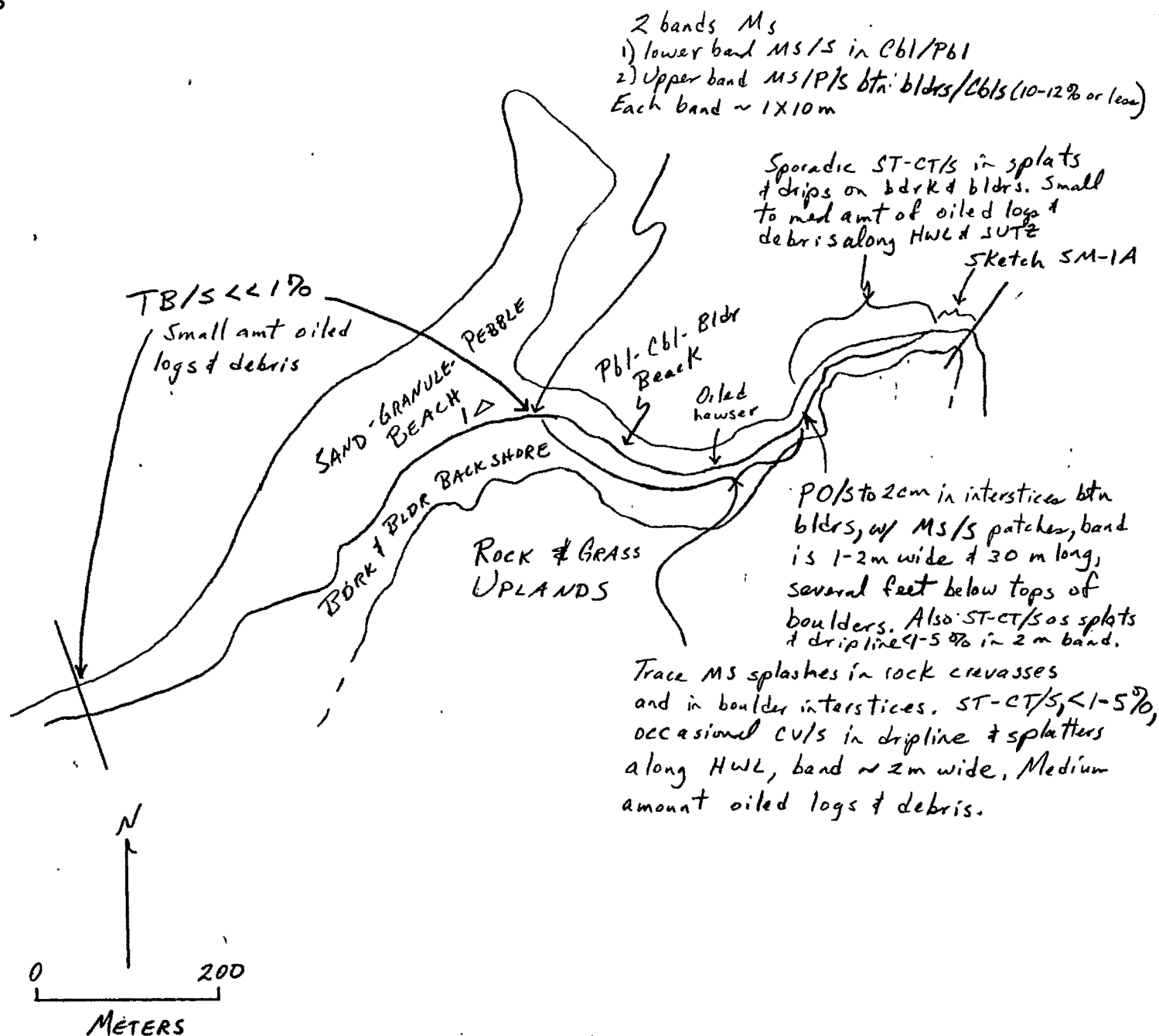
CT/B
Broken Distribution

CT/P
Patchy Distribution

CT/S
Splashed Distribution

Oiled Vegetation

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



ACE 1950436

Oil Character Length (m): AP — PO 10 CV 62 CT 250 ST 200 MS 52 PT — TB 500 FL — NO 0

REVISION: 03/24/90

OG G. Heyman

SEGMENT ST/K 0917 CC 005

SUBDIVISION A

DATE 5/3/90

CHECKLIST

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

LEGEND

1 ▲
Pit - No Subsurface Oil

2 ▲
Pit - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

CT/P
Patchy Distribution

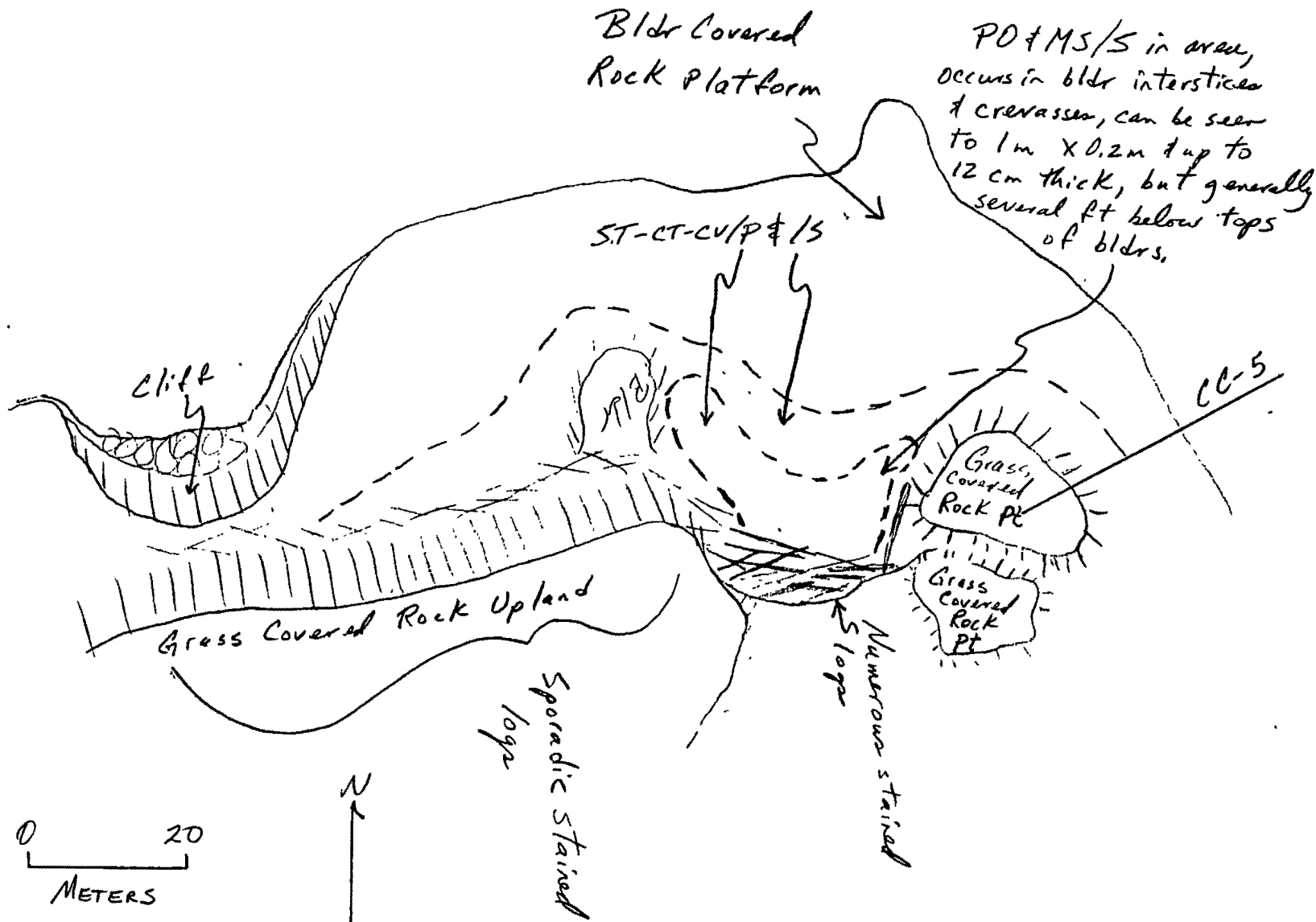
CT/S
Splashed Distribution

Oiled Vegetation

1 ●→
Photo location, direction,
and number

ACE 1950437

SKETCH MAP SM-1A



Oil Character Length (m): AP _____ PO _____ CV _____ CT _____ ST _____ MS _____ PT _____ TB _____ FL _____ NO _____ See SM-1

REVISION: 03/24/00

OGG, Heyman

SEGMENT ST/ K0917 CC002

SUBDIVISION A

DATE 5/13/90

CHECKLIST

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

LEGEND

1 Δ

Pit - No Subsurface Oil

2 Δ

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

Oiled Vegetation

1 $\rightarrow$

Photo location, direction, and number

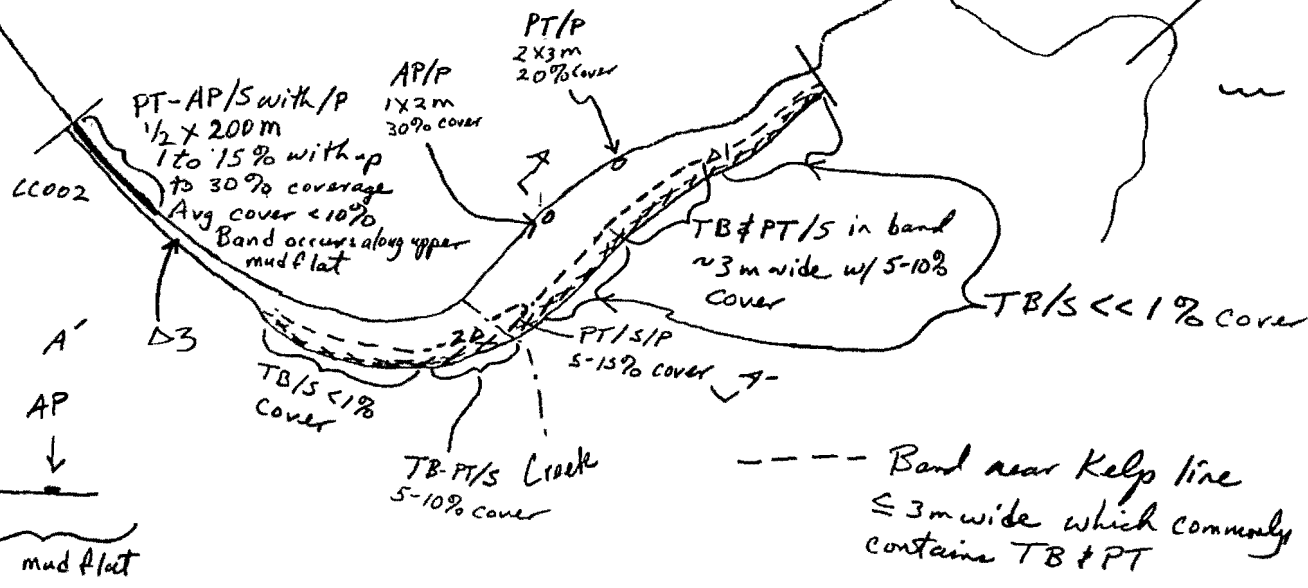
SKETCH MAP

SALT MARSH

SALT MARSH

LAGOON

0 300
Meters



Oil Character Length (m): AP 10 PO - CV - CT - ST - MS - PT 450 TB 450 FL - NO 215

REVISION: 03/24/90

OG G. Heyman

SKETCH MAP

SEGMENT ST K 09-170001

SUBDIVISION A

DATE 5/3/90

CHECKLIST

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

LEGEND

1 Δ

Pit - No Subsurface Oil

2 Δ

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

lll

Oiled Vegetation

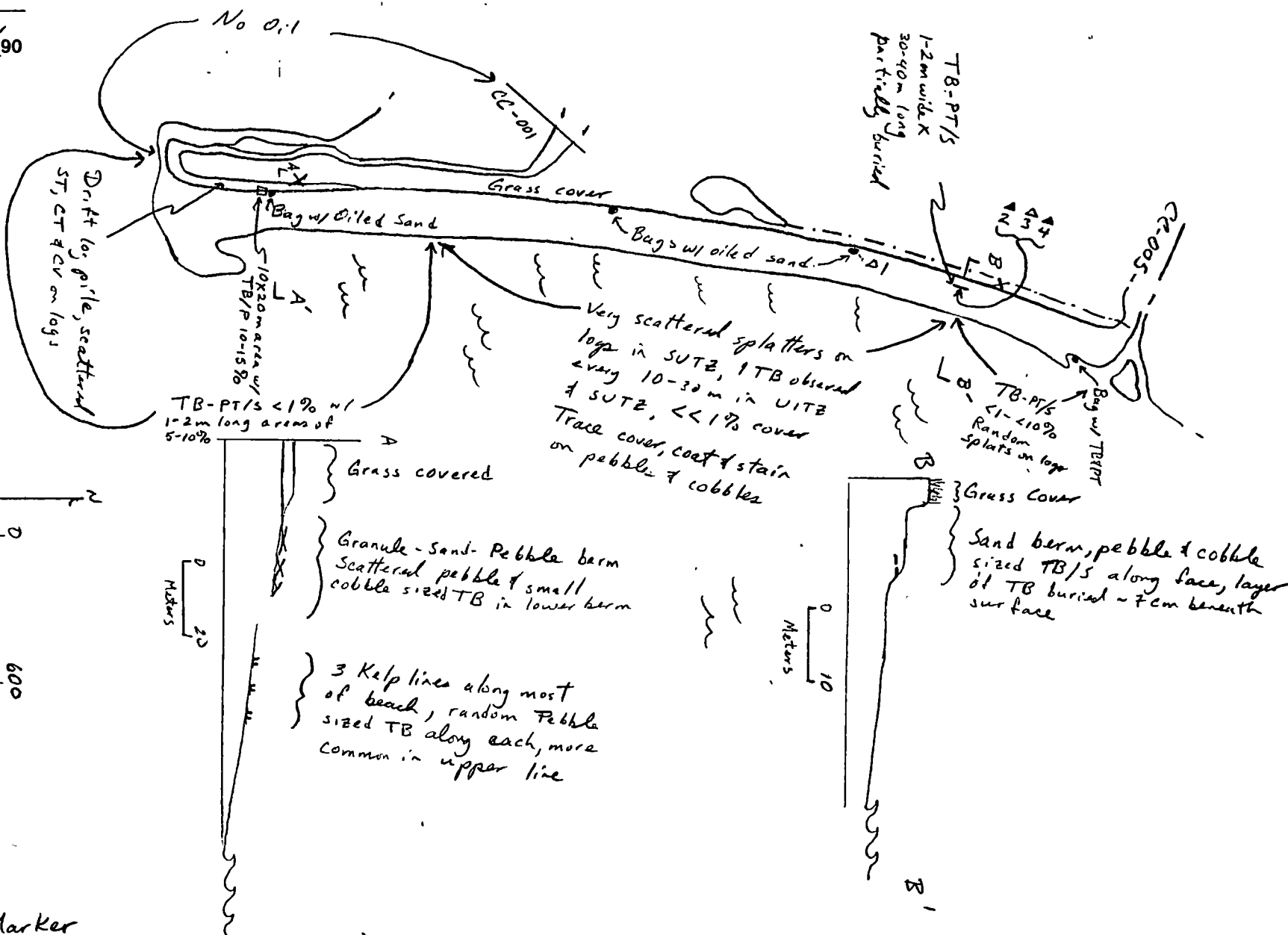
1 $\rightarrow$

Photo location, direction, and number

X Regulatory Marker

ACE 1950439 - 15

Oil Character Length (m): AP PO CV 3 CT 3 ST 4 MS PT 6.90 TB 2300 FL NO 1771



STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

STEVE COWPER, GOVERNOR

Rapifax 349-1723

333 RASPBERRY ROAD
ANCHORAGE, ALASKA 99518-1599
PHONE: (907) 344-0541

RAPIFAX TRANSMITTAL SHEET

TO: Ken/ Dick
Arch Habitat

DATE: 5/12/80

No. Pages: 18
(including this page)

FROM: J. Barnhart
Kodiak Habitat

MESSAGE: Chinook hagoon
AFS 262-15-10040
segment CC/00

ACE 1950440 +/S

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K09/7CC100 SUBDIVISION: A DATE May 4, 1990~~NOAA~~
~~USCG~~NAME STEPHEN LEHMANN SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Oiling was very light except for one section (identified by the DG) where oil appeared at surface. Given the sensitivity of this area and the disturbance required to remove this section of oil-treatment is not suggested.

ADECNAME Terry Ellsworth SIGNATURE Terry Ellsworth☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

Oiling in this segment is confined to the SW portion of the segment. The most significant occurrence is a 20m x 1m area of asphalt of patchy distribution. Patches occur sporadically along the SW portion of the segment in areas up to 1m x 2m. Manual removal of the Asphalt and mouse patches is recommended. Due to the extreme sensitivity of this area to human disturbance, only 2-3 persons should work this area. Work should not extend beyond the shore bordered by steep alder slope.

LAND MANAGERNAME Carl Schech SIGNATURE Carl Schech☐ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Oil remaining in this lagoon/estuary system can be expected to persist for a long time unless removed. However this critical habitat is sensitive to intrusion. The oil/mouse patches should be removed as soon as possible to avoid disturbing summer bear populations. A small crew of no more than five personnel should access the mouse patches on foot and remove by scraping the substrate with shovels. The mud flats should below the oiled area and the salt marshes to the north should not be disturbed.

REVISION NO. 03/21/90

ACE 1950441

OPERATIONS FIELD NOTES

STK0917

See Back for Instructions

SEGMENT ID CC100
SUBDIVISION LETTER A
ANNOTATED MAP INCLUDED Y/N

DATE 5/3/90
NAME G. Heyman
TEAM # 19

SURFACE OIL	Treatment Recommendation									
	Quantities in Meters			None	Bioremediation		Tilling		Spot Hot Water	
	Length	Width	Area		Y/N	% Treat	Y/N	% Treat	Y/N	% Treat
Wide Band				N	N		N		N	
Medium Band				N	N		N		N	
Narrow Band				N	N		N		N	
Very Light				N	N		N		N	
TOTAL MANDAYS										

SUBSURFACE OIL

Other (Describe)?	

TARMATS	Quantities in Meters			Treatment Rec			# of Bags	Mandays Required	
	Length	Width	Thick(cm)	None	Breakup	Remove		Breakup	Remove
Area #1				N					
Area #2				N					
Area #3				N					
Area #4				N					
Sporadic Mats				N					

MANUAL PICKUP	Type of Debris			In Meters			# of Bags	Pickup	Manday
	Mousse Tarballs	Oiled Veget	Cleanup Debris	Length	Width			Y/N	Estimate
"Pocket" #1				400	1	20		N	10
"Pocket" #2									
"Pocket" #3									
Random/Continuous									

OILED LOGS (Y/N) OILING H/M/L QUANTITY L/M/S BURN Y/N

Is there Other Debris on the Beach? (Y/N) How Many Bags? 5 Is it mingled with the Oiled Debris Y/N

GENERAL Snow covering 0 % of the Supratidal Zone?

Wave Exposure H/M/L Access Limitations: _____

Snare Boom/Pom Poms Recommended? _____

Would the production Craft have to be relocated to complete work on this subdivision? Y/N, # of Times _____

COMMENTS:

SHORELINE OILING SUMMARY

REVISION NO. 04/13/90

OG G. HEYMAN NOAA USCG S. LEHMANN SEGMENT ST/ K0917 CC 100
 BIO L. SHARMAN LAND REP C. SCHUCH NPS SUBDIVISION A (LOFL)
 EXXON NOT PRESENT ADEC T. ELLSWORTH TIME 16:00 to 17:30
 TEAM NO. 19 TIDE LEVEL +2 1/4 to +1 3/4 DATE 5/3/90
 EST. SUBDIVISION LENGTH: 2640 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: SW to NE (clockwise)
 SURFACE SEDIMENTS: R 0 % B 5 % C 5 % P 5 % G 5 % S 5 % M 75 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 24 m VL 876 m NO 1740 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	/C	/B	/P	/S	SBL BR	DBL RW	GY SL	DBR TL	LBR	SU	UI	M	LI	
ASPHALT PAVEMENT			X	X		X						X	X	
POOLED														
COVER														
COAT				X		X				X	X			
STAIN				X		X				X	X			
MOUSSE			X	X				X					X	
PATTIES				X		X						X	X	
TARBALLS														
FILM														
NO OIL														

PAVEMENT H F S 20 sq. m by 1 cmPATTIES / TARBALLS 4 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	X			
				TYPE <u>—</u>
				#BAGS <u>—</u>

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	SHEEN (Y/N)	! ↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SBL BR	DBL RW	GY SL	DBR TL	LBR	SU	UI	M	U							
1	10					X	0-0		X									X	Y	-	-		M/M		
							.																		
							.																		
							.																		
							.																		
							.																		

COMMENTS * Anaerobic below 5cm. based on odor. Anaerobic conditions vary throughout segment. Oiling is in layers at surface or <1 cm below surface.

REVIEWED — DATE —

ACE 1950443

5-3-90

CC 100 A comprises the NW $\frac{1}{2}$ of Chiniak Lagoon.

The SW side is bordered by a steep alder covered slope, and the NW & NE sides are bordered by a grass covered salt marsh with meandering drainages. The mud flats comprising most of the lagoon w/in CC 100 boundaries were well exposed at the time of this survey.

Oiling in the segment was limited to the SW side along the shore bordered by the steep alder slope. Most oil occurs as PT/MS/AP along a narrow band $\frac{1}{2}$ to 2 m wide at the upper end of the mud flat. The oiling is discontinuous and generally has a "1/5" distribution within discreet areas. Exceptions are a 1×20 m area of AP w/ $\sim 30\%$ coverage (see sketch maps) NW of a distinctive landslide along the shore, and areas of mousse further to the NW near where the salt marsh begins. The AP is very soft, with a DBL exterior and moussy DBR interior. The MS layer is partially covered by a veneer of mud/silt < 5 mm thick and partially exposed at the surface so it has a patty-like surface appearance. The layer is ~~no~~ generally < 1 cm thick, contains some sand, and has a shiny DBR color. The remainder of the oiling in the segment consists of ST-CT/S $< 1\%$ on boulders, cobbles and logs in the UITE & SUTZ.

OG G. Heyman

SEGMENT ST K 09 17 CC 100

SUBDIVISION A

DATE 5 13 90

SKETCH MAP

CHECKLIST

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

LEGEND

- 1 Δ AP-PT/S in up to 1X2 m areas & MS/P/S in 1/2 m x 2 m areas discontinuous on upper mud flats, silt/mud veneer < 5 mm thick commonly covers MS.
- 2 Δ Pit - Subsurface Oil
- CT/C Continuous Distribution
- CT/B Broken Distribution
- CT/P Patchy Distribution
- CT/S Splashed Distribution
- Oiled Vegetation
- 1 $\rightarrow$ Photo location, direction, and number

AP/P 1X20 m 30% Cover 1 cm

ST & CT/S on bldrs & cbls in UITE & SUTZ < 1% cover

PT/S

LANDSLIDE SCAR

STEEP SLOPE COVERED W/ ALDER

SALT MARSH

SALT MARSH

MUDFLAT Channel Boundary at time of survey

MUDFLAT



0 300 METERS

CAPE CHINIAK

CC-005

CC-002

DILING occurs in 1/2-2 m band at upper end of mud flat w/ local sporadic to patchy distribution or as ST-CT/S on bldr-cbl

Bldr/ Cbl/ Sand logs Granule/ SAND w/ Pebbles

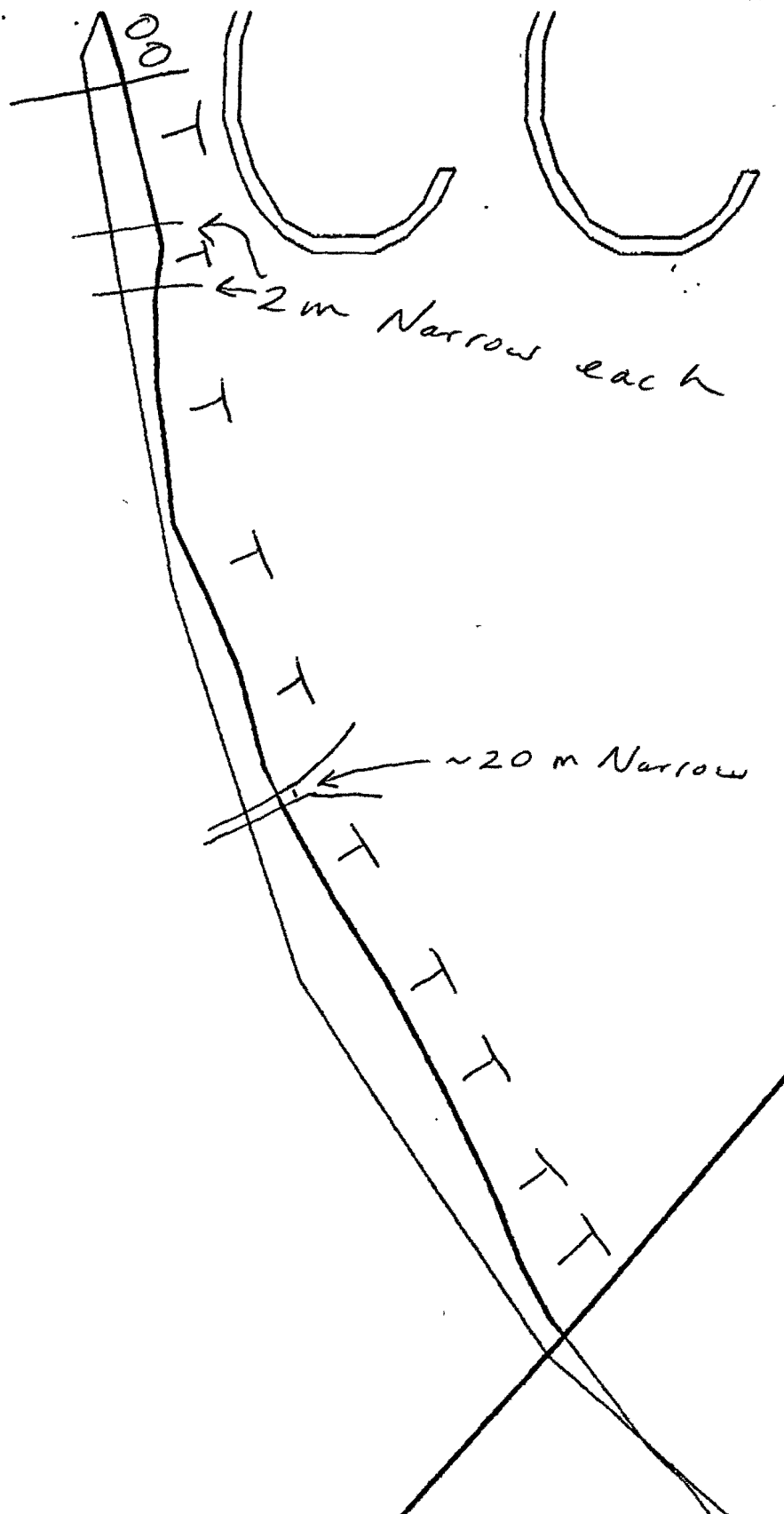
Mdft

REVISION: 03/24/90

ACE 1950445

Oil Character Length (m): AP 20 PO 20 CV 300 ST 576 MS 20 PT 30 TB FL NO 1740
CC 1% CC 1%

STEEP SLOPE



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CC-100

Approx. Segment Length: 3858m

0 100 200 300
METERS

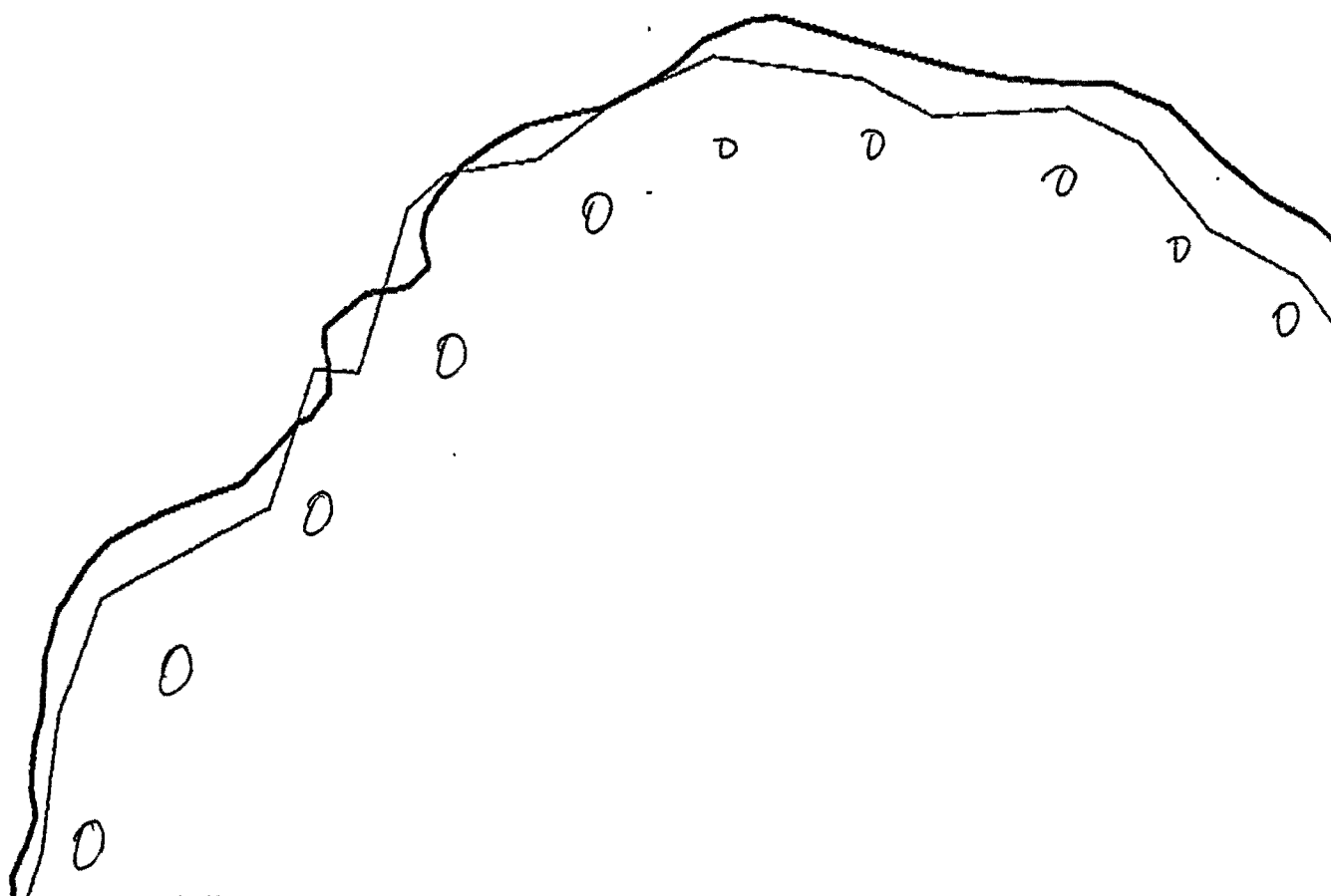
K0917 was XX501

Map Key: AKP-CC-1000

Name: G. HeymanDate: 5-3-90

Data Entered:

ACE 1950446



XXXX Wide

///// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CC-100

Approx. Segment Length: 3858m



METERS

K0717 was XX501

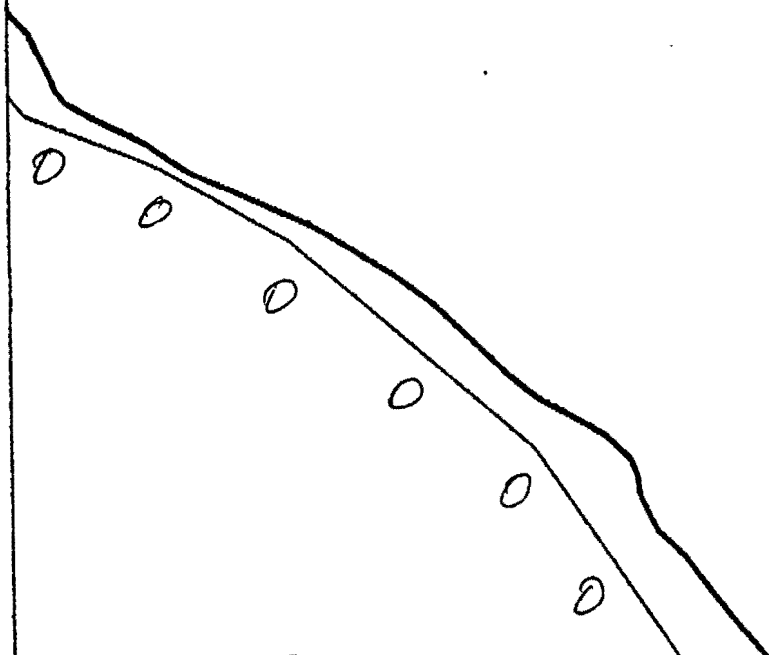
Map Key: AKP-CC-100c

Name: G. HeymanDate: 5-3-90

Data Entered:

ACE 1950447

CC



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CC-100

Approx. Segment Length: 3858m

0 100 200 300
METERS

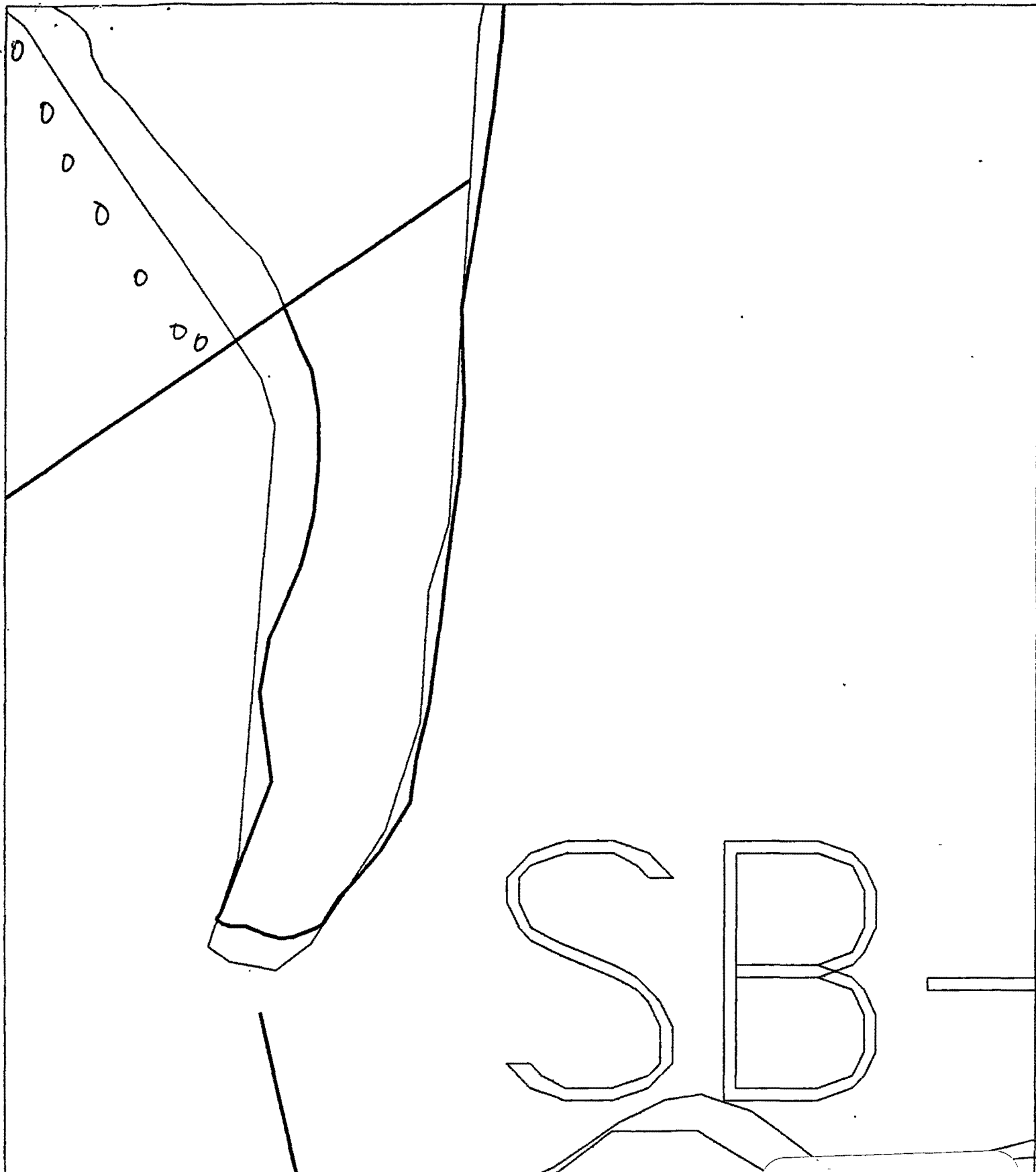
K0917 has XX501

Map Key: AKP-CC-100d

Name: G. HeymanDate: 5-3-90

Data Entered:

ACE 1950448



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CC-100

Approx. Segment Length: ~~177m~~

0 100 200 300
METERS

ACE 1950449

Map Key: AKP-CC-1a

Name: G. Heyman

Date: 5-3-90

Data Entered:

GENERAL DATA

SEG ID: CC-100 SUBDIV: A TEAM: 19 SURVEY DATE: 5/3/90
PAVEMENT: CHAR S AREA 20 THICKNESS 1 TARBALLS 4
OILED: LGS X VEG - TRH - DBR X WAVE EXP: LW X MD - HG -
FAX RCVD: _____ DT: _____ AGENCY DISAGREE: _____
EST SUBDIV LGTH: 2140 OIL CATEGORY: W 0 M 0 N 24 VL 876 NO 1740 U 0

SURFACE DATA

SURFACE SEDIMENT: BRK 0 BLD 5 COB 5 PEB 5 GRN 5 SAN 5 MUD 75 VEG 0

CHAR #: 1 OIL CHAR: AP OIL DIST: CONT - BRKN - PTCH X SPLH X
OIL CLR: DBL FILM CLR: - TIDAL ZONE: SU - UI - MI X LI X

CHAR #: 2 OIL CHAR: CT OIL DIST: CONT - BRKN - PTCH - SPLH X
OIL CLR: DBL FILM CLR: - TIDAL ZONE: SU X UI X MI - LI -

CHAR #: 3 OIL CHAR: ST OIL DIST: CONT - BRKN - PTCH - SPLH X
OIL CLR: DBL FILM CLR: - TIDAL ZONE: SU X UI X MI - LI -

CHAR #: 4 OIL CHAR: MS OIL DIST: CONT - BRKN - PTCH X SPLH X
OIL CLR: DBR FILM CLR: - TIDAL ZONE: SU - UI - MI - LI X

CHAR #: 5 OIL CHAR: PT OIL DIST: CONT - BRKN - PTCH - SPLH X
OIL CLR: DBL FILM CLR: - TIDAL ZONE: SU - UI - MI X LI X

CHAR #: _____ OIL CHAR: _____ OIL DIST: CONT _____ BRKN _____ PTCH _____ SPLH _____
OIL CLR: _____ FILM CLR: _____ TIDAL ZONE: SU _____ UI _____ MI _____ LI _____

CHAR #: _____ OIL CHAR: _____ OIL DIST: CONT _____ BRKN _____ PTCH _____ SPLH _____
OIL CLR: _____ FILM CLR: _____ TIDAL ZONE: SU _____ UI _____ MI _____ LI _____

CHAR #: _____ OIL CHAR: _____ OIL DIST: CONT _____ BRKN _____ PTCH _____ SPLH _____
OIL CLR: _____ FILM CLR: _____ TIDAL ZONE: SU _____ UI _____ MI _____ LI _____

SSAT DATA ENTRY FORM

SUBSURFACE DATA

PAGE 2 OF 2

SEGMENT ID: CC-100 SUBDIV: A

PIT # 1 PIT DEPTH 10 OIL CHARACTER NO OIL INTVAL: FROM 0 TO 0
QUANT: UC OIL CLR: - FLK CLR: - ZONE: SU - UI - MI - LI X
SUBSURF SEDIMENT: BRK - BLD - COB - PEB - GRN - SAN - MUD X VEG -

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
 QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
 SUBSURF SEDIMENT: BRK BLD COB PEB GRN . . SAN MUD VEG

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
 QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
 SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
 QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
 SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
 QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
 SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
 QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
 SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
SUBSURF SEDIMENT: BRK _____ BLD _____ COB _____ PEB _____ GRN _____ SAN _____ MUD _____ VEG _____

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
SUBSTR SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PROBLEMS: _____

SHORELINE ECOLOGICAL SUMMARY (Page 1 of 6)

REVISION: 03/22/90

Segment ST / CC-100 Subdivision A Date (mo / day / yr) 5/3/90Time (24 hr) 1600-1730 Biologist SHARMAN(A) Substrate type and % of segment: SUBDIV.
(1) Bedrock (2) Boulder 5 (3) Cobble 5 (4) Pebble 5 (5) Sand 10 (6) Silt 75 ^{+ granules mud}(B) Overall % cover of biota (% of segment): Dense Moderate Low X
SUBDIV.

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

Photographs: Roll No. Frames

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS (NUCELLA, LITTORINA, LIMAEETS)

Dense			Moderate			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

Please see general comments below.

Wildlife Observations/ General Comments: Brown bear, fox, + river otter tracks in supratidal/UTZ. One beach log chewed/clawed by bear. 1 pair yellowlegs, 2 ravens, 3 glaucous-winged gulls. See also CC-2 for additional birds in the lagoon proper. These 20 segments encompass an extensive tidal marsh. Vole runs crisscross the grassy portions. Several sets of moose tracks. 2 bear scats from last summer/fall - one with cranberries, + one (cont.)

Ecological Considerations:

Please see attached Eco. Maps. The primary ecological sensitivities are the catalogued anadromous stream at the head of the lagoon (codes 1A and 1B), as well as the lagoon itself which is a salmon fry nursery area (code 1C) and clearly a sensitive estuary (code 8AA). The area is also very important feeding and resting habitat for a variety of shorebirds and seabirds, as well as an important foraging area for terrestrial mammals (code 9LM). This area is, (cont.)

ACE 1950452

General Comments (cont.) :

with grassy vegetation. The intertidal zone of this segment is almost exclusively a mud/sand flat that is apparently quite macrobiotically depauperate, subsurface as well as superficially. There are rare boulders + cobbles in the MTZ, very few of which have barnacles on them. Locally there are some areas where the lugworm Arenicola is fairly abundant in the mud. Muddy substrates are anaerobic 2-10 cm down from the surface. I observed no barnacle recruitment on boulders/cobbles.

Ecological Considerations (cont.) :

as are all protected tidal lagoon estuaries of this type, extremely sensitive to human disturbance - both via direct disturbance by human intrusion and via physical disturbance of sediments by trampling. These areas are relatively rare and are important to wildlife far out of proportion to their abundance or areal extent. Such systems are extremely productive and are critical to several species of considerable economic importance during portions of their life cycles. Even relatively small-scale human intrusion into this lagoon should be considered with caution.

ECOLOGY MAP

(1 of 4)

CC-100

(Page 3 of 6)

This segment missing from NOAA
database (4/22/90).

Sensitivities observed:

8AA - sensitive estuary

9LM - land mammals

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

1B - stream mouth (spawning) 7/15 → 9/10 (peak 8/15)

1C - fry nursery area

XXXX Wide

///// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CC-100

Approx. Segment Length: 3858m



K0917 was XX501

Map Key: AKP-CC-100a

Name: _____

Date: _____

Data Entered: _____

ACE 1950454

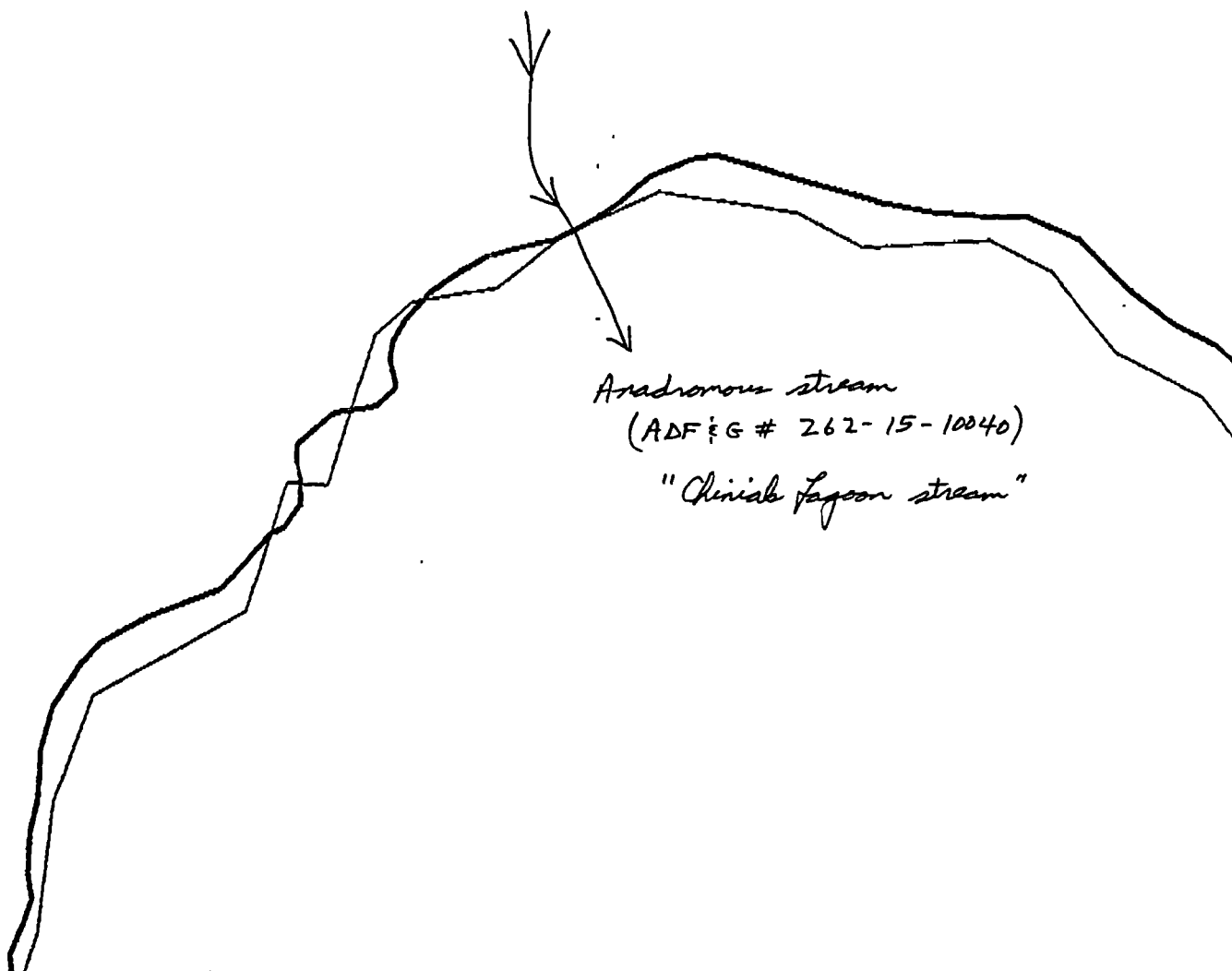
ECOLOGY MAP

(2 of 4)

CC-100

(Page 4 of 6)

See map page 1.



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CC-100

Approx. Segment Length: 3858m



K0717 was XX501

Map Key: AKP-CC-100c

Name: _____

Date: _____

Data Entered: _____

ACE 1950455

CC

ECOLOGY MAP
(3 of 4)CC-100
(Page 5 of 6)

See map page 1.

XXXX Wide

//// Medium

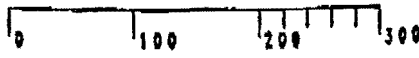
---- Narrow

TTTT Very Light

0000 No Oil

CC-100

Approx. Segment Length: 3858m


METERS

KP917 Acc XX501

Map Key: AKP-CC-100d

Name: _____

Date: _____

Data Entered: _____

ACE 1950456.

ECOLOGY MAP

(4 of 4)

CC-100

(Page 6 of 6)

See map page 1.

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CC-100

Approx. Segment Length: 3858m


METERS

K0917 was XK591

Map Key: AKP-CC-100b

Name: _____

Date: _____

Data Entered: _____

ACE 1950457-18

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K-09-17-CC-001 SUBDIVISION A (1 of 1)

W.O.
~~one on file~~

WORK WINDOW	
Manual Pickup	OPEN
Manual Raking	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 (262-15-10030 and 262-15-10040) are more than 100m from work site. No constraint to manual pickup and manual raking.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC
1) Manual pickup

FOSC

P. Zanghi
P. Phillips

Date

6-18-90

Prepared by

Date

6/15/90

ACE 1950458 HS

SHORELINE EVALUATION

SEGMENT ST/ K09-17-CC-001 SUBDIVISION A (1 OF 1) DATE 5/3/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
Stream ID # 262-15-10030
8AA Sensitive estuary
9LM Other: Land mammals
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 Jean Oare DATE: 5/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 2980 m: No Oil 1783 m
Subsurface Oil Observed: Yes X No Maximum Depth 7cm

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)

TRASH

COMMENTS: Recommended treatment includes 1) manual removal of bags of oiled sand and tarballs 2) manual pick up of tarballs and patties on surface followed by *3) manual raking to aid in locating and removal of buried tarballs and patties as indicated on the attached sketch map. Consult ADF&G for appropriate work dates, regarding raking near anadromous stream.

TAG COMMENTS: MONITORS TO ASSESS THE LOGS

TAG APPROVAL DATE: 5/24/90

ADEC ART WEINER
EXXON ANDY GR
NOAA BILL ALBERT
USCG M. J. HALL

FOSC: [Signature]

DATE: 6/4/90

ACE 1950459-15/15

KODIAK ECOLOGICAL CONSTRAINTS

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

ACE 1950460

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ K09-17-0001 SUBDIVISION: A DATE 5/3/90

NOAA
USCG

NAME STEPHEN LEHMANN SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED.

COMMENTS

Several areas of the UITZ had concentrations of TB + PT. - These should be removed from the area. Several bags of oiled sand were observed - these should be removed.

ADEC

NAME Terry Ellsworth SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

I concur with the comments of NPS and NOAA. I recommend manual removal of the mousse patches and tarballs (see sketch map) as well as the 4 bags of oiled sediment.

LAND MANAGER

NAME Carl Schuch SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Recoverable oil consists primarily of mousse patches and tarballs. Several concentrated patches of mousse patches exist at the upper edge of the upper intertidal as indicated on the sketch map. Four bags of oiled sand and mousse patches were found. The condition of the oil lends itself to rapid and easy removal. This segment could be walked end to end and patches/tarballs removed with shovels. The observed mousse patches and tarballs are apparently migrating up the beach face and being buried in

ACE 1950461

REVISION NO. 03/21/90

SHORELINE OILING SUMMARY

REF: 1950462

OG G. HEYMAN NOAA S. LEHMAN SEGMENT ST/ K09-17-C001
 BIO L. SHARMAN LAND REP G. SCHUCH SUBDIVISION A (LOF1)
 EXXON Not Present ADEC T. EUSWORTH TIME 17:30 1990
 TEAM NO. 19 TIDE LEVEL +2 to +3.5 DATE 5 / 03 / 90
 EST. SUBDIVISION LENGTH: 4771 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: 3 to N
 SURFACE SEDIMENTS: R 0 % B 0 % C 5 % P 10 % G 15 % S 70 % M 0 % V 0 %
 SLOPE: Long 100 % Hang — % Vert — % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 20 m VL 2980 m NO 1771 m
 JRE.

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	10	15	10	15	10	15	10	15	SU	U	M	U
ASPHALT PAVEMENT												
POOLED												
COVER				X	X				X	X		
COAT				X	X				X	X		
STAIN				X	X				X	X		
MOUSSE												
PATTIES				X	X				X	X		
TARBALLS			X	X	X				X	X		
FILM												
NO OIL											X	X

PAVEMENT ~~W~~ F S 0 sq. m by 0 cmPATTIES / TARBALLS 20 BAGSNEAR SHORE SHEEN? NO BR RW SL TL

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

Photographs:

Roll No. 25-19Frames —

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	10	15	10	15	SU	U	M	U				
1	30					X	0.0	X						X				N	—	—	GP/GS
2	25		X				9.11	X		X				X				N	—	—	G/GPS
3	30					X	0.0	X						X				N	—	—	G/GPS
4	25		X				5.7	X		X				X				N	—	—	G/GPS
							.														
							.														

COMMENTS

ACE 1950462

REVIEWED BAT DATE 10 May 90

This segment consists of a predominantly sand beach with a sand-granule-pebble-cobble storm berm and grassy uplands extending from Chinick Lagoon to the first creek encountered approximately 4771m to the north.

Dredging along the segment consists of TB & PT in the lower SUTZ & upper UITZ along the Kelp lines. The TB & PT typically have an appearance similar to flattened pebbles and cobbles with rounded edges. These "clasts" are DBL on the outside & DBL-DBR inside and are easily broken apart. There is a lot of sand incorporated within the TB & PT. ST, CT & CV were also observed on pebbles, cobbles and logs randomly along the segment, with the CT & CV appearing as a sand entrained layer on the clasts.

Along most of the segment the oiling concentration was $< 1\%$. At the southern and northern ends, concentrations were higher with 1-2m long areas ranging to 10% . One area at the southern end was observed with 10-15% coverage ($\sim 10 \times 20$ m maximum dimension) and an area to the north was observed where the TB & PT's had been covered by 5 to 9 cm of sand.

Note that 4 garbage bags of oiled sand were also observed along this segment and are located on the sketch map.

REVISION 13/24/90

SHORELINE ECOLOGICAL SUMMARY (Page 1 of 6)

REVISION 03-22

Segment ST / CC-1 Subdivision A Date (mo / day / yr) 5/3/90Time (24 hr) 1730-1945 Biologist SHARMAN(A) Substrate type and % of segments: SUBDIV.
(1) Bedrock _____ (2) Boulder _____ (3) Cobble 5 (4) Pebble 10 (5) Sand 85 (6) Silt _____ ^{+gravel}(B) Overall % cover of biota (% of segment): Dense _____ Moderate _____ Low X
SUBDIV.

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

Photographs: Roll No. _____

Frames _____

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS (ANCELLA, LITTORIALIA, LIMPAETS)

Dense			Moderate			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

ACE 1950465

Wildlife Observations/ General Comments: ~ 25 shorebirds, 10 sculpin, 15 glaucous-winged gulls, 1 golden plover, 1 yellowlegs, 30 pintails, 1 subadult eagle at N. end of segment (stream) sitting in willows. Brown bear, fox, and river otter tracks very common in supratidal and UTE sand - otters are transiting back & forth to backshore ponds. 2-3 fairly thin & sparse drift lines in UTE include occasional *Nereocystis* wads, along with some (cont.)

Ecological Considerations:

Please refer to attached Eco. Maps. Generally, the identified sensitivities relate to the Chinook lagoon estuary at the S. end of the segment with its anadromous stream, and the catalogued anadromous stream at the N. end of the segment. The former (lagoon) gives the codes 8AA (sensitive estuary) and 9LM (land mammals), and the latter (stream) gives the codes 1A (fish outmigration) and 1B (spawning). As related in this section of the summaries for CC-100 & CC-2, the lagoon estuary is a special concern due to ecological importance/productivity, as well as sensitivity to human intrusion/physical disturbance. In addition, the backshore area of this segment appears to be of considerable importance to terrestrial mammals - particularly river otters.

General Comments (cont.):

Fucus, Alaria, Halosaccion. This is a wide, low-angle sandy exposed beach - much like PB-8 + CC-4, for example. In general, Comments for these segments (intertidally) are probably interchangeable. Invertebrate shells/taste/etc. include: Saxidomus giganteus, Mytilus edulis, Tresus capax, Chiocardium nuttallii, Siliqua patula, Protothaca staminea, Macoma spp., Mya spp., Spisula polyzona, Fusitriton oregonensis, Cancer magister, Telmessanus, Serpula tubes, large dried clam siphons (at least some - maybe all - are Mya (truncata?)), Dendrocaulus / Echinarachne (probably the latter), old dried Suberites ficus (hermit sponge), Podocarpus, dried clusters of egg cases of large subtidal snails (Fusitriton / Neptunaea / Buccinum). Generally normal + healthy Intertidal Community, given the exposure, beach dynamics, and substrate types.

ECOLOGY MAP

(1 of 4)

CC-1

(Page 3 of 6)

8AA - sensitive estuary

9LM - land mammals

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

1B - stream mouth (spawning) 7/15 → 9/10 (peak 8/15)

SB

ACE 1950467

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CC-1

Approx. Segment Length: 4771m

0 100 200 300

METERS

Map Key: AKP-CC-1a

Name: _____

Date: _____

Data Entered: _____

CC

+

1

ECOLOGY MAP
(2 of 4)
See map page 1.

CC-1
(Page 4 of 6)

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CC-1

Approx. Segment Length: 4771m

0 100 200 300
METERS

ACE 1950468

Map Key: AKP-CC-1c

Name: _____

Date: _____

Data Entered: _____

ECOLOGY MAP
(3 of 4)

See map page 1.

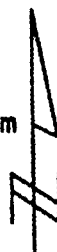
CC-1
(Page 5 of 6)

Side
medium
arrow
ery Light
Oil

CC-1

Approx. Segment Length: 4771m

0 100 200 300
METERS



Mo
Nam
Date
Data

ACE 1950469

→ - - - - - → Anadromous
stream (ADF&G # 262-15-10030)
"Village Creek"

ECOLOGY MAP

(4 of 4)

CC-2

(Page 6 of 6)

See map page 1.

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

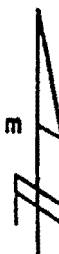
0000 No Oil

CC-1

Approx. Segment Length: 4771m

0 100 200 300

METERS



ACE 1950470

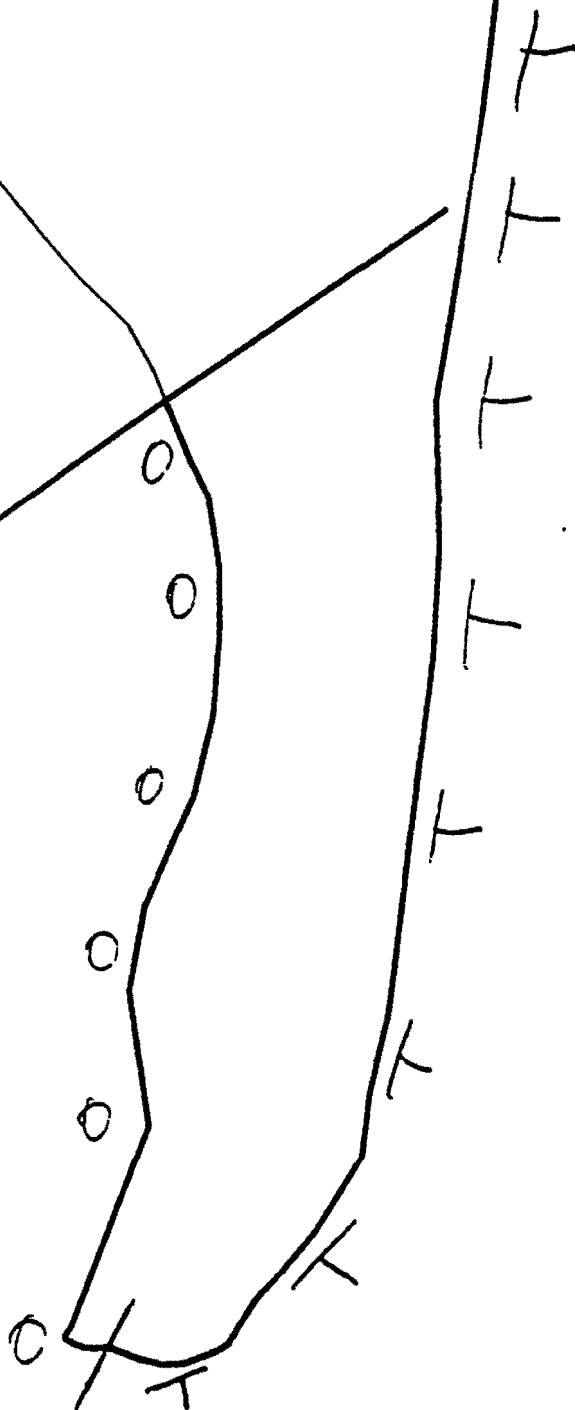
Map Key: AKP-CC-11

Name: _____

Date: _____

Data Entered: _____

↑
GOA 25 C



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

OOOO No Oil

CC-1

ADEC Segment Length: 476⁷¹m



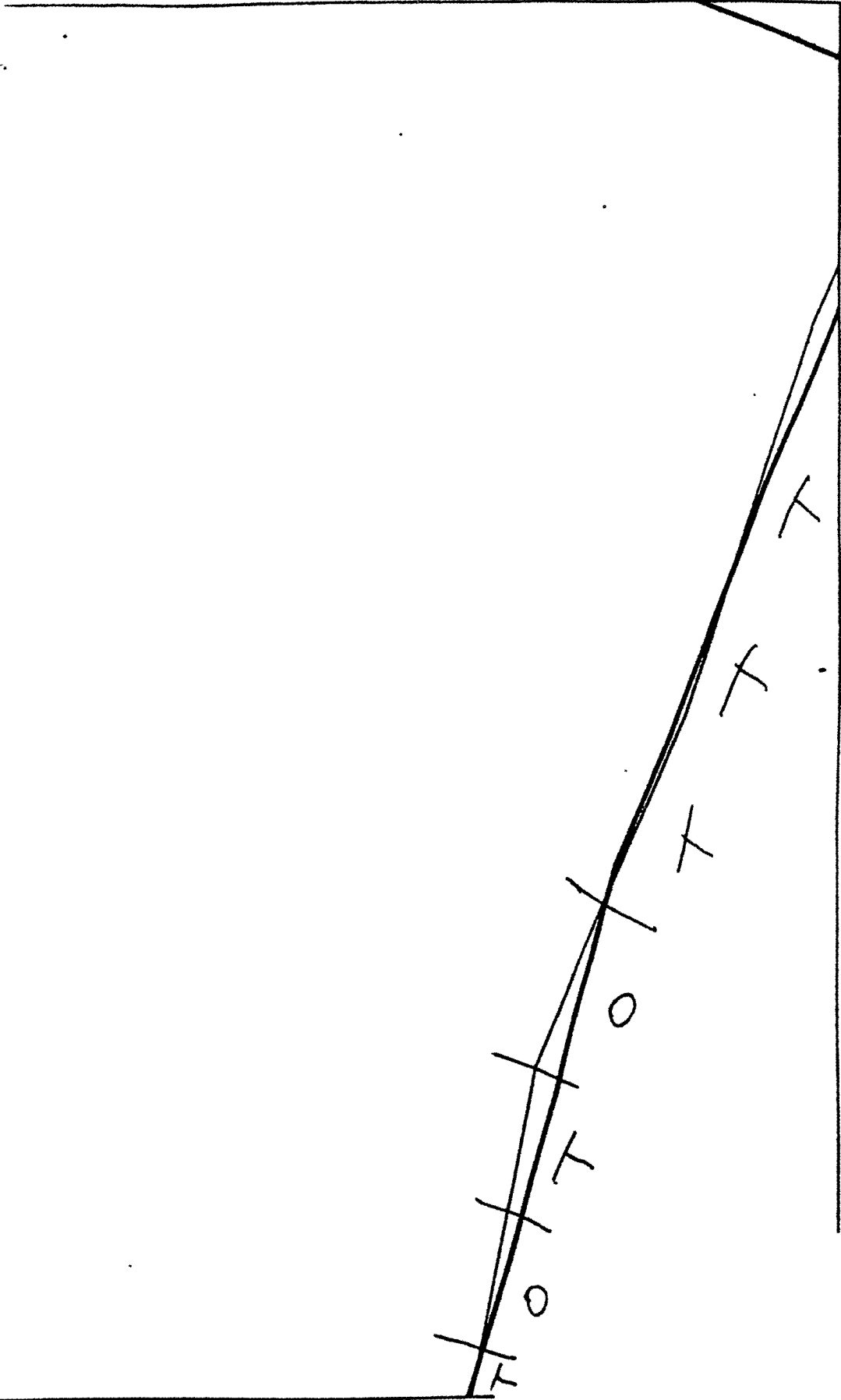
ACE 1950471

Map Key: GOA-25a

Name: HEYMAN

Date: 3 MAY 90

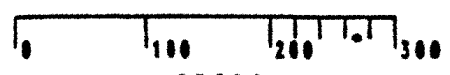
Data Entered:



Side
Medium
Arrow
Very Light

CC-1

Approx. Segment Length: 4771m



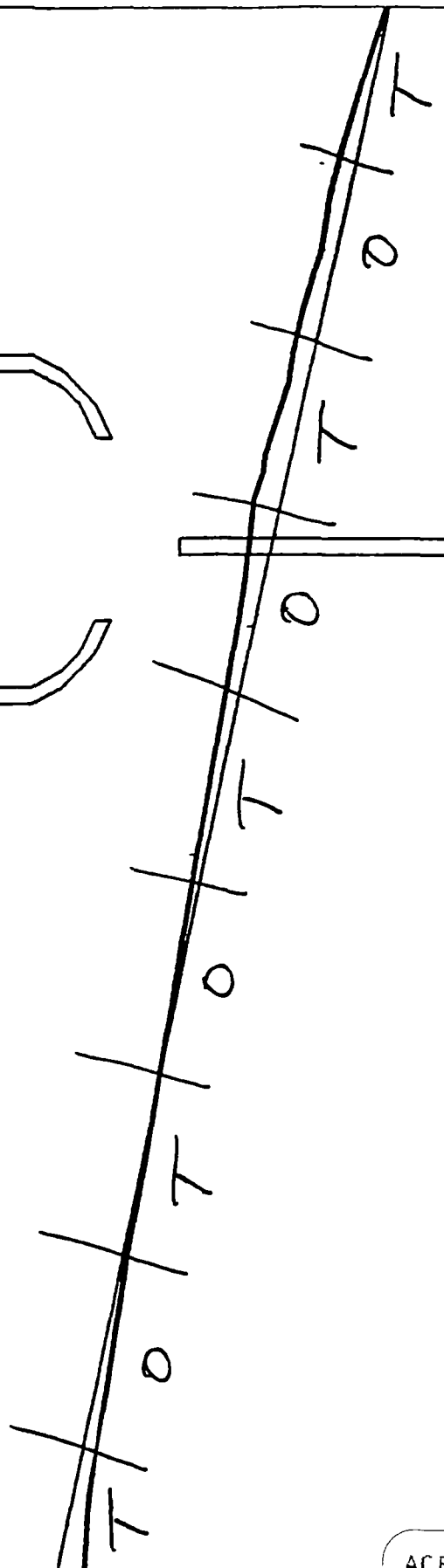
No
Name
Date

HEYMAN
3 MAY 90

ACE 1950472

CC

1



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

OOOO No Oil

CC-1

Approx. Segment Length: 4771m



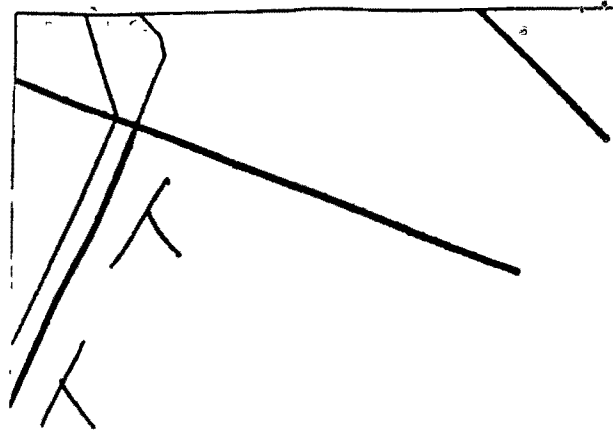
ACE 1950473

Map Key: AKP-CC-1c

Name: HEYMANN

Date: 3 MAY 90

Data Entered:



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

CC-1

Approx. Segment Length: 4771m



ACE-1950474-15

Map Key: AKP-CC-11

Name: HEYMAN

Date: 3 MAY 90

Not to be used.

SHORELINE EVALUATION

SEGMENT ST/ K09-17-CC-004 SUBDIVISION A (1 OF 1) DATE 5/4/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15) (Adjacent segment - #262-15-10030)

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

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

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 1502m: No Oil 0 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 5/24/90
ADEC Alex Wornon Art Wornon
EXXON Amy Tate Paul
NOAA Paul Wescroft Burke
USCG Mr. J. Hall

FOSC: [Signature] DATE: 5/4/90

ACE 1950475 + 1/3

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / 109-17-CC004 SUBDIVISION: A DATE 5/4/90

NOAA

USCG

NAME STEPHEN LEHMANN SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

*Very little oil observed. Scattered TBs (CC 1%).
No treatment required.*

ADEC

NAME Terry Ellsworth SIGNATURE Terry Ellsworth

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED *Beach check +*

COMMENTS

The southern half of this segment contains patties and tarballs in the supratidal and upper intertidal areas in amounts of generally <1% with occasional 1m x 2m areas up to 10%. When a crew is working in CC 001 the adjacent segment to the south, several team members should check this segment as concentrations of patties and tarballs may increase. Patties and tarballs should be picked up at this time.

LAND MANAGER

NAME Carl Schoch SIGNATURE Carl Schoch

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Recoverable oil was observed in the southern half of the segment and consists primarily of mouse patters and tarballs. These are apparently migrating up the beach face towards the supratidal zone where they will persist for a long time.

ACE 1950476

SHORELINE OILING SUMMARY

REVISION NO. 04/13/98

OG G. HEYMAN ^{NOAA} ~~USCG~~ S. LEHMAN SEGMENT ST/ K 09-17-CC-004
 BIO L. SHARMAN LAND REP C. SCHACH SUBDIVISION A (LOFL)
 EXXON NOT PRESENT ADEC T. ELLSWORTH TIME 14:45 to 15:20
 TEAM NO. 19 TIDE LEVEL +6 to +5.5 DATE 5/04/90
 EST. SUBDIVISION LENGTH: 1500 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☐ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 0 % B 0 % C 5 % P 10 % G 15 % S 70 % M 0 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 1500 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES				
	/C	/B	/P	/S	SP SP	BL BL	GL GL	BLR BLR	TL TL	LR LR	SU	U	M	L	
ASPHALT PAVEMENT															
POOLED															
COVER				X		X					X	X			
COAT				X		X					X	X			
STAIN				X		X					X	X			
MOUSSE															
PATTIES				X		X					X	X			
TARBALLS				X		X					X	X			
FILM															
NO OIL														X	X

PAVEMENT H F S 0 sq. m by 0 cmPATTIES / TARBALLS 10 BAGSNEAR SHORE SHEEN? (NO) BR RW SL TL

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

Photographs:

Roll No. ST-19(III) - 1Frames 1

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SHEEN (Y/N)	▼	SURFACE-SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	UC	SP BP	GL BP	GL TL	GL TL	GL TL	GL TL	SU	U	M	U						
1	15					X	0.0		X							X					N	—	—	S/S	
2	15					X	0.0		X								X				N	—	—	S/S	
							.																		
							.																		
							.																		
							.																		

ACE 1950477

ACE 1950477

COMMENTS This segment consists of a predominantly sand beach with a sand-granule-pobble-cobble storm berm containing a moderate amount of drift logs and trash. Oiling is observed along the SW part of the segment as pebble-cobble sized flattened, rounded TB & PT/S generally < 1% cover. ST, CT & CV were also observed w/ sand entrained on pebbles and cobbles. To the northeast, only ST, CT & CV were observed on drift logs, TB and PT were not observed. Three splatters were observed every 5-15 m.

REVIEWED BA7 DATE 9 May 90

OG ~~K09-17-CC004~~ G. Heyman

SKETCH MAP

SEGMENT ST/ ~~K09-17-CC004~~

SUBDIVISION A

DATE 5/04/90

CHECKLIST

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

LEGEND

1 Δ
P11 - No Subsurface Oil

2 Δ
P11 - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

CT/P
Patchy Distribution

CT/S
Splashed Distribution

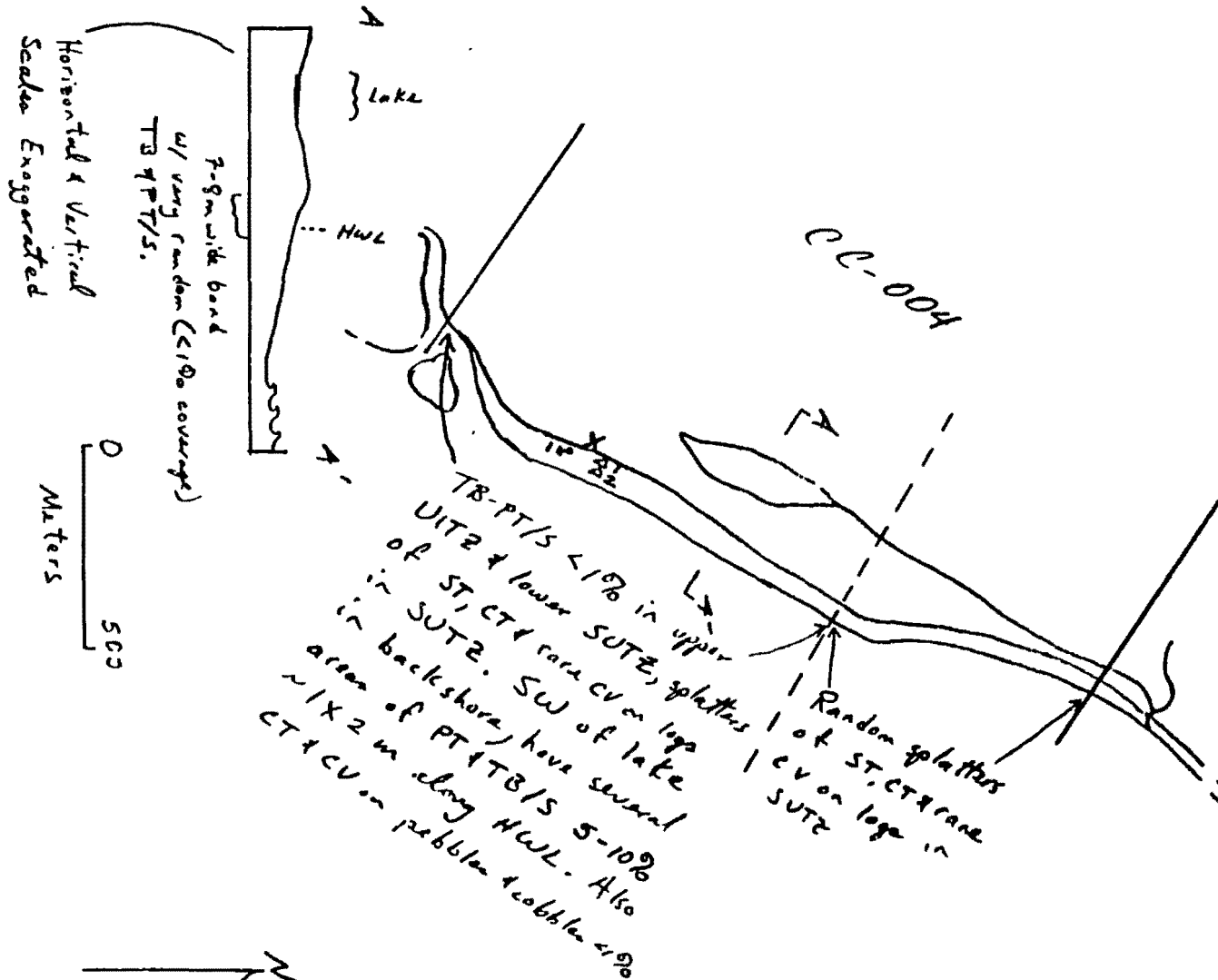
eee
Oiled Vegetation

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

X Regulatory Marker

ACE 1950478

Oil Character Length (m): AP _____ PO _____ CV 150 CT 150 ST 400 MS _____ PT 300 TB 500 FL _____ NO _____



SHORELINE ECOLOGICAL SUMMARY (Page 1 of 4)

REVISION: 02/22/90

Segment ST / CC-4 Subdivision A Date (mo / day / yr) 5/4/90Time (24 hr) 1445-1520 Biologist SHARMAN(A) Substrate type and % of segments: SUBDIV.
(1) Bedrock (2) Boulder (3) Cobble 5 (4) Pebble 10 (5) Sand 85 (6) Silt ^{+ granules}(B) Overall % cover of biota (% of segment): Dense Moderate Low X
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 1

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

Please see general comments below.

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 (NUCEA, LITTORINA, LYMAETS)

Dense			Moderate			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

ACE 1950479

Wildlife Observations/ General Comments: ~ 10 glaucous-winged gulls, 1 shoveler, 1 subadult eagle at stream (end segment). Pair of Hairywood eagles on offshore large flat-topped rock (possible nest - probably within next segment to NW). Brown bear, fox, & river otter tracks common in supratidal sand. This segment biologically is essentially a continuation of the adjacent segment to the S. (CC-1). A wide, low-angle sandy beach, high exposure. (cont.)

Ecological Considerations:

Please refer to attached Eco. maps. The identified sensitivities (1A + B) probably refer to the catalogued salmon stream adjacent to the S. segment boundary. There is no anadromous stream actually within the segment. An active, dynamic beach & intertidal community, apparently healthy and with only very light silt that appears to be biologically insignificant. As with CC-1 adjacent to the S., the wetland backshore area appears to be of considerable importance to terrestrial mammals, particularly river otters.

General Comments (cont.):

2-3 thin, sparse drift lines in UT₃ include Fucus, Alaria, Halosaccaria, with occasional Nereocystis wads. Invertebrate shells include Saxidomus giganteus, Mytilus edulis, Tresus capax, Chinocardium nuttallii, Siliqua patula, Protolana staminea, Macoma spp., Mya spp., Spisula polygona, Fusitriton oregonensis, Cancer magister (small), Talassius, Serpula tube masses, large dried clam siphons (some - maybe all - are Mya (truncata ?)). Significantly, there were several heavy shells of Neptunea lysata on the N. 1/2 of the segment, N. of the nearshore rock reef. Given the beach type & degree of exposure, this appears to be a normal & healthy beach community.

CC

—

∠

(Page 3 of 4)

ECOLOGY MAP

(1 of 2)

CC-4

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

1B (stream mouth - spawning 7/15 - 9/10, peak 8/15)

Anadromous stream S. of
segment boundary.
ADF#G # 262-15-10030
"Village Creek"

ACE-1950481

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CC-4

Approx. Segment Length: 1501m

0 100 200 300

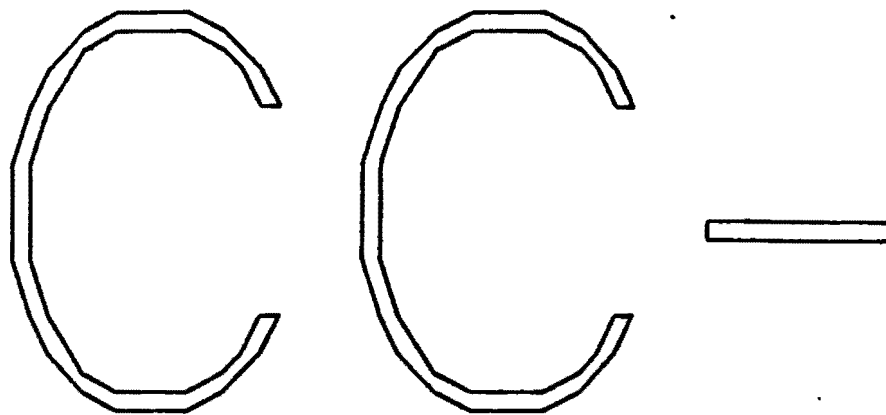
METERS

Map Key: AKP-CC-4a

Name: _____

Date: _____

Data Entered: _____



ECOLOGY MAP

(2 of 2)

CC-4

(Page 4 of 4)

See Map 1.

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CC-4

Approx. Segment Length: 1501m

0 100 200 300

METERS

ACE 1950482

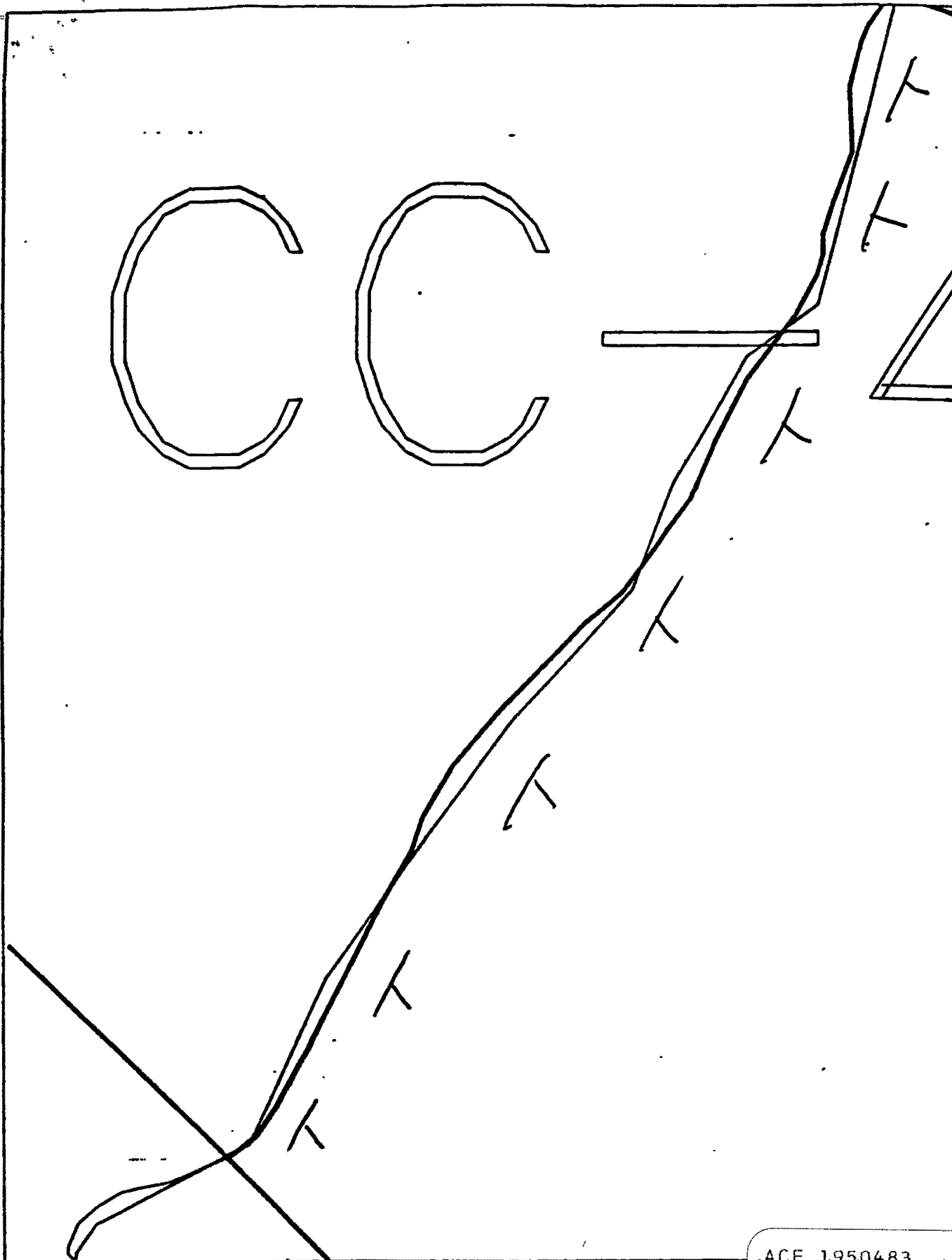
Map Key: AKP-CC-4b

Name: _____

Date: _____

Data Entered: _____

CC



ACE. 1950483

XXXX Wide

//// Medium

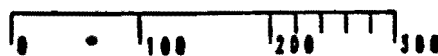
---- Narrow

TTTT Very Light

0000 No Oil

CG-4

Approx. Segment Length: 1501m



METERS

Map Key: AKP-CC-4a

Name: G. Heyman

Date: 5-4-90

Data Entered:

CC

—

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

CC-4

Approx. Segment Length: 1501m

ACE 1950484-15

Map Key: AKP-CC-4b

Name: G. Heyman

Date: 5/4/90

SHORELINE EVALUATION

SEGMENT ST/ K09-17-CC-002 SUBDIVISION A (1 OF 1) DATE 5/3/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

8AA Sensitive estuary
9LM Other: Land mammals
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:

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

SHPO SIGNATURE: Rachel Joan Oare DATE: 5/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 69 m: V.Light 1348 m: No Oil 207 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>X</u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommended manual removal of tarmat, tarballs and patties as indicated on the attached sketch map. No specific ecological time constraints identified. MANUAL PICKUP OF TRASH + DEBRIS

TAG COMMENTS: BIOREMEDIATE (CUSTOMER) AS REQUIRED FOLLOWING TARMAT REMOVAL

TAG APPROVAL DATE: 5/24/90
ADEC ART WEINER Art Weiner
EXXON AMY TEST Amy Test
NOAA Buckley Buckley
USCG M. J. HALL M. J. Hall

observe NPS record regarding bear sensitivity & access.
FOSC: A. J. Jankovic DATE: 6/8/90

ACE 1950485 + / 5

KODIAK ECOLOGICAL CONSTRAINTS

- 1A
1B Salmon stream mouth - fry outmigration (4/15 to 7/31)
Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.
AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 1C Salmon fry nursery area (4/31 to 7/31)
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Kotol Bay Hatchery release
Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
- 1J Purse seine area
Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
East side Kodiak, East side Afognak (7/4 to 10/1)
- 1K Purse seine hook-off
- 1L Set net sites
Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- 3N, 3P
3O, 3Q Harbor seal and sea lion pupping (5/10 to 7/1)
Harbor seal and sea lion molting (8/15 to 9/15)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31).
Contact ADF&G and USFWS prior to treatment for confirmation.
AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
ADF&G Tom Roth 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (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)
7H-H Finfish harvesting
7I Deer harvesting (8/1 to 1/7)
7J Invertebrate harvesting
7KK Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2350

ACE 1950486

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1K09-17-CC002 SUBDIVISION: ADATE 5/03/90~~NOAA~~
~~USCG~~NAME STEPHEN LEHMANN SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED.

COMMENTS

Further human intervention into this lagoon area could do more harm than good given the slight nature of the silt and the sensitivity of the area. Small bank of tar balls and occasional small mouse patches were located, but not heavy enough to warrant disturbance by crews.

ADEC

NAME Terry EllsworthSIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

This segment contains a band of tar balls and patches in concentrations of $<1\%$ with two areas of up to 15% in the upper inter tide zone from the SE segment boundary to $\approx 400m$ west of the small creek. In the upper mud flat an area $.5m \times 20m$ of patty to asphalt with up to 30% coverage is located at the SW end of the segment and two patches up to $2m \times 3m$ are located in the SE part of the segment. Manual removal is recommended. Due to the high sensitivity of this area a small crew should be used and no more than 2-3 persons should be treating the mud flat areas or working beyond the mouth of the small creek.

LAND MANAGER

NAME Carl SchechSIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

The oil in the south and southwest side of this segment is in a very protected lagoon/estuary system and will persist on the surface for a long time. A small crew should use shovels to remove the mouse patches and tarballs on either both sides of the creek (within 100 meters) and the mouse patch at the north west end of the segment.

ACE 1950487

SHORELINE OILING SUMMARY

REVISION NO 04-13-90

OG GI. HEYMAN ^{NOAA} USCG S. LEHMANN SEGMENT ST/ K0917 CC 002
 BIO L. SHARMAN LAND REP C. SCHOCH NPS SUBDIVISION A (1 OF 1)
 EXXON ON LEAVE ADEC T. ELLSWORTH TIME 14:45 to 16:00
 TEAM NO. 19 TIDE LEVEL +4 to +2.44 DATE 5/03/90
 EST. SUBDIVISION LENGTH: 1619 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 0 % B 5 % C 10 % P 20 % G 20 % S 20 % M 25 % V 0 %
 SLOPE: Lang 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 20 m VL 1384 m NO 215 m

SURFACE OIL

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

PAVEMENT H F S10 sq. m by 2 cmPATTIES / TARBALLS 15 BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

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

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 BR	SW TR	OL SL	SW TL	SW LR	SU	U	M	U					
1	30					X	0.0		X							X				N	-	-	P/P
2	15					X	0.0		X							X				N	-	-	P/S
3	25					X	0.0		X							X				N	-	-	P.S/S
							.																
							.																
							.																

COMMENTS

ACE 1950488

REVIEWED BAT DATE 8 May 90

This segment lies along the southern end of Chiniak Lagoon. The west boundary was difficult to determine from the maps provided, but was chosen at a large tree which had fallen across the narrow beach. The segment extends eastward to the southern entrance to the lagoon. Most of the segment consisted of a wide sand-granule-pebble beach. This narrows in the western 400-500 meters, to a narrow beach with mudflats extending to near a steep alder covered scarp.

Oiling in the segment was observed along the UITZ Kelp line along the wider sand-granule-pebble beach as tarballs and patties in a band up to 3 m wide. This band was continuous, but coverage was commonly $\ll 1\%$. Specific areas noted on the sketch maps had up to 15% coverage. The TB & PT had the appearance of pebbles and cobbles with a dull black exterior with sand incorporated in the surface. The inside was shiny black to dark brown and sticky. The "pebbles and cobbles" were typically flattened with rounded edges. Stain, coat, and occasional cover with entrained sand was sporadically observed on logs in the SUTZ.

ACE 1950489

Oiling was also observed at the top of the mudflats. Where the beach was wider, 2 small areas were observed with PT/P (2x3m, 20% cover) and AP/P (1x2m, 30% cover). Also, a narrow band of PT-AP /S with /P (1/2 x ~200m) with $\ll 1$ to 15% cover. The cover ranged to 30%, but averaged $\ll 10\%$. The PT & AP had similar appearances, with DBR-DBL exterior and

OG Comments K 09 17 CC002 (10 fi) 5/13/80 OGH pg 2
a shiny mouse-like interior with sand and mud
entrained. The PT & AP was very soft and
pliable. This narrow band extended from
a point about 200 to 300 m west of where
the beach narrows to the segment boundary
at the fallen tree.

OG G. Heyman

SEGMENT ST/ K0917 CC002

SUBDIVISION A

DATE 5/3/90

CHECKLIST

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

LEGEND

1 Δ
Pit - No Subsurface Oil

2 Δ
Pit - Subsurface Oil

CT/C
Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

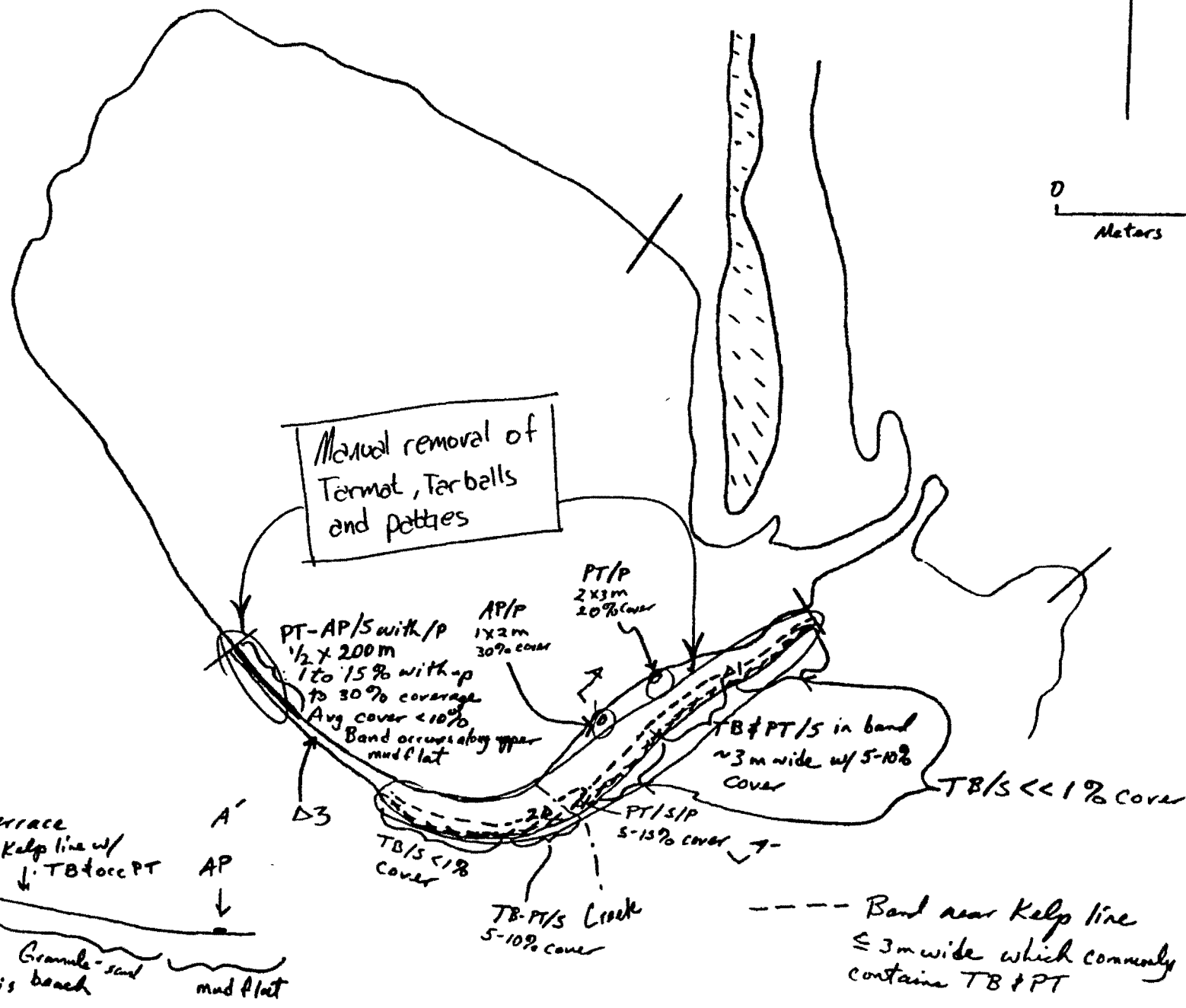
Splashed Distribution

Oiled Vegetation

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

Oil Character Length (m): AP 10 PO — CV — CT — ST — MS — PT — TB — FL — NO 215

SKETCH MAP



REVISION: 03/24/98

ACE 1950491

SHORELINE ECOLOGICAL SUMMARY (Page 1 of 4)

REVISION: 03/22/91

Segment ST / CC-2 Subdivision A Date (mo / day / yr) 5/3/90

Time (24 hr) 1500-1600 Biologist SHARMAN

(A) Substrate type and % of segments: SUBDIV.
(1) Bedrock (2) Boulder 5 (3) Cobble 10 (4) Pebble 20 (5) Sand 40 (6) Silt 25 ^{+ gravel mud}

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

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

Photographs: Roll No.

Frames

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS (NUCEA, 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: Fox sparrows foraging in supratidal. Same 150 ducks rafted up as in CC-2 (100 pintails, 30 green-winged teal, 10 shovellers, 10 scup). 10 glaucous-winged gulls. Brown bear, fox, wolf, and moose tracks in sandy UTE + supratidal. This is a wide, low angle strandflat that within Chinik Lagoon. There are rare exposed boulders + cobbles exposed, some of which have barnacles - no spat. (cont.)

Ecological Considerations:

Please refer to attached Eco. Maps. Previously identified ecological sensitivities include codes 8AA (sensitive estuary) and 9LM (land mammal). Clearly the lagoon is both very biologically productive + important, as well as quite sensitive to human disturbance (both via direct intrusion and actual physical disturbance of the fine-grained substrate - this latter is probably more important in the longer term). This area is also very important as foraging + resting habitat for shorebirds + seabirds, residents as well as migrants. Also a critical nursery / rearing area for marine species, many of economic importance. Further intrusion here should be considered with caution (see also this section of CC-100 summary).

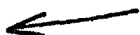
ACE 1950492

General Comments (cont.) :

The remainder of any macroscopic intertidal biota is generally limited to a thin, sparse drift line and locally dense populations of Arctostaphylos out on the sand/mud flat. There are a few excavations in these beds, presumably by bears/wolves/foxes - small holes partially filled back in by the tide (20x20x20 cm). The thin drift includes Fucus, Desmarestia, Halosaccus, Alaria, some fine reds (Ptilota, etc.). Shells observed are the same as those on CC-5 (see that summary) - Saxidomus, Mytilus, Tresus, Macoma, Mya, etc. This is a normal, healthy sand/mud flat intertidal.

S B

CC-2



ECOLOGY MAP

(1 of 2)

CC-2

(Page 3 of 4)

8AA - sensitive estuary
9LM - land mammals

X Wide
/ Medium
- Narrow
T Very Light
O No Oil

CC-2

Approx. Segment Length: 1619m

0 100 200 300

METERS

Map Key

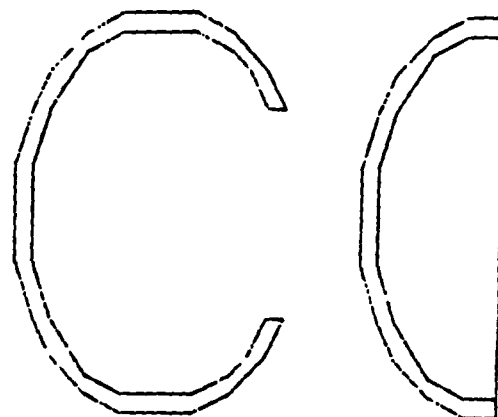
Name: _____

Date: _____

Data Entry

ACE 1950494

Chinab Lagoon



ECOLOGY MAP

(2 of 2)

8AA - sensitive estuary
9LM - land mammals

CC-2

(Page 4 of 4)

XX Wide

/// Medium

--- Narrow

TT Very Light

OO No Oil

CC-2

Approx. Segment Length: 1619m



Map Key:

Name: _____

Date: _____

Data Enter

ACE 1950495

SB

3m Narrow
T T T T

X Wide
/ Medium
- Narrow
T Very Light
O No Oil

CC-2

Approx. Segment Length: 1619m

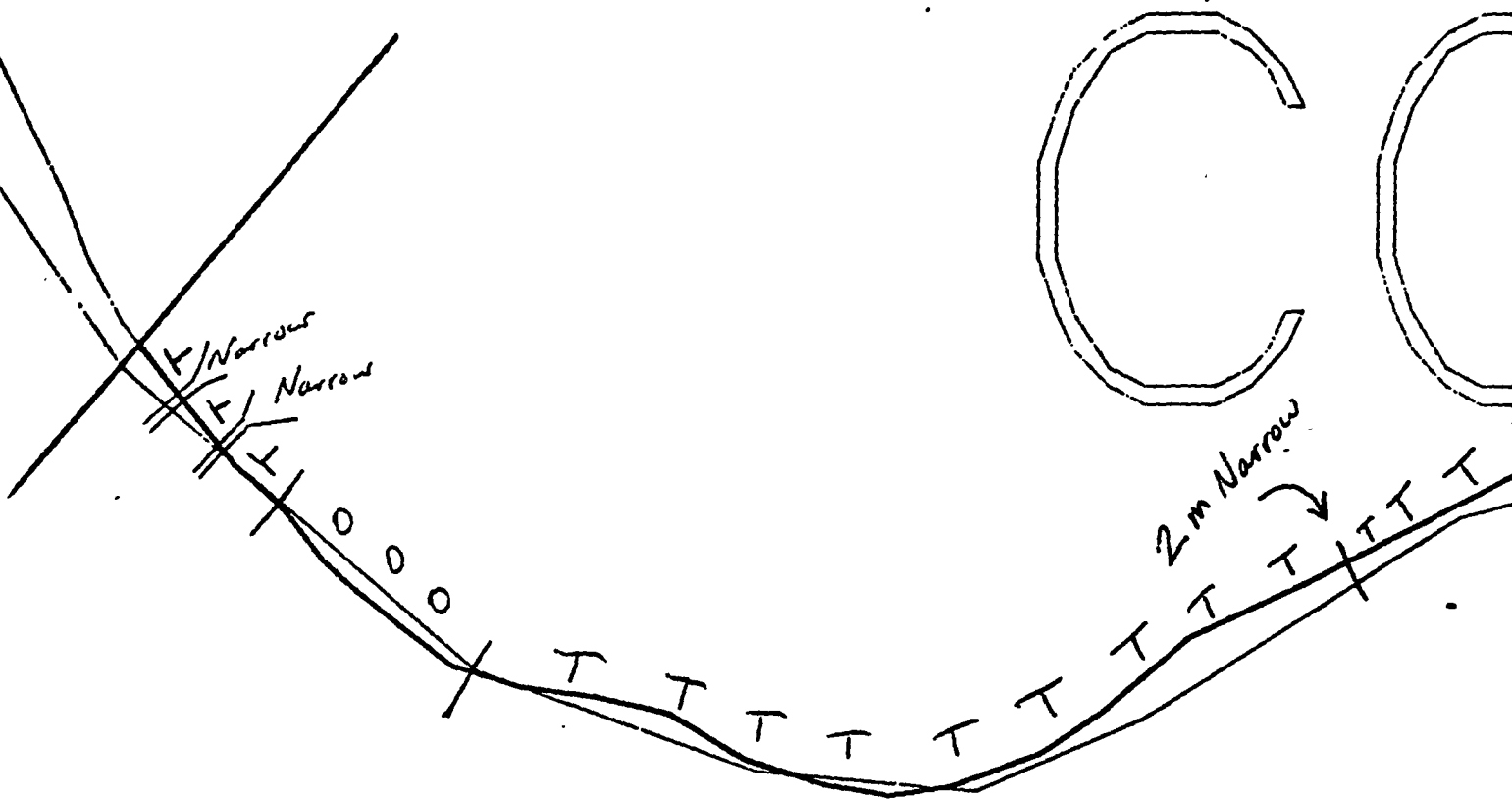


Map Key

Name: G. Heyman

Date: 5-3-90

Data Ent. ACE 1950496



XX Wide
 // Medium
 -- Narrow
 TT Very Light
 OO No Oil

CC-2

Approx. Segment Length: 1619m



Map Key:

Name: G. Heyman

Date: 5-3-90

Data Enter:

ACE 1950497
 -15

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

STEVE COWPER, GOVERNOR

Rapifax 349-1723

333 RASPBERRY ROAD
ANCHORAGE, ALASKA 99518-1599
PHONE: (907) 344-0541

RAPIFAX TRANSMITTAL SHEET

TO: Ken / Dick
Arch Habitat

DATE: 5/14/90

No. Pages: 15
(including this page)

FROM: J. Barnhart
Kodiak, Habitat

MESSAGE: Chiniak Lagoon ~~Area~~
AFS 262-15-10040
Segment CC002

On The Anadssat survey with Darryl Yoes
The Team did not conduct a survey
of ~~Chiniak~~ Chiniak Lagoon/stream, hence no
paperwork was submitted.

All of Chiniak Lagoon/stream was done
by the regular SSAT Team with Ed Weiss
present

ACE 1950515+/S

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1K09-17-CC002 SUBDIVISION: ADATE 5/03/90~~NOAA~~~~USCG~~NAME STEPHEN LEHMANN SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Further human intervention into this lagoon area could do more harm than good given the fragile nature of the silt and the sensitivity of the area. Small bands of tarballs and occasional small mouse patches were located, but not heavy enough to warrant disturbance by crews.

ADEC

NAME Terry Ellsworth SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

This segment contains a band of tarballs and patches in concentrations of $<1\%$ with two areas of up to 15% in the upper inter tide zone from the SE segment boundary to $\approx 400\text{m}$ west of the small creek. In the upper mud flat an area $.5\text{m} \times 200\text{m}$ of patty to asphalt with up to 30% coverage is located at the SW end of the segment and two patches up to $2\text{m} \times 3\text{m}$ are located in the SE part of the segment. Manual removal is recommended. Due to the high sensitivity of this area a small crew should be used and no more than 2-3 persons should be treating the mud flat areas or working beyond the mouth of the small creek.

LAND MANAGER

NAME Carl Schoch SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

The oil in the south and southwest side of this segment is in a very protected lagoon/estuary system and will persist on the surface for a long time. A small crew should use shovels to remove the mouse patches and tarballs on either both sides of the creek (within 100 meters) and the mouse patch at the north west end of the segment.

REVISION NO. 03/21/90

ACE 1950516

OPERATIONS FIELD NOTES

STK0917

See Back for Instructions

SEGMENT ID CC002
SUBDIVISION LETTER A
ANNOTATED MAP INCLUDED Y/N

DATE 5/3/90
NAME G Heyman
TEAM # 19

SURFACE OIL	Quantities in Meters			Treatment Recommendation						
	Length	Width	Area	None	Bioremediation		Tilling		Spot Hot Water	
					Y/N	% Treat	Y/N	% Treat	Y/N	% Treat
Wide Band				N	N		N		N	
Medium Band				N	N		N		N	
Narrow Band				N	N		N		N	
Very Light				N	N		N		N	
TOTAL MANDAYS										

SUBSURFACE OIL

Other (Describe)?	

TARMATS	Quantities in Meters			Treatment Rec			# of Bags	Mandays Required	
	Length	Width	Thick(cm)	None	Breakup	Remove		Breakup	Remove
Area #1				N					
Area #2				N					
Area #3				N					
Area #4				N					
Sporadic Mats				N					

MANUAL PICKUP	Type of Debris			In Meters			# of Bags	Pickup	Manday
	Mousse	Oiled Tarballs	Cleanup Veget	Length	Width	Debris		Y/N	Estimate
"Pocket" #1	mousse			200	1/2		10	Y	5
"Pocket" #2				1400	3		5	Y	5
"Pocket" #3									
Random/Continuous									

OILED LOGS Y/N OILING H/M/L QUANTITY L/M/S BURN Y/N

Is there Other Debris on the Beach? Y/N How Many Bags? 25 Is it mingled with the Oiled Debris Y/N

GENERAL

Snow covering 0 % of the Supratidal Zone?

Wave Exposure H/M/L

Access Limitations: _____

Snare Boom/Pom Poms Recommended? _____

Would the production Craft have to be relocated to complete work on this subdivision? Y/N, # of Times _____

COMMENTS:

SHORELINE OILING SUMMARY

REVISION NO. 04.13.90

OG G. HEYMAN NOAA S. LEHMAN SEGMENT STI K0917 CC 002
 BIO L. SHARMAN LAND REP C. SCHOCH NPS SUBDIVISION A (LOF 1)
 EXXON ON LEAVE ADEC T. ELLSWORTH TIME 14:45 to 16:00
 TEAM NO. 19 TIDE LEVEL +4 to +2.4 DATE 5 103 190
 EST. SUBDIVISION LENGTH: 1619 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 0 % B 5 % C 10 % P 20 % G 20 % S 20 % M 25 % V 0 %
 SLOPE: Lang 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 20 m VL 1384 m NO 215 m

SURFACE OIL

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

PAVEMENT H F S10 sq. m by 2 cmPATTIES / TARBALLS 15 BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

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

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	SHEEN (Y/N)	▼	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SBL BR	OBL RW	GY SL	DBR TL	LBR	SU	UI	M	LI						
1	30					X	0-0		X							X				N	-	-	P/P	
2	15					X	0-0		X							X				N	-	-	P/S	
3	25					X	0-0		X							X				N	-	-	P.S/S	
							.																	
							.																	
							.																	

COMMENTS

REVIEWED _____ DATE _____

ACE 1950518

OG G. Heyman

SEGMENT ST/ K0917 CC002

SUBDIVISION A

DATE 5/3 90

CHECKLIST

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

LEGEND

1 Δ

Pit - No Subsurface Oil

2 Δ

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

Oiled Vegetation

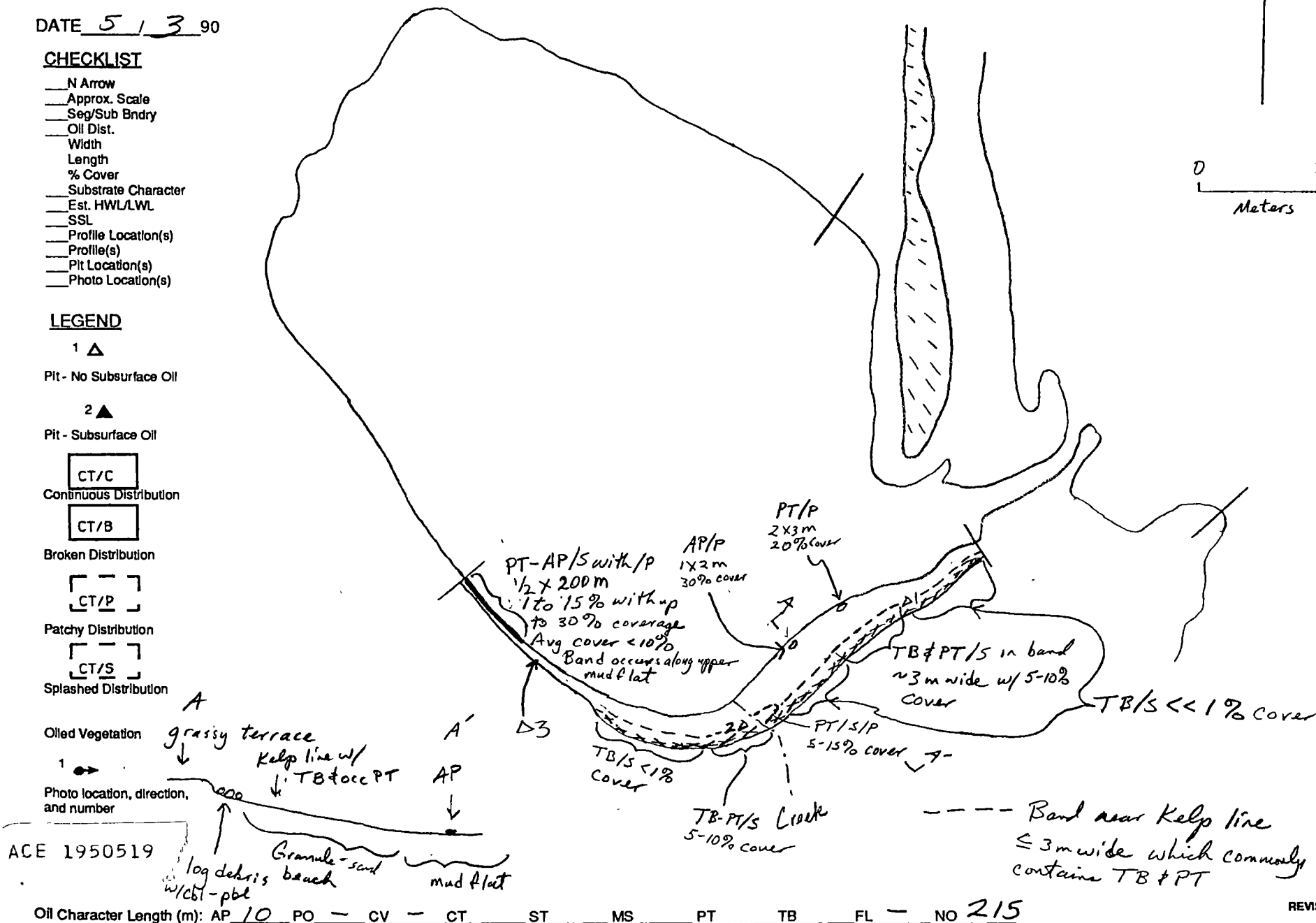
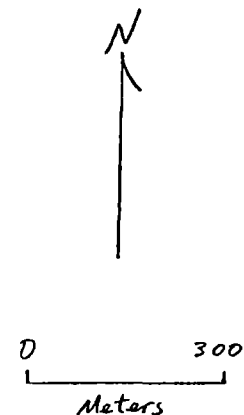
1 $\rightarrow$

Photo location, direction,
and number

ACE 1950519

Oil Character Length (m): AP 10 PO — CV — CT — ST — MS — PT — TB — FL — NO 215

SKETCH MAP



REVISION: 03/24/90

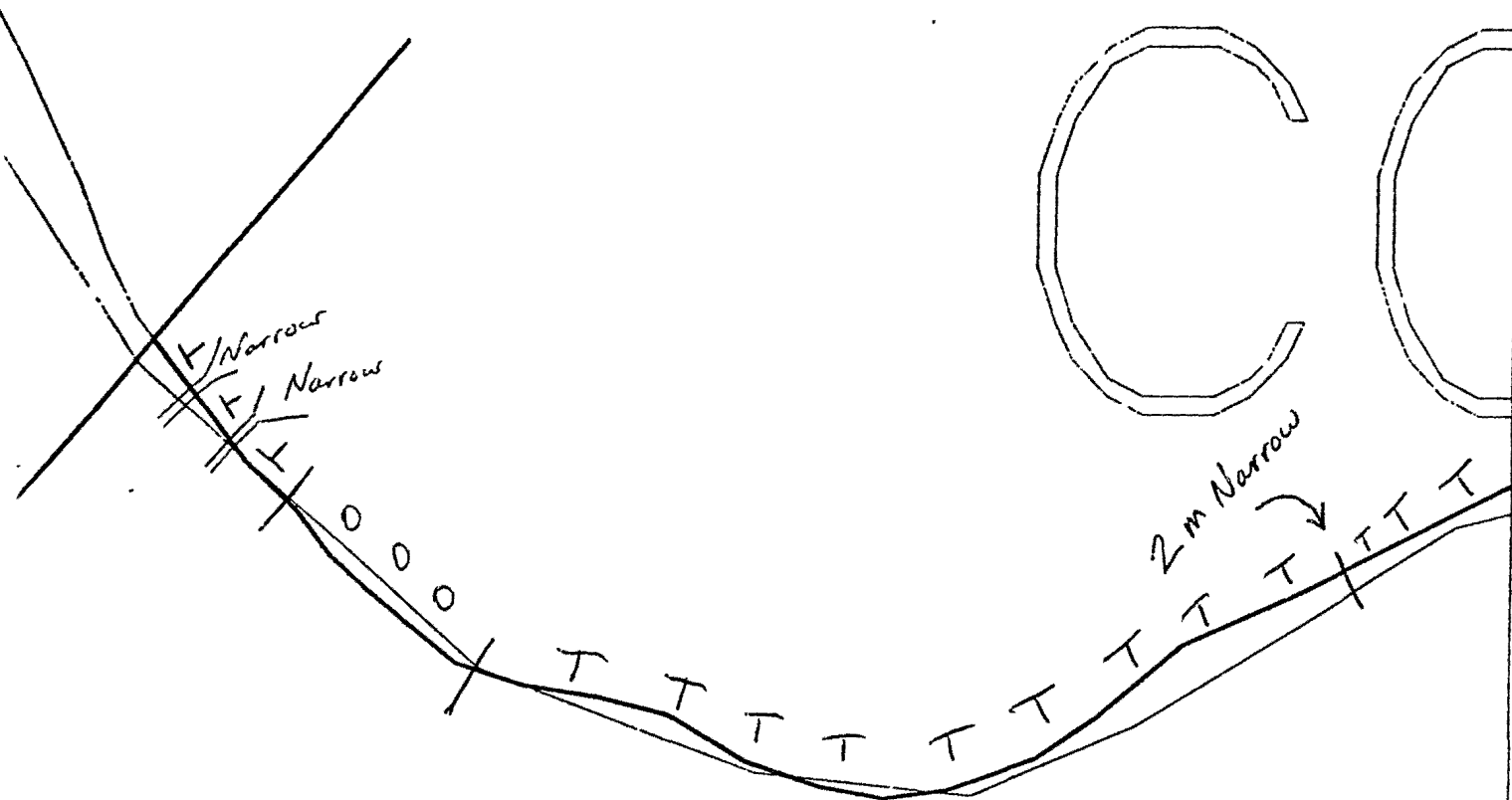
This segment lies along the southern end of Chiniak Lagoon. The west boundary was difficult to determine from the maps provided, but was chosen at a large tree which had fallen across the narrow beach. The segment extends eastward to the southern entrance to the lagoon. Most of the segment consisted of a wide sand-granule-pebble beach. This narrows in the western 400-500 meters to a narrow beach with mudflats extending to near a steep alder covered scarp.

Oiling in the segment was observed along the UITZ Kelp line along the wider sand-granule-pebble beach as tarballs and patties in a band up to 3 m wide. This band was continuous, but coverage was commonly $< 1\%$. Specific areas noted on the sketch maps had up to 15% coverage. The TB & PT had the appearance of pebbles and cobbles with a dull black exterior with sand incorporated in the surface. The inside was shiny black to dark brown and sticky. The "pebbles and cobbles" were typically flattened with rounded edges. Stain, coat, and occasional cover with entrained sand was sporadically observed on logs in the SUTZ.

Oiling was also observed at the top of the mudflats. Where the beach was wider, 2 small areas were observed with PT/P (2x3m, 20% cover) and AP/P (1x2m, 30% cover). Also, a narrow band of PT-AP / S with IP (1/2 x ~200m) with < 1 to 15% cover. The cover ranged to 30%, but averaged $< 10\%$. The PT & AP had similar appearances, with DBR-DBL exterior and

OG Comments K09 17 CC002 (10f.) 5/3/90 DGH pg 2

a shiny mousse-like interior with sand and mud entrained. The PT & AP was very soft and pliable. This narrow band extended from a point about 200 to 300 m west of where the beach narrows to the segment boundary at the fallen tree.



XX Wide
 // Medium
 -- Narrow
 TT Very Light
 OO No Oil

CC-2

Approx. Segment Length: 1619m



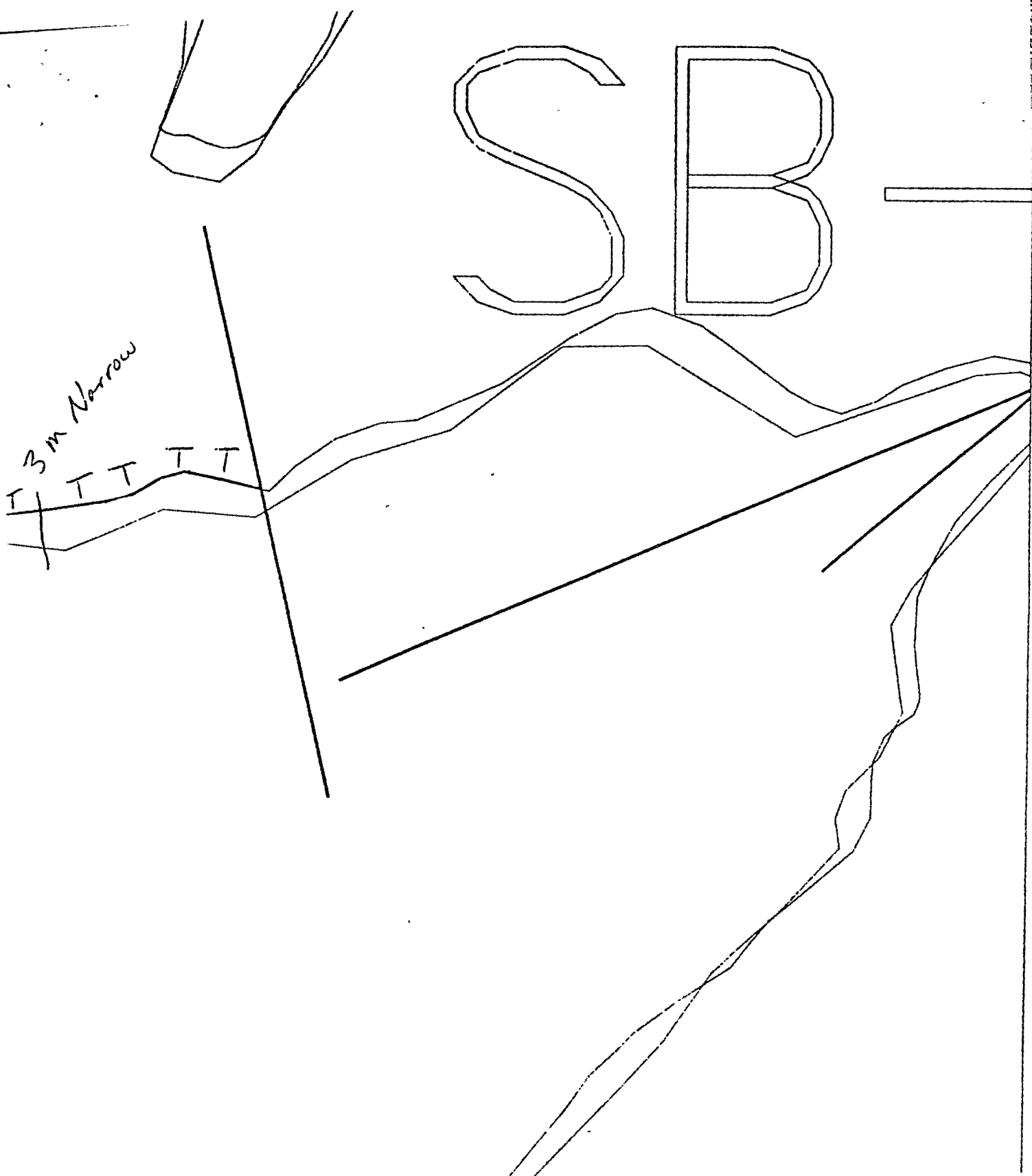
Map Key:

Name: G. Heyman

Date: 5-3-90

Data Enter

ACE 1950522



X Wide
 / Medium
 - Narrow
 T Very Light
 O No Oil

Map Key

Name: G. Heyman

Date: 5-3-90

Data Ente.

ACE 1950523

Segment ST / CC-2 Subdivision A Date (mo / day / yr) 5/3/90Time (24 hr) 1500-1600 Biologist SHARMAN(A) Substrate type and % of segments: SUBDIV.
(1) Bedrock 5 (2) Boulder 5 (3) Cobble 10 (4) Pebble 20 (5) Sand 40 (6) Silt 25 + grained Mud(B) Overall % cover of biota (% of segment): Dense Moderate Low X
SUBDIV.

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

Photographs: Roll No. Frames

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS (ANCELLA, LITTORINA, LYMAETS)

Dense			Moderate			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: Fox sparrows foraging in supratidal. Some 150 ducks rafted up as in CC-2 (100 pintails, 30 green-winged teal, 10 shovellers, 10 scaup). 10 glaucous-winged gulls. Brown bear, fox, wolf, and moose tracks in sandy UTE + supratidal. This is a wide low angle sand and mud flat within Chirikof lagoon. There are rare exposed boulders + cobbles exposed, some of which have barnacles - no spat. (cont.)

Ecological Considerations:

Please refer to attached Eco. Maps. Previously identified ecological sensitivities include codes 8AA (sensitive estuary) and 9LM (land mammals). Clearly the lagoon is both very biologically productive + important, as well as quite sensitive to human disturbance (both via direct intrusion and actual physical disturbance of the fine-grained substrate - this latter is probably more important in the longer term). This area is also very important as foraging + resting habitat for shorebirds + seabirds, residents as well as migrators. Also a critical nursery / rearing area for marine species, many of economic importance. Further intrusion here should be considered with caution (see also this section of CC-100 summary).

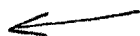
ACE 1950524

General Comments (cont.) :

The remainder of any macroscopic intertidal biota is generally limited to a thin, sparse drift line and locally dense populations of Artemia out on the sand/mud flat. There are a few excavations in these beds, presumably by bears/wolves/foxes - small holes partially filled back in by the tide (20x20x20 cm). The thin drift includes Fucus, Nereocystis, Halosaccus, Alaria, some fine reds (Ptilota, etc.). Shells observed are the same as those on CC-5 (see that summary) - Spidomus, Mytilus, Tresus, Macoma, Mya, etc. This is a normal, healthy sand/mud flat intertidal.

SB

CC-2



ECOLOGY MAP

(1 of 2)

8AA - sensitive estuary
9LM - land mammals

CC-2

(Page 3 of 4)

X Wide

/ Medium

- Narrow

T Very Light

O No Oil

CC-2

Approx. Segment Length: 1619m

0 100 200 300

METERS

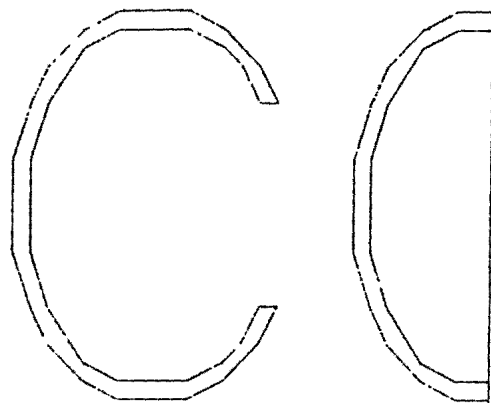
Map Key

Name: _____

Date: _____ ACE 1950526

Data Enter: _____

Chiniab Lagoon



ECOLOGY MAP

CC-2

(Page 4 of 4)

2 of 2)

8AA - sensitive estuary

9LM - land mammals

<XX Wide

// Medium

-- Narrow

TT Very Light

OO No Oil

CC-2

Approx. Segment Length: 1619m



Map Key:

Name: _____

Date: _____ ACE 1950527

Data Enter

GENERAL DATA

SEG ID: CC-2 SUBDIV: A TEAM: 19 SURVEY DATE: 5/3/90
PAVEMENT: CHAR S AREA 10 THICKNESS 2 TARBALLS 10
OILED: LGS X VEG - TRH X DBR X WAVE EXP: LW X MD - HG -
FAX RCVD: _____ DT: _____ AGENCY DISAGREE: _____
EST SUBDIV LGTH: 1619 OIL CATEGORY: W 0 M 0 N 20 VL 1384 NO 215 U 0

SURFACE DATA

SURFACE SEDIMENT: BRK 0 BLD 5 COB 10 PEB 20 GRN 20 SAN 20 MUD 25 VEG 0

CHAR #: 1 OIL CHAR: AP OIL DIST: CONT - BRKN - PTCH X SPLH X
OIL CLR: DBR FILM CLR: - TIDAL ZONE: SU - UI - MI X LI X

CHAR #: 2 OIL CHAR: PT OIL DIST: CONT - BRKN - PTCH X SPLH X
OIL CLR: DBL FILM CLR: - TIDAL ZONE: SU - UI X MI - LI X

CHAR #: 3 OIL CHAR: TB OIL DIST: CONT - BRKN - PTCH - SPLH X
OIL CLR: DBL FILM CLR: - TIDAL ZONE: SU - UI X MI - LI -

CHAR #: 4 OIL CHAR: N OIL DIST: CONT - BRKN - PTCH - SPLH -
OIL CLR: - FILM CLR: - TIDAL ZONE: SU X UI - MI - LI -

CHAR #: _____ OIL CHAR: _____ OIL DIST: CONT _____ BRKN _____ PTCH _____ SPLH _____
OIL CLR: _____ FILM CLR: _____ TIDAL ZONE: SU _____ UI _____ MI _____ LI _____

CHAR #: _____ OIL CHAR: _____ OIL DIST: CONT _____ BRKN _____ PTCH _____ SPLH _____
OIL CLR: _____ FILM CLR: _____ TIDAL ZONE: SU _____ UI _____ MI _____ LI _____

CHAR #: _____ OIL CHAR: _____ OIL DIST: CONT _____ BRKN _____ PTCH _____ SPLH _____
OIL CLR: _____ FILM CLR: _____ TIDAL ZONE: SU _____ UI _____ MI _____ LI _____

CHAR #: _____ OIL CHAR: _____ OIL DIST: CONT _____ BRKN _____ PTCH _____ SPLH _____
OIL CLR: _____ FILM CLR: _____ TIDAL ZONE: SU _____ UI _____ MI _____ LI _____

SSAT DATA ENTRY FORM

SUBSURFACE DATA

PAGE 2 OF 2

SEGMENT ID: CC-2 SUBDIV: A

PIT # 1 PIT DEPTH 30 OIL CHARACTER NO OIL INTVAL: FROM 0 TO 0
QUANT: 4C OIL CLR: - FLM CLR: - ZONE: SU - UI X MI - LI -
SUBSURF SEDIMENT: BRK - BLD - COB - PEB X GRN - SAN - MUD - VEG -

PIT # 2 PIT DEPTH 15 OIL CHARACTER NO OIL INTVAL: FROM 0 TO 0
QUANT: UC OIL CLR: - FLM CLR: - ZONE: SU - UI X MI - LI -
SUBSURF SEDIMENT: BRK - BLD - COB - PEB - GRN - SAN X MUD - VEG -

PIT # 3 PIT DEPTH 25 OIL CHARACTER NO OIL INTVAL: FROM 0 TO 0
QUANT: UC OIL CLR: - FLK CLR: - ZONE: SU - UI X MI - LI -
SUBSURF SEDIMENT: BRK - BLD - COB - PEB - GRN - SAN X MUD - VEG -

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
 QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
 SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
 QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
 SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO
QUANT: OIL CLR: FLM CLR: ZONE: SU UI MI LI
SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO
QUANT: OIL CLR: FLM CLR: ZONE: SU UI MI LI
SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
SUBSURF SEDIMENT: BLD COB PEB GRN SAN MSL VEG

PROBLEMS: _____

ACE 1950529-15

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

STEVE COWPER, GOVERNOR

Rapifax 349-1723

333 RASPBERRY ROAD
ANCHORAGE, ALASKA 99518-1599
PHONE: (907) 344-0541

RAPIFAX TRANSMITTAL SHEET

TO: Ken/ Dick
Anch Habitat

DATE: 5/14/98

No. Pages: 13
(including this page)

FROM: J. Barnhart
Kodiak Habitat

MESSAGE: Chinook lagoon
AFS 262-15-10640
segment CC005

ACE 1950530 +/S

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1K0917 CC 5 SUBDIVISION: 4 DATE 5/3/90

~~NOAA~~
~~USCG~~

NAME STEPHEN LEHMANN SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Generally agree with ADEC. Pooled oil should be removed - as many of these areas are not readily accessible - manual removal may be difficult. Caution should be shown regarding the beginning of the lagoon (at the end of the segment). Cleanup should be concentrated at the eastern end of the segment.

ADEC

NAME Terry Ellsworth SIGNATURE Terry Ellsworth

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Recoverable mousse and/or pooled oil occurs in three areas in the segment. The largest area is 20m wide x 30+ m long just west of the segment boundary at Cape Chiniak. The second area is $\approx$ 200m west of the segment boundary and a third area of much smaller extent is found approximately midway in the segment. Very scattered tarballs occur in the east half of the segment on the sand-pebble beach. Manual removal is recommended although recovery of much of the pooled oil and mousse will be difficult as it is located between boulders up to 2m in size. Oiled trash + debris should be collected as well as heavily oiled small wood debris.

LAND MANAGER

NAME Carl Schoch SIGNATURE Carl Schoch

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Recoverable oil consists of pooled mousse deep in interstitial spaces between large angular boulders. Oiled logs, nets and rope should be removed. Tarballs and oiled wood along the western portion of the segment could be removed quickly and easily.

OPERATIONS FIELD NOTES

STK0917

See Back for Instructions

SEGMENT ID CC005

SUBDIVISION LETTER A

ANNOTATED MAP INCLUDED Y/N

DATE 5/3/90
NAME G. Heyman
TEAM # 19

SURFACE OIL	Quantities in Meters			Treatment Recommendation						
				None	Bioremediation		Tilling		Spot Hot Water	
	Length	Width	Area		Y/N	% Treat	Y/N	% Treat	Y/N	% Treat
Wide Band				N	N		N		N	
Medium Band				N	N		N		N	
Narrow Band				N	N		N		N	
Very Light				N	N		N		N	
TOTAL MANDAYS										

SUBSURFACE OIL

Other (Describe)?	

TARMATS	Quantities in Meters			Treatment Rec			# of Bags	Mandays Required	
	Length	Width	Thick(cm)	None	Breakup	Remove		Breakup	Remove
Area #1				N					
Area #2				N					
Area #3				N					
Area #4				N					
Sporadic Mats				N					

MANUAL PICKUP	Type of Debris			In Meters			# of Bags	Pickup Y/N	Manday Estimate
	Mousse	Oiled Tarballs	Cleanup Veget	Length	Width	Debris			
"Pocket" #1	Mousse			32	20		?	N	
"Pocket" #2	Mousse			500	3		3	N	5
"Pocket" #3									
Random/Continuous									

OILED LOGS <u>(Y/N)</u>	OILING <u>H/M/L</u>	QUANTITY <u>L/M/S</u>	BURN <u>Y/N</u>
-------------------------	---------------------	-----------------------	-----------------

Is there Other Debris on the Beach? (Y/N) How Many Bags? 100 Is it mingled with the Oiled Debris (Y/N)

GENERAL

Snow covering 0 % of the Supratidal Zone?

Wave Exposure H/M/L

Access Limitations: _____

Snare Boom/Pom Poms Recommended? _____

Would the production Craft have to be relocated to complete work on this subdivision? Y/N, # of Times _____

COMMENTS: #1 Mousse is down between boulders and ~~not~~ cannot be reached by cleanup crews -

SHORELINE OILING SUMMARY

REVISION NO. 04/13/90

OG G. HEYMAN ~~USCG~~ NOAA S. LEHMANN SEGMENT ST/ K0917 CCS
 BIO L. SHARMAN LAND REP C. SCHOCH NPS SUBDIVISION A (1 OF 1)
 EXXON ON LEAVE ADEC T. ELLSWORTH TIME 13:30 10/14/90
 TEAM NO. 19 TIDE LEVEL +6.5 to +4 DATE 5/103/90
 EST. SUBDIVISION LENGTH: 1012 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 40 % B 30 % C 15 % P 10 % G 5 % S 0 % M 0 % V 0 %
 SLOPE: Lang 40 % Hang 35 % Vert 5 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 32 m N 10 m VL 970 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	/C	/B	/P	/S	SBL BR	DBL BR	GL RW	SL TL	DBR TL	LBR	SU	UI	M	LI
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		
PATTIES														
TARBALLS				X		X						X	X	
FILM														
NO OIL											X			X

PAVEMENT H F S 0 sq. m by 0 cmPATTIES / TARBALLS 3 BAGSNEAR SHORE SHEEN? NO BR RW SL TL

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

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-CM)	BELOW		OIL / FILM COLOR							PIT ZONE				A N A	SHEEN (Y/N)	▼	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SBL BR	DBL BR	GY RW	SL TL	DBR TL	LBR	SU	UI	M	LI					
1	10					X	0-0		X							X					N	-	-	PG/G
							.																	
							.																	
							.																	
							.																	
							.																	

COMMENTS

REVIEWED _____ DATE _____

ACE 1950533

OG G. Heyman

SEGMENT ST/K0917 CC 005

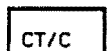
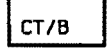
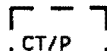
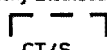
SUBDIVISION A

DATE 5/3/90

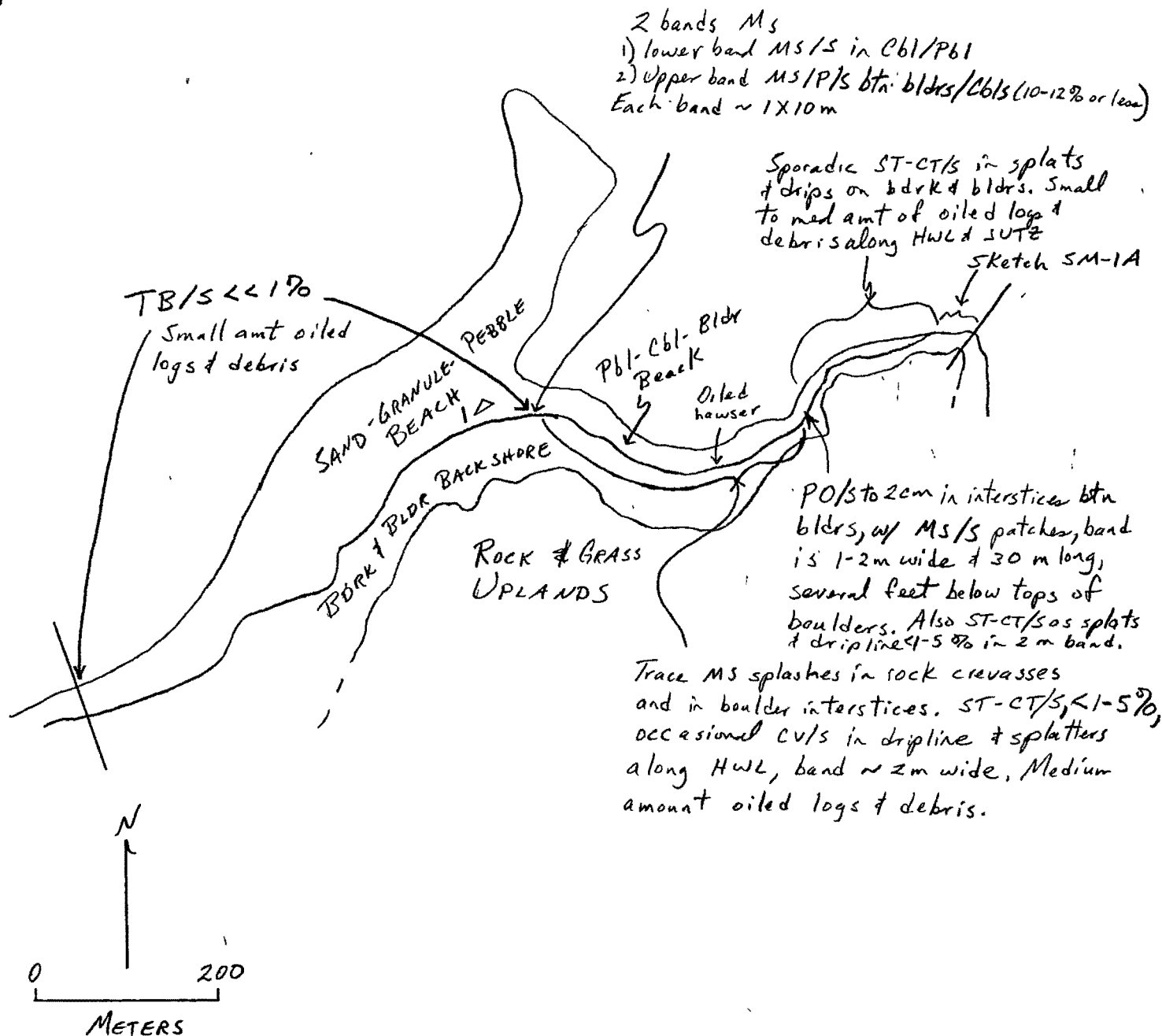
CHECKLIST

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

LEGEND

- 1  Pit - No Subsurface Oil
- 2  Pit - Subsurface Oil
-  Continuous Distribution
-  Broken Distribution
-  Patchy Distribution
-  Splashed Distribution
-  Oiled Vegetation
- 1  Photo location, direction, and number

SKETCH MAP-1



ACE 1950534

Oil Character Length (m): AP — PO 10 CV 62 CT 250 ST 200 MS 52 PT — TB 500 FL — NO 0

REVISION: 03/24/90

OG G. Heyman

SEGMENT ST K 0917 CC 005

SUBDIVISION A

DATE 5/3/90

SKETCH MAP SM-1A

CHECKLIST

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

LEGEND

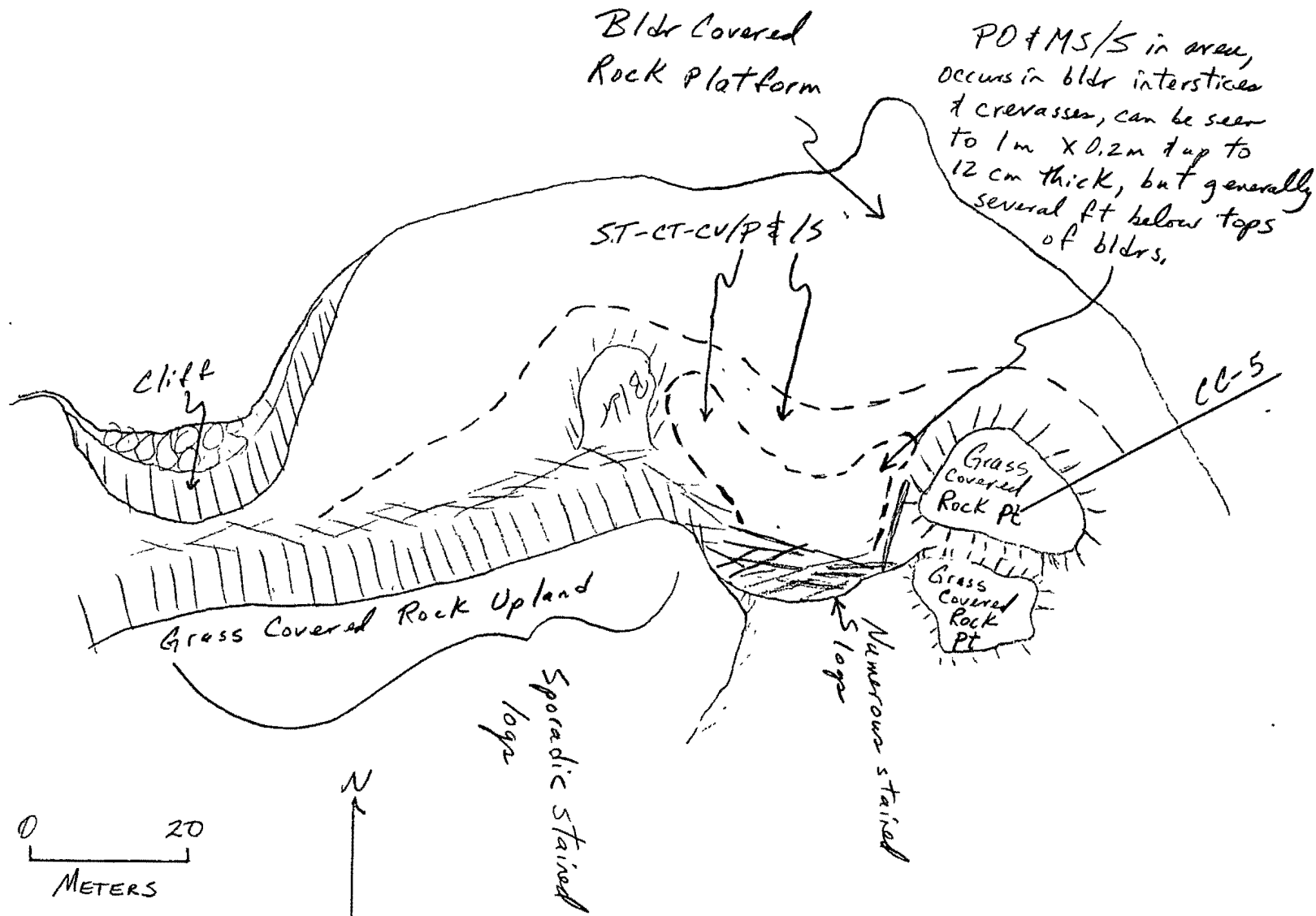
- 1 Δ
Pit - No Subsurface Oil
- 2 $\blacktriangle$
Pit - Subsurface Oil
- CT/C

Continuous Distribution
- CT/B

Broken Distribution
- CT/P

Patchy Distribution
- CT/S

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



ACE 1950535

Oil Character Length (m): AP _____ PO _____ CV _____ CT _____ ST _____ MS _____ PT _____ TB _____ FL _____ NO _____ See SM-1

REVISION: 03/24/90

This Segment extends from the point of Cape Chiniak westward approximately 1012 m to a large bedrock outcrop at the south entrance of Chiniak Lagoon. Two beach types were generally encountered, a narrow bedrock-boulder-cobble beach to the east and a broader granule-pebble-cobble beach to the west.

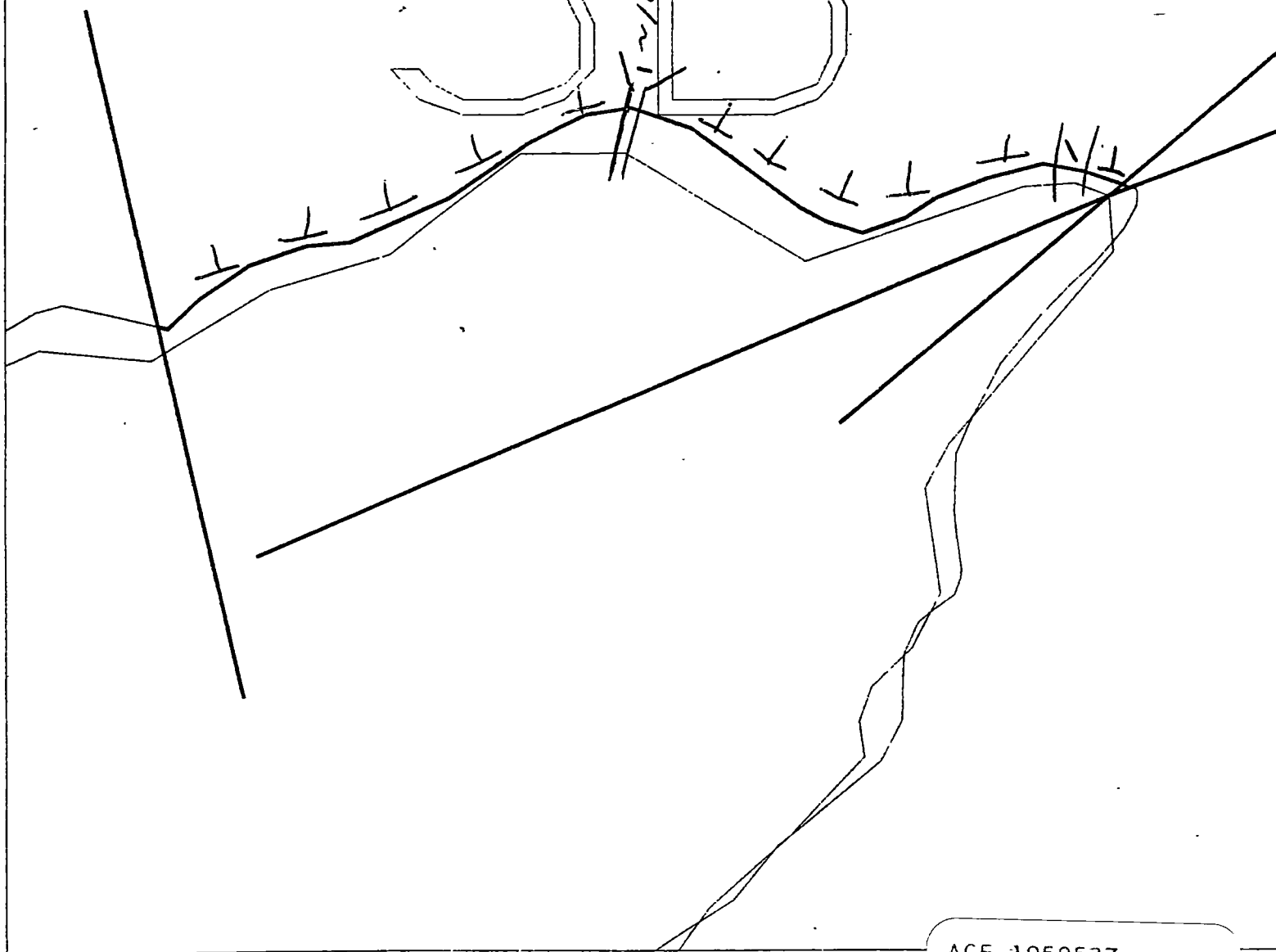
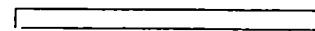
Most oiling was observed along the eastern bedrock-boulder-cobble beach. Immediately west of the point, a pocket was observed with pooled MS & MS, CV, CT & ST about 32 m long X 20 m wide. The pooled areas were observed in boulder interstices and crevasses up to 1 X 0.2 m & 12 cm thick. MS patches have a similar occurrence. ST, CT & CV were also common with a patch distribution. The more heavily impacted area was up to approximately 10 m wide. This was surrounded by an area of ST-CT-CV/MS also approximately 10 m wide. The MS & PO was observed in interstices relatively deep below the surface and most was only accessible with our shovel.

One additional concentration of PO-MS and a second accumulation of MS in 2 bands are shown on Sketch Map 1. The rest of the oiling in the rock-boulder-cobble area was a near continuous band of ST-CT-CV-MS, <1% coverage, about 1-3 m wide. As we walked this section, areas would have very random splatters or drips.

On the granule-cobble beach, TB are randomly scattered near the HWC & logs in the SUTZ have splatters of CT-CV.

SB

11 ~ 10 m Narrow



XXXX Wide

//// Medium

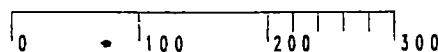
---- Narrow

TTTT Very Light

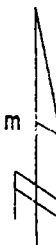
0000 No Oil

SB-104

Approx. Segment Length: 1012m



METERS



ACE 1950537

Map Key: AKP-SB-104

Name: G. Heyman

Date: 5-3-90

Data Entered:

GENERAL DATA

SEG ID: CC-5 SUBDIV: A TEAM: 19 SURVEY DATE: 5/3/90
PAVEMENT: CHAR - AREA 0 THICKNESS 0 TARBALLS 3
OILED: LGS X VEG - TRH X DBR X WAVE EXP: LW - MD - HG X
FAX RCVD: _____ DT: _____ AGENCY DISAGREE: _____
EST SUBDIV LGTH: 10/2 OIL CATEGORY: W 0 M 32 N 10 VL 970 NO 0 U 0

SURFACE DATA

SURFACE SEDIMENT: BRK 40 BLD 30 COB 15 PEB 10 GRN 5 SAN 0 MUD 0 VEG 0

CHAR #: 1 OIL CHAR: PD OIL DIST: CONT - BRKN - PTCH - SPLH X
OIL CLR: DBR FILM CLR: - TIDAL ZONE: SU - UI X MI - LI -

CHAR #: 2 OIL CHAR: CU OIL DIST: CONT - BRKN - PTCH - SPLH X
OIL CLR: DBL FILM CLR: - TIDAL ZONE: SU - UI X MI - LI -

CHAR #: 3 OIL CHAR: CT OIL DIST: CONT - BRKN - PTCH X SPLH X
OIL CLR: DBL FILM CLR: - TIDAL ZONE: SU - UI X MI - LI -

CHAR #: 4 OIL CHAR: ST OIL DIST: CONT - BRKN - PTCH X SPLH X
OIL CLR: DBL FILM CLR: - TIDAL ZONE: SU - UI X MI X LI -

CHAR #: 5 OIL CHAR: MS OIL DIST: CONT - BRKN - PTCH - SPLH X
OIL CLR: DBR FILM CLR: - TIDAL ZONE: SU - UI X MI - LI -

CHAR #: 6 OIL CHAR: PT OIL DIST: CONT - BRKN - PTCH - SPLH X
OIL CLR: DBL FILM CLR: - TIDAL ZONE: SU - UI X MI X LI -

CHAR #: 7 OIL CHAR: TB OIL DIST: CONT - BRKN - PTCH - SPLH X
OIL CLR: DBL FILM CLR: - TIDAL ZONE: SU - UI X MI X LI -

CHAR #: 8 OIL CHAR: NO OIL DIST: CONT - BRKN - PTCH - SPLH -
OIL CLR: - FILM CLR: - TIDAL ZONE: SU X UI - MI - LI X

SSAT DATA ENTRY FORM

SUBSURFACE DATA

PAGE 2 OF 2

SEGMENT ID: CC-5 SUBDIV: A

PIT # 1 PIT DEPTH 10 OIL CHARACTER No OIL INTVAL: FROM 0 TO 0
QUANT: uc OIL CLR: - FLK CLR: - ZONE: SU - UI X MI - LI -
SUBSURF SEDIMENT: BRK - BLD - COB - PEB - GRN X SAN - MUD - VEG -

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
SUBSURF SEDIMENT: BRK BLD COB PEB GRN . . SAN MUD VEG

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
 QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
 SUBSURF SEDIMENT: BRK _____ BLD _____ COB _____ PEB _____ GRN _____ SAN _____ MUD _____ VEG _____

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
 QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
 SUBSURF SEDIMENT: BRK _____ BLD _____ COB _____ PEB _____ GRN _____ SAN _____ MUD _____ VEG _____

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
SUBSURF SEDIMENT: BRK _____ BLD _____ COB _____ PEB _____ GRN _____ SAN _____ MUD _____ VEG _____

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
SUBSURF SEDIMENT: BRN _____ BLD _____ COB _____ PEB _____ GRN _____ SAN _____ MCL _____ YEG _____

PROBLEMS: _____

Segment ST / CC-5 Subdivision A Date (mo / day / yr) 5/3/90Time (24 hr) 1330-1500 Biologist SHARMAN(A) Substrate type and % of segment: SUBDIV.(1) Bedrock 40 (2) Boulder 30 (3) Cobble 15 (4) Pebble 10 (5) Sand 5 (6) Silt granules(B) Overall % cover of biota (% of segment): Dense SUBDIV. Moderate Low X(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:

Roll No. Frames

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS (ANCELLA, LITTORINA, LIMAETS)

Dense			Moderate			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: The above information is for the E. $\frac{1}{2}$ (rocky) portion of the segment only. Those organisms are essentially absent from the remainder of the segment (sandy) except as loose drift. The rocky portion is biotically sparse, intertidally, except for some MTZ tidepools which include: Odonthallia, Littorina, Halichondria, Barnacles, Russells, Littorina, Limpets, Ancella, Tonicella, Pagurus, Metridium, (cont.)

Ecological Considerations:

Please see attached Eco. Map. We had no information re. previously identified resource sensitivities. No particular sensitivities observed on this survey, but note that this segment comprises half of the Chinab Lagoon Entrance, and the lagoon should be considered generally sensitive to disturbance (please refer to this section of the VCC-100 summary).

adjacent

ACE 1950540

General Comments (cont.):

and Anthopleura elegantissima, artemisia, and xanthogramma. Surprisingly, essentially no Fucus (very rare). Barnacle spat are present but very rare. Mucella eggs are occasional, and mussels are recruiting quite successfully locally where adults are established in bands (discontinuous). The UTZ is very depauperate except for sparse Littorina (recruiting well). This rocky intertidal community appears to be normal & healthy, and recruiting normally with no unusual mortality beyond what would be normally expected. The oiled zone on this portion of the segment is above any intertidal biota (essentially all extreme UTZ & supratidal) - subtending organisms do not appear to be affected. The W. 1/2 of the segment is open low-angle sandy beach, largely devoid of much macrobiota intertidally. (Back to E. rocky's: natural barnacle mortality due to mechanical disturbance from seaweeds / log scouring is locally up to 25%). Empty bivalve shells in the drift on the sandy portion include: Saxidomus giganteus, Mytilus edulis, Modiolus modiolus, Tresus capax, Chinocardium nuttallii, Siliqua patula, Protothaca staminea, Macoma spp. (incl. hathica), Mya spp. (incl. truncata), Spisula polyzona. There are also some Fusitriton, carapaces of Cancer magister (small) and (probably) Telmessus, one Strongylocentrotus purpuratus test, and lots of large dried clam siphons (at least some, maybe all, are Mya truncata). The UTZ drift line is very sparse, containing Fucus, Alaria, ulvaes, Scytosiphon. River otter scats in supratidal (contain mussel & other bivalve shell fragments, Telmessus fragments). There were supratidal & UTZ brown bear, fox, & wolf tracks, & one brown bear leg bone. Birds include ~ 20 glaucous-winged gulls, one fox sparrow in the intertidal zone, and a mixed flock of ~ 150 ducks (~ 100 pintails, 30 green-winged teal, 10 shorelarks, 10 scaup). 1 adult eagle. Again, a normal, healthy sand beach community.

ECOLOGY MAP

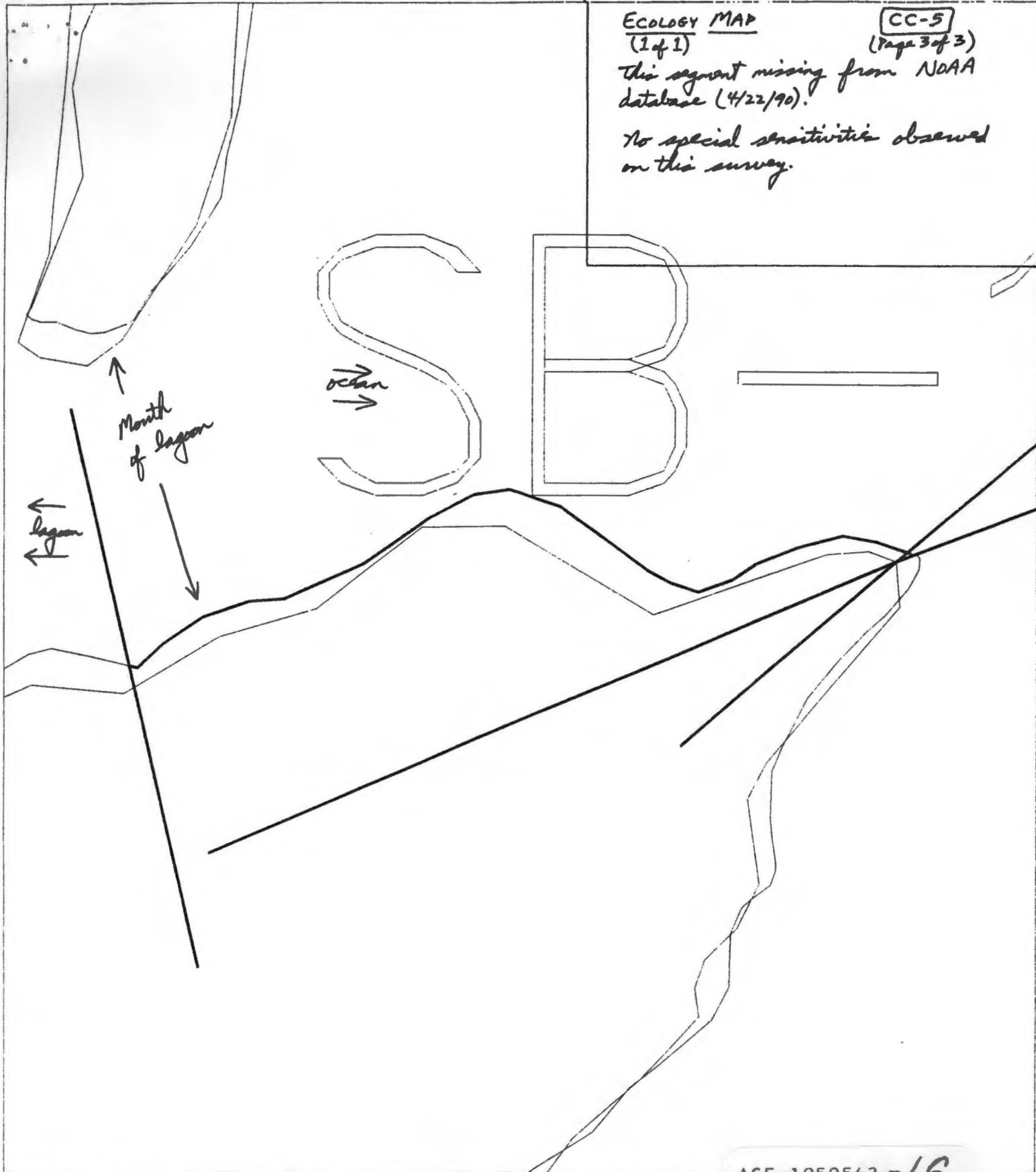
(1 of 1)

CC-5

(Page 3 of 3)

This segment missing from NOAA database (4/22/90).

No special sensitivities observed on this survey.



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

Approx. Segment Length: 1012m



METERS

CC-5

ACE 1950542 -/S

Map Key: AKP-SB-104

Name: _____

Date: _____

Data Entered: _____

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

STEVE COWPER, GOVERNOR

Rapifax 349-1723

333 RASPBERRY ROAD
ANCHORAGE, ALASKA 99518-1599
PHONE: (907) 344-0541

RAPIFAX TRANSMITTAL SHEET

TO: Ken / Dick
Anch. Habitat -

DATE: 5/14/90

No. Pages: 18 2
(including this page)

FROM: J. Barnhart
Kodiak, Habitat

MESSAGE: Chiniak Lagoon
AFS 262-15-10040
Segment CC001

Error code - Resending page 9 only

ACE 1950543 + /SG

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ K09-17-0001 SUBDIVISION: A DATE 5/3/90

~~NOAA~~
~~USCG~~

NAME STEPHEN LEHMANN SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Several areas of the UITZ had concentrations of TB + PT. - These should be removed from the area. Several bags of oiled sand were observed - these should be removed.

ADEC

NAME Terry Ellsworth SIGNATURE Terry Ellsworth

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

I concur with the comments of NPS and NOAA. I recommend manual removal of the mousse patties and tarballs (see sketch map) as well as the 4 bags of oiled sediment.

LAND MANAGER

NAME Carl Schoch SIGNATURE Carl Schoch

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Recoverable oil consists primarily of mousse patties and tarballs. Several concentrated patches of mousse patties exist at the upper edge of the upper intertidal as indicated on the sketch map. Four bags of oiled sand and mousse patties were found. The condition of the oil lends itself to rapid and easy removal. This segment could be walked end to end and patties/tarballs removed with shovels. The observed mousse patties and tarballs are apparently migrating up the beach face and being buried in the supratidal zone where they can be expected to persist.

REVISION NO. 03/21/90

ACE 1950544

OPERATIONS FIELD NOTES

See Back for Instructions

K0917

SEGMENT ID CC001
SUBDIVISION LETTER A
ANNOTATED MAP INCLUDED Y/N

DATE 5/3/90
NAME G. Heyman
TEAM # 19

SURFACE OIL	Quantities in Meters			Treatment Recommendation						
	Length	Width	Area	None	Bioremediation		Tilling		Spot Hot Water	
					Y/N	% Treat	Y/N	% Treat	Y/N	% Treat
Wide Band				N	N		N		N	
Medium Band				N	N		N		N	
Narrow Band				N	N		N		N	
Very Light				N	N		N		N	
TOTAL MANDAYS										

SUBSURFACE OIL

Other (Describe)?	

TARMATS	Quantities in Meters			Treatment Rec			# of Bags	Mandays Required	
	Length	Width	Thick(cm)	None	Breakup	Remove		Breakup	Remove
Area #1				N					
Area #2				N					
Area #3				N					
Area #4				N					
Sporadic Mats				N					

MANUAL PICKUP	Type of Debris			In Meters			# of Bags	Pickup	Manday
	Mousse Tarballs	Oiled Veget	Cleanup Debris	Length	Width			Y/N	Estimate
"Pocket" #1			(4 Bags)	4771	5		20	N	10
"Pocket" #2									
"Pocket" #3									
Random/Continuous									

OILED LOGS Y/N OILING H/M/L QUANTITY L/M/S BURN Y/N

Is there Other Debris on the Beach? Y/N How Many Bags? 250 Is it mingled with the Oiled Debris Y/N

GENERAL

Wave Exposure H M/L

Snow covering 0 % of the Supratidal Zone?

Access Limitations:

Snare Boom/Pom Poms Recommended?

Would the production Craft have to be relocated to complete work on this subdivision? Y/N, # of Times

COMMENTS:

Entire segment has scattered tarballs & mousse patties -
Four (4) Bags of oil & sand remain from last years cleanup

SHORELINE OILING SUMMARY

REVISION NO. 04/13/90

OG G. HEYMAN ^{NOAA} ~~USCG~~ S. LEHMAN SEGMENT ST/ K09-17-CC001
 BIO L. SHARMAN LAND REP C. SCHUCH SUBDIVISION A (LOFI)
 EXXON Not Present ADEC T. ELSWORTH TIME 17:30 to 19:45
 TEAM NO. 19 TIDE LEVEL +2 to +3.5 DATE 5 / 03 / 90
 EST. SUBDIVISION LENGTH: 4771 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 0 % B 0 % C 5 % P 10 % G 15 % S 70 % M 0 % V 0 %
 SLOPE: Lang 100 % Hang — % Vert — % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 20 m VL 2080 m NO 1771 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	/C	/B	/P	/S	SBL BR	DBL RW	GY	SL DBR	TL	LGR	SU	UI	M	LI
ASPHALT														
PAVEMENT														
POOLED														
COVER				X		X					X	X		
COAT				X		X					X	X		
STAIN				X		X					X	X		
MOUSSE														
PATTIES				X		X					X	X		
TARBALLS			X	X		X					X	X		
FILM														
NO OIL													X	X

PAVEMENT H F S 0 sq. m by 0 cmPATTIES / TARBALLS 20 BAGSNEAR SHORE SHEEN? NO BR RW SL TL

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

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE —#BAGS —

Photographs:

Roll No. 57-19Frames —

SUBSURFACE OIL

PIT NO	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SHEEN (Y/N)	≡	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SBL BR	DBL RW	GY	SL DBR	TL	LGR	SU	UI	M	LI				
1	30					X	0-0		X							X				N	—	—	GP/GS
2	25			X			9-11		X		X					X				N	—	—	G/GPS
3	30					X	0-0		X							X				N	—	—	G/GPS
4	25			X			5-7		X		X					X				N	—	—	S/GPS

COMMENTS

REVIEWED — DATE —

ACE 1950546

REVISION: 03/24/90

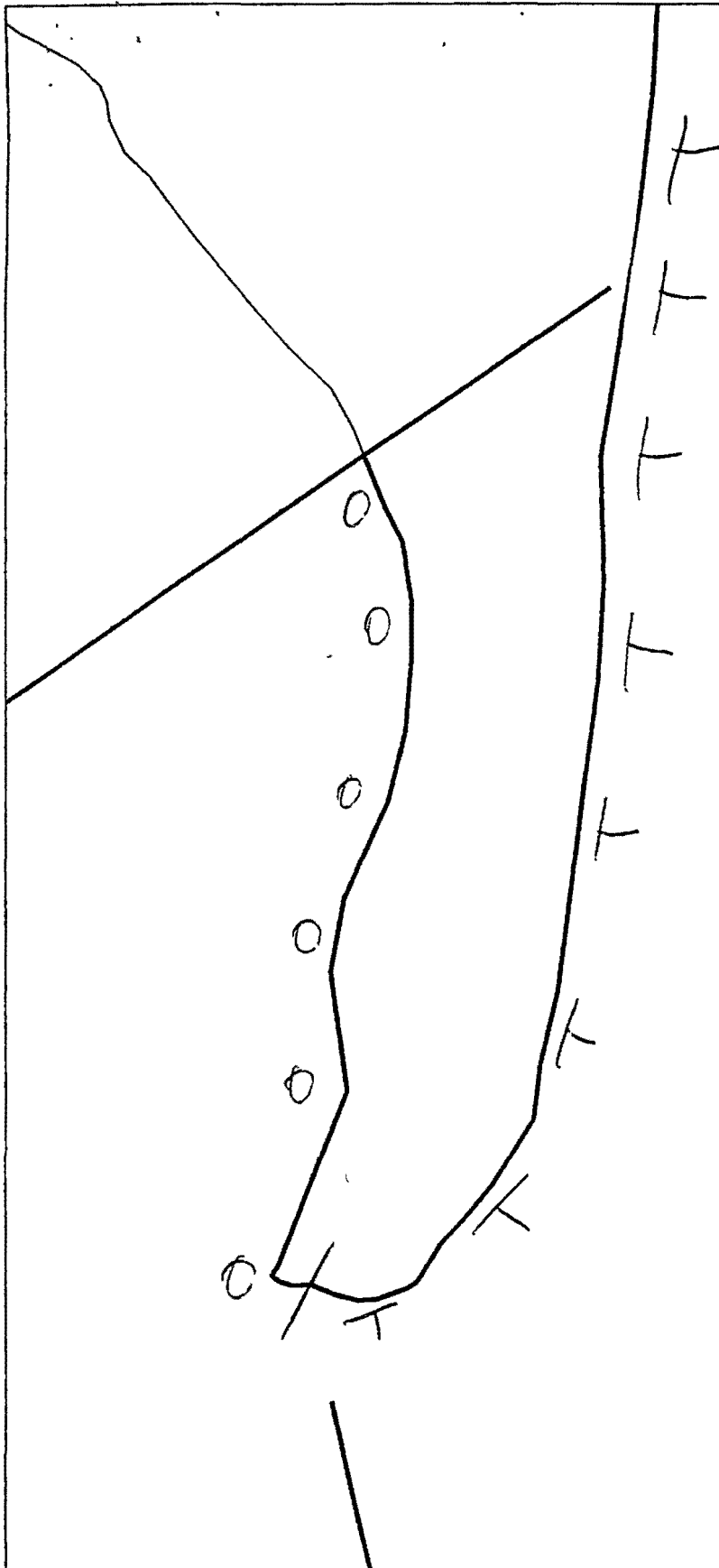
This segment consists of a predominantly sand beach with a sand-granule-pebble-cobble storm berm and grassy uplands extending from Chinick Lagoon to the first creek encountered approximately 4771m to the north.

Oiling along the segment consists of TB & PT in the lower SUTZ & upper UITZ along the Kelp lines. The TB & PT typically have an appearance similar to flattened pebbles and cobbles with rounded edges. These "clasts" are DBL on the outside & DBL-DBR inside and are easily broken apart. There is a lot of sand incorporated within the TB & PT. ST, CT & CV were also observed on pebbles, cobbles and logs randomly along the segment, with the CT & CV appearing as a sand entrained layer on the clasts.

Along most of the segment the oiling concentration was $< 1\%$. At the southern and northern ends, concentrations were higher with 1-2m long areas ranging to 10% . One area at the southern end was observed with 10-15% coverage ($\sim 10 \times 20$ m maximum dimension) and an area to the north was observed where the TB & PT's had been covered by 5 to 9 cm of sand.

Note that 4 garbage bags of oiled sand were also observed along this segment and are located on the sketch map.

↑
GOA 25 C



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

OOOO No Oil

CC-1

ADEC Segment Length: 476⁷¹m

0 100 200 300
METERS

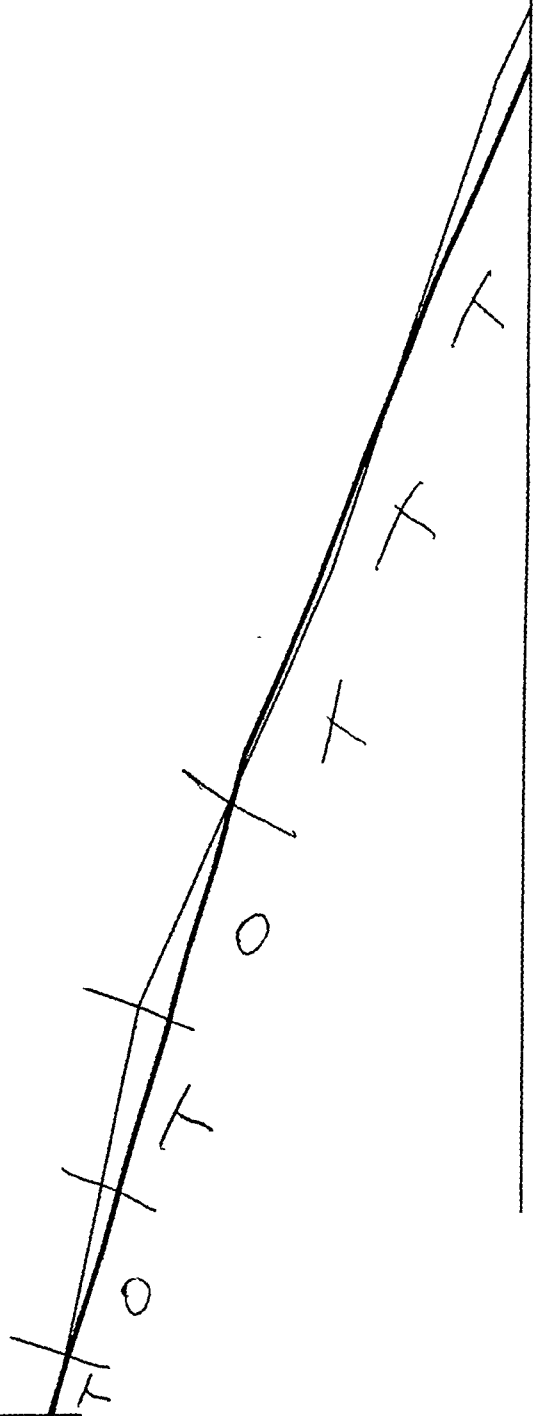
ACE 1950549

Map Key: GOA-25a

Name: _____

Date: _____

Data Entered: _____



Tide
 Medium
 Arrow
 Very Light
 Oil

CC-1

Approx. Segment Length: 4771m



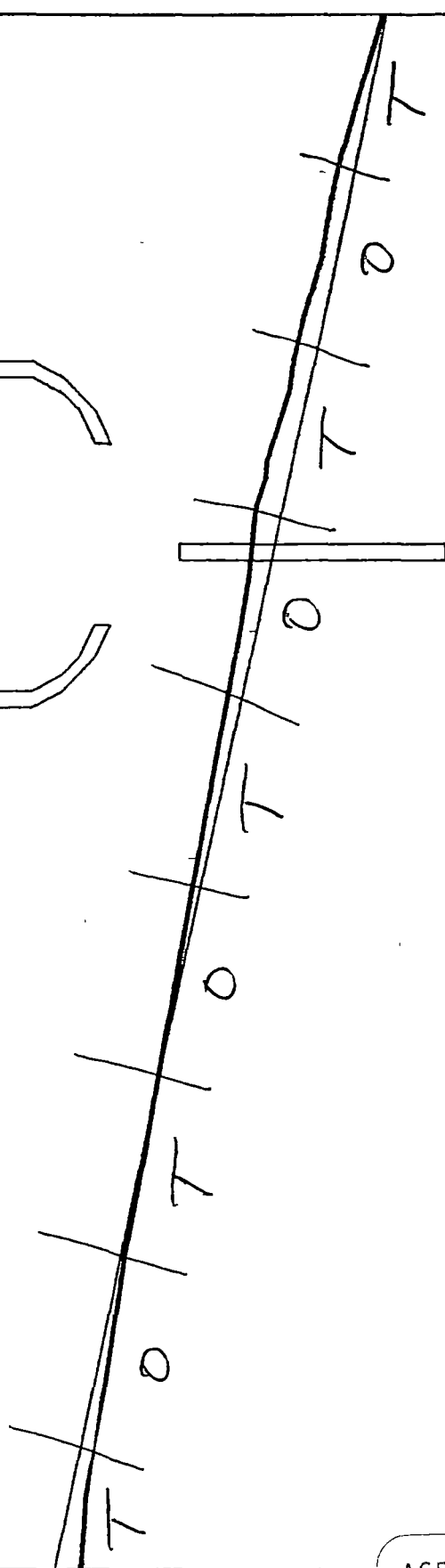
Mo
 Nam
 Date
 Data

ACE 1950550

C

C

1



XXXX Wide

//// Medium

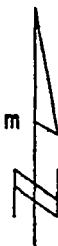
---- Narrow

TTTT Very Light

0000 No Oil

CC-1

Approx. Segment Length: 4771m



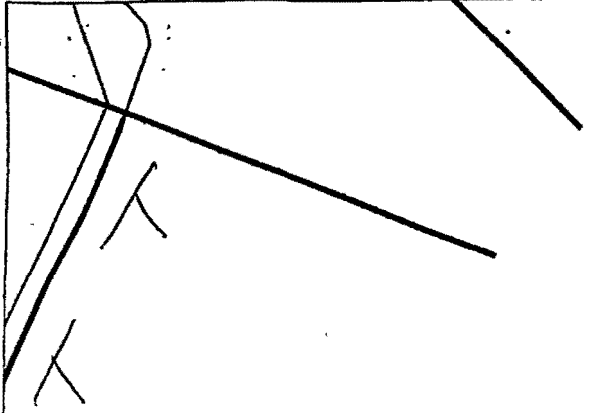
ACE 1950551

Map Key: AKP-CC-1c

Name: _____

Date: _____

Data Entered: _____



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CC-1

Approx. Segment Length: 4771m



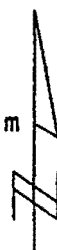
ACE 1950552

Map Key: AKP-CC-1f

Name: _____

Date: _____

Data Entered: _____



GENERAL DATA

SEG ID: CC-1 SUBDIV: A TEAM: 19 SURVEY DATE: 5/3/90
PAVEMENT: CHAR - AREA 0 THICKNESS 0 TARBALLS 5
OILED: LGS X VEG - TRH X DBR - WAVE EXP: LW - MD - HG X
FAX RCVD: _____ DT: _____ AGENCY DISAGREE: _____
EST SUBDIV LGTH: 4771 OIL CATEGORY: W 0 M 0 N 20 VL 2080 ND 1771 U 0

SURFACE DATA

SURFACE SEDIMENT: BRK 0 BLD 0 COB 5 PEB 10 GRN 15 SAN 70 MUD 0 VEG 0

CHAR #: 1 OIL CHAR: CV OIL DIST: CONT - BRKN - PTCH - SPLH X
OIL CLR: DBL FILM CLR: - TIDAL ZONE: SU X UI X MI - LI -

CHAR #: 2 OIL CHAR: CT OIL DIST: CONT - BRKN - PTCH - SPLH X
OIL CLR: DBL FILM CLR: - TIDAL ZONE: SU X UI X MI - LI -

CHAR #: 3 OIL CHAR: ST OIL DIST: CONT - BRKN - PTCH - SPLH X
OIL CLR: DBL FILM CLR: - TIDAL ZONE: SU X UI X MI - LI -

CHAR #: 4 OIL CHAR: PT OIL DIST: CONT - BRKN - PTCH - SPLH X
OIL CLR: DBL FILM CLR: - TIDAL ZONE: SU X UI X MI - LI -

CHAR #: 5 OIL CHAR: TB OIL DIST: CONT - BRKN - PTCH X SPLH X
OIL CLR: DBL FILM CLR: - TIDAL ZONE: SU X UI X MI - LI -

CHAR #: 6 OIL CHAR: ND OIL DIST: CONT - BRKN - PTCH - SPLH -
OIL CLR: - FILM CLR: - TIDAL ZONE: SU - UI - MI X LI X

CHAR #: _____ OIL CHAR: _____ OIL DIST: CONT _____ BRKN _____ PTCH _____ SPLH _____
OIL CLR: _____ FILM CLR: _____ TIDAL ZONE: SU _____ UI _____ MI _____ LI _____

CHAR #: _____ OIL CHAR: _____ OIL DIST: CONT _____ BRKN _____ PTCH _____ SPLH _____
OIL CLR: _____ FILM CLR: _____ TIDAL ZONE: SU _____ UI _____ MI _____ LI _____

SSAT DATA ENTRY FORM

SUBSURFACE DATA

PAGE 2 OF 2

SEGMENT ID: CC-1 SUBDIV: A

PIT # 1 PIT DEPTH 30 OIL CHARACTER N/O OIL INTERVAL: FROM 0 TO 0
QUANT: UC OIL CLR: - FLM CLR: - ZONE: SU - UI X MI - LI -
SUBSURF SEDIMENT: BRK - BLD - COB - PEB - GRN X SAN X MUD - VEG -

PIT # 2 PIT DEPTH 25 OIL CHARACTER OL OIL INTVAL: FROM 9 TO 11
QUANT: UC OIL CLR: DBL FLM CLR: - ZONE: SU - UI X MI - LI -
SUBSURF SEDIMENT: BRK - BLD - COB - PEB X GRN X SAN X MUD - VEG -

PIT # 3 PIT DEPTH 30 OIL CHARACTER NO OIL INTVAL: FROM 0 TO 0
QUANT: UC OIL CLR: - FLM CLR: - ZONE: SU - UI X MI - LI -
SUBSURF SEDIMENT: BRK - BLD - COB - PEB X GRN X SAN X MUD - VEG -

PIT # 4 PIT DEPTH 25 OIL CHARACTER DL OIL INTVAL: FROM 5 TO 7
QUANT: UC OIL CLR: DBL FLM CLR: - ZONE: SU - UI X MI - LI -
SUBSURF SEDIMENT: BRK - BLD - COB - PEB X GRN X SAN X MUD - VEG -

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
 QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
 SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO
QUANT: OIL CLR: FLM CLR: ZONE: SU UI MI LI
SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
SUBSURF SEDIMENT: BRK _____ BLD _____ COB _____ PEB _____ GRN _____ SAN _____ MUD _____ VEG _____

PROBLEMS: _____

ACE 1950554

SHORELINE ECOLOGICAL SUMMARY (Page 1 of 6)

REVISION: 03/22/90

Segment ST / CC-1 Subdivision A Date (mo / day / yr) 5/3/90

Time (24 hr) 1730-1945 Biologist SHARMAN

(A) Substrate type and % of segment: SUBDIV.
 (1) Bedrock (2) Boulder (3) Cobble 5 (4) Pebble 10 (5) Sand 85 (6) Silt ^{+ granules}

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

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

Photographs: Roll No.

Frames

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS (NACELLA, LITTORINA, LIMAEYS)

Dense			Moderate			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 shorebirds, 10 sculpin, 15 Glaucous-winged gulls, 1 golden plover, 1 yellowlegs, 30 pintails, 1 subadult eagle at N. end of segment (Stream) sitting in willows. Brown bear, fox, and river otter tracks very common in supratidal and UTZ sand - otters are transiting back & forth to backshore ponds. 2-3 fairly thin & sparse drift lines in UTZ include occasional *Thalassia* woods, along with some (cont.)

Ecological Considerations:

Please refer to attached Eco. Maps. Generally, the identified sensitivities relate to the Chinook lagoon estuary at the S. end of the segment with its anadromous stream, and the catalogued anadromous stream at the N. end of the segment. The former (lagoon) gives the codes 8AA (sensitive estuary) and 9LM (land mammals), and the latter (stream) gives the codes 1A (fry outmigration) and 1B (spawning). As related in this section of the summaries for CC-100 & CC-2, the lagoon estuary is a special concern due to ecological importance/productivity, as well as sensitivity to human intrusion/physical disturbance. In addition, the backshore area of this segment appears to be of considerable importance to terrestrial mammals - particularly river otters.

ACE 1950555

Sharman
5/3/90General Comments (cont.):

Fucus, Alaria, Halosaccion. This is a wide, low-angle sandy exposed beach - much like PB-8 + CC-4, for example. In general, Comments for these segments (intertidally) are probably interchangeable. Invertebrate shells/taste/etc. include: Saxidomus giganteus, Mytilus edulis, Tresus capax, Chiocardium nuttallii, Siliqua patula, Protothaca staminea, Macoma spp., Mya spp., Sipuncula polyzona, Fusitriton oregonensis, Cancer magister, Telmessius, Serpula tubes, large dried clam siphons (at least some - maybe all - are Mya (truncata?)), Dendroaster / Echinarachneus (probably the latter), old dried Suberites ficus (hermit sponge), Podocarpus, dried clusters of egg cases of large subtidal snails (Fusitriton / Neptunes / Buccinum). Generally normal + healthy Intertidal Community, given the exposure, beach dynamics, and substrate types.

ECOLOGY MAP

(1 of 4)

CC-1

(Page 3 of 6)

8AA - sensitive estuary

9LM - land mammals

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

1B - stream mouth (spawning) 7/15 → 9/10 (peak 8/15)

SB

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CC-1

Approx. Segment Length: 4771m



ACE 1950557

Map Key: AKP-CC-1a

Name: _____

Date: _____

Data Entered: _____

CC-1

ECOLOGY MAP
(2 of 4)
See map page 1.

CC-1
(Page 4 of 6)

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CC-1

Approx. Segment Length: 4771m

0 100 200 300
METERS

Map Key: AKP-CC-1c

Name: _____

Date: _____

Data Entered: _____

ACE 1950558

ECOLOGY MAP
(3 of 4)

See map page 1.

CC-1
(Page 5 of 6)

Side

Medium

Arrow

Very Light

Oil

CC-1

Approx. Segment Length: 4771m

0 100 200 300
METERS

Ma

Nam

Date

Data

ACE 1950559

→ - - - - - →
Anadromous
stream (ADF&G # 262-15-10030)
"Village Creek"

ECOLOGY MAP

(4 of 4)

See map page 1.

CC-1

(Page 6 of 6)

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CC-1

Approx. Segment Length: 4771m

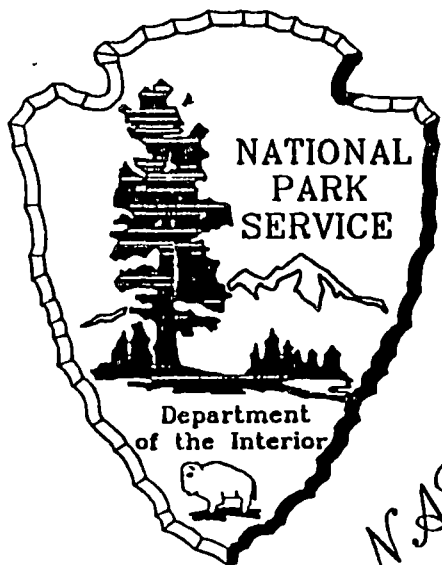


Map Key: AKP-CC-1f

Name:

Date: ACE 1950560

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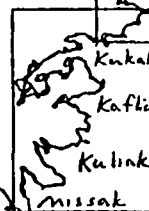


KATMAI NATIONAL PARK
AND PRESERVE



KATMAI BAY

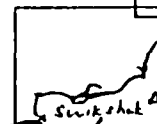
ghetiko f grait



KUKAK BAY



HALLO BAY

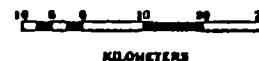


SWIKSHAK BAY

K09-17-CC100



CAPE DOUGLAS



ACE 19505614/3



Alaska Peninsula

SWIK2

SWIK3

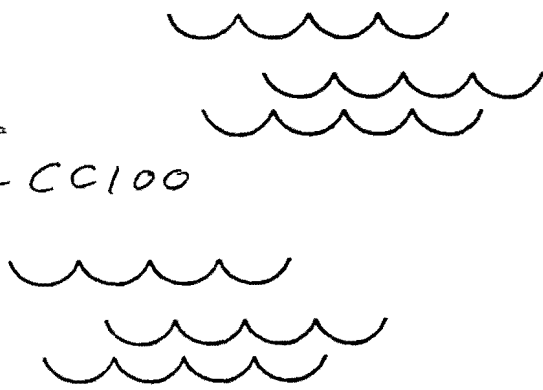
SWIK4

SWIK1

SWIKSHAK BAY

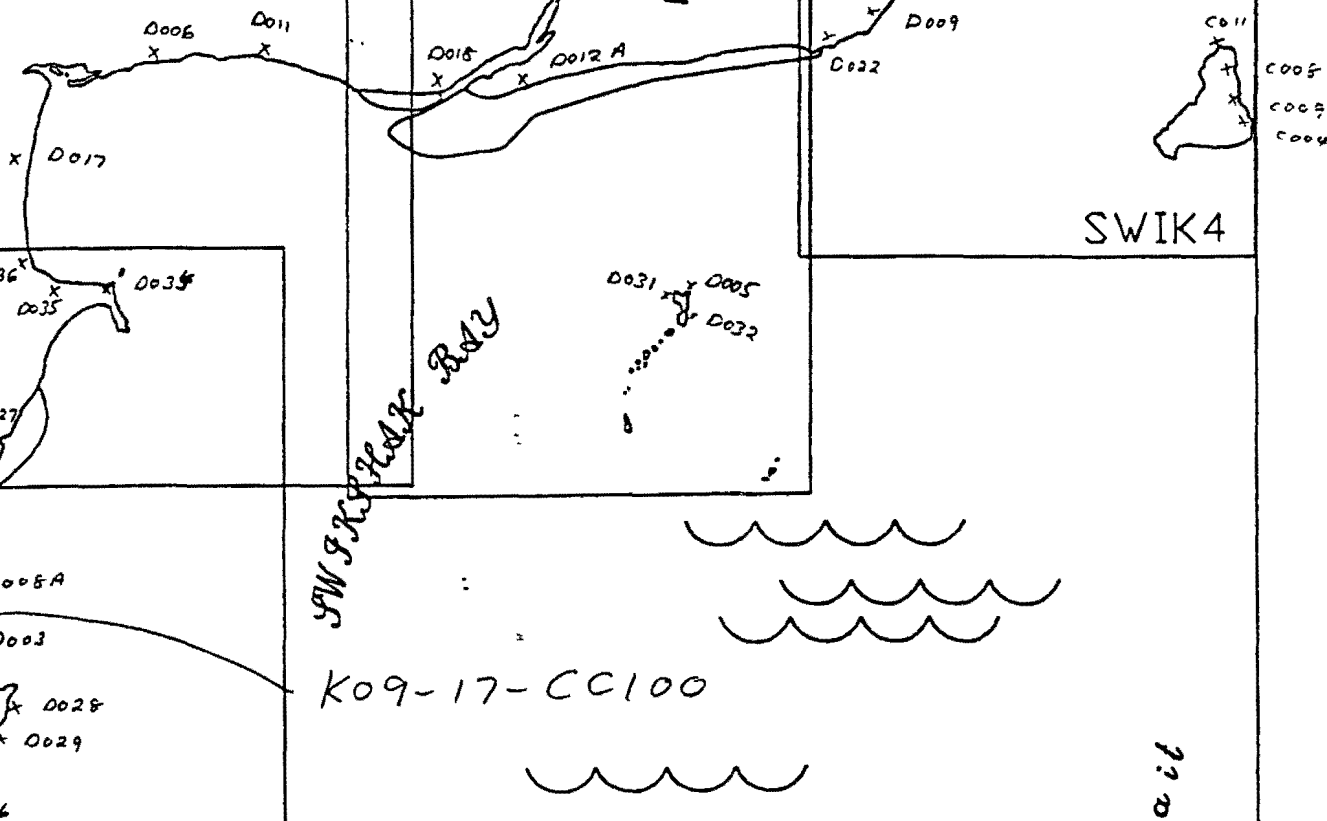
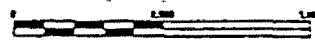
K09-17-CC100

Shelikof Strait



SWIKSHAK BAY

ACE 1950562



National Park Service
Shoreline Oil Assessment

Observer: Schoch Zone: Kodiak Segment #: K09-17-55100

Date: 5/3/90 Place: Gliniak Lagoon - Katmai

Time: 1530 Tide Height: Segment Length: met

Weather: cloudy sunny fog rain windy

Observations from: ground vessel helicopter

Upland Description: bedrock rubble alluvial fan grass forest
alders/willows marsh lagoon pond bluff

Upland Slope Angle: low medium, high vertical

Intertidal Slope Angle: low medium high vertical Tidal Flat

Wave Exposure: low medium high Wave Type: swell cresting breaking non

Length of Beach: meters Width: meters

Impacted Area (length)

Total length of impacted area: meters

Wide: >6 m and >50% oil cover: meters

Moderate: 3 m to 6m and 10% to 50% oil cover: meters

Narrow: <3m and >10% oil cover: meters

Very Light: <10% oil cover regardless of width (splatters): meter

Subsurface Oil Assessment

Pit #	Oil Type	Matrix Size	Intertidal Pit Location	Oiled Depth Interval	Pit Depth	% Sedimen Saturation
1	<u>No Pits Due, Subsurface oil very unlikely</u>					
2						
3						
4						
5						
6						
7						
8						

ACE 1950563

Supratidal

Observer: ... *Schach* ... Segment #: *K09-117-CC100* ..

Substrate	%	oil type	continuous	broken	patchy/numerous	sparse
bedrock	<i>Ø</i>	asphalt				
		pooled				
boulder	<i>Ø</i>	cover				
		coat				
cobble	<i>Ø</i>	stain				
		mousse				
pebble	<i>Ø</i>	patties				
		tarballs				
sand	<i>Ø</i>	sheen				
		logs				
silt/mud	<i>100</i>	plastic				
		dead algae				
decaying organics		dead wildlife number and type <i>Ø</i>				

Upper Intertidal

Substrate	%	oil type	continuous	broken	patchy/numerous	sparse
bedrock	<i>Ø</i>	asphalt				
		pooled				
boulder	<i>Ø</i>	cover				
		coat				
cobble	<i>Ø</i>	stain				
		mousse				
pebble	<i>Ø</i>	patties				
		tarballs				
sand	<i>Ø</i>	sheen				
		logs				
silt/mud	<i>100</i>	plastic				
		dead algae				
decaying organics		dead wildlife number and type <i>Ø</i>				

See (In some
sketch patches

ACE 1950564

Middle Intertidal

Observer: Schacht Segment #: K09-1.7-5519

Substrate % oil type continuous broken patchy/numerous sparse

bedrock	$\emptyset$	asphalt				
		pooled				
boulder	$\emptyset$	cover				
		coat				
cobble	$\emptyset$	stain				
		mousse				
pebble	$\emptyset$	patties				
		tarballs				
sand	$\emptyset$	sheen				
		logs				
silt/mud 100		plastic				
		dead algae				
decaying organics		dead wildlife number and type $\emptyset$				

NO OIL
OBSERVED

Lower Intertidal

Substrate % oil type continuous broken patchy/numerous sparse

bedrock		asphalt				
		pooled				
boulder		cover				
		coat				
cobble		stain				
		mousse				
pebble		patties				
		tarballs				
sand		sheen				
		logs				
silt/mud		plastic				
		dead algae				
organics		dead wildlife number and type				

ACE 1950565

**Biological Assessment
Of Oil Impacted Area**

Observer: Schock Segment #: K09-17-CC1

Intertidal Organism	Dense	Moderate	Sparse	Rare	Juvenile	Mortality
Barnacles						
Mussels						
Littorina						
Nucella						
Limpets						
Amphipods						
Isopods						
Echinoderms						
Fucus						
Other Algae						

Marine Mammal Observations:

Terrestrial Mammal Observations:

Lea. Tracks
Wolf

Bird Observations:

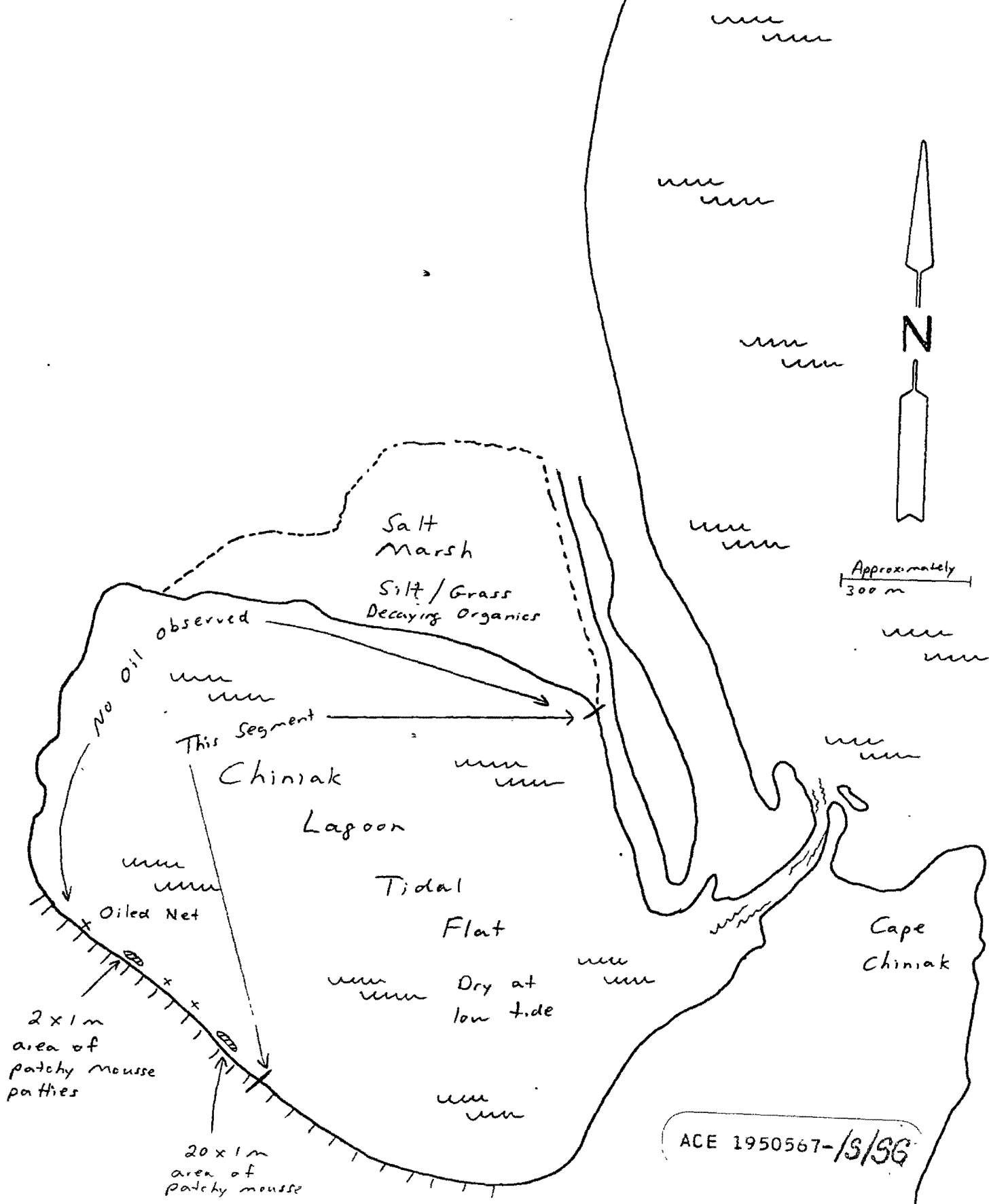
General Observations:

Recoverable oil along this segment consists of
mousse patches on sand/silt substrate. Some burial
is occurring, with very fine silt/clay. Hand shovels
could be used to remove this oil but the mud
substrate will be severely trampled with long lasting
impact. Recommend only 1 or 2 people go into
the area if cleanup is required. Remaining oil can
be expected to persist in this lagoon for a very long
time.

K09-17-CC100

5/3/90

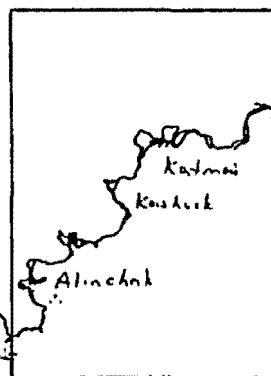
Schock - Sketch A



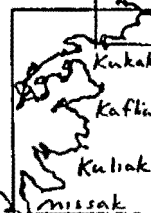
ACE 1950567-1/3/96



KATMAI NATIONAL PARK AND PRESERVE



KATMAI BAY



KUKAK BAY



HALLO BAY



SWIKSHAK BAY

CAPE DOUGLAS

K09-17-CC001

ghelikof Strait



ACE 1950568+1/S



Alaska Peninsula

SWIK2

SWIK3

SWIK4

SWIK1

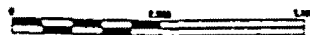
SWITCHBACK RAY

See sketch A

Shelikof Strait

SWITCHBACK RAY

ACE 1950569



National Park Service
Shoreline Oil Assessment

Observer:....Schach..... Zone:...Kodiak....Segment #: K09-17-56001...
Date:...5/3/90..... Place: Chiniak Beach - Sivikshak - Kotma:....
Time:.....1700..... Tide Height:.....Segment Length:.....met

Weather: (cloudy) sunny fog rain (windy)

Observations from: (ground) vessel helicopter

Upland Description: bedrock rubble alluvial fan (grass) (Dune) forest
 alders/willows marsh lagoon pond bluff

Upland Slope Angle: (low) medium, high vertical

Intertidal Slope Angle: (low) medium high vertical

Wave Exposure: low medium (high) Wave Type: swell cresting breaking (non)

Length of Beach:.....meters Width:.....meters

=====
Impacted Area (length)

Total length of impacted area:.....meters

Wide: >6 m and >50% oil cover.....meters

Moderate: 3 m to 6m and 10% to 50% oil cover.....meters

Narrow: <3m and >10% oil cover.....meters

Very Light: <10% oil cover regardless of width (splatters).....meter

Subsurface Oil Assessment

Pit #	Oil Type	Matrix Size	Intertidal Pit Location	Oiled Depth Interval	Pit Depth	% Sediment Saturation
1	3 Pits Dug - No oil observed					
2						
3						
4						
5						
6						
7						
8						

ACE 1950570

Supratidal

Observer:.....Schach.....Segment #: K09-17-5599.1..

Substrate	%	oil type	continuous	broken	patchy/numerous	sparse
bedrock	Ø	asphalt				
		pooled				
boulder	Ø	cover				
		coat				
cobble	Ø	stain				
		mousse				
ebble	Ø	patties			numerous in places	✓
		tarballs			numerous in places	✓
and	100	sheen				
		logs				
silt/mud	Ø	plastic				
		dead algae				
organics	Ø	dead wildlife number and type Ø				

per Intertidal

Substrate	%	oil type	continuous	broken	patchy/numerous	sparse
rock	Ø	asphalt				
		pooled				
boulder	Ø	cover				
		coat				
cobble	Ø	stain				
		mousse				
pebble	Ø	patties			along three	✓
		tarballs			separate swash lines	✓
l	100	sheen				
		logs				
/mud	Ø	plastic				
		dead algae				
organics	Ø	dead wildlife number and type Ø				

ACE 1950571

Biological Assessment
of Oil Impacted Area

Observer: Schuch..... Segment #: K09-17-CC00

Intertidal Organism	Dense	Moderate	Sparse	Rare	Juvenile	Mortality
Barnacles						
Mussels						
Littorina						
Nucella						
Limpets						
Amphipods						
Isopods						
Echinoderms						
Fucus						
Other Algae						

See SS AT
BIO FORM

Marine Mammal Observations:

0

Terrestrial Mammal Observations:

Bear tracks
River Otter tracks

Bird Observations:

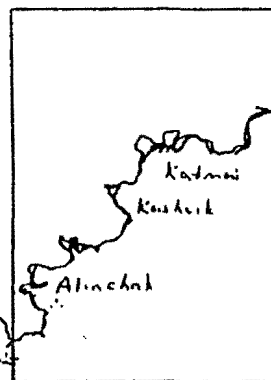
Brandt Geese
Plover?
Yellow legs

General Observations:

See Herd - sporadic tarballs and mousse patches
constitute the recoverable oil. Four bags of (lost years)
mousse were found along the segment. Although
this type of oil presents little harm to the
environment, this segment could be walked from
end to end by a cleanup crew with shovels
to remove the majority of the surface oil with
entrained sediment.

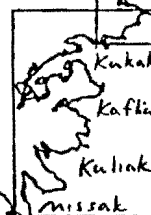


KATMAI NATIONAL PARK
AND PRESERVE



KATMAI BAY

ghelikof gtnait



KUKAK BAY



HALLO BAY



SWIKSHAK BAY



CAPE DOUGLAS

K09-17-CC002



ACE 19505747/S



Alaska Peninsula

SWIK2

SWIK3

SWIK4

SWIK1

SWIKCHAK RAY

K09-17-CC002

Shelikof Strait

SWIKCHAK RAY

ACE 1950575



National Park Service
Shoreline Oil Assessment

Observer: ... Schoch ... Zone: ... Kodiak ... Segment #: K09-17-00002 ...
 Date: ... 5/13/90 ... Place: Chiniak Lagoon - Katmai ...
 Time: ... 1400 ... Tide Height: ... Segment Length: ... met
 Weather: cloudy sunny fog rain windy
 Observations from: ground vessel helicopter
 Upland Description: bedrock rubble alluvial fan grass forest
 alders/willows marsh lagoon pond bluff
 Upland Slope Angle: low ^{cliff 50%} medium high vertical
 Intertidal Slope Angle: low medium high vertical Tide Flat
 Wave Exposure: low medium high Wave Type: swell cresting breaking none

Length of Beach:meters Width:meters

Impacted Area (length)

Total length of impacted area:meters

Wide: >6 m and >50% oil covermeters

Moderate: 3 m to 6m and 10% to 50% oil covermeters

Narrow: <3m and >10% oil covermeters

Very Light: <10% oil cover regardless of width (splatters)meters

Subsurface Oil Assessment

Pit #	Oil Type	Matrix Size	Intertidal Pit Location	Oiled Depth Interval	Pit Depth	% Sediment Saturation
1	<u>No subsurface oil observed in several pits</u>					
2						
3						
4						
5						
6						
7						
8						

ACE 1950576

Supratidal

Observer: S. Schach Segment #: K09-17-55002

Substrate	%	oil type	continuous	broken	patchy/numerous	sparse
bedrock	$\emptyset$	asphalt				
		pooled				
boulder	$\emptyset$	cover				
		coat				
cobble	$\emptyset$	stain				
		mousse				
pebble	$\emptyset$	patties			See Sketch }	✓
		tarballs				✓
sand	100	sheen				
		logs				
silt/mud	$\emptyset$	plastic				
		dead algae				
organic mats		dead wildlife number and type $\emptyset$				
organics						

Upper Intertidal

Substrate	%	oil type	continuous	broken	patchy/numerous	sparse
bedrock	$\emptyset$	asphalt				
		pooled				
boulder	$\emptyset$	cover				
		coat				
cobble	$\emptyset$	stain				
		mousse				
pebble	$\emptyset$	patties			See Sketch }	✓
		tarballs				✓
sand	60	sheen				
		logs				
silt/mud	40	plastic				
		dead algae				
decaying organics		dead wildlife number and type $\emptyset$				

ACE 1950577

Middle Intertidal

Observer:....Schuch.....Segment #: K09-17-CC002

Substrate	%	oil type	continuous	broken	patchy/numerous	sparse
bedrock	0	asphalt				
		pooled				
boulder	0	cover				
		coat				
cobble	0	stain				
		mousse				
pebble	0	patties				
		tarballs				
sand	30	sheen				
		logs				
silt/mud	70	plastic				
		dead algae				
decaying organics		dead wildlife number and type 0				

NO OIL
OBSERVED
TIDE FLAT
CPN

Lower Intertidal

Substrate	%	oil type	continuous	broken	patchy/numerous	sparse
bedrock		asphalt				
		pooled				
boulder		cover				
		coat				
cobble		stain				
		mousse				
pebble		patties				
		tarballs				
sand		sheen				
		logs				
silt/mud		plastic				
		dead algae				
organics		dead wildlife number and type				

ACE 1950578

**Biological Assessment
Of Oil Impacted Area**

Observer: Scheuch.....Segment #: KP.9-1.7-CC.00

Intertidal Organism	Dense	Moderate	Sparse	Rare	Juvenile	Mortality
Barnacles						
Mussels						
Littorina		See BIO	SSAT FORM			
Nucella						
Limpets						
Amphipods						
Isopods						
Echinoderms						
Fucus						
Other Algae						

Marine Mammal Observations:

Terrestrial Mammal Observations:

Bear Tracks
Wolf Tracks

Bird Observations:

General Observations:

The recoverable oil within this segment consists primarily of surface mounds, patches and tarballs, strewn along the high-high tide line. Some oiled debris was found - mostly nets, logs, etc. The area on each side of the creek could easily be cleaned by a crew with hand shovels. The rest of the segment should be left as-is to avoid disturbing the habitat, however any oil remaining can be expected to remain for a long time in this protected lagoon.

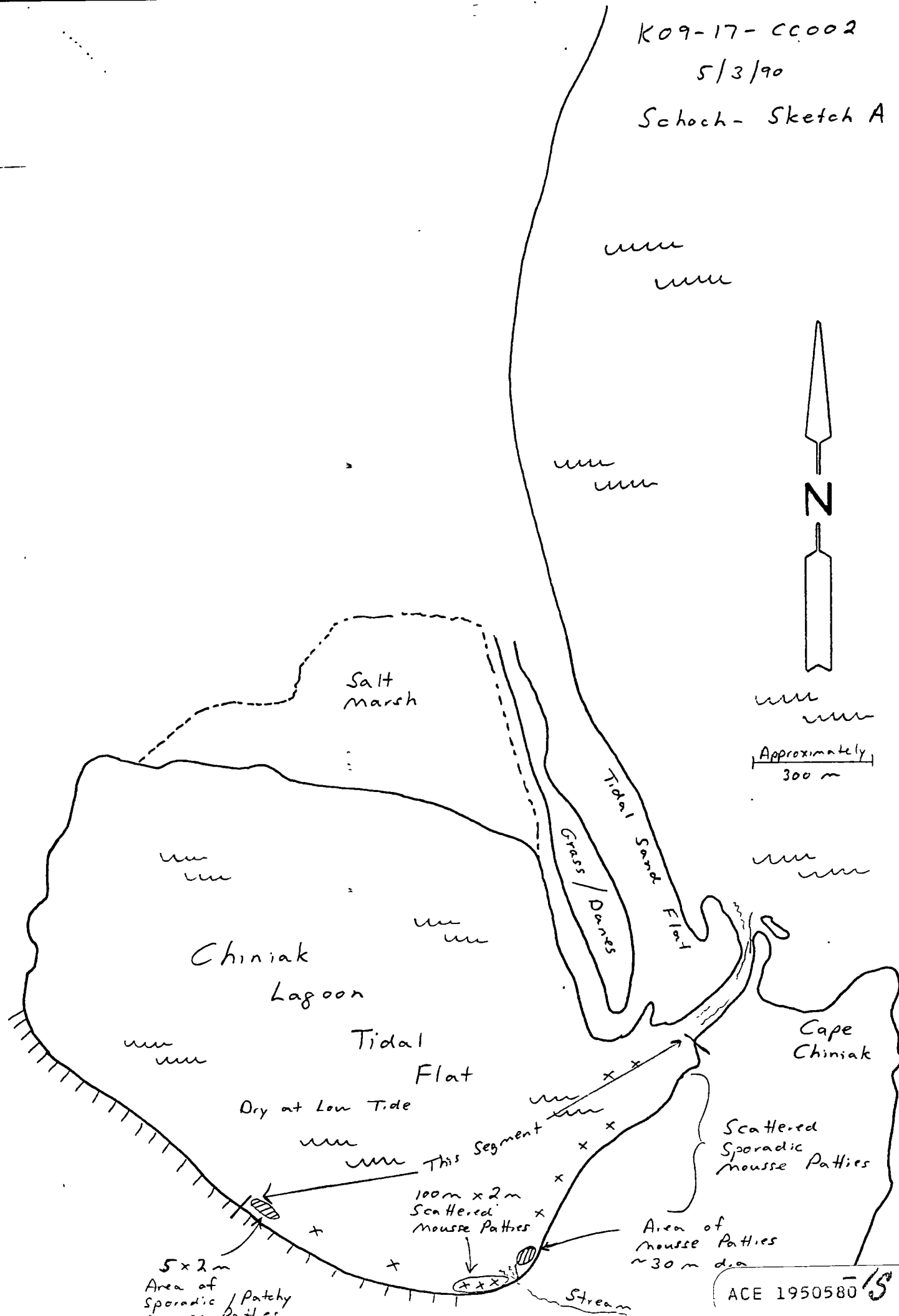
ASSESS.OIL\FORMS.SAT

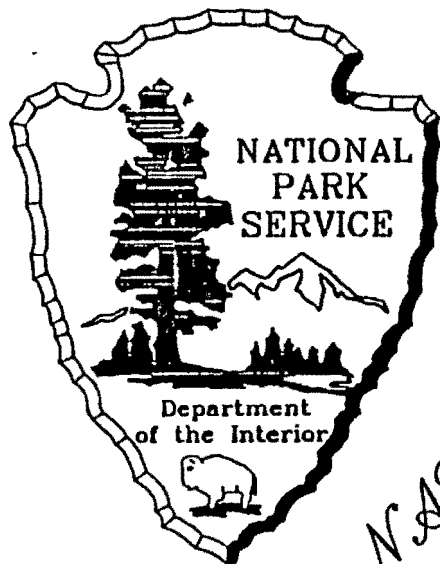
ACE 1950579

K09-17-CC002

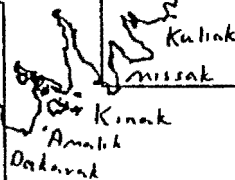
5/3/90

Schoch - Sketch A





KATMAI NATIONAL PARK
AND PRESERVE



Shaw Island

CAPE DOUGLAS

SWIKSHAK BAY

K09-17-CC005

HALLO BAY

KUKAK BAY

KATMAI BAY

Yelkof Strait



ACE 1950581 +1/3



Alaska Peninsula

SWIK2

SWIK3

SWIK4

SWIK1

SWIKSHAK RAY

Shelikof Strait

ACE 1950582

SWIKSHAK RAY



National Park Service
Shoreline Oil Assessment

Observer:...*Schoch*..... Zone:...*Kodiak*..... Segment #:...*K09-17-CC005*...

Date:...*5/3/90*..... Place:...*Cape Chisak - Sukshak Bay - Katmai*...

Time:...*1300*..... Tide Height:..... Segment Length:.....met

Weather: cloudy sunny fog rain windy

Observations from: ground vessel helicopter

Upland Description: bedrock rubble alluvial fan grass forest
alders/willows marsh lagoon pond bluff

Upland Slope Angle: low medium , high vertical

Intertidal Slope Angle: low medium high vertical

Wave Exposure: low medium high Wave Type: swell cresting breaking non

Length of Beach:.....meters Width:.....meters

=====

Impacted Area (length)

Total length of impacted area:....*600*....meters

Wide: >6 m and >50% oil cover.....meters

Moderate: 3 m to 6m and 10% to 50% oil cover.....meters

Narrow: <3m and >10% oil cover.....meters

Very Light: <10% oil cover regardless of width (splatters).....meter

=====

Subsurface Oil Assessment

Pit #	Oil Type	Matrix Size	Intertidal Pit Location	Oiled Depth Interval	Pit Depth	% Sedimen Saturati
1	<i>No Pits Dug</i>					
2						
3						
4						
5						
6						
7						
8						

ACE 1950583

Supratidal

Observer: Schoch Segment #: K09-17-CC005

Substrate	%	oil type	continuous	broken	patchy/numerous	sparse
bedrock	90	asphalt				
		pooled				
boulder	10	cover				
		coat				Entire ✓
cobble	Ø	stain				Segment ✓
		mousse				
pebble	Ø	patties				
		tarballs				
sand	Ø	sheen				
		logs				Oiled Logs ~ 20m
silt/mud	Ø	plastic				
		dead algae				
organics	Ø	dead wildlife number and type Ø				

Upper Intertidal

Substrate	%	oil type	continuous	broken	patchy/numerous	sparse
bedrock	90	asphalt				
		pooled			pooled mousse in rock cracks	✓
boulder	10	cover			✓	✓
		coat			✓	✓
cobble	Ø	stain			✓	✓
		mousse			✓	✓
pebble	Ø	patties				
		tarballs				
sand	Ø	sheen				
		logs				
silt/mud	Ø	plastic				
		dead algae				
organics	Ø	dead wildlife number and type Ø				

ACE 1950584

Middle Intertidal

Observer:....Schuch.....Segment #: K09-17-5500

Substrate	%	oil type	continuous	broken	patchy/numerous	sparse
bedrock	40	asphalt				
		pooled				
boulder	40	cover				✓
		coat				✓
cobble	20	stain				✓
		mousse				✓
pebble	0	patties				
		tarballs				
sand	0	sheen				
		logs				
silt/mud	0	plastic				
		dead algae				
organics	0	dead wildlife number and type 0				

Lower Intertidal

Substrate	%	oil type	continuous	broken	patchy/numerous	sparse
bedrock	30	asphalt				
		pooled				
boulder	40	cover				
		coat				
cobble	20	stain				
		mousse				
pebble	10	patties				
		tarballs				
sand	0	sheen				
		logs				
silt/mud	0	plastic				
		dead algae				
organics	0	dead wildlife number and type 0				

NO OIL
OBSERVED

ACE 1950585

Biological Assessment
Of Oil Impacted Area

Observer: ... Schuch ... Segment #: K09-17-CC00-

Intertidal Organism	Dense	Moderate	Sparse	Rare	Juvenile	Mortality
Barnacles						
Mussels						
Littorina						
Nucella						
Limpets						
Amphipods						
Isopods						
Echinoderms						
Fucus						
Other Algae						

See SSAT
FORM
BIO

Marine Mammal Observations:

0

Terrestrial Mammal Observations:

River otter
Bear tracks

Bird Observations:

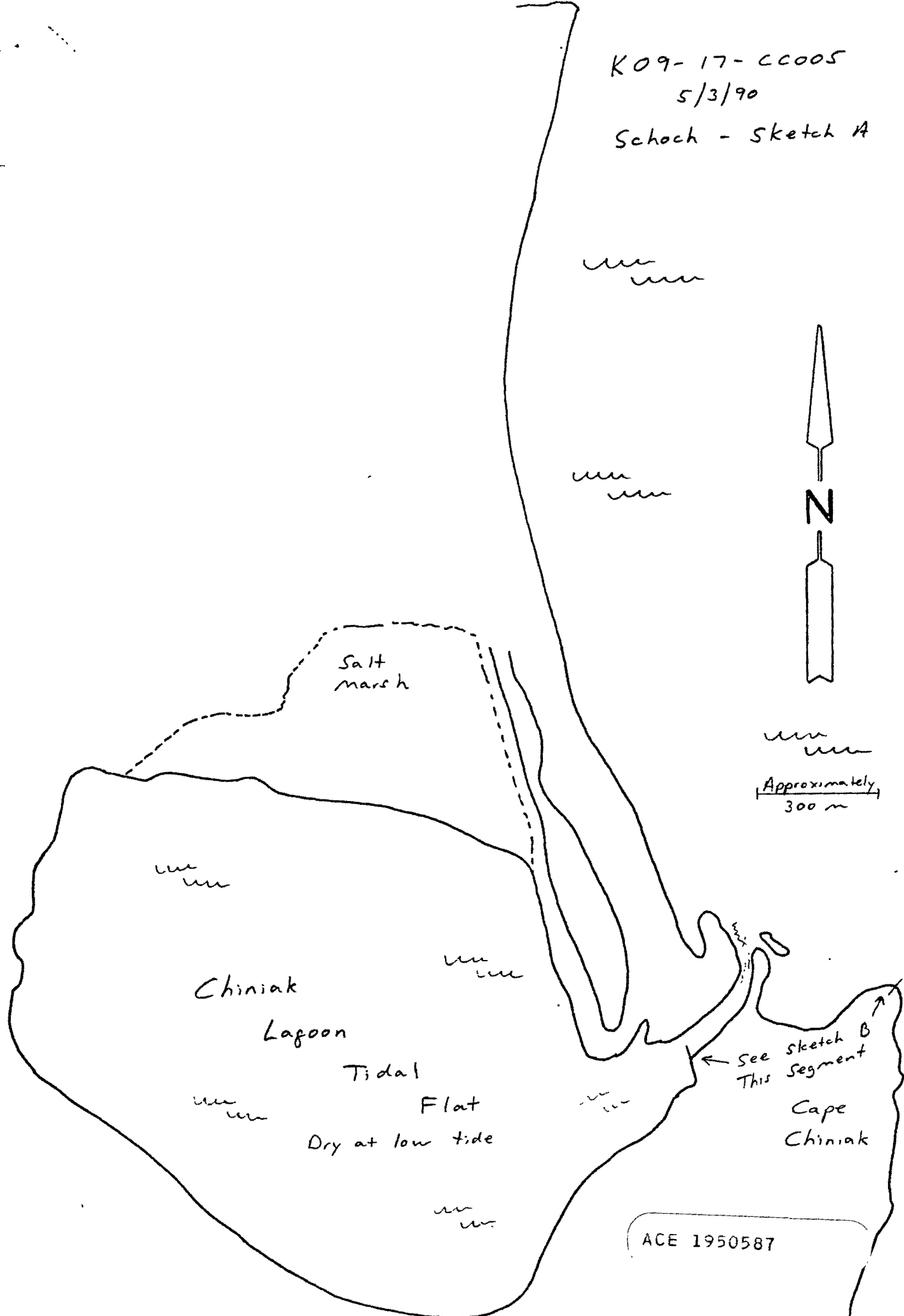
General Observations:

Recoverable oil consists of pooled mousse deep in interstitial spaces up to 12 cm thick. This would be difficult to extract even with hand tools and this area is difficult to access by vessels. Oiled debris could be removed easily. The observed oil is mostly stable non-mobile and relatively benign to the environment. Because of its sheltered location this oil will persist for a long time.

K09-17-CC005

5/3/90

Schoch - Sketch A

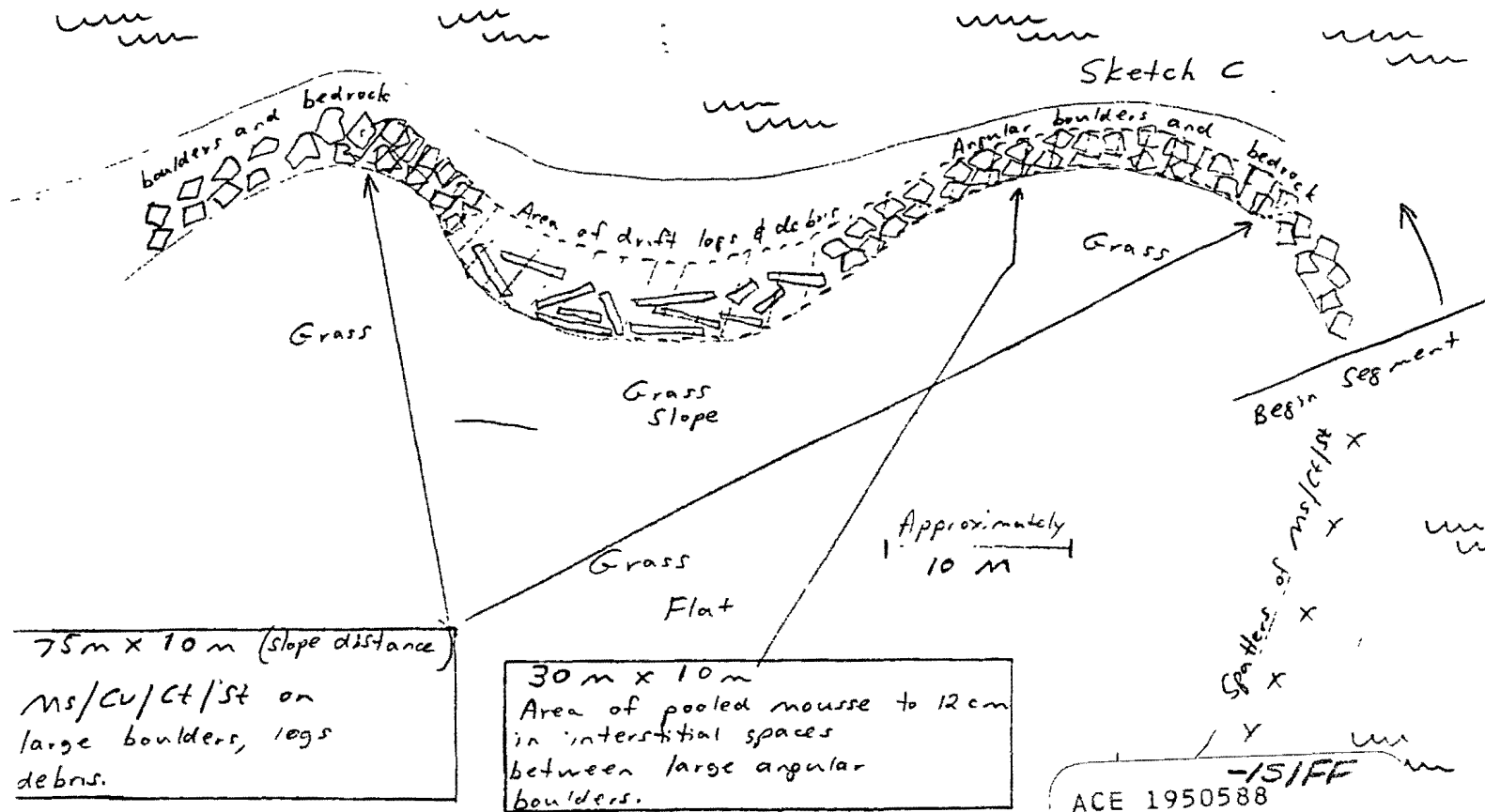
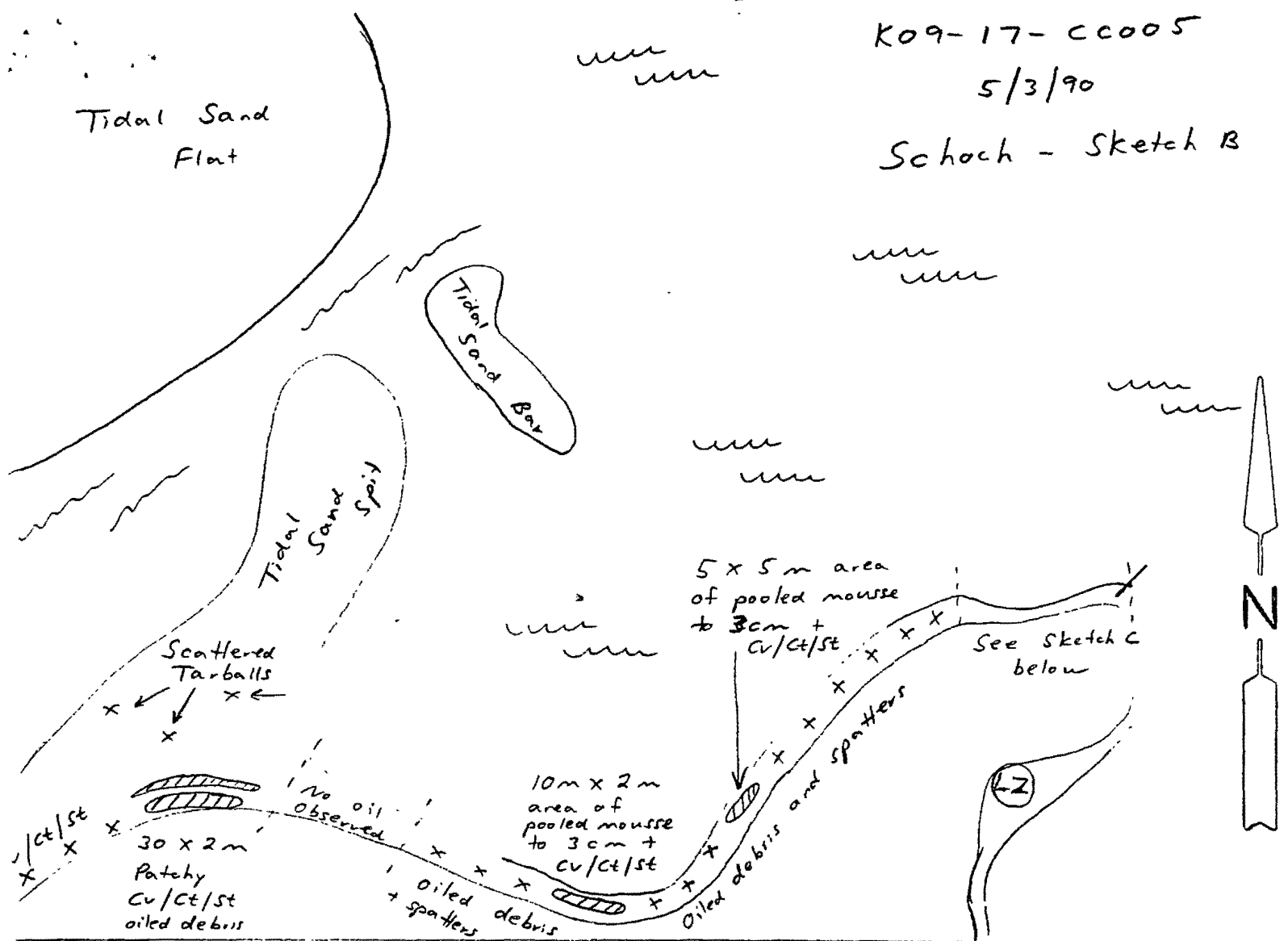


ACE 1950587

K09-17-CC005

5/3/90

Schoch - Sketch B



ACE 1950588

262-15-10040

Called Ray Morris 4/24/90
re: info. on status of
this & all the sub-units?

Chinich Lagoon

K9-17

ACE 1950589

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST



STREAM#: 2621510040
SEGMENT: CC001*

PAGE 46

DATE PRINTED: 06/21/91

LOCATION: CHINIAK LAGOON

SURVEY TYPE: 91 MAYSAP - ~~SS~~ BS

METHOD: GROUND

DATE: 05/20/91

TEAM RECORDER: BARNHART

START TIME: 1315

OBSERVERS: BENNIS SPURR HEROLDSON

END TIME: 1415

OG/HAB DISCREPANCIES: -

AGENCY: FG NPS USCG EXX

PHOTOS TAKEN: N

STATION: 2621510040

ROLL#: -0-

FRAME: -0-

VIDEO TAKEN: N

TAPE#: -0-

START: -0-

END: -0-

SAMPLES TAKEN: N

SAMPLE NUMBERS: -0-

-0-

-0-

-0-

-0-

-0-

OIL IN STREAM BED: N

OVERALL OIL IMPACT: VL

OIL ON BEACH BY MOUTH: Y

WAVE EXPOSURE: HIGH

SHORELINE TYPE: BEACH

SUBSTRATE TYPE: BEDROCK -0- BOULDER -0- COBBLE 5 VEGETAT -0-

GRAVEL 25 SAND 70 MUD/SILT -0- GRANULE -0-

ANADROMOUS FISH PRESENT: N

SPECIES: -0-

COUNT: -0-

-0-

-0-

-0-

-0-

-0-

-0-

-0-

-0-

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

PAGE 53

DATE PRINTED: 06/21/91

STREAM# : 2621510040
SEGMENT#: CC001*

SURVEY TYPE : 91 MAYSAP - SS

LOCATION: CHINIAK LAGOON

DATE: 05/20/91

TIMES: 1315 - 1415

TEAM RECORDER: BARNHART

-- OILING EXTENT --

SITE#	SITE TYPE	DEPTH (cm)	LENGTH (m)	WIDTH (m)	AREA (m)	%	THICK (cm)	PEN (cm)	OIL TYPE CODES
1	0	0	0	0	0	0	0	0	0-7B3

COMMENTS:

LOCATION: APPROX 3600 METERS N OF CHINIAK LAGOON, AK PEN. THE STREAM MOUTH AREA WHERE THE OIL WAS LOCATED DURING THE 1990 CLEANUP HAS CHANGED COMPLETELY OVER THE WINTER OF 90-91. PICKED UP APPROX 2 DOZEN TARBALL'S AT STREAM MOUTH. THEY RANGED IN THICKNESS FROM 1CM TO 5CM. OIL STAIN ON A FEW LOGS AT STREAM MOUTH. TARBALL'S LOCATED AT UPPER ITZ.

ADF&G MULTI-ASSESSMENT DATA FORM

1) SURVEY TYPE: BS SS

2) REGION: PWS KP, CI K, AP

3) METHOD: Aerial Ground Boat

4) DATE: 5-20-91

16) HIGH TIDE TIME: 0801/2111

22) TEAM RECORDER: J. Barnhart

5) START TIME: 1315

17) HIGH TIDE HTS: 15.7/16.1

23) OBSERVERS: F. Bennis, D. Spurr, R. Hordtgen and others.

6) STOP TIME: 1415

18) LOW TIDE TIMES: 0157/1429

24) AGENCY: ADF&G, NPS, USCG, Estac

7) SEGMENT #: CC-001

19) LOW TIDE HTS: 3.7/0.2

25) PHOTOS TAKEN: Y N

8) K-UNIT: K9-17

20) TIDE HT AT SURVEY: _____

ROLL #: _____ FRAMES: _____

9) LAT: _____

Ebb Slack Flood Slack

26) VIDEO TAKEN: Y N

10) LONG: _____

21) USCG QUAD: _____

TAPE # _____

11) ASC #: 262-15-1003/0

START: _____ STOP: _____

12) STREAM NAME: Village creek

ADD LOCATION TO COMMENTS (BEACH SURVEY)

27) SAMPLES TAKEN? Y N

13) LOCATION: Approx 3600 meters N of Chiniak Lagoon, AK Pen.

SAMPLE I.D. _____

14) WAVE EXPOSURE: High Moderate Low

15) SHORELINE TYPE: Headland Low-lying Rocks Beach

Cove Lagoon Marsh

28) EXTENT OF OIL

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>	<u>TB</u>
SITE 2							
SITE 3							
SITE 4							
SITE 5							

29) OVERALL OIL IMPACT:

H = >6m band with ≥50% oil coverage

M = >6m band with ≤50% oil coverage or ≥3m to ≤6m with ≥10% oil coverage

L = <3m band with >10% oil coverage

VL = ≤10% oil coverage regardless of band width

N = No oil observed

33) ANADROMOUS FISH PRESENT: Y N

30) OIL IN STREAMBED: Y N

31) OIL ON BEACH ADJACENT TO MOUTH: Y N

32) SUBSTRATE TYPE (PERCENT):

Bedrock _____ Boulder _____ Gravel 25 Sand 70 Cobble 5 Mud/Silt _____

34) WILDLIFE OBSERVATION

Species _____ Number _____

35) COMMENTS: The stream mouth area where the oil was located during the 1990 cleanup has changed completely over the winter of 90-91. Picked up approx. 2 dozen TB's at stream mouth. They ranged in thickness from 1cm to 5cm. Oil stain on a few logs at stream mouth. TB's located at upper ITZ.



'89 Stream Survey

ASC NUMBER:

SEGMENT NUMBER:

YR CATALOGED:

LOCATION:

STREAM NAME:

KODIAK K-UNIT:

USGS QUADRANGLE:

SHORELINE TYPE:

LATITUDE:

LONGITUDE:

LEGAL:

WAVE EXPOSURE:

ASC NUMBER: 262-15-10040

SURVEY TYPE: SS

METHOD: F

DATE: 7-3-89

START TIME: 0830

STOP TIME: 1100

TEAM RECORDER: EDWARD WEISS

OBSERVERS: Terry Giegerich

AGENCY(IES): ADF&G

PHOTOS TAKEN? Y

Roll #: 89EWW018K Frames: 11-28

VIDEO TAKEN? Y Tape Number: SSKAP-01

Counter Start:

SAMPLES TAKEN? Y

SAMPLE I.D. NUMBERS: 1. KAP-3-1-1-

4.

2. KAP-3-1-2

5.

3.

6.

OILING DATA

	LENGTH	WIDTH	M2	%	THICK	FEN	OIL TYPE
SITE 1			6400+	5	2.54cm	1.27cm	MS
SITE 2			36,000	25	3.81cm	5cm	MS
SITE 3							
SITE 4							
SITE 5							

OVERALL OIL IMPACT: M

OIL IN STREAM CHANNEL? Y

SUBSTRATE

Bedrock	Granule
Boulder	Sand
Cobble 20	Silt 50
Pebble 30	Veget.

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SPECIES	PS				
COUNT	1500				

COMMENTS:



70

PRESCREEN

ASC NUMBER: LOCATION: STREAM NAME: KODIAK K-UNIT: USGS QUADRANGLE: SHORELINE TYPE: LAGOON

SEGMENT NUMBER: LOCAL STREAM #:

YR CATALOGED: LATITUDE: LONGITUDE: LEGAL: WAVE EXPOSURE: L

ASC NUMBER: 262-15-10040
SURVEY TYPE: PA
METHOD: F
DATE: 04/15/90
START TIME: 1845
STOP TIME: 1620

TEAM RECORDER: E. WUBS
OBSERVERS:

AGENCY(IES): ADFB

PHOTOS TAKEN? N
Roll #: Frames:
VIDEO TAKEN? N Tape Number:
Counter Start:

SAMPLES TAKEN? N

SAMPLE I.D. NUMBERS: 1. 2. 3. 4. 5. 6.

OILING DATA

	LENGTH	WIDTH	M2	%	THICK	FEN	OIL TYPE
SITE 1							
SITE 2							
SITE 3							
SITE 4							
SITE 5							

OVERALL OIL IMPACT: VL

OIL IN STREAM CHANNEL? Y

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SUBSTRATE

Bedrock	Granule
Boulder	Sand
Cobble 20	Silt 50
Pebble 30	Veget.

SPECIES					
COUNT					

COMMENTS: BANK OF PT / B AND CV / B (RESULTANT FROM MELTING OF AT ON BOULDERS / COBBLES) IN UPPER TIDE LINE, ON SW. SIDE OF LAGOON. BANK OF PT / AND MS / IN LOWER TIDELINE MUD AND SILT IS NOW MORE / P, POSSIBLY DUE TO SCOURING OF ICE OR BURIAL BY MUD / SILT DEPOSITION. ANADSSAT SURVEY RECOMMENDED

ACE 1950214
HIFISHF

PRESCREEN

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 Boat
 3 DATE: 4-15-90 15 HIGH TIDE TIMES: 5:39, 18:59 21 TEAM RECORDER: E. Weiss
 4 START TIME: 1545 16 HIGH TIDE HTS: 16.6, 13.7 22 OBSERVERS: _____
 5 STOP TIME: 1620 17 LOW TIDE TIMES: 11220 23 AGENCY: ADF + G
 6 SEGMENT #: CC001, F902 18 LOW TIDE HTS: 1, 1.04 24 PHOTOS TAKEN: X N
 7 STATION #: _____ 19 TIDE HT AT SURVEY: _____ Roll #: 901-K Frame: _____
 8 K-UNIT: _____ Ebb Slack Flood Slack 25 VIDEO TAKEN: Y X TAPE#: _____
 9 STAT AREA: _____ 20 USCG QUAD: AFOGNAK C-6 Start: _____ End: _____
 10 LAT: 58 31 55 11 LONG: 153 56 51 26 SAMPLES TAKEN? Y X Number
 12 SOURCE: Map Loran ANADAT Oil _____
 13 LOCATION: _____ Sediment _____
 14 DESCRIPTION: _____ Biological _____
 Water _____

EXTENT OF OIL

	SHORELINE				STREAM			
	L	W	M ²	%	L	W	M ²	%
27 SURFACE COVERAGE								
28 SURFACE THICKNESS								
29 PENETRATION								
30 OVERALL OIL IMPACT:	N	<u>VL</u>	L	M	H			
31 OIL TYPE:	Pooled	<u>Mousse</u>	Tar	Asphalt	Sticky	Stain		
32 OILED DEBRIS?	Y	N						
33 SHORELINE TYPE:	Headland	<u>Low-lying Rocks</u>	Beach	Cove				
		<u>Lagoon</u>	Marsh					
34 WAVE EXPOSURE:	High	Moderate	<u>Low</u>					
35 SUBSTRATE TYPE:	Bedrock	Boulder	Cobble	<u>20</u>				
	Gravel	<u>30</u>	Sand	Mud/silt	<u>50</u>			

36 CATALOGED ANAD. FISH SREAM? Y N
 37 CATALOG #: 262-15-10040
 38 STREAM NAME: CHINIAK LAGOON
 39 OIL IN STREAM BED? X N
 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: BANDS OF PT/B & CV/B (RESULTING FROM MELTING
OF PT ON BOULDER/CBBLES) IN UPPER TIDE LINE SW.
SIDE OF LAGOON. BANDS OF PT/ & MS/ IN LOWER TIDE LINE
MUD SILT IS NOW MORE /P. POSSIBLY DUE TO SCOURING
OR BURIAL BY MUD/SILT DEPOSITION.

* RECOMMEND ANADSSAT SURVEY.

ACE 1950215

→

90 Anadssat



ASC NUMBER:	SEGMENT NUMBER:	YR CATALOGED:
LOCATION:		
STREAM NAME:		LATITUDE:
MODIAK K-UNIT:	LOCAL STREAM #:	LONGITUDE:
USGS QUADRANGLE:		LEGAL:
SHORELINE TYPE: LAGOON		WAVE EXPOSURE: LOW

ASC NUMBER: 262-15-10040	TEAM RECORDER: EDWARD W. WEISS
SURVEY TYPE: AN	OBSERVERS: K. SCHOCK
METHOD: F	AGENCY(IES): AAFG, NAS, WWC, ASEC
DATE: 05/03/90	PHOTOS TAKEN? N
START TIME: 1335	Roll #: / Frames: /
STOP TIME: 1800	VIDEO TAKEN? N Tape Number: /
	Counter Start: /

SAMPLES TAKEN? N

SAMPLE I.D. NUMBERS: 1. / 2. / 3. /

4. / 5. / 6. /

OILING DATA

	LENGTH	WIDTH	M2	%	THICK	FEN	OIL TYPE
SITE 1							
SITE 2							
SITE 3							
SITE 4							
SITE 5							

OVERALL OIL IMPACT: L

OIL IN STREAM CHANNEL? Y

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SUBSTRATE		
Bedrock	10	Granule
Boulder		Sand
Cobble	10	Silt 60
Pebble	20	Veget.

SPECIES					
COUNT					

COMMENTS: SCATTERED TARBALLS, PATIES AND SOME ASPHALT/BOFT ON SOUTH BANK OF LAGOON. SOUTHWEST AND WEST BANK HAS TARBALLS, PATIES, ASPHALT THAT IS PATCHY AND LOCALLY BROKEN. ST CV/S IN SUPRA COBBLE TIDE ZONE DETAILED OILING DESCRIPTION IN ANADSSAT REPORT.

ACE 1950217+/SG

RECOMMEND: MANUAL TYPE A CLEANUP WITH AAFG or NAS MONITOR PRESENT. MONITOR SHOULD BE FAMILIAR WITH THE SITE AND OILING LOCATION, AS IT IS SOMETIMES HARD TO SPOT. CLEANUP SHOULD TAKE PLACE IN CC002, CC005, CC001 BUT ONLY IN THE WEST SOUTHWEST PORTION OF CC100 UP TO BUT NOT

INCLUDING THE GRASS/MARSH AREA AT THE NW
CORNER OF THE LAGOON. DO AND MS/S AND
ST, CT, CV/P ON BEACH OUTSIDE LAGOON

ADFG 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 Boat

3 DATE: 5/3/90

15 HIGH TIDE TIMES: 1

21 TEAM RECORDER: E. Weiss

4 START TIME: 1335

16 HIGH TIDE HTS: 1

22 OBSERVERS: K. Schock,

5 STOP TIME: 1800

17 LOW TIDE TIMES: 1709

23 AGENCY: ADFG/NPS/MWOC/ASEC

CC100 CC001

6 SEGMENT #: CC002

18 LOW TIDE HTS: 1.69

24 PHOTOS TAKEN: Y X

7 STATION #: _____

19 TIDE HT AT SURVEY: _____

Roll #: _____ Frame: _____

8 K-UNIT: K0917

Ebb Slack Flood Slack

25 VIDEO TAKEN: Y X TAPE#: _____

9 STAT AREA: _____

20 USCG QUAD: AFOGNAK C-6

Start: _____ End: _____

10 LAT: _____

11 LONG: _____

26 SAMPLES TAKEN? Y X Number

12 SOURCE: Map Loran

011 _____

13 LOCATION: CHINIYAK LAGOON, CAPE CHINIYAK, AK PENINS.

Sediment _____

14 DESCRIPTION: _____

Biological _____

Water _____

EXTENT OF OIL

	SHORELINE				STREAM			
	L	W	M ²	%	L	W	M ²	%
27 SURFACE COVERAGE	1000+	10m		5%			2600	10%
28 SURFACE THICKNESS	2cm				1cm			
29 PENETRATION	—							

30 OVERALL OIL IMPACT: N VL 1 M H

31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain

32 OILED DEBRIS? Y X N

33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cove

Lagoon Marsh

34 WAVE EXPOSURE: High Moderate Low

35 SUBSTRATE TYPE: Bedrock 10 Boulder _____ Cobble 10

Gravel 20 Sand _____ Mud/silt 60

36 CATALOGED ANAD. FISH SREAN? Y X N

37 CATALOG #: 262-15-10040

38 STREAM NAME: CHINIYAK LAGOON

39 OIL IN STREAM BED? Y X

40 OIL ON STREAM BANKS? Y X N

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

42 OIL WITHIN 1 MILE OF STREAM? Y X N

Where: _____

43 ANADROMOUS FISH PRESENT? Y X

44 ANADROMOUS FISH OBSERVATION

Species Aerial Ground

COMMENTS: SCATTERED TARBALLS PATCHES SOME ASPHALT/SOFT ON SOUTH BANK. SOUTHWEST AND WEST BANK HAS TARBALLS PATCHES ASPHALT THAT IS PATCHY AND LOCALLY BROKEN. ST CV/S IN SUPRA COBBLE TIDE ZONE.

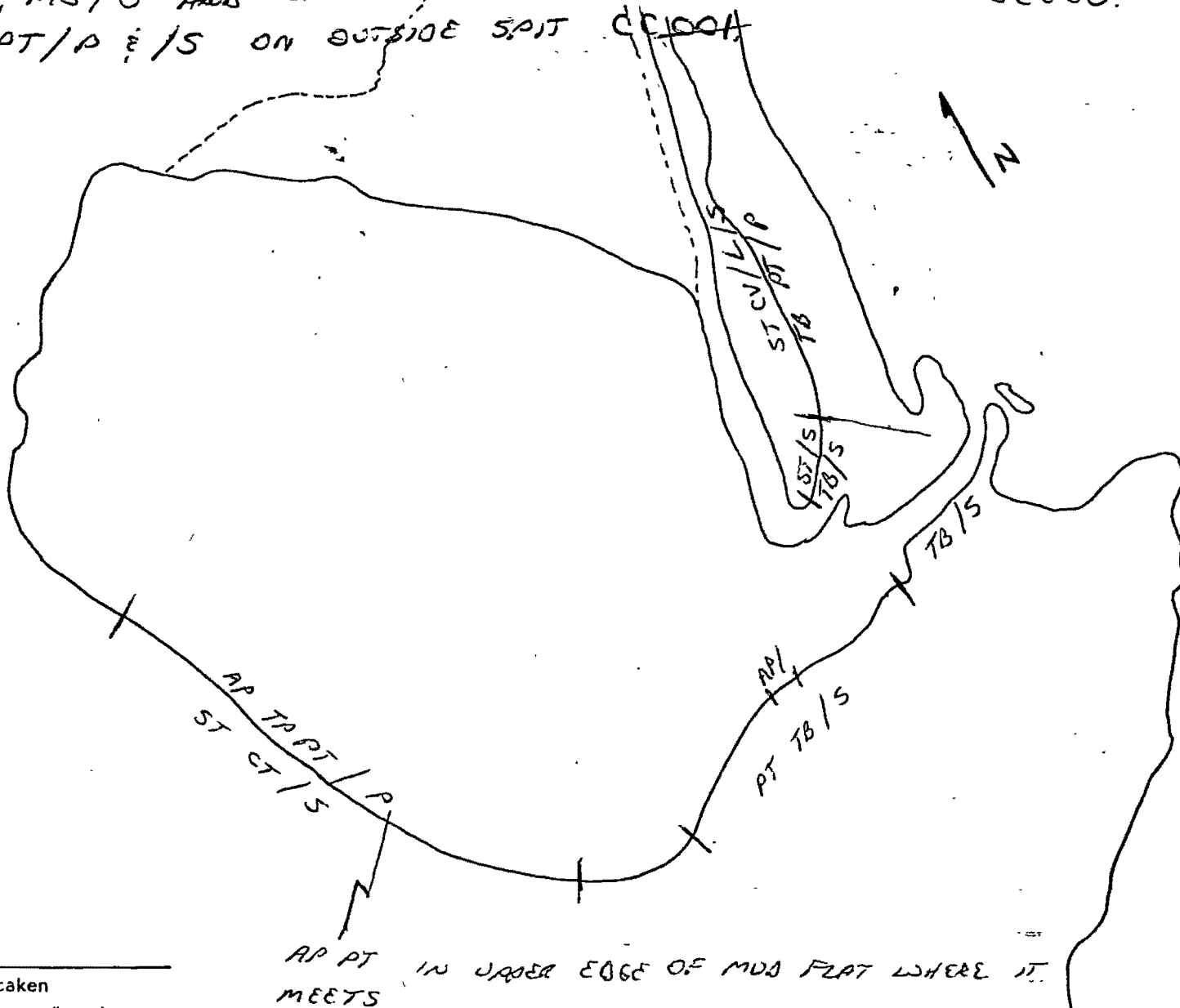
ACE 1950219

* RECOMMENDS: MANUAL TYPE A CLEANUP WITH MONITOR. (NAS 1/02 ADFG) MONITOR SHOULD BE FAMILIAR WITH SITE AND OILING LOCATION AS IT IS SOMETIMES HARD TO SPOT. (OVER)

FRAME(S)

DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM
 CLEANUP SHOULD TAKE PLACE IN CC002, CC005, CC001, BUT ONLY ON THE WEST/SOUTHWEST SIDE OF CC100, (WEST/SOUTHWEST SIDE OF LAGOON) UP TO BUT NOT INCLUDING GRASS/MARSH AREA AT NW CORNER OF LAGOON. ~~ED~~ ~~W~~ ~~2nd~~ ~~RD~~ & MS/S AND ST CT CV/A ON BEACH OUTSIDE LAGOON CC005. TB/PT/A & /S ON OUTSIDE SPIT CC100A



= Sample taken
 = Photo frame # and shot direction.

ACE 1950220



90 cleanup

ASC NUMBER:
LOCATION:
STREAM NAME:
KODIAK K-UNIT:
USGS QUADRANGLE:
SHORELINE TYPE: Lagoon

SEGMENT NUMBER: C002
LOCAL STREAM #:

YR CATALOGED:
LATITUDE:
LONGITUDE:
LEGAL:
WAVE EXPOSURE: L

ASC NUMBER: 262-15-10040
SURVEY TYPE: CL
METHOD: F
*DATE: 7/3/90
START TIME:
STOP TIME:

TEAM RECORDER: JEFFREY P. BARNHART
OBSERVERS: Fred Byars, Jim Davis, Terry Ellsworth,
John Haller
AGENCY(IES): ADF&G, Exxon, USCG, ADEC, NPS

PHOTOS TAKEN? Y
Roll #: 90JPB002K Frames: 28-34
VIDEO TAKEN? N Tape Number:
Counter Start:

SAMPLES TAKEN? N

SAMPLE I.D. NUMBERS: 1. 2. 3.
4. 5. 6.

OILING DATA

	LENGTH	WIDTH	M2	%	THICK	FEN	OIL TYPE
SITE 1	900m	4m	3600	41	1.5cm	surface	TB, PT
SITE 2	30m	30m	900	20	2.5cm	surface	TB, PT
SITE 3	70m	33m	2310	10	2.5cm	surface	TB, PT
SITE 4	200m	6m	1200	2	2.5cm	surface	TB, PT
SITE 5	16m	.5	8	85	5cm	2.5cm	TB, PT

OVERALL OIL IMPACT: M

OIL IN STREAM CHANNEL? Y
SUBSTRATE

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

Bedrock
Boulder
Cobble
Pebble 30
Granule
Sand 70
Silt
Veget.

SPECIES	SSFR	REFO			
COUNT	8	1			

COMMENTS: 4,360 pounds of oil/oil sediment removed

Observations: From the eastern boundary of CC-002 westward the first 900m x 4m exhibited 41% oil coverage. The oiled area by the feeder stream is 100m long x 63m wide, 10% oil coverage, extending from the supratidal to lower intertidal zone at the mud flats. A subarea of 30m x 30m within this band exhibited 20% oil coverage. Salmon fry were observed rearing in the oiled feeder stream. The next band was located west of the feeder stream, 200m in length by 6m wide 2% oil coverage. The next band was .5m by 16m, 85% oil coverage. This was followed by an area 184m by .5m with an average oil coverage of 20%. Problems: The SSAT report described the oiled areas as tar mats, which they were not. Following protocol, the TAG recommended bioremediation after tar mat removal. A work plan modification recommendation was submitted on 7/3/90 and 7/12/90 recommending no bioremediation. Three areas of oiling as described on the SSAT map were not located. These were, 1x2 30% cover, 2x3m 20% cover and a band of unknown length 3m wide 5-10% cover.

ASC NUMBER:
LOCATION:
STREAM NAME:
KODIAK K-UNIT:
USGS QUADRANGLE:
SHORELINE TYPE:

SEGMENT NUMBER:

LOCAL STREAM #:

YR CATALOGED:

LATITUDE:
LONGITUDE:
LEGAL:
WAVE EXPOSURE:

ASC NUMBER: *262-15-10040*
SURVEY TYPE: *CL*
METHOD:
DATE: *7/3/90*
START TIME: *1200*
STOP TIME: *1700*

TEAM RECORDER:
OBSERVERS:

AGENCY(IES):

PHOTOS TAKEN?

Roll #:

Frames:

VIDEO TAKEN?

Tape Number:

Counter Start:

SAMPLES TAKEN?

SAMPLE I.D. NUMBERS: 1.
4.

2.
5.

3.
6.

OILING DATA

	LENGTH	WIDTH	M2	%	THICK	FEN	OIL TYPE
SITE 1	<i>184 m</i>	<i>.5</i>	<i>92</i>	<i>20</i>	<i>.015</i> <i>2.5 cm</i> <i>210</i>	<i>surface</i>	<i>TB, PT</i>
SITE 2							
SITE 3							
SITE 4							
SITE 5							

OVERALL OIL IMPACT:

OIL IN STREAM CHANNEL?

SUBSTRATE

Bedrock	Granule
Boulder	Sand
Cobble	Silt
Pebble	Veget.

OIL ON BEACH WITHIN 50M OF STREAM MOUTH?

SPECIES					
COUNT					

COMMENTS:

ASC NUMBER:

SEGMENT NUMBER: CC-001

YR CATALOGED:

LOCATION:

STREAM NAME:

KODIAK K-UNIT:

USGS QUADRANGLE:

SHORELINE TYPE: Beach

LATITUDE:

LONGITUDE:

LEGAL:

WAVE EXPOSURE: H

ASC NUMBER: 262-15-10040

SURVEY TYPE: CL

METHOD: F

DATE: 7/5/90 + 7/11/90

START TIME:

STOP TIME:

TEAM RECORDER: JEFFREY P. BARNHART

OBSERVERS: Fred Byars, Jim Davis, Terry Ellsworth
Howard Overton, Dick Wydoski

AGENCY (IES): ADF&G, Exxon, USCG, ADEC, NPS, USF&WS

PHOTOS TAKEN? N

Roll #:

Frames:

VIDEO TAKEN? N Tape Number:

Counter Start:

SAMPLES TAKEN? N

SAMPLE I.D. NUMBERS: 1.

2.

3.

4.

5.

6.

OILING DATA

	LENGTH	WIDTH	M2	%	THICK	FEN	OIL TYPE
SITE 1	900 m	2 m	1800	< 1	1.5cm	surface	TB
SITE 2	95 m	1 m	95	10	1.5cm	15cm	TB
SITE 3	2100 m	2 m	4200	< 1	1.5cm	Surface	TB, PT
SITE 4							
SITE 5							

OVERALL OIL IMPACT: L

OIL IN STREAM CHANNEL? N

SUBSTRATE

Bedrock	Granule
Boulder	Sand 70
Cobble 5	Silt
Pebble 25	Veget.

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SPECIES	PS	BRNB			
COUNT	Numerous	2			

COMMENTS: 4,000 pounds of oil/oiled sediment removed, on 7/11/90 Adult pink salmon were observed jumping adjacent to this segment. The segment is bounded on the north by Village Creek AFS 262-15-1003 and the south by Chiniak Lagoon AFS 262-15-10040. Sporadic tarballs < 1% were located and removed from the mouth of Village Creek south along the beach for a distance of 900 meters. At this point subsurface TB to a depth of 15cm were located in the upper intertidal, lower supratidal zone in a band extending a minimum of 95 meters in length by 1 meter in width. Splashes of oil can be found on logs along the entire segment. From the area of subsurface oiling south along 2100 meters of beach up to Chiniak Lagoon AFS 262-10040 surface tarballs and patties were located and removed. Most were located in the upper intertidal, lower supratidal zone.

Subsurface oil is difficult to locate but present on this beach, on 7/11/90 the Exxon representative was concerned about the amount of time expended raking to locate the subsurface oil. Raking was discontinued. An undetermined amount of subsurface oil remains on this beach.



'90 Cleanup

ASC NUMBER: LOCATION: STREAM NAME: KODIAK K-UNIT: USGS QUADRANGLE: SHORELINE TYPE: *Lagoon*

SEGMENT NUMBER: *CC-100* YR CATALOGED: LATITUDE: LONGITUDE: LEGAL: WAVE EXPOSURE: *L*

LOCAL STREAM #:

ASC NUMBER: *262-15-10040*
 SURVEY TYPE: *CL*
 METHOD: *F*
 DATE: *7/11/90*
 START TIME: *1100*
 STOP TIME: *1630*

TEAM RECORDER: *JEFFREY P. BARNHART*
 OBSERVERS: *Fred Byars, Jim Davis, Terry Ellsworth, Howard Overton, Dick Wydoski*
 AGENCY(IES): *ADFG, Exxon, USCG, ADEC, NPS, USFWS*
 PHOTOS TAKEN? *Y*
 Roll #: *90JPB003K* Frames: *18-21*
 VIDEO TAKEN? *N* Tape Number: Counter Start:

SAMPLES TAKEN? *Y*

SAMPLE I.D. NUMBERS: 1. *90-JPB-006k* 2. 3.
 4. 5. 6.

OILING DATA

	LENGTH	WIDTH	M2	%	THICK	FEN	OIL TYPE
SITE 1	<i>50m</i>	<i>1m</i>	<i>50</i>	<i>30</i>	<i>2cm</i>	<i>surface</i>	<i>PT TB</i>
SITE 2	<i>900m</i>	<i>25m</i>	<i>22,500</i>	<i><1</i>	<i>2cm</i>	<i>surface</i>	<i>PT, TB, CV, CT, ST</i>
SITE 3	<i>50m</i>	<i>1m</i>	<i>50</i>	<i>25</i>	<i>2cm</i>	<i>surface</i>	<i>PT, TB</i>
SITE 4	<i>1m</i>	<i>1m</i>	<i>1m</i>	<i>80</i>	<i>2cm</i>	<i>surface</i>	<i>ms</i>
SITE 5							

OVERALL OIL IMPACT: *L*

OIL IN STREAM CHANNEL? *Y*

SUBSTRATE

Bedrock *10* Granule
 Boulder Sand
 Cobble *10* Silt *60*
 Pebble *20* Veget.

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? *Y*

SPECIES					
COUNT					

COMMENTS: *4,160 pounds of oil/oil sediment removed. work plan modification recommendation submitted 7/12/90 recommending no bioremediation. Oiled piece of commercial fishing net was located at the NW boundary of the segment and removed. Oil was difficult to locate due to a thin veneer of silt covering the deposits.*



90 Cleanup

ASC NUMBER:

SEGMENT NUMBER: CC-005

YR CATALOGED:

LOCATION:

REAM NAME:

KODIAK K-UNIT:

USGS QUADRANGLE:

SHORELINE TYPE: Lagoon

LOCAL STREAM #:

LATITUDE:

LONGITUDE:

LEGAL:

WAVE EXPOSURE: L

ASC NUMBER: 262-15-10040

SURVEY TYPE: CL

METHOD: F

DATE: 8/6/90

START TIME: 0925

STOP TIME: 1200

TEAM RECORDER: JEFFREY P. BARNHART

OBSERVERS: Floyd Avery, Vince G. Wise, Terry Ellsworth,
Dave Stiegelmeier

AGENCY(IES): ADF&G, Exxon, USCG, ADEC, NPS

PHOTOS TAKEN? N

Roll #:

Frames:

VIDEO TAKEN? N Tape Number:

Counter Start:

SAMPLES TAKEN? N

SAMPLE I.D. NUMBERS: 1.
4.2.
5.3.
6.

OILING DATA

	LENGTH	WIDTH	M2	%	THICK	FEN	OIL TYPE
SITE 1	10m	3m	30	3	2cm	surface	MS
SITE 2	(11 feet) 0.304801m	(2 feet) 0.609602m	(2 sq feet) .609602m	100	12.5cm	12.5cm	MS
SITE 3							
SITE 4							
SITE 5							

OVERALL OIL IMPACT: L

OIL IN STREAM CHANNEL? Y

SUBSTRATE

Bedrock 10	Granule
Boulder 80	Sand
Cobble 10	Silt
Pebble	Veget.

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SPECIES	PS				
COUNT	Numerous				

COMMENTS: 200 pounds o.i./oiled sediment removed. Area #2 on the sketch map indicates 2 bands of MS, we located only one band (upper) in boulders. Terry Ellsworth ADEC indicated lower band is now covered with Gravel

90 Anadssat



ASC NUMBER: _____ SEGMENT NUMBER: _____ YR CATALOGED: _____
 LOCATION: _____
 STREAM NAME: _____ LATITUDE: _____
 KODIAK K-UNIT: _____ LOCAL STREAM #: _____ LONGITUDE: _____
 USGS QUADRANGLE: _____ LEGAL: _____
 SHORELINE TYPE: LAGOON WAVE EXPOSURE: LOW

ASC NUMBER: 262-15-10040
 SURVEY TYPE: AN
 METHOD: F
 DATE: 05/03/90
 START TIME: 1335
 STOP TIME: 1800

TEAM RECORDER: EDWARD W. WEISS
 OBSERVERS: K. SCHOCK

AGENCY(IES): AAFG, NAS, WWC, ASCC

PHOTOS TAKEN? N
 Roll #: _____ Frames: _____
 VIDEO TAKEN? N Tape Number: _____
 Counter Start: _____

SAMPLES TAKEN? N

SAMPLE I.D. NUMBERS: 1. _____ 2. _____ 3. _____
 4. _____ 5. _____ 6. _____

OILING DATA

	LENGTH	WIDTH	M2	%	THICK	FEN	OIL TYPE
SITE 1							
SITE 2							
SITE 3							
SITE 4							
SITE 5							

OVERALL OIL IMPACT: L

OIL IN STREAM CHANNEL? Y

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SUBSTRATE		
Bedrock	10	Granule
Boulder		Sand
Cobble	10	Silt 60
Pebble	20	Veget.

SPECIES					
COUNT					

COMMENTS: SCATTERED TARBALLS, PATTIES AND SOME ASPHALT/BOFT ON SOUTH BANK OF LAGOON. SOUTHWEST AND WEST BANK HAS TARBALLS, PATTIES, ASPHALT THAT IS PATCHY AND LOCALLY BROKEN. 5T CV/S IN SUPRA COBBLE TIDE ZONE. DETAILED OILING DESCRIPTION IN ANADSSAT REPORT.

ACE 1950217+156

RECOMMENDS: MANUAL TYPE A CLEANUP WITH AAFG or NAS MONITOR PRESENT. MONITOR SHOULD BE FAMILIAR WITH THE SITE AND OILING LOCATION, AS IT IS SOMETIMES HARD TO SPOT. CLEANUP SHOULD TAKE PLACE IN CC002, CC005, CC001 BUT ONLY IN THE WEST SOUTHWEST PORTION OF CC100 UP TO BUT NOT

★

INCLUDING THE GRASS/MARSH AREA AT THE NW
CORNER OF THE LAGOON. DO AND MS/S AND
ST, CT, CV/P ON BEACH OUTSIDE LAGOON

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS DS TS AVS SCHA MMHS PTA 2 REGION: PWS KP, CI K, AP

METHOD: Aerial Ground Boat

3 DATE: 5/3/90 15 HIGH TIDE TIMES: / 21 TEAM RECORDER: E. WEISS
K. SCHOCK,

4 START TIME: 1335 16 HIGH TIDE HTS: / 22 OBSERVERS: /

5 STOP TIME: 1800 17 LOW TIDE TIMES: 1709, 23 AGENCY: ADFG/NPS/WWC/ASEC
CC100 CC001

6 SEGMENT #: CC002 18 LOW TIDE HTS: 1.69, 24 PHOTOS TAKEN: Y X

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

8 K-UNIT: K0917 Ebb Slack Flood Slack 25 VIDEO TAKEN: Y X TAPE#: /

9 STAT AREA: / 20 USCG QUAD: AFOGNAK C-6 Start: / End: /

10 LAT: / 11 LONG: / 26 SAMPLES TAKEN? Y X Number: /

12 SOURCE: Map Loran 011 /

13 LOCATION: CHINIYAK LAGOON, CAPE CHINIYAK, AK PENINS. Sediment: /

14 DESCRIPTION: / Biological: /

EXTENT OF OIL

	SHORELINE				STREAM			
	L	W	M ²	%	L	W	M ²	%
27 SURFACE COVERAGE	1000+	10m		5%			2600	10%
28 SURFACE THICKNESS	2cm				1cm			
29 PENETRATION								

30 OVERALL OIL IMPACT: N VL L M H

31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain

32 OILED DEBRIS? X N

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

34 WAVE EXPOSURE: High Moderate Low

35 SUBSTRATE TYPE: Bedrock 10 Boulder / Cobble 10
 Gravel 20 Sand / Mud/silt 60

36 CATALOGED ANAD. FISH SREAM? X N

37 CATALOG #: 262-15-10040

38 STREAM NAME: CHINIYAK LAGOON

39 OIL IN STREAM BED? Y X

40 OIL ON STREAM BANKS? X N

41 OIL ON BEACH ADJACENT TO MOUTH? X N
 (within 50 meters)

42 OIL WITHIN 1 MILE OF STREAM? X N

Where: /

43 ANADROMOUS FISH PRESENT? Y X

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

COMMENTS: SCATTERED TARBALLS PATCHES SOME ASPHALT/SOFT ON
SOUTH BANK. SOUTHWEST AND WEST BANK HAS TARBALLS
PATCHES ASPHALT THAT IS PATCHY AND LOCALLY BROKEN.
BT CV/5 IN SUPRA COBBLE TIDE ZONE.

ACE 1950219

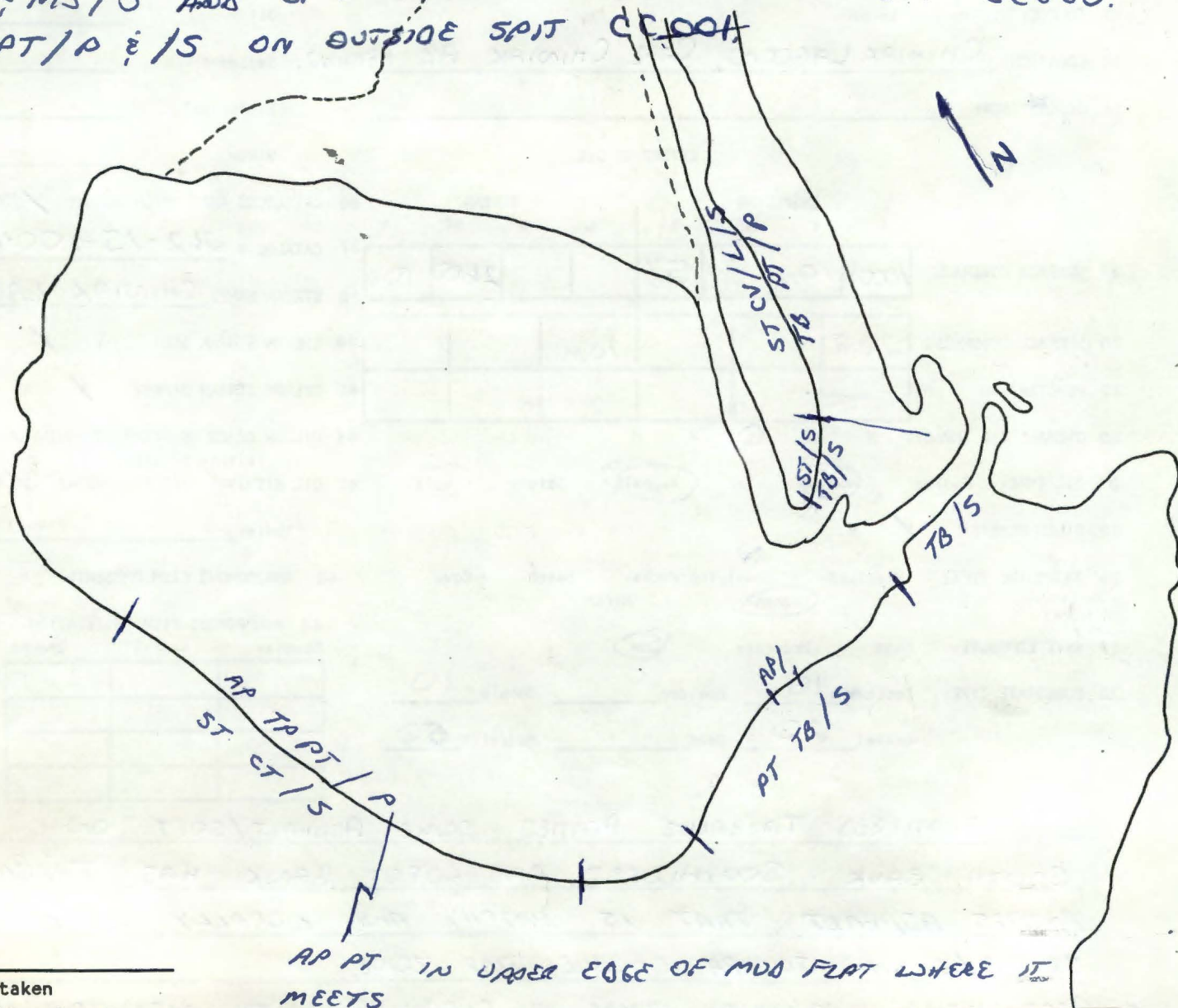
* RECOMMEND: MANUAL TYPE A CLEANUP WITH MONITOR. (NPS &/OR
ADFG) MONITOR SHOULD BE FAMILIAR WITH SITE AND OILING
LOCATION AS IT IS SOMETIMES HARD TO SPOT. (OVER)

FRAME(S)

DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM

CLEANUP SHOULD TAKE PLACE IN CC002, CC005, CC001, BUT ONLY ON THE WEST/SOUTHWEST SIDE OF CC100, (WEST/SOUTHWEST SIDE OF LAGOON) UP TO BUT NOT INCLUDING GRASS/MARSH AREA AT NW CORNER OF LAGOON. ~~ST~~ ~~CV~~ ~~P~~ ~~DI~~ BEACH OUTSIDE LAGOON CC005. TB:PT/P & /S ON OUTSIDE SPIT CC100H.



= Sample taken
= Photo frame # and
shot direction.

ACE 1950220

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/~~K~~^N9-17-CC-100 STREAM NO: 262-15-10040 DATE 5/3/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

ADF&G Anadromous stream # 262-15-10040.

Sensitivity code and general time constraints. See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Do not trample or disturb marsh area.

ARCHAEOLOGICAL CONSTRAINTS:

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

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

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: _____

TAG COMMENTS: NO OIL OBSERVED IN AREA OF STREAM. HOWEVER
WORK TO BE COMPLETED IN ADJACENT AREAS TO THE STREAM + LAGOON
SEE SBAT PACKAGES N-17-CC-180A + 02A FOR RECOMMENDED
WORK - MINIMIZING DISTURBANCE + WORK CREW SIZE

TAG APPROVAL DATE: 5/23/90.
ADEC Art Weimer Art Weimer
EXXON ANDY TEAL
NOAA Bud Weigert Bud Weigert
USCG G.A. Dieter G.A. Dieter

FOSC: [Signature] DATE: 5/31/90

ACE 1950221+15

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
- 3N, 3P Harbor seal and sea lion pupping (5/10 to 7/1)
 3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31).
 Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Rothy 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (8/1 to 9/15)
 6V Anchorages (8/1 to 9/15)
 6W Forest Service cabins (8/1 to 9/15)
 6X Lodge (8/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (8/1 to 9/30)
 7-H Finfish harvesting
 7-I Deer harvesting (8/1 to 1/7)
 7-J Invertebrate harvesting
 7-K 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

ACE 1950222

ANAD SCAT

ADF#G# 262-15-10040

SEGMENT ST/ K09/7CC100

SUBDIVISION: A

DATE May 4, 1990

NOAA
USCGNAME STEPHEN LEHMAN SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Oiling was very light except for one section (identified by the DG) where oil appeared at surface. Given the sensitivity of this area and the disturbance required to remove this section of oil-treated is not suggested.

ADEC

NAME Terry Ellsworth SIGNATURE Terry Ellsworth☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

Oiling in this segment is confined to the SW portion of the segment. The most significant occurrence is a 20m x 1m area of asphalt of patchy distribution. Patches occur sporadically along the SW portion of the segment in areas up to 1m x 2m. Manual removal of the Asphalt and mouse patches is recommended. Due to the extreme sensitivity of this area to human disturbance, only 2-3 persons should work this area. Work should not extend beyond the shore bordered by steep alder slope.

LAND MANAGER

NAME Carl Sebech SIGNATURE Carl Sebech☐ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Oil remaining in this lagoon/estuary system can be expected to persist for a long time unless removed. However this critical habitat is sensitive to intrusion. The oil/mouse patches should be removed as soon as possible to avoid disturbing summer bear populations. A small crew of no more than five personnel should access the mouse patches on foot and remove by scraping the substrate with shovels. The mud flats extend below the oiled area and the salt marshes to the north should not be disturbed.

REVISION NO. 03/21/90

ACE 1950223

FIELD SHORELINE COMMENT SHEET

CC001/CC002
 SEGMENT ST/CC100/CC005 SUBDIVISION: ANADSSAT DATE 5-11-90

~~ADFG~~
 NAME EDWARDS W. WEISS SIGNATURE Edward W. Weiss

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

THIS EXXON/SSAT ANADSSAT REPORT ONLY REFLECTS THE OILING CONDITIONS WITH IN 100 M EITHER SIDE OF WHERE THE STREAM BED ENTERS THE UPPER LAGOON (CC100). IN THIS SHORT SECTION OF SEGMENT CC100 THERE INDEED WAS NO OIL FOUND, BUT IT DOES NOT REFLECT THE CONDITIONS WITH IN SEGMENTS CC002, 005, 001 NOR THE SOUTH AND WEST PORTIONS OF CC100. THESE SEGMENTS ARE WITHIN THE LAGOON WHICH IS PART OF THE ANADROMOUS STREAM. CONSEQUENTLY ADFG HABITAT PERSONNEL SHOULD BE INVOLVED IN THE TAG GROUP FOR ALL FOUR SEGMENTS (CC001, CC002, CC005, CC100) & ADFG PERMITS NEED TO BE OBTAINED TO DO ANY WORK IN THESE FOUR SEGMENTS.

THE FIELD SKETCHES SHOWING THE IMPACTS IN THESE OTHER SEGMENTS ARE INCLUDED IN THIS ANADSSAT REPORT. THESE AND THE SSAT REPORTS FOR THESE SECTIONS SHOULD BE CONSULTED WHEN CLEANING UP THIS ANADROMOUS STREAM.

MANUAL TYPE A CLEANUP SHOULD BE CONDUCTED IN FOLLOWING SEGMENT AREAS;

ACE 1950224

THE SOUTH & WEST PORTION OF CC100 ALONG THE STEEP ALDER COVERED BANK TO THE POINT WHERE IT FALLS AWAY FROM THE LAGOON AND THE MARSH GRASS STARTS. CLEANUP SHOULD NOT TAKE PLACE IN THE MARSH GRASS SECTION OF CC100 (NO OIL FOUND DURING SSAT AND SENSITIVE MARSH AREA). AP, PT, MS/P WITH BARTS LOCALLY /B, IN THE SOUTH & WEST PART OF CC100.

SEGMENT CC002. ALSO PAN PIT, ' ', ' ', ' ' ITS WESTERN MOST HALF. THESE IMPACTS ALSO HAVE LOCALLY HEAVIER IMPACTS WITH SOME AP, PT/C AND /B. THE IMPACT IS LIGHTER AS YOU MOVE TOWARDS THE LAGOON/STREAM MOUTH (TOWARDS CC003) BECOMING MORE TB & PT/S.

SEGMENT CC005. TB/S IN THE WESTERN PORTION OF CC005 WHICH IS WITHIN THE STREAM/LAGOON MOUTH AREA. ALSO MANUAL PICKUP.

NOTE THAT PO/S; ST & CT/S; MS/S OCCUR IN THE REST OF CC005, WHICH IS IMMEDIATELY ADJACENT TO THE LAGOON MOUTH. BEFORE ANY CLEANUP METHOD BESIDES "MANUAL" IS IMPLEMENTED HERE HABITAT DIVISION PERSONNEL MUST BE NOTIFIED AND PERMISSION GRANTED.

SEGMENT CC001. THE OUTSIDE SPIT AREA MANUAL PICKUP OF TB/P IN 'SUTZ, UUTZ, AND MITZ. ALSO BAGS OF OILED SAND & MOUSSE.

ALSO RECOMMEND THAT ADFG OR NAS MONITOR BE PRESENT. SOMEONE WHO IS FAMILIAR WITH SITE KNOWS WHERE THE OILING IS. AP, PT, IN CC002 & CC100 IS IN LITZ AT BREAK BETWEEN MUDFLAT AND SAND/GRAVEL BEACH AND IS COMMONLY PARTIALLY COVERED BY SILT. SOMETIMES HARD TO FIND BUT CAN BE FOUND AND EASILY REMOVED.

Ed Weir
5-11-90

SHORELINE OILING SUMMARY

REVISION NO. 06/12/90

OG G. HEYMAN NOAA S. LEHMANN SEGMENT ST/ 262-15-10040 ANAD SCAT
 BIO L. SHARMAN LAND REP E. WEISS ADFG SUBDIVISION K0917 CC100A (1 OF 1)
 EXXON NOT PRESENT ADEC T. E. HANCOCK NPS TIME 16:00 17:30
 TEAM NO: 19 TIDE LEVEL +2 1/4 to +1 3/4 DATE 5/3/90
 EST. SUBDIVISION LENGTH: 200 m (2640) ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 0 % B 0 % C 0 % P 0 % G 0 % S 0 % M 100 % 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 200 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													
COAT													
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL										X	X	X	X

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE 0#BAGS 0

Photographs:

Roll No. Frames

SUBSURFACE OIL

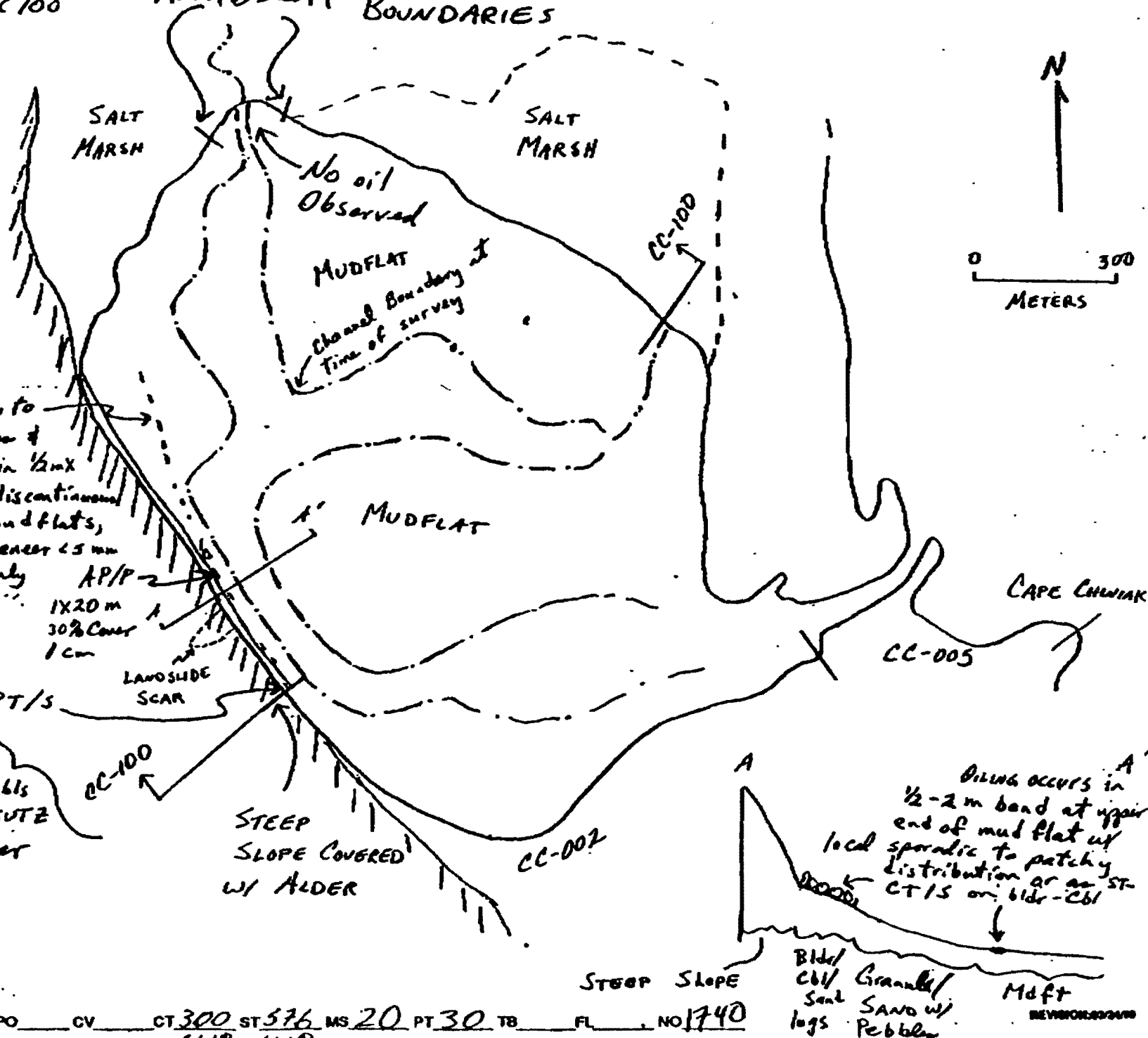
PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (Y/N)	T	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	VE	1	2	3	4	5	SU	U	M	L				

COMMENTS No pits dug.

ACE 1950226

This anadromous stream (ADFG # 262-15-10040) was surveyed with Ed Weiss of ADFG as part of the SSAT assessment of CC-100 A. The anadromous SCAT assessment was restricted to 100 m on each side of the stream. Sketch maps for the entire Chinike Lagoon are included with this form. See the respective SSAT reports for more information.

REVIEWED DATE 5/15/90



OG G. Heyman

SEGMENT ST/K 01/7 CC 005

SUBDIVISION A

DATE 5/3/90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Body
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HNL/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

$\square$ CT/C
Continuous Distribution

$\square$ CT/B
Broken Distribution

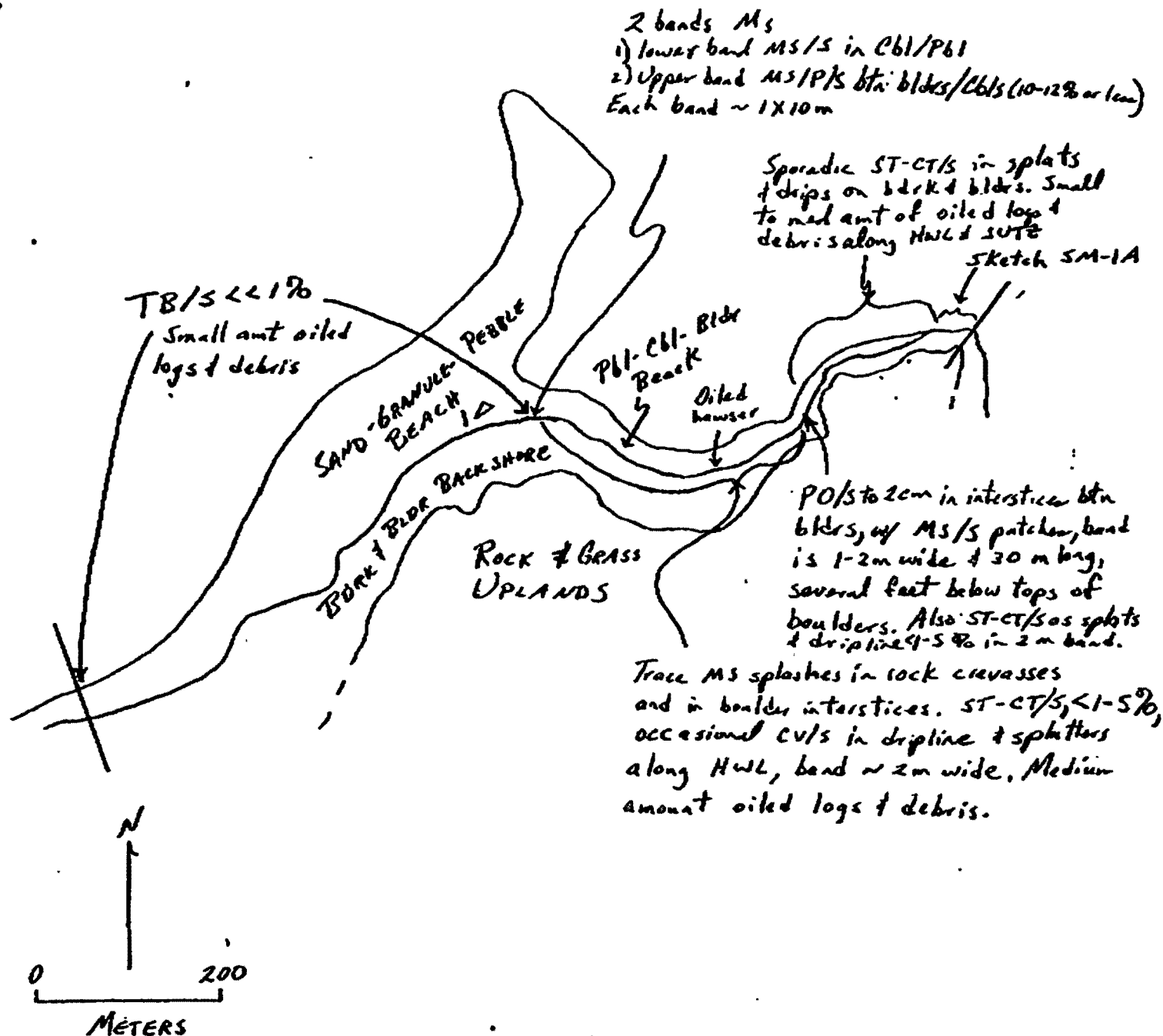
$\square$ CT/P
Patchy Distribution

$\square$ CT/S
Splashed Distribution

Oiled Vegetation

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

SKETCH MAP-1



ACE 1950228

Oil Character Length (m): AP — PO 10 CV 62 CT 250 ST 200 MS 52 PT — TB 500 FL — NO 0

REVISION: 02/24/99

U.S. Army

SKETCH MAP

SEGMENT ST/ K 09-170001

SUBDIVISION A

DATE 5/3/90

CHECKLIST

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

LEGEND

1 Δ
Pit - No Subsurface Oil

2 Δ
Pit - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

CT/P
Patchy Distribution

CT/S
Splashed Distribution

Oil Vegetation

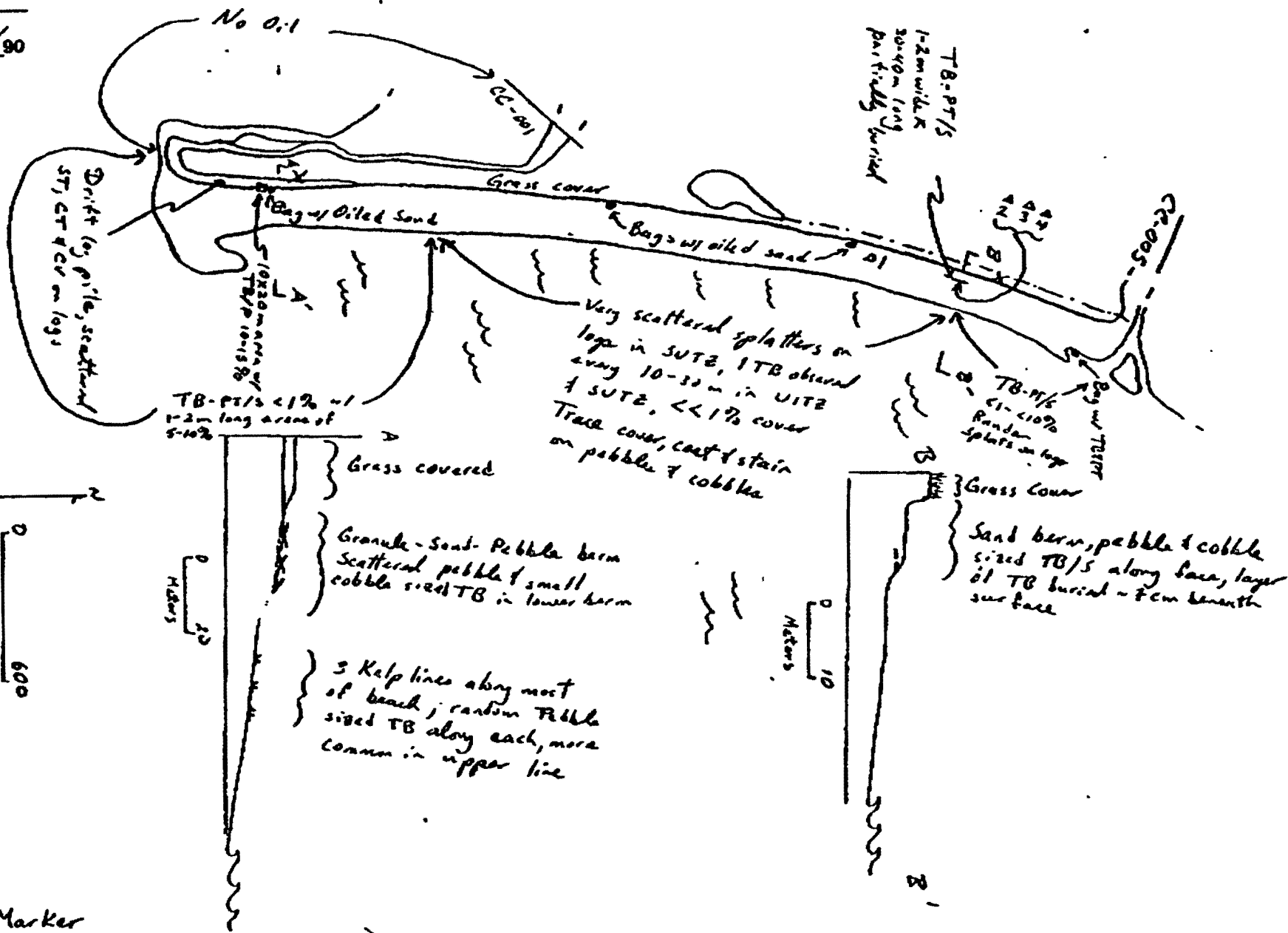
Photo location, direction, and number

X Regulatory Marker

ACE 1950230

Oil Character Length (m): AP PO CV 3 CT 3 ST 4 MS PT 6.20 RS 2.300 FL NO 1771

REVISION 007/00



OGG Heyman

SEGMENT ST/ K0917 CC002

SUBDIVISION A

DATE 5/3/90

CHECKLIST

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

LEGEND

1 Δ

Pit - No Subsurface Oil

2 Δ

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Scattered Distribution

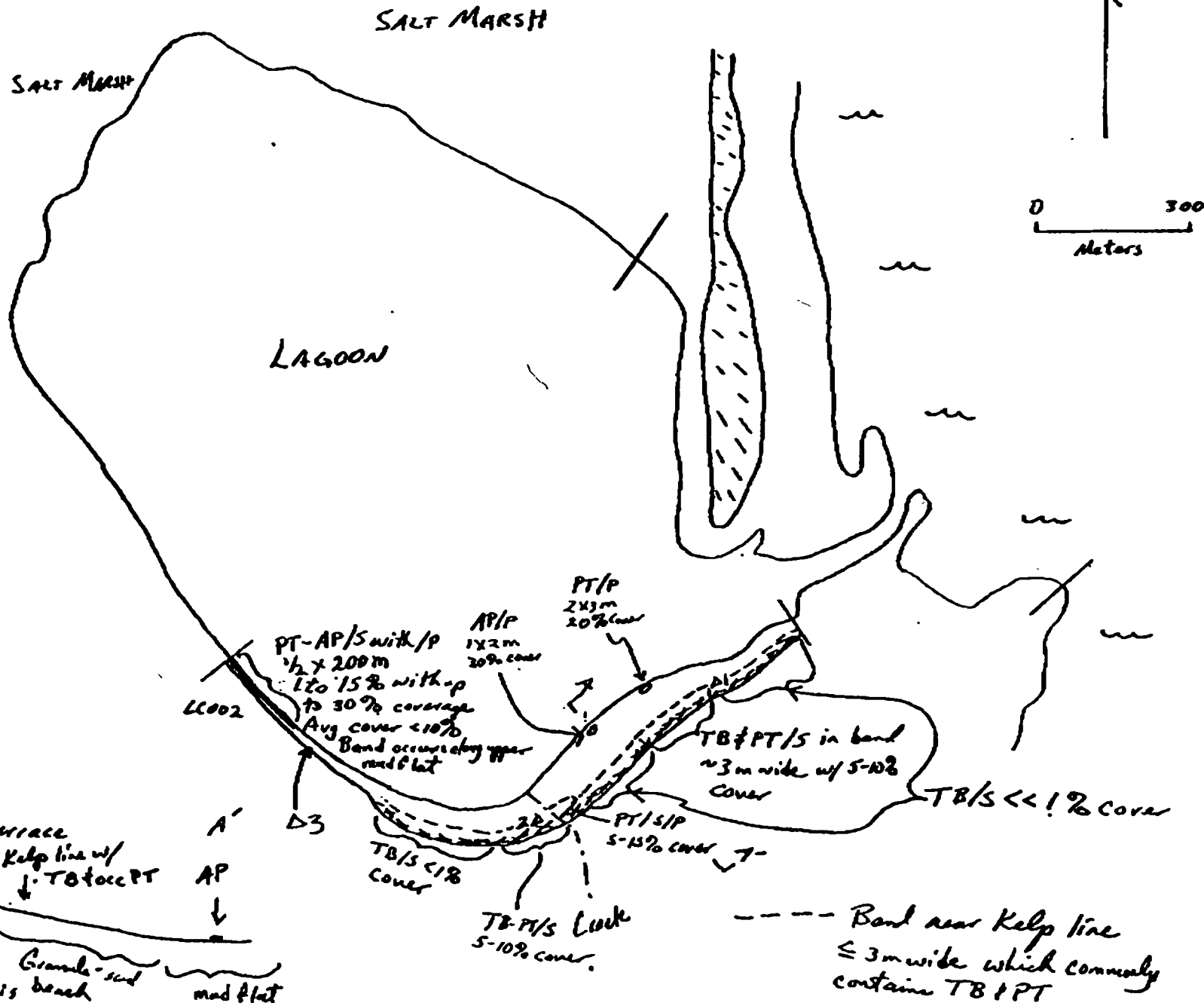
Oiled Vegetation

1 →
Photo location, direction,
and number

ACE 1950231

Oil Character Length (m): AP 10 PO — CV — CT — ST — MS — PT 450 TB 450 FL — NO 215

SKETCH MAP



ADFG MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS GS DS TS AVS SCHM MRS PTA2 REGION: PWS KP, CI K ADMETHOD: Aerial Ground Boat3 DATE: 5/3/9015 HIGH TIDE TIMES: 121 TEAM RECORDER: E. WEISS4 START TIME: 133516 HIGH TIDE HTS: 122 OBSERVERS: K. SCHOCK,5 STOP TIME: 180017 LOW TIDE TIMES: 170923 AGENCY: ADFG/NPS/LWWC/ASEC6 CC/00 CC0018 SEGMENT #: CC00218 LOW TIDE HTS: 1.6924 PHOTOS TAKEN: Y X7 STATION #: K091719 TIDE HT AT SURVEY: Roll #: Frame: 8 K-UNIT: K0917

Ebb Slack Flood Slack

25 VIDEO TAKEN: Y X TAPES: 9 STAT AREA: 20 USCG QUAD: AFROGNAK C-6Start: End: 10 LAT: 11 LONG: 26 SAMPLES TAKEN Y X Number 12 SOURCE: Map Loren Oil 13 LOCATION: CHINIAR LAGOON, CAPE CHINIAR, AK PERIAD.Sediment 14 DESCRIPTION: Biological Water

EXTENT OF OIL

	SHORELINE				STREAM			
	L	V	N	S	L	V	N	S
27 SURFACE COVERAGE	100%	10%		5%			26%	10%

36 CATALOGED ANAD. FISH BREAST? X N37 CATALOG #: 262-15-1004038 STREAM NAME: CHINIAR LAGOON

	SHORELINE				STREAM			
	L	V	N	S	L	V	N	S
28 SURFACE THICKNESS	2 cm				1 cm			
29 PENETRATION	SURFACE							

39 OIL IN STREAM BED? Y X40 OIL ON STREAM BANKS? X N30 OVERALL OIL IMPACT: N VL 1 N N41 OIL ON BEACH ADJACENT TO MOUTH? X N
(within 50 meters)31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain42 OIL WITHIN 1 MILE OF STREAM? X N32 OILED DEBRIS? X NWhere: 33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cove43 ANADROMOUS FISH PRESENT? Y X34 WAVE EXPOSURE: High Moderate Low

44 ANADROMOUS FISH OBSERVATION

Species Aerial Ground

35 SUBSTRATE TYPE: Bedrock 10 Boulder Cobble 10

Species	Aerial	Ground

Gravel 20 Sand Mud/silt 60

COMMENTS: SCATTERED TAR BALLS PATCHES SOME ASPHALT/SOFT ON
SOUTH BANK. SOUTHWEST AND WEST BANK HAS TAR BALLS
PATCHES ASPHALT THAT IS PATCHY AND LOCALLY BROKEN.
BT CV/S IN SUPRA COBBLE TIDE ZONE.

ACE 1950232

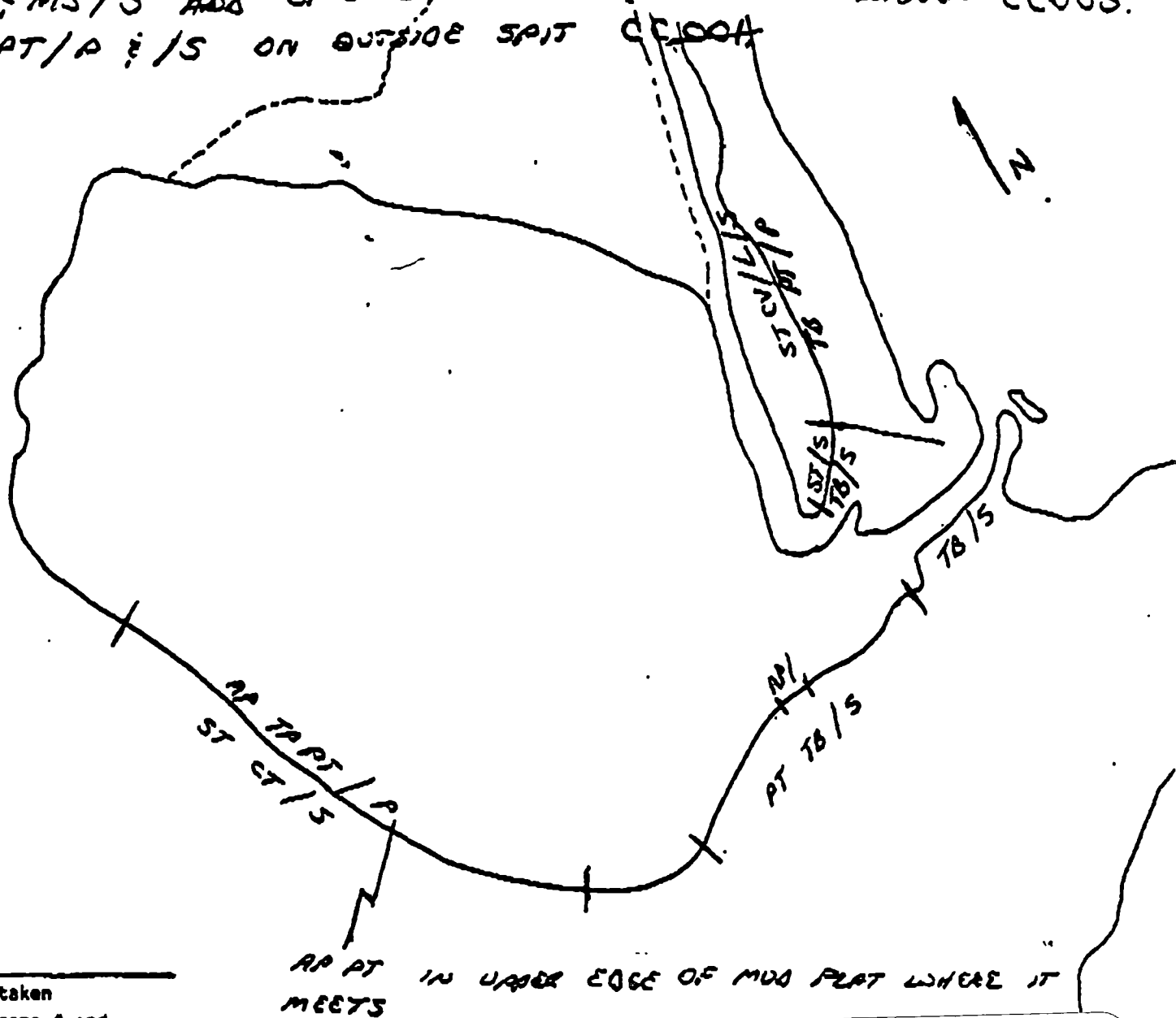
* RECOMMEND: MANUAL TYPE A CLEANUP WITH MONITOR. (NAS &
ADFG) MONITOR SHOULD BE FAMILIAR WITH SITE AND OIL
LOCATION AS IT IS SOMETIMES HARD TO SPOT. (OVER)

FRAME(S)

DESCRIPTION

48 OIL DISTRIBUTION DIAGRAM

CLEANUP SHOULD TAKE PLACE IN CC002, CC005, CC001, BUT ONLY ON THE WEST/SOUTHWEST SIDE OF CC100, (WEST/SOUTHWEST SIDE OF LAGOON) UP TO BUT NOT INCLUDING GRASS/MARSH AREA AT NW CORNER OF LAGOON. ~~ED~~ WITH RO & MS/S AND ST CT CV/A ON BEACH OUTSIDE LAGOON CC005. TB/AT/A & /S ON OUTSIDE SPIT CC100A



- Sample taken
- Photo frame # and shot direction.

ACE 1950233

Segment ST / K0917CC100

Subdivision

A

Date (mo / day / yr) 5/3/90

Time (24 hr) 1600-1730

Biologist

SHARMAN

(A) Substrate type and % of segments: SUBDIV.

(1) Bedrock (2) Boulder (3) Cobble (4) Pebble (5) Sand (6) ^{Mud} Silt 100

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

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

Photographs:

Roll No. -

Frames -

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS (ANCELA, LITTORINA, LYMÆTE)

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments: See above. The stream mouth finally opens out into a sand/mud grassy tidal flat. No particularly unusual biological observations. The surrounding Clinch Lagoon proper was surveyed in more detail (See Shoreline Ecological Summaries for CC-9, CC-2, CC-100, and CC-1).

Ecological Considerations:

ADF&G Catalog # 262-15-10040 anadromous stream ("Clinch Lagoon stream"). No additional local (within 100m) ecological sensitivities other than the usual concern for sensitive & productive estuarine tidal areas. It may be useful to refer to this section of the regular SSAT survey of CC-100.

70

PREScreen

ASC NUMBER: LOCATION: STREAM NAME: KODIAK K-UNIT: USGS QUADRANGLE: SHORELINE TYPE: LAGOON

SEGMENT NUMBER: LOCAL STREAM #: LATITUDE: LONGITUDE: LEGAL: WAVE EXPOSURE: L

YR CATALOGED: 

ASC NUMBER: 262-15-10040
 SURVEY TYPE: PA
 METHOD: F
 DATE: 04/15/90
 START TIME: 1845
 STOP TIME: 1620

TEAM RECORDER: E. WEBS
 OBSERVERS:

AGENCY(IES): AFB

PHOTOS TAKEN? N

Roll #: Frames:

VIDEO TAKEN? N Tape Number:

Counter Start:

SAMPLES TAKEN? N

SAMPLE I.D. NUMBERS: 1. 2. 3.
 4. 5. 6.

OILING DATA

	LENGTH	WIDTH	M2	%	THICK	FEN	OIL TYPE
SITE 1							
SITE 2							
SITE 3							
SITE 4							
SITE 5							

OVERALL OIL IMPACT: VL

OIL IN STREAM CHANNEL? Y

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SUBSTRATE

Bedrock	Granule
Boulder	Sand
Cobble <u>20</u>	Silt <u>50</u>
Pebble <u>30</u>	Veget.

SPECIES

COUNT

COMMENTS: BANDS OF PT/B AND CV/B (RESULTANT FROM MELTING OF AT ON BOULDERS/COBBLES) IN UPPER TIDE LINE, ON SW. SIDE OF LAGOON. BANDS OF PT/ AND MS/ IN LOWER TIDELINE MUD AND SILT IS NOW MORE /P, POSSIBLY DUE TO SCOURING OF ICE OR BURIAL BY MUD/SILT DEPOSITION. ANADSBAT SURVEY RECOMMENDED

ACE 1950214
 HIFSIHF

Prescreen

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS DS TS AVS SCHA MMHS PTA

2 REGION: PWS KP, CI K, AP

METHOD: Aerial Ground Boat

3 DATE: 4-15-90 15 HIGH TIDE TIMES: 5:39, 18:59

21 TEAM RECORDER: E. Weiss

4 START TIME: 1545 16 HIGH TIDE HTS: 16.6, 13.7

22 OBSERVERS: _____

5 STOP TIME: 1620 17 LOW TIDE TIMES: 11220

23 AGENCY: ADF + G

6 SEGMENT #: XX800 & XX801 18 LOW TIDE HTS: 1, 1.04

24 PHOTOS TAKEN: X N

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

Roll #: 001-K Frame: _____

8 K-UNIT: _____ Ebb Slack Flood Slack

25 VIDEO TAKEN: Y X TAPE#: _____

9 STAT AREA: _____ 20 USCG QUAD: AFOGNAK C-6

Start: _____ End: _____

10 LAT: 58 31 55 11 LONG: 153 56 51

26 SAMPLES TAKEN? Y X Number

12 SOURCE: Map Loran ANADSAT

Oil _____

13 LOCATION: _____

Sediment _____

14 DESCRIPTION: _____

Biological _____

Water _____

EXTENT OF OIL

	SHORELINE				STREAM			
	L	W	M ²	%	L	W	M ²	%
27 SURFACE COVERAGE								
28 SURFACE THICKNESS								
29 PENETRATION								

36 CATALOGED ANAD. FISH SREAM? Y N

37 CATALOG #: 262-15-10040

38 STREAM NAME: CHINIAK LAGOON

39 OIL IN STREAM BED? X N

40 OIL ON STREAM BANKS? X N

30 OVERALL OIL IMPACT: N VL L M H

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

31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain

42 OIL WITHIN 1 MILE OF STREAM? Y N

32 OILED DEBRIS? Y N

Where: _____

33 SHORELINE TYPE: Headland Low-lying Rocks Beach 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 20
Gravel 30 Sand _____ Mud/silt 30

COMMENTS: BANDS OF PT/B & CV/B (RESULTING FROM MELTING OF PT ON BOULDER/CBBLES) IN UPPER TIDE LINE SW. SIDE OF LAGOON. BANDS OF PT/ & MS/ IN LOWER TIDE LINE

MUD SILT IS NOW MORE /P. POSSIBLY DUE TO SCOURING OR BURIAL BY MUD/SILT DEPOSITION.

* RECOMMEND ANADSAT SURVEY.

ACE 1950215

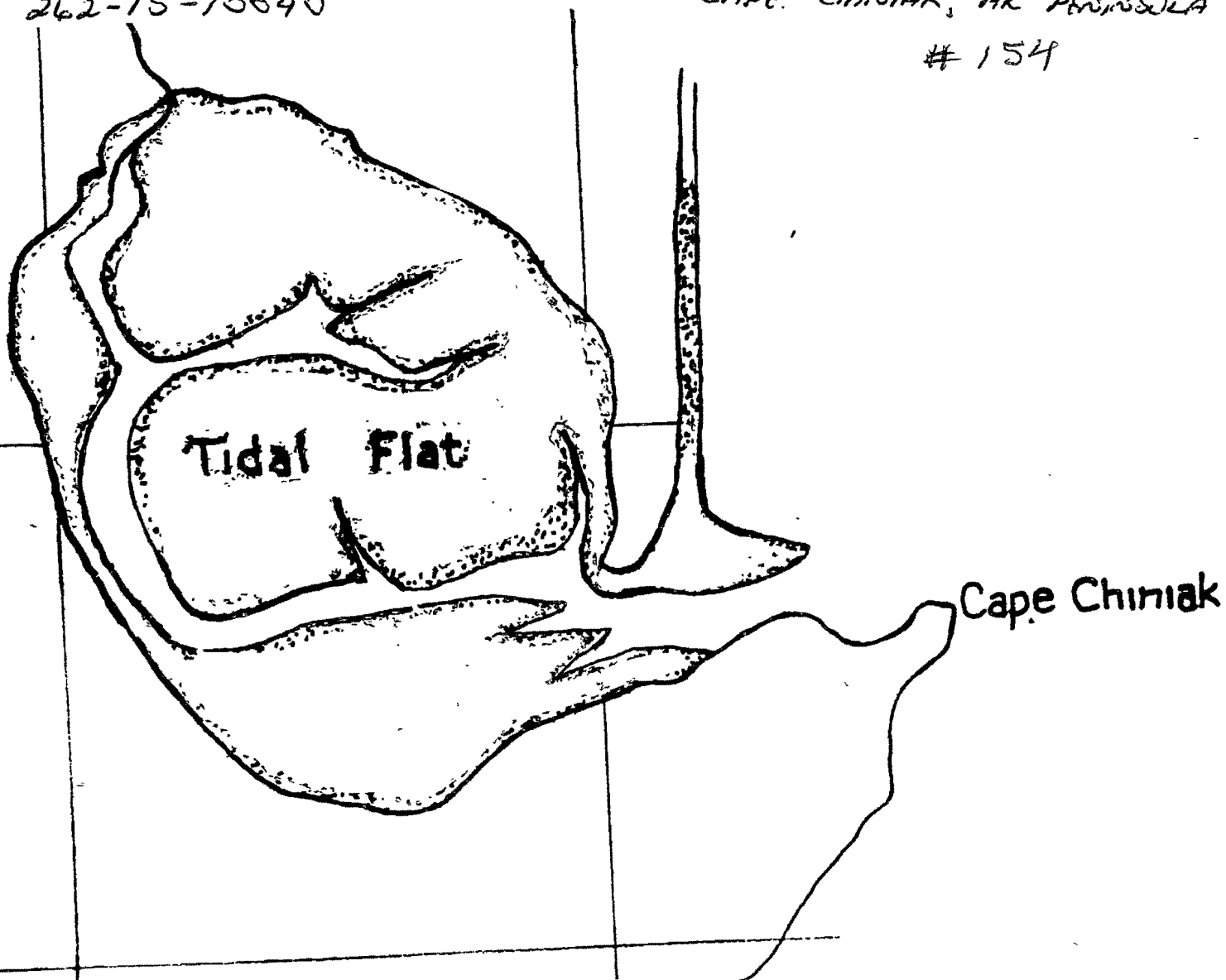


FRAME(S)

DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM

AFS 262-15-10040

CAPE CHIRIAK, AK PENINSULA
154

= Sample taken
= Photo frame # and
shot direction.

ACE 1950216-15

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

STEVE COWPER, GOVERNOR

Rapifax 349-1723

333 RASPBERRY ROAD
ANCHORAGE, ALASKA 99518-1529
PHONE: (907) 344-0541

RAPIFAX TRANSMITTAL SHEET

TO: Ken / Dick
Anch. HabitatDATE: 5/14/90No. Pages: 12
(including this page)FROM: J. Barnhart
Kodiak HabitatMESSAGE: Chiniak Lagoon
AFS 262-15-10040
Segment CC100AALASKA DEPT. OF
FISH & GAME

MAY 14 1990

REGION II
HABITAT DIVISION

ACE 1950636 +15

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS GS DS TS AVS SCIA MMS PTA2 REGION: PWS KP,CI KAPMETHOD: Aerial Ground Boat3 DATE: 5/3/9015 HIGH TIDE TIMES: 121 TEAM RECORDER: E. WEISS4 START TIME: 133516 HIGH TIDE HTS: 122 OBSERVERS: K. SCHOCK,5 STOP TIME: 180017 LOW TIDE TIMES: 170923 AGENCY: ADFG/NPS/WWC/ASEC6 SEGMENT #: CC00118 LOW TIDE HTS: 1.6924 PHOTOS TAKEN: Y X7 STATION #: CC00219 TIDE HT AT SURVEY: 1.69Roll #: 1 Frame: 18 K-UNIT: K0917

Ebb Slack Flood Slack

25 VIDEO TAKEN: Y X TAPE#: 19 STAT AREA: 120 USCG QUAD: AFOGNAK C-6Start: 1 End: 110 LAT: 111 LONG: 126 SAMPLES TAKEN? Y X Number 1

12 SOURCE: Map Loran

011 113 LOCATION: CHINIAK LAGOON, CAPE CHINIAK, AK PENINS.Sediment 114 DESCRIPTION: 1Biological 1Water 1

EXTENT OF OIL

	SHORELINE				STREAM			
	L	W	M ²	%	L	W	M ²	%
27 SURFACE COVERAGE	1000	10m		5%			2600	10%
28 SURFACE THICKNESS	2cm				1cm			
29 PENETRATION								

30 OVERALL OIL IMPACT: N VL 1 M H31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain32 OILED DEBRIS? Y N33 SHORELINE TYPE: Headland Lagoon Low-lying Rocks Marsh Beach Cove34 WAVE EXPOSURE: High Moderate Low35 SUBSTRATE TYPE: Bedrock 10 Boulder 10 Cobble 10Gravel 20 Sand 50 Mud/silt 5036 CATALOGED ANAD. FISH SKEIN? Y N37 CATALOG #: 262-15-1004038 STREAM NAME: CHINIAK LAGOON39 OIL IN STREAM BED? Y X40 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 NWhere: 143 ANADROMOUS FISH PRESENT? Y X

44 ANADROMOUS FISH OBSERVATION

Species Aerial Ground

ACE 1950637.

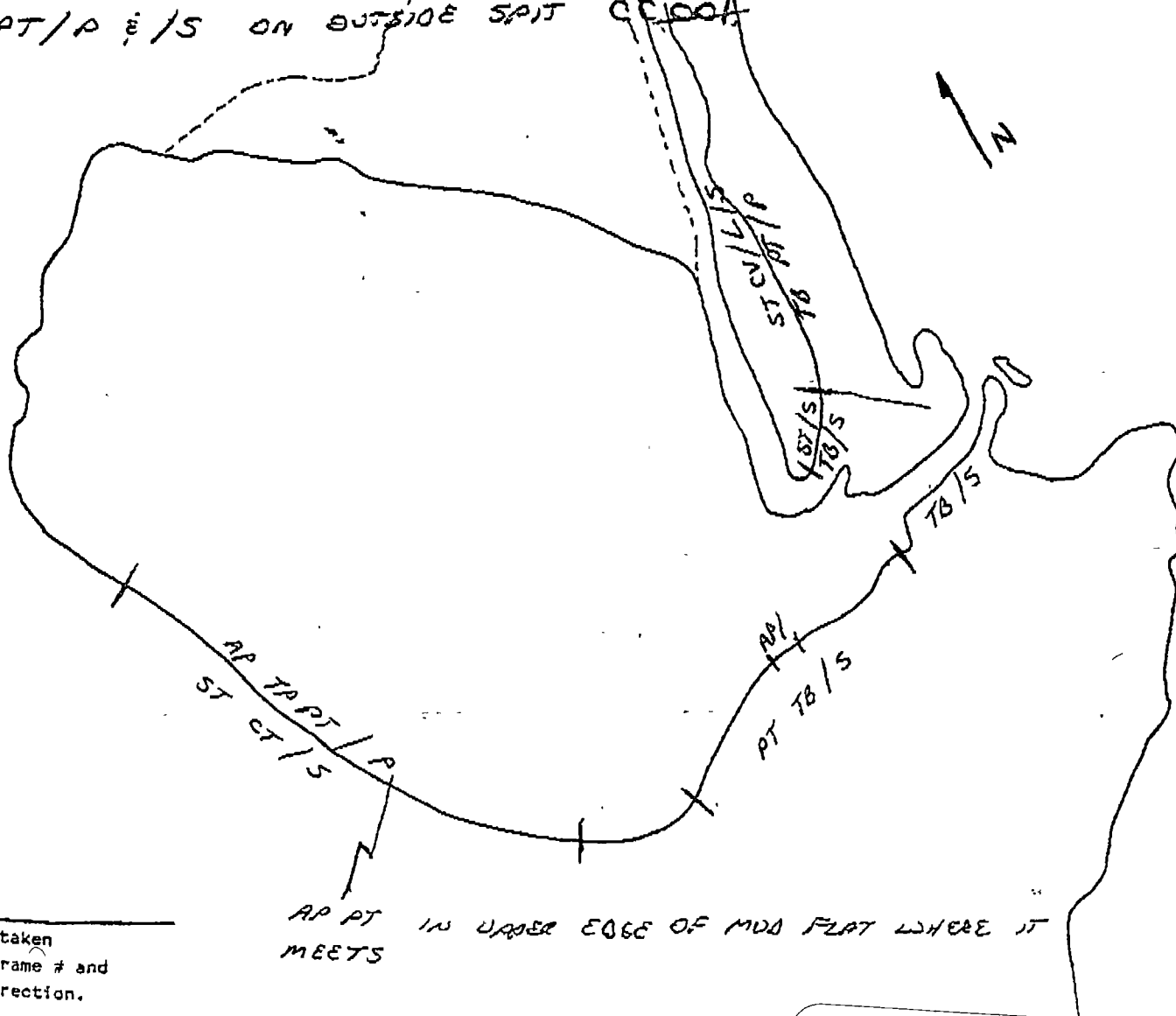
COMMENTS: SCATTERED TARBALLS PARTIES SOME ASPHALT/SOFT ON
SOUTH BANK. SOUTHWEST AND WEST BANK HAS TARBALLS
PARTIES ASPHALT THAT IS PATCHY AND LOCALLY BROKEN.
BT CV/5 IS UPPER COBBLE TIDE ZONE.

* RECOMMEND: MANUAL TYPE A CLEANUP WITH MONITOR (NAS E/O
ADFG) MONITOR SHOULD BE FAMILIAR WITH SITE AND OILING
LOCATION AS IT IS SOMETIMES HARD TO SPOT. (OVER)

FRAME(S)

DESCRIPTION

48 OIL DISTRIBUTION DIAGRAM
 CLEANUP SHOULD TAKE PLACE IN CC002, CC005, CC001, BUT ONLY ON THE WEST/SOUTHWEST SIDE OF CC100, (WEST/SOUTHWEST SIDE OF LAGOON) UP TO BUT NOT INCLUDING GRASS/MARSH AREA AT NW CORNER OF LAGOON. ~~DO NOT~~ DO BEACH OUTSIDE LAGOON CC005. TB/PT/P & /S ON OUTSIDE SPIT CC100A



ACE 1950638

FIELD SHORELINE COMMENT SHEET

ANAD SCAT

ADF#G# 262-15-10040

SEGMENT ST/ K09/TCC100

SUBDIVISION: A

DATE May 4, 1990

~~NOMA~~
~~USCG~~NAME STEPHEN LEHMANN SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Oiling was very light except for one section (identified by the DG) where oil appeared at surface. Given the sensitivity of this area and the disturbance required to remove this section of oil-treatment is not suggested.

ADEC

NAME

Terry Ellsworth

SIGNATURE

Terry Ellsworth

☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

Oiling in this segment is confined to the SW portion of the segment. The most significant occurrence is a 20m x 1m area of asphalt of patchy distribution. Patches occur sporadically along the SW portion of the segment in areas up to 1m x 2m. Manual removal of the Asphalt and mousse patches is recommended. Due to the extreme sensitivity of this area to human disturbance, only 2-3 persons should work this area. Work should not extend beyond the shore bordered by steep alder slopes.

LAND MANAGER

NAME

Carl Sebach

SIGNATURE

Carl Sebach

☐ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Oil remaining in this lagoon/estuary system can be expected to persist for a long time unless removed. However this critical habitat is sensitive to intrusion. The oil/mousse patches should be removed as soon as possible to avoid disturbing summer bear populations. A small crew of no more than five personnel should access the mousse patches on foot and remove by scraping the substrate with shovels. The mud flats ~~should~~ below the oiled area and the salt marshes to the north should not be disturbed.

REVISION NO. 03/21/90

ACE 1950639

DATE 5 / 3 90

CHECKLIST

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

LEGEND

LEGEND

AP-PT/S in up to 1X2 m areas
MS/P/S in 1/2 m x 1/2 m

1 Δ
Pit - No Subsurface Oil

2▲ 2m areas discontinuous
Pit - Subsurface Oil on upper mud flats,

CT/C Silt/mud veneer 25 mm
Continuous Distribution thick commonly AP/1
(Covers MS: 111 1x30 m

Broken Distribution

[CT/P]

Patchy Distribution

CT/S

Splashed Distribution on bldgs & cbls
in U1T2 & SUT2
Older Vegetation < 1% cover

Photo location, direction,
and number

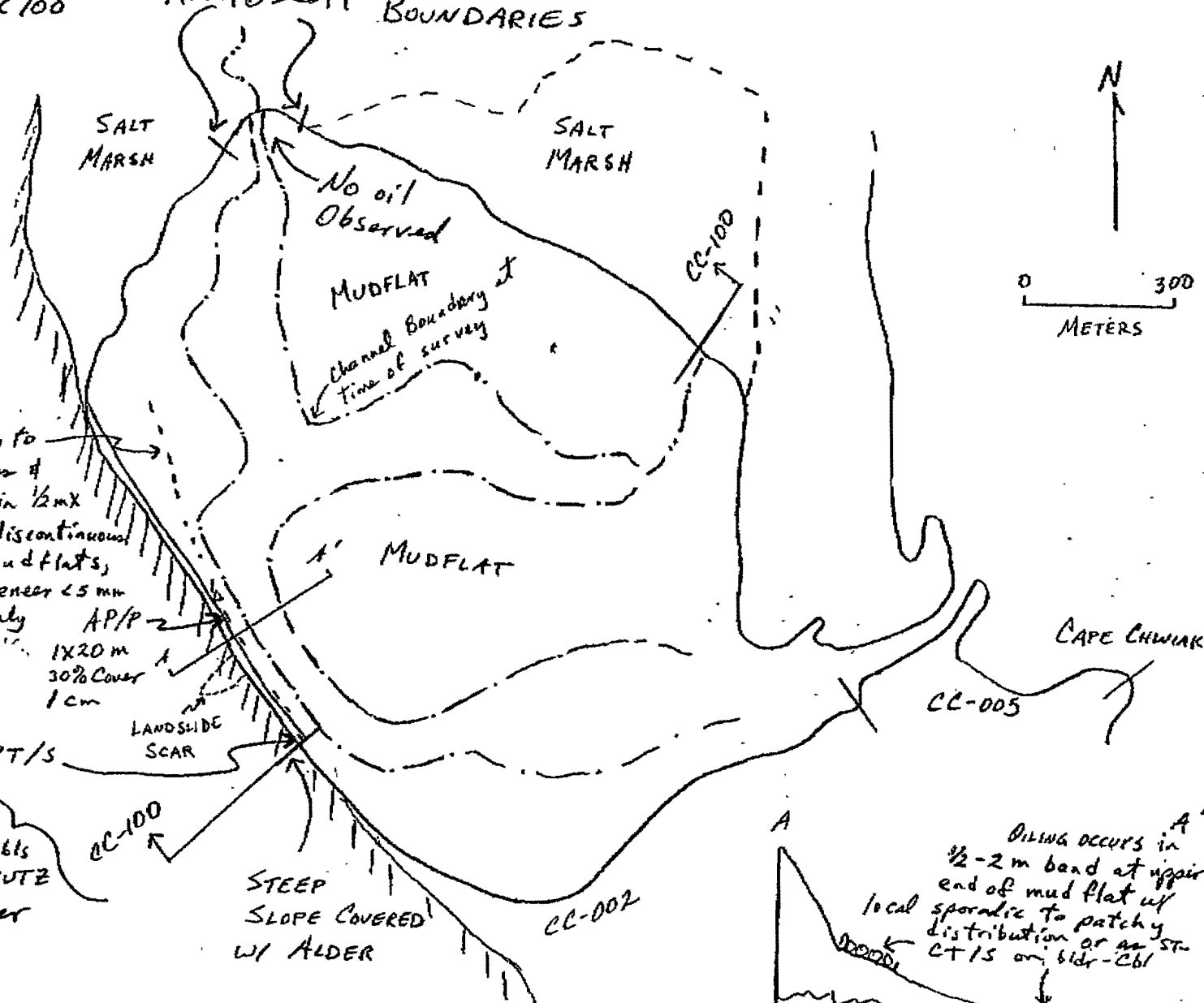
ACE 1950640

Oil Character Length (m): AP 20 PO CV GT 300 ST 576 MS 20 PT 30 TB FL NO 1740
 221% 221%

Bldg/ Granule/ Mdft
Cbl/ SAND w/ REVISION 11/11/11
Seed Pebbles
logs

REVISION: 00243

ANADSCAT SKETCH MAP
BOUNDARIES



MAY 14 '90 11:51 DEPTAAAAA

P.5/12

SSAT DATA ENTRY FORM

PAGE 1 OF 1

GENERAL DATA

ANAD SCAT
Stream # 262-15-10040
K0917

SEG ID: CC-100 SUBDIV: A TEAM: 19 SURVEY DATE: 5/3/90
PAVEMENT: CHAR - AREA 0 THICKNESS 0 TARBALLS 0
OILED: LGS - VEG - TRM - DBR - WAVE EXP: LW X MD - HG -
FAX RCVD: - DT: - AGENCY DISAGREE: -
EST SUBDIV LGTH: 200 OIL CATEGORY: W 0 M 0 N 0 VL 0 NO 200 U 0

SURFACE DATA

SURFACE SEDIMENT: BRK 0 BLD 0 COB 0 PEB 0 GRN 0 SAN 0 MUD 100 VEG 0

CHAR #: 1 OIL CHAR: NO OIL DIST: CONT - BRKN - PTCH - SPLH -
OIL CLR: - FILM CLR: - TIDAL ZONE: SU X UI X MI X LI X

CHAR #: - OIL CHAR: - OIL DIST: CONT - BRKN - PTCH - SPLH -
OIL CLR: - FILM CLR: - TIDAL ZONE: SU - UI - MI - LI -

CHAR #: - OIL CHAR: - OIL DIST: CONT - BRKN - PTCH - SPLH -
OIL CLR: - FILM CLR: - TIDAL ZONE: SU - UI - MI - LI -

CHAR #: - OIL CHAR: - OIL DIST: CONT - BRKN - PTCH - SPLH -
OIL CLR: - FILM CLR: - TIDAL ZONE: SU - UI - MI - LI -

CHAR #: - OIL CHAR: - OIL DIST: CONT - BRKN - PTCH - SPLH -
OIL CLR: - FILM CLR: - TIDAL ZONE: SU - UI - MI - LI -

CHAR #: - OIL CHAR: - OIL DIST: CONT - BRKN - PTCH - SPLH -
OIL CLR: - FILM CLR: - TIDAL ZONE: SU - UI - MI - LI -

CHAR #: - OIL CHAR: - OIL DIST: CONT - BRKN - PTCH - SPLH -
OIL CLR: - FILM CLR: - TIDAL ZONE: SU - UI - MI - LI -

CHAR #: - OIL CHAR: - OIL DIST: CONT - BRKN - PTCH - SPLH -
OIL CLR: - FILM CLR: - TIDAL ZONE: SU - UI - MI - LI -

ADF#G #

262-15-10040

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02

Segment ST / K0917CC100

Subdivision

A

Date (mo / day / yr)

5/3/90

Time (24 hr) 1600-1730

Biologist

SHARMAN

(A) Substrate type and % of segments: SUBDIV.(1) Bedrock (2) Boulder (3) Cobble (4) Pebble (5) Sand (6) Mud Silt 100(B) Overall % cover of biota (% of segment): Dense Moderate Low XSUBDIV.

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

Photographs:

Roll No. -

Frames -

BARNACLES

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

NOT PRESEN

MYTILUS

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

NOT PRESENT

GASTROPODS (ANCELA, LITTORINA, LIMPETS)

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments: See above. The stream mouth quickly opens out into a sand/mud grassy tidal flat. No particularly unusual biological observations. The surrounding Chinich lagoon proper was surveyed in more detail (See Shoreline Ecological Summaries for CC-5, CC-2, CC-200, and CC-2).

Ecological Considerations:

ADF#G Catalog # 262-15-10040 anadromous stream ("Chinich lagoon stream"). No additional local (within 100m) ecological sensitivities other than the usual concern for sensitive + productive estuarine tidal areas. It may be useful to refer to this section of the regular SSAT survey of CC-100.

ACE 1950642

OG: G. Heyman

SEGMENT ST/K0917 CC 005

SUBDIVISION A

DATE 5/3/90

CHECKLIST

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

LEGEND

1 Δ
Pit - No Subsurface Oil

2 Δ
Pit - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

CT/P
Patchy Distribution

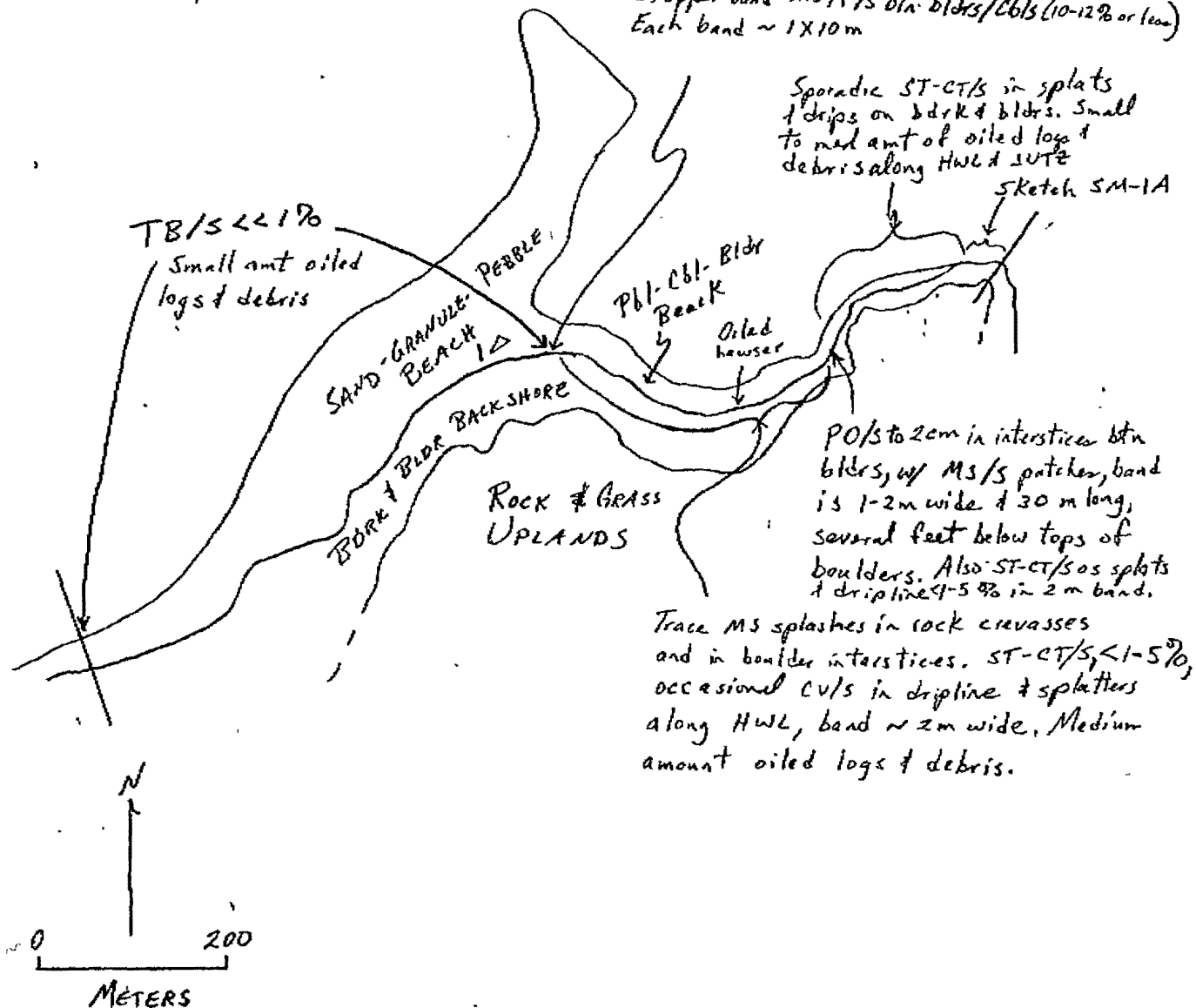
CT/S
Splashed Distribution

Oiled Vegetation

Photo location, direction,
and number

SKETCH MAP - 1

2 bands MS
1) lower band MS/S in C61/P61
2) Upper band MS/P/S btm bldrs/C61S (10-12% or less)
Each band ~ 1X10m



Oil Character Length (m): AP — PO 10 CV 62 CT 250 ST 200 MS 52 PT — TB 500 FL — NO 0

REVISION: 03/24/90

ACE 1950643

P. 10/12

00 LT. HeymanSEGMENT ST/K 0917 CC 005SUBDIVISION ADATE 5/3/90

CHECKLIST

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

LEGEND

1 Δ
Plt - No Subsurface Oil

2 Δ
Plt - Subsurface Oil

$\boxed{\text{CT/C}}$
Continuous Distribution

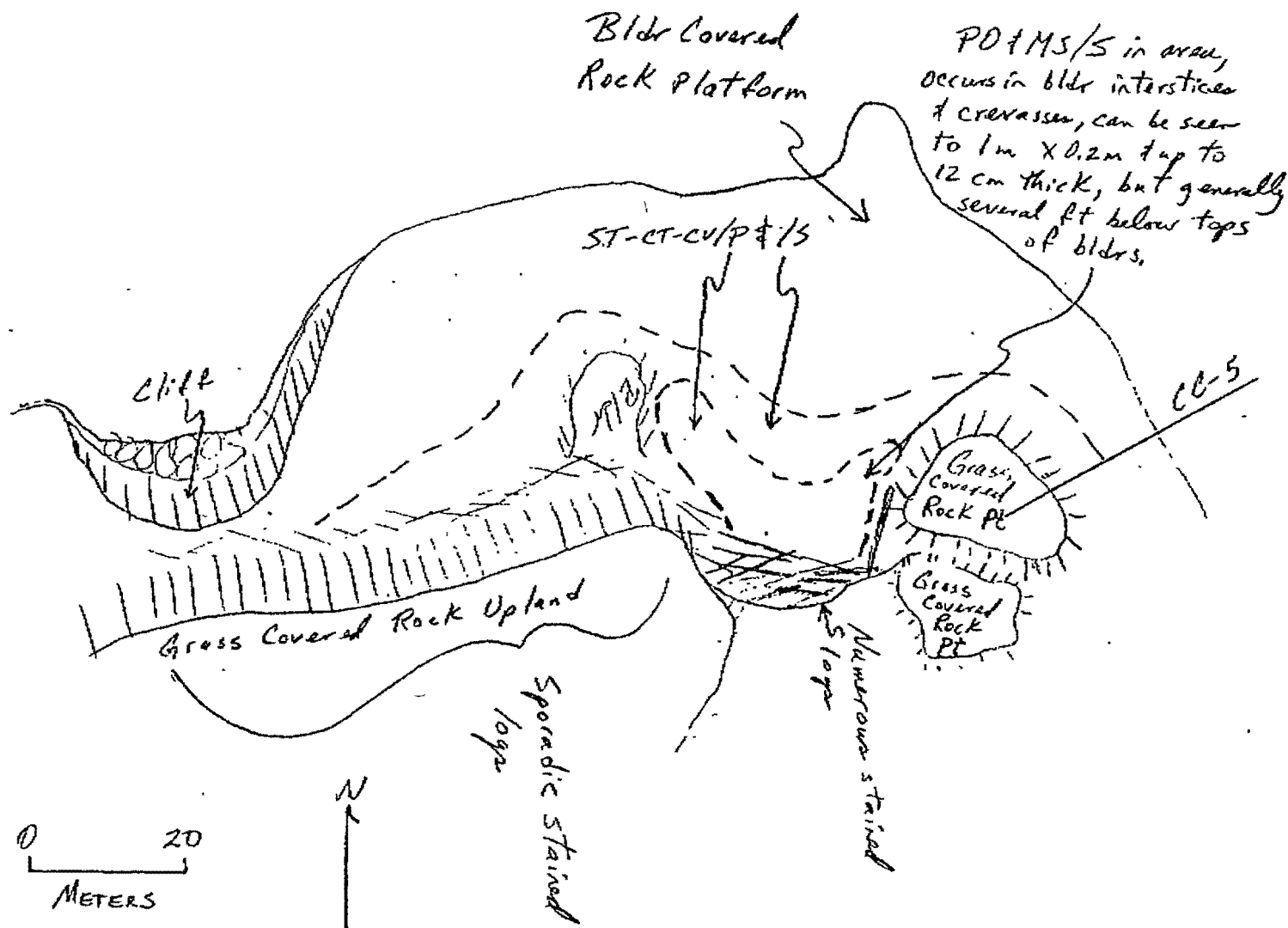
$\boxed{\text{CT/B}}$
Broken Distribution

$\boxed{\text{CT/P}}$
Patchy Distribution

$\boxed{\text{CT/S}}$
Splashed Distribution

Oil'd Vegetation

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

SKETCH MAP SM-1A

Oil Character Length (m): AP PO CV CT ST MS PT TB FL NO See SM-1

REVISION: 02/24/90

ACE 1950644

P.11/13

DATE 5, 3/90

CHECKLIST

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

LEGEND

- 1 Δ
P(1) - No Subsurface Oil

- 2 ▲
Pit - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

CT/P
Patchy Distribution

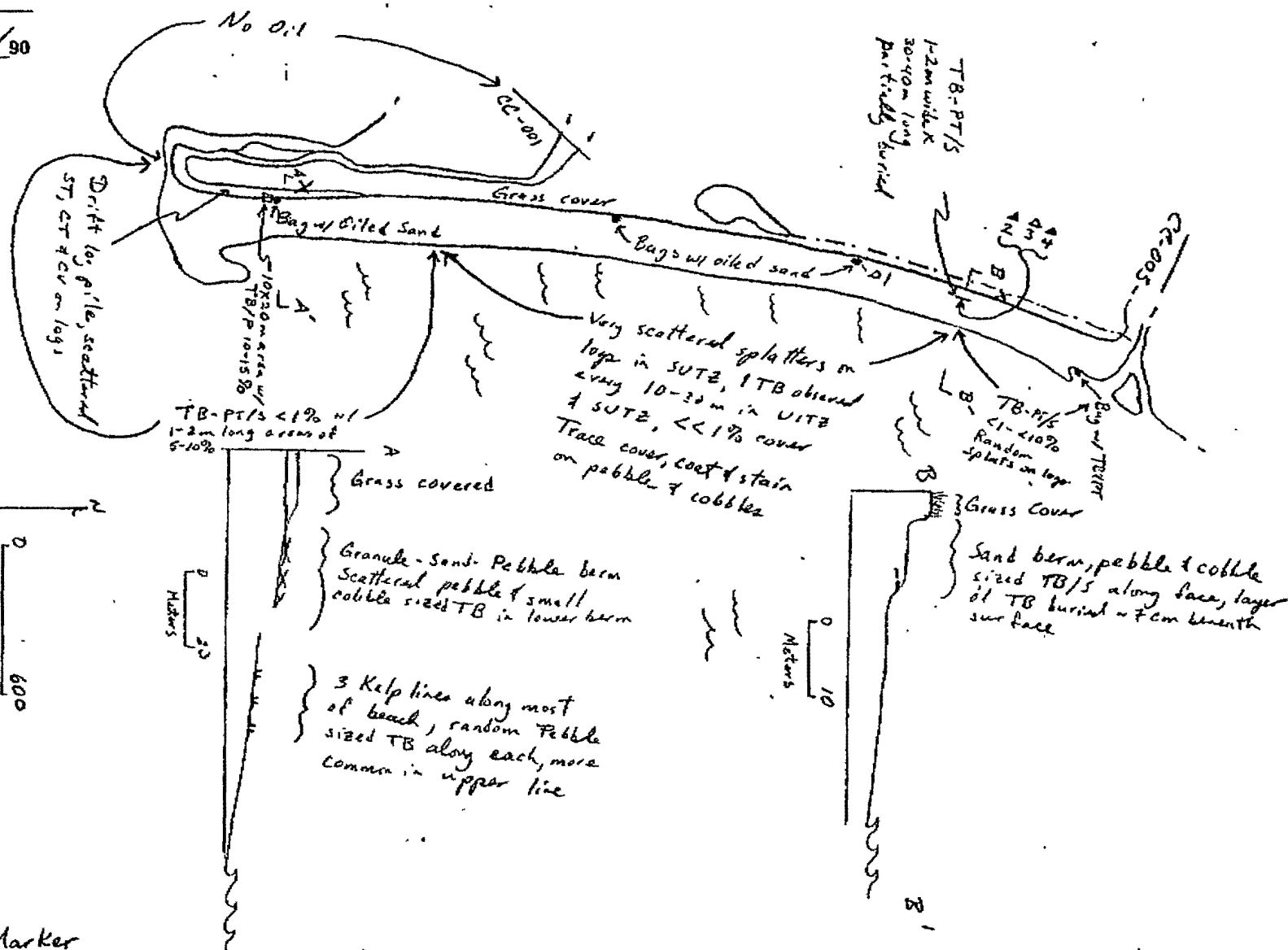
CT/S
Splashed Distribution

Oil Vegetation

- 1 
- Photo location, direction,
and number

X Regulatory Marker

SKETCH MAP



ACE 1950646 - 5

Oil Character Length (m): AP — PO — CV 3 CT 3 ST 4 MS — PT 6.90 TS 2300 FL — NO 1771

REVISION: 02/24/04

MAY 14 '90 11:55 DEPTAAAAA

P. 12/12

TAG
REVIEW

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/^N~~K~~9-17-CC-100 STREAM NO: 262-15-10040 DATE 5/3/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

ADF&G Anadromous stream # 262-15-10040.

Sensitivity code and general time constraints. See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unopened biota and substrate. Do not trample or disturb marsh area.

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Rachel Lee O'Neil DATE: 5/25/90

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS: NO OIL OBSERVED IN AREA OF STREAM. HOWEVER
WORK TO BE COMPLETED IN ADJACENT AREAS TO THE STREAM + LAGOON
SEE SEAT PACKAGES 17-17-CC-180A + 02A FOR RECOMMENDED
WORK - MINIMIZING DISTURBANCE + WORK CREW SIZE.

TAG APPROVAL DATE: 5/23/90.

DEC Art Wernick Art Wernick
CXON Andy Earl
AA Bert Wernick
CG G.A. Peter

FOSC: DATE:

ACE 1950597

7 AG
5/23/90
Jann

RECEIVED
MAY 19 1990

DEPT. OF
ENVIRONMENTAL CONSERVATION

ANADROMOUS FISH STREAM ASSESSMENT

REGION: KODIAK

SEGMENT: ~~KN~~^{K9}9-17-CC-100

SUBDIVISION: A

STREAM NO: 262-15-10040

Chiniah Lagoon

Thought we already processed?

*Rec. manual cleanup - see ADPC
notes for location + type*

ICDM 5/22/90

Disagreement = form

ACE 1950598+/S

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/~~KN9~~-17-CC-100 STREAM NO: 262-15-10040 DATE 5/3/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

ADF&G Anadromous stream # 262-15-10040.

Sensitivity code and general time constraints. See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Do not trample or disturb marsh area.

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: _____

ACE 1950599

KODIAK ECOLOGICAL CONSTRAINTS

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

ACE 1950600

ANAD SCAT

ADF#G# 262-15-10040

SEGMENT ST/ K0917CC100

SUBDIVISION: A

DATE May 4, 1990

NOAA
USCGNAME STEPHEN LEHMANN SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Oiling was very light except for one section (identified by the DG) where oil appeared at surface. Given the sensitivity of this area and the disturbance required to remove this section of oil-treatment is not suggested.

ADEC

NAME Terry Ellsworth SIGNATURE Terry Ellsworth☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

Oiling in this segment is confined to the SW portion of the segment. The most significant occurrence is a 20m x 1m area of asphalt of patchy distribution. Patties occur sporadically along the SW portion of the segment in areas up to 1m x 2m. Manual removal of the Asphalt and mouse patties is recommended. Due to the extreme sensitivity of this area to human disturbance, only 2-3 persons should work this area. Work should not extend beyond the shore bordered by steep alder slope.

LAND MANAGER

NAME Carl Sabach SIGNATURE Carl Sabach☐ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Oil remaining in this lagoon/estuary system can be expected to persist for a long time unless removed. However this critical habitat is sensitive to intrusion. The oil/mouse patties should be removed as soon as possible to avoid disturbing summer bear populations. A small crew of no more than five personnel should access the mouse patches on foot and remove by scraping the substrate with shovels. The mud flats should below the oiled area and the salt marshes to the north should not be disturbed.

REVISION NO. 03/21/88

NO!

ACE 1950601

FIELD SHORELINE COMMENT SHEET

CC001/CC002
 SEGMENT ST/CC100/CC005 SUBDIVISION: ANADSSAT DATE 5-11-90

~~ADFG~~
 NAME EDWARD W. WEISS SIGNATURE Edward W. Weiss

☐ NO TREATMENT RECOMMENDED
 COMMENTS

☒ TREATMENT SUGGESTED

THIS EXXON/SSAT ANADSSAT REPORT ONLY REFLECTS THE OILING CONDITIONS WITH IN 100 M EITHER SIDE OF WHERE THE STREAM BED ENTERS THE UPPER LAGOON (CC100). IN THIS SHORT SECTION OF SEGMENT CC100 THERE INDEED WAS NO OIL FOUND. BUT IT DOES NOT REFLECT THE CONDITIONS WITH IN SEGMENTS CC002, 005, 001 NOR THE SOUTH AND WEST PORTIONS OF CC100. THESE SEGMENTS ARE WITH IN THE LAGOON WHICH IS PART OF THE ANADROMOUS STREAM. CONSEQUENTLY ADFG HABITAT PERSONNEL SHOULD BE INVOLVED IN THE TAG GROUP FOR ALL FOUR SEGMENTS (CC001, CC002, CC005, CC100) & ADFG PERMITS NEED TO BE OBTAINED TO DO ANY WORK IN THESE FOUR SEGMENTS. THE FIELD SKETCHES SHOWING THE IMPACTS IN THESE OTHER SEGMENTS ARE INCLUDED IN THIS ANADSSAT REPORT. THESE AND THE SSAT REPORTS FOR THESE SECTIONS SHOULD BE CONSULTED WHEN CLEANING UP THIS ANADROMOUS STREAM.

MANUAL TYPE A CLEANUP SHOULD BE CONDUCTED IN FOLLOWING SEGMENT AREAS;

ACE 1950602

THE SOUTH & WEST PORTION OF CC100 ALONG THE STEEP ALDER COVERED BANK TO THE POINT WHERE IT FALLS AWAY FROM THE LAGOON AND THE MARSH GRASS STARTS. CLEANUP SHOULD NOT TAKE PLACE IN THE MARSH GRASS SECTION OF CC100 (NO OIL FOUND DURING SSAT AND SENSITIVE MARSH AREA). AP, PT, MS/P WITH BARTS LOCALLY /B, IN THE SOUTH & WEST PART OF CC100

PHI-14-1990 15001 FROM EXAMIN KODIAN 10 2301 11-11-90
SEGMENT CC002. ALSO PAK FIR, '11, '11, '11
ITS WESTERN MOST HALF. THESE IMPACTS
ALSO HAVE LOCALLY HEAVIER IMPACTS WITH SOME
AP, PT/C AND /B. THE IMPACT IS LIGHTER
AS YOU MOVE TOWARDS THE LAGOON/STREAM MOUTH
(TOWARDS CC005) BECOMING MORE TB & PT/S.

SEGMENT CC005. TB/S IN THE WESTERN PORTION
OF CC005 WHICH IS WITHIN THE STREAM/LAGOON
MOUTH AREA. ALSO MANUAL PICKUP.

NOTE THAT PO/S; ST & CT/S; MS/S OCCUR
IN THE REST OF CC005, WHICH IS IMMEDIATELY
ADJACENT TO THE LAGOON MOUTH. BEFORE ANY
CLEANUP METHOD BESIDES "MANUAL" IS IMPLEMENTED
HERE HABITAT DIVISION PERSONNEL MUST BE
NOTIFIED AND PERMISSION GRANTED.

SEGMENT CC001. THE OUTSIDE SPIT AREA
MANUAL PICKUP OF TB/P IN SUTZ, LITZ, AND
MITZ. ALSO BAGS OF OILED SAND & MOUSSE.

ALSO RECOMMEND THAT ADFG OR NPS MONITOR
BE PRESENT. SOMEONE WHO IS FAMILIAR WITH
SITE KNOWS WHERE THE OILING IS. AP, PT, IN
CC002 & CC100 IS IN LITZ AT BREAK BETWEEN
MUDFLAT AND SAND/GRAVEL BEACH AND IS COMMONLY
PARTIALLY COVERED BY SILT. SOMETIMES HARD TO
FIND BUT CAN BE FOUND AND EASILY REMOVED.

Ed Weiss
5-11-90

REVISION NO. 04/12/00

SURFACE OIL

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

NEAR SHORE SHEEN? NO BR RW SL TL

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

Frames_____

SUBSURFACE OIL

[illegible]

COMMENTS *No pits dug.*

ACE 1950604

This andromous stream (ADFG #. 262-15-10040) was surveyed with Ed Weiss of ADFG as part of the SSAT assessment of CC-100 A. The andromous SCAT assessment was restricted to 100m on each side of the stream. Sketch maps for the entire Chinik Lagoon are included with this form. See the respective SSAT reports for more information.

OG G. Heyman

SEGMENT STIK 09 17 CC 100

SUBDIVISION A

DATE 5, 3 90

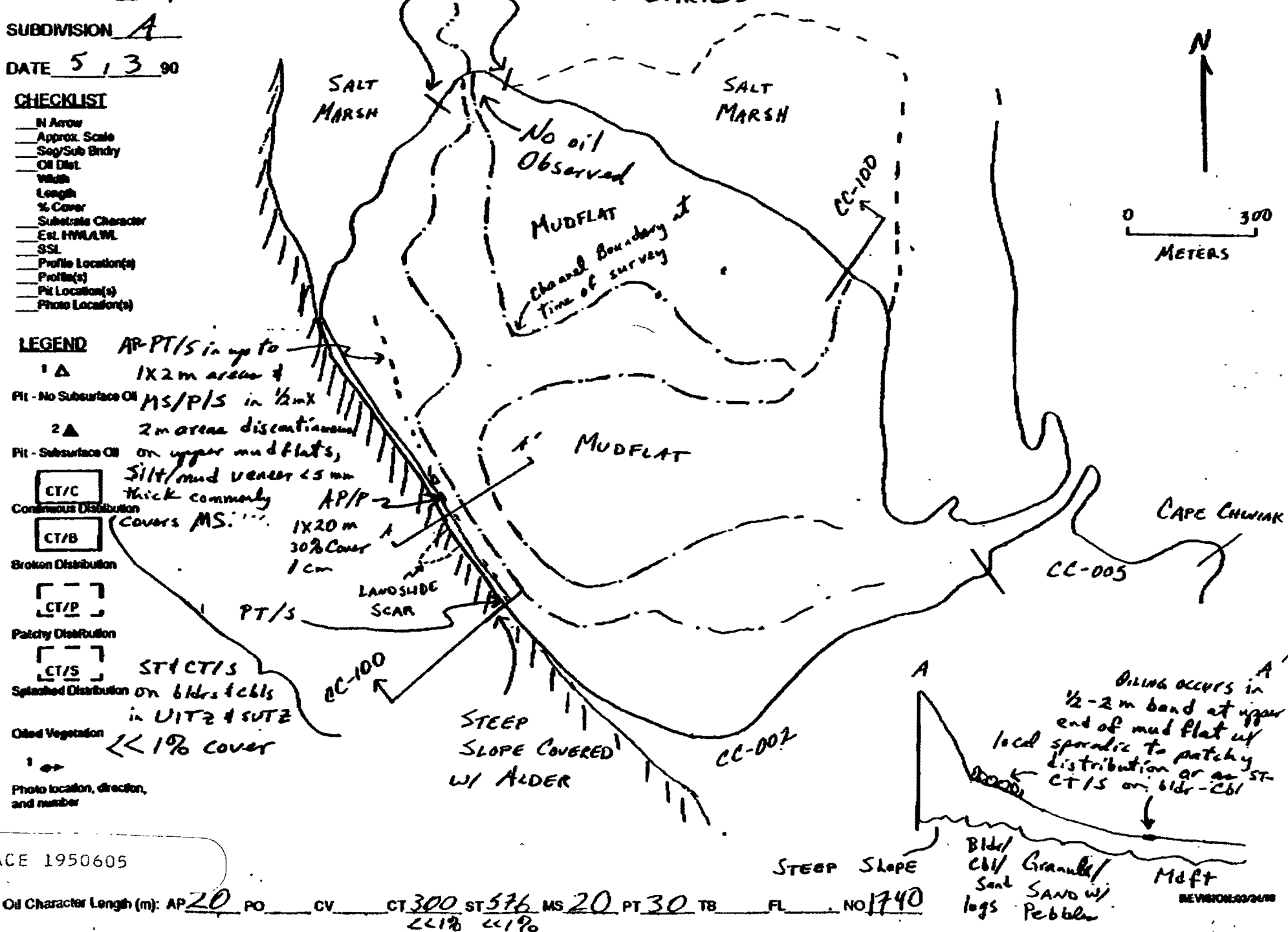
CHECKLIST

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

LEGEND

- AP-PT/S in up to 1X2 m area & MS/P/S in 1/2 m x 2 m area discontinuous on upper mud flats, silt/mud veneer < 5 mm thick commonly covers MS.
- 1 Δ 1X2 m area & MS/P/S in 1/2 m x 2 m area discontinuous on upper mud flats, silt/mud veneer < 5 mm thick commonly covers MS.
- 2 Δ 2 m area discontinuous on upper mud flats, silt/mud veneer < 5 mm thick commonly covers MS.
- Pit - No Subsurface Oil
- Pit - Subsurface Oil
- Continuous Distribution
- Broken Distribution
- Patchy Distribution
- ST & CT/S
- Splashed Distribution on bldrs & cbls in U1T2 & SUT2
- Oiled Vegetation
- Photo location, direction, and number

ANADSCAT SKETCH MAP BOUNDARIES



ACE 1950605

Oil Character Length (m): AP 20 PO CV CT 300 ST 576 MS 20 PT 30 TB FL NO 1740

Bldr/
cbl/
sand
logs

Granule/
SAND w/
Pebbles

Mudft

REVISION: 03/24/98

OG G. Heyman

SEGMENT ST/K 0917 CC 005

SUBDIVISION A

DATE 5/3/90

SKETCH MAP - 1

CHECKLIST

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

LEGEND

1 Δ
 Pt - No Subsurface Oil

2 Δ
 Pt - Subsurface Oil

CT/C
 Continuous Distribution

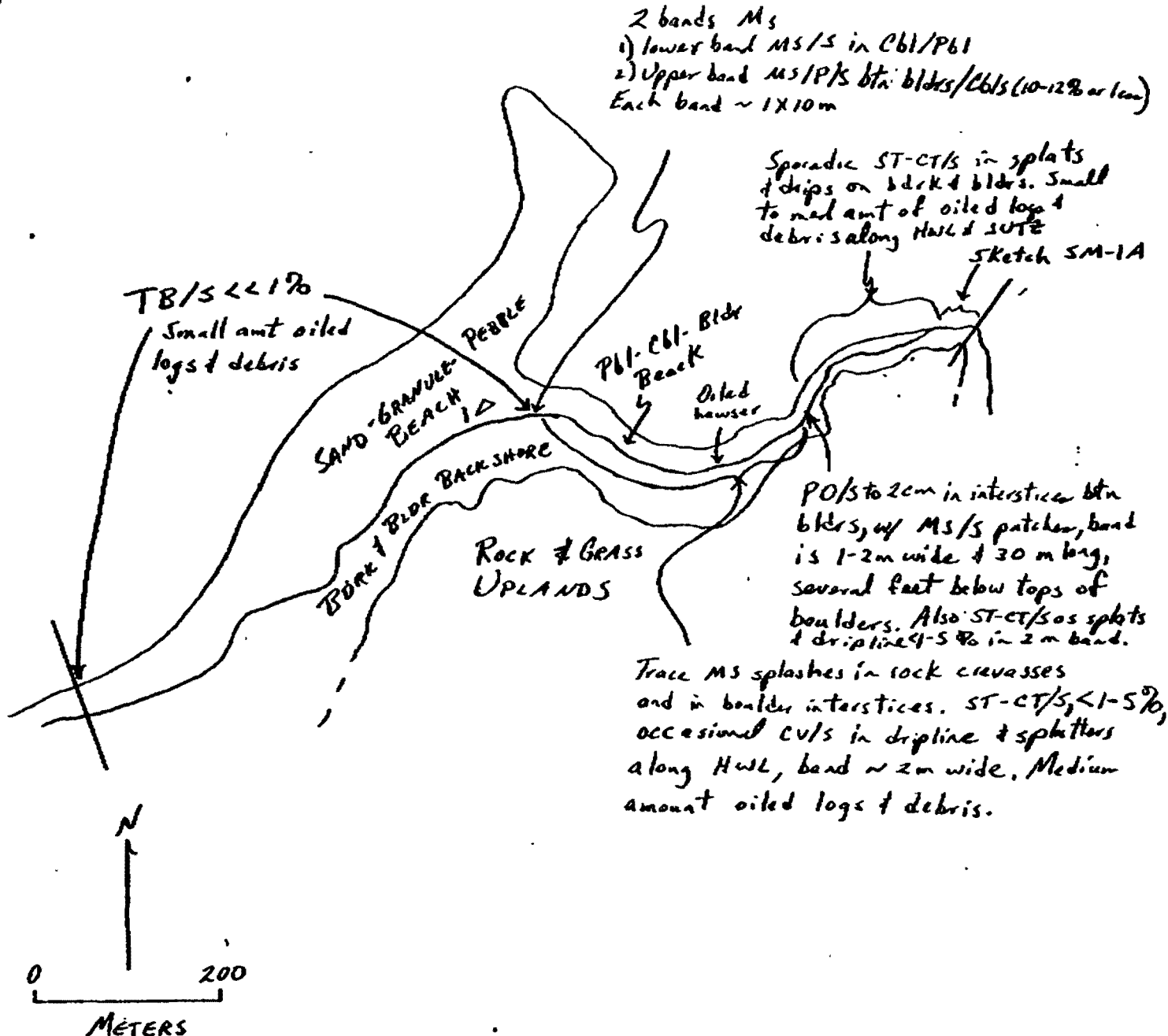
CT/B
 Broken Distribution

CT/P
 Patchy Distribution

CT/S
 Splashed Distribution

Oiled Vegetation

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



Oil Character Length (m): AP — PO 10 CV 62 CT 250 ST 200 MS 52 PT — TB 500 FL — NO 0

REVISION: 03/24/90

OG G. Heyman

SEGMENT ST/ K 0117 CC 005

SUBDIVISION A

DATE 5/3/90

CHECKLIST

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

LEGEND

1 Δ
Pit - No Subsurface Oil

2 Δ
Pit - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

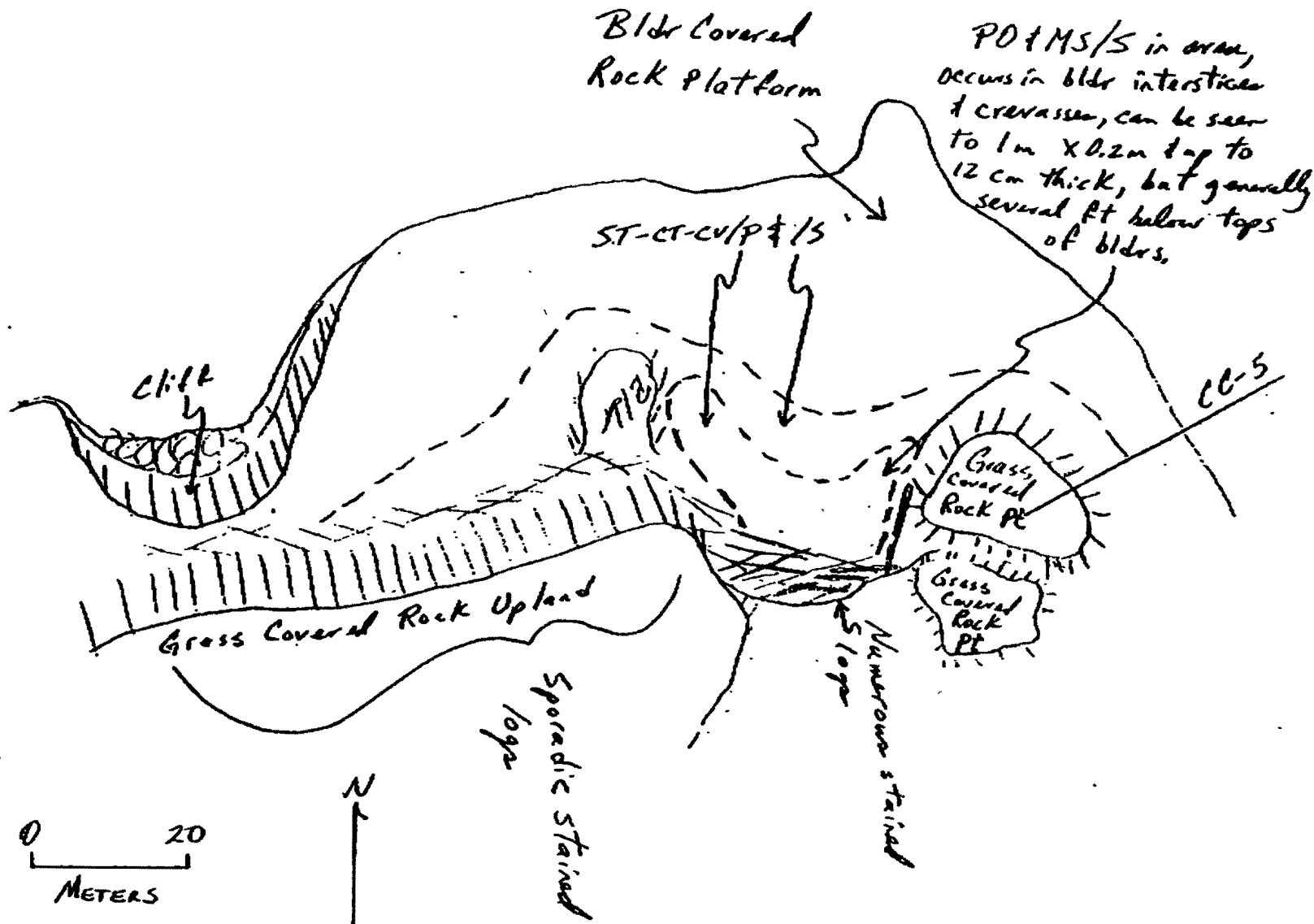
CT/P
Patchy Distribution

CT/S
Splashed Distribution

Oil Vegetation

1 →
Photo location, direction, and number

SKETCH MAP SM-1A



ACE 1950607

Oil Character Length (m): AP PO CV CT ST MS PT TB FL NO See SM-1

REVISION 01/21/90

SKETCH MAP

SUBDIVISION A

DATE 5/3/90

CHECKLIST

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

LEGEND

1 Δ
Fit - No Subsurface Oil

2 ▲
Pit - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

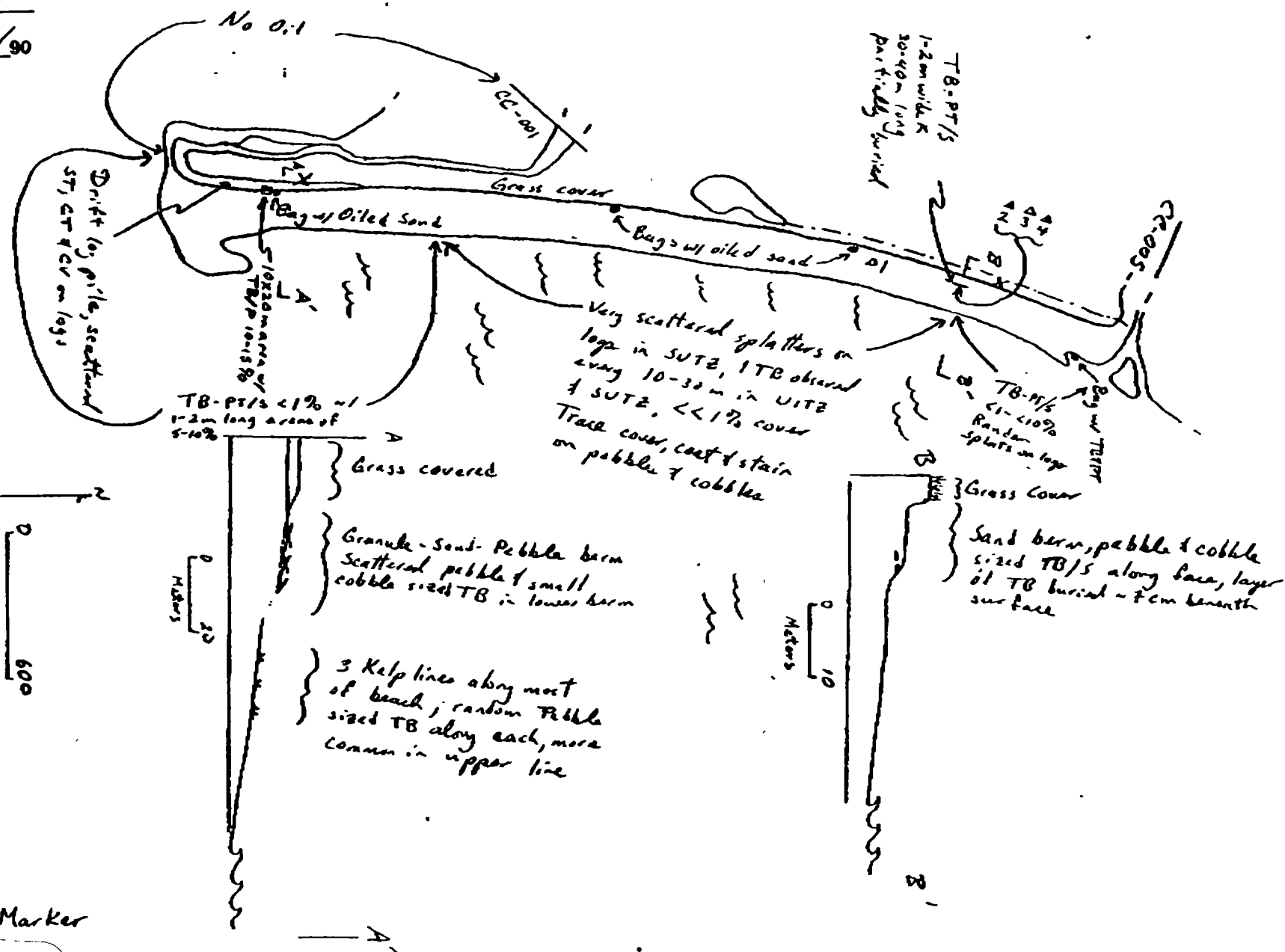
CT/P
Policy Distribution

CT/S
Spliced Distribution

lll
Oiled Vegetation

1 ➡
Photo location, direction,
and number

x Regulatory Marker



ACE 1950608

Oil Character Length (m): AP — PO — CV 3 CT 3 ST 4 MS — PT 6.20 RS 2300 FL — NO 1771

REVISION 202400

OG G. Heyman

SEGMENT ST/ K0917 CC002

SUBDIVISION A

DATE 5/3/90

CHECKLIST

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

LEGEND

1 Δ

Pit - No Subsurface Oil

2 Δ

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

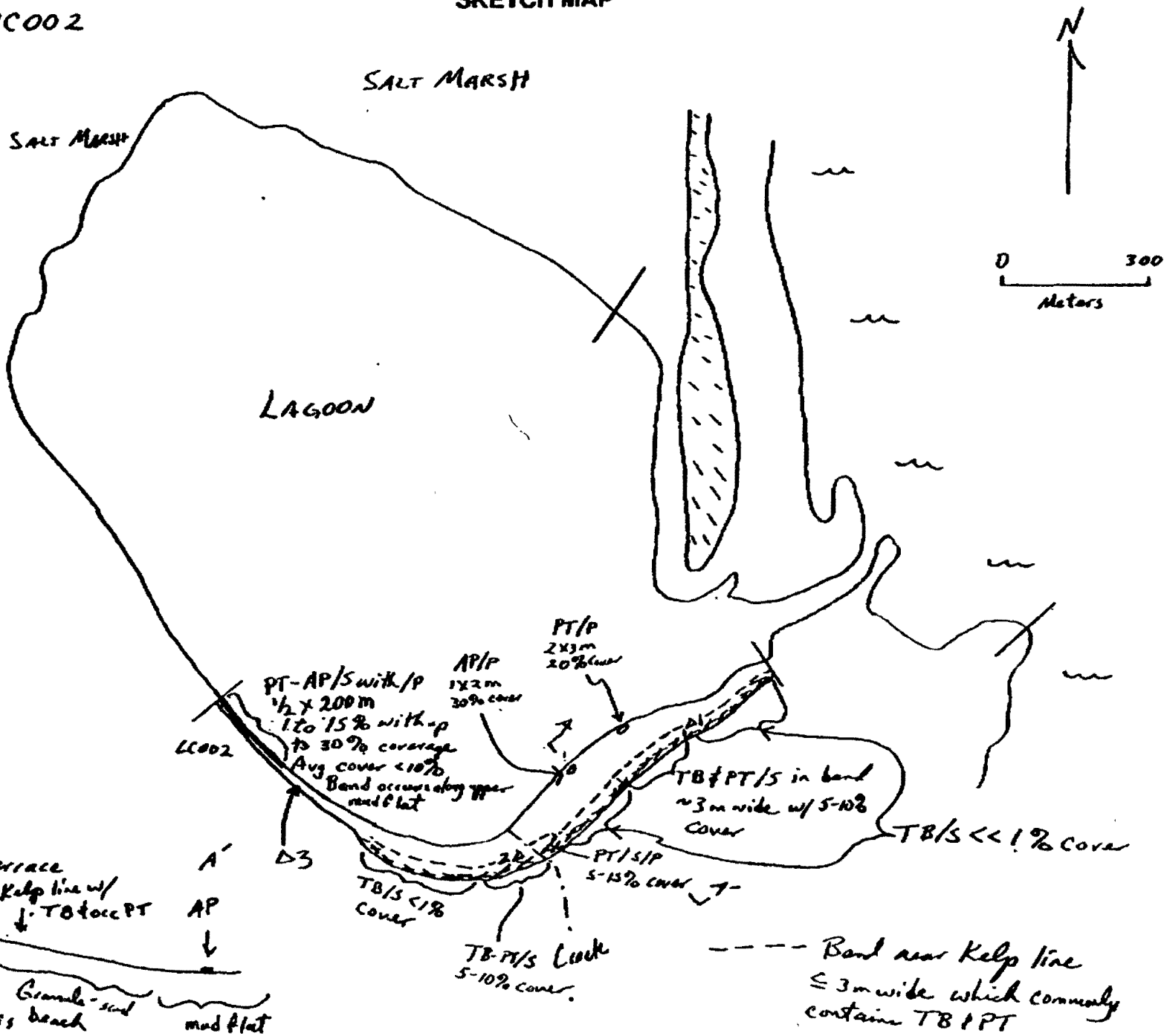
Oiled Vegetation

1 →
Photo location, direction,
and number

ACE 1950609

Oil Character Length (m): AP 10 PO — CV — CT — ST — MS — PT 450 TB 450 FL — NO 215

SKETCH MAP



ADFG MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS DS TS AVS SCHL MMS PTA

2 REGION: PWS KP, CI KAP

METHOD: Aerial Ground Boat3 DATE: 5/3/9015 HIGH TIDE TIMES: 121 TEAM RECORDER: E. WEISS4 START TIME: 133516 HIGH TIDE HTS: 122 OBSERVERS: K. SCHOCK,5 STOP TIME: 180017 LOW TIDE TIMES: 1709,23 AGENCY: ADFG/NPS/LWOC/ASEC6 CC/00 CC0016 SEGMENT #: CC00218 LOW TIDE HTS: 1.69,24 PHOTOS TAKEN: Y X7 STATION #: K091719 TIDE HT AT SURVEY: Roll #: Frame: 8 K-UNIT: K0917

Ebb Slack Flood Slack

25 VIDEO TAKEN: Y X TAPES: 9 STAT AREA: 20 USCG QUAD: AF09NAK C-6Start: End: 10 LAT: 11 LONG: 26 SAMPLES TAKEN Y X Number 12 SOURCE: Map Loran011 13 LOCATION: CHINIAK LAGOON, CAPE CHINIAK, AK PENINS.14 DESCRIPTION:

EXTENT OF OIL

	SHORELINE				STREAM			
	L	W	H ₂	S	L	W	H ₂	S
27 SURFACE COVERAGE	100%	10m		5%			26%	10%

30 CATALOGED ANAD. FISH SKELET X N37 CATALOG #: 262-15-1004038 STREAM NAME: CHINIAK LAGOON

	2cm			1cm		
28 SURFACE THICKNESS						

39 OIL IN STREAM BED? Y X

	—	SURFACE	—
29 PENETRATION			

40 OIL ON STREAM BANKS? X N30 OVERALL OIL IMPACT: N VL 1 H H41 OIL ON BEACH ADJACENT TO MOUTH? X N
(within 50 meters)31 OIL TYPE: Pooled House Tar Asphalt Sticky Stain42 OIL WITHIN 1 MILE OF STREAM? X N32 OILED DEBRIS? X NWhere: 33 SHORELINE TYPE: Headland Lagoon Low-lying Rocks Marsh Beach Cove43 ANADROMOUS FISH PRESENT? Y X34 WAVE EXPOSURE: High Moderate Low

44 ANADROMOUS FISH OBSERVATION

35 SUBSTRATE TYPE: Bedrock 10 Boulder Cobble 10Gravel 20 Sand Mud/silt 60

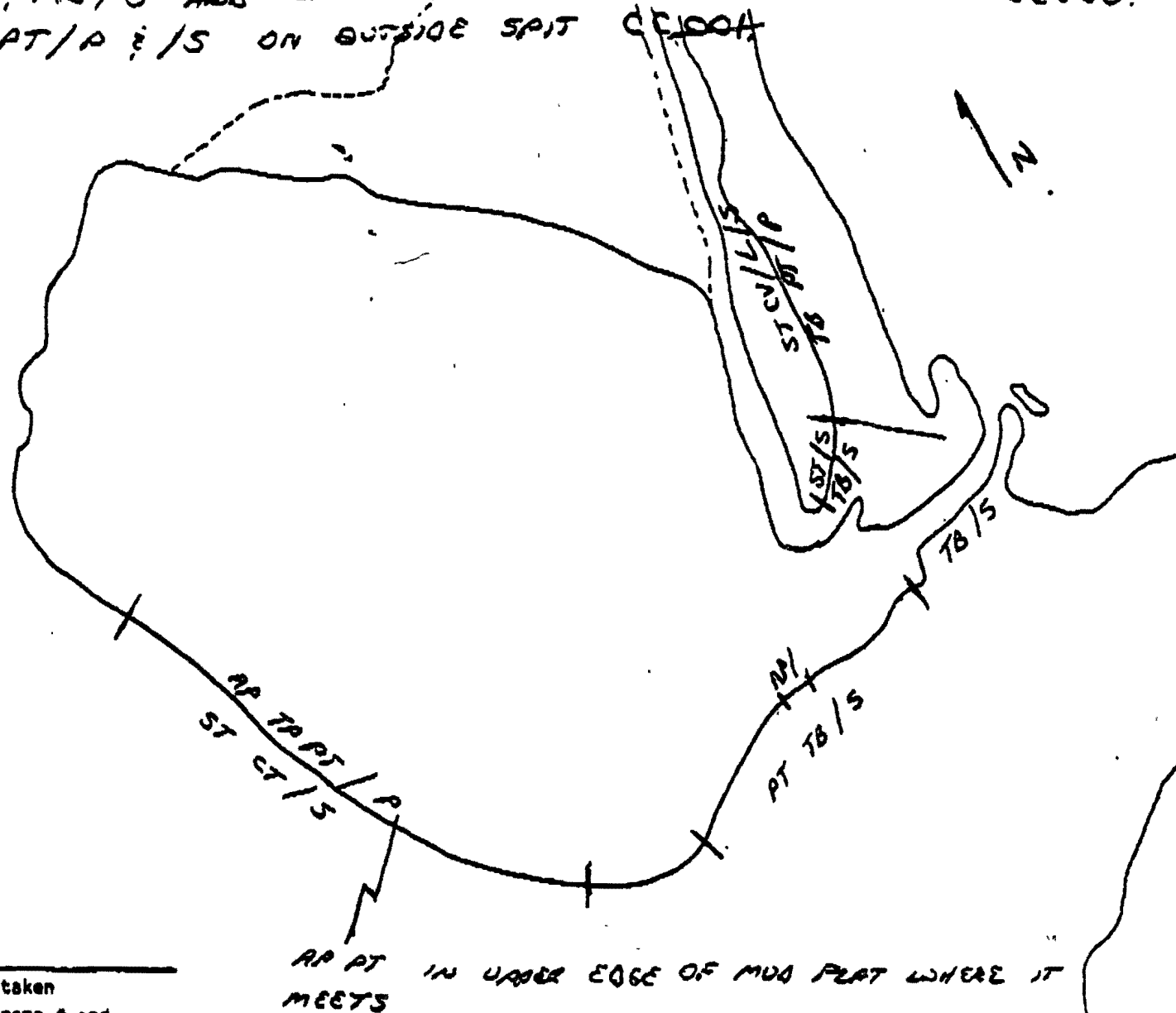
Species	Aerial	Ground

ACE 1950610

COMMENTS: SCATTERED TARBALLS PARTIES SOME ASPHALT/SOFT ON SOUTH BANK. SOUTHWEST AND WEST BANK HAS TARBALLS PARTIES ASPHALT THAT IS PATCHY AND LOCALLY BROKEN. BT CV/S IN SUPRA COBBLE TIDE ZONE.

* RECOMMENDS: MANUAL TYPE A CLEANUP WITH MONITOR. (NAS & ADFG) MONITOR SHOULD BE FAMILIAR WITH SITE AND OIL LOCATION AS IT IS SOMETIMES HARD TO SPOT. (OVER)

48 OIL DISTRIBUTION DIAGRAM
 CLEANUP SHOULD TAKE PLACE IN CC002, CC005, CC001, BUT ONLY ON THE WEST/SOUTHWEST SIDE OF CC100, (WEST/SOUTHWEST SIDE OF LAGOON) UP TO BUT NOT INCLUDING GRASS/MARSH AREA AT NW CORNER OF LAGOON. ~~ED~~ WITH PO & MS/S AND ST CT CV/P - OIL BEACH OUTSIDE LAGOON CC005. TB/PT/P & /S ON OUTSIDE SPIT CC100A



- Sample taken
- Photo frame # and shot direction.

Segment ST / K917C000 Subdivision A Date (mo / day / yr) 5/3/90Time (24 hr) 1600-1730 Biologist SHARMAN(A) Substrate type and % of segments: SUBDIV.
(1) Bedrock _____ (2) Boulder _____ (3) Cobble _____ (4) Pebble _____ (5) Sand _____ (6) Mud 100(B) Overall % cover of biota (% of segment): Dense _____ Moderate _____ Low X
SUBDIV.

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

Photographs: _____
Roll No. _____

Frames _____

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS (ALCELA, LITTORINA, LYMAETA)

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments: See above. The stream mouth finally open out into a sand/mud grassy tidal flat. No particularly unusual biological observations. The surrounding Clinch Faggon proper was surveyed in more detail (See Shoreline Ecological Summaries for CC-1, CC-2, CC-100, and CC-2).

Ecological Considerations:

ADF&G Catalog # 262-15-10040 anadromous stream ("Clinch Faggon stream"). No additional local (within 100m) ecological sensitivities other than the usual concern for sensitive & productive estuarine tidal areas. It may be useful to refer to this section of the regular SSAT survey of CC-100.

ANAD SCAT #262-15-10040

P.1/3

Chiniak Lagoon

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

STEVE COWPER, GOVERNOR

Rapifax 349-1723

333 RASPBERRY ROAD
ANCHORAGE, ALASKA 99518-1299
PHONE: (907) 344-0541

RAPIFAX TRANSMITTAL SHEET

TO: Ken Middleton

DATE: 5-11-90

No. Pages: 3
(including this page)

FROM: Ed Weiss

MESSAGE: ~~PLEASE~~ THESE ARE MY COMMENTS
ON CHINIAK LAGOON SEGMENTS. SINCE
MOST SEGMENTS WERE SENT IN AS
REGULAR SCAT MAKE SURE THAT TAG
MEMBERS ARE AWARE THAT CC100, CC001,
CC002, CC005 ARE PART OF THE
ANADROMOUS STREAM SYSTEM.

CHINIAK LAGOON

Strm #

262-15-10040

ALASKA DEPT. OF
FISH & GAME

MAY 11 1990

REGION II
HABITAT DIVISION

(OUR ANAD SCAT
SURVEY COM-
MENTS)

ACE 1950613 +15

MAY 11 '90 15:52 DEPTAAAAAAAAAAAAAAAAAAAA

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

HIVAD CUT / 202-12-10040

P. 1/3

Chiniak Lagoon

STEVE COWPER, GOVERNOR

Rapifax 349-1723

313 RASPBERRY ROAD
ANCHORAGE, ALASKA 99518-1499
PHONE: (907) 344-0541

RAPIFAX TRANSMITTAL SHEET

TO: KEN MIDDLETON

DATE: 5-11-90

No. Pages: 3
(including this page)

FROM: ED WEISS

MESSAGE: ~~PARSED~~ THESE ARE MY COMMENTS
ON CHINIAK LAGOON SEGMENTS. SINCE
MOST SEGMENTS WERE SENT IN AS
REGULAR SSAT MAKE SURE THAT TAG
MEMBERS ARE AWARE THAT CC100, CC001,
CC002, CC003 ARE PART OF THE
ANADROMOUS STREAM SYSTEM.

ALASKA DEPT. OF
FISH & GAME

MAY 11 1990

REGION II
HABITAT DIVISION

ACE 1950614

FIELD SHORELINE COMMENT SHEET

CC001/CC002
 SEGMENT ST/CC100/CC005 SUBDIVISION: ANADSSAT DATE 5-11-90

ADFG
 NAME EDWARDS W. WEISS SIGNATURE Edward W. Weiss

☐ NO TREATMENT RECOMMENDED
 COMMENTS

☒ TREATMENT SUGGESTED

THIS EXXON/SSAT ANADSSAT REPORT ONLY REFLECTS THE OILING CONDITIONS WITH IN 100 M EITHER SIDE OF WHERE THE STREAM BED ENTERS THE UPPER LAGOON (CC100). IN THIS SHORT SECTION OF SEGMENT CC100 THERE INDEED WAS NO OIL FOUND. BUT IT DOES NOT REFLECT THE CONDITIONS WITH IN SEGMENTS CC002, 005, 001 NOR THE SOUTH AND WEST PORTIONS OF CC100. THESE SEGMENTS ARE WITHIN THE LAGOON WHICH IS PART OF THE ANADROMOUS STREAM. CONSEQUENTLY ADFG HABITAT PERSONNEL SHOULD BE INVOLVED IN THE TAG GROUP FOR ALL FOUR SEGMENTS (CC001, CC002, CC005, CC100); ADFG PERMITS NEED TO BE OBTAINED TO DO ANY WORK IN THESE FOUR SEGMENTS.

THE FIELD SKETCHES SHOWING THE IMPACTS IN THESE OTHER SEGMENTS ARE INCLUDED IN THIS ANADSSAT REPORT. THESE AND THE SSAT REPORTS FOR THESE SECTIONS SHOULD BE CONSULTED WHEN CLEANING UP THIS ANADROMOUS STREAM.

MANUAL TYPE A CLEANUP SHOULD BE CONDUCTED IN FOLLOWING SEGMENT AREAS;

ACE 1950615

THE SOUTH & WEST PORTION OF CC100 ALONG THE STEEP ALDER COVERED BANK TO THE POINT WHERE IT FALLS AWAY FROM THE LAGOON AND THE MARSH GRASS STARTS. CLEANUP SHOULD NOT TAKE PLACE IN THE MARSH GRASS SECTION OF CC100 (NO OIL FOUND DURING SSAT AND SENSITIVE MARSH AREA). AP, PT, MS/P WITH BARTS LOCALLY /B, IN THE SOUTH & WEST PART OF CC100

SEGMENT CC002. ALSO HAD AP, PT, TB/P^{3/3} IN ITS WESTERN MOST HALF. THESE IMPACTS ALSO HAVE LOCALLY HEAVIER IMPACTS WITH SOME AP, PT/C AND /B. THE IMPACT IS LIGHTER AS YOU MOVE TOWARDS THE LAGOON/STREAM MOUTH (TOWARDS CC005) BECOMING MORE TB & PT/S.

SEGMENT CC005. TB/S IN THE WESTERN PORTION OF CC005 WHICH IS WITHIN THE STREAM/LAGOON MOUTH AREA. ALSO MANUAL PICKUP.

NOTE THAT PO/S; ST & CT/S; MS/S OCCUR IN THE REST OF CC005, WHICH IS IMMEDIATELY ADJACENT TO THE LAGOON MOUTH. BEFORE ANY CLEANUP METHOD BESIDES "MANUAL" IS IMPLEMENTED HERE HABITAT DIVISION PERSONNEL MUST BE NOTIFIED AND PERMISSION GRANTED.

SEGMENT CC001. THE OUTSIDE SPIT AREA MANUAL PICKUP OF TB/P IN SUTZ, LITZ, AND MITZ. ALSO BAGS OF OILED SAND & MOUSSE.

ALSO RECOMMEND THAT ADFG OR NAS MONITOR BE PRESENT. SOMEONE WHO IS FAMILIAR WITH SITE KNOWS WHERE THE OILING IS. AP, PT, IN CC002 & CC100 IS IN LITZ AT BREAK BETWEEN MUDFLAT AND SAND/GRAVEL BEACH AND IS COMMONLY PARTIALLY COVERED BY SILT. SOMETIMES HARD TO FIND BUT CAN BE FOUND AND EASILY REMOVED.

Ed Weiss
5-11-90

The review of 1990 shoreline assessment documents and subsequent treatment recommendations from the Technical Advisory Group (TAG) has highlighted a potential area of confusion involving the tarmat removal process. The issue concerns the use of bioremediation as a final step for the treatment of residual surface or subsurface oil exposed after tarmat removal.

TAG has recommended a procedure which combines an assessment of both the surface and subsurface oiling conditions after tarmat removal with, if warranted, an application of Customblen. This application of Customblen, combined with manual tilling/raking if necessary, is consistent with TAG recommendations for the treatment of other similar surface or subsurface oiling conditions found during the Spring Shoreline Assessment Team survey.

Customblen application will be confined to the area exposed by the removal of the overlying tarmat.

The assessment will be conducted by the Exxon, USCG and ADEC monitors at the time the tarmat is removed. The application of Customblen will occur immediately thereafter if the involved land manager has not objected to it's use.

This field assessment procedure is designed to permit a quick decision on the application of Customblen in order to maximize the effectiveness of bioremediation and to insure that the application is restricted to the area previously covered by the tarmat.

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

STEVE COWPER, GOVERNOR

Rapifax 349-1723

333 RASPBERRY ROAD
ANCHORAGE, ALASKA 99518-1599
PHONE: (907) 344-0541

RAPIFAX TRANSMITTAL SHEET

TO: Ken/ Dick
Arch Habitat

DATE: 5/12/90

No. Pages: 18
(including this page)

FROM: J. Barnhart
Kodlak Habitat

MESSAGE: Chiniak Lagoon
AFS 262-15-10040
segment CC/00

K9-17

ALASKA DEPT. OF
FISH & GAME
MAY 15 1990
REGION II
HABITAT DIVISION

ACE 1950618+/S

FIELD SHORELINE COMMENT SHEET

P.2/18

SEGMENT ST / K09/7CC100 SUBDIVISION: A DATE May 4, 1990~~NOAA~~
~~USCG~~NAME STEPHEN LEHMANN SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

Oiling was very light except for one section (identified by the DG) where oil appeared at surface. Given the sensitivity of this area and the disturbance required to remove this section of oil - treatment is not suggested.

ADECNAME Terry Ellsworth SIGNATURE Terry Ellsworth☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Oiling in this segment is confined to the SW portion of the segment. The most significant occurrence is a 20m x 1m area of asphalt of patchy distribution. Patches occur sporadically along the SW portion of the segment in areas up to 1m x 2m. Manual removal of the Asphalt and mousse patches is recommended. Due to the extreme sensitivity of this area to human disturbance, only 2-3 persons should work this area. Work should not extend beyond the shore bordered by steep alder slope.

LAND MANAGERNAME Carl Schoch SIGNATURE Carl Schoch☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

Oil remaining in this lagoon/estuary system can be expected to persist for a long time unless removed. However this critical habitat is sensitive to intrusion. The oil/mousse patches should be removed as soon as possible to avoid disturbing summer bear populations. A small crew of no more than five personnel should access the mousse patches on foot and remove by scraping the substrate with shovels. The mud flats should below the oiled area and the salt marshes to the north should not be disturbed.

REVISION NO. 03/21/90

ACE 1950619

OPERATIONS FIELD NOTES

STK0917

See Back for Instructions

SEGMENT ID CC100
 SUBDIVISION LETTER A
 ANNOTATED MAP INCLUDED Y/N

DATE 5/3/90
 NAME G. Heyman
 TEAM # 19

SURFACE OIL	Quantities in Meters			Treatment Recommendation					
	Length	Width	Area	None	Y/N	% Treat	Y/N	% Treat	Spot Hot Water
Wide Band				N	N		N		N
Medium Band				N	N		N		N
Narrow Band				N	N		N		N
Very Light				N	N		N		N
TOTAL MANDAYS									

SUBSURFACE OIL

Other (Describe)?	

TARMATS	Quantities in Meters			Treatment Rec		# of Bags	Mandays Required	
	Length	Width	Thick(cm)	None	Breakup/Remove		Breakup	Remove
Area #1				N				
Area #2				N				
Area #3				N				
Area #4				N				
Sporadic Mats				N				

MANUAL PICKUP	Type of Debris			In Meters		# of Bags	Pickup	Manday
	Mousse	Oiled	Cleanup	Length	Width		Y/N	Estimate
"Pocket" #1			Debris	400	1	20	N	10
"Pocket" #2								
"Pocket" #3								
Random/Continuous								

OILED LOGS <u>Y/N</u>	OILING <u>H/M/L</u>	QUANTITY <u>L/M/S</u>	BURN <u>Y/N</u>
-----------------------	---------------------	-----------------------	-----------------

Is there Other Debris on the Beach? Y/N How Many Bags? 5 Is it mingled with the Oiled Debris Y/N

GENERAL

Snow covering 0 % of the Supratidal Zone?Wave Exposure H/M/L

Access Limitations: _____

Snare Boom/Form Poms Recommended? _____

Would the production Craft have to be relocated to complete work on this subdivision? Y/N, # of Times _____

COMMENTS:

ACE 1950620

SHORELINE OILING SUMMARY

REVISION NO. 04/13/90

OG G. HEYMAN NOAA S. LEHMANN SEGMENT ST/ K0917 CC 100
 BIO. SHARMAN LAND REP C. SCHUCH NPS SUBDIVISION A (1 OF 1)
 EXXON Not Present ADEC T. ELLSWORTH TIME 16:00/17:30
 TEAM NO. 19 TIDE LEVEL +2 1/4 to +1 3/4 DATE 5/3/90
 EST. SUBDIVISION LENGTH: 2640 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: SW to NE (clockwise)
 SURFACE SEDIMENTS: R 0 % B 5 % C 5 % P 5 % G 5 % S 5 % M 75 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 24 m VL 876 m NO 1740 m

SURFACE OIL

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

PAVEMENT H F (S) 20 sq. m by 1 cmPATTIES / TARBALLS 4 BAGSNEAR SHORE SHEEN? (NO) BR RW SL TL

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

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE #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	SHEEN (Y/N)	↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SB/BR	DB/RW	GY	SL	DR	TL	LR		SU	UI	M	U				
* 1	10					X	0-0		X											X	Y	-	-		M/M

COMMENTS * Anaerobic below 5cm, based on odor. Anaerobic conditions vary throughout segment. Oiling is in layers at surface or <1 cm below surface.

REVIEWED DATE

ACE 1950621

OG COMMENTS K 0917 CC 100 A

G. HEYMAN

5-3-90

CC 100 A comprises the NW $\frac{1}{2}$ of Chiniak Lagoon. The SW side is bordered by a steep alder covered slope, and the NW & NE sides are bordered by a grass covered salt marsh with meandering drainages. The mud flats comprising most of the lagoon w/in CC 100 boundaries were well exposed at the time of this survey.

Oiling in the segment was limited to the SW side along the shore bordered by the steep alder slope. Most oil occurs as PT/MS/AP along a narrow band $\frac{1}{2}$ to 2 m wide at the upper end of the mud flat. The oiling is discontinuous and generally has a "1/5" distribution within discreet areas. Exceptions are a 1×20 m area of AP w/ $\sim 30\%$ coverage (see sketch map) NW of a distinctive landslide along the shore; and areas of mousse further to the NW near where the salt marsh begins. The AP is very soft, with a DBL exterior and moussy DBR interior. The MS layer is partially covered by a veneer of mud/silt < 5 mm thick and partially exposed at the surface so it has a patty-like surface appearance. The layer is ~~is~~ generally < 1 cm thick, contains some sand, and has a shiny DBR color. The remainder of the oiling in the segment consists of ST-CT/S $< 1\%$ on boulders, cobbles and logs in the UITE & SUTZ.

OG G. Heyman

SEGMENT ST/K 09 17 CC 100

SUBDIVISION A

DATE 5 / 3 90

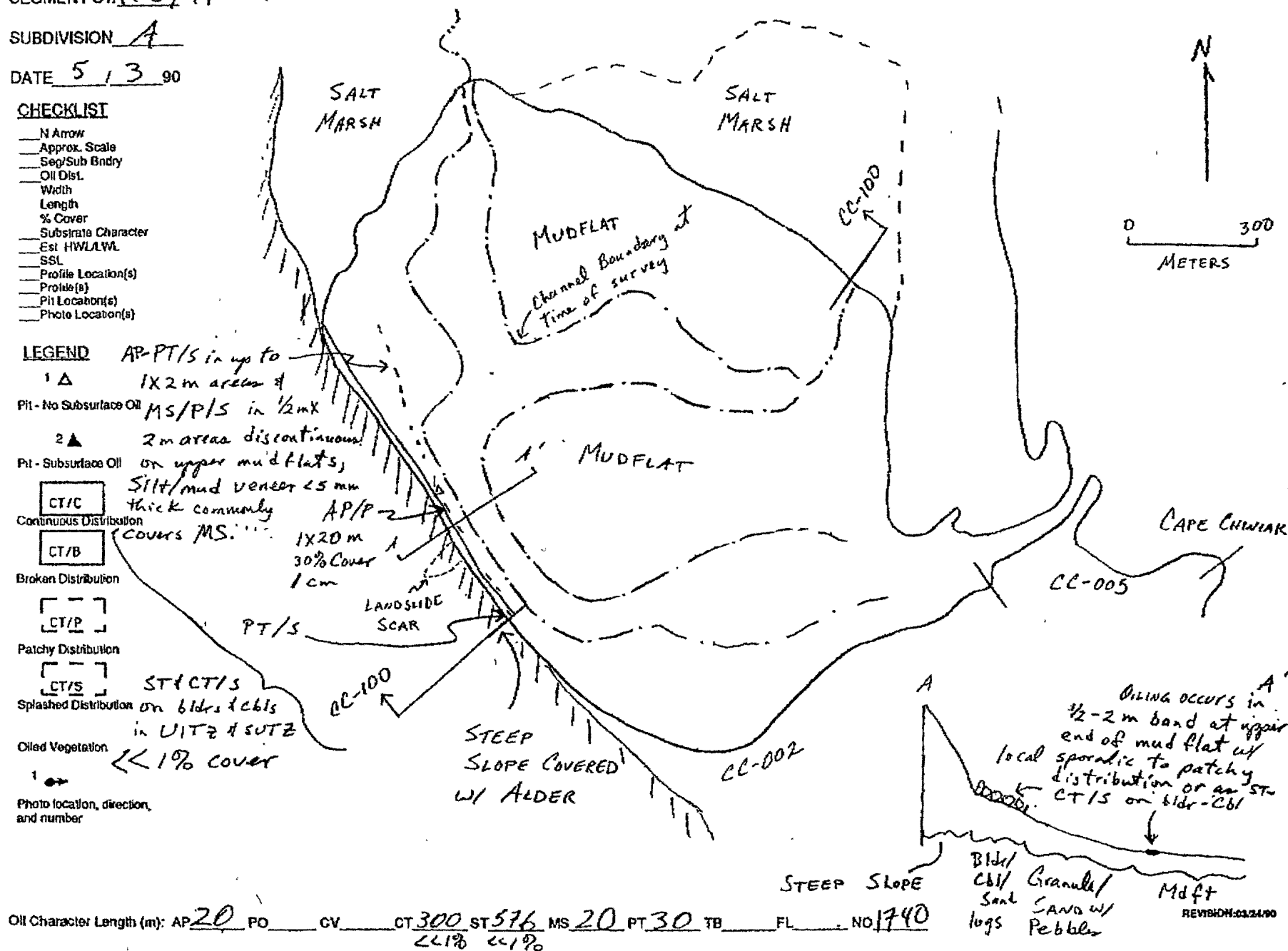
CHECKLIST

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

LEGEND

- 1 Δ AP-PT/S in up to 1X2 m area of MS/P/S in 1/2 mX 2 m area discontinuous on upper mud flats, Silt/mud veneer < 5 mm thick commonly covers MS.
- 2 Δ Pit - Subsurface Oil
- CT/C Continuous Distribution
- CT/B Broken Distribution
- CT/P Patchy Distribution
- CT/S Splashed Distribution
- Oiled Vegetation
- Photo location, direction, and number

SKETCH MAP



MAY 14 '90 16:36 DEPT:AAAAAAAAAAAAAAAAAAAA

P.6/18

ACE 1950623

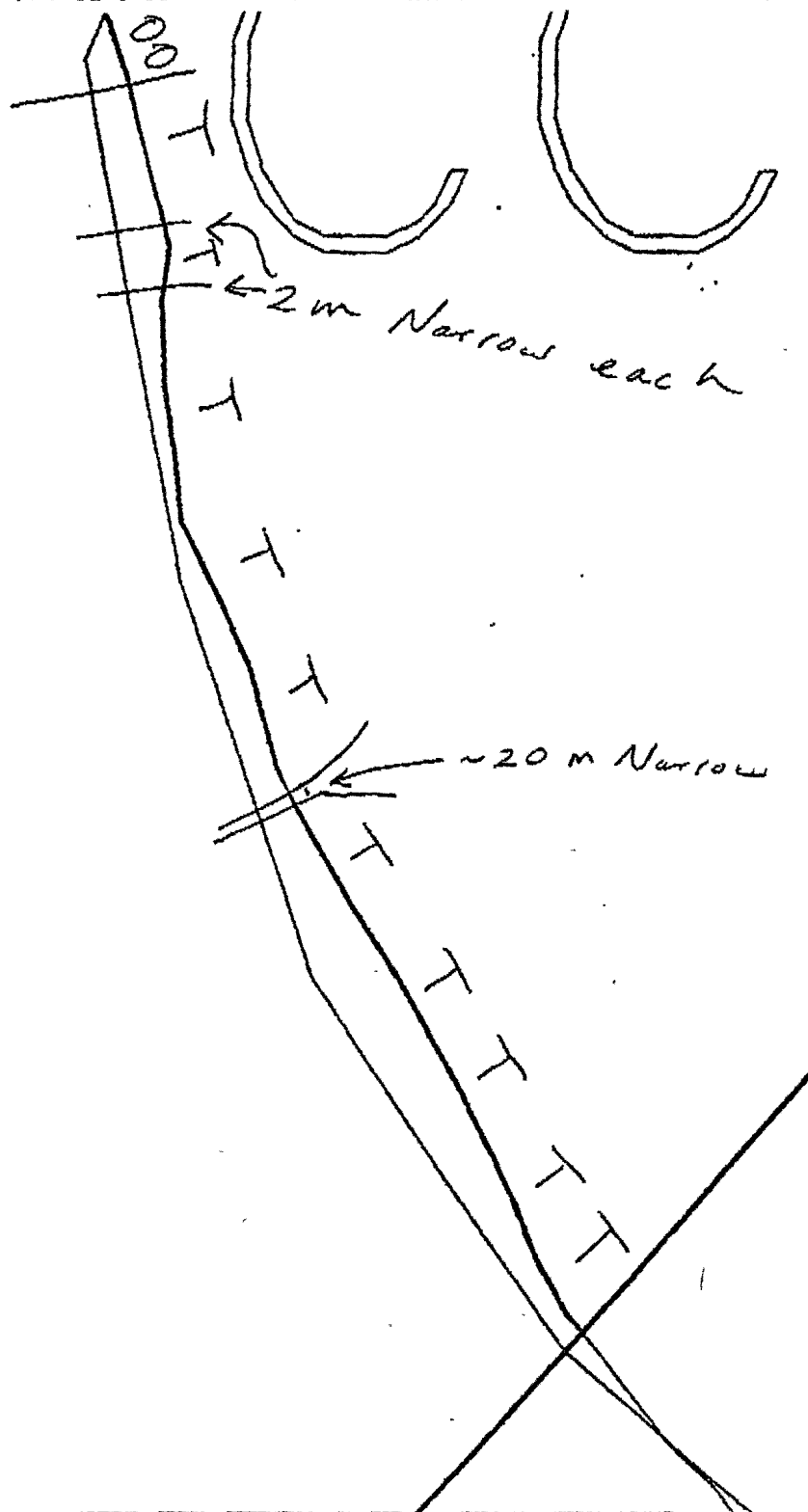
MAY 14 '90 16:36 DEPTAAAAAAAAAAAAAAAA

MAY-02-1990 08:25 FROM SCAT CENTRAL

TO

KODIAK CMD

P.7/18
P.05



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CC-100

Approx. Segment Length: 3858m



K0917 was XX501

Map Key: AKP-CC-100a

Name: G. Heyman

Date: 5-3-90

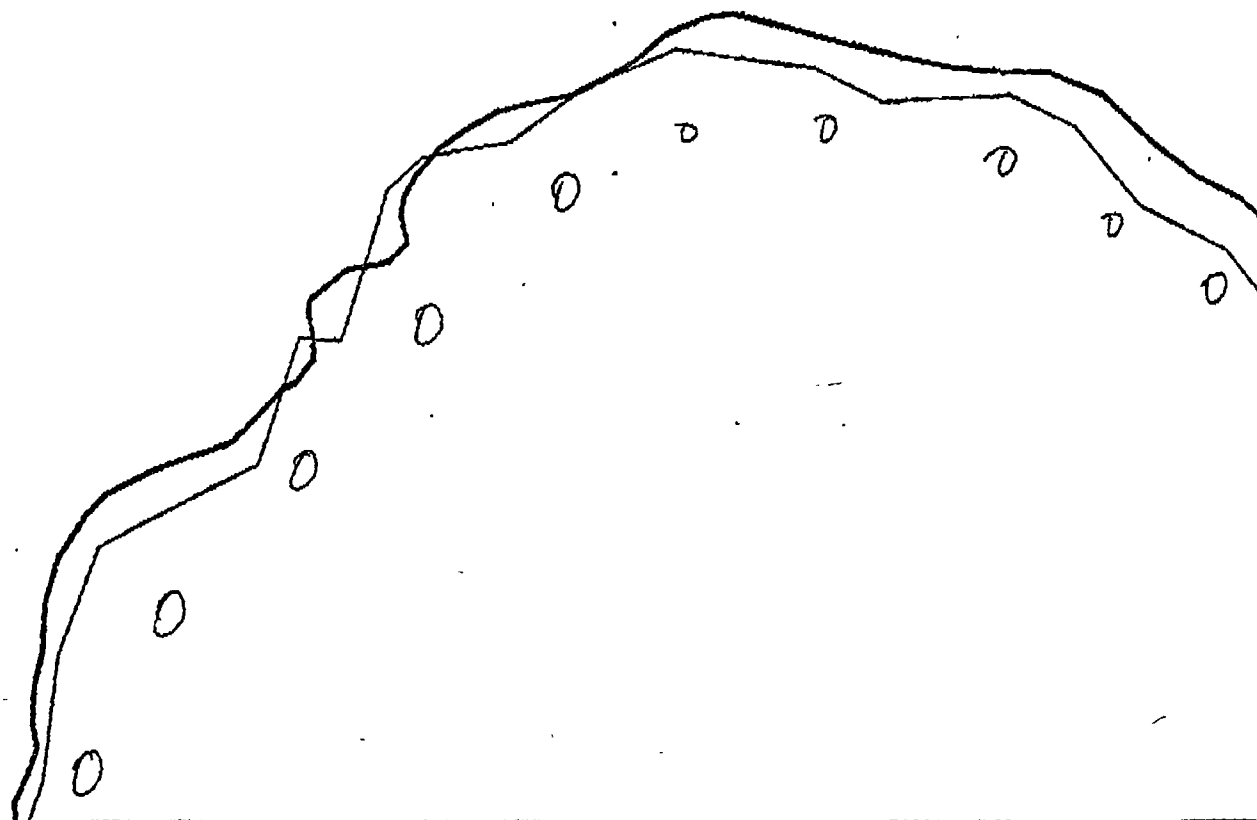
Data Entered:

ACE 1950624

MAY 14 '90 16:37 DEPT AAAAAAAAAAAAAAAAAA
MAY-02-1990 08:25 FROM SCHI CENTRAL

TO

KODIAK CMD P.8/18



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CC-100

Approx. Segment Length: 3858m

0 100 200 300
METERS

KP917 was XX501

Map Key: AKP-CC-100c

Name: G. Heyman

Date: 5-3-90

Data Entered:

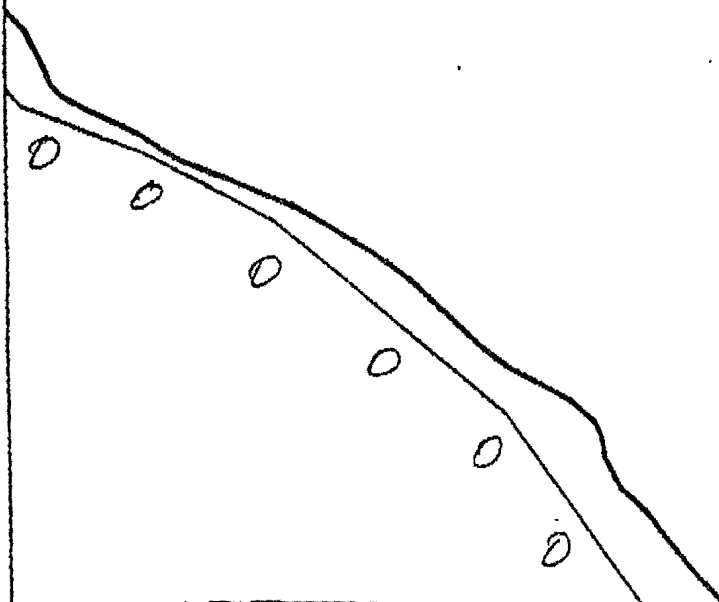
ACE 1950625

MAY 14 '90 16:38 DEPTAAAAAAAAAAAAAAAA
MAY-02-1990 08:26 FROM SCAT CENTRAL

TO

KODIAK CMD P.9/18
P.05

CC



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CC-100

Approx. Segment Length: 3858m



K0917 was XXSP1

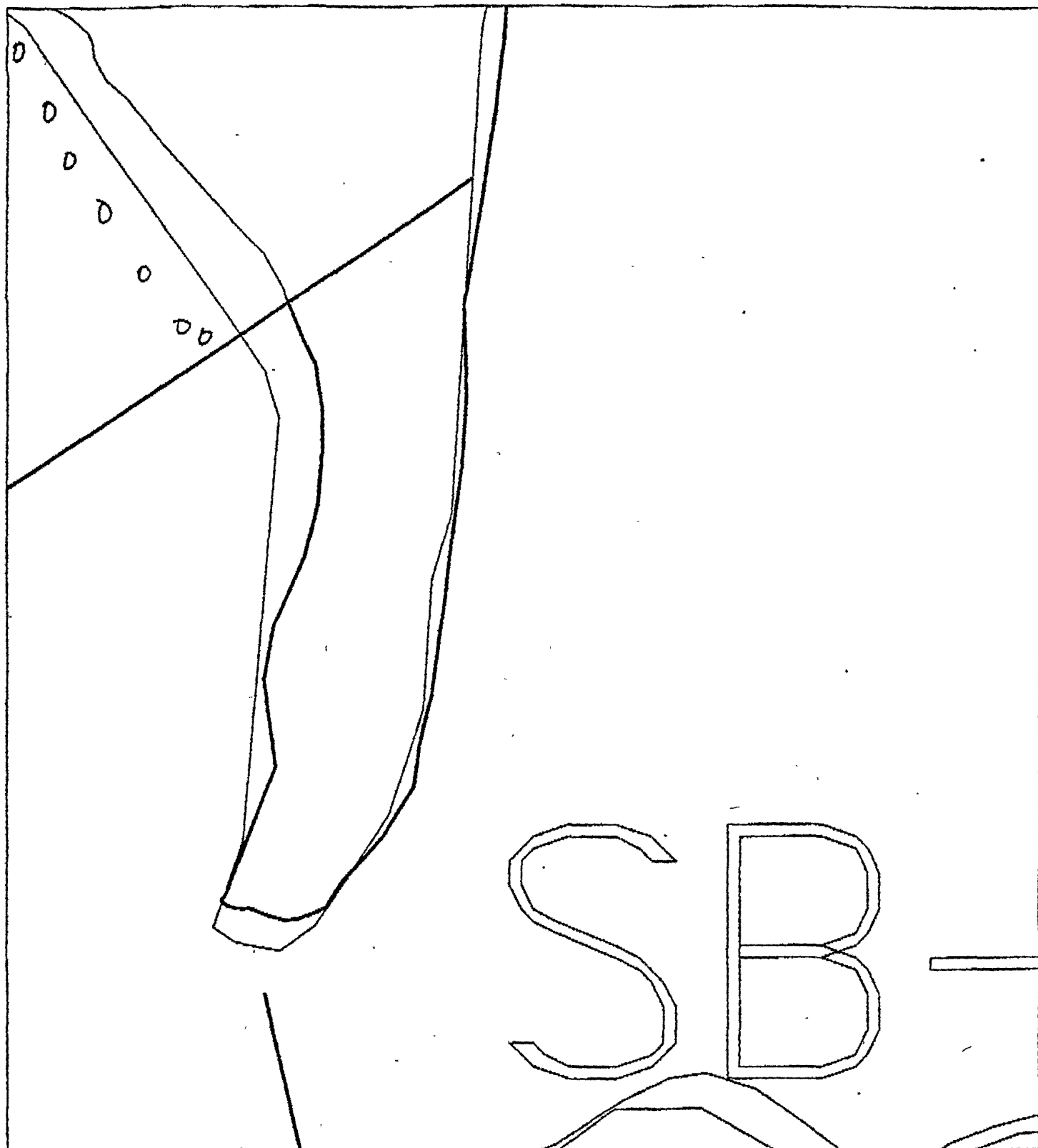
Map Key: AKP-CC-100d

Name: G. Heyman

Date: 5-3-90

Date Entered:

ACE 1950626



XXXX Wide

//// Medium

---- Narrow

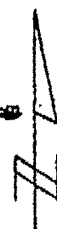
TTTT Very Light

OOOO No Oil

CC-100

Approx. Segment Length: ~~4.7 km~~

0 100 200 300
METERS



Map Key: AKP-CC-1a

Name: G. HeymanDate: 5-3-90

Data Entered:

SSAT DATA ENTRY FORM

PAGE 1 OF 2

GENERAL DATA

SEG ID: CC-100 SUBDIV: A TEAM: 19 SURVEY DATE: 5/3/90
PAVEMENT: CHAR S AREA 20 THICKNESS 1 TARBALLS 4
OILED: LGS X VEG - TRM - DBR X WAVE EXP: LW X MD - HG -
FAX RCVD: _____ DT: _____ AGENCY DISAGREE: _____
EST SUBDIV LGTH: 2140 OIL CATEGORY: W 0 M 0 N 24 VL 876 NO 1740 U 0

SURFACE DATA

SURFACE SEDIMENT: BRK 0 BLD 5 COB 5 PEB 5 GRN 5 SAN 5 MUD 75 VEG 0

CHAR #: 1 OIL CHAR: AP OIL DIST: CONT - BRKN - PTCH X SPLH X
OIL CLR: DBL FILM CLR: - TIDAL ZONE: SU - UI - MI X LI X

CHAR #: 2 OIL CHAR: CT OIL DIST: CONT - BRKN - PTCH - SPLH X
OIL CLR: DBL FILM CLR: - TIDAL ZONE: SU X UI X MI - LI -

CHAR #: 3 OIL CHAR: ST OIL DIST: CONT - BRKN - PTCH - SPLH X
OIL CLR: DBL FILM CLR: - TIDAL ZONE: SU X UI X MI - LI -

CHAR #: 4 OIL CHAR: MS OIL DIST: CONT - BRKN - PTCH X SPLH X
OIL CLR: DBR FILM CLR: - TIDAL ZONE: SU - UI - MI - LI X

CHAR #: 5 OIL CHAR: PT OIL DIST: CONT - BRKN - PTCH - SPLH X
OIL CLR: DBL FILM CLR: - TIDAL ZONE: SU - UI - MI X LI X

CHAR #: _____ OIL CHAR: _____ OIL DIST: CONT _____ BRKN _____ PTCH _____ SPLH _____
OIL CLR: _____ FILM CLR: _____ TIDAL ZONE: SU _____ UI _____ MI _____ LI _____

CHAR #: _____ OIL CHAR: _____ OIL DIST: CONT _____ BRKN _____ PTCH _____ SPLH _____
OIL CLR: _____ FILM CLR: _____ TIDAL ZONE: SU _____ UI _____ MI _____ LI _____

CHAR #: _____ OIL CHAR: _____ OIL DIST: CONT _____ BRKN _____ PTCH _____ SPLH _____
OIL CLR: _____ FILM CLR: _____ TIDAL ZONE: SU _____ UI _____ MI _____ LI _____

SUBSURFACE DATA

PAGE 2 OF 2

SEGMENT ID: CC-100 SUBDIV: A

PIT # 1 PIT DEPTH 10 OIL CHARACTER No OIL INTVAL: FROM 0 TO 0
QUANT: HC OIL CLR: - FLM CLR: - ZONE: SU - UI - MI - LI X
SUBSURF SEDIMENT: BRK - BLD - COB - PEB - GRN - SAN - MUD X VEG -

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
 QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
 SUBSURF SEDIMENT: BRK _____ BLD _____ COB _____ PEB _____ GRN _____ SAN _____ MUD _____ VEG _____

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
 QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
 SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
 QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
 SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
 QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
 SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
QUANT: _____ OIL CLR: _____ FLK CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
 QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
 SUBSURF SEDIMENT: BRK _____ BLD _____ COB _____ PEB _____ GRN _____ SAN _____ MUD _____ VEG _____

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
SUBSURF SEDIMENT: GRN _____ BLD _____ COB _____ PEB _____ GRN _____ SAK _____ MML _____ VEG _____

PROBLEMS: _____

ACE 1950629

SHORELINE ECOLOGICAL SUMMARY (Page 1 of 6)

P.13/18
REVISION: 03/22/90Segment ST / CC-100 Subdivision A Date (mo / day / yr) 5/3/90Time (24 hr) 1600-1730 Biologist SHARMAN(A) Substrate type and % of segments: SUBDIV.
(1) Bedrock (2) Boulder 5 (3) Cobble 5 (4) Pebble 5 (5) Sand 10 (6) Silt 75 ^{+ granular mud}(B) Overall % cover of biota (% of segment): Dense SUBDIV. Moderate Low X

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

Photographs:
Roll No. Frames

BARNACLES

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

NOT PRESENT

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	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 (ANCELLA, LITTORIALIA, LIMPETS)

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	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: Brown bear, fox, & river otter tracks in supratidal/ UZ. One beach log chewed/clawed by bear. 1 pair yellowlegs, 2 ravens, 3 glaucous-winged gulls. See also CC-2 for additional birds in the lagoon proper. These 2 segments encompass an extensive tidal marsh. Vole runs crisscross the grassy portions. Several sets of moose tracks. 2 bear scats from last summer/fall - one with cranberries, & one (cont.)

Ecological Considerations:

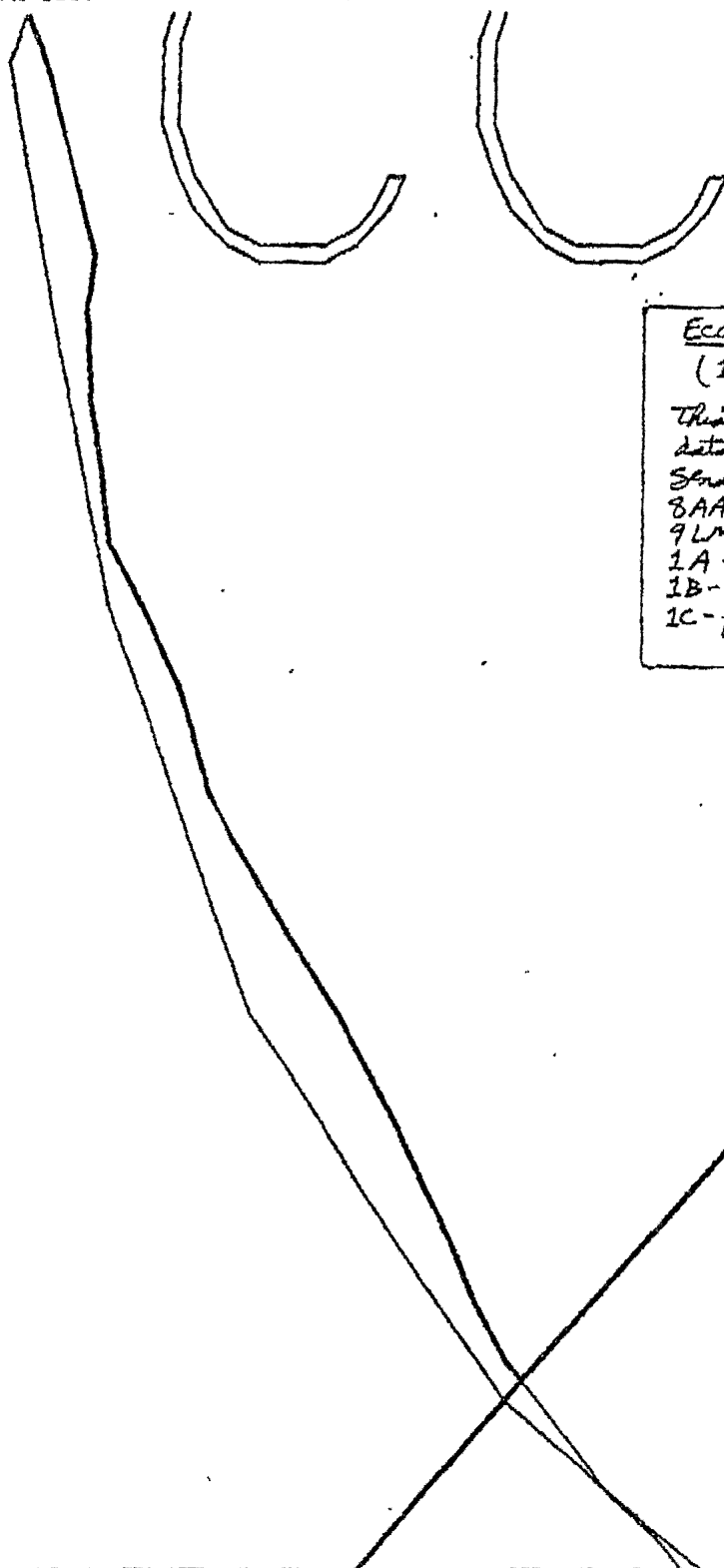
Please see attached Eco. Maps. The primary ecological sensitivities are the catalogued anadromous stream at the head of the lagoon (codes 1A and 1B), as well as the lagoon itself which is a salmon fry nursery area (code 1C) and clearly a sensitive estuary (code 3AA). The area is also very important feeding and resting habitat for a variety of shorebirds and seabirds, as well as an important foraging area for terrestrial mammals (code 4LM). This area is, (cont.)

General Comments (cont.):

with grassy vegetation. The intertidal zone of this segment is almost exclusively a mud/sand flat that is apparently quite macrobiotically depauperate, subsurface as well as superficially. There are rare boulders + cobbles in the MIZ, very few of which have barnacles on them. Locally there are some areas where the lugworm Arenicola is fairly abundant in the mud. Muddy substrates are anaerobic 2-10 cm down from the surface. I observed no barnacle recruitment on boulders/cobbles.

Ecological Considerations (cont.):

as are all protected tidal lagoon estuaries of this type, extremely sensitive to human disturbance - both via direct disturbance by human intrusion and via physical disturbance of sediments by trampling. These areas are relatively rare and are important to wildlife far out of proportion to their abundance or areal extent. Such systems are extremely productive and are critical to several species of considerable economic importance during portions of their life cycles. Even relatively small-scale human intrusion into this lagoon should be considered with caution.



ECOLOGY MAP

(1 of 4)

CC-100

(Page 3 of 6)

This segment missing from NOAA database (4/22/90).

Sensitivity drawn:

3AA - sensitive estuary

9LM - land mammals

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

1B - stream mouth (spawning) 7/15 → 9/10 (peak)

1C - fry nursery area 8/15

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

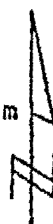
0000 No Oil

CC-100

Approx. Segment Length: 3858m



METERS



K0017 was XX501

Map Key: AKP-CC-1000

Name: _____

Date: _____

Data Entered: _____

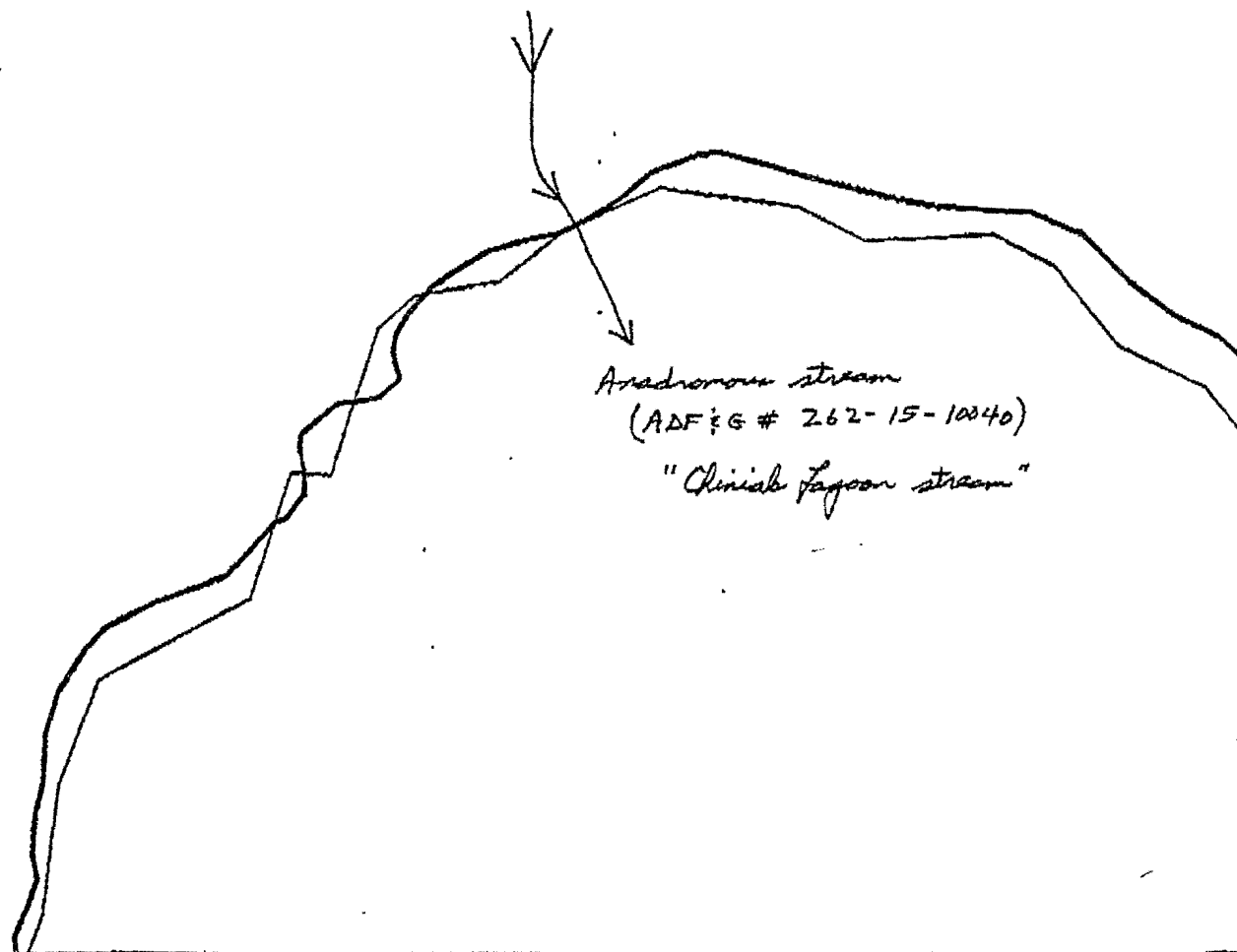
ECOLOGY MAP

(2 of 4)

CC-100

(Page 4 of 6)

See map page 1.



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CC-100

Approx. Segment Length: 3858m



Kp 717 was XX5p1

Map Key: AKP-CC-100c

Name: _____

Date: _____

Data Entered: _____

CC

ECOLOGY MAP
(3 of 4)

CC-100
(Page 5 of 6)

See map page 1.

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CC-100

Approx. Segment Length: 3858m

0 100 200 300
METERS

Kp917 was XX501

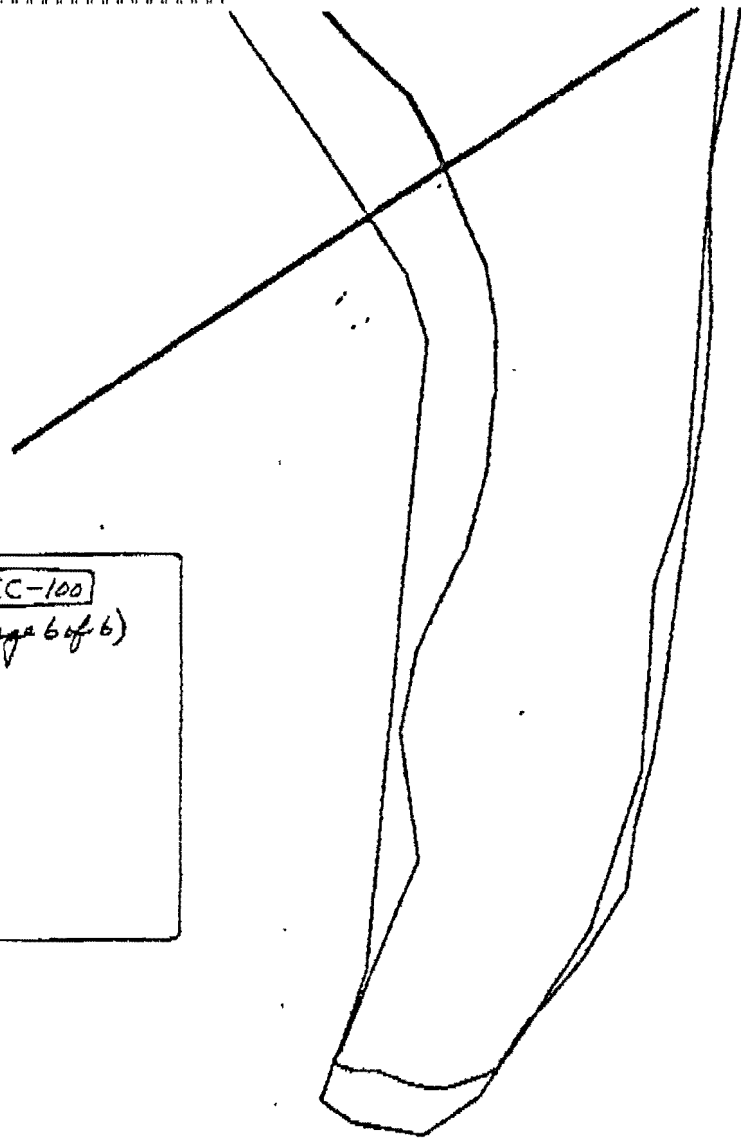
Map Key: AKP-CC-100d

Name: _____

Date: _____

Data Entered: _____

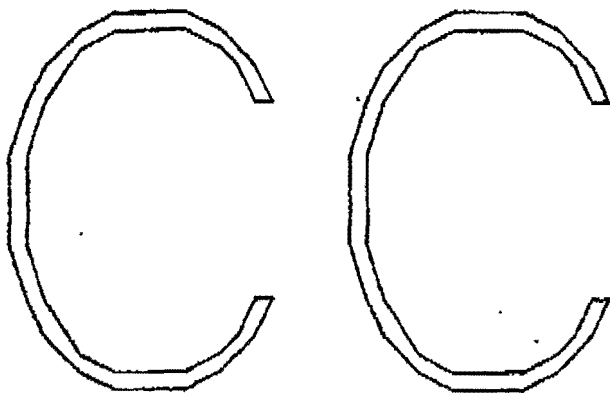
ACE 1950634



ECOLOGY MAP
(4 of 4)

CC-100
(Page 6 of 6)

See map page 1.



ACE 1950635-15

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CC-100

Approx. Segment Length: 3858m



K0917 was XXSp1

Map Key: AKP-CC-100b

Name: _____

Date: _____

Data Entered: _____

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

STEVE COWPER, GOVERNOR

Rapifax 349-1723

333 RASPBERRY ROAD
ANCHORAGE, ALASKA 99518-1599
PHONE: (907) 344-0541

RAPIFAX TRANSMITTAL SHEET

TO: Ken/ Dick
Arch Habitat

DATE: 5/14/90

No. Pages: 18
(including this page)

FROM: J. Barnhart
Kodiak Habitat

MESSAGE: Chiniak Lagoon
AFS 262-15-10040
Segment CC001

SAT
SURVEY

ALASKA DEPT. OF
FISH & GAME

MAY 14 1990

REGION II
HABITAT DIVISION

ACE 1950647+15

FIELD SHORELINE COMMENT SHEET

P.2/18

SEGMENT ST/ K09-17-0001 SUBDIVISION: A DATE 5/3/90~~NOAA~~
~~USCG~~NAME STEPHEN LEHMANN SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Several areas of the UITZ had concentrations of TB + PT. - These should be removed from the area. Several bags of oiled sand were observed - these should be removed.

ADECNAME Terry Ellsworth SIGNATURE Terry Ellsworth☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

I concur with the comments of NPS and NOAA. I recommend manual removal of the mousse patches and tarballs (see sketch map) as well as the 4 bags of oiled sediment.

LAND MANAGERNAME Carl Schach SIGNATURE Carl Schach☒ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Recoverable oil consists primarily of mousse patches and tarballs. Several concentrated patches of mousse patches exist at the upper edge of the upper intertidal as indicated on the sketch map. Four bags of oiled sand and mousse patches were found. The condition of the oil lends itself to rapid and easy removal. This segment could be walked end to end and patches/tarballs removed with shovels. The observed mousse patches and tarballs are apparently migrating up the beach face and being buried in the supratidal zone where they can be expected to persist.

REVISION NO. 03/21/90

ACE 1950648

OPERATIONS FIELD NOTES

See Back for Instructions

SEGMENT ID K0917
 SUBDIVISION LETTER CC001
 ANNOTATED MAP INCLUDED A Y/N

DATE 5/3/90
 NAME G. Heyman
 TEAM # 19

SURFACE OIL	Quantities in Meters			Treatment Recommendation						
	Length	Width	Area	None	Y/N	% Treat	Y/N	% Treat	Spot Hot Water	% Treat
Wide Band				N	N		N		N	
Medium Band				N	N		N		N	
Narrow Band				N	N		N		N	
Very Light				N	N		N		N	
TOTAL MANDAYS										

SUBSURFACE OIL

Other (Describe)?

TARMATS	Quantities in Meters			Treatment Rec			# of Bags	Mandays Required	
	Length	Width	Thick(cm)	None	Breakup	Remove		Breakup	Remove
Area #1				N					
Area #2				N					
Area #3				N					
Area #4				N					
Sporadic Mats				N					

MANUAL PICKUP	Type of Debris			In Meters			# of Bags	Pickup	Manday
	Mousse Tarballs	Oiled Veget	Cleanup Debris	Length	Width			Y/N	Estimate
"Pocket" #1			(4 Bags)	4771	5		20	N	10
"Pocket" #2									
"Pocket" #3									
Random/Continuous									

OILED LOGS Y/N OILING H/M/L QUANTITY L/M/S BURN Y/N

Is there Other Debris on the Beach? Y/N How Many Bags? 250 Is it mingled with the Oiled Debris Y/N

GENERAL

Snow covering 0 % of the Supratidal Zone?Wave Exposure H M/L

Access Limitations:

Snare Boom/Pom Poms Recommended?

Would the production Craft have to be relocated to complete work on this subdivision? Y/N, # of Times

COMMENTS:

Entire segment has scattered tarballs & mousse patches -
 Four (4) Bags of oil + sand remain from last years cleanup

SHORELINE OILING SUMMARY

REVISION NO. 04/13/90

OG G. HEYMAN ^{NOAA} ~~USCG~~ S. LEHMAN SEGMENT ST/ K09-17-C001
 BIO L. SHARMAN LAND REP C. SCHUCH SUBDIVISION A (1 OF 1)
 EXXON NOT PRESENT ADEC T. ELLSWORTH TIME 17:30 to 19:45
 TEAM NO. 19 TIDE LEVEL +2 to +3.5 DATE 5 / 03 / 90
 EST. SUBDIVISION LENGTH: 4771 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 0 % B 0 % C 5 % P 10 % G 15 % S 70 % M 0 % V 0 %
 SLOPE: Long 100 % Hang — % Vert — % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 20 m VL 2080 m NO 1771 m

SURFACE OIL

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

PAVEMENT - H F S 0 sq. m by 0 cmPATTIES / TARBALLS 20 BAGSNEAR SHORE SHEEN? NO BR RW SL TL

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

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE —#BAGS —

Photographs:

Roll No. 55-17Frames —

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A	N	A	SHEEN (Y/N)	▼	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UG	UC	DBL BR	DBL RW	GY SL	DBL TL	LR	SU	U	M	L									
1	30					X	0-0		X							X				N			-			GP/GS	
2	25			X			9-11		X		X					X				N			-			G/GPS	
3	30					X	0-0		X							X				N			-			G/GPS	
4	25			X			5-7		X		X					X				N			-			G/GPS	
							.																				
							.																				

COMMENTS

REVIEWED — DATE —

ACE 1950650

OG G. Heyman

SKETCH MAP

SEGMENT ST/K 09-170001

SUBDIVISION A

DATE 5/3/90

CHECKLIST

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

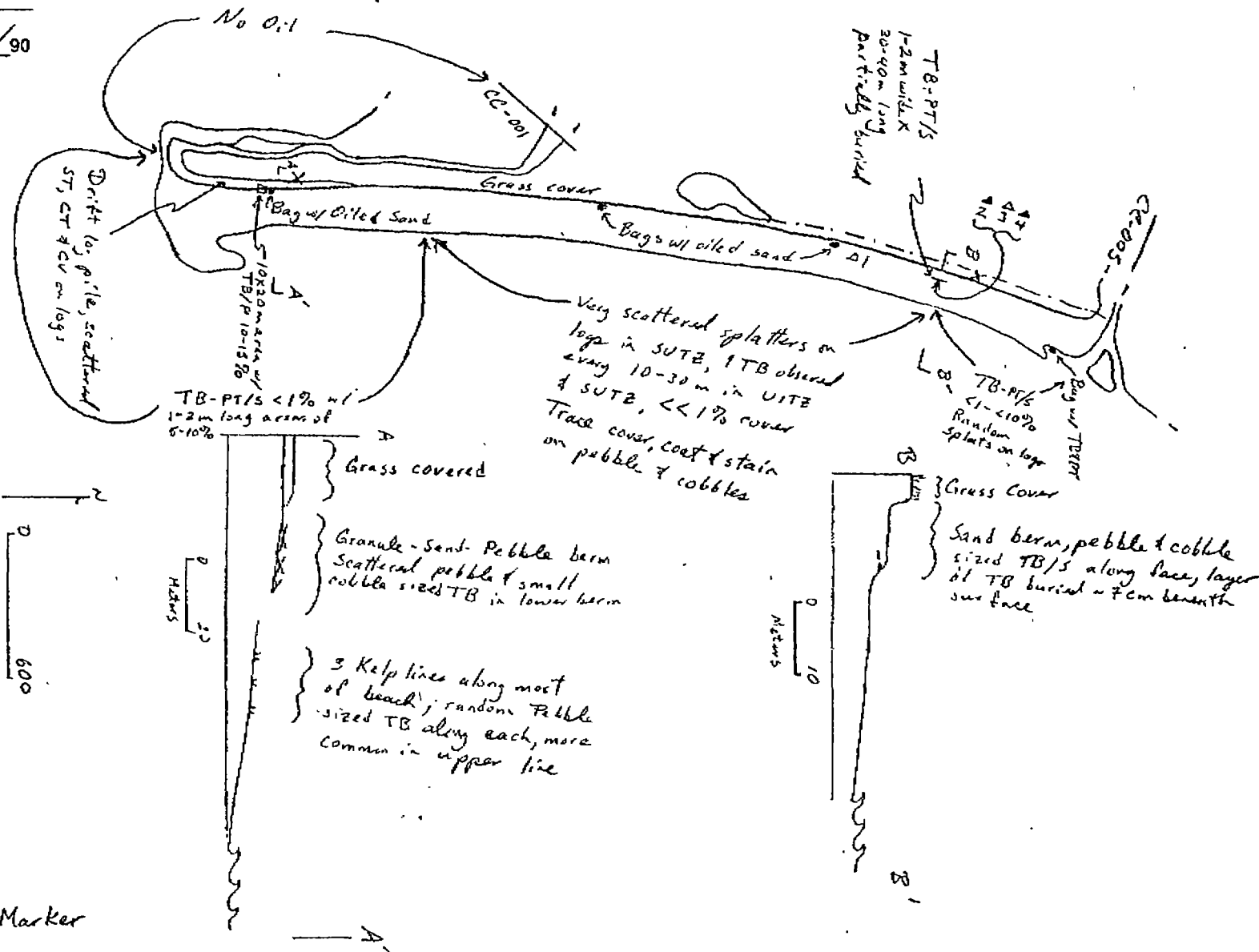
CT/P
Patchy Distribution

CT/S
Splashed Distribution

eee
Oiled Vegetation

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

X Regulatory Marker



Oil Character Length (m): AP — PO — CV 2 CT 2 ST 2 MS — PT 574 TB 1500 FL — NO 771

REVISION: 02/24/90

MAY 14 1990 13:38 DEPT:RAAAAAAAAAAAAAA

P.5/18

ACE 1950651

OG Comments K09-17-CC001A(1 of 1) 5-3-90

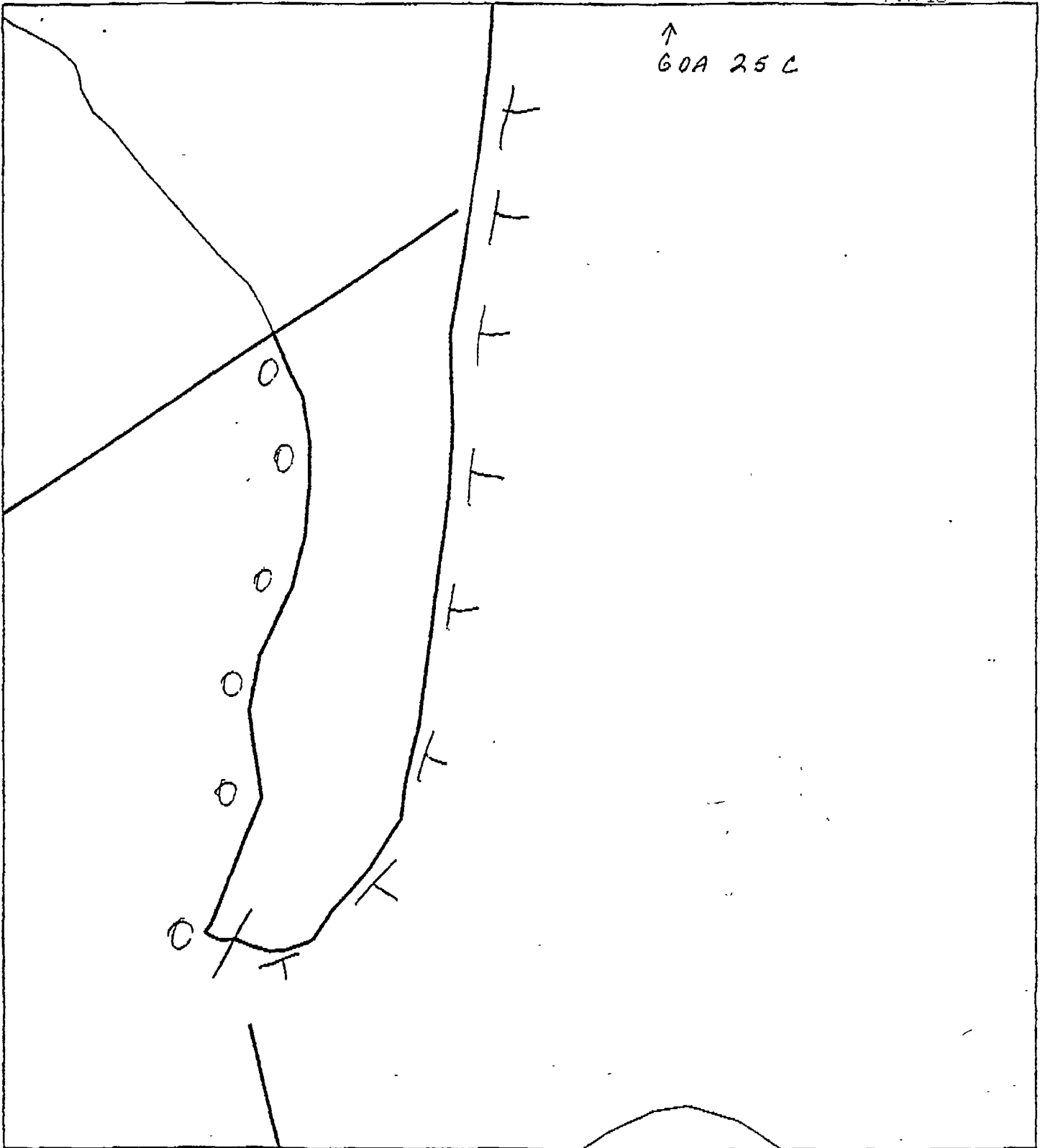
This segment consists of a predominantly sand beach with a sand-granule-pebble-cobble storm berm and grassy uplands extending from Chinisek Lagoon to the first creek encountered approximately 4771m to the north.

Oiling along the segment consists of TB & PT in the lower SUTZ & upper UITZ along the Kelp lines. The TB & PT typically have an appearance similar to flattened pebbles and cobbles with rounded edges. These "clasts" are DBL on the outside & DBL-DBR inside and are easily broken apart. There is a lot of sand incorporated within the TB & PT. ST, CT & CV were also observed on pebbles, cobbles and logs randomly along the segment, with the CT & CV appearing as a sand entrained layer on the clasts.

Along most of the segment the oiling concentration was $< 1\%$. At the southern and northern ends, concentrations were higher with 1-2m long areas ranging to 10% . One area at the southern end was observed with $10-15\%$ coverage ($\sim 10 \times 20$ m maximum dimension) and an area to the north was observed where the TB & PT's had been covered by 5 to 9 cm of sand.

Note that 4 garbage bags of oiled sand were also observed along this segment and are located on the sketch map.

↑
GOA 25 C



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

OOOO No Oil

CC-1

ADEC Segment Length: 475⁷¹4m



Map Key: GOA-25a

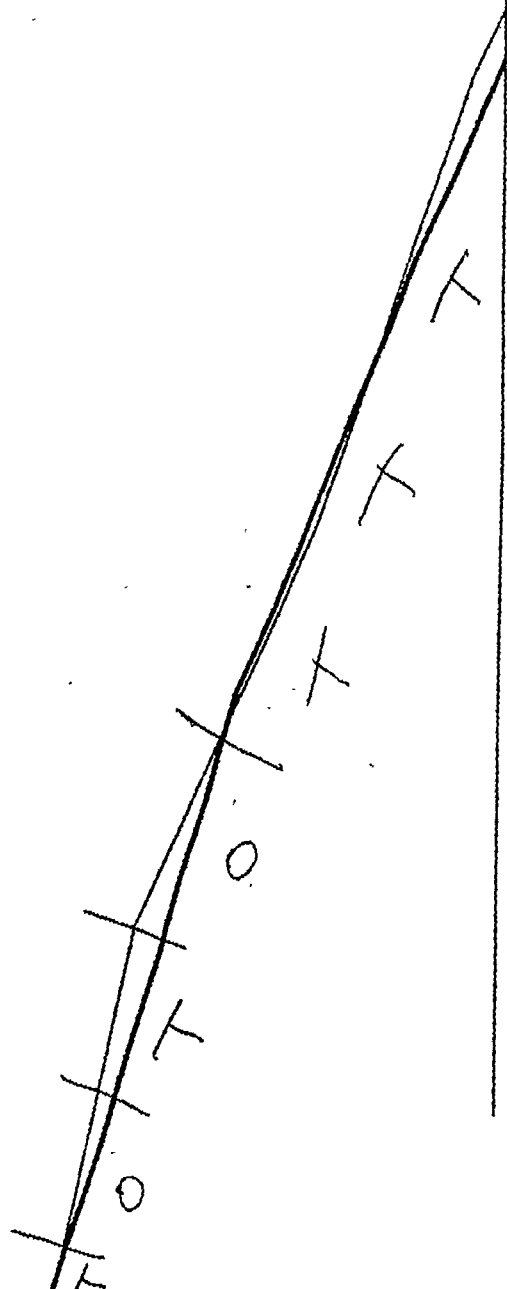
Name: _____

Date: _____

Data Entered: _____

ACE 1950653

MAY 14 '90 13:40 DEPTAAAAAAAAAAAAAAAA



Tide
 Medium
 Arrow
 Very Light
 Oil

CC-1

Approx. Segment Length: 4771m

0 100 200 300

METERS

Ma
 Nam
 Date
 Data

ACE 1950654

C

C

1

XXXX Wide

//// Medium

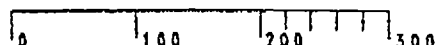
---- Narrow

TTTT Very Light

0000 No Oil

CC-1

Approx. Segment Length: 4771m



0 100 200 300
METERS

ACE 1950655

Map Key: AKP-CC-1c

Name: _____

Date: _____

Data Entered: _____

SSAT DATA ENTRY FORM

PAGE 1 OF 2GENERAL DATA

SEG ID: CC-1 SUBDIV: A TEAM: 19 SURVEY DATE: 5/3/90
PAVEMENT: CHAR - AREA 0 THICKNESS 0 TARBALLS 5
OILED: LGS X VEG - TRH X DBR - WAVE EXP: LW - MD - HG X
FAX RCVD: _____ DT: _____ AGENCY DISAGREE: _____
EST SUBDIV LGTH: 4771 OIL CATEGORY: W 0 M 0 N 20 VL 2060 NO 1771 U 0

SURFACE DATASURFACE SEDIMENT: BRK 0 BLD 0 COB 5 PEB 10 GRN 15 SAN 70 MUD 0 VEG 0

CHAR #: 1 OIL CHAR: CV OIL DIST: CONT - BRKN - PTCH - SPLH X
OIL CLR: DBL FILM CLR: - TIDAL ZONE: SU X UI X MI - LI -

CHAR #: 2 OIL CHAR: CT OIL DIST: CONT - BRKN - PTCH - SPLH X
OIL CLR: DBL FILM CLR: - TIDAL ZONE: SU X UI X MI - LI -

CHAR #: 3 OIL CHAR: ST OIL DIST: CONT - BRKN - PTCH - SPLH X
OIL CLR: DBL FILM CLR: - TIDAL ZONE: SU X UI X MI - LI -

CHAR #: 4 OIL CHAR: PT OIL DIST: CONT - BRKN - PTCH - SPLH X
OIL CLR: DBL FILM CLR: - TIDAL ZONE: SU X UI X MI - LI -

CHAR #: 5 OIL CHAR: TB OIL DIST: CONT - BRKN - PTCH X SPLH X
OIL CLR: DBL FILM CLR: - TIDAL ZONE: SU X UI X MI - LI -

CHAR #: 6 OIL CHAR: ND OIL DIST: CONT - BRKN - PTCH - SPLH -
OIL CLR: - FILM CLR: - TIDAL ZONE: SU - UI - MI X LI X

CHAR #: _____ OIL CHAR: _____ OIL DIST: CONT _____ BRKN _____ PTCH _____ SPLH _____
OIL CLR: _____ FILM CLR: _____ TIDAL ZONE: SU _____ UI _____ MI _____ LI _____

CHAR #: _____ OIL CHAR: _____ OIL DIST: CONT _____ BRKN _____ PTCH _____ SPLH _____
OIL CLR: _____ FILM CLR: _____ TIDAL ZONE: SU _____ UI _____ MI _____ LI _____

SSAT DATA ENTRY FORM

SUBSURFACE DATA

PAGE 2 OF 2

SEGMENT ID: CC-1 SUBDIV: A

PIT # 1 PIT DEPTH 30 OIL CHARACTER N2 OIL INTVAL: FROM 0 TO 0
QUANT: 4C OIL CLR: - FLM CLR: - ZONE: SU - UI X MI - LI -
SUBSURF SEDIMENT: BRK - BLD - COB - PEB - GRN X SAN X MUD - VEG -

PIT # 2 PIT DEPTH 25 OIL CHARACTER OL OIL INTVAL: FROM 9 TO 11
QUANT: UC OIL CLR: DAI FLM CLR: - ZONE: SU - UI X MI - LI -
SUBSURF SEDIMENT: BRK - BLD - COB - PEB X GRN X SAN X MUD - VEG -

PIT # 3 PIT DEPTH 30 OIL CHARACTER N2 OIL INTVAL: FROM 0 TO 0
QUANT: UC OIL CLR: - FLM CLR: - ZONE: SU - UI X MI - LI -
SUBSURF SEDIMENT: BRK - BLD - COB - PEB X GRN X SAN X MUD - VEG -

PIT # 4 PIT DEPTH 25 OIL CHARACTER OL OIL INTVAL: FROM 5 TO 7
QUANT: UC OIL CLR: DBL FLM CLR: - ZONE: SU - UI X MI - LI -
SUBSURF SEDIMENT: BRK - BLD - COB - PEB X GRN X SAN X MUD - VEG -

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
 QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ VI _____ MI _____ LI _____
 SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
 QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
 SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
 QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
 SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
SUPRSTR SEDIMENT: GRK _____ BLD _____ COB _____ PEB _____ GRN _____ SAN _____ MUD _____ VEG _____

PROBLEMS:

ACE 1950657

SHORELINE ECOLOGICAL SUMMARY (Page 1 of 6)

Segment ST / CC-1 Subdivision A Date (mo / day / yr) 5/3/90Time (24 hr) 1730-1945 Biologist SHARMAN(A) Substrate type and % of segments: SUBDIV.
(1) Bedrock (2) Boulder (3) Cobble 5 (4) Pebble 10 (5) Sand 85 (6) Silt +granules(B) Overall % cover of biota (% of segment): Dense SUBDIV. Moderate Low X

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

Photographs:
Roll No. -Frames -

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS (ANCELLA, LITTORINA, LIMPAETS)

Dense			Moderate			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 shorebirds, 10 scaup, 15 glaucous-winged gulls, 1 golden plover, 1 yellowlegs, 30 pintails, 1 subadult osprey at N. end of segment (stream) sitting in willows. Brown bear, fox, and river otter tracks very common in supratidal and UTE sand - otters are transiting back & forth to backshore ponds. 2-3 fairly thin & sparse drift lines in UTE include occasional Nereocystis woods, along with some (cont.)

Ecological Considerations:

Please refer to attached Eco. Maps. Generally, the identified sensitivities relate to the Chinik Lagoon estuary at the S. end of the segment with its anadromous stream, and the catadromous anadromous stream at the N. end of the segment. The former (lagoon) gives the codes 3AA (sensitive estuary) and 9LM (land mammals), and the latter (stream) gives the codes 1A (fry outmigration) and 1B (spawning). As related in this section of the summary for CC-100 & CC-2, the lagoon estuary is a special concern due to ecological importance/productivity as well as sensitivity to human intrusion/physical disturbance. In addition, the backshore area of the segment appears to be of considerable importance to terrestrial mammals - particularly river otters.

CC-1

Shoreline Ecological Summary (cont.)
(Page 2 of 6)Slarman
5/3/90General Comments (cont.):

Fucus, Alaria, Halosaccion. This is a wide, low-angle sandy exposed beach - much like PB-8 + CC-4, for example. In general, Comments for these segments (intertidally) are probably interchangeable. Invertebrate shells/testa/etc. include: Saxidomus giganteus, Mytilus edulis, Tresus capax, Chiocardium nuttallii, Siliqua patula, Protothaca staminea, Macoma spp., Mya spp., Spirocha polyzona, Fusitriton oregonensis, Cancer magister, Talassius, Serpula tubosa, large dried clam siphons (at least some - maybe all - are Mya (truncata?)), Dendroca / Echinorachne (probably the latter), 1d dried Suberites ficus (hermit sponge), Podocornus, dried clusters of egg cases of large subtidal snails (Fusitriton / Neptunes / Buccinum). Generally normal + healthy Intertidal Community, given the exposure, beach dynamics, and substrate types.

MAY 14 '90 13:45 DEPTAAAAAAAAAAAAAAAA

ECOLOGY MAP

(1 of 4)

P. 15/18

CC-1

(Page 3 of 6)

8AA - sensitive estuary

9LM - land mammals

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

2B - stream mouth (spawning) 7/15 → 9/10 (peak 8/15)

SB

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CC-1

Approx. Segment Length: 4771m

0 100 200 300

METERS

Map Key: AKP-CC-1a

Name: _____

Date: _____

Data Entered: _____

ACE 1950660

CC-1

ECOLOGY MAP

(2 of 4)

See map page 1.

CC-1

(Page 4 of 6)

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CC-1

Approx. Segment Length: 4771m

0 100 200 300
METERS

Map Key: AKP-CC-1c

Name: _____

Date: _____

Data Entered: _____

ACE 1950661

MAY 14 '90 13:47 DEPTAAAAAAAAAAAAAAAA

ECOLOGY MAP
(3 of 4)
See map page 1.

CC-1
(Page 5 of 6)

Side
medium
arrow
very Light
Oil

CC-1

Approx. Segment Length: 4771m



Wc

Ham

Date

Data

ACE 1950662

MAY 14 '90 13:47 DEPTAAAAAAAAAAAAAAAA

P.18/18

→ → →
Anadromous
stream (ADF&G # 262-15-10030)
"Village Creek"

ECOLOGY MAP

(4 of 4)

See map page 1.

CC-1

(Page 6 of 6)

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CC-1

Approx. Segment Length: 4771m

0 100 200 300
METERS

ACE 1950663-18

Map Key: AKP-CC-1f

Name: _____

Date: _____

Data Entered: _____

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

STEVE COWPER, GOVERNOR

Rapifax 349-1723

333 RASPBERRY ROAD
ANCHORAGE, ALASKA 99518-1599
PHONE: (907) 344-0341

RAPIFAX TRANSMITTAL SHEET

TO: Ken / Dick
Anch. Hab. TaTDATE: 5/14/90No. Pages: 15
(including this page)FROM: J. Barnhart
Kodiak, HabitatMESSAGE: Chiniak Lagoon ~~TA~~

AFS 262-15-10040

Segment CC002ALASKA DEPT. OF
FISH & GAME

MAY 14 1990

REGION II
HABITAT DIVISION~~TA~~
SAT
Survey

On The Anadssat survey with Darryl Yoes
The Team did not conduct a survey
of ~~Chiniak~~ Chiniak Lagoon/stream, hence no
paperwork was submitted.

All of Chiniak Lagoon/stream was done
by the regular SSAT Team with Ed Weiss
present

ACE 1950664 +/S

FIELD SHORELINE COMMENT SHEET

P.2/15

SEGMENT ST/K09-17-CC002 SUBDIVISION: A

DATE 5/03/90

~~NOAA~~~~USCG~~NAME STEPHEN LEHMANN SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Further human intervention into this lagoon area could do more harm than good given the slight nature of the silt and the sensitivity of the area. Small bands of tar balls and occasional small mouse patches were located, but not heavy enough to warrant disturbance by crews.

~~ADEC~~NAME Terry Ellsworth SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

This segment contains a band of tar balls and patches in concentrations of $<1\%$ with two areas of up to 15% in the upper inter tide zone from the SE segment boundary to $\approx 400m$ west of the small creek. In the upper mud flat an area $.5m \times 200m$ of patty to Asphalt with up to 30% coverage is located at the SW end of the segment and two patches up to $2m \times 3m$ are located in the SE part of the segment. Manual removal is recommended. Due to the high sensitivity of this area a small crew should be used and no more than 2-3 persons should be treating the mud flat areas or working beyond the mouth of the small creek.

LAND MANAGERNAME Carl Schoch SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

The oil in the south and southwest side of this segment is in a very protected lagoon/estuary system and will persist on the surface for a long time. A small crew should use shovels to remove the mouse patches and tarballs on either both sides of the creek (within 100 meters) and the mouse patch at the north west end of the segment.

REVISION NO. 03/21/90

ACE 1950665

OPERATIONS FIELD NOTES

STK0917

See Back for Instructions

SEGMENT ID CC002
 SUBDIVISION LETTER A
 ANNOTATED MAP INCLUDED Y/N

DATE 5/3/90
 NAME G. Heyman
 TEAM # 11

SURFACE OIL	Quantities in Meters			Treatment Recommendation						
	Length	Width	Area	None	Bioremediation		Tilling		Spot Hot Water	
					Y/N	% Treat	Y/N	% Treat	Y/N	% Treat
Wide Band				N	N		N		N	
Medium Band				N	N		N		N	
Narrow Band				N	N		N		N	
Very Light				N	N		N		N	
TOTAL MANDAYS										

SUBSURFACE OIL

Other (Describe)?	

TARMATS	Quantities in Meters			Treatment Rec			# of Bags	Mandays Required	
	Length	Width	Thick(cm)	None	Breakup	Remove		Breakup	Remove
Area #1				N					
Area #2				N					
Area #3				N					
Area #4				N					
Sporadic Mats				N					

MANUAL PICKUP	Type of Debris			In Meters			# of Bags	Pickup Y/N	Manday Estimate
	Mousse	Oiled Tarballs	Cleanup Veget	Length	Width	Debris			
"Pocket" #1	Mousse			200	1/2		10	Y	5
"Pocket" #2				1400	3		5	Y	5
"Pocket" #3									
Random/Continuous									

OILED LOGS <u>Y/N</u>	OILING <u>H/M/L</u>	QUANTITY <u>L/M/S</u>	BURN <u>Y/N</u>
-----------------------	---------------------	-----------------------	-----------------

Is there Other Debris on the Beach? Y/N How Many Bags? 25 Is it mingled with the Oiled Debris Y/N

GENERAL Snow covering 0 % of the Supratidal Zone?

Wave Exposure H/M/L Access Limitations: _____

Snare Boom/Pom Poms Recommended? _____

Would the production Craft have to be relocated to complete work on this subdivision? Y/N, # of Times _____

COMMENTS:

SHORELINE OILING SUMMARY

REVISION NO 04-13-90

OG G. HEYMAN NOAA USCG S. LEHMANN SEGMENT STI KO917 CC 002
 BIO L. SHARMAN LAND REP C. SCHOFF NPS SUBDIVISION A (1 OF 1)
 EXXON ON LEAVE ADEC T. EUSWORTH TIME 14:45 to 16:00
 TEAM NO. 19 TIDE LEVEL +4 to +2 1/4 DATE 5/03/90
 EST. SUBDIVISION LENGTH: 1619 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 0 % B 5 % C 10 % P 20 % G 20 % S 20 % M 25 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 20 m VL 1384 m NO 215 m

SURFACE OIL

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

PAVEMENT H F S 10 sq. m by 2 cmPATTIES / TARBALLS 15 BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

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

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-CM)	BELOW		OIL / FILM COLOR								PIT-ZONE				A N A	SHEEN (Y/N)	▽	SURFACE-SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UG	UC	BR	BL	GR	OR	SL	TL	LR		SU	UI	M	U				
1	30					X	0-0		X									X				N	—	—	P/P
2	15					X	0-0		X									X				N	—	—	P/S
3	25					X	0-0		X									X				N	—	—	P.S/S

COMMENTS

REVIEWED — DATE —

ACE 1950667

p. 5/15

OB Comments KO9 17 CC002 A (1 of 1), 5/03/90 G. Heyman

This segment lies along the southern end of Chiniak Lagoon. The west boundary was difficult to determine from the maps provided, but was chosen at a large tree which had fallen across the narrow beach. The segment extends eastward to the southern entrance to the lagoon. Most of the segment consisted of a wide sand-granule-pebble beach. This narrows in the western 400-500 meters to a narrow beach with mudflats extending to near a steep alder covered scarp.

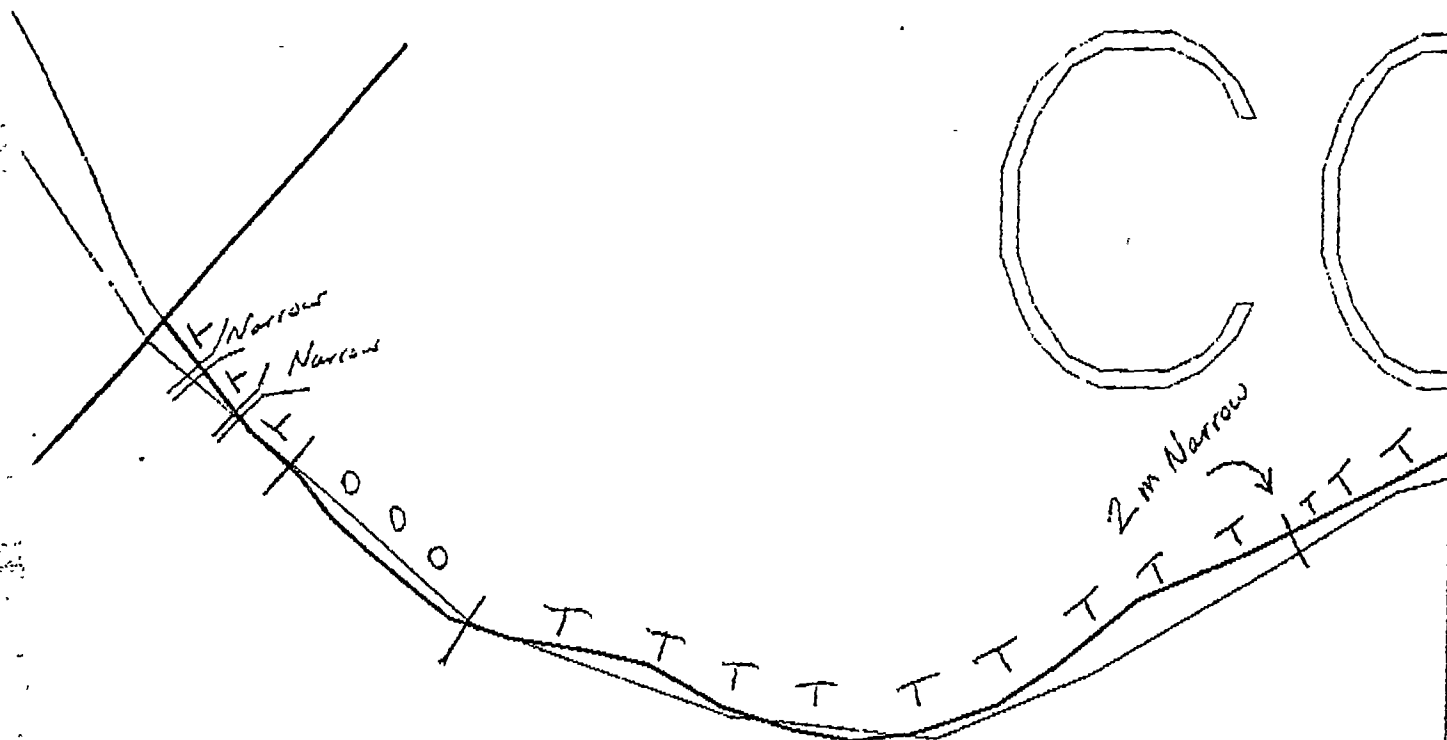
Oiling in the segment was observed along the UITZ Kelp line along the wider sand-granule-pebble beach as tarballs and patties in a band up to 3 m wide. This band was continuous, but coverage was commonly $< 1\%$. Specific areas noted on the sketch maps had up to 15% coverage. The TB & PT had the appearance of pebbles and cobbles with a dull black exterior with sand incorporated in the surface. The inside was shiny black to dark brown and sticky. The "pebbles and cobbles" were typically flattened with rounded edges. Stain, coat, and occasional cover with entrained sand was sporadically observed on logs in the SUTZ.

Oiling was also observed at the top of the mudflats. Where the beach was wider, 2 small areas were observed with PT/P (2x3m, 20% cover) and AP/P (1x2m, 30% cover). Also, a narrow band of PT-AP /S with IP (1/2 x ~200m) with 1 to 15% cover. The cover ranged to 30%, but averaged $< 10\%$. The PT & AP had similar appearance, with DBR-DBL exterior and

OG Comments K 09 17 CC 02 (1 of 1) 5/13/90 DGH pg 2

a shiny mousse-like interior with sand and mud entrained. The PT & AP was very soft and pliable. This narrow band extended from a point about 200 to 300 m west of where the beach narrows to the segment boundary at the fallen tree.

MAY 14 '90 13:26 DEPTAAAAAAAAAAAAAAAAAAAA



XX Wide
 // Medium
 -- Narrow

CC-2

Approx. Segment Length: 1619m

TT Very Light
 OO No Oil



Map Key:

Name: G. Heyman

Date: 5-3-90

Data Enter

ACE 1950671

MAY 14 '90 13:26 DEPTAAAAA

SB

3m Narrow
T T T T

X Wide
/ Medium
- Narrow
T Very Light
O No Oil

CC-2

Approx. Segment Length: 1619m



Map Key

Name: G. Heyman

Date: 5-3-90

Data Ente.

ACE 1950672

Segment ST / CC-2 Subdivision ADate (mo / day / yr) 5/3/90Time (24 hr) 1500-1600 Biologist SHARMAN(A) Substrate type and % of segment: SUBDIV.(1) Bedrock (2) Boulder 5 (3) Cobble 10 (4) Pebble 20 (5) Sand 40 (6) Silt 25 ^{+ granules mud}(B) Overall % cover of biota (% of segment): Dense Moderate Low XSUBDIV.

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

Photographs:

Roll No. Frames

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS (NACELLA, LITTORINA, LYMAETS)

Dense			Moderate			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: Fox sparrows foraging in supratidal. Some 150 ducks rafted up as in CC-2 (100 pintails, 30 green-winged teal, 10 shovellers, 10 scaup). 10 glandular-winged gulls. Brown bear, fox, wolf, and moose tracks in sandy UTZ + supratidal. This is a wide, low angle sand/mud flat within Chirikof Lagoon. There are rare exposed boulders & cobbles exposed, some of which have barnacles - no spat. (cont.)

Ecological Considerations:

Please refer to attached Eco. Maps. Previously identified ecological sensitivities include codes 8AA (sensitive estuary) and 9LM (land mammals). Clearly the lagoon is both very biologically productive & important, as well as quite sensitive to human disturbance (both via direct intrusion and actual physical disturbance of the fine-grained substrate - the latter is probably more important in the longer term). This area is also very important as foraging & resting habitat for shorebirds & seabirds, residents as well as migrants. Also a critical nursery / rearing area for marine species, many of economic importance. Further intrusion here should be considered with caution (see also this section of CC-100 summary).

CC-2

Shoreline Ecological Summary (cont.)
(Page 2 of 4)Sharman
5/3/90General Comments (cont.) :

The remainder of any macroscopic intertidal biota is generally limited to a thin, sparse drift line and locally dense populations of Arctoncola out on the sand/mud flat. There are a few excavations in these beds, presumably by larvae/invertebrates - small holes partially filled back in by the tide (20x20x20 cm). The thin drift includes Fucus, Nereocystis, Halosaccus, Alaria, some fine reds (Pilota, etc.). Shells observed are the same as those on CC-5 (see that summary) - Saxidomus, Mytilus, Trochus, Macoma, Mya, etc. This is a normal, healthy sand/mud flat intertidal.

MAY 14 '90 13:28 DEPT AAAAAAAAAAAAAAAAAA

SB

CC-2

ECOLOGY MAP

(1 of 2)

CC-2
(Page 3 of 4)

8AA - sensitive estuary
9LM - land mammals

X Wide
/ Medium
- Narrow
T Very Light
O No Oil

CC-2

Approx. Segment Length: 1619m



Map Key

Name: _____

Date: _____

Data Ente. _____

ACE 1950675

MAY 14 '90 13:29 DEPTAAAAAAAAAAAAAAAA

Chiniab Lagoon

ECOLOGY MAP

CC-2

(Page 4 of 4)

(2 of 2)

BAA - sensitive estuary
GLM - land mammals

<XX Wide

// Medium

-- Narrow

TT Very Light

OO No Oil

CC-2

Approx. Segment Length: 1519m



Map Key:

Name: _____

Date: _____

Data Enter

ACE 1950676

SSAT DATA ENTRY FORM

PAGE 1 OF 2GENERAL DATA

SEG ID: CC-2 SUBDIV: A TEAM: 19 SURVEY DATE: 5/3/90
PAVEMENT: CHAR S AREA 10 THICKNESS 2 TARBALLS 10
OILED: LGS X VEG - TRH X DBR X WAVE EXP: LW X MD - HG -
FAX RCVD: _____ DT: _____ AGENCY DISAGREE: _____
EST SUBDIV LGTH: 1619 OIL CATEGORY: W 0 M 0 N 20 VL 1384 NO 215 U 0

SURFACE DATASURFACE SEDIMENT: BRK 0 BLD 5 COB 10 PEB 20 GRN 20 SAN 20 MUD 25 VEG 0

CHAR #: 1 OIL CHAR: AP OIL DIST: CONT - BRKN - PTCH X SPLH X
OIL CLR: DBA FILM CLR: - TIDAL ZONE: SU - UI - MI X LI X

CHAR #: 2 OIL CHAR: PT OIL DIST: CONT - BRKN - PTCH X SPLH X
OIL CLR: DBL FILM CLR: - TIDAL ZONE: SU - UI X MI - LI X

CHAR #: 3 OIL CHAR: TB OIL DIST: CONT - BRKN - PTCH - SPLH X
OIL CLR: DBL FILM CLR: - TIDAL ZONE: SU - UI X MI - LI -

CHAR #: 4 OIL CHAR: N OIL DIST: CONT - BRKN - PTCH - SPLH -
OIL CLR: - FILM CLR: - TIDAL ZONE: SU X UI - MI - LI -

CHAR #: _____ OIL CHAR: _____ OIL DIST: CONT _____ BRKN _____ PTCH _____ SPLH _____
OIL CLR: _____ FILM CLR: _____ TIDAL ZONE: SU _____ UI _____ MI _____ LI _____

CHAR #: _____ OIL CHAR: _____ OIL DIST: CONT _____ BRKN _____ PTCH _____ SPLH _____
OIL CLR: _____ FILM CLR: _____ TIDAL ZONE: SU _____ UI _____ MI _____ LI _____

CHAR #: _____ OIL CHAR: _____ OIL DIST: CONT _____ BRKN _____ PTCH _____ SPLH _____
OIL CLR: _____ FILM CLR: _____ TIDAL ZONE: SU _____ UI _____ MI _____ LI _____

CHAR #: _____ OIL CHAR: _____ OIL DIST: CONT _____ BRKN _____ PTCH _____ SPLH _____
OIL CLR: _____ FILM CLR: _____ TIDAL ZONE: SU _____ UI _____ MI _____ LI _____

ACE 1950677

PAGE 2 OF 2

PROBLEMS: _____

MAY 14 '90 16:00 DEPTA

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

File copy
P. 1/13
(SAD) Sarvey
STEVE COWPER, GOVERNOR

Rapifax 349-1723

333 RASPBERRY ROAD
ANCHORAGE, ALASKA 99518-1599
PHONE: (907) 344-0541

RAPIFAX TRANSMITTAL SHEET

TO: Ken/ Dick
Anch Habitat

DATE: 5/14/90

No. Pages: 13
(including this page)

FROM: J. Barnhart
Kodiak Habitat

MESSAGE: Chinik Lagoon
AFS 262-15-10640
segment CC005

ACE 1950679 1/5

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1K0917 CC5 SUBDIVISION: 4 DATE 5/3/90~~NOAA~~
~~USCG~~NAME STEPHEN LENMANN SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

Generally agree with ADEC. Pooled oil should be removed - as many of these areas are not readily accessible - manual removal may be difficult. Caution should be shown regarding the beginning of the lagoon (at the end of the segment). Cleanup should be concentrated at the eastern end of the segment.

ADECNAME Terry Ellsworth SIGNATURE Terry Ellsworth☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

Recoverable mousse and/or pooled oil occurs in three areas in the segment. The largest area is 20m wide x 30+ m long just west of the segment boundary at Cape Chiniak. The second area is ~200m west of the segment boundary and a third area of much smaller extent is found approximately midway in the segment. Very scattered tarballs occur in the east half of the segment on the sand- pebble beach. Manual removal is recommended although recovery of much of the pooled oil and mousse will be difficult as it is located between boulders up to 2 m in size. Oiled trash & debris should be collected as well as heavily oiled small wood debris.

LAND MANAGERNAME Carl Schuch SIGNATURE Carl Schuch☐ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Recoverable oil consists of pooled mousse deep in interstitial spaces between large angular boulders. Oiled logs, nets and rope should be removed. Tarballs and oiled wood along the western portion of the segment could be removed quickly and easily.

OPERATIONS FIELD NOTES

STK0917

See Back for Instructions

SEGMENT ID CC005
 SUBDIVISION LETTER A
 ANNOTATED MAP INCLUDED Y/N

DATE 5/3/90
 NAME G. Heyman
 TEAM # 19

SURFACE OIL	Quantities in Meters			Treatment Recommendation						
	Length	Width	Area	None	Y/N	% Treat	Y/N	% Treat	Y/N	% Treat
Wide Band				N	N		N		N	
Medium Band				N	N		N		N	
Narrow Band				N	N		N		N	
Very Light				N	N		N		N	
TOTAL MANDAYS										

SUBSURFACE OIL

Other (Describe)?	

TARMATS	Quantities in Meters			Treatment Rec			# of Bags	Mandays Required	
	Length	Width	Thick(cm)	None	Breakup	Remove		Breakup	Remove
Area #1				N					
Area #2				N					
Area #3				N					
Area #4				N					
Sporadic Mats				N					

MANUAL PICKUP	Type of Debris			In Meters			# of Bags	Pickup	Manday
	Mousse	Oiled	Cleanup	Length	Width			Y/N	Estimate
"Pocket" #1	Mousse		Debris	32	20		?	N	
"Pocket" #2	Mousse			500	3		3	N	5
"Pocket" #3									
Random/Continuous									

OILED LOGS (Y/N) OILING H/M/L QUANTITY L/M/S BURN Y/N

Is there Other Debris on the Beach? (Y/N) How Many Bags? 100 Is it mingled with the Oiled Debris (Y/N)

GENERAL Snow covering 0 % of the Supratidal Zone?

Wave Exposure H/M/L Access Limitations:

Snare Boom/Pom Poms Recommended?

Would the production Craft have to be relocated to complete work on this subdivision? Y/N, # of Times

COMMENTS: #1 Mousse is down between boulders and ~~not~~ cannot be reached by cleanup crews -

SHORELINE OILING SUMMARY

OGC HEYMAN ~~NOAA~~ USCG S. LEHMANN SEGMENT STI K0917 CCS
 BIO L. SHARMAN LAND REP C. SEHOCK NPS SUBDIVISION A (1 OF 1)
 EXXON ON LEAVE ADEC T. EUSWORTH TIME 3:30 / 4:45
 TEAM NO. 19 TIDE LEVEL +6.5 to +4 DATE 5/03/90
 EST. SUBDIVISION LENGTH: 1012 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 40 % B 30 % C 15 % P 10 % G 5 % S 0 % M 0 % V 0 %
 SLOPE: Long 40 % Hang 55 % Vert 5 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 32 m N 10 m VL 970 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	/C	/B	/P	/S	SBL BR	DEL RW	GY SL	DEL TL	LAB	SU	UI	MI	LI			
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					
PATTIES																
TARBALLS				X		X					X	X				
FILM																
NO OIL										X			X			

PAVEMENT H F S 0 sq. m by 0 cmPATTIES / TARBALLS 3 BAGSNEAR SHORE SHEEN? NO BR RW SL TL

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

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-DM)	BELOW		OIL / FILM COLOR							PIT ZONE				A N A	SHEEN (Y/N)	▼	SURFACE - SUBSURFACE SEDIMENTS	
		OP	OR	OL	OF	NO		UO	UC	SBL BR	DEL RW	GY SL	ORP TL	LAB	SU	UI	M	U							
1	10					X	0-0		X									X				N	-	-	PG/G
							.																		
							.																		
							.																		
							.																		
							.																		

COMMENTS

REVIEWED _____ DATE _____

ACE 1950682

OG G. Heyman

SEGMENT ST/K0917 CC 005

SUBDIVISION A

DATE 5/3/90

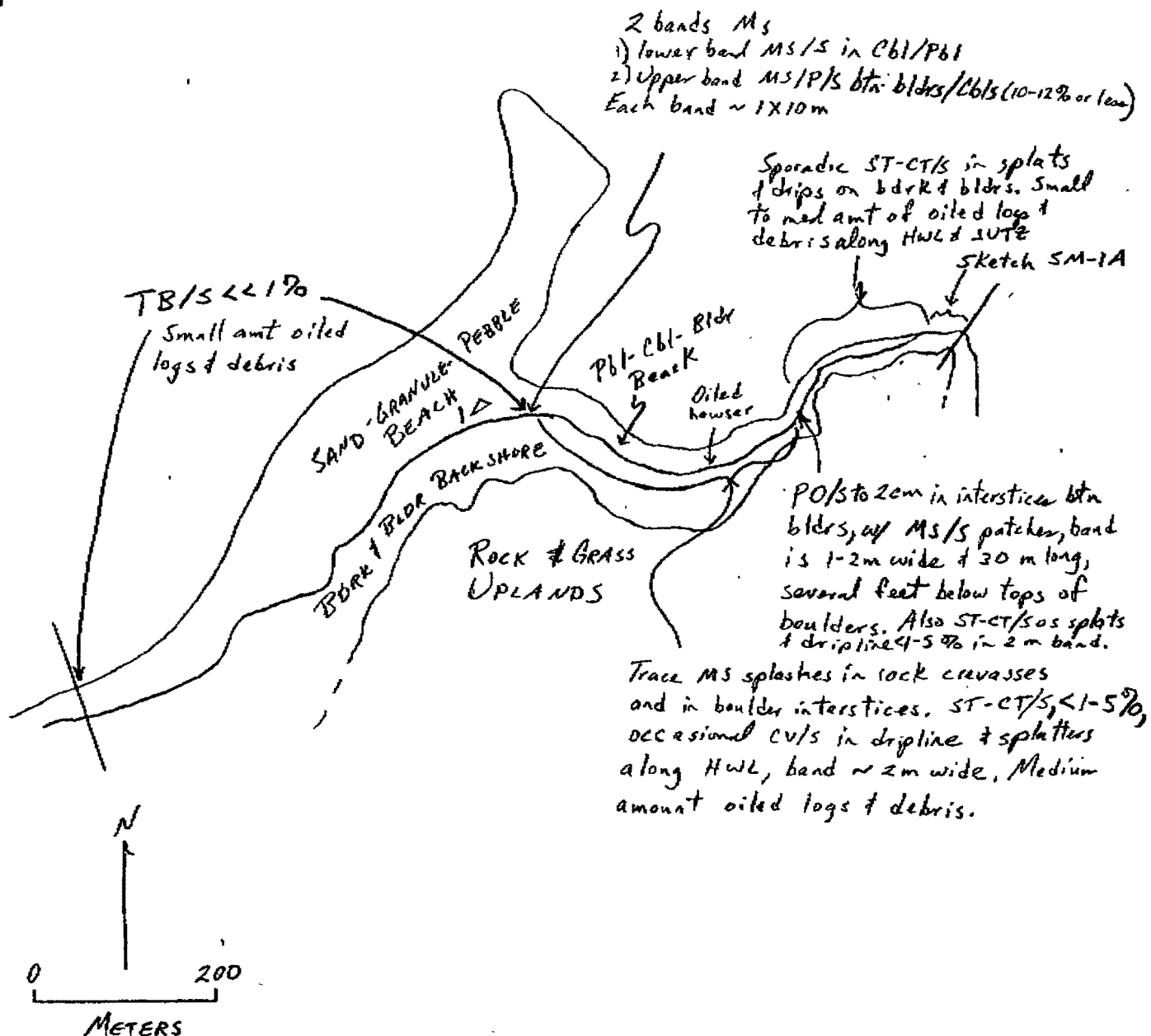
CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Bndry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HWL/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
- $\boxed{CT/C}$
Continuous Distribution
- $\boxed{CT/B}$
Broken Distribution
- $\boxed{CT/P}$
Patchy Distribution
- $\boxed{CT/S}$
Splashed Distribution
- 
Oiled Vegetation
- 
Photo location, direction, and number

SKETCH MAP-1



Oil Character Length (m): AP — PO 10 CV 62 CT 250 ST 200 MS 52 PT — TB 500 FL — NO 0

REVISION: 03/24/90

ACE 1950683

SEGMENT ST/ K 0917 CC 005

SKETCH MAP 5M-1A

SUBDIVISION 4

DATE 5.3/90

CHECKLIST

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

LEGEND

1 Δ

Plt - No Subsurface Oil

2 ▲

Fig - Subsurface CH

ET/C

Continuous Distributions

CT/B

Broken Distribution

CT/P

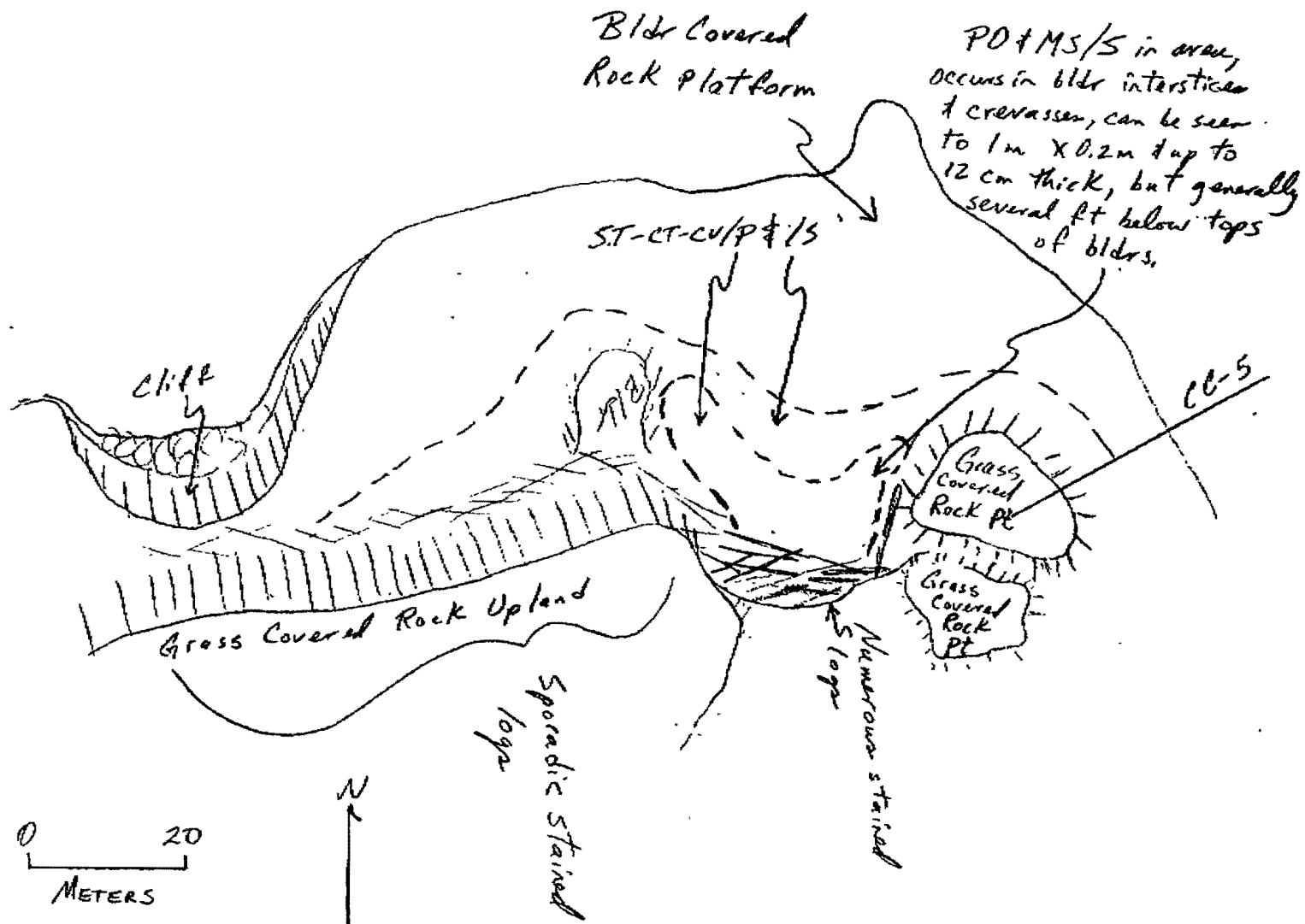
Patchy Distribution

CT/S

Splashed Distribution

Cited Vegetation

1.

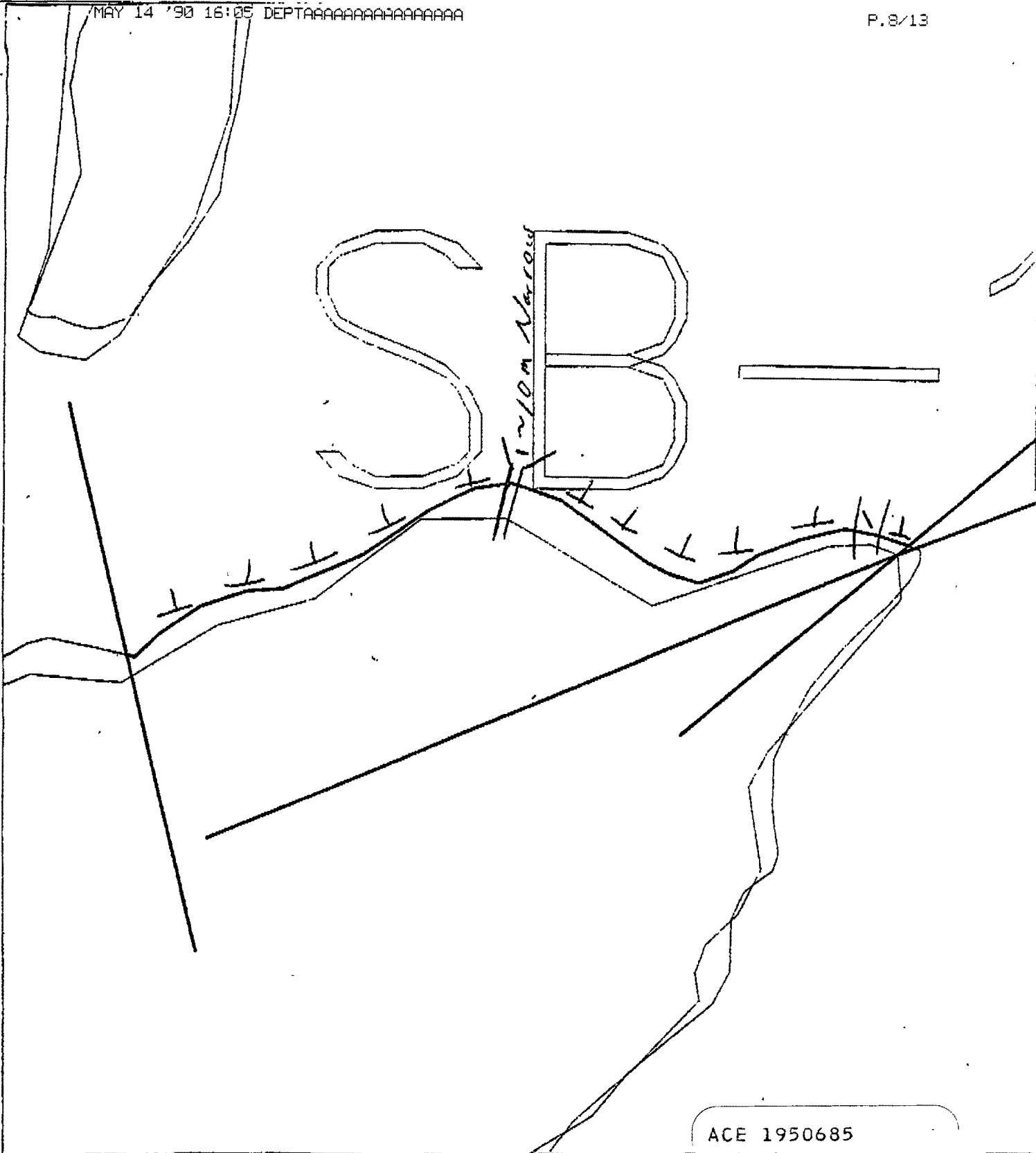
Photo location, direction,
and number

Oil Character Length (m): AP PO CV CT ST MS PT TB FL NO *See SM-1*

REVISION: 007490

ACE 1950684

MAY 14 '90 16:03 DEPTA000000000000



ACE 1950685

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

SB-104

Approx. Segment Length: 1012m



Map Key: AKP-SB-104

Name: G. Heyman

Date: 5-3-90

Data Entered:

SSAT DATA ENTRY FORM

PAGE 1 OF 2GENERAL DATA

SEG ID: CC-5 SUBDIV: A TEAM: 19 SURVEY DATE: 5/3/90
PAVEMENT: CHAR - AREA 0 THICKNESS 0 TARBALLS 3
OILED: LGS X VEG - TRH X DBR X WAVE EXP: LW - MD - HG X
FAX RCVD: _____ DT: _____ AGENCY DISAGREE: _____
EST SUBDIV LGTH: 10/2 OIL CATEGORY: W 0 M 32 N 10 VL 970 NO 0 U 0

SURFACE DATASURFACE SEDIMENT: BRK 40 BLD 30 COB 15 PEB 10 GRN 5 SAN 0 MUD 0 VEG 0

CHAR #: 1 OIL CHAR: PO OIL DIST: CONT - BRKN - PTCH - SPLH X
OIL CLR: DBR FILM CLR: - TIDAL ZONE: SU - UI X MI - LI -

CHAR #: 2 OIL CHAR: CV OIL DIST: CONT - BRKN - PTCH - SPLH X
OIL CLR: DBL FILM CLR: - TIDAL ZONE: SU - UI X MI - LI -

CHAR #: 3 OIL CHAR: CT OIL DIST: CONT - BRKN - PTCH X SPLH X
OIL CLR: DBL FILM CLR: - TIDAL ZONE: SU - UI X MI - LI -

CHAR #: 4 OIL CHAR: ST OIL DIST: CONT - BRKN - PTCH X SPLH X
OIL CLR: DBL FILM CLR: - TIDAL ZONE: SU - UI X MI X LI -

CHAR #: 5 OIL CHAR: MS OIL DIST: CONT - BRKN - PTCH - SPLH X
OIL CLR: DBR FILM CLR: - TIDAL ZONE: SU - UI X MI - LI -

CHAR #: 6 OIL CHAR: PT OIL DIST: CONT - BRKN - PTCH - SPLH X
OIL CLR: DBL FILM CLR: - TIDAL ZONE: SU - UI X MI X LI -

CHAR #: 7 OIL CHAR: TB OIL DIST: CONT - BRKN - PTCH - SPLH X
OIL CLR: DBL FILM CLR: - TIDAL ZONE: SU - UI X MI X LI -

CHAR #: 8 OIL CHAR: NO OIL DIST: CONT - BRKN - PTCH - SPLH -
OIL CLR: - FILM CLR: - TIDAL ZONE: SU X UI - MI - LI X

SUBSURFACE DATA

PAGE 2 OF 2

SEGMENT ID: CC-5 SUBDIV: A

PIT # 1 PIT DEPTH 10 OIL CHARACTER Nd OIL INTVAL: FROM 0 TO 0
QUANT: 4C OIL CLR: - FLM CLR: - ZONE: SU - UI X MI - LI -
SUBSURF SEDIMENT: BRK - BLD - COB - PEB - GRN X SAN - MUD - VEG -

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
SUBSURF SEDIMENT: BRK _____ BLD _____ COB _____ PEB _____ GRN _____ SAN _____ MUD _____ VEG _____

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
 QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
 SUBSURF SEDIMENT: BRK _____ BLD _____ COB _____ PEB _____ GRN _____ SAN _____ MUD _____ VEG _____

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
 QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
 SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
 QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
 SUBSURF SEDIMENT: BRK _____ BLD _____ COB _____ PEB _____ GRN _____ SAN _____ MUD _____ VEG _____

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
SUBSURF SEDIMENT: BRK _____ BLD _____ COB _____ PEB _____ GRN _____ SAN _____ MUD _____ VEG _____

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
SUBSURF SEDIMENT: _____ BLD _____ COB _____ PEB _____ GRN _____ SAN _____ MUL _____ VEG _____

PROBLEMS: _____

Segment ST / CC-5 Subdivision A Date (mo / day / yr) 5/3/90Time (24 hr) 1330-1500 Biologist SHARMAN(A) Substrate type and % of segments: SUBDIV.
(1) Bedrock 40 (2) Boulder 30 (3) Cobble 15 (4) Pebble 10 (5) Sand 5 (6) Silt granules(B) Overall % cover of biota (% of segment): Dense SUBDIV. Moderate Low X

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

Photographs: Roll No. ---Frames ---

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS (ANCELLA, LITTORINA, LIMPAETS)

Dense			Moderate			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: The above information is for the E. 1/2 (rocky) portion of the segment only. These organisms are essentially absent from the remainder of the segment (sandy). Except as above drift, the rocky portion is biotically sparse, potentially, except for some MTZ tidepools which include: Odonthallia, Littorina, Limpaets, Halichondria, barnacles, muscles, littorines, limpata, ancella, tonicella, Pagurus, Metridium, (cont.)

Ecological Considerations:

Please see attached Eco. Map. We had no information re. previously identified resource sensitivities. No particular sensitivities observed on this survey, but note that this segment comprises half of the Chinich lagoon entrance, and the lagoon should be considered generally sensitive to disturbance (please refer to this section of the VCC/100 summary).

adjacent

CC-5

Shoreline Ecological Summary (cont.)
(Page 2 of 3)Shannon
5/3/90General Comments (cont.):

and Anthopleura elegantissima, artemisia, and xanthogramma. Surprisingly, essentially no Fucus (very rare). Barnacle spot are present but very rare. Mucella eggs are occasional, and mussels are recruiting quite successfully locally where adults are established in bands (discontinuous). The UTZ is very depauperate except for sparse Littorina (recruiting well). This rocky intertidal community appears to be normal & healthy, and recruiting normally with no unusual mortality beyond what would be normally expected. The oiled zone on this portion of the segment is above any intertidal biota (essentially all extreme UTZ & supratidal) - subtidal organisms do not appear to be affected. The W. 1/2 of the segment is open low-angle sandy beach, largely devoid of much macrobiota intertidally. (Back to E. rocky's: natural Barnacle mortality due to mechanical disturbance from waves/wash / log scouring is locally up to 25%). Empty bivalve shells in the drift on the sandy portion include: Saxidomus giganteus, Mytilus edulis, Modiolus modiolus, Tresus capax, Chioneocardium nuttallii, Siliqua patula, Protothaca staminea, Macoma spp. (incl. balanus), Mya spp. (incl. truncata), Spisula polyzona. There are also some Fusitriton, carapaces of Cancer magister (small) and (probably) Telmessius, one Strongylocentrotus purpuratus test, and lots of large dried clam siphons (at least some, maybe all, are Mya truncata). The UTZ drift line is very sparse, containing Fucus, Alaria, ulva, Scytosiphon. River otter scats in supratidal (contain mussel & other bivalve shell fragments, Telmessius fragments). There were supratidal & UTZ brown bear, fox, & wolf tracks, & one brown bear leg bone. Birds include ~ 20 Glaucous-winged gulls, one fox sparrow in the intertidal zone, and a mixed flock of ~ 150 ducks (~ 100 pintails, 30 green-winged teal, 10 shorelarks, 10 scaup). 1 adult eagle. Again, a normal, healthy sand beach community.

ACE 1950689

K 0917 CCS OG COMMENTS , G Heyman 5-3-90

This Segment extends from the point of Cape Chiniak westward approximately 1012 m to a large bedrock outcrop at the south entrance of Chiniak Lagoon. Two beach types were generally encountered, a narrow bedrock-boulder-cobble beach to the east and a broader granule-pebble-cobble beach to the west.

Most oiling was observed along the eastern bedrock-boulder-cobble beach. Immediately west of the point, a pocket was observed with pooled MS & MS, CV, CT & ST about 32 m long X 20 m wide. The pooled areas were observed in boulder interstices and crevasses up to 1 X 0.2 m & 12 cm thick. MS patches have a similar occurrence. ST, CT & CV were also common with a patch distribution. The more heavily impacted area was up to approximately 10 m wide. This was surrounded by an area of ST-CT-CV/MS also approximately 10 m wide. The MS & PO was observed in interstices relatively deep below the surface and most was only accessible with our shovel.

One additional concentration of PO-MS and a second accumulation of MS in 2 bands are shown on Sketch Map 1. The rest of the oiling in the rock-boulder-cobble area was a near continuous band of ST-CT-CV-MS, <1% coverage, about 1-3 m wide. As we walked this section, areas would have very random splatters or drips.

On the granule-cobble beach, TB are sparsely scattered near the HWC & logs in the SUTZ have splatters of CT-CV.

ECOLOGY MAP

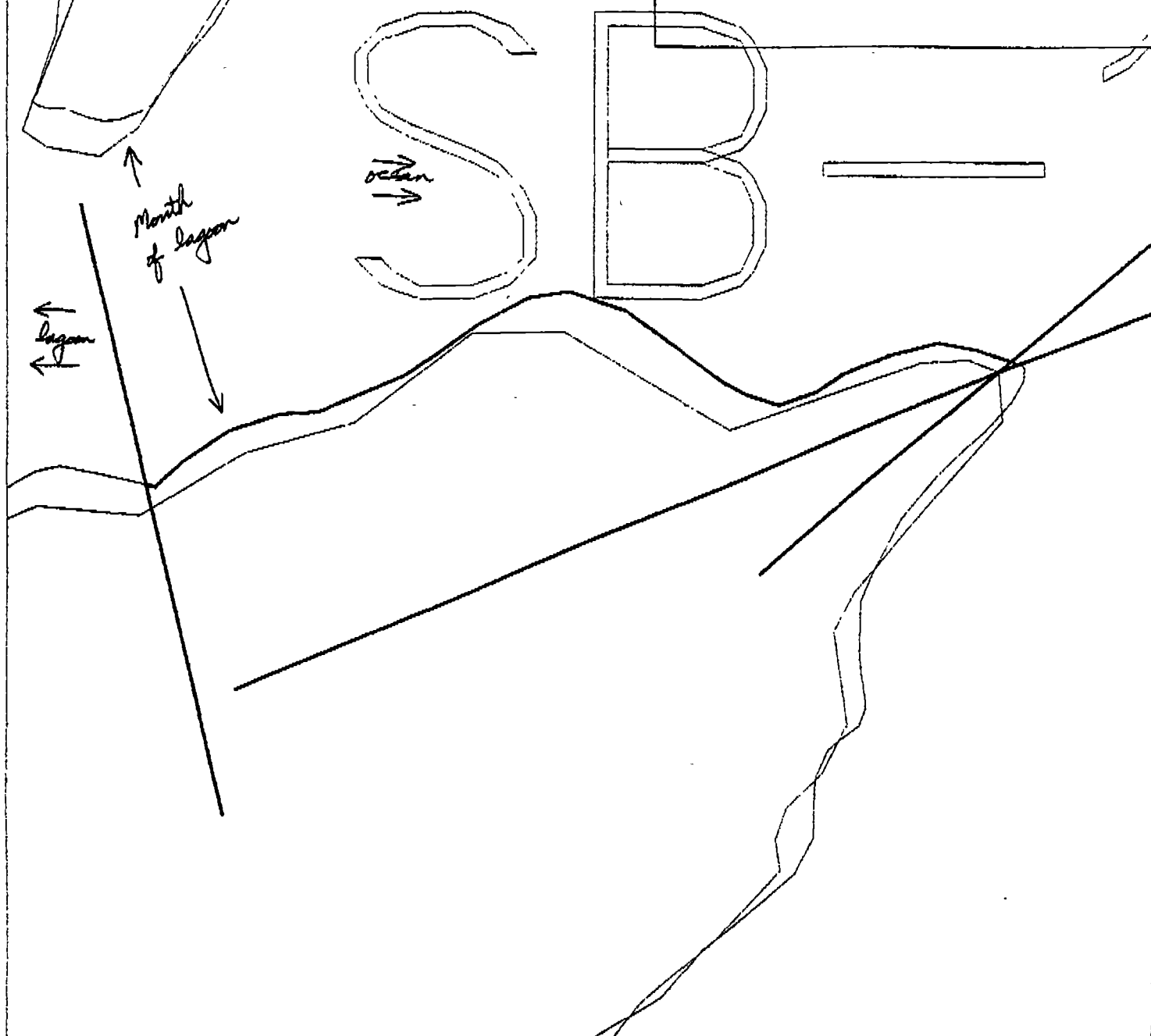
(1 of 1)

CC-5

(Page 3 of 3)

this segment missing from NOAA
database (4/22/90).

No special sensitivities observed
on this survey.



XXXX Wide

///// Medium

---- Narrow

TTTT Very Light

0000 No Oil

Approx. Segment Length: 1012m

0 100 200 300
METERS

CC-5

Map Key: AKP-SB-104

Name: _____

Date: _____

Data Entered: _____

ACE 1950691

-15/FF/HF

K09-17 CC 100 AFS 262-15-10040
Chiniak Lagoow 1990

ACE 1950252

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

STEVE COWPER, GOVERNOR

Rapifax 349-1723

323 RASPBERRY ROAD
ANCHORAGE, ALASKA 99515-1699
PHONE: (907) 344-0541

RAPIFAX TRANSMITTAL SHEET

TO: Ken MiddletonDATE: 5-11-90No. Pages: 3
(including this page)FROM: Ed Weiss

MESSAGE: ~~PLEASE~~ THESE ARE MY COMMENTS
ON CHINIAK LAGOON SEGMENTS. SINCE
MOST SEGMENTS WERE SENT IN AS
REGULAR SSAT MAKE SURE THAT TAG
MEMBERS ARE AWARE THAT CC100, CC001,
CC002, CC005 ARE PART OF THE
ANADROMOUS STREAM SYSTEM.

ALASKA DEPT. OF
FISH & GAME

MAY 11 1990

REGION II
HABITAT DIVISION

FIELD SHORELINE COMMENT SHEET

CC001/CC002
 SEGMENT ST/CC100/CC005 SUBDIVISION: ANADSSAT DATE 5-11-90

ADFG

NAME EDWARD W. WEISS SIGNATURE Edward W. Weiss

☐ NO TREATMENT RECOMMENDED
 COMMENTS

☒ TREATMENT SUGGESTED

THIS EXXON/SSAT ANADSSAT REPORT ONLY REFLECTS THE
 OILING CONDITIONS WITH IN 100 M EITHER SIDE OF
 WHERE THE STREAM BED ENTERS THE UPPER LAGOON (CC100).
 IN THIS SHORT SECTION OF SEGMENT CC100 THERE
 INDEED WAS NO OIL FOUND. BUT IT DOES NOT REFLECT
 THE CONDITIONS WITH IN SEGMENTS CC002, 005, 001
 NOR THE SOUTH AND WEST PORTIONS OF CC100. THESE
 SEGMENTS ARE WITHIN THE LAGOON WHICH IS PART
 OF THE ANADROMOUS STREAM. CONSEQUENTLY ADFG
 HABITAT PERSONNEL SHOULD BE INVOLVED IN THE
 TAG GROUP FOR ALL FOUR SEGMENTS (CC001, CC002,
 CC005, CC100) & ADFG PERMITS NEED TO BE OBTAINED
 TO DO ANY WORK IN THESE FOUR SEGMENTS.
 THE FIELD SKETCHES SHOWING THE IMPACTS IN THESE
 OTHER SEGMENTS ARE INCLUDED IN THIS ANADSSAT
 REPORT. THESE AND THE SSAT REPORTS FOR THESE
 SECTIONS SHOULD BE CONSULTED WHEN CLEANING UP
 THIS ANADROMOUS STREAM.

MANUAL TYPE A CLEANUP SHOULD BE CONDUCTED
 IN FOLLOWING SEGMENT AREAS;

THE SOUTH & WEST PORTION OF CC100 ALONG
 THE STEEP ALDER COVERED BANK TO THE POINT
 WHERE IT FALLS AWAY FROM THE LAGOON AND THE
 MARSH GRASS STARTS. CLEANUP SHOULD NOT TAKE PLACE
 IN THE MARSH GRASS SECTION OF CC100 (NO OIL FOUND
 DURING SSAT AND SENSITIVE MARSH AREA). AP, PT, MS/P
 WITH BARTS LOCALLY /B, IN THE SOUTH & WEST PART OF CC100

SEGMENT C002. ALSO HAD AP, PT, TB/P^{3/3} IN ITS WESTERN MOST HALF. THESE IMPACTS ALSO HAVE LOCALLY HEAVIER IMPACTS WITH SOME AP, PT/C AND /B. THE IMPACT IS LIGHTER AS YOU MOVE TOWARDS THE LAGOON/STREAM MOUTH (TOWARDS C005) BECOMING MORE TB & PT/S.

SEGMENT C005. TB/S IN THE WESTERN PORTION OF C005 WHICH IS WITHIN THE STREAM/LAGOON MOUTH AREA. ALSO MANUAL PICKUP.

NOTE THAT PO/S; ST & CT/S; MS/S OCCUR IN THE REST OF C005, WHICH IS IMMEDIATELY ADJACENT TO THE LAGOON MOUTH. BEFORE ANY CLEANUP METHOD BESIDES "MANUAL" IS IMPLEMENTED HERE HABITAT DIVISION PERSONNEL MUST BE NOTIFIED AND PERMISSION GRANTED.

SEGMENT C001. THE OUTSIDE SPIT AREA MANUAL PICKUP OF TB/P IN SUTZ, LITZ, AND MITZ. ALSO BAGS OF OILED SAND & MOUSSE.

ALSO RECOMMEND THAT ADFG OR NAS MONITOR BE PRESENT. SOMEONE WHO IS FAMILIAR WITH SITE KNOWS WHERE THE OILING IS. AP, PT, IN C002 & C000 IS IN LITZ AT BREAK BETWEEN MUDFLAT AND SAND/GRAVEL BEACH AND IS COMMONLY PARTIALLY COVERED BY SILT. SOMETIMES HARD TO FIND BUT CAN BE FOUND AND EASILY REMOVED.

Ed Weir
5-11-90

'90 Cleanup

ASC NUMBER: LOCATION: STREAM NAME: KODIAK K-UNIT: USGS QUADRANGLE: SHORELINE TYPE: *Lagoon*

SEGMENT NUMBER: *CC-100* YR CATALOGED: LATITUDE: LONGITUDE: LEGAL: WAVE EXPOSURE: *L*

LOCAL STREAM #:

ASC NUMBER: *262-15-10040*
 SURVEY TYPE: *CL*
 METHOD: *F*
 DATE: *7/11/90*
 START TIME: *1100*
 STOP TIME: *1630*

TEAM RECORDER: *JEFFREY P. BARNHART*
 OBSERVERS: *Fred Byars, Jim Davis, Terry Ellsworth, Howard Overton, Dick Wydoski*
 AGENCY (IES): *ADFG, Exxon, USCG, ADEC, NPS, USFWS*

PHOTOS TAKEN? *Y*
 Roll #: *90JPB003K* Frames: *18-21*
 VIDEO TAKEN? *N* Tape Number: Counter Start:

SAMPLES TAKEN? *Y*
 SAMPLE I.D. NUMBERS: *1. 90-JPB-006K*
 2. 3.
 4. 5. 6.

OILING DATA

	LENGTH	WIDTH	M2	%	THICK	FEN	OIL TYPE
SITE 1	<i>50m</i>	<i>1m</i>	<i>50</i>	<i>30</i>	<i>2cm</i>	<i>surface</i>	<i>PT TB</i>
SITE 2	<i>900m</i>	<i>25m</i>	<i>22,500</i>	<i><1</i>	<i>2cm</i>	<i>surface</i>	<i>PT, TB, CU, CT, ST</i>
SITE 3	<i>50m</i>	<i>1m</i>	<i>50</i>	<i>25</i>	<i>2cm</i>	<i>surface</i>	<i>PT, TB</i>
SITE 4	<i>1m</i>	<i>1m</i>	<i>1m</i>	<i>80</i>	<i>2cm</i>	<i>surface</i>	<i>ms</i>
SITE 5							

OVERALL OIL IMPACT: *L*

OIL IN STREAM CHANNEL? *Y*
 SUBSTRATE

Bedrock *10* Granule
 Boulder Sand
 Cobble *10* Silt *60*
 Pebble *20* Veget.

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? *Y*

SPECIES					
COUNT					

COMMENTS: *4,160 pounds of oil/oil sediment removed. work plan modification recommendation submitted 7/12/90 recommending no bioremediation. Oiled piece of commercial fishing net was located at the NW boundary of the segment and removed. Oil was difficult to locate due to a thin veneer of silt covering the deposits.*

EVOS CLEANUP MONITORING, 1990.

REGION: Alaska Peninsula

REPRESENTATIVES

K-UNIT: K09-17

Exxon: Fred Byars

SEGMENT: CC-100

USCG: Jim Davis

LOCATION: Chiniak Lagoon

DEC: Terry Ellsworth

STREAM NAME: Chiniak Lagoon

NPS: Howard Overton

ANAD. STREAM CAT. #: 262-15-10040

USFWS: Dick Wydoski

ANAD. FISH STREAM PERMIT ISSUED: 7/11/90

ADFG: Jeff Barnhart

DATE(S) WORKED: 7/11/90

OTHER: _____

SQUAD #: 9 Holo

HOURS WORKED: 5.0

SQUAD SIZE: 6

TOTAL MAN HOURS WORKED: 30

NUMBER OF BAGS COLLECTED: 104

DATE WORK ORDER ISSUED: 5/31/90

POUNDS OF OIL/OILED SEDIMENT REMOVED: 4160

TREATMENT TECHNIQUES: MANUAL REMOVAL X BIOREMEDIATION

OTHER _____

OIL BANDS

DEMOS DATE: 7/11/90

L 50m W 1m D 2cm m² 50 % oil cover 30 V _____

OIL SAMPLE # 90-JPB-006K

L 900m W 25m D 2cm m² 22,500 % oil cover 41 V _____

OIL TYPE: MS PT

L 50m W 1m D 2cm m² 50 % oil cover 25 V _____

SUBSTRATE TYPE: m=60% G=20

L 1m W 1m D 2cm m² 1 % oil cover 80 V _____

Cobble=10 Bedrock=10

L _____ W _____ D _____ m² _____ % oil cover _____ V _____

PHOTOLOG

Roll #

FRAME #

DESCRIPTION

90JPB003K

18

Oil sheen after mousse patties removed during cleanup.

90JPB003K

19

Oil sheen after mousse patties removed during cleanup.

90JPB003K

20

Cleanup of mousse from upper mud flat

90JPB003K

21

Silt covering; mousse & patty broken open exposing oil.

PROBLEMS:

OBSERVATIONS: work plan modification recommendation submitted 7/12/90 recommending no bioremediation. Oiled piece of commercial fishing net was located at the NW boundary of the segment and removed. Oil was difficult to locate due to a thin veneer of silt covering the deposits.

SIGNED: Jeff Barnhart

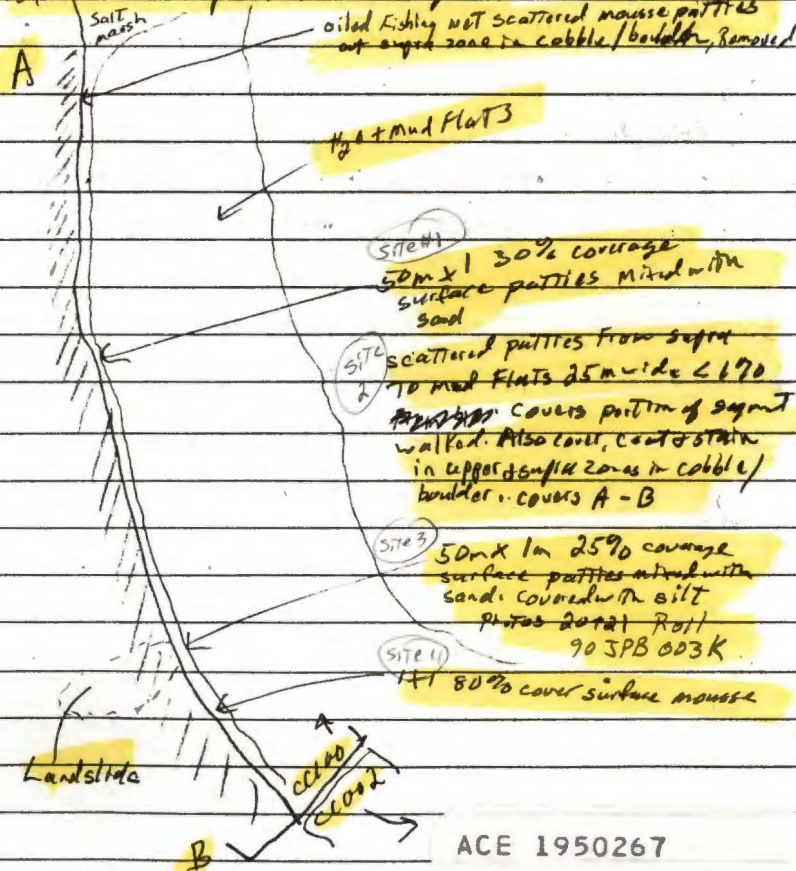
Wed 7/11/90.

Arrive at office 7:45 Am. Tie up loose ends with Middleton & Hensel. 8:45^{Am} arrive to ICP.

9:15 Am in helicopter. Briefing. Depart Kodiak Airport 9:45 Am. 10:30 Am

Arrive Chiniak Lagoon CC 100, AK Pon crew start work 11:00 Am. Stop 12:00 start

12:30 oil sample taken 2:50 pm



26 + 30 + 24 + 24 = Total CC 100

of Bags 1st super sack 30, and 26 (35-40 pounds each)
3rd 24 4th 24 bags

up until 3:30 pm we had 4 workers then Bill & another worker arrived for a total of 5 workers plus Foreman. Done with CC 100 4:30 pm.

~~Foreman beach & hand in CC 101 4:45 pm~~

~~From this area upper 9th But Butts and~~

~~Todd S. went with helicopter to sling super sacks from Douglas Creek, Triple Lakes Creek, Chiniak Lagoon, that's all onto the Alaska Delta. They arrived at Chiniak Lagoon beach 6:30 pm.~~

~~I walked from point where we stopped last time, to the Lagoon (Chiniak) mouth. Scattered mouse/pat patties. Done work 7:30 pm. Also oiled drift & oiled Rock Retainer. Depart CC 101 7:50 pm. Land Kodiak 8:35 pm. Plan for tomorrow morning. Pick up paperwork. Drive State Rty to office. Done 9:30 pm. no lunch break. photos from # 18, 19, 20, 21~~

ACE 1950267

ACE 1950268

SHORELINE EVALUATIONSEGMENT ST/ K09-17-CC-002 SUBDIVISION A (1 OF 1) DATE 5/3/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

8AA Sensitive estuary

9LM Other: Land mammals

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:

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

SHPO SIGNATURE: Rachel Joan Oare DATE: 5/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 69 m: V.Light 1348 m: No Oil 207 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

 No Treatment RecommendedX Treatment RecommendedX Manual PickupX BioremediationX Tarmat Removal Snare/Absorbent Booms Oil Snares (pom poms) Absorbents (pads, rolls, etc) Spot Washing: Wands Beach Cleaner Other (see comments)

COMMENTS: Recommended manual removal of tarmat, tarballs and patties as indicated on the attached sketch map. No specific ecological time constraints identified. MANUAL PICKUP OF TRASH + DEBRIS

TAG COMMENTS: BIOREMEDIATE (CUSTOMER) AS REQUIRED FOLLOWING TARMAT REMOVAL

TAG APPROVAL DATE: 5/24/90ADEC ART WEINER Art WeinerEXXON AMY TAY Amy TaylorNOAA BULLWORTH BullworthUSCG M. J. HALL M. J. Hall

observe NPS record regarding bear sensitivity & access.

FOSC: R. J. J. J. DATE: 6/8/90

SEGMENT ST/ K0917 CC002

SKETCH MAP

SUBDIVISION A

DATE 5/3/90

CHECKLIST

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

LEGEND

1 Δ

Pit - No Subsurface Oil

2 Δ

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

Oiled Vegetation

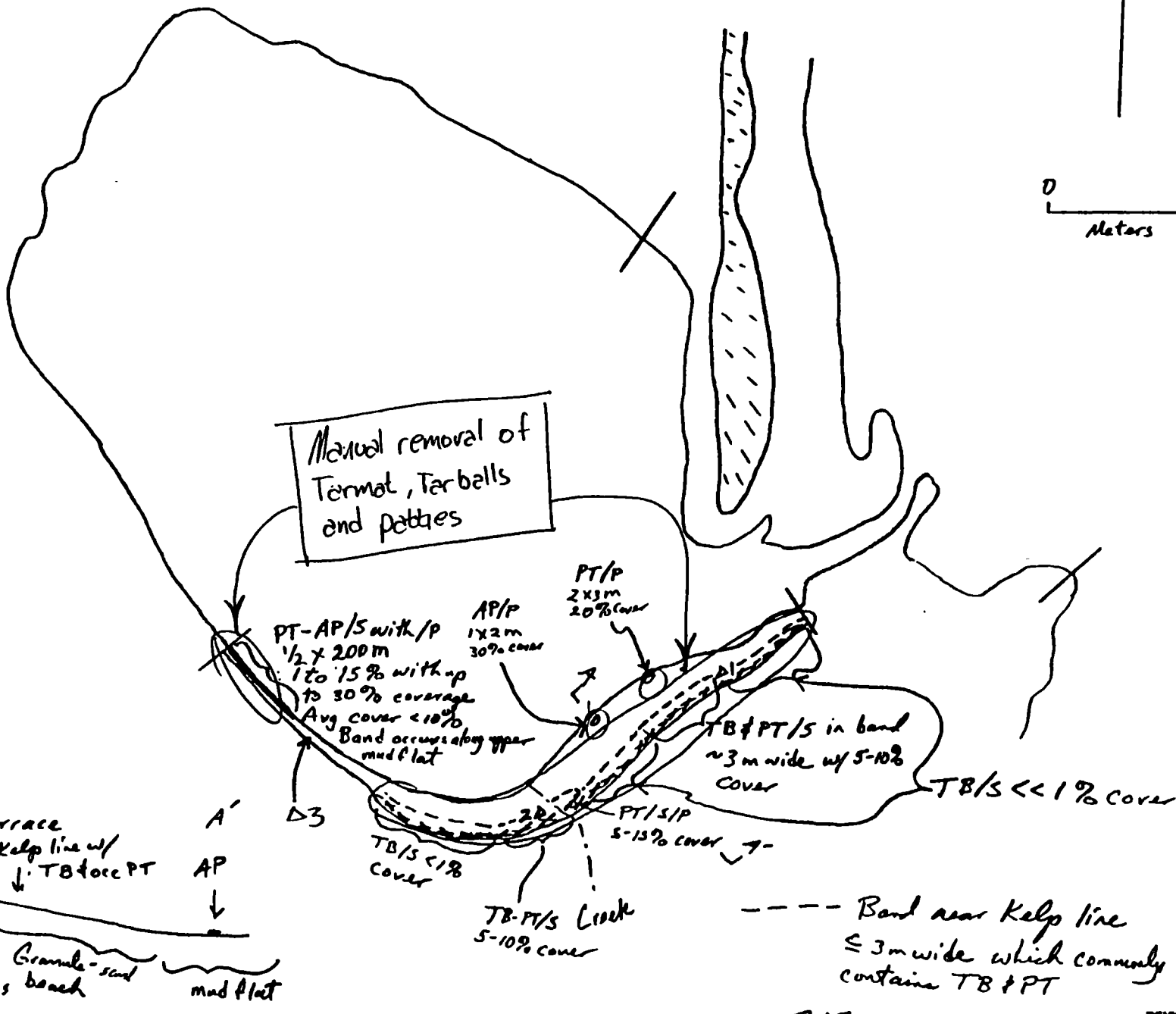
Photo location, direction, and number

ACE 1950325

Oil Character Length (m): AP 10 PO — CV — CT — ST — MS — PT — TB — FL — NO 215



0 300
Meters



REVISION: 03/24/90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K09-17-CC002 SUBDIVISION: A DATE 5/03/90~~NOAA~~
~~USCG~~NAME STEPHEN LEHMANN SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED.

COMMENTS

Further human intervention into this lagoon area could do more harm than good given the fragile nature of the oiling and the sensitivity of the area. Small banks of tar balls and occasional small mouse patches were located, but not heavy enough to warrant disturbance by crews.

ADECNAME Terry Ellsworth SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

This segment contains a band of tar balls and patches in concentrations of $<1\%$ with two areas of up to 15% in the upper inter tide zone from the SE segment boundary to $\approx 400m$ west of the small creek. In the upper mud flat an area $.5m \times 200m$ of patty to Asphalt with up to 30% cover is located at the SW end of the segment and two patches up to $2m \times 3m$ are located in the SE part of the segment. Manual removal is recommended. Due to the high sensitivity of this area a small crew should be used and no more than 2-3 persons should be treating the mud flat areas or working beyond the mouth of the small creek.

LAND MANAGERNAME Carl Scheeb SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

The oil in the south and southwest side of this segment is in a very protected lagoon / estuary system and will persist on the surface for a long time. A small crew should use shovels to remove the mouse patches and tarballs on either both sides of the creek (within 100 meters) and the mouse patch at the north west end of the segment.

This segment lies along the southern end of Chiniak Lagoon. The west boundary was difficult to determine from the maps provided, but was chosen at a large tree which had fallen across the narrow beach. The segment extends eastward to the southern entrance to the lagoon. Most of the segment consisted of a wide sand-granule-pebble beach. This narrows in the western 400-500 meters, to a narrow beach with mudflats extending to near a steep alder covered scarp.

Oiling in the segment was observed along the UITZ Kelp line along the wider sand-granule-pebble beach as turballs and patties in a band up to 3 m wide. This band was continuous, but coverage was commonly $\ll 1\%$. Specific areas noted on the sketch maps had up to 15% coverage. The TB & PT had the appearance of pebbles and cobbles with a dull black exterior with sand incorporated in the surface. The inside was shiny black to dark brown and sticky. The "pebbles and cobbles" were typically flattened with rounded edges. Stain, coat, and occasional cover with entrained sand was sporadically observed on logs in the SUTZ.

Oiling was also observed at the top of the mudflats. Where the beach was wider, 2 small areas were observed with PT/P (2x3m, 20% cover) and AP/P (1x2m, 30% cover). Also, a narrow band of PT-AP / S with IP (1/2 x ~200m) with 1 to 15% cover. The cover ranged to 30%, but averaged $\ll 10\%$. The PT & AP had similar appearances, with DBR-DBL exterior and

a shiny mouse-like interior with sand and mud entrained. The PT & AP was very soft and pliable. This narrow band extended from a point about 200 to 300 m west of where the beach narrows to the segment boundary at the fallen tree.

Jeff

Actual weights
from helicopter scales
Except where Est. made
Noted.

AC: 357 CH

TYPE: B212

DATE: 8-11-90

PIC: Fulkerson

SIC: Strain

BASE: ADDQ

ADDITIONAL CREW: _____

ASSIGNMENT: _____

TRIP NO: _____

CUSTOMER: EXXON

BIG BAY 220

KUKAK 175

KUKAR 75

TRIP NO	LEAVE	TIME	ARRIVE	TIME	FLIGHT TIME	PASS	CARGO	AC WT	MAX TO WT	FWD C.G.	AFT C.G.	PILOT INT OR AC CG
①	ADDQ	0921	Cape Doug	1005	44	2	—	11303	11,200	132.6	142.7	Kay
②		1105	"	1110	05	2	—	9833	11,200	131.7	143.0	Kay
③		1110	Alberta Tide			—	1800X10433	1300	10633	134.0	142.0	137.4
			Slingshot			—	1100	10400		"	"	4
			Alberta Tide			—	1500	10800		"	"	4
						—	1100	10300		"	"	"
						—	1200	10400		"	"	4
4	Cape Doug	1208	Big Bay	1238	30	2	—	9103		80.7	143.0	Kay
⑤		1318	Triple Lake	1338	20	2	—	10503		133.0	142.5	Kay
		1338	Alberta Tide			—	900	10200		134.0	142.0	138.6
			Triple Lake	1425	42	—	600	9800		134.0	142.0	138.4
7		1420	Chinook	1437	17	2	—	9903		131.9	143.0	KCS
⑧	Chinook	1437	Lake Slingshot			—	900	10700		134.0	142.5	137.4
"						—	400	9600		"	"	"
"						—	500	9700		"	"	"
9		1500	Alberta Tide	1500	30	—	1000	9900		"	"	4
(ESTIMATED)		1530	KUKAK	1543	13	—	8733	8733		130	143	Kay
⑩		1543	KUKAR	1610	14	—	9833	9833		132.8	143.0	Kay
⑪	CHINIAK	1618	Chinook	1635	17	6	100	10000	11,200	133.6	142.0	9L
12	CHINIAK	1635	Chinook	1745	1+10	8	LOADS X 10000 = 8000			134.0	142.0	137.4
13	"	1745	Alberta Tide	1752	07	1	—	8868		130.2	143.0	Kay
14	"	1752	KUKAR	1815	23	—	—	8533		130	143	Kay
⑮	KUK	1821	ADDQ	1906	45	—	—	8933		130.3	143.0	Kay
						8.6	8738					
						17	8738					
						20100						
						2016 =						
						order 7 on						
						Slingshot						
						7.53						
						45						
						8738						
						1+353						
						1+353						
						1+353						

ACE 1950235

PHOTO LOG ADF&G

OFFICE: KODIAK

DATE PRINTED: 09/06/90

PHOTOGRAPHER: J. Barnhart

ROLL #: 90JPB003K

FRAME#	DATE	TIME	SEGMENT#	STATION#	LOCATION	REASON FOR TAKING PHOTO
01	07/06/90	1230	CD-18	2621010100	Douglas Creek, Alaska Peninsula K09-11	Oil sheen at base of cut bank on lagoon island after mousse removed.
02	07/06/90	1230	CD-18	2621010100	Douglas Creek, Alaska Peninsula K09-11	Mousse in grass on lagoon island.
03	07/06/90	1240	CD-18	2621010100	Douglas Creek, Alaska Peninsula K09-11	Oil sheen at base of cut bank on lagoon island after mousse removed.
04	07/07/90	1000	CD-18	2621010100	Douglas Creek, Alaska Peninsula K09-11	Mousse and substrate being removed.
05	07/07/90	1000	CD-18	2621010100	Douglas Creek, Alaska Peninsula K09-11	Mousse with substrate in plastic cleanup bag.
06	07/07/90	1000	CD-18	2621010100	Douglas Creek, Alaska Peninsula K09-11	Mousse in vegetation, lagoon island.
07	07/07/90	1045	CD-18	2621010100	Douglas Creek, Alaska Peninsula K09-11	Mousse and substrate being removed from lagoon island.
08	07/07/90	1407	AB-002	26265K-655	Bear Lake Creek, Alaska Peninsula K10-02	Lower river during cleanup. Dave Kirkby, USF&WS.
09	07/07/90	1410	AB-002	26265K-655	Bear Lake Creek, Alaska Peninsula K10-02	View from lower river looking upstream.
10	07/07/90	1415	AB-002	26265K-655	Bear Lake Creek, Alaska Peninsula K10-02	Lower river during cleanup. Buckets of mousse patties.
11	07/07/90	1420	AB-002	26265K-655	Bear Lake Creek, Alaska Peninsula K10-02	Mousse patties stacked on beach during cleanup of lower river.
12	07/07/90	1425	AB-002	26265K-655	Bear Lake Creek, Alaska Peninsula K10-02	Mousse patties stacked on beach during cleanup of lower river.
13	07/08/90	1315	XX-500	2621010040	Triple Lakes Creek, Alaska Peninsula K09-12	Work crew wiping oiled cobble.
14	07/08/90	1320	XX-500	2621010040	Triple Lakes Creek, Alaska Peninsula K09-12	Previously submerged oil now exposed due to low water level.
15	07/08/90	1322	XX-500	2621010040	Triple Lakes Creek, Alaska Peninsula K09-12	Previously submerged oil now exposed due to low water level.
16	07/08/90	1425	XX-500	2621010040	Triple Lakes Creek, Alaska Peninsula K09-12	Submerged oil in stream.
17	07/08/90	1425	XX-500	2621010040	Triple Lakes Creek, Alaska Peninsula K09-12	Submerged tar mat being removed from stream.
18	07/11/90	1300	CC-100	2621510040	Chiniak Lagoon, Alaska Peninsula K09-17	Oil sheen after mousse patties removed during cleanup.

FRAME#	DATE	TIME	SEGMENT#	STATION#	LOCATION	REASON FOR TAKING PHOTO
19	07/11/90	1300	CC-100	2621510040	Chiniak Lagoon, Alaska Peninsula K09-17	Oil sheen after mousse patties removed during cleanup.
20	07/11/90	1445	CC-100	2621510040	Chiniak Lagoon, Alaska Peninsula K09-17	Silt covering mousse. Pattie broken open exposing oil.
21	07/11/90	1445	CC-100	2621510040	Chiniak Lagoon, Alaska Peninsula K09-17	Cleanup of mousse from upper mud flat.
22	07/15/90	0930	AB-002	26265K-655	Bear Lake Creek, Alaska Peninsula K10-02	Aerial view of Bear Lake Creek.
23	07/15/90	0930	AB-002	26265K-655	Bear Lake Creek, Alaska Peninsula K10-02	Aerial view of Bear Lake Creek.
24	07/15/90	0932	AS-007	2626510040	Alinchak Bay, Alaska Peninsula K10-02	Aerial view of AFS#262-65-10040.
25	07/15/90	0932	AS-007	2626510040	Alinchak Bay, Alaska Peninsula K10-02	Aerial view of AFS#262-65-10040.

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

STEVE COWPER, GOVERNOR

Rapifax 349-1723

333 RASPBERRY ROAD
ANCHORAGE, ALASKA 99518-1599
PHONE: (907) 344-0541

RAPIFAX TRANSMITTAL SHEET

TO:

JEFF BARNHART

DATE:

6/8/90KODIAKNo. Pages: 5
(including this page)

FROM:

KEN MIDDLETONANCHORAGE

MESSAGE:

K-9-17-CC-100

This segment contains sub-segments 001, 002, 005 (~~never could locate 004 on any field map, although we have a Shoreline Evaluation cover sheet~~ 004 appears to be just north of Chiniak Lagoon ?

Anyway, this gets rather confusing because the signed (FVSC) Cond. Evaluation cover sheet shows no treatment for CC-100, BUT also has 002, 001 and 005 sub segments attached, all of which had treatment recommended, as does 004 (by the FVSC) under Shoreline Evaluation work orders. So, we will have to watch closely on this on to be certain the cleanup does in fact follow the intended + approved cleanup. It looks (on the surface - the way someone stapled everything together on the Cond. Evaluation) as if the Cond. Evaluation nullifies the SAT Evaluation! Not so!!

ACE 1950269 +1/5

also includes CC 001, CC 002

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/K19-17-CC-100 STREAM NO: 262-15-10040 DATE 5/3/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

ADF&G Anadromous stream # 262-15-10040

Sensitivity code and general time constraints. See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate. Do not trample or disturb marsh area.

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Rachel Ann Owen DATE: 5/25/90Subsurface 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: NO OIL OBSERVED IN AREA OF STREAM HOWEVER
WANT TO BE COMPLETED IN ADJACENT AREAS TO THE STREAM + LAGOON
SGE SEAT PACKAGES 19-17-CC-150A + 02A FOR REMEDIATION
WORK - MINIMIZING DISTURBANCE + WORK CREW SIZE

TAG APPROVAL DATE: 5/23/90ADEC Art Wagoner Art WagonerEXXON KNOY EARLNOAA Basil Wagoner Basil WagonerUSCG C.A. BAKER C.A. BAKERFOSC: [Signature]DATE: 5/31/90

SHORELINE EVALUATIONSEGMENT ST/ K09-17-CC-001 SUBDIVISION A (1 OF 1) DATE 5/3/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 Stream ID # 262-15-10030

8AA Sensitive estuary

9LM Other: Land mammals

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 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 Jean OateDATE: 5/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V. Light 2980 m: No Oil 1783 m
 Subsurface Oil Observed: Yes X No Maximum Depth 7cm

RECOMMENDATIONS:

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

TRASH

COMMENTS: Recommended treatment includes 1) manual removal of bags of oiled sand and tarballs 2) manual pick up of tarballs and patties on surface followed by 3) manual raking to aid in locating and removal of buried tarballs and patties as indicated on the attached sketch map. Consult ADF&G for appropriate work dates, regarding raking near anadromous stream.

TAG COMMENTS: Monitors to assess the logsTAG APPROVAL DATE: 5/24/90ADEC ART WEINEREXXON ANDY GILNOAA BILL WILSONUSCG M.J. HALLFOSC: R. J. J. J.DATE: 6/4/90

ACE 1950271

SHORELINE EVALUATIONSEGMENT ST/ K09-17-CC-002 SUBDIVISION A (1 OF 1) DATE 5/3/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

8AA Sensitive estuary
 9LM Other: Land mammals
 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:

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

SHPO SIGNATURE: Rachel Joan Oasen DATE: 5/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 69 m: V.Light 1348 m: No Oil 207 m
 Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

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

COMMENTS: Recommended manual removal of tarmat, tarballs and patties as indicated on the attached sketch map. No specific ecological time constraints identified. MANUAL PICKUP OF TRASH + DEBRIS

TAG COMMENTS: BIOREMEDIATE (CISTENSIS) AS REQUIRED FOLLOWING TARMAT REMOVAL

TAG APPROVAL DATE: 5/24/90
 ADEC ART WEINER Art Weiner
 EXXON Andy Gatz Andy Gatz
 NOAA Bullerhoff Bullerhoff
 USCG M. J. Hall M. J. Hall

Observe NPS recd. regarding be
 sensitivity & access.
 FOSC: R. Zurek DATE: 6/9/90

SHORELINE EVALUATIONSEGMENT ST/ K09-17-CC-004 SUBDIVISION A (1 OF 1) DATE 5/4/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15) (Adjacent segment - #262-15-10030)
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: Rachel Jean O... DATE: 5/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 1502m: No Oil 0 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: TAG COMMENTS: TAG APPROVAL DATE: 5/24/90ADEC Aur Wornen Art L...EXXON Amv Tate Paul W...NOAA Paul W... Barbara...USCG Mr. J. Hall Mr. XFOSC: [Signature] DATE: 5/4/90

OPERATIONS DAILY REPORT **SQUAD 9 - SEATRADER/HELICOPTER**

FROM: Fred BYARS
 TO: VESSEL COMMAND NETWORK
 FAX No: (907) 266-6490

DATE OF WORK:

7/11/90

WORK HOURS: START

0830

TO:

2130

WEATHER CONDITIONS:

Wind Speed (Knts)

Wave Height (Ft)

GENERAL

TIDES:

HIGH

Time

HIGH

Time

LOW

Time

LOW

Time

GENERAL LOCATION:

SAFETY
INCIDENTS

For Day

Fatality
 Lost Time
 Restricted
 Medical Treatment
 Total Recordable

SCHEDULED WORK DAY
HOURS (ex Break) =

Vessel

Helo

VESSEL

REPRESENTATIVES NAMES

ADEC

Exxon

USCG

OOPS

Other

(Transmit Details Separately)

MANPOWER AND BILLETING STATUS (# of People)

Berthing Vessel	PAX * Beds	Exxon Reps	OOPS	Agency Reps	Other	Beach Wkrs Wkg	Idle	Open Beds
Sea Trader	16							

Helicopter # of Workers
6

HELICOPTER
 REPRESENTATIVES NAMES

ADEC

Exxon

USCG

Other

Terry EllsworthFred BYARSJim DavisJeff Barahart ADECHoward Dventon NPSDick Wydoski USF&W

* COI Passenger Beds (Includes Service Personnel)

Berthing Vessels	Boat Crews
LCV/Production	
Work Boats	
TOTALS	

Helicopter Tail #'s
507 EH
357 EH
Work Areas
K9-17 CC100
K9-17 CC001

511 EH

VESSEL STATUS (# of Vessels)

Vessel Type	Total Assigned	In Transit	Total Working	Not Used	Mech Down	Weath Down
Berthing						
LCV/Production						
Work Boat						
TOTALS						

VESSELS ASSIGNED:

Vessel Name	Vessel Type	# People Berthed
Sea Trader	Berthing	

NEXT SQUAD MOVE: LOCATION

Alinuk with Sea Trader

DATE OF MOVE

7/12/90

DATE OF LAST CREW CHANGE

PORT FOR CREW CHANGE

SCHEDULED DATE FOR NEXT CREW CHANGE

PORT FOR CREW CHANGE

VISITORS (Name/Affiliation)

STATUS OF SUPPLIES/STORAGE CAPACITIES:

NUMBER OILED/DEAD BIRDS FOUND

Alive

NUMBER OILED/DEAD MAMMALS FOUND

Alive

OTHER*

* Such as discovery of dead oiled birds/mammals, Archeological Artifacts, Wildlife incidents, etc.

ACE 1950276

OPERATIONS DAILY REPORT

SQUAD 9 - SEATRADER/HELICOPTER

FROM: F. AVERY
 TO: VESSEL COMMAND NETWORK
 FAX No: (907) 266-8490

DATE OF WORK:

7-11-90

WORK HOURS: START

0700

TO:

1700

WEATHER CONDITIONS:

Wind Speed (Knts)

Wave Height (Ft)

GENERAL

P.C.

TIDES:

HIGH

Time

HIGH

Time

17:50

LOW

Time

LOW

Time

11:00

GENERAL LOCATION:

ALINCLAKSAFETY
INCIDENTS

For Day

Fatality	<u>0</u>
Lost Time	<u>0</u>
Restricted	<u>0</u>
Medical Treatment	<u>0</u>
Total Recordable	<u>0</u>

(Transmit Details Separately)

SCHEDULED WORK DAY
HOURS (ex Break) =

Vessel

Helo

Working	<u>9.5</u>
Weather Downtime	
Transit Time	
Mechanical Downtime	
Other:	

VESSEL
REPRESENTATIVES NAMES

ADEC B. Winkler
 Exxon F. AVERY
 USCG R. Collett
 N.P.S. R. SPOMER
 USFWS/Other D. Kirkby
 USCG M. Cocklin
 HELICOPTER

REPRESENTATIVES NAMES

ADEC T. Ellsworth
 Exxon F. BYARS
 USCG J. DAVIS
 Other J. BARNHART ADFW
H. OVERTON NPS
D. Wysocki USF-W

MANPOWER AND BILLETING STATUS (# of People)

Berthing Vessel	PAX Beds	Exxon Reqs	OOPS	Agency Reqs	Other CCI	Beach Wks Wkg	Wks Idle	Open Beds
Sea Trader	<u>16</u>	<u>1</u>		<u>5</u>	<u>1</u>	<u>9</u>		<u>0</u>

* COI Passenger Beds (Includes Service Personnel)

	Boat Crews
Berthing Vessels	<u>7</u>
LCV/Production	
Work Boats	<u>5</u>
TOTALS	<u>12</u>

Helicopter # of Workers
<u>6</u>

Helicopter Tail #'s
<u>507-EN</u>
<u>357-EN</u>
Work Areas
<u>K9-17-CC100</u>
<u>K9-17-CC001</u>

VESSEL STATUS (# of Vessels)

Vessel Type	Total Assigned	In Transit	Total Working	Not Used	Mech Down	Weath Down
Berthing	<u>1</u>		<u>1</u>			
LCV/Production						
Work Boat	<u>2</u>		<u>2</u>			
TOTALS	<u>3</u>		<u>3</u>			

VESSELS ASSIGNED:

Vessel Name	Vessel Type	# People Berthed
Sea Trader	Berthing	<u>23</u>
King David		<u>3</u>
Cyclone		<u>2</u>

NEXT SQUAD MOVE: LOCATION

NA

DATE OF MOVE

DATE OF LAST CREW CHANGE

7-2-90

SCHEDULED DATE FOR NEXT CREW CHANGE

7-16-90

PORT FOR CREW CHANGE

Kodiak

PORT FOR CREW CHANGE

Kodiak

VISITORS (Name/Affiliation)

Helo. CREW TO WORK W/ VESSEL CREW @ ALINCLAK, Tomorrow

STATUS OF SUPPLIES/STORAGE CAPACITIES:

NUMBER OILED/DEAD BIRDS FOUND 0 # AliveNUMBER OILED/DEAD MAMMALS FOUND 0 # Alive

OTHER*

* Such as discovery of dead oiled birds/mammals, Archeological Artifacts, Wildlife Incidents, etc.

EXXON FLIGHT PLAN

1. AIRCRAFT TAIL NUMBER: N507EH DATE: July 14, 1990
2. AIRCRAFT COLOR: Red/BL/white TYPE AIRCRAFT: BH 212
3. TOTAL NUMBER OF PEOPLE ON BOARD (INCLUDING CREW): 8
4. DEPARTURE POINT: ADQ ETD: 0900 L
5. ROUTE OF FLIGHT (SHOW ALL WAYPOINTS): Chivial Lagoon,
ALINCHAK ADQ
6. FINAL DESTINATION: ADQ ETA: 1600 L
7. FUEL ON BOARD: 2 HRS + 45 MINUTES
8. ANTICIPATED DELAYS (WAYPOINT/TIME): Chivial Lagoon - 7+00
ALINCHAK - 2+00
9. COMPLETE MANIFEST AND ATTACH OR USE FORM BELOW: ✓ (check complete)
10. DRAW ROUTE WITH DIRECTION ARROWS AND ATTACH: ✓ (check complete)
11. EXECUTE IDEMNIFICATION AGREEMENT IF REQUIRED (reference page F-4) AN ATTACH. REQUIRED? YES NO ✓
12. FAX (266-6471) COMPLETE FLIGHT PLAN AND ATTACHMENTS TO TRANSPORTATION FOLLOWING OR CALL (266-6582). IF DELAYED MORE THAN 30 MIN., AMEND ETD...

NAME	COMPANY	WEIGHT	BAG WT	DESTINATION
BYARS, FRED	EXXON	200	20	ADQ
ELLSWORTH, TERRY	ADEC	200	20	↓
DAVIS, JIM	USCG	200	20	
WYDOSKI, DICK	USFA	200	20	
BARNHART, Jeff	ADEG	200	20	
Overton, HOWARD	NPS	200	20	

PILOTS NAMES:

J. LAIRD

D. WALLACE

TOTALS

1200

120

TOTAL PASS & BAGGAGE

1320

E-6.

ACE 1950278

1. AIRCRAFT TAIL NUMBER: 511EH DATE: 7/11/90
2. AIRCRAFT COLOR: R/W/B TYPE AIRCRAFT: B-212
3. TOTAL NUMBER OF PEOPLE ON BOARD (INCLUDING CREW): 8
4. DEPARTURE POINT: ADQ ETD: 09:00
5. ROUTE OF FLIGHT (SHOW ALL WAYPOINTS): CHINI AK LAGOON, →
CAPE DOUGLAS → KUKAK → CAPE DOUGLAS → CHINI AK → ADQ
6. FINAL DESTINATION: ADQ ETA: 20:00
7. FUEL ON BOARD: 02 HRS + 15 MINUTES
8. ANTICIPATED DELAYS (WAYPOINT/TIME): CHINI AK (30 mins)
CAPE DOUGLAS (3 HRS., SLING LOADS) KUKAK (30 mins)
9. COMPLETE MANIFEST AND ATTACH OR USE FORM BELOW: ☒ (check complete)
10. DRAW ROUTE WITH DIRECTION ARROWS AND ATTACH: ☒ (check complete)
11. EXECUTE IDEMNIFICATION AGREEMENT IF REQUIRED (reference page F-4) AN ATTACH. REQUIRED? YES ☐ NO ☒
12. FAX (266-6471) COMPLETE FLIGHT PLAN AND ATTACHMENTS TO TRANSPORTATIO. FOLLOWING OR CALL (266-6582). IF DELAYED MORE THAN 30 MIN., AMEND ETD...

NAME	COMPANY	WEIGHT	BAG WT	DESTINATION
Bill PARKS	VECO	300	200	ADQ
ROBERT STEPHAN		195		
JOHN ANDERSON		190		
RON AREMAS		210		
Todd SKOGLUND		195		
Hamid HOGABRY	✓	170	↓	↓

PILOTS NAMES:

J. ZANIS

T. RIDLEY

TOTALS

1260

200

TOTAL PASS & BAGGAGE

1460

E-6.

ACE 1950279

SQUAD 9 - HELICOPTER

DATE OF WORK: 7/11/90

WORK HOURS: START _____ **TO:** _____

MANUAL AND MECHANICAL OPERATIONS

[illegible][illegible][illegible]

* The date that the Manual/Mechanical portion of the Work Order has been completed and acknowledged. A separate acknowledgement will be made for the Bioremediation portion of the Work Order.

**** 1 Supersack = 45 CF, report in tenths of sack (i.e. 0.1)**

STATUS CODES

NA Not Applicable/Recommended for this segment division

N Recommended but not started

W Started and Working

Percentage complete (used on large work scopes)

C Work completo

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

STEVE COWPER, GOVERNOR

333 RASPBERRY ROAD
ANCHORAGE, ALASKA 99518-1599
PHONE: (907) 344-0541

EXXON Valdez Oilspill Cleanup

Anadromous Fish Stream Authorization

Date 7/11/90

EXXON Authorized Representative

Fred BYARS

Shoreline Segment K09-17-CC100 Chiniak Lagoon, Alaska
Peninsula

Anadromous Fish Stream Number(s) 262-15-10040

Approved Cleanup Techniques Manual removal of all oil of any
form within the stream channel and bottom substrate and on
the stream banks. Minimize removal of stream bank substrate
and surface components to that required for removing
oiled materials. Manual pickup of oiled debris.

Approved Cleanup Period 7/11/90

Alaska Department of Fish and Game

Jeffrey L. Burnhart
Authorized Officer

Fred E. Byars
Permittee's Signature

ACE 1950281

WORK PLAN MODIFICATION RECOMMENDATION

SEGMENT: K09-17-CC-100 SUBDIVISION: DATE: 7/12/90

MODIFICATION

1. REASON FOR MODIFICATION:

Bioremediation not approved by Land Manager

2. SUGGESTED ADJUSTMENT TO WORK PLAN:

Do not bioremediate

3. TIMING ISSUES:

None

USCG _____

ADEC _____

LAND MANAGER _____ NPS (If field representative is on site)

EXXON: Fred D. Byrnes

ADF&G: Jeffrey P. Barnhart



STATE OF ALASKA
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

CHAIN-OF-CUSTODY LOG

Use one log for each sample. Enclose with shipping container.

The last person whose signature appears on this log certifies he/she has received the sample described below from the person whose signature immediately precedes his/hers, and is according the sample to per custody by maintaining it in his/her physical possession or constant view or by storing in a secure tamper proof storage area. Transfers must be hand-to-hand, by registered mail, or other tamper proof means.

Sample No. 90-SPB-006K Assigned Laboratory No. _____

Sample Description oil mousse

Container Description Pre cleaned glass jar with Teflon lid

Location taken Chinik Lagoon AFS 262-15-10040 K9-17

CC100

Latitude 58° 31' 55" Longitude 153° 56' 51"

Person taking sample JEFF BARNHART Signature Jeff Barnhart

Title Fisheries Biologist T. Agency ADF&G Habitat D.V.

Date collected 7/11/90 Time collected 1230

Witness _____ Signature _____

Witness _____ Signature _____

1. Transferred to K.R. Middleton via hand
For purposes of transfer to Anchorage Storage
Date 9-11-90 Time 1100
Received by K.R. Middleton Signature K.R. Middleton
Disposition _____

2. Transferred to _____ via _____
For purposes of _____
Date _____ Time _____
Received by _____ Signature _____
Disposition _____

3. Transferred to _____ via _____
For purposes of _____
Date _____ Time _____
Received by _____ Signature _____
Disposition _____

4. Transferred to _____ via _____
For purposes of _____
Date _____ Time _____
Received by _____ Signature _____
Disposition _____

5. Transferred to _____ via _____
For purposes of _____
Date _____ Time _____
Received by _____ Signature _____
Disposition _____

6. Transferred to _____ via _____
For purposes of _____
Date _____ Time ACE 1950283
Received by _____ Signature _____
Disposition _____

This section to be completed by the laboratory Analyst:

Analyses completed _____

Summary results _____

Volume of sample remaining _____

Disposition of unused portion _____

Signature _____

Inspector's Seal Intact ☐ Yes ☐ No

Return this form to:
Sample Custodian: Environmental Technician
Department of Environmental Conservation
Douglas Laboratory Facility
750 St. Ann's Ave., Douglas, Alaska 99824
or
Sample Custodian:
Department of Environmental Conservation
510 South Alaska Street
P.O. Box 1088, Palmer, Alaska 99645

FIELD SHORELINE COMMENT SHEET

ASAP

K09-17

SEGMENT AS / CC 100 SUBDIVISION: A SITE: 1 DATE Aug. 3, 1990USCGNAME J. FAZIO

SIGNATURE

J D Fazio Bm'☐ YES☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

ADECNAME F. BENNIS

SIGNATURE

F. Bennis☐ YES☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

LAND MANAGERNAME W. TROYER

SIGNATURE

Will Troyer☐ YES☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

EXXONNAME R. COULTER

SIGNATURE

☐ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

ACE 1950284+/S

ASAP SHORELINE OILING SUMMARY

SAM NO 5 KODIAK EXXON R. COULTER SEGMENT AS CC-100
 CG D. FITZGERALD USGS J. FAZIO SUBDIVISION A
 ADEC F. BENNIS LAND REP W. TROYER TOTAL NO. SITES 1
 DATE AUG 103/90 TIME 7:20 to 18:10 TIDE LEVEL 190 to 175 cm Above MLW
 TOTAL EST LENGTH OF SHORELINE SURVEYED: 1800 m
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WEATHER: ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 OIL CATEGORY LENGTH: W m M m N m VL m NO 1800 m US m

SURFACE OIL

SITE 1

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SU	UI	MI	LI
ASPHALT								
S.O.R.								
POOLED								
COVER								
COAT								
STAIN								
MOUSSE								
PATTIES/T.B.								
FILM								
NO OIL					X	X	X	X
EST. SITE LENGTH					1800			

SITE 2

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SU	UI	MI	LI
ASPHALT								
S.O.R.								
POOLED								
COVER								
COAT								
STAIN								
MOUSSE								
PATTIES/T.B.								
FILM								
NO OIL								
EST. SITE LENGTH								

SITE 3

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SU	UI	MI	LI
ASPHALT								
S.O.R.								
POOLED								
COVER								
COAT								
STAIN								
MOUSSE								
PATTIES/T.B.								
FILM								
NO OIL								
EST. SITE LENGTH								

SUBSURFACE OIL

SITE NO.	PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER				OILED INTERVAL (cm)	CLEAN BELOW (Y/N)	PIT ZONE				SURFACE SUBSURFACE SEDIMENTS
			OP	OR	OF	NO			SU	UI	MI	LI	
							.						
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Photographs:

Roll No. BAT-06-13

Frames #38

#38 Looking North
Along the Shoreline

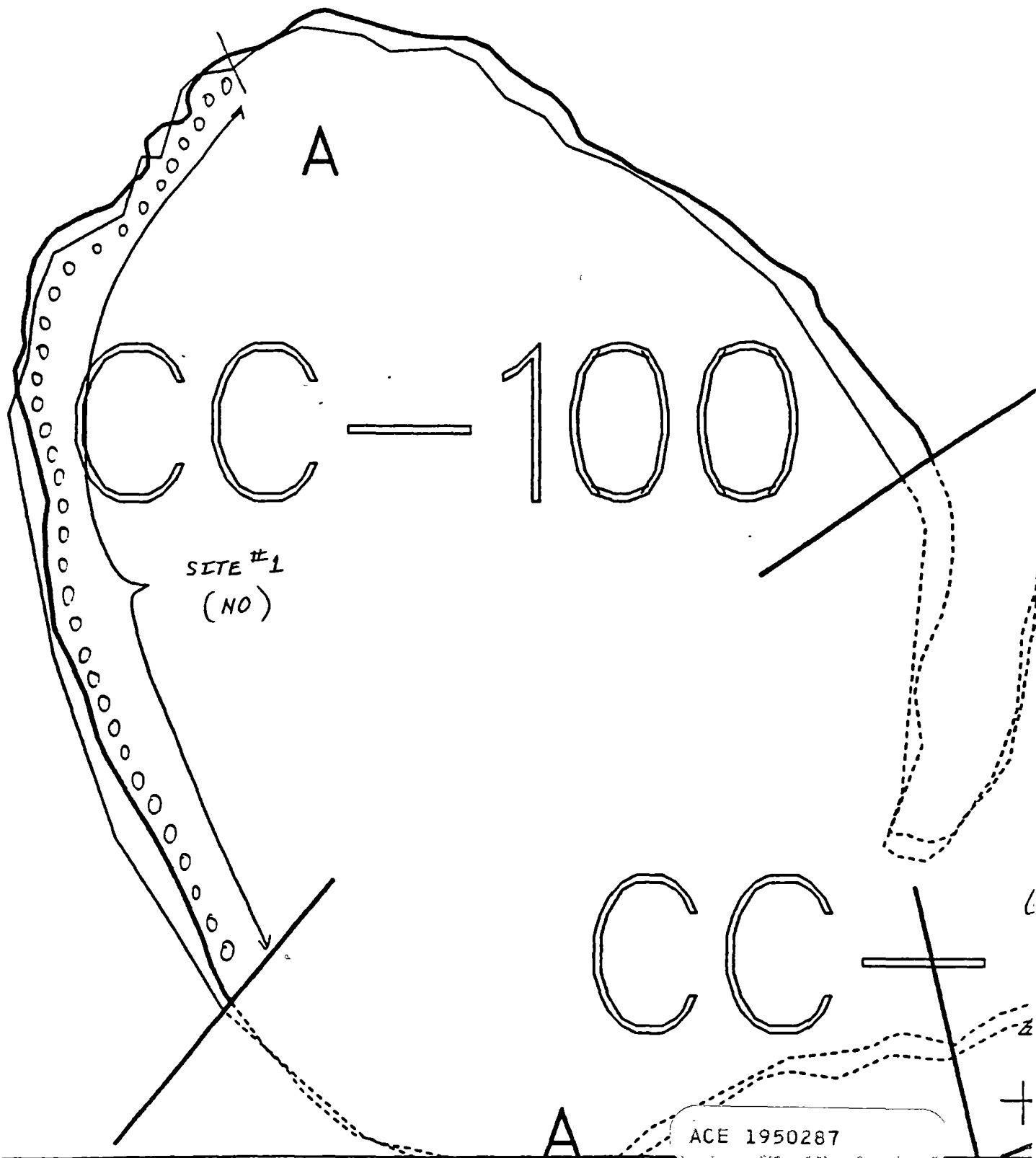
COMMENTS

This is a very protected shoreline inside a moderate-sized tidal flat lagoon. Several tar patties were picked up along this shoreline at MITZ. However, their numbers very very sporadic.

REVISION NO. 7/27/88

ACE 1950285

REVISION RESULTS

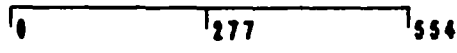


XXXX
 ////

 TTTT
 0000

Wide
 Medium
 Narrow
 Very Light
 No Oil

K9N-17 CC-100 A
 ADEC Subsegment Length: 3885m
 METERS

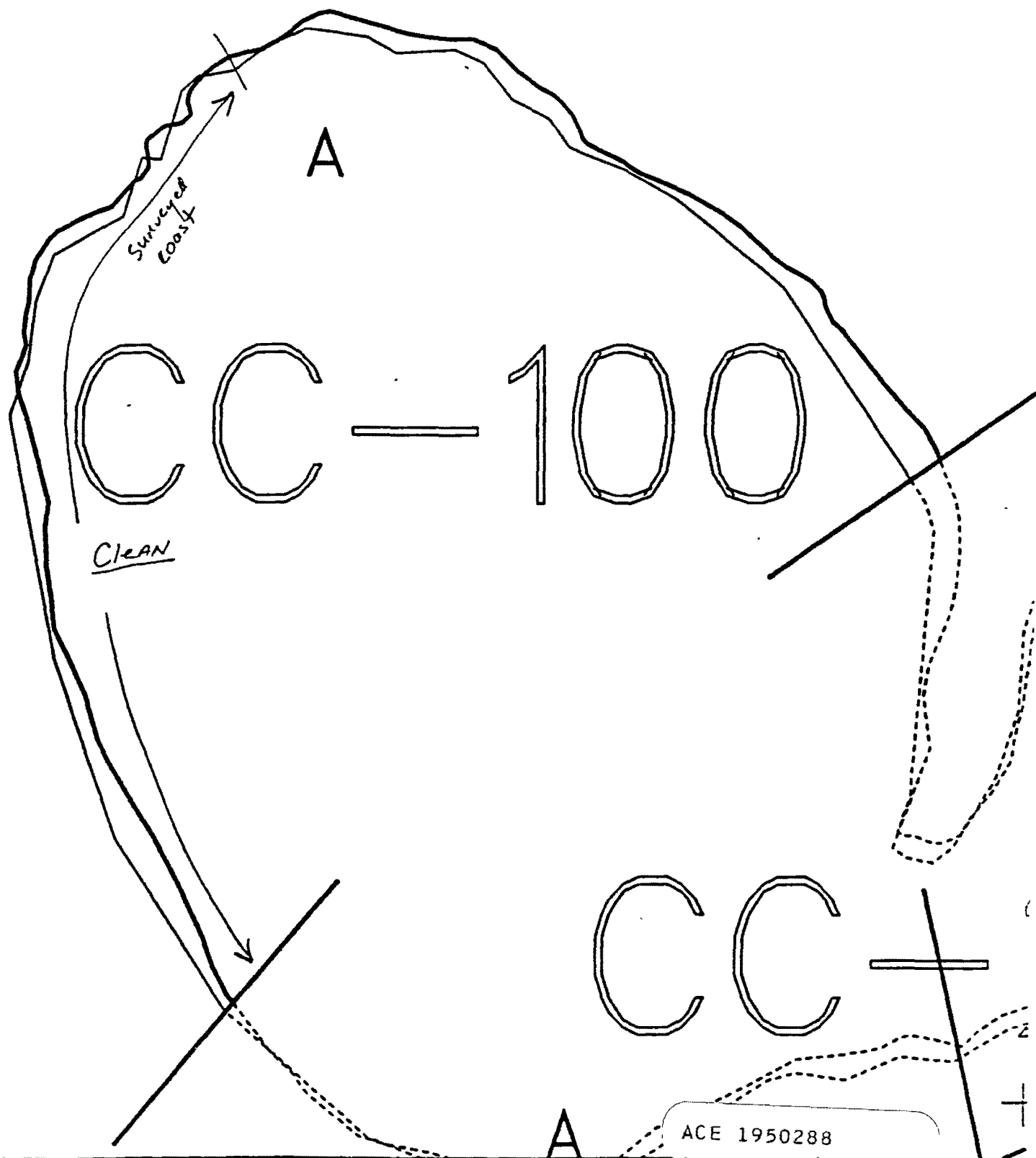


AK State Plane Zone 4 1:10012
 09N-17cc100a



ACE 1950287

Subdivision Field Map
 Map Key: AKPK9N-17CC-100A
 Name: Fitzgerald
 Date: 3 Aug 1990
 Data Entered:



XXXX
 ////

 TTTT
 0000

Wide
 Medium
 Narrow
 Very Light
 No Oil

K9N-17 CC-100 A
 ADEC Subsegment Length: 3885m
 METERS

0 277 554

AK State Plane Zone 4 1:10012
 09N-17CC100a



Subdivision Field Map
 Map Key: AKPK9N-17CC-100A
 Name: Fitzgerald
 Date: 3 Aug 1990
 Data Entered:

K9N-17

STREAM # →
262-15-10040

CC-1

A Few
TAR patches
picked up
at these
locations
WORK
AREAS

CC-100

CC-5

CC-2

K9N-18

ACE 1950289
-13/FF



Exxon Company, USA

ECOLOGY MAP
SEGMENT K9N-17 CC-100
SUBDIVISION A (1 of 1)
METERS

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

Field Copy

Chinook Lagoon

ANADROMOUS FISH STREAM EVALUATION

-N-

SEGMENT ST/K9-17-CC-100 STREAM NO: 262-15-10040 DATE 5/3/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

ADF&G Anadromous stream # 262-15-10040.

Sensitivity code and general time constraints. See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Do not trample or disturb marsh area.

ARCHAEOLOGICAL CONSTRAINTS:

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

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

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS: NO OIL OBSERVED IN AREA OF STREAM. HOWEVER
WORK TO BE COMPLETED IN ADJACENT AREAS TO THE STREAM + LAGOON
SEE SEAT PACKAGES K9-17-CC-180A + 02A FOR RECOMMENDED
WORK - MINIMIZING DISTURBANCE + WORK CREW SIZE.

TAG APPROVAL DATE: 5/23/90.

ADEC Art Wernick Art Wernick
EXXON ANDY EARL
NOAA Bail Wernick Bud Wernick
USCG G.A. Reiter G.A. Reiter

FOSC: [Signature] DATE: 5/31/90

ACE 1950254 ¹/₂

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 488-4791
- 3N, 3P Harbor seal and sea lion pupping (5/10 to 7/1)
 3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (8/1 to 9/15)
 6V Anchorages (8/1 to 9/15)
 6W Forest Service cabins (8/1 to 9/15)
 6X Lodge (8/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (8/1 to 9/30)
 7H Finfish harvesting
 7I Deer harvesting (8/1 to 1/7)
 7J Invertebrate harvesting
 7K Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

ACE 1950255

ANAD SCAT

ADF#G # 262-15-10040

SEGMENT ST / K0917CC100SUBDIVISION: ADATE May 4, 1995

NOAA

1666

NAME STEPHEN LEHMANN SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Oiling was very light except for one section (identified by the DG) where oil appeared at surface. Given the sensitivity of this area and the distance required to remove this section of oil - treatment is not suggested.

ADEC

NAME

Terry Ellsworth

SIGNATURE

[Signature]☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

Oiling in this segment is confined to the SW portion of the segment. The most significant occurrence is a 20m x 1m area of asphalt of patchy distribution. Patches occur sporadically along the SW portion of the segment in areas up to 1m x 2m. Manual removal of the Asphalt and mouse patches is recommended. Due to the extreme sensitivity of this area to human disturbance, only 2-3 persons should work this area. Work should not extend beyond the shore bordered by steep alder slope.

LAND MANAGER

NAME

Carl Sebach

SIGNATURE

[Signature]☐ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Oil remaining in this lagoon/estuary system can be expected to persist for a long time unless removed. However this critical habitat is sensitive to intrusion. The oil/mouse patches should be removed as soon as possible to avoid disturbing summer bear populations. A small crew of no more than five personnel should access the mouse patches on foot and remove by scraping the substrate with shovels. The mud flats adjacent below the oiled area and the salt marshes to the north should not be disturbed.

FIELD SHORELINE COMMENT SHEET

CC001/CC002
 SEGMENT ST/CC100/CC005 SUBDIVISION: ANADSSAT DATE 5-11-90

ADFG NAME EDWARD W. WEISS SIGNATURE Edward W. Weiss

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

THIS EXXON/SSAT ANADSSAT REPORT ONLY REFLECTS THE OILING CONDITIONS WITH IN 100 M EITHER SIDE OF WHERE THE STREAM BED ENTERS THE UPPER LAGOON (CC100). IN THIS SHORT SECTION OF SEGMENT CC100 THERE INDEED WAS NO OIL FOUND, BUT IT DOES NOT REFLECT THE CONDITIONS WITH IN SEGMENTS CC002, 005, 00 NOR THE SOUTH AND WEST PORTIONS OF CC100. THESE SEGMENTS ARE WITHIN THE LAGOON WHICH IS PART OF THE ANADROMOUS STREAM. CONSEQUENTLY ADFG HABITAT PERSONNEL SHOULD BE INVOLVED IN THE TAG GROUP FOR ALL FOUR SEGMENTS (CC001, CC002, CC005, CC100); ADFG PERMITS NEED TO BE OBTAINED TO DO ANY WORK IN THESE FOUR SEGMENTS.

THE FIELD SKETCHES SHOWING THE IMPACTS IN THESE OTHER SEGMENTS ARE INCLUDED IN THIS ANADSSAT REPORT. THESE AND THE SSAT REPORTS FOR THESE SECTIONS SHOULD BE CONSULTED WHEN CLEANING UP THIS ANADROMOUS STREAM.

MANUAL TYPE A CLEANUP SHOULD BE CONDUCTED IN FOLLOWING SEGMENT AREAS;

ACE 1950257

THE SOUTH & WEST PORTION OF CC100 ALONG THE STEEP ALDER COVERED BANK TO THE POINT WHERE IT FALLS AWAY FROM THE LAGOON AND THE MARSH GRASS STARTS. CLEANUP SHOULD NOT TAKE PLACE IN THE MARSH GRASS SECTION OF CC100 (NO OIL FOUND DURING SSAT AND SENSITIVE MARSH AREA). AP, PT, MS/P WITH BARTS LOCALLY /B, IN THE SOUTH & WEST PART OF CC100

Segment ST / K917-CC100

Subdivision

A

Date (mo / day / yr) 5/3/90

Time (24 hr) 1600-1730

Biologist

SHARMAN

(A) Substrate type and % of segments: SUBDIV.(1) Bedrock (2) Boulder (3) Cobble (4) Pebble (5) Sand (6) Mud 100(B) Overall % cover of biota (% of segment): Dense Moderate Low XSUBDIV.

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

Photographs:

Roll No. -

Frames -

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS (ALGELLA, LITTORINA, LIMPAETS)

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments: See above. The stream mouth finally opens out into a sand/mud grassy tidal flat. No particularly unusual biological observations. The surrounding Chinich Lagoon proper was surveyed in much detail (See Shoreline Ecological Summaries for CC-3, CC-2, CC-100, and CC-1).

Ecological Considerations:

ADF&G Catalog # 262-15-10040 anadromous stream ("Chinich Lagoon stream"). No additional local (within 100m) ecological sensitivities other than the usual concern for sensitive & productive estuarine tidal areas. It may be useful to ^{general} refer to this section of the regular SSAT survey of CC-100.

ADFG MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS CS DS TS AVS SCH MMS PTA2 REGION: PWS KP,CI KAPMETHOD: Aerial Ground Boat3 DATE: 5/3/9015 HIGH TIDE TIMES: 121 TEAM RECORDER: E. WEISS
K. SCHOCK,4 START TIME: 133516 HIGH TIDE HTS: 1

22 OBSERVERS: _____

5 STOP TIME: 180017 LOW TIDE TIMES: 170923 AGENCY: ADFG/NAS/WWC/ASE6 CC/00 CC001
7 SEGMENT #: CC00218 LOW TIDE HTS: 1.6924 PHOTOS TAKEN: Y X

8 STATION #: _____

19 TIDE HT AT SURVEY: _____

Roll #: _____ Frame: _____

9 K-UNIT: K0917

Ebb Slack Flood Slack

25 VIDEO TAKEN: Y X TAPES: _____

10 STAT AREA: _____

20 USCG QUAD: AFROGNAK C-6

Start: _____ End: _____

12 SOURCE: Map Loran

11 LONG: _____

26 SAMPLES TAKEN Y X Number _____13 LOCATION: CHINIAR LAGOON, CAPE CHINIAR, AK PBOIAW.

011 _____

14 DESCRIPTION: _____ Sediment _____

Biological _____

Water _____

EXTENT OF OIL

L	SHORELINE				L	STREAM			
	V	N	S	E		V	N	S	E
27 SURFACE COVERAGE	100%	10%		5%				26%	10%

35 CATALOGED ANAD. FISH STREAM Y N37 CATALOG # 262-15-1004038 STREAM NAME: CHINIAR LAGOON

28 SURFACE THICKNESS	2 cm			1 cm		
29 PENETRATION	— SURFACE —					

39 OIL IN STREAM BED? Y X40 OIL ON STREAM BANKS? X N30 OVERALL OIL IMPACT: N VL 1 N N41 OIL ON BEACH ADJACENT TO MOUTH? X N
(within 50 meters)31 OIL TYPE: Pooled House Ter Asphalt Sticky Stain42 OIL WITHIN 1 MILE OF STREAM? Y N32 OILED DEBRIS? Y N

Where: _____

33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cove
Lagoon Marsh43 ANADROMOUS FISH PRESENT? Y N34 WAVE EXPOSURE: High Moderate Low

44 ANADROMOUS FISH OBSERVATION

Species Aerial Ground

35 SUBSTRATE TYPE: Sedrock 10 Boulder Cobble 10
Gravel 20 Sand Red/silt 60

ACE 1950261

COMMENTS: SCATTERED TAR BALLS PATCHES SOME ASPHALT/SOFT ON
SOUTH BANK. SOUTHWEST AND WEST BANK HAS TAR BALLS
PATCHES ASPHALT THAT IS PATCHY AND LOCALLY BROKEN.
BT CV/S IN SUPRA COBBLE TIDE ZONE.

* RECOMMENDS: MANUAL TYPE A CLEANUP WITH MONITOR. (NAS
ADFG) MONITOR SHOULD BE FAMILIAR WITH SITE AND OIL
LOCATION AS IT IS SOMETIMES HARD TO SPOT. (OVER)

OG G. Heyman

SEGMENT ST/ K0917 CC002

SUBDIVISION A

DATE 5/3/90

SKETCH MAP

CHECKLIST

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

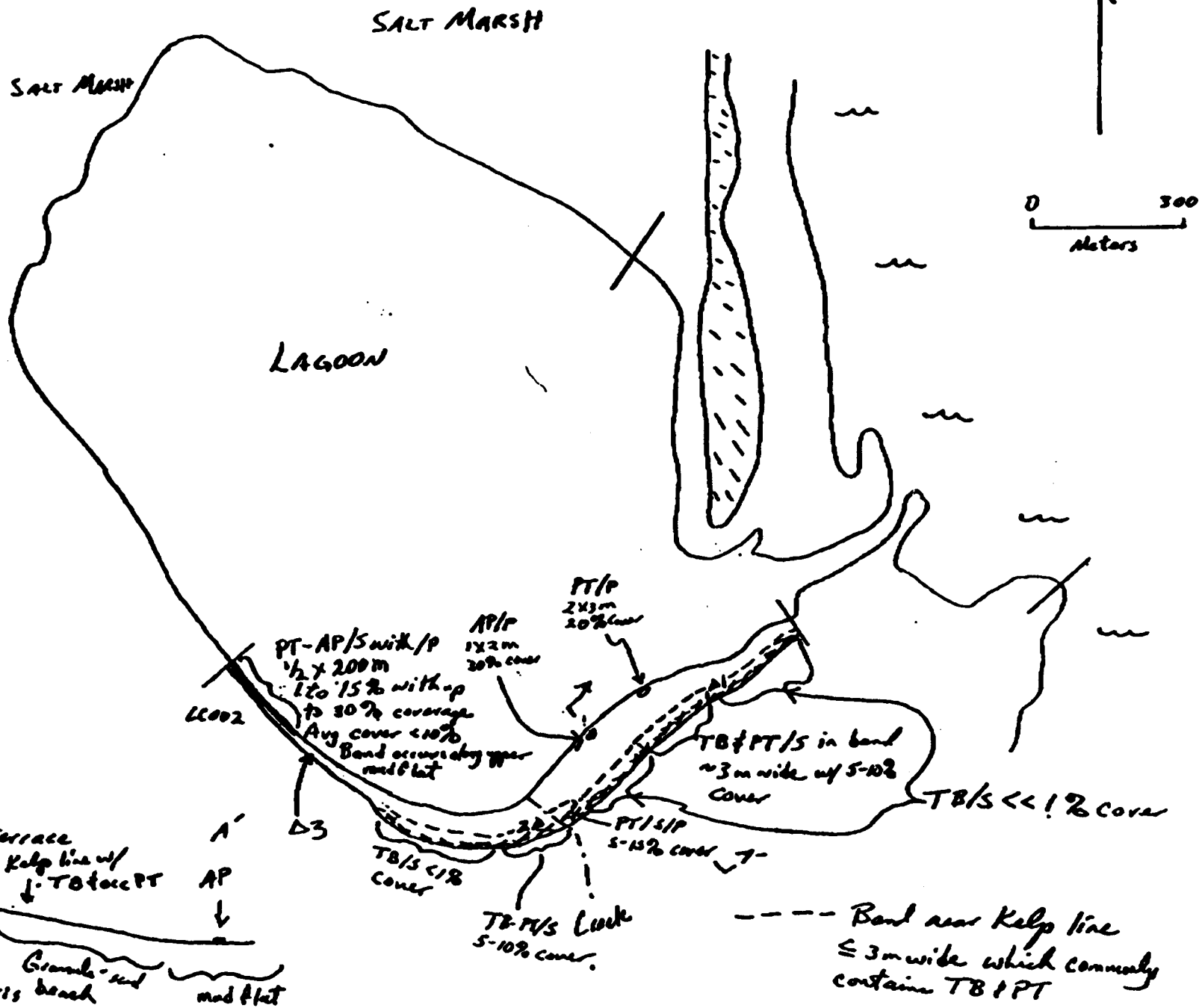
Splashed Distribution

Oiled Vegetation

Photo location, direction, and number

ACE 1950262

Oil Character Length (m): AP 10 PO — CV — CT — ST — MS — PT 450 TB 450 FL — NO 215



REVISION 000000

SKETCH MAP

USCGC Healy

SEGMENT STICK 09-178001

SUBDIVISION A

DATE 5/3/90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Body
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HML/LWL
- ☐ SSL
- ☐ 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

Splashed Distribution

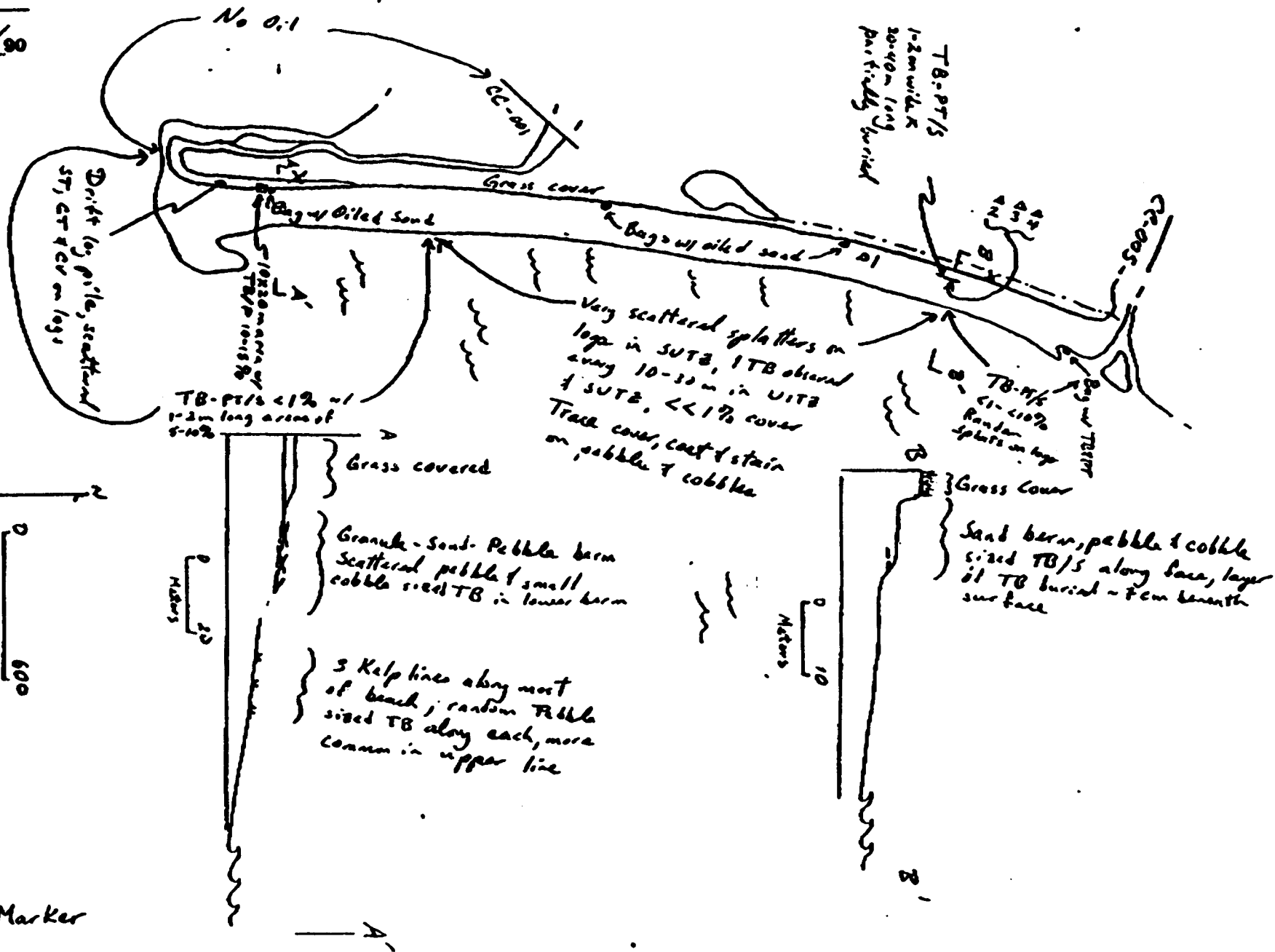
eee

Oiled Vegetation

1 $\Rightarrow$

Photo location, direction, and number

X Regulatory Marker



ACE 1950263

Oil Character Length (m): AP — PO — CV 3 CT 3 ST 4 MS — PT 6.20 FS 2.30 FL — NO 1771

REVISION: 003/00

OG G. Heyman

SEGMENT ST/ K 0117 CC 005

SUBDIVISION A

DATE 5/3/90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ On Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. H/W/L/V/L
- ☐ SSI
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pt Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

Pt - No Subsurface Oil

2 Δ

Pt - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

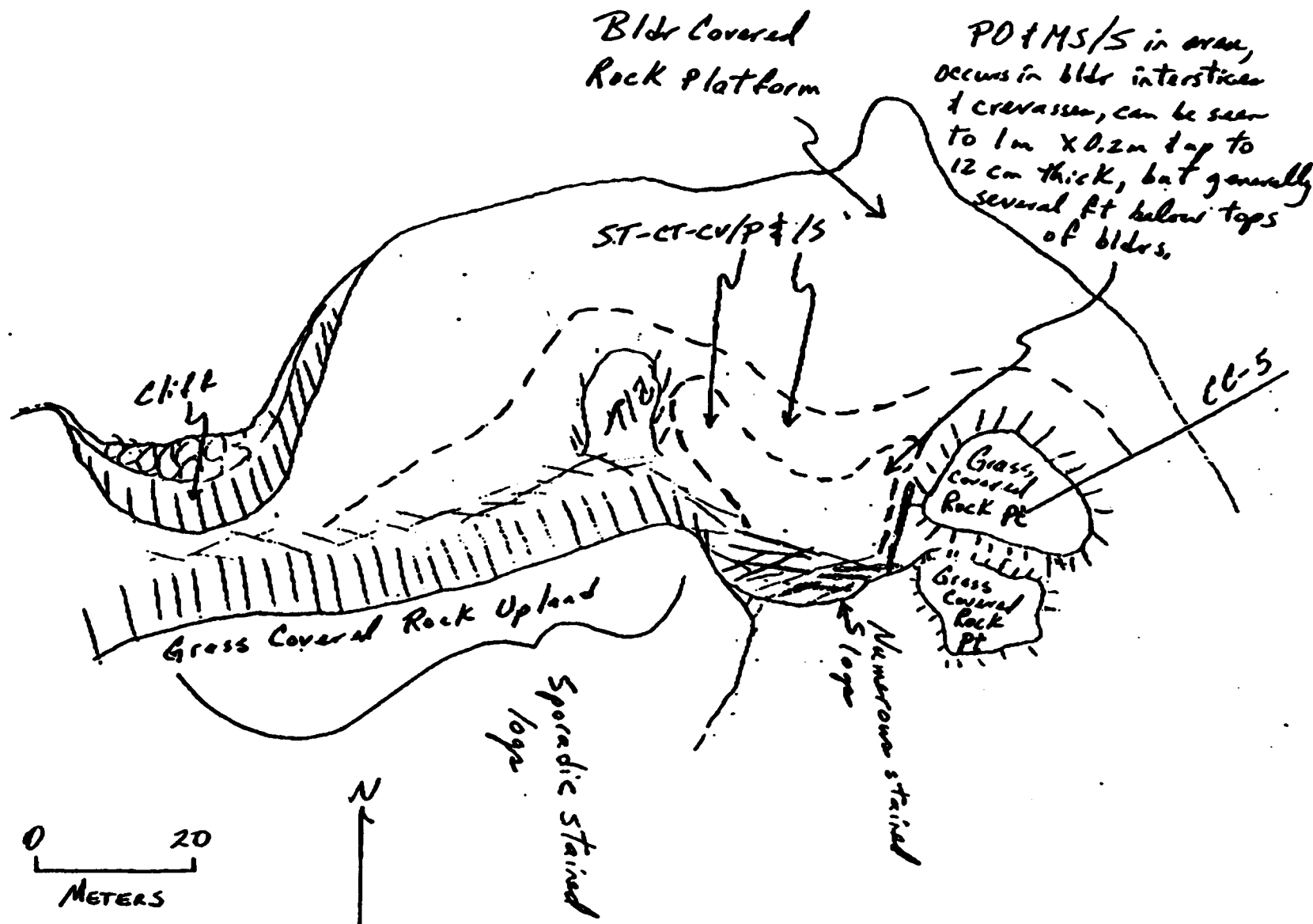
Splashed Distribution

Other Vegetation

1 →

Photo location, direction, and number

SKETCH MAP SM-1A



ACE 1950264

Cor SM-1

REVISION 02/24/90

OG G. Heyman

SEGMENT ST/ K0117 CC 005

SUBDIVISION A

DATE 5/3/90

CHECKLIST

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

LEGEND

1 Δ
 Pt - No Subsurface Oil

2 Δ
 Pt - Subsurface Oil

$\square$ CT/C
 Continuous Distribution

$\square$ CT/B
 Broken Distribution

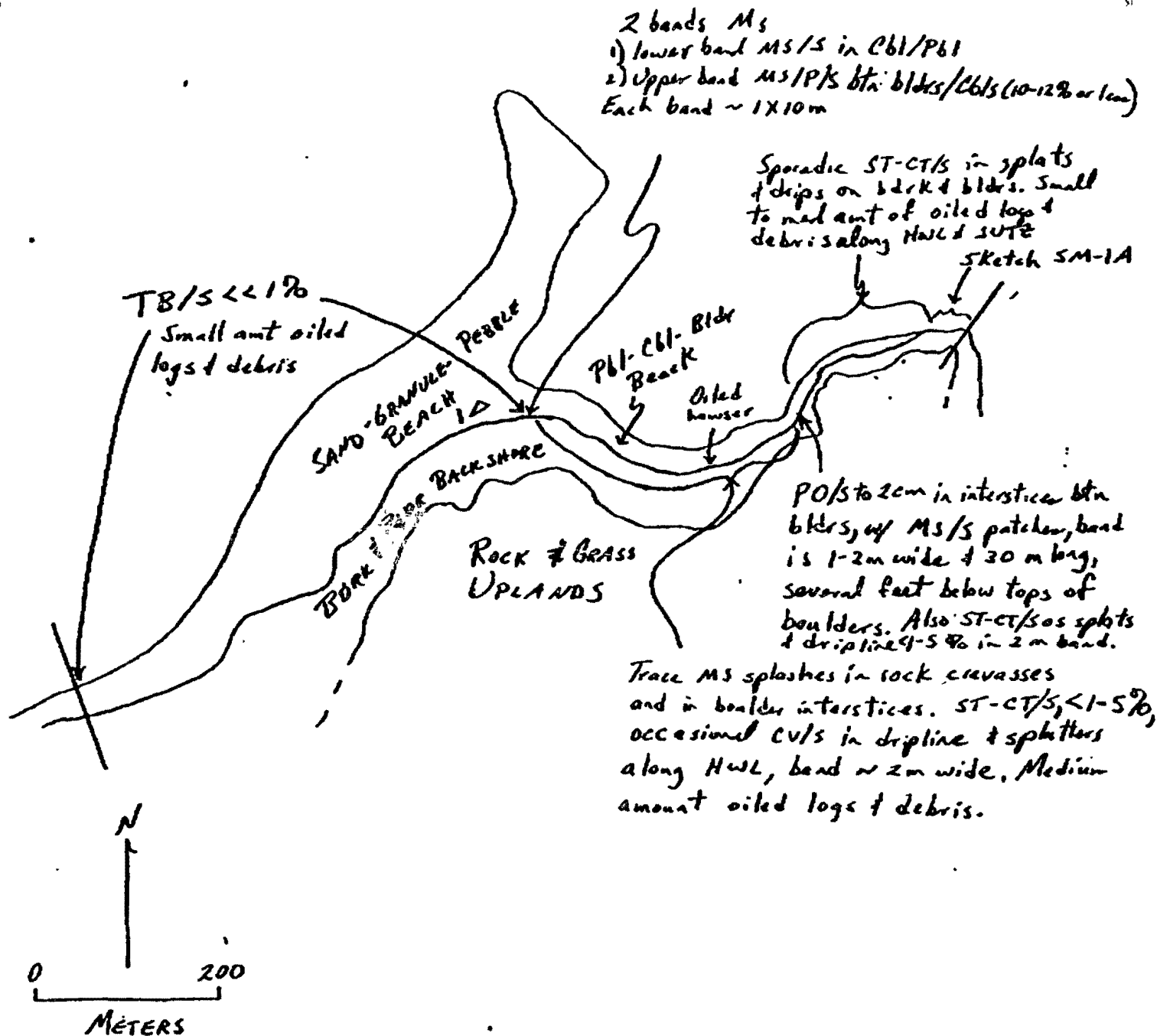
$\square$ CT/P
 Patchy Distribution

$\square$ CT/S
 Splashed Distribution

$\square$ Oiled Vegetation

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

SKETCH MAP-1



ACE 1950265

Oil Character Length (m): AP — PO 10 CV 62 CT 250 ST 200 MS 52 PT — TB 500 FL — NO 0

REVISION: 02/24/90

ACE 1950266 -/CS

SEGMENT INSPECTION RECORD

ORIGINAL
7/29/89

ADEC # K5-6

Shoreline Segment:

Shoreline Treatment Process(es) Completed for this Segment

☐ Hot water wash	☐ Mechanical
☐ Warm water wash	☒ Non-mechanical
☐ Water deluge	☐ Other

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments

Signature Jack A Rickner Date 29 JUL 89 Time 1140

Printed Name Jack Rickner

Existing Shoreline Condition As
Visually Determined by USCG
Surface Oil

Percent	Degree of Oiling
☐	Heavy
☐	Medium
☐	Light
☐	Very Light

100%

Subsurface Oil

☐ Yes ☒ No

Comment Below

☐ Reassessment
☐ Yes - Necessary

☒ No - Not necessary unless re-oiled

ADEC Rep

Comments

Signature _____ Date _____ Time _____

Printed Name _____

FOSC Rep Type A Shoreline Demobilization approved / disapproved

Comments No evidence of subsurface oiling. No evidence of surface oil remaining on beaches. Bags of oiled vegetation located roadside. No future visits necessary.

Signature P.J. Cormier Date 30 July 89 Time 1945

Printed Name P.J. Cormier LT USCG

Copy: Exxon ADEC FOSC ISCC Return All Signed Originals to Exxon

ACE 1853323

HIFISHF

Shoreline Segment Tracking Form

Zone

KODIAK

Unit-SubUnit-Segment ID

K5-6 SP905

Date

8/18/89

Shoreline / Segment Name

MIDDLE RAY

Predominant Sediment
(circle one)Boulder
(>256 mm)Cobble
(64-256 mm)Pebble
(4-64 mm)Gravel
(2-4 mm)Sand
(0.06-2 mm)Mud
(<0.06 mm)

Rock

Vertical Cliff

Impact Classification
(circle one) **

Heavy

Moderate

Light

Very Light

None observed

Oiling On Debris
(circle one)

Heavy

Moderate

Light

None

Seg. Length (yds)

15,840

Oiled Width (yds)

1~2

% of Seg.

Area* Oiled

67

Penetration (in.)

>1

* Seg. Area=Seg. Length x Oiled Width

Treatment / Notes

Beach Treatment /
Gross Contamination Removal

Start Date

Completed Date

Form Filled Out By
(circle one)

SCAT

ADEC

ADF&G

NPS

USFWS

USCG

NOAA

Other

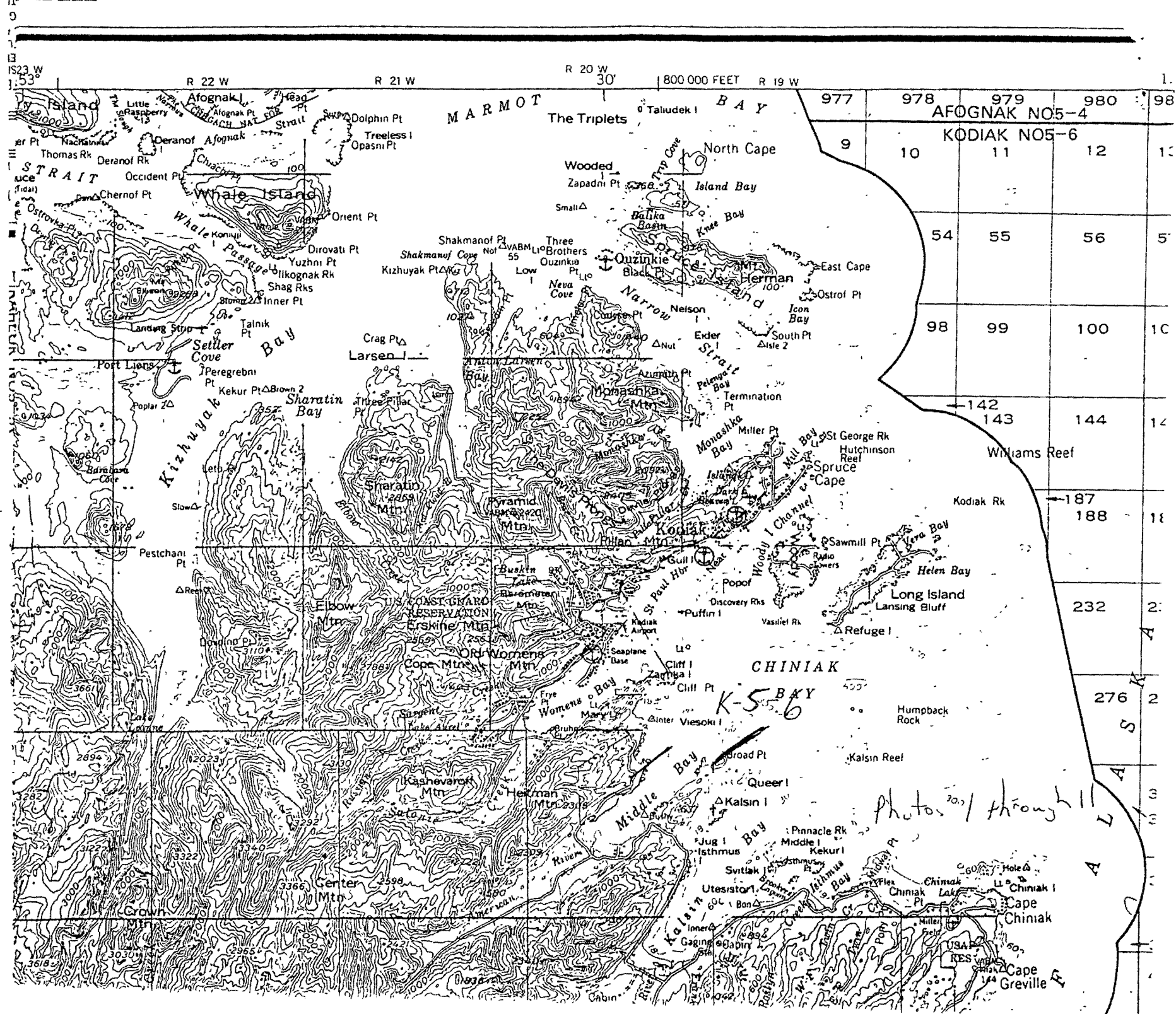
** Heavy - >50% discontinuous coverage or
>6m continuous band.Moderate - 10 to 50% discontinuous coverage
or 3 to 6 m continuous band.Light - 1 to 10% discontinuous coverage
or 1 to 3m continuous band.Very Light - <1% discontinuous coverage
or <1m continuous band.

Observer:

PJ Cormier

This form must be completed for any beach segment that is being treated, other than SCAT segments, and must be submitted with a map attached which shows the segment boundaries.

11
9
13
1523 W
1:53



ACE 1853325-15