

190 WORK / CLEANUP
REPORTS INSPECTION

ACE 1951009

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: 262-20-10040
SURVEY TYPE: PA
METHOD:
DATE: 04/15/90
START TIME: 1515
STOP TIME: 1550

TEAM RECORDER: JEFF P. BARNHART
OBSERVERS: J. PEVEE

AGENCY(IES): ANFG, EXXON

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

TAKEN FROM SKETCH & PREVIOUSLY MEASURED DISTANCES

	LENGTH	WIDTH	M2	%	THICK	FEN	OIL TYPE
SITE 1	1300 M						MS, ST
SITE 2							
SITE 3							
SITE 4							
SITE 5							

OVERALL OIL IMPACT:

OIL IN STREAM CHANNEL?

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SUBSTRATE

Bedrock Granule
Boulder Sand 90
Cobble Silt 10
Pebble Veget.

SPECIES					
COUNT					

COMMENTS: RECOMMENDS ANADSSAT ASSESSMENT. LARGE LAGOON AREA AREA THAT WAS SURVEYED HAD STAINING, OILED FEATHERS, & SCATTERED MOUSSE.

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS DS TS AVS SCHA MMHS PTA2 REGION: PWS KP, CI KIAPMETHOD: Aerial Ground Boat3 DATE: 04/15/9015 HIGH TIDE TIMES: 121 TEAM RECORDER: JEFF BARNHART4 START TIME: 151516 HIGH TIDE HTS: 122 OBSERVERS: John Pever5 STOP TIME: 155017 LOW TIDE TIMES: 1216 123 AGENCY: ADF&G / Exxon6 SEGMENT #: HB00118 LOW TIDE HTS: 1.4 124 PHOTOS TAKEN: Y (N)7 STATION #: 262-20-10040

19 TIDE HT AT SURVEY: _____

Roll #: _____ Frame: _____

8 K-UNIT: K09-19Ebb Slack Flood Slack25 VIDEO TAKEN: Y (N) TAPE#: _____9 STAT AREA: 262-2020 USCG QUAD: MT. Katmai B-1

Start: _____ End: _____

10 LAT: 58°24'11"N11 LONG: 154°3'19"26 SAMPLES TAKEN? Y (N) Number12 SOURCE: Map Loran Anadromous stream catalog

Oil _____

13 LOCATION: Hallo creek Hallo Bay Alaska Peninsula

Sediment _____

14 DESCRIPTION: S 20S 29W 34

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) N37 CATALOG #: 262-20-1004038 STREAM NAME: Hallo creek39 OIL IN STREAM BED? Y (N)40 OIL ON STREAM BANKS? (Y) 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 Lagoon Low-lying Rocks Marsh Beach Cove

43 ANADROMOUS FISH PRESENT? Y N

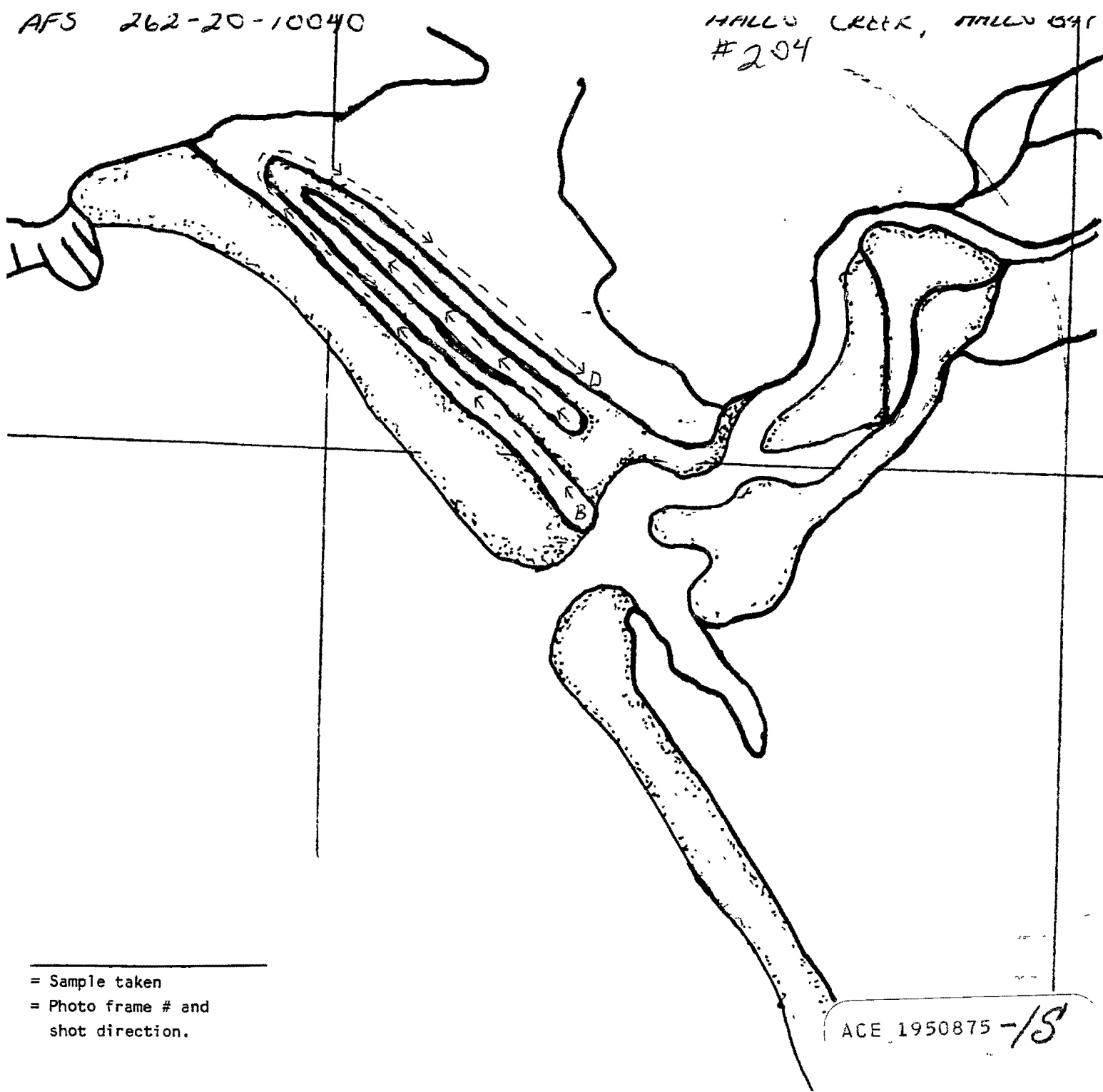
34 WAVE EXPOSURE: High Moderate Low44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground35 SUBSTRATE TYPE: Bedrock _____ Boulder _____ Cobble _____
Gravel _____ Sand 90 Mud/silt 10

Species	Aerial	Ground

COMMENTS: See oil distribution diagram on reverse side. Walked most of Area between B and D plus center spit. No subsurface observations made. Observed oil staining on logs, oiled feathers and widely scattered pieces of mousse. This is a large lagoon area. Needs a complete assessment.

Recommendation: Recommend Anadssut Jeff Barnhart ACE 1950874 →

FRAME(S)	DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM

ASC NUMBER:	SEGMENT NUMBER: H8001	YR CATALOGED:
LOCATION:		
STREAM NAME:		LATITUDE:
KODIAK K-UNIT:	LOCAL STREAM #:	LONGITUDE:
USGS QUADRANGLE:		LEGAL:
SHORELINE TYPE:		WAVE EXPOSURE: M

ASC NUMBER: 262-20-10040
 SURVEY TYPE: SA
 METHOD: F
 DATE: 4/30/90
 START TIME: 13:20
 STOP TIME: 16:30

TEAM RECORDER: GLENN HEYMAN
 OBSERVERS: J. NAUGHTON, C. SHUCH, F. BEYERS

AGENCY(IES): EXXON, NPS, AAEC, NOAA

PHOTOS TAKEN? Y
 Roll #: ST-6/19-7 Frames: 20-21
 VIDEO TAKEN? N Tape Number: _____
 Counter Start: _____

SAMPLES TAKEN? N

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

OILING DATA

	LENGTH	WIDTH	M2	%	THICK	FEN	OIL TYPE
SITE 1	9	12	108	35	2-5 cm		MS, PO
SITE 2	30	2	60				MS
SITE 3	5	3	15				MS
SITE 4							
SITE 5							

OVERALL OIL IMPACT:

OIL IN STREAM CHANNEL? Y

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SUBSTRATE			
Bedrock	1	Granule	33
Boulder	3	Sand	20
Cobble	3	Silt	20
Pebble	20	Veget.	0

SPECIES	COMMON MEERBASS	BARRAMUNDI GOLDENYE	BROWN BEAR	RIVER OTTER	FOX
COUNT	6	1	SIGN	SIGN	SIGN

COMMENTS: SURVEY WAS CONDUCTED BY 1990 SSAT SURVEY TEAM
 RESULTS WERE THEN SIGNED BY ADF&G REPRESENTATIVE AND
 THE SAME REPORT WAS SENT IN AS A ANADSSAT.
 CONSEQUENTLY NO MULTIASSESSMENT FORM WAS COMPLETED INFO
 WAS TAKEN FROM SSAT/ANADSSAT OG DRAWINGS.

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 Middleton
Habitat Anch.

DATE: 5/7/90

No. Pages: 13
(including this page)

FROM: J. BARNHART
Habitat Kodiak.

MESSAGE: Hallo creek, Hallo Bay
Stream # 262-20-10040
segment HBOO1 A

Ken,

This is The second stream surveyed by The
SSAT Team. We were not present on The survey.

NOTE: Our ADF&G form was filled out by The
SSAT Team.

ACE 1950877-13/+/S

SEGMENT ST / 10919-H000 SUBDIVISION: A DATE _____**USCG**

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED~~ADFG~~ ADFGNAME EDWARD W. WEISS SIGNATURE Edward W. Weiss☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

MANUAL REMOVAL OF TARBALLS/PATTIES ON S & SE SIDES
OF LAGOON RECOMMENDED. AND OILED DEBRIS
ALSO IN AREAS INDICATED ON NORTH SIDE.

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

SEGMENT ST / K0919-HB001 SUBDIVISION: A DATE 4-30-90NOAA
USCGNAME John Naughton SIGNATURE John J. Naughton☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

This segment along the southerly portion of Hallo Bay, including the delta of Hallo Creek, should receive treatment in specific areas. Splashes of stain and weed were found in the large debris lines on either side of the river, especially to the south. Unusual areas of concentrated mussels were found back on matted grass bank (Areas A, B, C on sketch map) well behind shoreline. Recommend manual removal of this broken and patchy mousse. Oiled debris is very light and need not be treated except for removal of heavily oiled rope, line and fishing net.

ADEC

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

COMMENTS

This segment is located primarily along Hallo Creek delta. Staining, coat and cover occurs very sporadically (<1%) over much of the area. On the SW side of the lagoon (see map) tarballs and patties are present in a 2x20m area. Three areas of broken or patchy mousse occur on the S side of the segment on the grass bank above the creek channel. Manual treatment is recommended for the areas containing mousse, patties, and tarballs as well as removal of the more heavily oiled small wood debris and oiled rope, net, etc.

LAND MANAGER

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

COMMENTS

The upper intertidal perimeter of the south-branch Lagoon in the Hallo Cr. estuary contains oiled debris, nets, rope, etc. that should be removed. The 20x2m area of mousse patties should also be treated. Sites A, B, and C indicated on the sketch map should be treated by shoveling the oiled grass and sand down to about 3 inches. Only the grass mat under the oil patches should be removed, not the entire dimensional area indicated.

REVISION NO. 03/21/90

ACE 1950879

SHORELINE OILING SUMMARY

REVISION NO. 04.13.90

OG GLENN HEYMAN NOAA JOHN NAUGHTON SEGMENT ST/ K 0919-HB001
 BIO JIM BARRY LAND REP CARL SCHUCH NPS SUBDIVISION A (1 OF 1)
 EXXON FRED BYARS ADEC TERRY ELLSWORTH TIME 13:20 to 16:30
 TEAM NO. 19 TIDE LEVEL -0.5 to +4.5 DATE 4 / 30 / 90
 EST. SUBDIVISION LENGTH: _____ m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 1 % B 3 % C 3 % P 20 % G 33 % S 20 % M 20 % V 0 %
 SLOPE: Lang 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W _____ m M _____ m N _____ m VL _____ m NO _____ m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	/C	/B	/P	/S	SBL BR	DBL RW	GY SL	DLR TL	LBR	SU	UI	M	LI	
ASPHALT PAVEMENT				X										
POOLED				X				X		X				
COVER				X		X					X			
COAT				X		X								
STAIN				X		X								
MOUSSE		X	X		X	X		X		X	X			
PATTIES				X		X					X			
TARBALLS				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			DID YOU COLLECT DEBRIS?
	SM	MD	LG	
Logs		X		YES ☐ NO ☒
Vegetation				
Trash	X			TYPE <u>0</u>
Debris				#BAGS <u>0</u>

Photographs:

Roll No. ST-6/19-7Frames 20-22

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	DLR TL	LBR	SU	U	M	LI						
1	15					X	0-0		X							X				N	-	-	G/GS	
2	15					X	0-0		X							X				N	-	-	G/GS	
3	10					X	0-0		X							X				N	-	-	VS/SM	
							.																	
							.																	
							.																	

COMMENTS

Oiling in areas A, B, & C (shown on sketch map) is listed as MS/B & P. This is grading in areas to AP, but is included on the surface oil matrix as MS only.

REVIEWED _____ DATE _____

ACE 1950880

OPERATIONS FIELD NOTES

See Back for Instructions

STK0919

SEGMENT ID HB001
SUBDIVISION LETTER A
ANNOTATED MAP INCLUDED Y/N

DATE 4/30/90
NAME Fred BYARS
TEAM # 19

	Quantities in Meters			Treatment Recommendation						
	Length	Width	Area	None	Y/N	% Treat	Y/N	% Treat	Y/N	% Treat
SURFACE OIL										
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)?

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

	Type of Debris			In Meters			# of Bags	Pickup Y/N	Manday Estimate
	Mousse	Oiled	Cleanup	Length	Width				
MANUAL PICKUP									
Pocket #1	mousse			9	12	5		Y	1
Pocket #2	mousse			30	2	10		Y	1
Pocket #3	mousse			5	3	2		Y	1
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 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:

Are Boom/Pom Poms Recommended?

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

COMMENTS: mousse is along stream up on grass covered bar

SEGMENT K9-19-HB-1 SUBDIVISION A
BIOLOGIST - JIM BARRY

APRIL 30, 1990

Time 1320-1640

Tidal Window -0.5 => +4.5

I. GENERAL COMMENTS

- A. **Exposure** - This segment includes a moderately exposed sandy beach and a lagoon/stream mouth with low exposure..

B. Habitats

1. Sand Beach

The mouth of Hallo Creek enters into Hallo Bay in this segment. This sandy beach has a clam bed with razor clams (*Siliqua patula*) and probably other species such as *Macoma balthica*, *M. nasuta*, and *Tresus capax*. No algae were found on the sand flat. This beach is listed as a site for invertebrate harvesting (clams).

2. Lagoon/Stream Mouth

Tidal flow apparently extends for a considerable distance (ca. 1000 m) into the mouth of Hallo Creek and includes a small lagoon. Other than a small number of amphipods swimming under and around logs and other debris, no invertebrates or macroalgae were found in this habitat. Filamentous and mat-forming algae and other microbes (diatoms, bacteria) exist as a thin coat on sediments and debris in still waters. Beach rye grass (*Leymus mollis*) and perhaps other species of grasses (*Puccinellia* spp.?) are abundant at high tidal levels and above along the stream banks.

C. Oil-Related Comments

1. **Oil or Cleanup Related Mortality**
None evident.

2. Ecological Sensitivities to oil or cleanup.

Oil cover on this segment was very light. Patches of oil coat or mousse were rare and localized, and debris spattered with oil was sparse along the drift line. This very small amount of oil constitutes a minimal biological risk for the biota of the area.

Ecological sensitivities listed are:

- a. Anadromous streams (see map)
Stream code 10040 Chum Salmon and Pink Salmon spawn in Hallo Creek.
- b. Invertebrate Harvesting. Clam beds located along the sand beach are used for clam digging.
- c. Land Mammals. Brown Bears, Red Fox, Moose, and River Otter were indicated by tracks, scat, or both at this site.

II. WILDLIFE OBSERVATIONS

Brown Bear - tracks
Red Fox - tracks
Moose - tracks
River Otter - tracks
Glaucous-winged gulls - 3
Common Merganser - 6
Barrow's Goldeneye - 1

III. SPECIES LIST

Legend for densities and distribution

D	Dense	A	High Tidal Zone
M	Moderate	B	Middle Tidal Zone
S	Sparse	C	Low Tidal Zone
R	Rare	U	Subtidal Zone
1	Bedrock	J	Juveniles Present
2	Boulder	E	Eggs Present
3	Cobble	X	Probably Present
4	Pebble		
5	Sand/mud		

A. MARINE PLANTS

1. DIATOMS/BLUE GREEN ALGAE M5BC
2. GREEN ALGAE - CHLOROPHYTA
 - Unknown filamentous green algae S5BC
3. HIGHER PLANTS
 - Leymus mollis - Beach Rye Grass M5A
 - Puccinellia spp.? - Alkali Grass M5A

B. MARINE ANIMALS

1. CRUSTACEANS
 - AMPHIPODS
 - ?Orchestia spp. RS5BC
2. MOLLUSCA
 - MUSSELS AND CLAMS
 - Clinocardium nuttalli X
 - Macoma balthica X
 - Siliqua patula X
 - Tresus capax X
3. FISH
 - Salmon Smolts - Rare in stream

2/5

2

BEAR TRAIL

NB 002

34

35

RAZOR CLAM BED

K9-19-HB1A
4/30/90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / K9-19 - HB-1 Subdivision A Date (mo / day / yr) 4/30/90

Time (24 hr) 1320-1640 Biologist JIM BARRY

1/5

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

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

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

Photographs: ST-6/19-7
Roll No.

Frames 20-22

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

COMMON MERGANSER - 6 MOOSE TRACKS/SLAT
BARROW'S GOLDENRETS - 1 RIVER OTTER TRACKS
FOX TRACKS - ABUNDANT
BEAR TRACKS/SLAT

Ecological Considerations:

1) ANADROMOUS STREAM LOCATION CHUM SALMON (SPAWNING)
PINK SALMON (SPAWNING)

2) OIL CLEANUP WILL BE MINOR & WILL LIKELY NOT IMPACT SENSITIVITIES

ACE 1950886

OG G. Heyman

SEGMENT STIK 0919-HB001

SUBDIVISION A

DATE 4/30/90

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

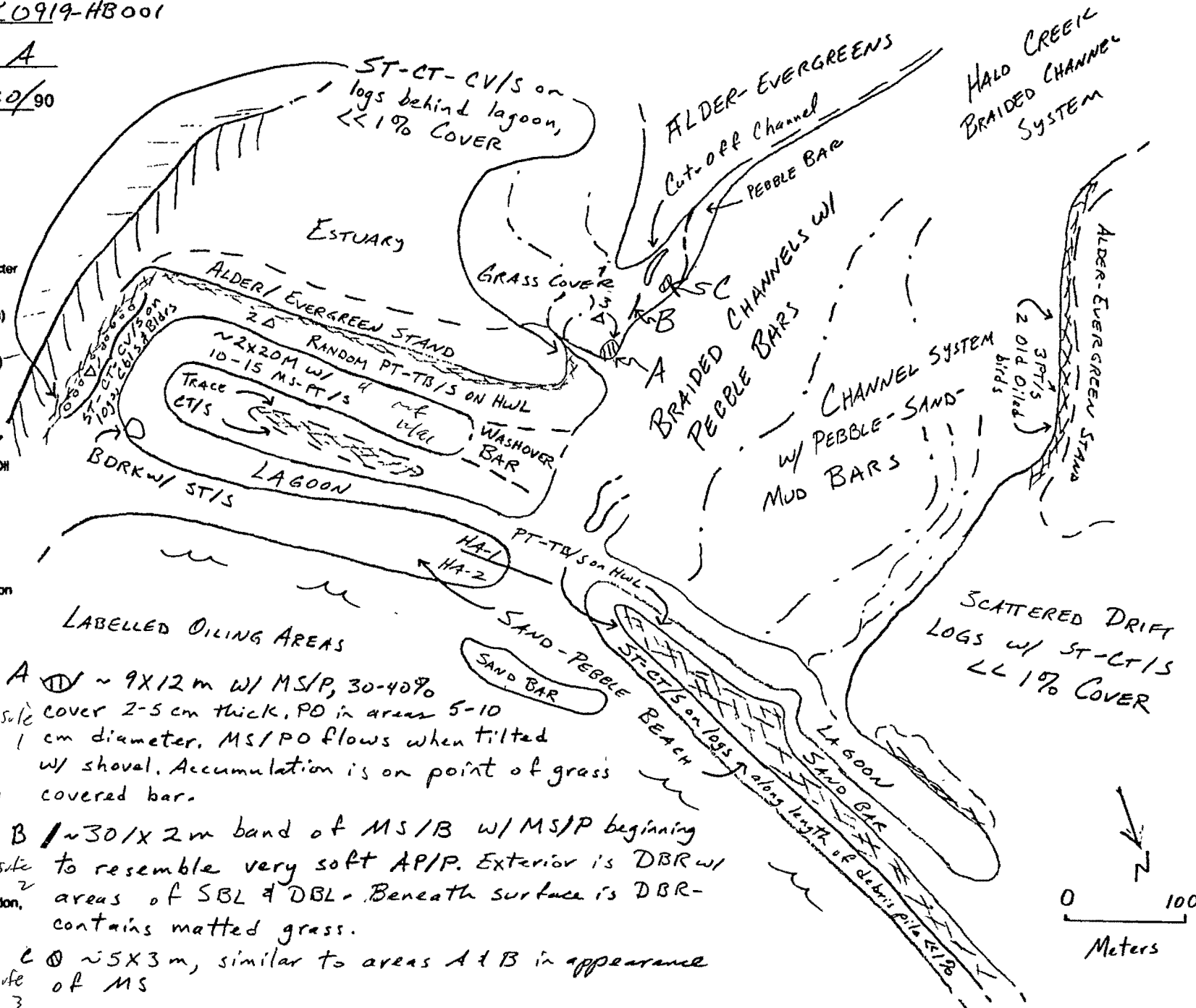
Splashed Distribution

Oil Vegetation

1 $\rightarrow$

Photo location, direction, and number

SKETCH MAP



LABELLED OILING AREAS

A $\odot$ ~ 9X12m w/ MS/P, 30-40% cover 2-5 cm thick, PO in areas 5-10 cm diameter. MS/PO flows when tilted w/ shovel. Accumulation is on point of grass covered bar.

B $\nearrow$ ~ 30/X 2m band of MS/B w/ MS/P beginning to resemble very soft AP/P. Exterior is DBR w/ areas of SBL & DBL. Beneath surface is DBR - contains matted grass.

C $\odot$ ~ 5X3m, similar to areas A & B in appearance of MS

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

ACE 1950887.

REVISION: 03/24/90

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS DS TS AVS SCHA MMS PTA SSAT2 REGION: PWS KP,CI K,APMETHOD: Aerial Ground Boat3 DATE: 4/30/9016 HIGH TIDE TIMES: 0637 , 20:0421 TEAM RECORDER: JIM BARRY4 START TIME: 132018 HIGH TIDE HTS: 12.8 , 11.322 OBSERVERS: SSAT TEAM #195 STOP TIME: 164017 LOW TIDE TIMES: 0:48 , 13:33

23 AGENCY: _____

6 SEGMENT #: K9-19-HB-1A18 LOW TIDE HTS: 2.9 1. -0.524 PHOTOS TAKEN: (Y) N

7 STATION #: _____

19 TIDE HT AT SURVEY: -0.5 → +4.6Roll #: ST-6-7 Frame: 20-278 K-UNIT: K9-19Ebb Slack Flood Slack

25 VIDEO TAKEN: Y N TAPE#: _____

9 STAT AREA: _____

20 USCG QUAD: _____

Start: _____ End: _____

10 LAT: 154° 35' W11 LONG: 58° 24' N26 SAMPLES TAKEN? Y (N) Number12 SOURCE: Map Loran

Oil _____ 0

13 LOCATION: HALLO BAY

Sediment _____ 0

14 DESCRIPTION: STREAM MOUTH / LAAGOON for HALLO CREEK

Biological _____ 0

Water _____ 0

EXTENT OF OIL

27 SURFACE COVERAGE

SHORELINE				STREAM			
L	W	M ²	%	L	W	M ²	%
				0	0	0	0

36 CATALOGED ANAD. FISH STREAM? (Y) N262-20-37 CATALOG #: -10040

28 SURFACE THICKNESS

				0	0	0	0
--	--	--	--	---	---	---	---

38 STREAM NAME: HALLO CREEK

29 PENETRATION

				0	0	0	0
--	--	--	--	---	---	---	---

39 OIL IN STREAM BED? Y (N)30 OVERALL OIL IMPACT: N (VL) L M H40 OIL ON STREAM BANKS? (Y) N

31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain

41 OIL ON BEACH ADJACENT TO MOUTH? (Y) N
(within 50 meters)42 OIL WITHIN 1 MILE OF STREAM? (Y) N32 OILED DEBRIS? (Y) N

Where: _____

33 SHORELINE TYPE: Headland Lagoon Low-lying Rocks Marsh Beach Cove43 ANADROMOUS FISH PRESENT? Y (N)34 WAVE EXPOSURE: High Moderate Low44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground

35 SUBSTRATE TYPE: Bedrock _____ Boulder _____ Cobble _____

Gravel _____ Sand _____ Mud/silt _____

COMMENTS: _____

ACE 1950888

THESE PHOTOS ARE CATALOGED
IN THE SJAT FILES UNDER ROLL # ST-6-7

45 PHOTOLOG

FRAME(S)	DESCRIPTION
20	MOUSSE PATCHES ON STREAM BANK MARCH
21	30 x 2m PATCH OF PATCHES/MOUSSE

46 OIL DISTRIBUTION DIAGRAM

ATTACHED

= Sample taken
= Photo frame # and

ACE 1950889
-15/FF

'90 Cleanup

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

SEGMENT NUMBER: *H8001* LOCAL STREAM #: LATITUDE: LONGITUDE: LEGAL: WAVE EXPOSURE: *Low*

YR CATALOGED:

ASC NUMBER: *262-20-10040*
 SURVEY TYPE: *CL*
 METHOD: *Foot*
 DATE: *6/12/90*
 START TIME: *1000*
 STOP TIME: *1200*

TEAM RECORDER: *JEFFREY P. BARNHART*
 OBSERVERS: *Floyd Avery, Don Haven, Fran Bennis, Terry Ellsworth, Ray Weber, Don McBee, Ken Middleton*
 AGENCY (IES): *ADFG, 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>9m</i>	<i>12m</i>	<i>108</i>	<i>60</i>	<i>9cm</i>	<i>9cm</i>	<i>MS</i>
SITE 2	<i>30m</i>	<i>2m</i>	<i>60</i>	<i>60</i>	<i>9cm</i>	<i>9cm</i>	<i>MS</i>
SITE 3	<i>5m</i>	<i>3m</i>	<i>15</i>	<i>60</i>	<i>9cm</i>	<i>9cm</i>	<i>MS, PO</i>
SITE 4	<i>100m</i>	<i>4m</i>	<i>400</i>	<i>3</i>	<i>1cm</i>	<i>surface</i>	<i>TB</i>
SITE 5							

OVERALL OIL IMPACT: *M*

OIL IN STREAM CHANNEL? *Y*

SUBSTRATE

Bedrock Granule
 Boulder Sand *20*
 Cobble *10* Silt
 Pebble *30* Veget. *40*

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

SPECIES					
COUNT					

COMMENTS: *Site #3, Ken Middleton discovered an area within this site of approx size .5m x .5m of liquid, fluid, pooled oil. This type of oil characteristic was atypical for the Kodiak zone during 1990.*

This segment was treated by the squad of the m/v Sea Trader. Ken Middleton and I were transported to the site via helo. we monitored the cleanup for approximately two hours. A final inspection did not occur after the cleanup due to time and space conflicts. I verbally requested space on the ASAT helo from Rex Coulter my request was denied.

8,630 pounds of oil/oiled sediment removed (estimated)

8/22/90

Checked with Loritta Bidsong, Exxon
Kodiak. Exxon operations Reports for #B001
NOT available in Kodiak Exxon office, according
TO Loritta Bidsong.

J/B 8/22/90.

ACE 1951010^{+15/FF}

PTIVES

Avery

Haven

Jennis / Terry Ellsworth

Waber / Don McBee

ne

ANAD. FISH STREAM PERMIT ISSUED: 6/12/90 IVU... F Barnhart / Ken Middleton

DATE(S) WORKED: 6/12/90 and 6/14/90

OTHER:

SQUAD # : 9 Sea Trader

HOURS WORKED: 11 est.

SQUAD SIZE: 8

TOTAL MAN HOURS worked: 88

NUMBER OF BAGS collected: Est. 285

WORK ORDER ISSUED 5-31-90

POUNDS OF OIL/OILED SEDIMENT REMOVED: Est. 8,630

TREATMENT TECHNIQUES: MANUAL REMOVAL X BIOREMEDIATION

OTHER

OIL BANDS

DEMOB DATE: 06/14/90

D 9cm L 9m W 12m m² 108 % oil cover 60

OIL SAMPLE(S) #: NONE

D 9cm L 30m W 2m m² 60 % oil cover 60

OIL TYPE: Mousse, TB

D 9cm L 5m W 3m m² 15 % oil cover 60

SUBSTRATE TYPE: C 10% P 30%

D 1cm L 100m W 4m m² 400 % oil cover 3

G 33% Sand 20%

L W m² % oil cover

PHOTOLOG

Roll #

FRAME #

DESCRIPTION

ST-6-7

20

Mousse patches on stream bank marsh

ST-6-7

21

30x2m patch of patties/mousse

These photos are cataloged in the SSAT Files. Taken by WWC OG

90TSE03

18

Site after treatment (A on OG map)

90TSE03

14

Document Treatment

90TSE03

15

Document Treatment

ACE 1951011

ADEC
photographs

EVOS CLEANUP MONITORING, 1990.

REGION: Alaska Peninsula REPRESENTATIVES
 K-UNIT: K9-19 Exxon: Floyd Avery
 SEGMENT: HB-001 USCG: Dow Haven
 LOCATION: Hallo Bay DEC: Fran Bennis / Terry Ellsworth
 STREAM NAME: Hallo creek NPS: Ray Waber / Dan McBea
 ANAD. STREAM CAT. #: 262-20-10040 USFWS: NONE
 ANAD. FISH STREAM PERMIT ISSUED: 6/12/90 ADFG: Jeff Barnhart / Ken Middleton
 DATE(S) WORKED: 6/12/90 and 6/14/90 OTHER:
 SQUAD #: 9 Sea Trader HOURS WORKED: 11 est.
 SQUAD SIZE: 8 TOTAL MAN HOURS WORKED: 88
 NUMBER OF BAGS COLLECTED: Est. 285 WORK ORDER ISSUED 5-31-90
 POUNDS OF OIL/OILED SEDIMENT REMOVED: Est. 8,630
 TREATMENT TECHNIQUES: MANUAL REMOVAL X BIOREMEDIATION
 OTHER _____ OIL BANDS
 DEMOB DATE: 06/14/90 D 9cm L 9m W 12m m² 108 % oil cover 60
 OIL SAMPLE(S) #: NONE D 9cm L 30m W 2m m² 60 % oil cover 60
 OIL TYPE: Mousse, TB D 9cm L 5m W 3m m² 15 % oil cover 60
 SUBSTRATE TYPE: C 10% P 30% D 1cm L 100m W 4m m² 400 % oil cover 3
G 33% Sand 20% L _____ W _____ m² _____ % oil cover _____

PHOTOLOG

Roll #	FRAME #	DESCRIPTION
ST-6-7	20	Mousse patches on stream bank marsh
ST-6-7	21	30x2m patch of patches/mousse
These photos are cataloged in the SSAT files. Taken by WWC OG		
90TSE03	18	Site after treatment (A on OG map)
90TSE03	14	Document Treatment
90TSE03	15	Document Treatment

ADEC
photographs

ACE 1951011
-1545

PROBLEMS: ^Q This segment was treated by the ^{squad of the} M/V Sea Trader. Ken Middleton and I were transported to the site via helo. We monitored the cleanup for approximately two hours, before having to return to Kodiak.

^Q A final inspection did not occur after the cleanup due to time and space conflicts. I verbally requested space on the ASAP helo from Rex Coulter. My request was ^{denied}.

^Q ADEC and NPS records were used to construct an estimate of the hours worked and amount of oil removed.

^Q This stream system was surveyed during April 1990 by ~~SSAT~~ without the presence of ADFG Habitat Division personnel. The ADFG multi-assessment form was completed by Jim Barry a member of the SSAT.

OBSERVATIONS: The oil in areas indicated as A, B and C in the SSAT report was soft, brown, sticky unweathered mousse, deposited in the grass on the stream bank to a depth of nine centimeters. The grass and ^{oil} saturated sediments was removed. Ken Middleton discovered an area approx .5m + .5m of liquid, fluid oil which at first glance had the appearance of water on top of oil. This type of oil characteristic was atypical for the Kodiak zone during 1990.

The oiled area in the S.W. portion of the lagoon indicated as Random PT-TB/S and 2x20 m on the SSAT report had increased in size to 100m + 4m. Terry Ellsworth of ADEC was a member of the SSAT team that conducted the survey. She indicated perhaps the oil is subsurface, slowly moving to the surface and being exposed. The entire segment should be surveyed during 1991 with special emphasis placed on locating and determining the extent of the subsurface oiling.

SIGNED: *Jff Barnhart*

*Extra copy used for cleanup monitoring trip 6/12/90 KRM**
ANADROMOUS FISH STREAM EVALUATION

* extra notes
on map from this trip

SEGMENT ST/K09-19-HB-001 STREAM NO: 262-20-10040 DATE 4/30/90

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)
9LM Land mammals
7JJ Subsistence area: Invertebrate harvesting
ADF&G Anadromous Stream #262-20-10040 or 10035 (near border in HB-004)
See attached Ecological Constraint sheet for specific constraints and contracts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Avoid disturbance or damage to clam bed in sand beach near Hallo Creek.

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3276 (Anchorage) or 229-1508 (24 hrs.)).

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

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommend manual pick up of pooled oil, mousse, tarballs and patties. Consult ADF&G for appropriate work dates.

- POSSIBLE TIME WINDOW 7/15 - 7/31

TAG COMMENTS:

TAG APPROVAL DATE: 5/23/90

ADEC Alex Weener Alex Weener

EXXON Andy Gtz Andy Gtz

NOAA Burt Wesscott Burt Wesscott

USCG G.A. Reiter G.A. Reiter

FOSC: [Signature]

DATE: 5/31/90

ACE 1951032 +/S

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 1C Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Kotol Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
 East side Kodiak, East side Afognak (7/4 to 10/1)
- 1K Purse seine hook-off
 1L Set net sites
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unrolled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- 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 (5/1 to 9/30)
 7-H Finfish harvesting
 7I 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 1951033

SEGMENT ST / 10919-HB001 ^{STREAM} SUBDIVISION: 262-20 10090 DATE _____

USCG

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

~~ADFG~~ ADFG

NAME EDWARD W. WEISS SIGNATURE Edward W. Weiss

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

MANUAL REMOVAL OF TARBALLS/PATTIES ON S & SE SIDES
OF LAGOON RECOMMENDED. AND OILED DEBRIS
ALSO IN AREAS INDICATED ON NORTH SIDE.

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

OG GLENN HEYMAN NOAA JOHN NAUGHTON SEGMENT ST/ K 0919-HB 001
 BIO JIM BARR LAND REP CARL SCHUCH NPS SUBDIVISION A (1 OF 1)
 EXXON FRED BYARS ADEC TERRY ELLSWORTH TIME 13:20 16:30
 TEAM NO. 19 TIDE LEVEL -0.5 to +4.5 DATE 4/30/90
 EST. SUBDIVISION LENGTH: _____ m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 1 % B 3 % C 3 % P 20 % G 33 % S 20 % M 20 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W _____ m M _____ m N _____ m VL _____ m NO _____ m

SURFACE OIL

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

PAVEMENT H F S 0 sq. m by 0 cm

PATTIES / TARBALLS 3 BAGS

NEAR 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 0

#BAGS 0

Photographs:

Roll No. ST-6/19-7

Frames 20-22

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR								PIT ZONE	A N A	SHEEN (Y/N)	↓	SURFACE-SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	1	2	3	4	5	6	7	8					
1	15					X	0-0		X									X	N	-	-	G/GS
2	15					X	0-0		X									X	N	-	-	G/GS
3	10					X	0-0		X									X	N	-	-	VS/SM
							.															
							.															
							.															

COMMENTS

Oiling in areas A, B, & C (shown on sketch map) is listed as MS/P & P. This is grading in areas to AP, but is included on the surface oil matrix as MS only.

ACE 1951035

REVIEWED fw DATE 5-10

SEGMENT ST/K 0919-H8001

SUBDIVISION **A** 262-20-1004D

DATE 4 130/90

CHECKLIST

- ___ N Arrow
- ___ Approx. Scale
- ___ Seg/Sub Body
- ___ Off Dist.
- ___ Width
- ___ Length
- ___ % Cover
- ___ Substrate Character
- ___ Est. HW/LA/WL
- ___ SSL
- ___ Profile Location(s)
- ___ Profile(s)
- ___ Pit Location(s)
- ___ Photo Location(s)

LEGEND

Fig. 10. Subsurface On

2 **▲**
PH - Subsurface On

CT/C
Continuous Distribution

CT/B
Broken Distribution

CT/P

Patchy Distribution

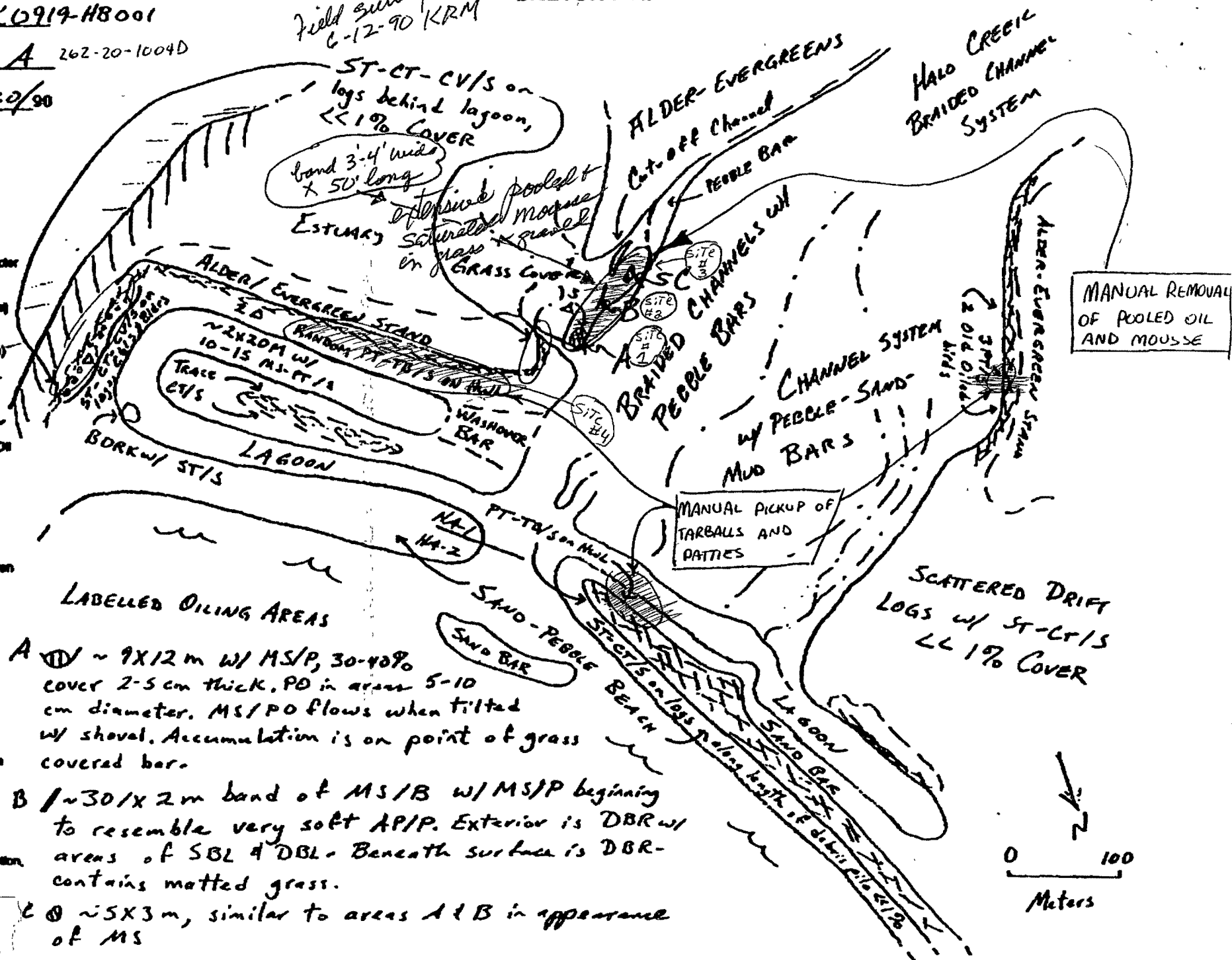
SECRET
CT/S
Selected Distribution

Old Vegetation

Photo location, direction,
and number

SKETCH MAP

Field Survey
6-12-90 KRM



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

000000-000000

ADPFC MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: AS SS DS TS AVE SCHA HRRS PTA STAT

2 REGION: PWS KP, CI

K, APMETHOD: Aerial Ground Boat3 DATE: 4/30/9016 HIGH TIDE TIMES: 0637 , 20:0421 TEAM RECORDER: Jim Barry4 START TIMES: 132018 HIGH TIDE HTS: 12.8 , 11.322 OBSERVERS: STAT TEAM #195 STOP TIMES: 164017 LOW TIDE TIMES: 0:48 , 13:38

23 AGENCY: _____

6 SEGMENT #: K9-19-HB-1A18 LOW TIDE HTS: 2.9 , -0.524 PHOTOS TAKEN: (Y) N

7 STATION #: _____

19 TIDE HT AT SURVEY: -0.5 → +4.6Roll # 5T-6-7 Frames 20-278 K-UNIT: K9-19Ebb Stack Flood Stack

25 VIDEO TAKEN: Y N TAPES: _____

9 STAT AREA: _____

26 USGS QUAD: _____

Starts: _____ Ends: _____

10 LAT: 154° 35' W11 LONG: 58° 24' N28 SAMPLES TAKEN Y (N) Number12 SOURCE: Map Loran

Oil _____

13 LOCATION: HALLO BAY

Sediment _____

14 DESCRIPTION: STREAM MOUTH / LABOUR for HALLO CREEK

Biological _____

Water _____

EXTENT OF OIL

27 SURFACE COVERAGE

SHORELINE				STREAM			
L	V	H	S	L	V	H	S
				0	0	0	0

36 CATALOGUED ANAD. FISH STREAM? (Y)37 CATALOG # 1004038 STREAM NAME: HALLO CREEK

28 SURFACE THICKNESS

				0	0	0	0
--	--	--	--	---	---	---	---

39 OIL IN STREAM BED? Y (N)

29 PENETRATION

				0	0	0	0
--	--	--	--	---	---	---	---

40 OIL ON STREAM BANKS? (Y) N30 OVERALL OIL IMPACT: N (Y) L N N41 OIL ON BEACH ADJACENT TO MOUTH? (Y)
(within 50 meters)

31 OIL TYPE: Pooling Housse Tar Asphalt Sticky Stain

42 OIL WITHIN 1 MILE OF STREAM? (Y)32 OILED DEBRIS? (Y) N

Where: _____

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

43 ANADROMOUS FISH PRESENT? Y

34 WAVE EXPOSURE: High Moderate Low44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground

35 SUBSTRATE TYPE: Bedrock _____ Boulder _____ Cobble _____

Gravel _____ Sand _____ Mud/silt _____

COMMENTS: _____

ACE 1951037

THESE PHOTOS ARE CATALOGED
IN THE SIAT FILES UNDER ROLL # ST-6-7

4B PHOTOLOG

FRAME(S)	DESCRIPTION
20	MOUSSE PATCHES ON STREAM BANK MARCH
21	30 x 2m PATCH OF PATCHES/MOUSSE

4B OIL DISTRIBUTION DIAGRAM

ATTACHED

SHORELINE ECOLOGICAL SUMMARY

Segment ST / K9-19-HB-1 Subdivision A Date (mo / day / yr) 4/30/90

Time (24 hr) 1320-1640 Biologist JIM BARRY

1/5

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

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

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

Photographs: ST-6/19-2
Roll No.

Frames 20-22

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

COMMON MERGANSER - 6

BARROW'S GOLDFINCH - 1

FOX TRACKS - ABUNDANT

BEAR TRACKS/SCAT

MOOSE TRACKS/SCAT

RIVER OTTER TRACKS

Ecological Considerations:

1) ANADROMOUS STREAM LOCATION

CHUM SALMON (SPAWNING)
PINK SALMON (SPAWNING)

2) OIL CLEANUP WILL BE MINOR & WILL LIKELY NOT IMPACT SENSITIVITIES

SEGMENT K9-19-HB-1 SUBDIVISION A
BIOLOGIST - JIM BARRY

APRIL 30, 1990

Time 1320-1640

Tidal Window -0.5 => +4.5

I. GENERAL COMMENTS

A. Exposure - This segment includes a moderately exposed sandy beach and a lagoon/stream mouth with low exposure..

B. Habitats

1. Sand Beach

The mouth of Hallo Creek enters into Hallo Bay in this segment. This sandy beach has a clam bed with razor clams (*Siliqua patula*) and probably other species such as *Macoma balthica*, *M. nasuta*, and *Tresus capax*. No algae were found on the sand flat. This beach is listed as a site for invertebrate harvesting (clams).

2. Lagoon/Stream Mouth

Tidal flow apparently extends for a considerable distance (ca. 1000 m) into the mouth of Hallo Creek and includes a small lagoon. Other than a small number of amphipods swimming under and around logs and other debris, no invertebrates or macroalgae were found in this habitat. Filamentous and mat-forming algae and other microbes (diatoms, bacteria) exist as a thin coat on sediments and debris in still waters. Beach rye grass (*Leymus mollis*) and perhaps other species of grasses (*Puccinellia* spp.?) are abundant at high tidal levels and above along the stream banks.

C. Oil-Related Comments

- 1. Oil or Cleanup Related Mortality**
None evident.

ACE 1951040

2. **Ecological Sensitivities to oil or cleanup.**
Oil cover on this segment was very light. Patches of oil coat or mousse were rare and localized, and debris spattered with oil was sparse along the drift line. This very small amount of oil constitutes a minimal biological risk for the biota of the area.

Ecological sensitivities listed are:

- a. **Anadromous streams (see map)**
Stream code 10040 Chum Salmon and Pink Salmon spawn in Hallo Creek.
- b. **Invertebrate Harvesting.** Clam beds located along the sand beach are used for clam digging.
- c. **Land Mammals.** Brown Bears, Red Fox, Moose, and River Otter were indicated by tracks, scat, or both at this site.

II. WILDLIFE OBSERVATIONS

Brown Bear - tracks

Red Fox - tracks

Moose - tracks

River Otter - tracks

Glaucous-winged gulls - 3

Common Merganser - 8

Barrow's Goldeneye - 1

III. SPECIES LIST**Legend for densities and distribution**

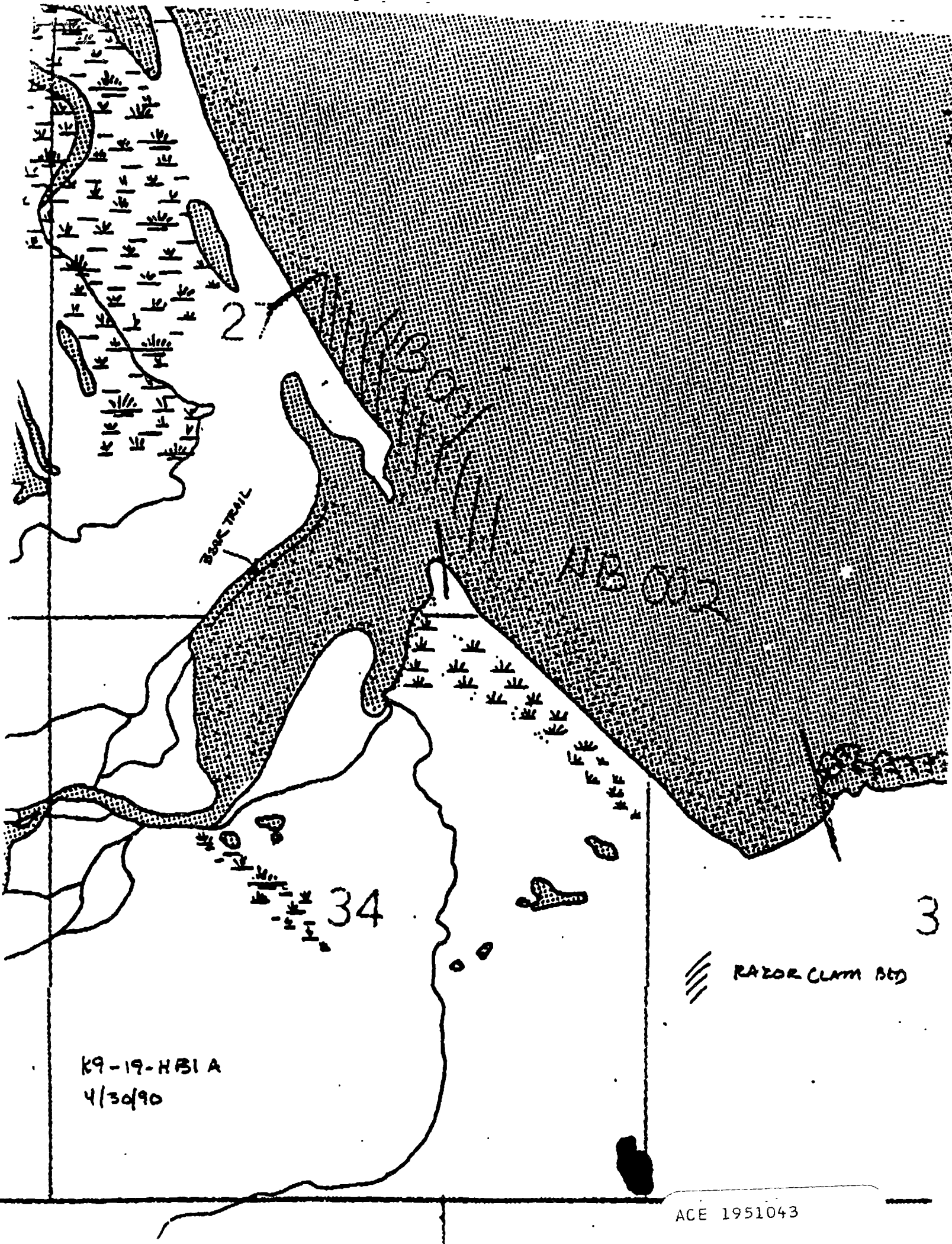
D	Dense	A	High Tidal Zone
M	Moderate	B	Middle Tidal Zone
S	Sparse	C	Low Tidal Zone
R	Rare	U	Subtidal Zone
1	Bedrock	J	Juveniles Present
2	Boulder	E	Eggs Present
3	Cobble	X	Probably Present
4	Pebble		
5	Sand/mud		

A. MARINE PLANTS

1. **DIATOMS/BLUE GREEN ALGAE** M5BC
2. **GREEN ALGAE - CHLOROPHYTA**
 - Unknown filamentous green algae S5BC
3. **HIGHER PLANTS**
 - Leymus mollis - Beach Rye Grass M5A
 - Puccinellia spp.? - Alkali Grass M5A

B. MARINE ANIMALS

1. **CRUSTACEANS**
 - AMPHIPODS**
 - ?Orchestia spp. RS5BC
2. **MOLLUSCA**
 - MUSSELS AND CLAMS**
 - Clinocardium nuttalli X
 - Macoma balthica X
 - Siliqua patula X
 - Tresus capax X
3. **FISH**
 - Salmon Smolts - Rare in stream



K9-19-HBI A

4/30/90

State of Alaska
Department of Fish and Game
Habitat Division

Page 1 of 1

Field Inspection Report

Date 6/12/90 Time 12:00

Location: (Logging unit/Road/Waterbody) Halla Bay, Alaska Peninsula
Halla Creek 262-20-10040 K9-19 HB001.

Operator/Contractor: Exxon (Eubs)

Individuals present at time of inspection:

<u>Name</u>	<u>Representing</u>
<u>Floyd Avery</u>	<u>Exxon</u>
<u>Don Haven</u>	<u>USCG</u>
<u>Fran Bennis / Terry Ellsworth</u>	<u>ADEC</u>
<u>Ray Waber</u>	<u>NPS</u>
<u>Ken Middleton / Jeff Barnhart</u>	<u>ADF&G</u>

Activity/Situation Observed: Ken Middleton and I inspected this site
during the first two hours of cleanup. No post treatment survey
was conducted by ADF&G.

Pertinent Statutes/Regulations: _____

Recommended/Required Action (Specify): ADEC indicated subsurface mousse
patties were being exposed by shifting sand. The entire segment
should be surveyed during 1991 with special emphasis placed on locating
and determining the extent of the subsurface oil.

By (date) _____ (if applicable)

Please note: This is not a final inspection report. It is intended to provide the operator/contractor with a notice of problems or concerns which require immediate attention. If necessary, a final inspection report will be issued at a subsequent date.

Jeffery P. Barnhart Fisheries Biologist.
Fish and Game Representative/Title

Company Representative/Title

State of Alaska
Department of Fish and Game
Habitat Division

Page 1 of 1

Field Inspection Report

Date 6/12/90 Time 1200

Location: (Logging unit/Road/Waterbody) Halla Bay, Alaska Peninsula
Halla Creek 262-20-10040 K9-19 HB001.

Operator/Contractor: Exxon (EvoS)

Individuals present at time of inspection:

Name	Representing
<u>Floyd Avery</u>	<u>Exxon</u>
<u>Don Haven</u>	<u>USCG</u>
<u>Fran Bennis / Terry Ellsworth</u>	<u>ADEC</u>
<u>Ray Waber</u>	<u>NPS</u>
<u>Ken Middleton / Jeff Barnhart</u>	<u>ADF+G</u>

Activity/Situation Observed: Ken Middleton and I inspected this site
during the first two hours of cleanup. No post treatment survey
was conducted by ADF+G.

Pertinent Statutes/Regulations: _____

Recommended/Required Action (Specify): ADEC indicated subsurface mousse
patties were being exposed by shifting sand. The entire segment
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and determining the extent of the subsurface oil.

By (date) _____ (if applicable)

Please note: This is not a final inspection report. It is intended to provide the operator/contractor with a notice of problems or concerns which require immediate attention. If necessary, a final inspection report will be issued at a subsequent date.

Jeffrey P. Barnhart Fisheries Biologist.
Fish and Game Representative/Title Company Representative/Title

State of Alaska
Department of Fish and Game
Habitat Division

Page 1 of 1

Field Inspection Report

Date 6/12/90 Time 1200

Location: (Logging unit/Road/Waterbody) Halla Bay, Alaska Peninsula
Halla Creek 262-20-10040 K9-19 HB001

Operator/Contractor: Exxon (Evos)

Individuals present at time of inspection:

<u>Name</u>	<u>Representing</u>
<u>Floyd Avery</u>	<u>Exxon</u>
<u>Don Haven</u>	<u>USCG</u>
<u>Fran Bennis / Terry Ellsworth</u>	<u>ADEC</u>
<u>Ray Weber</u>	<u>NPS</u>
<u>Ken Middleton / Jeff Barnhart</u>	<u>ADF+G</u>

Activity/Situation Observed: Ken Middleton and I inspected this site
during the first two hours of cleanup. No post treatment survey
was conducted by ADF+G.

Pertinent Statutes/Regulations: _____

Recommended/Required Action (Specify): ADEC indicated subsurface mousse
patties were being exposed by shifting sand. The entire segment
should be surveyed during 1991 with special emphasis placed on locating
and determining the extent of the subsurface oil.

By (date) _____ (if applicable)

Please note: This is not a final inspection report. It is intended to provide the operator/contractor with a notice of problems or concerns which require immediate attention. If necessary, a final inspection report will be issued at a subsequent date.

Jeffery P. Barnhart Fisheries Biologist
Fish and Game Representative/Title

Company Representative/Title

State of Alaska
Department of Fish and Game
Habitat Division

Page 1 of 1

Field Inspection Report

Date 6/12/90 Time 1200

Location: (Logging unit/Road/Waterbody) Halls Bay, Alaska Peninsula
Halls Creek 242-30-10040 K9-19 HB001

Operator/Contractor: Exxon (EvoS)

Individuals present at time of inspection:

<u>Name</u>	<u>Representing</u>
<u>Floyd Avery</u>	<u>Exxon</u>
<u>Don Hosen</u>	<u>USCG</u>
<u>Fran Bennis / Terry Elsworth</u>	<u>ADEC</u>
<u>Ray Waber</u>	<u>NPS</u>
<u>Ken Middleton / Jeff Barabart</u>	<u>ADF&G</u>

Activity/Situation Observed: Ken Middleton and I inspected the site
during the first two hours of cleanup. No post-treatment survey
was conducted by ADEC.

Pertinent Statutes/Regulations: _____

Recommended/Required Action (Specify): ADEC indicated subsurface mousse
pattens were being exposed by shifting sand. The entire segment
should be surveyed during 1991 with special emphasis placed on locating
and determining the extent of the subsurface oil.

By (date) _____ (if applicable)

Please note: This is not a final inspection report. It is intended to provide the operator/contractor with a notice of problems or concerns which require immediate attention. If necessary, a final inspection report will be issued at a subsequent date.

Jeffrey P. Barabart Fisheries Biologist
Fish and Game Representative/Title Company Representative/Title

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 6/12/90

EXXON Authorized Representative Floyd A. Avery

Shoreline Segment K09-19 - HB-001

Anadromous Fish Stream Number(s) 262-20-10040

Hallo creek

Approved Cleanup Techniques Manual pickup of mousse,
Tecballs/patties, peaked o.i., drift and debris

Approved Cleanup Period 6/12 & 6/13, 6/14, 6/15

Alaska Department of Fish and Game

Jeffrey P. Barnhart
Authorized Officer

Floyd A. Avery
Permittee's Signature

ACE 1951013

Hallo

46

6/12/72 99.12 Tringtan ^{pilot} Mike ^{worschem gpo} Worschem, Ken
Middletown, myself, Fran Bennis (DEC).
At office 7:15 AM. 7:50 depart for ICP
7:50 In helicopter 8:35. Depart Airport
8:47 AM. Destination Halls Bay.
CAVU no wind. Wind on sleds 15 knots
154 SW. Land. Halls creek 9:30 AM.
Back to helicopter Depart 12:55 PM
[About 11:30 AM ^(Diana) Evan tried to take our
helicopter for a trip back to Kodak ^{for pick up}
To Port Lions ^{and} ~~back to~~ ^{and} return
to Halls Bay. We would have missed
The ISCC meeting with Arraw at
3 PM. Numerous calls to Nottie Pita's
superior etc. Finally Evan
relinquished. About that time we
ran out of bags and the crew had a
lunch break. we walked back to the
helicopter (approx 1 mile) skipped lunch
and departed for Kodak. Other notes:
moral seems to be low. Crew working
at a snail's pace, walking over the tar
balls and lack of enthusiasm.
Now Haven USCG told me the crew

ACE 1951014 +/5

47

wasted 3 days for work orders.
 Later last time, we picked up
 approx 5 bags of Tan balls in area #
 one adjacent to the spruce forest.
 The areas marked A B & C were
 heavily oiled. Grass had to be removed,
 Soil ^(with) saturated down to 5 inches max.
 Found one spot with liquid oil
 on the surface. Ken thought it was
 H₂O until he stuck his finger in it.
 RPD for NPS on site was Ray
 WABER. ^{7th} Floyd Avery, was present
 as well as Terry Ellward (PFC).
 Temp near or at 70°F.

[Issued Pat ward 706 address at meeting.

1. Additional work crews in areas as
 2. Replace most of work crew on
m/j Sea Trader,
 3. Built scheduling with work plan,
stick to some type of schedule
 4. more than 3 hour notice on schedule
change - gpb
 5. Other notes - Tom met in J. Hall
- Lunch 2-3pm. Land Kodiak Airport 1:40pm

ACE 1951015

48

ISRC meeting 3 pm - 4:15.

Talks between agencies ^{over} 5:15
6/2/92 Jff. Lambert

6/15 12:40 pm. In Helicopter Biking, ERA
 Helicopter #12. Crew: 6. From the base near
 Comanche (USC), Terry Edwards (SEC)
 John Hordtman OTO Fiberscope measures small
 Dendroica schist. Dug. I Dendroica schist
 Depart Airport 12:47 hours. Land at Helicopter
 Report 1:00 pm. Rain, solid overcast
 ceiling 800 feet. Reservoirs and swamps
 on the bank in the swampy wetland
 in the immediate areas between the rocks
 as well as hummocky areas of gravel
 patches left in the stream bed. This
 has been persistent. The
 water marks. Much of the soil gravel
 has been washed over. The least resistant
 it should be is sandy. Fully by
 application of 1/2 cup of 10% granular
 fertilizer. OTO Fiberscope measures small
 mid size. A small flycatcher
 in T. R. produces 1/2 cup. For 1000, as
 bank, 12:48 pm.

ACE 1951016

-18

6/15/92
Jff. Lambert

Lynn Pederson

ADEC DAILY SHORELINE ASSESSMENT

LOCATION: Hallo Bay SEG H2001 SUBSEG c

MONITOR(S): Fran Bonni's, Terry Ellsworth

DATE: 6-14-90 TIME: BEGIN 1430 END 1515

TIDES: TIME: HEIGHT: WEATHER: CLOUDY RAIN FOG SUN
 LOW 0.53 4.7' TEMP: 55°F SEA COND: calm
 HIGH 06:43 15.3' WIND DIR: N-NE-E-SE-S-SW-W-NW
 LOW 13:06 0.8' WIND SPEED (KNOTS): 0-15 16-30 30+
 HIGH 19:49 15.6'
(seldom)

ENVIRONMENTAL CONSTRAINTS: (SEAL HAULOUTS, EAGLE NESTS, MUSSEL BEDS, ETC.) Salmon stream, land mammals, subsistence
invertebrates

WAVE EXPOSURE: LOW MED HIGH
 ACROSS SHORE ZONE: SU UITZ MITZ LITZ

SURFACE SEDIMENTS: R % B % C 10 % P 30 % G 30 % S 30 %
 SUBSURFACE SEDIMENTS: R % B % C % P % G 20 % S 80 %

OIL CHARACTERISTICS

SURFACE: POOLED - MOUSSE - TARBALL - COVER - COAT - STAIN
 SUBSURFACE: OP - OR - OF N/A

TREATMENT TECHNIQUES

MANUAL RAKING/TILLING
 MANUAL REMOVAL: PO-MS-AP-TB
 SPOT WASHING
 OTHER
 HEADER FLOOD (HOT/COLD)
 BIOREMEDIATION
 MECHANICAL

EQUIPMENT USED: Truvel
 NAMES OF REPS & OTHER AGENCIES: EXXON Tam Tomlin
 USCG Don Haven OTHER: NPS Don McBee Bearguard
 WORKERS ON SITE: ORTS OTHER:

WASTE HANDLING/DISPOSAL

ITEMS USED TO ABSORB/CONTAIN OIL bag
 # OF BAGS COLLECTED: 41
 OILED DEBRIS OIL & SEDIMENTS OILED VEG.
 OILED LOGS PRESENT: (Y) N # OF LOGS REMOVED 0

Very small amount of oil removed from logs

4/20/90

ACE 1951017+/5

PHOTO/VIDEO DOCUMENTATION

PHOTOGRAPHS: ROLL # FRAME(S): REASON:

VIDEO: TAPE # REASON:

COMMENTS

PROBLEMS: ENFORCEMENT ACTIVITIES, UPLAND CONT., ETC.

(PLEASE NOTE IF PROBLEM WAS DISCUSSED WITH PROPER AUTHORITY,
AND SUBSEQUENT RESPONSE.)

OBSERVATIONS: TREATMENT EFFICIENCY, POSSIBLE IMPROVEMENTS, ETC.

*A quick cruise through the area assured agency
reps that no further treatment is required*

SIGNATURE

[Handwritten Signature]

ACE 1951018 -15

ADEC DAILY SHORELINE ASSESSMENT

1042

LOCATION: Hallo Bay K0919 SEG H B-001 SUBSEG A

MONITOR(S): Terry Ellsworth

DATE: 6-12-90

TIME: BEGIN 10:30 END 11:15
14:00 17:30

TIDES: TIME: HEIGHT:

LOW 11:45 -0.9'

HIGH 5:13 17.0'

LOW 18:26 15.8'

HIGH 18:26 15.8'

WEATHER: CLOUDY RAIN FOG SUN

TEMP: 60's SEA COND: calm

WIND DIR: N-NE E-SE S-SW-W-NW

WIND SPEED (KNOTS): 0-15 16-30 30+

Seldovia

ENVIRONMENTAL CONSTRAINTS: (SEAL HAULOUTS, EAGLE NESTS, MUSSEL BEDS, ETC.) Salmon stream, invertebrate subsistence area, Land mammals

WAVE EXPOSURE: LOW MED HIGH
ACROSS SHORE ZONE: SU UITZ MITZ LITZ

SURFACE SEDIMENTS: R 1 % B 3 % C 3 % P 20 % G 33 % S 20 %
SUBSURFACE SEDIMENTS: R % B % C % P % G % S %

OIL CHARACTERISTICS

SURFACE: POOLED - MOUSSE - TARBALL - COVER - COAT - STAIN
SUBSURFACE: OP - OR - OF

TREATMENT TECHNIQUES

MANUAL RAKING/TILLING

MANUAL REMOVAL: PO-MS-AP-TB

SPOT WASHING

OTHER

HEADER FLOOD (HOT/COLD)

BIOREMEDIATION

MECHANICAL

EQUIPMENT USED: Shovels, Trowels

NAMES OF REPS & OTHER AGENCIES: EXXON Floyd Avery

USCG Don Haven

OTHER: ADEC Fran Bennis

WORKERS ON SITE: ORTS 9

OTHER: ADF+G Jeff Barnhart

ADF+G Ken Middleton
NPS Ray Weber

WASTE HANDLING/DISPOSAL

ITEMS USED TO ABSORB/CONTAIN OIL plastic bags

OF BAGS COLLECTED:

OILED DEBRIS 1

OIL & SEDIMENTS 9

OILED VEG.

OILED LOGS PRESENT: (Y) N

OF LOGS REMOVED 0

4/20/90

ACE 1951019+1/5

PHOTO/VIDEO DOCUMENTATION

PHOTOGRAPHS: ROLL # _____ FRAME(S): _____ REASON: _____

VIDEO: TAPE # _____ REASON: _____

COMMENTS

PROBLEMS: ENFORCEMENT ACTIVITIES, UPLAND CONT., ETC.

(PLEASE NOTE IF PROBLEM WAS DISCUSSED WITH PROPER AUTHORITY,
AND SUBSEQUENT RESPONSE.)

~~None~~ At one point when the crew had run out of bags - several person went back for bags in a stragg out manner. They had been told by NPS RPO to stay in a group. Then 1 individual realized their hard hat had been forgotten after lunch. This person then went back to the area of bags & lunches. This made for an unsafe situation from a bear standpoint. The crew was again told by their foreman ~~and the~~ after the RPO talked him to stay in a group. They were also talked to by the Exam Rpt. The problem was solved.

OBSERVATIONS: TREATMENT EFFICIENCY, POSSIBLE IMPROVEMENTS, ETC. _____

Team could have worked a little quicker when walking a portion of the segment picking up mousse patties.

SIGNATURE

Terry Ellsworth

ACE 1951020-15

ADEC DAILY SHORELINE ASSESSMENT

LOCATION: Hallo Bay Lagoon K09-19 SEG HB-001 SUBSEG 262-20-1004 ^{Stream}
 MONITOR(S): Terry Ellsworth / Fran Bennis
 DATE: 6-14-90 TIME: BEGIN 06:30 END 8:15 ^{Am/pm?}

TIDES: TIME: HEIGHT: WEATHER: CLOUDY RAIN FOG SUN
 LOW 0:53 4.7' TEMP: 60°F SEA COND: calm
 HIGH 6:43 15.3' WIND DIR: N-NE-E-SE-S-SW-W-NW
 LOW 13:06 0.8' WIND SPEED (KNOTS): 0-15 16-30 30+
 HIGH 19:49 15.6'

Seldovia

ENVIRONMENTAL CONSTRAINTS: (SEAL HAULOUTS, EAGLE NESTS, MUSSEL BEDS, ETC.) Salmon Stream, Land mammals, subsistence invertebrates

WAVE EXPOSURE: LOW MED HIGH
 ACROSS SHORE ZONE: SU UITZ MITZ LITZ

SURFACE SEDIMENTS: R — % B — % C 10 % P 30 % G 30 % S 30 %
 SUBSURFACE SEDIMENTS: R — % B — % C — % P — % G — % S 100 %

OIL CHARACTERISTICS

SURFACE: POOLED MOUSSE - TARBALL - COVER - COAT - STAIN
 SUBSURFACE: OP - OR - OF N/A

TREATMENT TECHNIQUES

MANUAL RAKING/TILLING
MANUAL REMOVAL PO-MS-AP-TB
 SPOT WASHING
 OTHER —

HEADER FLOOD (HOT/COLD)
 BIOREMEDIATION —
 MECHANICAL —

EQUIPMENT USED: Shovels

NAMES OF REPS & OTHER AGENCIES: EXXON Tommy Tomblin

USCG Don Haven

OTHER: NPS Don McBee

WORKERS ON SITE: ORTS 9

OTHER: —

WASTE HANDLING/DISPOSAL

ITEMS USED TO ABSORB/CONTAIN OIL plastic bags

* # OF BAGS COLLECTED: 3.4 tons (today) super bags

OILED DEBRIS None OIL & SEDIMENTS X OILED VEG. —

OILED LOGS PRESENT: (Y) N # OF LOGS REMOVED (3)

collectable mousse removed from logs

ACE 1951021 1/3

4/20/90

super bags contain oil, sediments, + a lot of plastic (b.g plastic bags)

7/15/90 Fran Bennis Told me The 3.4 supersacks collected from HB001 on This date 6-14-90 were a max of 2,000 pounds each. gpb

* Note super bags contain 45 cu feet or 1,000 pounds each (approx). Data from ADEC. gpb

PHOTO/VIDEO DOCUMENTATION

PHOTOGRAPHS: ROLL # 907SE FRAME(S): 18 REASON: Site after
Treatment Am OG map
VIDEO: TAPE # _____ REASON: _____

COMMENTS

PROBLEMS: ENFORCEMENT ACTIVITIES, UPLAND CONT., ETC.

(PLEASE NOTE IF PROBLEM WAS DISCUSSED WITH PROPER AUTHORITY,
AND SUBSEQUENT RESPONSE.)

OBSERVATIONS: TREATMENT EFFICIENCY, POSSIBLE IMPROVEMENTS, ETC. _____

Team appears to have improved slightly from what I observed
on June 12, 1990. However, Nature of work in this segment really
only warranted a crew of 2-4 people. 8 people
shovelling in a 4m x 10m area placing oil/oiled sediment bags
in gigantic plastic bags which can only be filled to 20% max
is not what I call efficient.

We are still restricted by lack of ample work orders for this
area (Halla Bay). Time should bring improvements.

I expect that the crew can be utilized in a more productive manner
once we get to cleaning the more oiled areas.

SIGNATURE _____

Lot 2

SEG HB-001 ~~SUBSEG~~ ^{Stream} 262-20-10040

TIME: BEGIN 10:30 END 12:30
18:30 20:25

WEATHER: CLOUDY RAIN FOG SUN
TEMP: 60's SEA COND: calm
WIND DIR: N-NE-~~E-SE~~-S-SW-W-NW
WIND SPEED (KNOTS): 0-15 16-30 30+

ACE 1951023+/S

PHOTO/VIDEO DOCUMENTATION

PHOTOGRAPHS: ROLL # ^{90TSE}03 FRAME(S): 14-15 REASON: DocumentTreatmentVIDEO: TAPE # 0 REASON: _____

COMMENTS

PROBLEMS: ENFORCEMENT ACTIVITIES, UPLAND CONT., ETC.

(PLEASE NOTE IF PROBLEM WAS DISCUSSED WITH PROPER AUTHORITY,
AND SUBSEQUENT RESPONSE.)None

OBSERVATIONS: TREATMENT EFFICIENCY, POSSIBLE IMPROVEMENTS, ETC. _____

This is the 1st time the crew seemed to be working
hard & together as a crew. Should finish w/ this area
tomorrow.

SIGNATURE

Terry Ellsworth

Field Copy
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 Middleton

Habitat Assoc.

DATE: 5/17/90

No. Pages: 13
(including this page)

FROM: J. R. BARNHART

Habitat Assoc.

MESSAGE: Hallo creek, Hallo Bay
Stream # 262-20-10040
segment HBCOOP-A

Ken,

This is the second stream surveyed by the SSAT Team. We were not present on the survey.

NOTE: Our ADPFG Form was filled out by the SSAT Team.

ACE 1951026 +/S

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/K09-19-HB-001 STREAM NO: 262-20-10040 DATE 4/30/90

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)
9LM Land mammals
7JJ Subsistence area: Invertebrate harvesting
ADF&G Anadromous Stream #262-20-10040 or 10035 (near border in HB-004)
See attached Ecological Constraint sheet for specific constraints and contracts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiiled biota and substrate. Avoid disturbance or damage to clam bed in sand beach near Hallo Creek.

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3276 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Rachel Jean Dale 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: Recommend manual pick up of pooled oil, mousse, tarballs and patties. Consult ADF&G for appropriate work dates.

- POSSIBLE TIME WINDOW 7/15 - 7/31

TAG COMMENTS: _____

TAG APPROVAL DATE: 5/23/90

ADEC ART WEINER Art Weiner

EXXON ANDY GAT Andy GAT

NOAA Burt Wescott Burt Wescott

USCG G.A. REITER G.A. Reiter

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

SEGMENT STIK 0919-HB001SUBDIVISION ADATE 4 / 30 / 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



Pit - No Subsurface Oil



Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

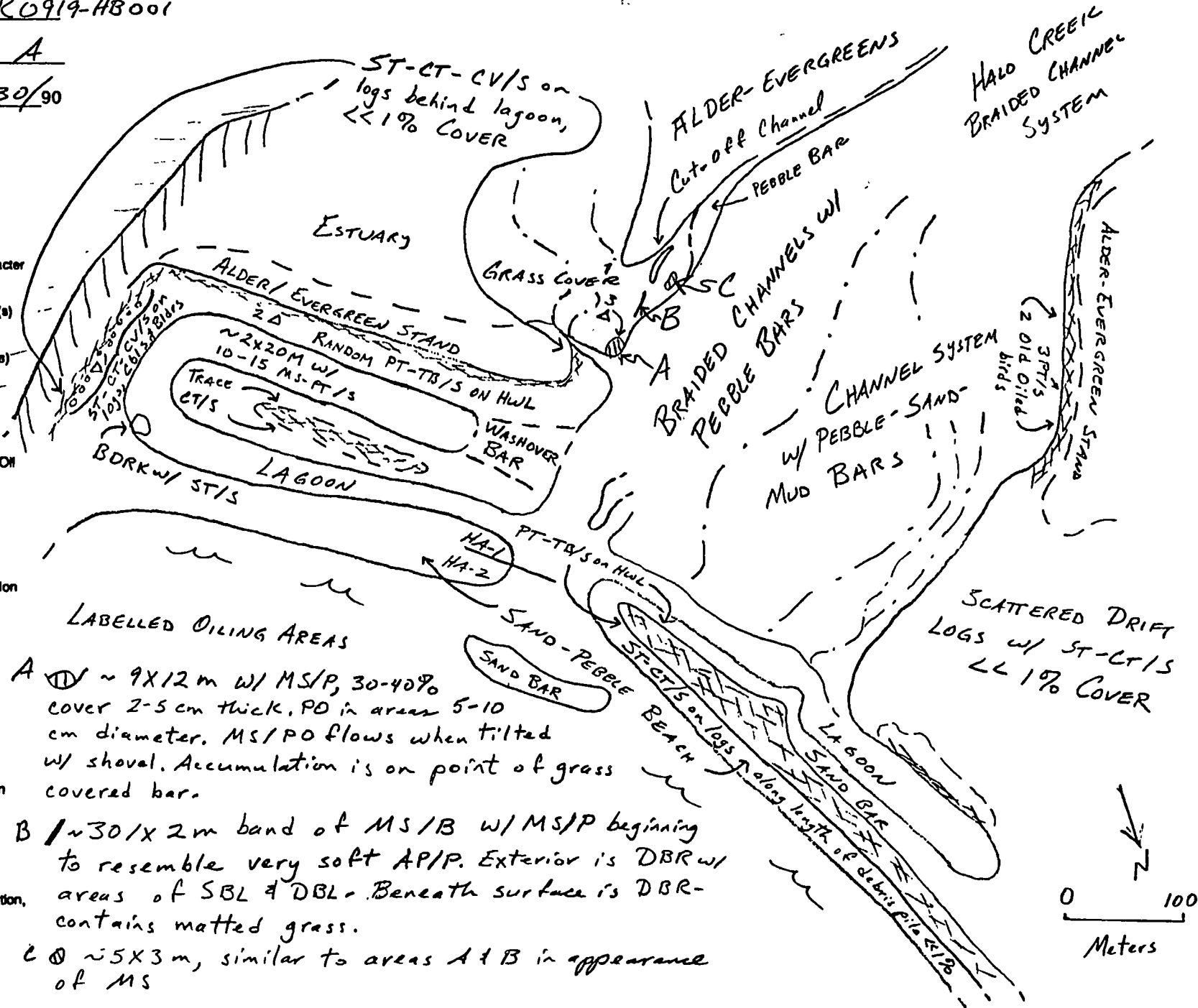
Splashed Distribution



Oiled Vegetation



Photo location, direction, and number



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

REVISION: 03/24/90

OPERATIONS FIELD NOTES

See Back for Instructions

SEGMENT ID STK0919
 SUBDIVISION LETTER HB001
 ANNOTATED MAP INCLUDED A Y/N

DATE 4/30/90
 NAME Fred BYARS
 TEAM # 19

	Quantities in Meters			Treatment Recommendation						
	Length	Width	Area	None	Y/N	% Treat	Y/N	% Treat	Spot Hot Water	% Treat
SURFACE OIL										
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)?

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

	Type of Debris			In Meters		# of Bags	Pickup Y/N	Manday Estimate
	Mousse	Oiled	Cleanup	Length	Width			
MANUAL PICKUP			Debris					
Pocket #1	mousse			9	12	5	Y	1
Pocket #2	mousse			30	2	10	Y	1
Pocket #3	mousse			5	3	2	Y	1
Random/Continuous								

OILED LOGS ☒ Y/N OILING H/M ☒ QUANTITY L/M ☒ BURN Y/N ☒

Is there Other Debris on the Beach? ☒ Y How Many Bags? 100 Is it mingled with the Oiled Debris Y ☒ N

GENERAL

Wave Exposure H/M ☒

Snow covering 0 % of the Supratidal Zone?

Access Limitations:

Are Boom/Pom Poms Recommended?

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

COMMENTS:

mousse is along stream up on grass covered bar

SEGMENT ST / K0919-HB001 SUBDIVISION: A DATE 4-30-90NOAA
USCGNAME John Naughton SIGNATURE John J. Naughton☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

This segment along the southerly portion of Hallo Bay, includes the delta of Hallo Creek, should receive treatment in specific areas. Splashes of stain and coat were found in the large debris lines on either side of the river, especially to the south. Unusual areas of concentrated mounds were found back on matted grass bank (Areas A, B, C on sketch map) well behind shoreline. Recommend manual removal of this broken and patchy mousse. Oiled debris is very light and need not be treated except for removal of heavily oiled rope, line and fishing net.

ADEC

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

This segment is located primarily along Hallo Creek delta. Staining, coat and cover occurs very sporadically (<1%) over much of the area. On the SW side of the lagoon (see map) tarballs and patties are present in a 2x20m area. Three areas of broken or patchy mousse occur on the S side of the segment on the grass bank above the creek channel. Manual treatment is recommended for the areas containing mousse, patties, and tarballs as well as removal of the more heavily oiled small wood debris and oiled rope, net, etc.

LAND MANAGERNAME Carl Schach SIGNATURE Carl Schach☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

The upper intertidal perimeter of the south-branch Lagoon in the Hallo Cr. estuary contains oiled debris, nets, rope, etc. that should be removed. The 20 x 2 m area of mousse patties should also be treated. Sites A, B, and C indicated on the sketch map should be treated by shoveling the oiled grass and sand down to about 3 inches. Only the grass mat under the oil patches should be removed, not the entire dimensional area indicated.

REVISION NO. 03/21/90

ACE 1951030

ANAS SA1

COMMENTS

HALLO CRK. (262-20-10040)

SEGMENT ST/ 10919-HB001 SUBDIVISION: A DATE _____USCG

NAME _____

SIGNATURE _____

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

NAME

EDWARD W. WEISS

SIGNATURE

Edward W. Weiss☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

MANUAL REMOVAL OF TARBALLS/PATTIES ON S & SE SIDES
OF LAGOON RECOMMENDED. AND OILED DEBRIS
ALSO IN AREAS INDICATED ON NORTH SIDE.

LAND MANAGER

NAME _____

SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

REVISION NO. 001

ACE 1951031-15

F. A. X.

SEPT. 14, 1990

TO: JEFF BARNHART - ADF+6 - OIL SPILL
KODIAK OFFICE

FAX # 486-5044
FUNE 486-5033

FROM: ELINOR POLL RAMOS - ADEZ. (TEMPORARILY IN ANCHORAGE)

RE: ANADROMOUS
MB-001 STREAM 262-20-10040
EXXON OPS REPORT: JUNE 14, 1990

PER FRAN B. (VIA "ME"/EPR) + JULIE)

THIS IS THE RAPID RESPONSE
FROM YOUR FRIENDLY FOLKS
AT D.E.C.

IF YOU NEED MORE INFO, I'LL TRY
TO HELP.

OUR # is 265-4651

FAX 265-4656

MAKE SURE IT SAYS "FOR ELINOR
(PLEASE DELIVER ASAP.) RAMOS"
CAUSE THE FAX IS ON THE 7TH FLOOR.

Bye - Elinor

ACE 1951045 +/5

۷۵

WORKHOURS: START 0600 TO: 2100

10-11-68

[illegible]

• • 1 Supercast = 45 CF, report in terms of sack (60 Lb.)

STATUS CODES

NA Not Applicable/Not Recommended for this segment division
N Recommended but not started
W Started and Working
P% Percentage complete (based on large work scope)
C Work completed

DEMOBILIZATION REPORT

To: Alaska Department of Environmental Conservation
Oil Spill Response Center
Anchorage, Alaska

265-4666
FAX 265-4656

SEGMENT NUMBER HB001 C
SUB DIVISION

DATE 6-14-90

Has work been completed as stated on the work order?

Yes

Is there additional oil remaining?

Yes, but <1%, including stained drift logs

Do you recommend further treatment?

No

What is the recommended treatment method?

Describe amount of oil remaining- size area and location

Sporadic stained drift in supratidal berm

Date and Time of demobilization from segment

6-14-90 @ 21:00

COMPLETE THIS FORM AND FAX TO ANCHORAGE AFTER DEMOBILIZATION FROM EACH SEGMENT

Additional Comments

NAME *Francine Bennis*

VESSEL NAME *M/V Sea Trader*

TEAM # *9*

EXXON *Tom Tomblin*

COAST GUARD *Don Haver*

VELO *Clyde Zach Kutelinkoff (foreman)*

DEMOBILIZATION REPORT

To: Alaska Department of Environmental Conservation
Oil Spill Response Center
Anchorage, Alaska

265-4646
FAX 265-4656

HB-001 (STREAM)
SEGMENT NUMBER 262-20-10040
SUB DIVISION

DATE 6-14-90

Has work been completed as stated on the work order?

Yes

Is there additional oil remaining?

Very little surface oil remaining. Some buried mousse patches found suggests that more buried mousse may be present

Do you recommend further treatment?

NO - given the nature of the circumstance, it'd be more harm. than good

What is the recommended treatment method?

Describe amount of oil remaining- size area and location

< 1% surface oil remaining

Date and Time of demobilization from segment

6-14-90 @ 11:00

COMPLETE THIS FORM AND FAX TO ANCHORAGE AFTER DEMOBILIZATION FROM EACH SEGMENT

Additional Comments

NAME *Fran Bennis*
VESSEL NAME *M/V Sea Trader*
TEAM # *9*
EXXON *Tom Tomblin*
COAST GUARD *Don Hawen*
VECO *Zack Kutelinkoff*

ACE 1951048

DEMobilIZATION REPORT

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

SEGMENT NUMBER K 0919 HB 001 A
SUB DIVISION

DATE 6-12-90

Has work been completed as stated on the work order?

yes

Is there additional oil remaining?

yes

Do you recommend further treatment?

NO

What is the recommended treatment method?

Describe amount of oil remaining- size area and location

along the SE side of horse shoe lagoon I believe there are buried
mousse patches which will gradually be exposed to the surface possibly in amounts
Date and Time of demobilization from segment from 4:15 - 5:00

6-12-90 @ 17:30

COMPLETE THIS FORM AND FAX TO ANCHORAGE AFTER DEMOBILIZATION FROM
EACH SEGMENT

Additional Comments

NAME Terry Ellsworth

VESSEL NAME Sea Trader

TEAM # 9

EXXON Floyd Avery

COAST GUARD Don Haven

VECO Foreman Clyde Z (Zuck) Katelinkoff

NPS Ray Waber RPO

Grade
C

Terry Ellsworth



RESOURCE PROTECTION OFFICER
DAILY REPORT FORMAT

DATE 06-12-90

AIRCRAFT OR VESSEL NAME M/V SEATHREADER

RPO NAME RAY WABER

NAME:	FROM	TO
NAME:	FROM	TO
NAME:	FROM	TO
NAME:	FROM	TO
NAME:	FROM	TO
NAME:	FROM	TO

AREA WORKED (NAME--SPELL) HALLO BAY

AREA WORKED: MAP NUMBERS

AREA WORKED: ASSESSMENT SITE NUMBER
(ONLY THOSE CLEANED: K0919 HB-002

K0919 HB001

SEE BELOW ✓ NUMBER BAGS: _____ NUMBER LINEAR YARDS _____
✓ NUMBER OF WORKERS _____ DEAD BIRDS _____
✓ NUMBER OF DEAD EAGLES _____ OTTERS _____

AREA TO BE WORKED THE FOLLOWING DAY

MAP NUMBER K0919 HB001

COMMENTS: _____

0730-1030 WORKED K0919 HB002: 7 BAGS

YARDS

8 WORKERS

0 BIRDS

0 EAGLES

0 OTTERS

1300-2100 WORKED K0919 HB001

6 BAGS

YARDS

8 WORKERS

0 BIRDS

0 EAGLES

0 OTTERS

WEATHER:

CEILING 1500 CLOUDY

VISIBILITY 20 MILES

WIND SE-8 KN

WILL CALL IN WEATHER-0600-6-13-90

ACE 1951050



RESOURCE PROTECTION OFFICER DAILY REPORT

DATE: 06-13-90

FLEET or VESSEL NAME m/v SEA TRADERRPO NAME: RAY WABERRPO HOURS: NAME ON OFF
(MILITARY TIME)

AREAS WORKED: (1). NAME (SPELL) _____

(2). MAP ASSESSMENT NUMBERS _____

CLEANED:

BAGS _____ LINEAR YARDS _____ PEOPLE _____

DEAD BIRDS _____ EAGLES _____ OTTERS _____

AREA TO BE WORKED (NAME) _____

COMMENTS: 0630 RADIO CONTACT WITH RPO WABER FINDS THE
WORK CREW UNABLE TO WORK BECAUSE OF LIMITED LATERAL
VISIBILITY + IMPENDING ROUGH SEAS.
WABER REPORTS VESSEL IS MOVING TO KUKAK BAY FOR SHELTER
(ALL FLIGHTS HOLDING OR CANCELLED)

MID-MORNING A.D.E.C. REPORT INDICATES M/V SEA TRADER IS
SAILING TO PORT BAILEY INSTEAD OF KUKAK BAY

FIELD SHORELINE COMMENT SHEET

ASAP

SEGMENT AS / K9-19
H8001 SUBDIVISION: A SITE: 1 DATE Aug. 3, 1990

USCG

NAME J. FAZIOSIGNATURE [Signature]☐ YES☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

ADEC

NAME F. BENNISSIGNATURE [Signature]☐ YES☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

* Entire treated area was not assessed by the S.A.P. work; the work crew had performed manual pickups along beach in lagoon area & the east of where the S.A.P. team loaded in

LAND MANAGER

NAME W. TROYERSIGNATURE [Signature]☐ YES☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

EXXON

NAME R. COULTERSIGNATURE [Signature]☐ YES☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

ACE 1951052+18

TEAM NO #5 Kodiak EXXON R Coulter SEGMENT AS HB-1
 OG D Fitzgerald USGS J. FAZIO SUBDIVISION A
 ADEC F Bennis LAND REP W. Troyer TOTAL NO. SITES 1
 DATE 3 Aug 190 TIME 10:40 to 11:15 TIDE LEVEL 150 to 210 cm ABOVE MHW
 TOTAL EST LENGTH OF SHORELINE SURVEYED: 300 m
 SURVEYED FROM: ☐ Foot ☐ Boat ☒ Helo WEATHER: ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 OIL CATEGORY LENGTH: W m M m N m VL m NO 300 m US m

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					300m			

[illegible]

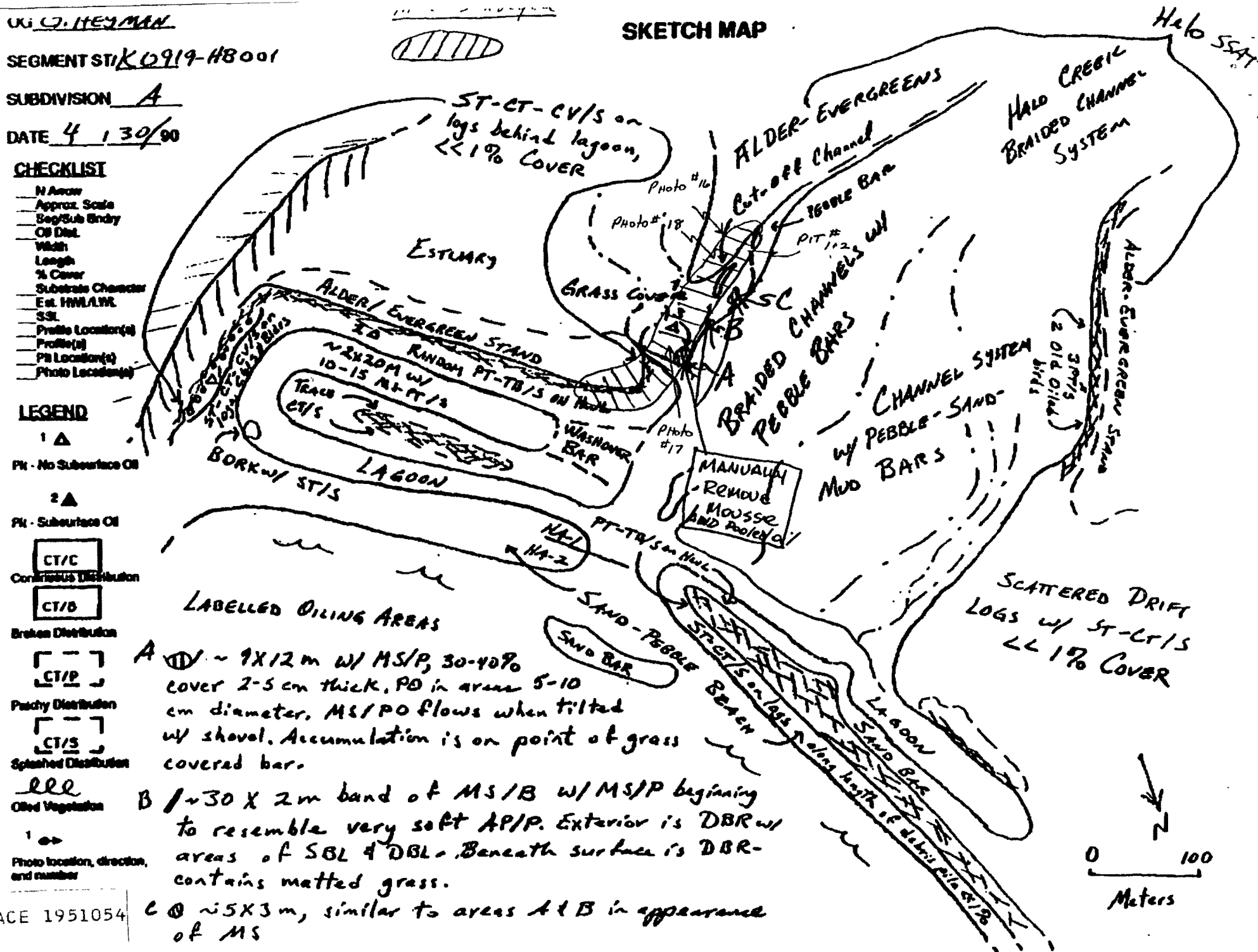
#18 - site where manual
clean up had been done

ACE 1951053

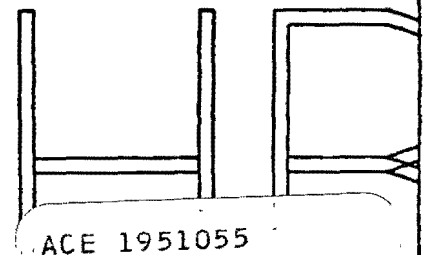
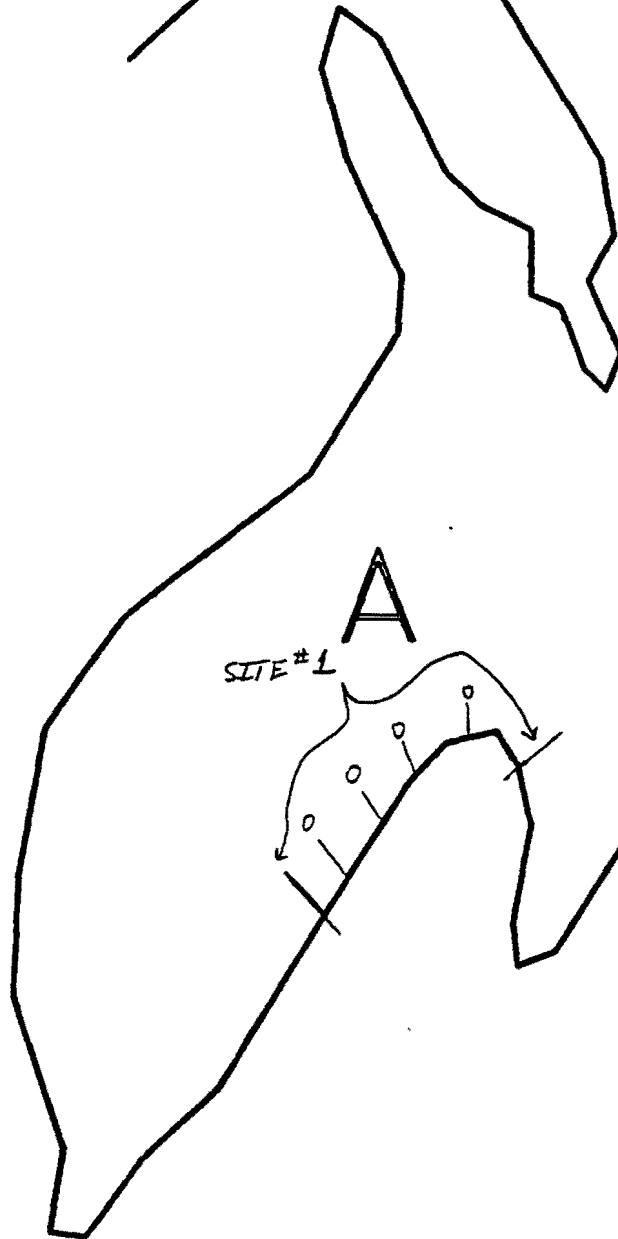
COMMENTS This site was located from the entrance to a gravel point bar inside the embayment of Hall's Bay Creek. Several sites were observed where patties had been removed from the SUTZ. No other oil was observed: viz. this site and two pits were dug (see sketch map for location) to confirm the presence of subsurface oil. REVISION NO. 7/27/88

REVISION NO. 7/27/2004

REVISION: 03/24/99



HB



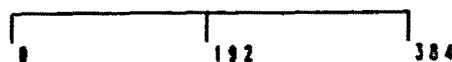
ACE 1951055



SEGMENT K9N-19 HB-1 Segment Location Map

Map Key: AKPK9N-19HB-1

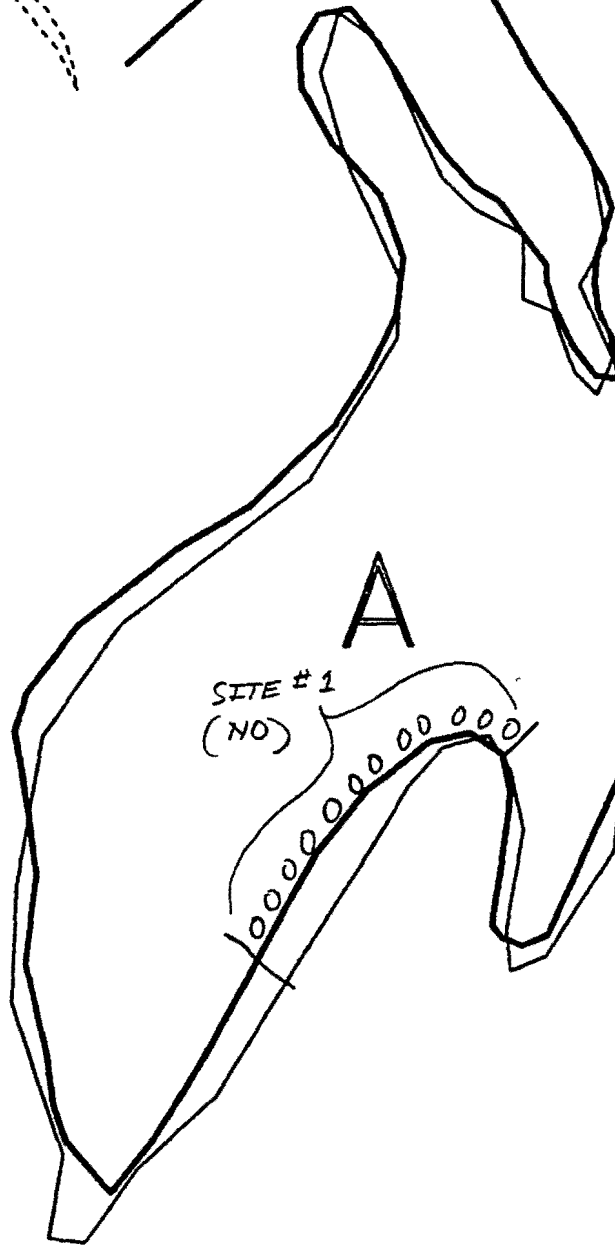
METERS



July 18, 1990

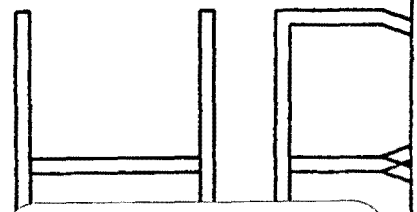
1:7564

HB



SITE #1
(NO)

A



ACE 1951056

XXX Wide
/// Medium
--- Narrow
TTT Very Light
000 No Oil

K9N-19 HB-1 A
ADEC Subsegment Length: 3724m
METERS

0 192 384

AK State Plane Zone 4 1:7504
a9n-19hb1a



Subdivision Field Map
Map Key: AKPK9N-19HB-1A
Name: D. FITZGERALD
Date: 3 August 90
Data Entered:

ANAD
STREAM
262-20-10035

HB-1

WORK AREA

ANAD STREAM
242-20-10040

HB-2



Exxon Company, USA
Map Key: MP+B-1
June 10, 1990



ECOLOGY MAP
SEGMENT K9N-19 HB-1
SUBDIVISION A (1 of 1)

METERS



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

1 inch = 1452 feet

12/5/FF/HF
ACE 1951057

SCAT, SSAT, ANADSSAT
(EXXON) ^ (JOINT) ↗

ACE 1950890

89 SCAT

out JUL 20 1989

SEGMENT INSPECTION RECORD

COPY

FOR FOSSC

ADEC # K9-19

Shoreline Segment: HB-1

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 Manually scoop up tar balls along the high tide wash line.

Signature *[Signature]* Date 7/14/89 Time

Printed Name Jim Wade

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

& Conditions were poor for an inspection today but from

Signature

Clarke A Pelz / *[Signature]* 8-22-89

Date

7-17-89

Time

6:50 PM

Printed Name

Clarke A Pelz

FOSSC Rep

Demobilization approved/disapproved

8-22-89

Comments

Inspected with NPS, ADEC & Exxon Rep.

see comments on reverse.

Signature

Phillip C. Smith / *[Signature]*

Date

7/19/89

Time

1448

Printed Name

Phillip C. Smith

D.M. Mayhew

8-22-89

1650

Copy: Exxon

ADEC

FOSSC

ISCC

Return All Signed Originals to Exxon

ACE 1950891
+15/FF

Checked area both sides of Halls Creek. Still some gumminess near high tide but I am unable to get the sled inside creek because of high tide. Will need to look at the area during a lower tide. Will cover half Port for.
July 19, 1988

ADEC

a previous visit and since the crews have already moved on ADEC agrees to demobilization and reassessment.

NOAA SSC Comments

Beach is recommended for demobilization. Small amounts of spatter and dried tarballs (small in size) remain on beach. oil is not mobile and is not considered to be a significant environmental hazard. Reassessment should be performed at low tide.

JCTalbot

JCTALBOT, NOAA SSC

8-22-89

Final Subunit Inspection complete
for Type A Cleanup

JCTalbot

D. Maguire

ADEC 8-22-89

Today's visit revealed similar conditions ~~as~~ ^{to} the ^{last} visit. - oiled debris and chunks of oily sand buried by the blowing sand. Tide was too high to examine the low inter tidal zone. WJ

TYPE A SHORELINE CLEANUP WORK ORDER

Date: 19 June 1989 Shoreline Segment: HB-1, HB-2, HB-3, HB-4

Location: (Attach map) Halle Bay

ADEC No. K-9-19 Shoreline Assessment Date: HB-1 May 8, 1989

Recommended Cleanup Activity(ies): HB-2, 3, & 4 May 9, 1989

SEE ATTACHED

Priority Considerations:

Ecological Constraints (from site survey):

Archaeological Constraints:

If any archaeological or historical sites or artifacts are discovered during the cleanup activity, they must remain undisturbed and the Exxon archaeologist C. Mobley contacted (as per procedures in the "Guideline for Shoreline Cleanup") and the State historic Preservation Office notified as soon as possible.

Submitted by: Jack A. Rickner
Exxon

Date: 19 Jun

State Historic Preservation Officer Telephone Approval (Required)

Date: See Attachments

Approved: A. M. [Signature]
Assistant OSC Western Alaska (If appropriate)
By direction

Date: 26 JUN 89

Approved: [Signature]
Federal On-Scene Coordinator

Date: 21 JUN 89

(A6)

ACE 1950893

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE May 9, 1989

SHORELINE SEGMENT HB-1

LOCATION: (see enclosed map) South side of Hallow Bay.

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 5/8/89

Recommended Cleanup Activity(ies):

Manually scoop up tar balls along the high tide wash line.

Priorities Considerations:

High priority, bears and other scavengers are eating dead oiled birds.

The tar balls are being buried and mixed with sediments by successive tide cycles which will make it more difficult to remove them.

Large balloon tired vehicles would be ideal for transporting the large volumes of material to be disposed, but that would constitute Type B clean-up rather than Type A.

Ecological Constraints (from site survey):

None. Manual removal of tar balls and oiled debris at wash zone will not adversely impact uncontaminated lower ITZ.

Archeological Constraints (from site survey):

The conditions for Type A shorelines should be applied to the cleanup of this segment. If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Charles E. Adams
State Historic Preservation Officer *

Date: May 9, 1989

EXXON: Jack A. Ricken

Date: May 17, 1989

* FOSC: _____

Date: _____

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

ACE 1950894

SHORELINE OIL EVALUATIONDate: 8 May 89 Time: 1530Observer: R. DuganSurveyed From: Foot Boat/Helio/PlaneWeather: Sun Cloud/Rain/Snow/FogLOCATIONSOUTH SIDELOCATION HALLO Bay SEGMENT NUMBER HB-1LENGTH OF SHORELINE SEGMENT: 700 mACCESS: Foot/Vehicle Boat/Barge/Helio/Float PlaneSHORELINE:Shoreline Type: SPI/BEA/COV/HLD/STRTSlope: LANG/HANG/VERWave Exposure: High/Med/LowSediment: B ___% / C ___% / P ²⁵~~20~~% / G ___% / S ⁷⁵~~80~~% / M ___% / R ___%Lift Debris on Beach: Yes/NoSupra/Upper/Mid/Lower Type logs
sea wood
dead birdsDegree of Oiling: Heavy/Moderate/Light/No Oil/UnobservedArea of Beach Impact: SU / SP / (H) / (M) / LContinuous: Y/N % of Segment 75 Width of Band: 2-3 mSporadic: Y/N % of Segment 25c. Oil Thickness where > 1cm: 1-25 cm Est. Oil Penetration: 3 cmCollected Oil: 100 % "Free" Oil: ___% Coated: H ___% / M ___% / L ___%Ash ___% Mousse 100 % Tar Formation: ___%Lift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H (M) / LComments:

Tar balls are concentrated in high tide swash line and have mixed with some sand & gravel. Scattered tar balls, usually smaller, are widely distributed in the mid and low tide zone; some are partially buried. Manual scooping of tar balls along the high tide line would be effective.

UMENTATION:/Aerial photo marking segment boundaries USGS - AFOG NAK: Y ☒ N Tape Number(s) _____tography: ☒ Y / N Roll Number(s) T1B-9ple Numbers Collected: NONE

ACE 1950896

ECOLOGICAL EVALUATION

CATION: South Side
Hallow Bay SITE: _____ OBSERVER: D. McCormick

CATION PREFIX: _____ SEG. NO.: HB-1 LENGTH: 700 (M)

TE: 5/8/89 TIME (HHMM): 1530 TIDE HT.: 2.0 (M)

LED ZONE: Splash High Medium Low

BSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

VE BIOTA

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

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

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

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

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

HER OBSERVATIONS: Laminaria / fucus at low tide zone oil free.

LEANUP PRECAUTIONS: Manual cleanup of tarballs and only debris at wash line will
it adversely impact mid-lower zones. No invertebrates observed.

MMALS: Otters _____ Harbor Seals _____ Sea Lions _____ Whales _____
Other _____

RDS: _____

NERAL OBSERVATIONS: Primary concern here is oiled birds washing upon beach --
rough estimate is 125 birds in a 250m stretch of beach - some have been oiled
and should be removed ASAP. Additional oiled birds observed with incoming tide.

Version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Site May 7, 1989 Location Hallo Bay Site South side of HALLO Bay

Location Prefix HB Segment # 1 Length 700m

Survey Method:

Tr (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 C. 1m Band of oil at the top of the active beach

Width of beach zone surveyed 5 m Tree fringe surveyed 5-10m

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:

wide, low sand and gravel beach. A low beach ridge topped with
more Profile DRIFT wood separates the active beach from an extensive tidal flat.

Fresh Water Sources None observed

Sea Exposure Open to the East and North-East

Access/Safety Beach is exposed and would be difficult to land on in
even moderate seas

Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

Monitoring during cleanup needed yes (no) Collection yes (no)

Notes: Color Roll # Frames

B/W Roll # Frames

Observer(s) Mike YARBOROUGH

Time survey started 3:30 pm Time survey ended 4:30 pm

Cultural resource considerations/restraints:

The conditions for type A - lightly oiled shorelines (attached)
would be applied to the cleanup of this segment.

8 May 89

Segment: Halls Bay -1 (HB-1)

Time: 1530 - 1635

landed in H-3 w/ USCG

- Surveyed @ M-H tide

Note Roney
with Dennis's son Larry on

scale

0 100 m

wx: clear

N ←

Ocean

Ocean

30m

Beach #1 S=75%
P=25%

HV

BEAT

RIVER

HV

- heavy oil in 2-3 meter band at
high tide line (lots of wood debris also added)

- many dead birds

- H-TZ - Heavy 1 to 25 cm

- mixed w/ sand/gravel

- M-TZ - Scattered blobs, mostly

- oil doesn't penetrate but does

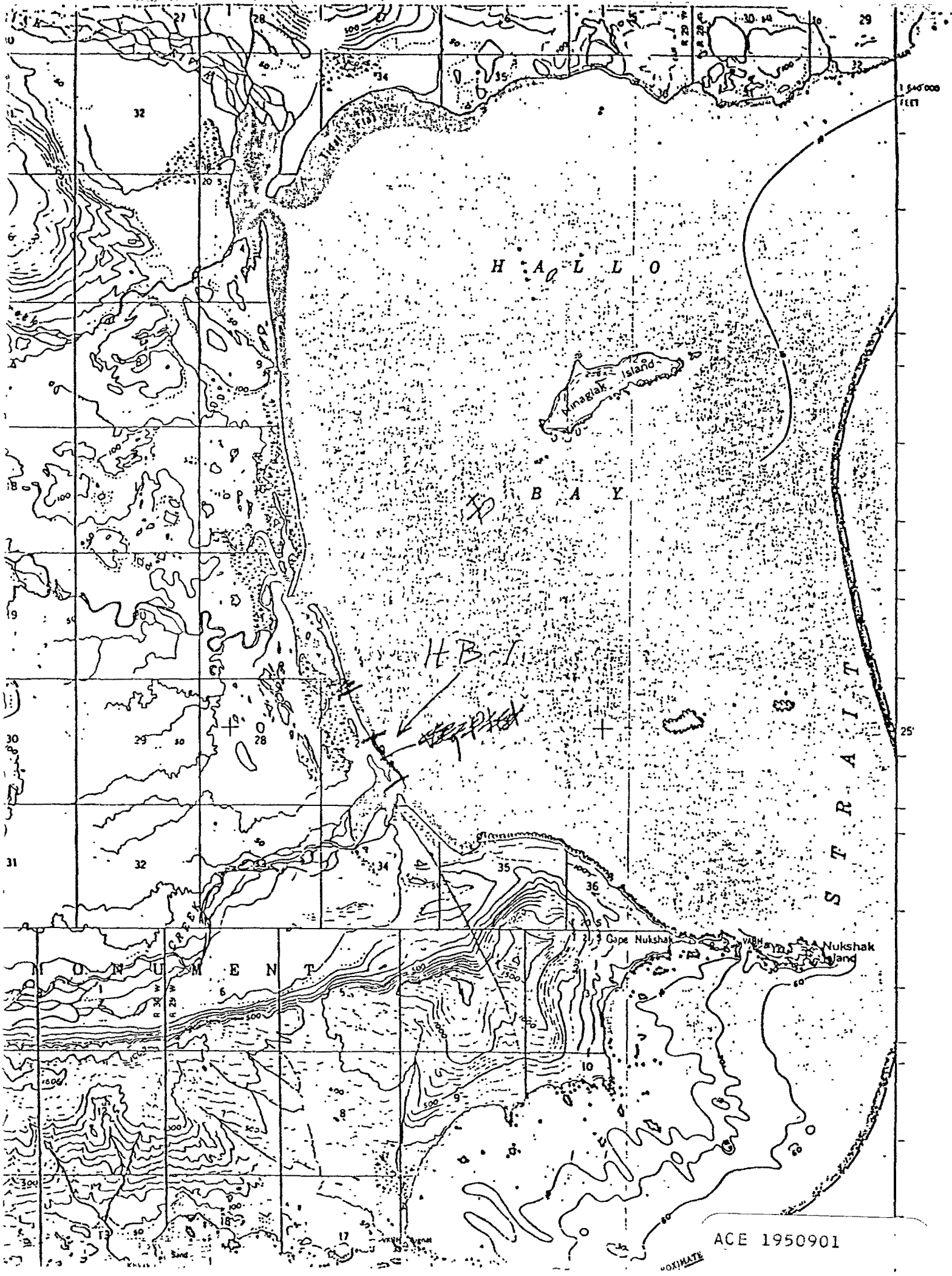
- manual scoop up ACE 1950899

oilish, continuing 3 meter band

sand covered

get buried by wind/waves

ACE 1950900



ACE 1950901

UNCLASSIFIED

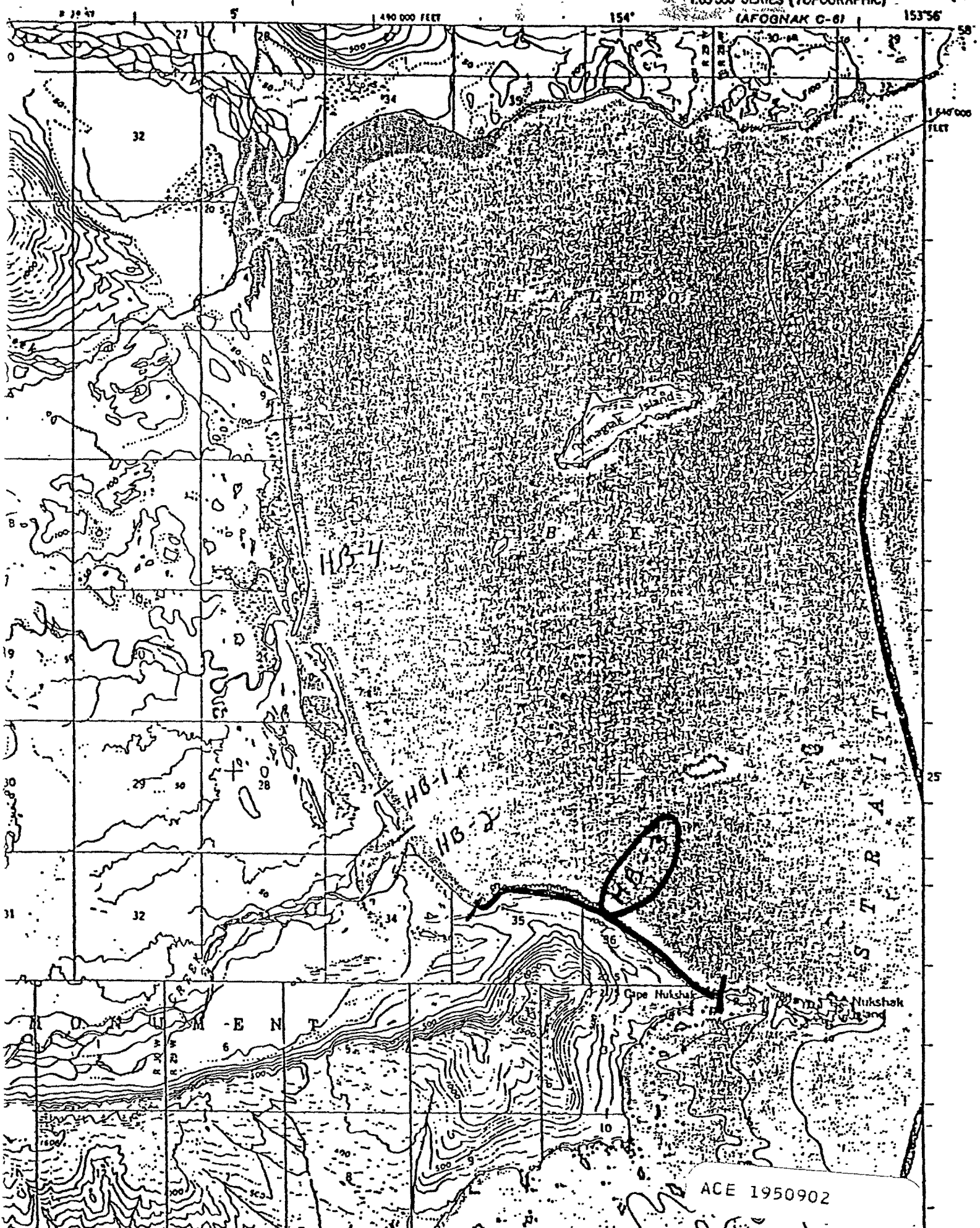
MT. KAIMAI (B-1) QUADRANGLE

ALASKA

1:63 360 SERIES (TOPOGRAPHIC)

(AFOGNAK C-61)

11 140



(version 5/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): HALLO BAY BLOCK

Includes Shoreline Segments: HB-1, HB-2, HB-3, HB-4

Submitted : Jack A. Pickens Date: 5/17/89
(for Exxon)

FOSC Approval: _____ Date: _____

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

Distribution:

Exxon Shoreline Coordinator
Exxon Shoreline Supervisor
Exxon SCAT file

FOSC
CDFU
NOAA
EPA
USDA (FS)
USFW
A.DEC
A.FG
A.DNR
CAC
PWSCA
USFS
SHPO

ACE 1950903

TYPE A SHORELINE CLEANUP WORK ORDER

Date: 19 June 1989

Shoreline Segment: HB-1, HB-2, HB-3, HB-4

Location: (Attach map) Halla Bay

ADEC No. K-9-19 Shoreline Assessment Date: HB-1 May 8, 1989

Recommended Cleanup Activity(ies):

HB-2, 3, 4 May 9, 1989

SEE ATTACHED

Priority Considerations:

Ecological Constraints (from site survey):

Archaeological Constraints:

If any archaeological or historical sites or artifacts are discovered during the cleanup activity, they must remain undisturbed and the Exxon archaeologist C. Mobley contacted (as per procedures in the "Guideline for Shoreline Cleanup") and the State Historic Preservation Office notified as soon as possible.

Submitted by:

Jack A. Rickner
Exxon

Date: 19 Jun

State Historic Preservation Officer Telephone Approval (Required)

Date: See Attachments

Approved:

A. M. [Signature]
Assistant OSC Western Alaska (if appropriate)
By direction

Date: 20 JUN 89

Approved:

[Signature]
Federal On-Scene Coordinator

Date: 21 JUN 89

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE May 9, 1989

SHORELINE SEGMENT HB-1

LOCATION: (see enclosed map) South side of Hallow Bay.

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 5/8/89

Recommended Cleanup Activity(ies):
Manually scoop up tar balls along the high tide wash line.

Priorities Considerations:

High priority, bears and other scavengers are eating dead oiled birds.

The tar balls are being buried and mixed with sediments by successive tide cycles which will make it more difficult to remove them.

Large balloon tired vehicles would be ideal for transporting the large volumes of material to be disposed, but that would constitute Type B clean-up rather than Type A.

Ecological Constraints (from site survey):

None. Manual removal of tar balls and oiled debris at wash zone will not adversely impact uncontaminated lower ITZ.

Archeological Constraints (from site survey):

The conditions for Type A shorelines should be applied to the cleanup of this segment. If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Charles E. Adams
State Historic Preservation Officer *

Date: May 9, 1989

EXXON: Jack A. Ritten

Date: May 17, 1989

* FOSC: _____

Date: _____

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

ACE 1950905

SHORELINE OIL EVALUATION

te: 8 May 89 Time: 1530

Observer: R. Dugan

veyed From: (Foot) Boat/Helio/Plane

Weather: (Sun) Cloud/Rain/Snow/Fog

LOCATION

SOUTH SIDE
HALLO Bay

SEGMENT NUMBER 14B-1

NGTH OF SHORELINE SEGMENT: ~~400~~ 700 m

CESS: Foot/Vehicle (Boat/Barge/Helio/Float Plane)

SHORELINE:

oreline Type: SPI/(BEA) COV/HLD/STRT

Slope: (LANG) HANG/VER

ve Exposure: (High) Med/Low

iment: B___% / C___% / P²⁵~~50~~% / G___% / S⁷⁵~~50~~% / M___% / R___%

ift Debris on Beach: (Yes)/No (Supra/Upper)/Mid/Lower Type logs
sea urchins
dead birds

gree of Oiling: (Heavy)/(Moderate)/Light/No Oil/Unobserved

ea of Beach Impact: SU / SP / (H)/(M)/ L

Continuous: (Y)/N % of Segment 75 Width of Band: 2-3 m

Sporadic: Y/N % of Segment 25

t. Oil Thickness where > 1cm: 1-25 cm Est. Oil Penetration: 3 cm

olled Oil: 100 % "Free" Oil: ___% Coated: H___% / M___% / L___%

ash ___% Mousse 100 % Tar Formation: ___%

ift Debris Oiled ? (Yes)/No Supra/(Upper)/Mid/Lower Amount: H/(M)/L/

Comments:

Tar balls are concentrated in high tide swash line
and have mixed with some sand & gravel. Scattered
tar balls, usually smaller, are widely distributed in the mid
and low tide zone; some are partially buried. Manual
scooping of tar balls along the high tide line would
be effective

CUMENTATION:

o/Aerial photo marking segment boundaries USGS - AFOG-NAH

R: Y/N Tape Number(s) _____

otography: Y/N Roll Number(s) T1B-9

ample Numbers Collected: NONE

ECOLOGICAL EVALUATION

LOCATION: South Side
Hallow Bay SITE: _____ OBSERVER: D. McCormickLOCATION PREFIX: _____ SEG. NO.: HB-1 LENGTH: 700 (M)DATE: 5/8/89 TIME (HHMM): 1530 TIDE HT.: 2.0 (M)TIDED ZONE: Splash High Medium LowSUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Ulcus (algae): Patchy (Y/N) Contin. Y/N Dense Y/N Sparse (Y/N) None Y/NMytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None (Y/N)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)Impacts: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None (Y/N)OTHER OBSERVATIONS: Laminaria / fucus at low tide zone will free.CLEANUP PRECAUTIONS: Manual cleanup of tarballs and only debris at seaward line will not adversely impact mid-lower zones. No invertebrates observed.ANIMALS: Otters _____ Harbor Seals _____ Sea Lions _____ Whales _____
Other _____

BIRDS: _____

GENERAL OBSERVATIONS: Primary concern here is oiled birds washing upon beach - rough estimate is 125 birds in a 250m stretch of beach - some have been scavenged and should be removed ASAP. Additional oiled birds observed with incoming tide.

version of 4/29/89)

CULTURAL RESOURCE EVALUATION

ate May 9, 1989 Location Hallo Bay Site South side of Hallo Bay

ocation Prefix HB Segment # 1 Length 700m

urvey Method:

ir _____ (A - indicate on map) Boat _____ (A - indicate on map)

round ✓ (G - indicate on map)

nown cultural resources (AHRS #) None Data Source _____

il conditions/beach visibility c. 1m band of oil at the top of the active beach

idth of beach zone surveyed 5 m Tree fringe surveyed 5-10m

ultural resources observed in beach zone (AHRS code) none

ultural resources observed in tree fringe (AHRS code) none

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

wide, low sand and gravel beach. A low beach ridge topped with
shore Profile DRIFT wood separates the active beach from an extensive tidal flat.

resh Water Sources none observed

sea Exposure open to the east and northeast

ccess/Safety Beach is exposed and would be difficult to land on in
even moderate seas

robability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

onitoring during cleanup needed yes (no) Collection yes (no)

hotos: Color Roll # _____ Frames _____

B/W Roll # _____ Frames _____

observer(s) Mike YARBOROUGH

ime survey started 3:30 pm Time survey ended 4:30 pm

ultural resource considerations/restraints:

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

ACE 1950909

8 May 89

Segment: Halo Bay -1 (HB-1)

Time: 1530 - 1635

landed in H-3 w/ USCG

- Surveyed @ M-H tide

Note: Rainy
w/ dense fog early on

scale

100 m

Wx: clear

N ←

Ocean

Ocean

50m

Beach #1

S = 75%

P = 25%

HV

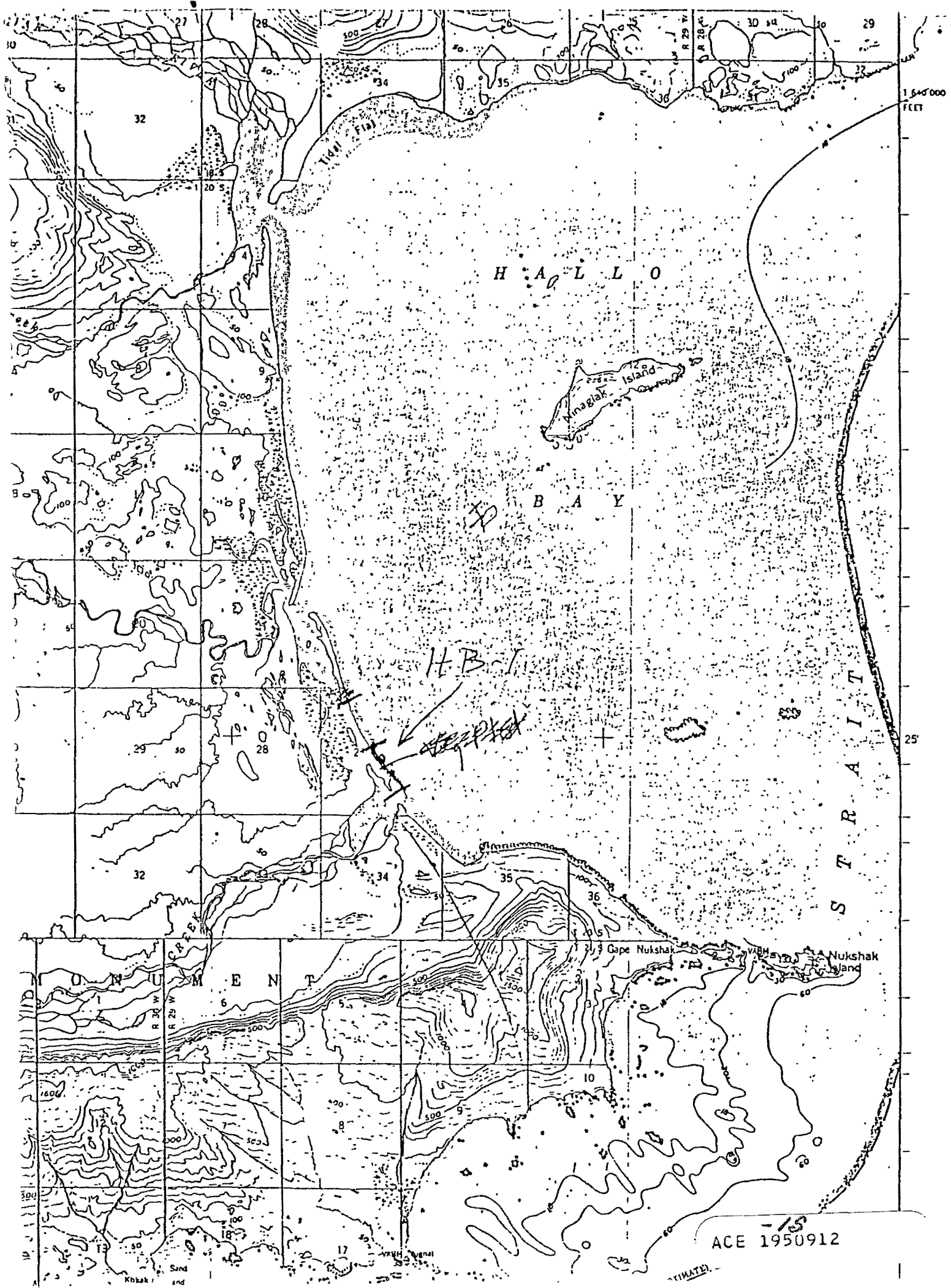
BEACH

RIVER

HV

- heavy oil in 2-3 meter band at high tide line (lots of wood debris also noted)
- many dead birds
- HTZ - Heavy 1 to 25 cm thick, continuous, 3 meter band
 - mixed w/ sand/gravel
- MHTZ - Scattered blobs, mostly sand covered
- oil doesn't penetrate but does get buried by wind/waves
- manual scoop up ACE 1950910

ACE 1950911



89 SCAT

out JUL 20 1989

SEGMENT INSPECTION RECORD

COPY

ADEC # K9-19

Shoreline Segment: HB-2

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: Manually scoop up tar balls along the high tide wash line.

Signature

Date 7/14/89

Time

Printed Name

Jim Wade

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

Survey conditions look good

tide, but flow

Signature

Date

7-19-89

Time

6:20 PM

Printed Name

Clarke A. Pelz

FOSC Rep

Demobilization approved/disapproved

Comments

See comments on reverse

Signature

Date

7/19/89

Time

1947

Printed Name

Philip C Smith

Copy: Exxon

ADEC

FOSC

ISCC

Return All Signed Originals to Exxon

ACE 1950913+1/2

HUEC Comments

9-19 #02

previous visits and since the crew has already moved on ADEC agrees to demobilization.

NPS Comment
Checked area to NE of Halls Creek. This area has some
mound peapods but checked area during high tide. Red mud
to be checked at low tide. Creek for area of about 1/3 mile
near creek. Rest of area looked pretty clean
Will Torg
Nat. Park. Serv. 7/19/89

NOAA SSC Comments

Small amounts of tar balls (quarter & dime size) and dried
spattering on logs / rocks. Tar balls drying out and not
significant from an environmental hazard standpoint. Beach
is recommended for demobilization. Reassessment should be
done at low tide.

JCTalbot

JC Talbot, NOAA SSC

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 5/13/89

SHORELINE SEGMENT HB-2

LOCATION: (see enclosed map) Hallo Creek Lagoon at Hallo Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 5/9/89

Recommended Cleanup Activity (ies)

Manual pickup.

Mechanical pickup would speed it up, if permitted.

Priorities Considerations: HIGH

Wind and waves will bury the oil.
Intense wildlife use.

Ecological Constraints (from site survey):

During manual cleanup of dead birds and mousse, avoid introducing or tracking mousse into relatively clean lower ITZ and Hallo Creek channels.

Archeological Constraints (from site survey):

If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Douglas Reger
State Historic Preservation Officer *

Date: 5/13/89

EXXON: Jack A. Ritten

Date: 5/17/89

* FOSC: _____

Date: _____

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

ACE 1950915

TYPE A SHORELINE CLEANUP WORK ORDER

Date: 19 June 1989

Shoreline Segment: HB-1, HB-2, HB-3, HB-4

Location: (Attach map) Halle Bay

ADEC No. K-9-19 Shoreline Assessment Date: HB-1 May 8, 1989

Recommended Cleanup Activity(ies):

HB-2, 3, 4 May 9, 1989

SEE ATTACHED

Priority Considerations:

Ecological Constraints (from site survey):

Archaeological Constraints:

If any archaeological or historical sites or artifacts are discovered during the cleanup activity, they must remain undisturbed and the Exxon archaeologist C. Mobley contacted (as per procedures in the "Guideline for Shoreline Cleanup") and the State historic Preservation Office notified as soon as possible.

Submitted by: Jack A. Rickner
Exxon

Date: 19 Jun

State Historic Preservation Officer Telephone Approval (Required)

Date: See Attachments

Approved:

A. M. [Signature]
Assistant OSC Western Alaska (If appropriate)
By direction

Date: 20 JUN 89

Approved:

[Signature]
Federal On-Scene Coordinator

Date: 21 JUN 89

SHORELINE OIL EVALUATIONDate: 9 May 89 / Time: 1600-1700Observer: Bob DuganSurveyed From: (Foot) Boat/Helio/PlaneWeather: (Sun) Cloud/Rain/Snow/FogLOCATIONHalla Creek LagoonLOCATIONHalla Bay

SEGMENT NUMBER

HB-2LENGTH OF SHORELINE SEGMENT: 900 mplus another 1000m inside lagoonACCESS: (Foot) Vehicle (Boat/Barge/Helio/Float Plane)SHORELINE:Shoreline Type: SPI (BEA) COV/HLD/STRTSlope: (LANG) HANG/VERWave Exposure: (High) Med/LowSediment: B ___% / C ___% / P 20% / G ___% / S 80% / M ___% / R ___%Drift Debris on Beach: (Yes) No(Supra/Upper) Mid/Lower TypeLog 3sea weed
flotsamILDegree of Oiling: Heavy (Moderate) Light/No Oil/UnobservedArea of Beach Impact: SU / SP / (H) / M / LContinuous: (Y) N % of Segment 100 Width of Band: 1-5 mSporadic: (Y) N % of Segment 1-2% in HITZ, LITZEst. Oil Thickness where > 1cm: 10 cm Est. Oil Penetration: 1-25 cmCoated Oil: ___% "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:

① 90% of mousse concentrated in HITZ strand lines. ② Mousse rapidly melts or flows in direct sunlight exposure. ③ High priority cleanups due to heavy wildlife use & natural burial of oil by wind & waves.

DOCUMENTATION:

p/Aerial photo marking segment boundaries See Attached

R: Y ☒ N Tape Number(s) _____

otography: ☒ N Roll Number(s) T1B-9

mple Numbers Collected: None

ECOLOGICAL EVALUATION

LOCATION: Hallo Creek Lagoon
Hallo Bay SITE: _____ OBSERVER: D. McCormick
 LOCATION PREFIX: _____ SEG. NO.: HB-2 LENGTH: 900+1000 (M)
 DATE: 5/9/89 TIME (HHMM): 1600 TIDE HT.: + 1.1 (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 present as debris at strand line only

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

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

Lit Orina

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

Limp Es: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS: 2 sets bear tracks seen along Hallo Cr; 1 set pos fox
prints; minnows in Hallo Cr; counted approx. 20 oiled birds at high ITZ.

CLEANUP PRECAUTIONS: Use manual clean-up to pick up mouse - avoid
introducing oil to uncontaminated areas of low ITZ and Creek channel.

MAMMALS: Otters _____ Harbor Seals _____ Sea Lions _____ Whales _____
 Other Bear tracks

BIRDS: flowers along Hallo Creek; bald eagles on cliff at S end of segment

GENERAL OBSERVATIONS: This site should be cleaned ASAP (dead birds and
extensive mouse on surface) due to presence of scavengers and high
use by shorebirds. There are known clam beach areas here that may be
impacted if oil becomes buried. Known salmon streams in area

version of 4/29/89)

CULTURAL RESOURCE EVALUATION

ate 5-9-89 Location Hallo Bay Site Lagoon AT Hallo Bay

ocation Prefix HB Segment # 2 Length 1900

urvey Method:

ir _____ (A - indicate on map) Boat _____ (A - indicate on map)

round ✓ (G - indicate on map)

nown cultural resources (AHRS #) NONE Data Source _____

il conditions/beach visibility Mousse concentrated along high tide line

idth of beach zone surveyed 5 m Tree fringe surveyed 10m

ultural resources observed in beach zone (AHRS code) NONE

ultural resources observed in tree fringe (AHRS code) NONE

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

hore Profile LOW FLAT SANDY BEACH WITH AN 8m wide zone of DRIFT WOOD. FLAT VEGETATED UPLAND RISING 5m ABOVE THE DRIFT ZONE

resh Water Sources HALLO CREEK

ea Exposure OUT BEACH EXPOSED

ccess/Safety DIFFICULT LANDING DURING STRONG WINDS

robability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

onitoring during cleanup needed yes (no) collection yes (no)

otos: Color Roll # _____ Frames _____

B/W Roll # _____ Frames _____

bserver(s) MIC YARBOROUGH

ime survey started 3:50 pm Time survey ended 5:51 pm

ultural resource considerations/restraints:

IF HERETOFORE UNDISCOVERED CULTURAL REMAINS ARE UNCOVERED DURING
CLEANUP, CONTACT EXXON'S DIRECTOR OF FIELD ARCHAEOL
IMMEDIATELY

9 May 89

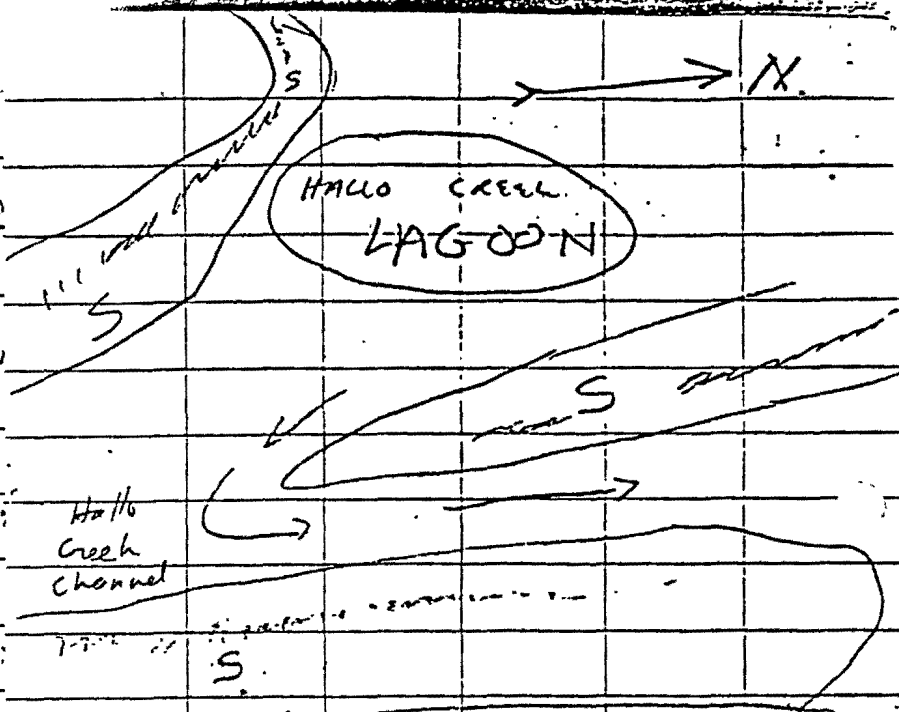
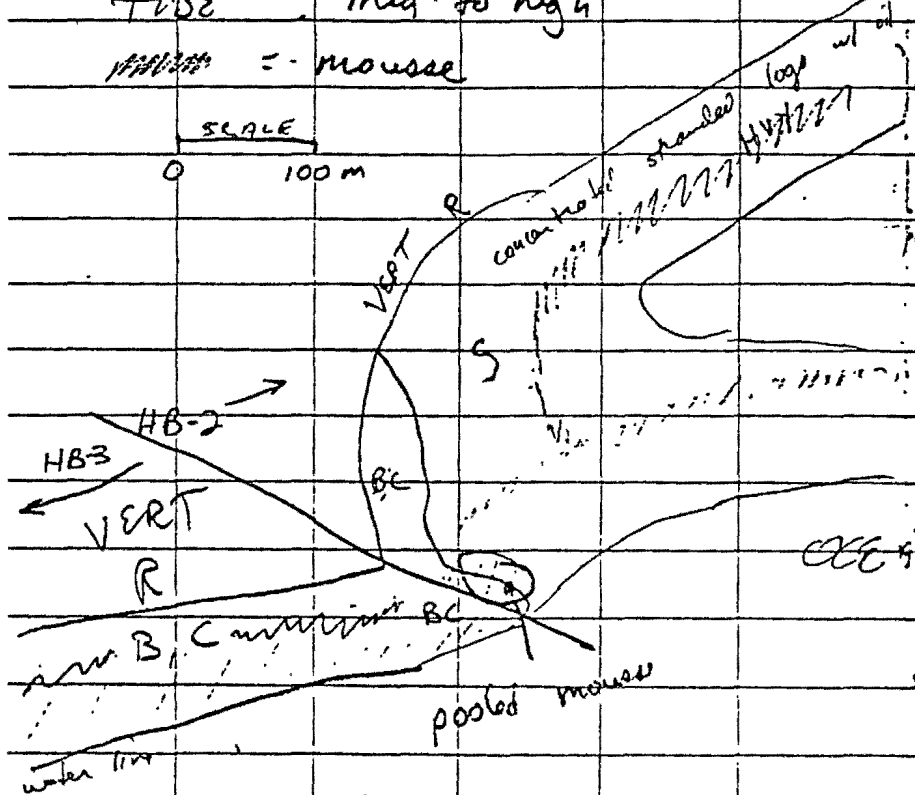
TIME: 1600 - 1700

Segment: HB-2

TIDE: mid to high

1/11/89 = mouse

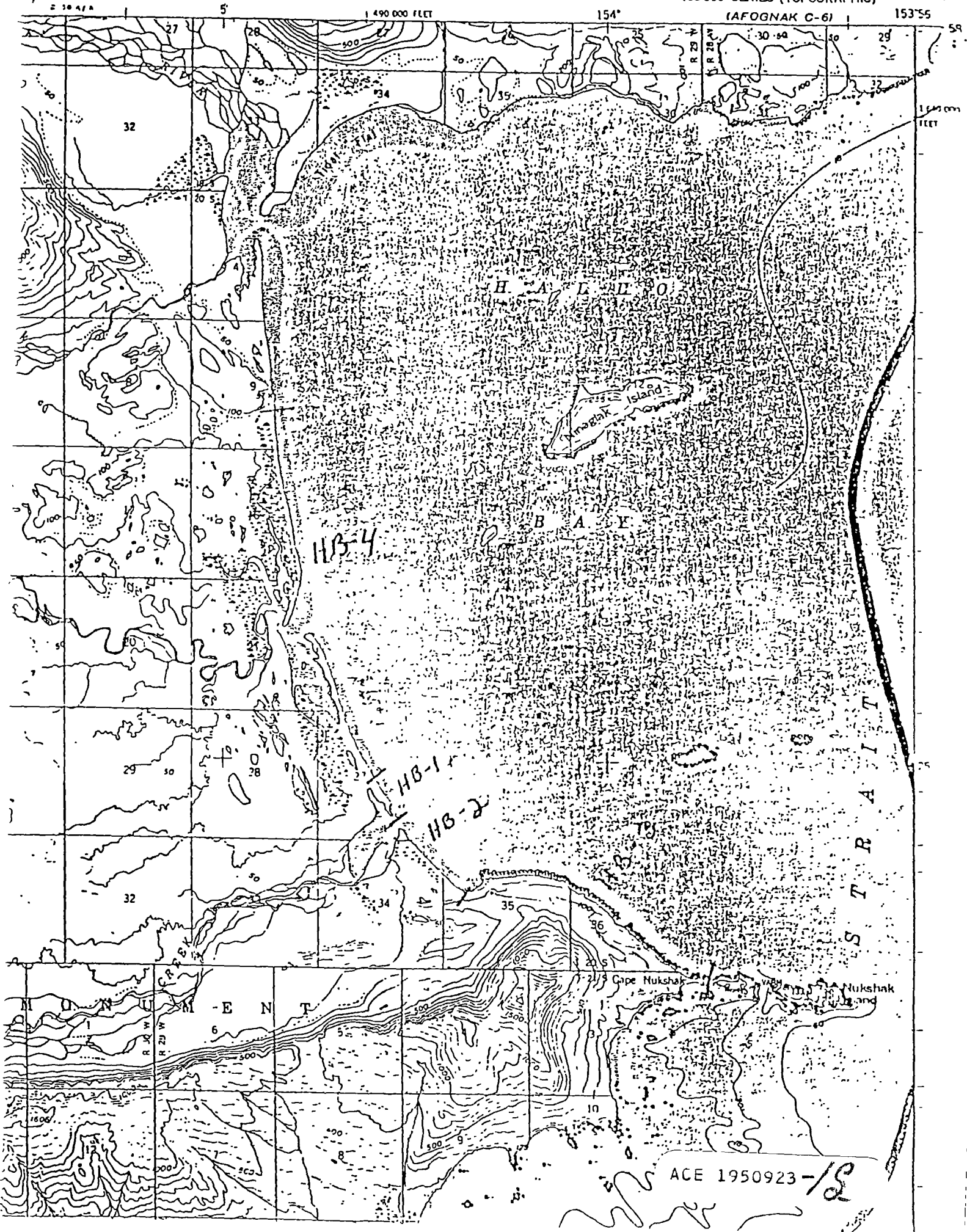
SCALE
0 100 m



numerous dead birds
oil - mouse 100% in high tide area
less 90% concentrated in 1-5 m
bands, widely scattered patches elsewhere
between LITZ & HITZ (1% cover)
thickness: up to 3 in thick but
rapidly melting into the sand by the sun
blobs 90%, pools 10%

ACE 1950921

ACE 1950922



SN 5/15

SHORELINE EVALUATION

SEGMENT ST/ K09-19-HB-02 SUBDIVISION A (1 OF 1) DATE 4/23/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

7JJ Subsistence area: Invertebrate harvesting

9LM Land Mammals

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

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

OILING CATEGORIZATION:

Wide 0 m: Medium 106 m: Narrow 0 m: V.Light 0 m: No Oil 0 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual pickup of mousse,
oiled debris and oiled logs, and 2) bioremediate in areas indicated on
sketch map. Apply bioremediation up to stream bank with ADF&G approval.
Avoid bioremediation in invertebrate harvesting areas.

TAG COMMENTS: MONITORS TO ASSESS NEED TO REMOVE LOGS

TAG APPROVAL DATE: 5/4/90
ADEC ARI WEINER
EXXON ANDY TEAL
NOAA Gary Petrag Gary Petrag
USCG G.A. HEITER G.A. Heiter

FOSC: W L DATE: 5-9-90
INIPOL not authorized.

ACE 1950924+1/3

SEGMENT ST / K0919-HB002 SUBDIVISION: A DATE 4/23/90NOAA
HOOGNAME John Naughton SIGNATURE John J. Naughton☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

Only surveyed approximately 150 meters of south end of segment since the rest was reported as having no oil. Stain, coat and some mousse in upper intertidal. Suggest the mousse be treated by manual removal at the same time as treatment of adjacent Segment HB 003.

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

COMMENTS

A 100M x 8M area in the southern most part of segment has mousse/sediment between boulders and cobbles as well as coat and stain with a patchy distribution and a thickness to 6cm, in the UI to MI. Manual removal recommended.

Only the southern 150M were survey based on reports of no oil in the remainder of the segment.

LAND MANAGERNAME Carl Sebeck SIGNATURE Carl Sebeck☒ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

Mousse with entrained sediment fills interstitial spaces between surface cobbles and boulders. Area includes cover/coat/stain. Mousse can be scrapped from interstitial spaces. The weather/hardened cover will be difficult to remove, but scrapping is possible.

SHORELINE OILING SUMMARY

REVISION NO.

OG LINDSAY NAKASHIMA USCG (NOAA) JOHN NAKASHIMA SEGMENT STI K0919-HB002
 BIO DEB Mc CORMICK LAND REP (NM) CARL SCHUCH SUBDIVISION HB002A (1 OF 1)
 EXXON FEED AVARS ADEC TERRY ELLESWORTH TIME 7:15 to 7:30 AM
 TEAM NO. 19 TIDE LEVEL -0.5 FT. (SLACK) DATE 4/23/90
 EST. SUBDIVISION LENGTH: 1220 m 100 ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: NW to SE
 SURFACE SEDIMENTS: R 25 % B 25 % C 20 % P 15 % G 40 % S 0 % M 0 % V 0
 SLOPE: Long 90 % Hang 5 % Vert 5 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ Hig
 OIL CATEGORY LENGTH: W 0 m M 100 m N 0 m VL 0 m NO 1220

SURFACE OIL

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

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

OILED DEBRIS	AMOUNT		
	SM	MO	LG
Logs	X		
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒

TYPE

#BAGS

Photographs:

Roll No. ST-19-15Frames 24-27

SUBSURFACE OIL NO PITS DUG - LIMITED AREA

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SHEEN (Y/N)	SURF SUBSURF SEDIMENT
		OP	OR	OL	OF	NO		UO	UC	1	2	3	4	5	6	SU	U	M	U			
0							.															
							.															
							.															
							.															
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ACE 1950926

COMMENTS SEGMENT WAS MOSTLY CHARACTERIZED AS NOT OILED, (ADEC THEREFORE, THE SOUTHERN 150m WERE SURVEYED. WITHIN THE SURVEYED AREA, ABOUT 100m WAS OILED ACCORDING TO THE CATEGORIES SPECIFIED ON THE SKETCH AND THIS FORM.

REVISED 4/24/90 (L)

REVIEWED BA7 DATE 24 Apr 90

UG LINDSEY NAKASHIMA
 SEGMENT STI KO919-HB002
 SUBDIVISION HB002 141
 DATE 4/23/90

SKETCH MAP

CHECKLIST

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

LEGEND

1 Δ
 PH - No Subsurface Oil

2 Δ
 PH - Subsurface Oil

CT/C
 Continuous Distribution

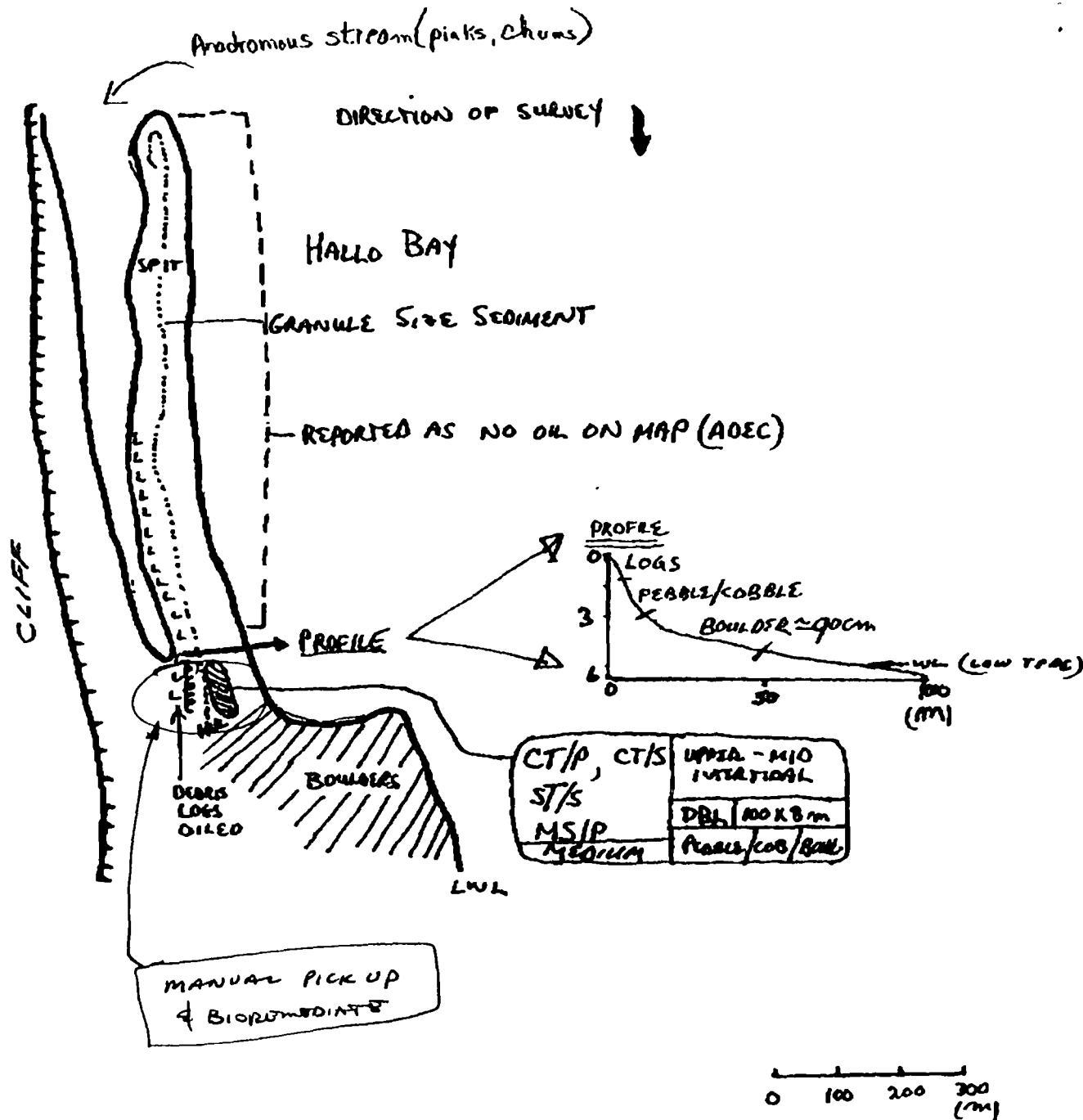
CT/B
 Broken Distribution

CT/P
 Patchy Distribution

CT/S
 Splashed Distribution

eee
 Oiled Vegetation

1 →
 Photo location, direction,
 and number



ACE 1950927

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

REVISION 03/04/90

KODIAK ECOLOGICAL CONSTRAINTS

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

ACE 1950928

SHORELINE ECOLOGICAL SUMMARY

REVISION 03/72

Segment ST / KO919H322 Subdivision A Date (mo / day / yr) 4-23-90

Time (24 hr) 0715-0730 Biologist D. McCORMICK

(A) Substrate type and % of segments:
(1) Bedrock _____ (2) Boulder 25 (3) Cobble 20 (4) Pebble 15 (5) Sand 40 (6) Silt _____

(B) Overall % cover of biota (% of segment): Dense _____ Moderate 5% (10%) Low 95% (90%)

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

Photographs:
Roll No. ST-19-15

Frames 24-27

BARNACLES present only in extreme E end of segment on boulder beach.

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	3	2	3	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	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 None observed

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

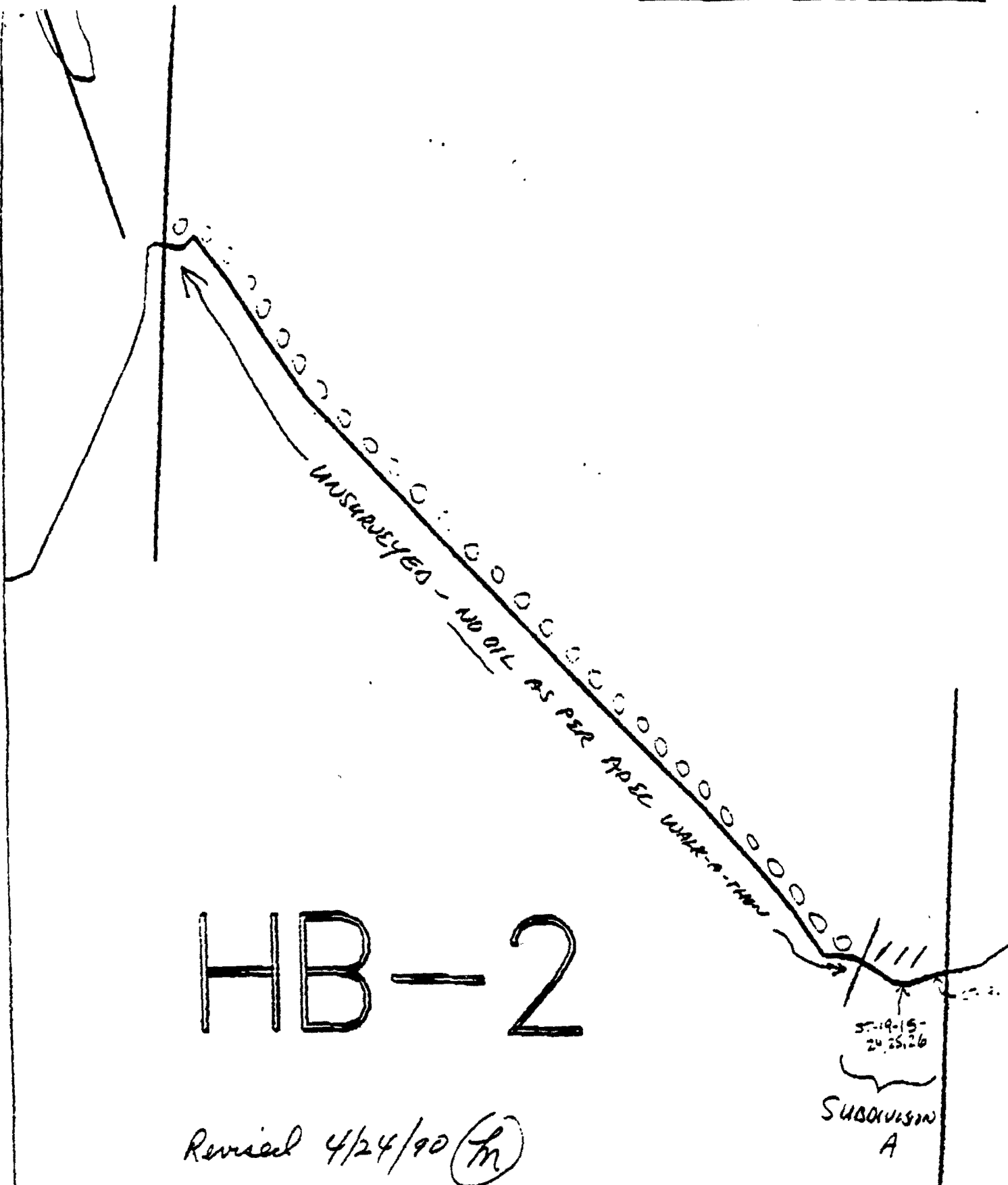
Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	X	2	2	X	2	2	X	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments: Bear tracks on beach.

Filamentous green algal layer continuous in lower ITZ on boulders, patchy in mid ITZ

Ecological Considerations: Anadromous stream (Pinks, Chum) at W end of segment.



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

HB-2

ADEC Segment Length: 1238m

ACE 1950930-18

Map Key: GOA-100

Name: LINDSAY FINE

Date: 4/23/90

Jm

SHORELINE EVALUATION

SEGMENT ST/ K09-19-HB-001 SUBDIVISION A (1 OF 1) DATE 4/30/90

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 262-20-10030
7JJ Subsistence area: Invertebrate harvesting
9LM Other: Land mammals
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Rachel Jean Osee DATE: 5/10/90

OILING CATEGORIZATION:

Wide 0 m: Medium 11 m: Narrow 38 m: V.Light 2100 m: No Oil 1574 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

+ TRASH

COMMENTS: Recommend manual pick up of mousse and pooled oil in UITZ and SUTZ indicated on attached sketch map. Work after 9/10 due to anadromous stream constraints.

WORK FROM MAY 15 → JULY 10

TAG COMMENTS: MONITORS TO ASSES LOGS

TAG APPROVAL DATE: 5/17/90

ADEC ART WEINER Art Weiner

EXXON ANDY TGAZ Andy TGAZ

NOAA GARY PETRAE Gary Petrae

USCG G.A. REITER G.A. Reiter

FOSC: WJL

DATE: 5-23-90

ACE 1950931 +/S

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 267-2298
- 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 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 1950932

SEGMENT ST / K0919-HB001 SUBDIVISION: A DATE 4-30-90

NOAA
 4000

NAME John Naughton SIGNATURE John J. Naughton

☐ NO TREATMENT RECOMMENDED
 COMMENTS

☒ TREATMENT SUGGESTED

This segment along the southerly portion of Hallo Bay, included the delta of Hallo Creek, should receive treatment in specific areas. Splashes of stain and crust were found in the large debris lines on either side of the river, especially to the south. Unusual areas of concentrated mounds were found back on matted grass bank (Areas A, B, C on sketch map) well behind shoreline. Recommend manual removal of this broken and patchy mousse. Oiled debris is very light and need not be treated except for removal of heavily oiled rope, line and fishing net.

ADEC

NAME Terry Ellsworth SIGNATURE Terry Ellsworth

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

This segment is located primarily along Hallo Creek delta. Staining, coat and cover occurs very sporadically (<1%) over much of the area. On the SW side of the lagoon (see map) tarballs and patties are present in a 2x20m area. Three areas of broken or patchy mousse occur on the S side of the segment on the grass bank above the creek channel. Manual treatment is recommended for the areas containing mousse, patties, and tarballs as well as removal of the more heavily oiled small wood debris and oiled rope, net, etc.

LAND MANAGER

NAME Carl Sebach SIGNATURE Carl Sebach

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

The upper intertidal perimeter of the south-branch Lagoon in the Hallo Cr. estuary contains oiled debris, nets, rope, etc. that should be removed. The 20x2m area of mousse patties should also be treated. Sites A, B, and C indicated on the sketch map should be treated by shoveling the oiled grass and sand down to about 3 inches. Only the grass mat under the oil patches should be removed, not the entire dimensional area indicated.

SEGMENT ST / 10919-H800 SUBDIVISION: A DATE _____

USCG

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

~~ADFG~~ ADFG

NAME EDWARD W. WEISS SIGNATURE Edward W. Weiss

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

MANUAL REMOVAL OF TARBALLS/PATTIES ON S & SE SIDES
OF LAGOON RECOMMENDED. AND OILED DEBRIS
ALSO IN AREAS INDICATED ON NORTH SIDE.

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY

REVISION NO. 06/13/90

OG GLENN HEYMAN ^{NOAA} USCG JOHN NAUGHTON SEGMENT ST/ K 0919-HB001
 BIO JIM BARRS LAND REP CARI SCHUCH NPS SUBDIVISION A (LOFL)
 EXXON FRED BYARS ADEC TERREY ELLSWORTH TIME 13:20 14:30
 TEAM NO. 19 TIDE LEVEL -0.5 to +1.5 DATE 4/30/90
 EST. SUBDIVISION LENGTH: 3724 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☒ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 1 % B 3 % C 3 % P 20 % G 33 % S 20 % M 20 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 12 m N 35 m VL 2100 m NO 577 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	B	P	S	1	2	3	4	5	6	7	8	SU	U	M	V
ASPHALT																
PAVEMENT																
POOLED				X									X			
COVER				X									X			
COAT				X									X			
STAIN				X									X			
MOUSSE		X	X										X			
PATTIES				X									X			
TARBALLS				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			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE 0#BAGS 0

Photographs:

Roll No. ST-6/19-7Frames 20-22

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)	SHEEN	SURFACE-SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	1	2	3	4	5	6	7	8					
1	15					X	0-0	X										X	N	-	-	G/GS
2	15					X	0-0	X										X	N	-	-	G/GS
3	10					X	0-0	X										X	N	-	-	VS/SM
							.															
							.															
							.															

COMMENTS

Oiling in areas A, B, & C (shown on sketch map) is listed as MS/B & P. This is grading in areas to AP, but is included on the surface oil matrix as MS only.

REVIEWED BAT DATE 8 MAY 90

ACE 1950935

REVISED: 10/25/2004

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / K9-19-HB-1 Subdivision A Date (mo / day / yr) 4/30/90Time (24 hr) 1320-1640 Biologist JIM BARRY

(A) Substrate type and % of segments:

(1) Bedrock 1 (2) Boulder 3 (3) Cobble (4) Pebble (5) Sand (6) Silt (B) Overall % cover of biota (% of segment): Dense 15 Moderate 35 Low 50

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

Photographs:

Roll No. ST-6/19-7Frames 20-22

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

COMMON Merganser - 6

BARROW'S GOLDFINCH - 1

FOX TRACKS - ABUNDANT

BEAR TRACKS/SCAT

MOOSE TRACKS/SCAT

RIVER OTTER TRACKS

Remnants of 2 dead oiled Murres from last fall.

Ecological Considerations:

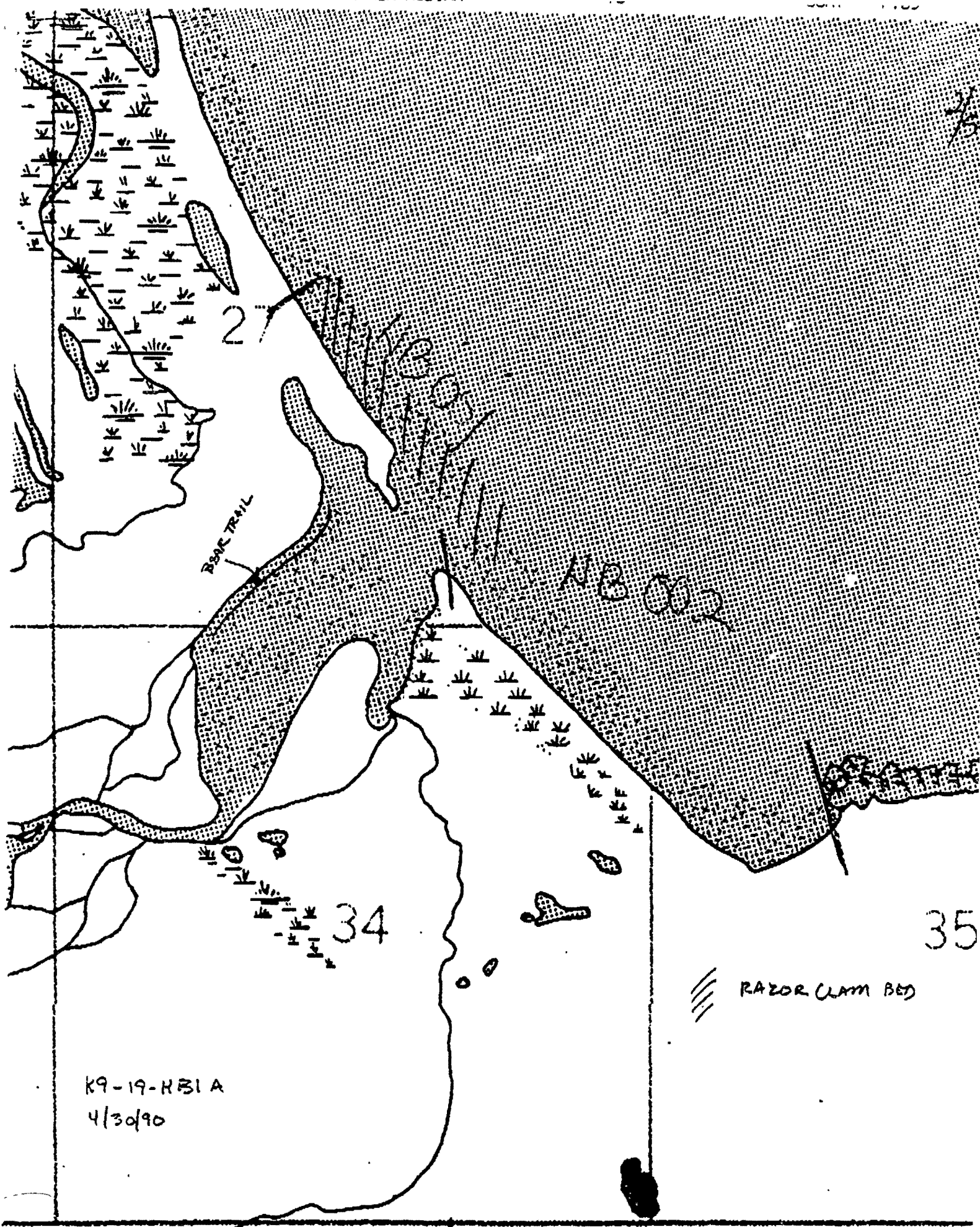
1) ANADROMOUS STREAM LOCATION

CHUM SALMON (SPAWNING)

PINK SALMON (SPAWNING)

2) OIL CLEANUP WILL BE MINOR & WILL LIKELY NOT IMPACT SENSITIVITIES

ACE 1950937



K9-19-HB1A
4/30/90

/// RAZOR CLAM BED

SEGMENT K9-19-HB-1 SUBDIVISION A APRIL 30, 1990
BIOLOGIST - JIM BARRY

Time 1320-1640

Tidal Window -0.5 => +4.5

I. GENERAL COMMENTS

A. Exposure - This segment includes a moderately exposed sandy beach and a lagoon/stream mouth with low exposure.

B. Habitats

1. Sand Beach

The mouth of Hallo Creek enters into Hallo Bay in this segment. This sandy beach has a clam bed with razor clams (*Siliqua patula*) and probably other species such as *Macoma balthica*, *M. nasuta*, and *Tresus capax*. No algae were found on the sand flat. This beach is listed as a site for invertebrate harvesting (clams).

2. Lagoon/Stream Mouth

Tidal flow apparently extends for a considerable distance (ca. 1000 m) into the mouth of Hallo Creek and includes a small lagoon. Other than a small number of amphipods swimming under and around logs and other debris, no invertebrates or macroalgae were found in this habitat. Filamentous and mat-forming algae and other microbes (diatoms, bacteria) exist as a thin coat on sediments and debris in still waters. Beach rye grass (*Leymus mollis*) and perhaps other species of grasses (*Puccinellia* spp.?) are abundant at high tidal levels and above along the stream banks.

C. Oil-Related Comments

1. Oil or Cleanup Related Mortality
 None evident.

2. Ecological Sensitivities to oil or cleanup.

Oil cover on this segment was very light. Patches of oil coat or mousse were rare and localized, and debris spattered with oil was sparse along the drift line. This very small amount of oil constitutes a minimal biological risk for the biota of the area.

Ecological sensitivities listed are:

- a. Anadromous streams (see map)
Stream code 10040 Chum Salmon and Pink Salmon spawn in Hallo Creek.
- b. Invertebrate Harvesting. Clam beds located along the sand beach are used for clam digging.
- c. Land Mammals. Brown Bears, Red Fox, Moose, and River Otter were indicated by tracks, scat, or both at this site.

II. WILDLIFE OBSERVATIONS

Brown Bear - tracks

Red Fox - tracks

Moose - tracks

River Otter - tracks

Glaucous-winged gulls - 3

Common Merganser - 6

Barrow's Goldeneye - 1

K9-19-HB-1-

APRIL 30, 1990 - BIOLOGY REPORT

5

III. SPECIES LIST

Legend for densities and distribution

D	Dense	A	High Tidal Zone
M	Moderate	B	Middle Tidal Zone
S	Sparse	C	Low Tidal Zone
R	Rare	U	Subtidal Zone
1	Bedrock	J	Juveniles Present
2	Boulder	E	Eggs Present
3	Cobble	X	Probably Present
4	Pebble		
5	Sand/mud		

A. MARINE PLANTS

1. DIATOMS/BLUE GREEN ALGAE M5BC
2. GREEN ALGAE - CHLOROPHYTA
 - Unknown filamentous green algae S5BC
3. HIGHER PLANTS
 - Leymus mollis - Beach Rye Grass M5A
 - Puccinellia spp.? - Alkali Grass M5A

B. MARINE ANIMALS

1. CRUSTACEANS
 - AMPHIPODS
 - ?Orchestia spp. RS5BC
2. MOLLUSCA
 - MUSSELS AND CLAMS
 - Clinocardium nuttallii X
 - Macoma balthica X
 - Siliqua patula X
 - Tresus capax X
3. FISH
 - Salmon Smolts - Rare in stream

ADPAC MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: 25 55 05 TS AVS SCMA MMS PTA STAT

2 REGION: PWS KP,CI K,AP

METHOD: Aerial Ground Boat

3 DATE: 4/30/90

15 HIGH TIDE TIMES: 0637 , 20:04

21 TEAM RECORDER: JIM BAREY

4 START TIME: 1320

16 HIGH TIDE HTS: 12.8 , 11.3

22 OBSERVERS: STAT TEAM #19

5 STOP TIME: 1640

17 LOW TIDE TIMES: 0:48 , 13:33

23 AGENCY: _____

6 SEGMENT #: K9-19-HB-1A

18 LOW TIDE HTS: 2.9 , -0.9

24 PHOTOS TAKEN: (Y) N

7 STATION #: _____

19 TIDE HT AT SURVEY: -0.5 → +4.5

Roll #: ST-6-7 Frame: 20-27

8 K-UNIT: K9-19

Ebb Slack Flood Slack

25 VIDEO TAKEN: Y (N) TAPES: _____

9 STAT AREA: _____

20 USCG QUAD: _____

Start: _____ End: _____

10 LAT: 154° 35' W

11 LONG: 58° 24' N

26 SAMPLES TAKEN? Y (N) Number

12 SOURCE: Map Loran

OIL _____

13 LOCATION: HALLO BAY

Sediment _____

14 DESCRIPTION: STREAM MOUTH / LAGOON for HALLO CREEK

Biological _____

Water _____

EXTENT OF OIL

	SHORELINE				STREAM			
	L	H	N	S	L	H	N	S
27 SURFACE COVERAGE					0	0	0	0
28 SURFACE THICKNESS					0	0	0	0
29 PENETRATION					0	0	0	0

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

36 CATALOGED ANAD. FISH SKELET? (Y) N

31 OIL TYPE: Pooled House Tar Asphalt Sticky Stain

37 CATALOG #: 10040

32 OILED DEBRIS? (Y) N

38 STREAM NAME: HALLO CREEK

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

39 OIL IN STREAM BED? Y (N)

34 WAVE EXPOSURE: High Moderate Low

40 OIL ON STREAM BANKS? (Y) N

35 SUBSTRATE TYPE: Bedrock 0 Boulder 3% Cobble 3%

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

Gravel 53% Sand 20% Mud/silt 20%

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

where: See Sketch Map

43 ANADROMOUS FISH PRESENT? Y (N)

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

COMMENTS: _____

THESE PHOTOS ARE CATALOGED
IN THE SIAT FILES UNDER ROLL # ST-6-7

48 PHOTOLOG

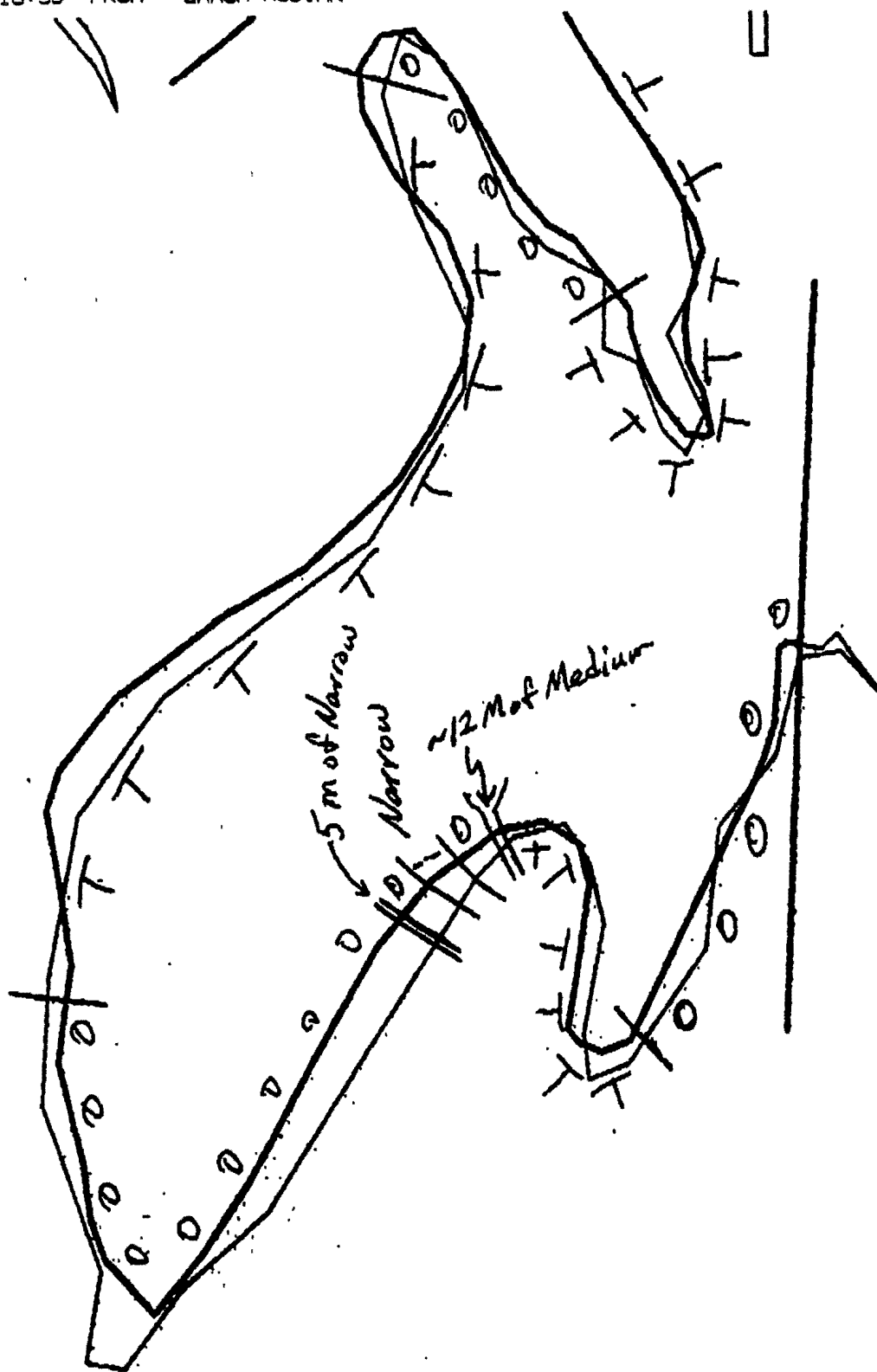
FRAME(S)	DESCRIPTION
20	MOUSSE PATCHES ON STREAM BANK MARCH
21	30 x 2m PATCH OF PATTIES/MOUSSE

49 OIL DISTRIBUTION DIAGRAM

ATTACHED SKETCH

ACE 1950943

- Sample taken
- Photo frame # and
shot direction.



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

HB-1

ADEC Segment Length: 3724m



ACE 1950944

Map Key: AKP-HB-1a

Name: G. Heymer

Date: 4-30-90

Data Entered:



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

HB-1

ADEC Segment Length: 3724m



ACE 1950945

Map Key: AKP-HB-1b

Name: G. Heyman

Date: 4-30-10

Data Entered:

SAFEWAY ORDERING

- _____ CASE DIET SLICE
- _____ CASE DIET ROOTBEER
- _____ CASE DIET MOUNTAN DEW
- _____ CASE DIET COKE
- _____ CASE DIET PEPSI
- _____ CASE REG. PEPSI
- _____ CASE CLASSIC COKE
- _____ CASE MOUNTAN DEW
- _____ BOXS POP CORN (ORVILLE REDENBACHEN'S)
- _____ CASE FRIUT JUICE (CAORI SUN)
- _____ BAGS M&M PLAIN
- _____ BAGS M&M PEAUNTS

DATE ORDERED _____

BY _____

ACE 1950946

15

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/K09-19-HB-001 STREAM NO: 262-20-10040 DATE 4/30/90

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)
9LM Land mammals
7JJ Subsistence area: Invertebrate harvesting
ADF&G Anadromous Stream #262-20-10040 or 10035 (near border in HB-004)
See attached Ecological Constraint sheet for specific constraints and contracts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate. Avoid disturbance or damage to clam bed in sand beach near Hallo Creek.

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3276 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Rechel Jean Darr 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: Recommend manual pick up of pooled oil, mousse, tarballs and patties. Consult ADF&G for appropriate work dates.

- POSSIBLE TIME WINDOW 7/15 - 7/31

TAG COMMENTS: _____

TAG APPROVAL DATE: 5/23/90

ADEC ART WEINER Art Weiner

EXXON ANDY GALT Andy Galt

NOAA Bruce Wessert Bruce Wessert

USCG G.A. FETTER G.A. Fetter

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

ACE 1950947 + 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/Olga Bay (6/9 to 10/1)
 East side Kodiak, East side Afognak (7/4 to 10/1)
 1K Purse seine hook-off
 1L Set net sites
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- 3N, 3P Harbor seal and sea lion pupping (5/10 to 7/1)
 3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (6/1 to 9/15)
 6V Anchorages (6/1 to 9/15)
 6W Forest Service cabins (6/1 to 9/15)
 6X Lodge (6/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (6/1 to 9/30)
 7HH Finfish harvesting
 7II Deer harvesting (8/1 to 1/7)
 7JJ Invertebrate harvesting
 7KK Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 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 1950948

SEGMENT ST / 10919-H8001 ^{STREAM} SUBDIVISION: 262-20 # 10090 DATE _____

USCG

NAME _____

SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

~~ADFG~~ ADFG

NAME EDWARD W. WEISS

SIGNATURE

Edward W. Weiss

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

MANUAL REMOVAL OF TARBALLS/PATIES ON S & SE SIDES
OF LAGOON RECOMMENDED. AND OILED DEBRIS
ALSO IN AREAS INDICATED ON NORTH SIDE.

LAND MANAGER

NAME _____

SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

OG GLENN HEYMAN NOAA USCG JOHN NAUGHTON SEGMENT ST/ K 0919-HR 001
 BIO JIM BARRS LAND REP CARL SCHUCH NPS SUBDIVISION A (1 OF 1)
 EXXON FRED BYARS ADEC TERRY ELLSWORTH TIME 13:20 16:30
 TEAM NO. 19 TIDE LEVEL -0.5 to +4.5 DATE 4/30/90
 EST. SUBDIVISION LENGTH: _____ m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 1 % B 3 % C 3 % P 20 % G 33 % S 20 % M 20 % V 0 %
 SLOPE: Lang 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W _____ m M _____ m N _____ m VL _____ m NO _____ m

SURFACE OIL

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

PAVEMENT H F S 0 sq. m by 0 cm

PATTIES / TARBALLS 3 BAGS

NEAR 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 0

#BAGS 0

Photographs:

Roll No. ST-6/19-7

Frames 20-22

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	VE	SOL. BR	FOIL TR	GL SL	FOIL TL	LAB	SU	U	M	U						
1	15					X	0-0		X									X			N	-	-	G/GS
2	15					X	0-0		X									X			N	-	-	G/G S
3	10					X	0-0		X								X				N	-	-	VS/SM
							.																	
							.																	
							.																	

COMMENTS

Oiling in areas A, B, & C (shown on sketch map) is listed as MS/P & P. This is grading in areas to AP, but is included on the surface oil matrix as MS only.

REVIEWED fu DATE 5-10

SEGMENT ST/K 0919-H8001

SUBDIVISION A 262-20-1004D

DATE 4 130/90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Sep/Sub Bndry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HW/LA/WL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pht Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ
Pht - No Subsurface Oil

2 Δ
Pht - Subsurface Oil

CT/C
Continuous Distribution

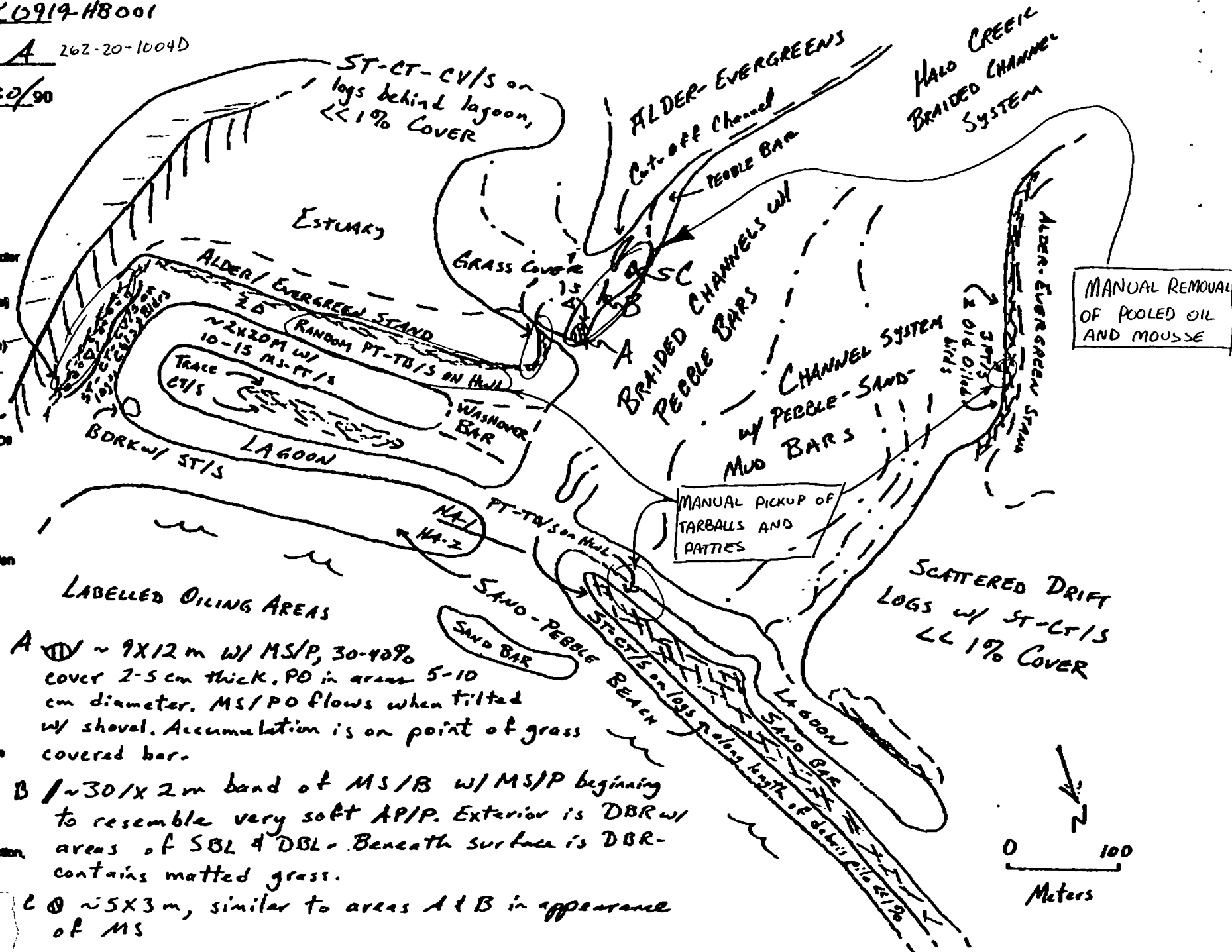
CT/B
Broken Distribution

CT/P
Patched Distribution

CT/S
Splashed Distribution

Oil Vegetation

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



ADPMS MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS DS TS AVE SCHM NRES PTA STAT 2 REGION: PNE KP,CI K,AP

METHOD: Aerial Ground Boat

3 DATE: 4/30/90 16 HIGH TIDE TIMES: 0637 / 20:04 21 TEAM RECORDER: JIM BAREY

4 START TIMES: 1320 18 HIGH TIDE HTS: 12.8 / 11.3 22 OBSERVERS: STAT TEAM #19

5 STOP TIMES: 1640 17 LOW TIDE TIMES: 0:48 / 13:55 23 AGENCY: _____

6 SEGMENT #: K9-19-HB-1A 18 LOW TIDE HTS: 2.9 / -0.5 24 PHOTOS TAKEN: (Y) N

7 STATION #: _____ 19 TIDE HT AT SURVEY: -0.5 → +4.6 Roll #: 37-6-7 Frame: 20-27

8 K-UNIT: K9-19 Ebb Flood 25 VIDEO TAKEN: Y N TAPES: _____

9 STAT AREA: _____ 26 USGS QUAD: _____ Starts: _____ Ends: _____

10 LAT: 154° 35' W 11 LONG: 58° 24' N 28 SAMPLES TAKEN: Y (N) Number

12 SOURCE: Map Loren OIL _____

13 LOCATION: HALLO BAY Sediment _____

14 DESCRIPTION: STREAM MOUTH / LAGOON for HALLO CREEK Biological _____

Water _____

EXTENT OF OIL

	SHORELINE				STREAM			
	L	M	H	S	L	M	H	S
27 SURFACE COVERAGE					○	○	○	○
28 SURFACE THICKNESS					○	○	○	○
29 PENETRATION					○	○	○	○
30 OVERALL OIL IMPACT: N <u>(Y)</u> L M H								

31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain

32 OILED DEBRIS? (Y) N

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

34 WAVE EXPOSURE: High Moderate Low

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

36 CATALOGED ANAD. FISH STREAM? (Y) N

37 CATALOG #: 10040

38 STREAM NAME: HALLO CREEK

39 OIL IN STREAM BED? Y (N)

40 OIL ON STREAM BANK? (Y) N

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

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

Where: _____

43 ANADROMOUS FISH PRESENT? Y (N)

44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground

COMMENTS: _____

45 PHOTOLOG

THESE PHOTOS ARE CATALOGED
IN THE SIAT FILES UNDER ROLL # ST-6-7

FRAME(S)	DESCRIPTION
20	MOUSSE PATCHES ON STREAM BANK MARCH
21	30 x 2m PATCH OF PATCHES/MOUSSE

46 OIL DISTRIBUTION DIAGRAM

ATTACHED

SHORELINE ECOLOGICAL SUMMARY

Segment ST / K9-19 - HB-1 Subdivision A Date (mo / day / yr) 4/30/90

Time (24 hr) 1320-1640 Biologist JIM BARRY

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

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

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

Photographs: ST-6/19-7
Roll No.

Frames 20-22

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

COMMON MERRILL - 6

BARROW'S GOLDFINCH - 1

FOX TRACKS - ABUNDANT

BEAR TRACKS/SCAT

MOOSE TRACKS/SCAT

RIVER OTTER TRACKS

Ecological Considerations:

1) ANADROMOUS STREAM LOCATION

CHUM SALMON (SPAWNING)
PINK SALMON (SPAWNING)

2) OIL CLEANUP WILL BE MINOR & WILL LIKELY NOT IMPACT SENSITIVITIES

SEGMENT K9-19-HB-1 SUBDIVISION A
BIOLOGIST - JIM BARRY

APRIL 30, 1990

Time 1320-1640

Tidal Window -0.5 => +4.5

I. GENERAL COMMENTS

A. Exposure - This segment includes a moderately exposed sandy beach and a lagoon/stream mouth with low exposure..

B. Habitats

1. Sand Beach

The mouth of Hallo Creek enters into Hallo Bay in this segment. This sandy beach has a clam bed with razor clams (*Siliqua patula*) and probably other species such as *Macoma balthica*, *M. nasuta*, and *Tresus capax*. No algae were found on the sand flat. This beach is listed as a site for invertebrate harvesting (clams).

2. Lagoon/Stream Mouth

Tidal flow apparently extends for a considerable distance (ca. 1000 m) into the mouth of Hallo Creek and includes a small lagoon. Other than a small number of amphipods swimming under and around logs and other debris, no invertebrates or macroalgae were found in this habitat. Filamentous and mat-forming algae and other microbes (diatoms, bacteria) exist as a thin coat on sediments and debris in still waters. Beach rye grass (*Leymus mollis*) and perhaps other species of grasses (*Puccinellia* spp.?) are abundant at high tidal levels and above along the stream banks.

C. Oil-Related Comments

1. Oil or Cleanup Related Mortality
None evident.

2. **Ecological Sensitivities to oil or cleanup.**
Oil cover on this segment was very light. Patches of oil coat or mousse were rare and localized, and debris spattered with oil was sparse along the drift line. This very small amount of oil constitutes a minimal biological risk for the biota of the area.

Ecological sensitivities listed are:

- a. **Anadromous streams (see map)**
Stream code 10040 Chum Salmon and Pink Salmon spawn in Hallo Creek.
- b. **Invertebrate Harvesting.** Clam beds located along the sand beach are used for clam digging.
- c. **Land Mammals.** Brown Bears, Red Fox, Moose, and River Otter were indicated by tracks, scat, or both at this site.

II. WILDLIFE OBSERVATIONS

Brown Bear - tracks
Red Fox - tracks
Moose - tracks
River Otter - tracks
Glaucous-winged gulls - 3
Common Merganser - 6
Barrow's Goldeneye - 1

III. SPECIES LIST**Legend for densities and distribution**

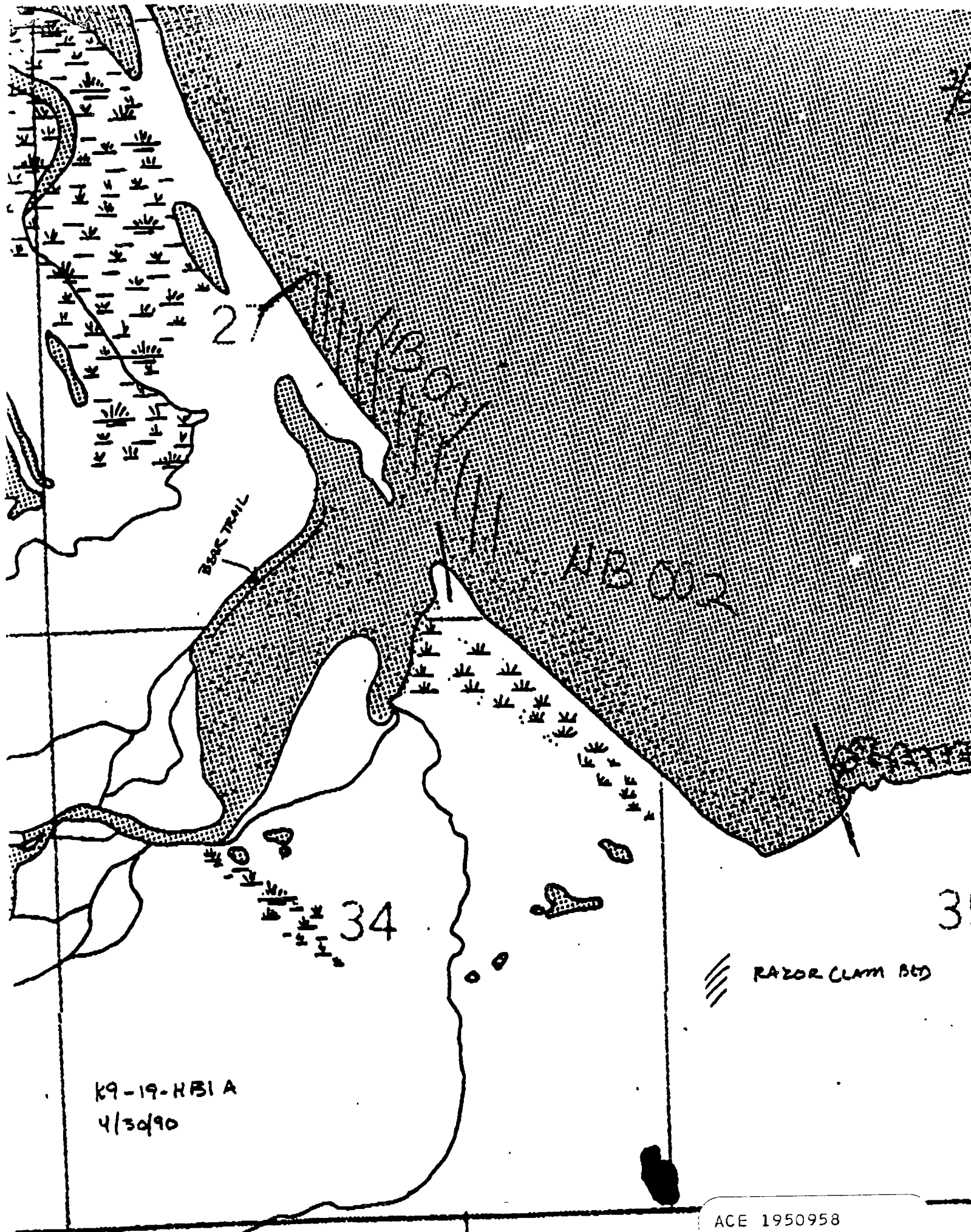
D	Dense	A	High Tidal Zone
M	Moderate	B	Middle Tidal Zone
S	Sparse	C	Low Tidal Zone
R	Rare	U	Subtidal Zone
1	Bedrock	J	Juveniles Present
2	Boulder	E	Eggs Present
3	Cobble	X	Probably Present
4	Pebble		
5	Sand/mud		

A. MARINE PLANTS

1. **DIATOMS/BLUE GREEN ALGAE** M5BC
2. **GREEN ALGAE - CHLOROPHYTA**
 - Unknown filamentous green algae S5BC
3. **HIGHER PLANTS**
 - Leymus mollis - Beach Rye Grass M5A
 - Puccinellia spp.? - Alkali Grass M5A

B. MARINE ANIMALS

1. **CRUSTACEANS**
 - AMPHIPODS**
 - ?Orchestia spp. RS5BC
2. **MOLLUSCA**
 - MUSSELS AND CLAMS**
 - Clinocardium nuttalli X
 - Macoma balthica X
 - Siliqua patula X
 - Tresus capax X
3. **FISH**
 - Salmon Smolts - Rare in stream



K9-19-HB1 A
4/30/90

ANADROMOUS FISH STREAM EVALUATION

Halle Creek

SEGMENT ST/K09-19-HB-001 STREAM NO: 262-20-10040 DATE 4/30/90

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)
 9LM Land mammals
 7JJ Subsistence area: Invertebrate harvesting
 ADF&G Anadromous Stream #262-20-10040 or 10035 (near border in HB-004)
 See attached Ecological Constraint sheet for specific constraints and contracts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate. Avoid disturbance or damage to clam bed in sand beach near Halle Creek.

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3276 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Ruth Ann Orr DATE: 5/25/90Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommend manual pick up of pooled oil, mousse, tarballs and patties. Consult ADF&G for appropriate work dates.

- POSSIBLE TIME WINDOW 7/15 - 7/31

TAG COMMENTS:

TAG APPROVAL DATE: 5/23/90

ADEC ART WEAVER D. J. Weimer
 EXXON ANDY GIL Boyd
 NOAA Bruce Wesscott Boyd
 USCG G.A. RITTER G.A. RITTER

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

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 Barnett
ADFG Oil Spill

DATE:

6/15/90No. Pages: 4
(including this page)

FROM:

Donna Voelker
Arctic Habitat

MESSAGE:

Jeff, this is the only Arctic fish
stream addendum from the
recent to date.

ACE 1950961

ANADROMOUS FISH STREAM EVALUATION ADDENDUM**CONSTRAINTS FOR STREAM NO. 262-20-10040****SEGMENT K09-19-HB-001 SUBDIVISION A**

WORK WINDOW

Manual Pickup**OPEN****ARCHAEOLOGICAL STANDARD CONSTRAINT**

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS**1A,1B Salmon Stream**

ADF&G catalogued anadromous stream (262-20-10040) is in Subdivision A. ADF&G catalogued anadromous stream (262-20-10035) is in an adjacent segment outside of the indicated work area. No constraint to manual pickup.

**7JJ Subistence:
Invertebrate Harvesting**

No constraint to manual pickup.

OTHER ECOLOGICAL CONSIDERATIONS

No disturbance to stream bed or banks. Avoid any unnecessary disturbance or damage to unrolled blots and substrate. Avoid disturbance or damage to clam bed in sand beach near Halo Creek.

**SEE SUBDIVISION CONSTRAINT ADDENDUM K09-19-HB-001
FOR ADDITIONAL CONSTRAINT INFORMATION.**

FOSC

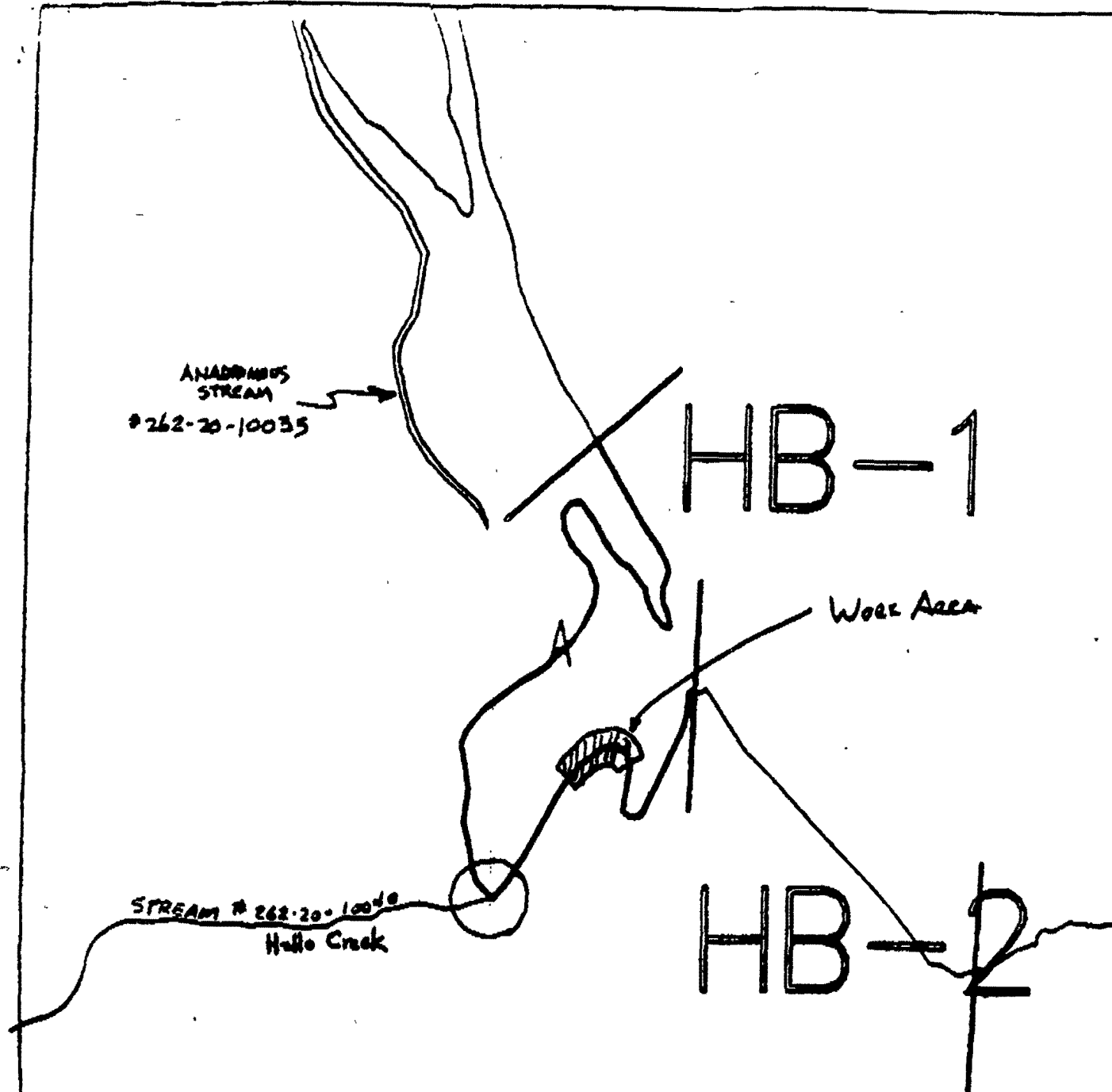
Date

6-12-90

Prepared by

Date

6/11/90



TREATMENT



Exxon Company, USA
The Key: AG-10-1
May 21, 1990



ECOLOGY MAP
SEGMENT HB-1
SUBDIVISION A (1.1 of 1.1)
METERS



★	Seabird Colony
▲	Eagle Nest

1 inch = 1367 feet

ACE 1950963/A

ANADROMOUS FISH STREAM EVALUATIONSEGMENT ST/K09-19-HB-001 STREAM NO: 262-20-10040 DATE 4/30/90**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)
 9LM Land mammals
 7JJ Subsistence area: Invertebrate harvesting
 ADF&G Anadromous Stream #262-20-10040 or 10035 (near border in HB-004)
 See attached Ecological Constraint sheet for specific constraints and contracts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncolled biota and substrate. Avoid disturbance or damage to clam bed in sand beach near Hallo Creek.

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3276 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Rachel Jean Davis DATE: 5/15/90Subsurface 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: _____ Wands
☐ Tarmat Removal	☐ Beach Cleaner
	☐ Other (see comments)

COMMENTS: Recommend manual pick up of pooled oil, mousse, tarballs and patties. Consult ADF&G for appropriate work dates.

- POSSIBLE TIME WINDOW 7/13 - 7/31

SEE CONSTRAINTS MODEL DUN DATED 6/11/90

TAG COMMENTS: _____

TAG APPROVAL DATE: 5/23/90ADEC ART WELLS D. J. WELLSEXXON ANDY GAT ROSENOAA BYL WAGGON ROSEUSCG G. H. WATSON ROSEFOSC: F. J. WATSONDATE: 5/31/90

ace
1950963/B

ANADROMOUS FISH STREAM EVALUATIONSEGMENT ST/K09-19-HB-001 STREAM NO: 262-20-10040 DATE 4/30/90

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)
 9LM Land mammals
 7JJ Subsistence area: Invertebrate harvesting
 ADF&G Anadromous Stream #262-20-10040 or 10035 (near border in HB-004)
 See attached Ecological Constraint sheet for specific constraints and contracts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate. Avoid disturbance or damage to clam bed in sand beach near Hallo Creek.

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3276 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Ruth Ann Dan DATE: 5/25/90Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommend manual pick up of pooled oil, mousse, tarballs and patties. Consult ADF&G for appropriate work dates.

- Possible Time Window 7/13 - 7/31

TAG COMMENTS: TAG APPROVAL DATE: 5/23/90ADEC Art Weiler D. J. WeilerEXXON Andy Galt RossNOAA Byel Alcott Paul H. H. H.USCG G. A. R. R. C. D. R.FOSC: DATE:

ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 262-20-10040

SEGMENT KO9-19-HB-001 SUBDIVISION A

WORK WINDOW

Manual Pickup

OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

ADF&G catalogued anadromous stream (262-20-10040) is in Subdivision A. ADF&G catalogued anadromous stream (262-20-10035) is in an adjacent segment outside of the indicated work area. No constraint to manual pickup.

7JJ Subsistence:
Invertebrate Harvesting

No constraint to manual pickup.

OTHER ECOLOGICAL CONSIDERATIONS

No disturbance to stream bed or banks. Avoid any unnecessary disturbance or damage to unrolled biota and substrate. Avoid disturbance or damage to clam bed in sand beach near Hallo Creek.

SEE SUBDIVISION CONSTRAINT ADDENDUM KO9-19-HB-001
FOR ADDITIONAL CONSTRAINT INFORMATION.

FOSC

Date

6-12-90

Prepared by

Date

6-10-90
6/11/90

ACE 1950965 t/s

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/K09-19-HB-001 STREAM NO: 262-20-10040 DATE 4/30/90 *Hallo Creek*

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)
9LM Land mammals
7JJ Subsistence area: Invertebrate harvesting
ADF&G Anadromous Stream #262-20-10040 or 10035 (near border in HB-004)
See attached Ecological Constraint sheet for specific constraints and contracts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate. Avoid disturbance or damage to clam bed in sand beach near Hallo Creek.

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3276 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Rachel Jean Dorn DATE: 5/25/90Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: Recommend manual pick up of pooled oil, mousse, tarballs and patties. Consult ADF&G for appropriate work dates.- POSSIBLE TIME WINDOW 7/15 - 7/31SEE CONSTRAINTS ADDENDUM dated 6/11/90TAG COMMENTS: _____

_____TAG APPROVAL DATE: 5/23/90ADEG ART WEINER D. WeinEXXON ANDY GIZ PaulNOAA Eric W. Weger BobUSCG G.A. HENDER CAFOSC: [Signature] DATE: 5/31/90

ANADONDOUS
STREAM
#262-20-10035

HB-1

Work Area

STREAM #262-20-10040
Helle Creek

HB-2

ACE 1950967-18

TREATMENT



Exxon Company, USA

Map Key: MP-18-1

May 21, 1990



ECOLOGY MAP
SEGMENT HB-1
SUBDIVISION A (1-1-1-1)
METERS



- ★ Seabird Colony
- ▲ Eagle Nest

1 inch = 1367 feet

ANADROMOUS FISH STREAM EVALUATION

KODIAK

SEGMENT ST/K09-19-HB-001 STREAM NO: 262-20-10040 DATE 4/30/90

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)
9LM Land mammals
7JJ Subsistence area: Invertebrate harvesting
ADF&G Anadromous Stream #262-20-10040 or 10035 (near border in HB-004)
See attached Ecological Constraint sheet for specific constraints and contracts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unholed biota and substrate. Avoid disturbance or damage to clam bed in sand beach near Hallo Creek.

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3276 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Rachel Jean Darr 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: Recommend manual pick up of pooled oil, mousse, tarballs and patties. Consult ADF&G for appropriate work dates.

- POSSIBLE TIME WINDOW 7/15 - 7/31

TAG COMMENTS: _____

TAG APPROVAL DATE: 5/23/90

ADEC ART WEINER Art Weiner

EXXON ANDY GAZ Andy Gaz

NOAA Burt Wesscott Burt Wesscott

USCG G.A. REITER G.A. Reiter

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

ACE 1950968 +/S

SKETCH MAP

SEGMENT STICK 0919-H8001

SUBMISSION A 262-20-1004D

DATE 4 130/90

CHECKLIST

- ___ N Arrow
- ___ Approx. Scale
- ___ Seg/Sub Body
- ___ Oil Dist.
- ___ Width
- ___ Length
- ___ % Cover
- ___ Substrate Character
- ___ Ex. HW/LWL
- ___ SSL
- ___ Profile Location(s)
- ___ Profile(s)
- ___ Pl Location(s)
- ___ Photo Location(s)

LEGEND

- Fig. 1. No Subsurface On**

- 2 
- PK - Subsurface O2

- CT/C**
Continuous Use Station

- CT/B
- Broken Distribution

- [CY/P]

- Patchy Distribution**

- Suggested Distribution**

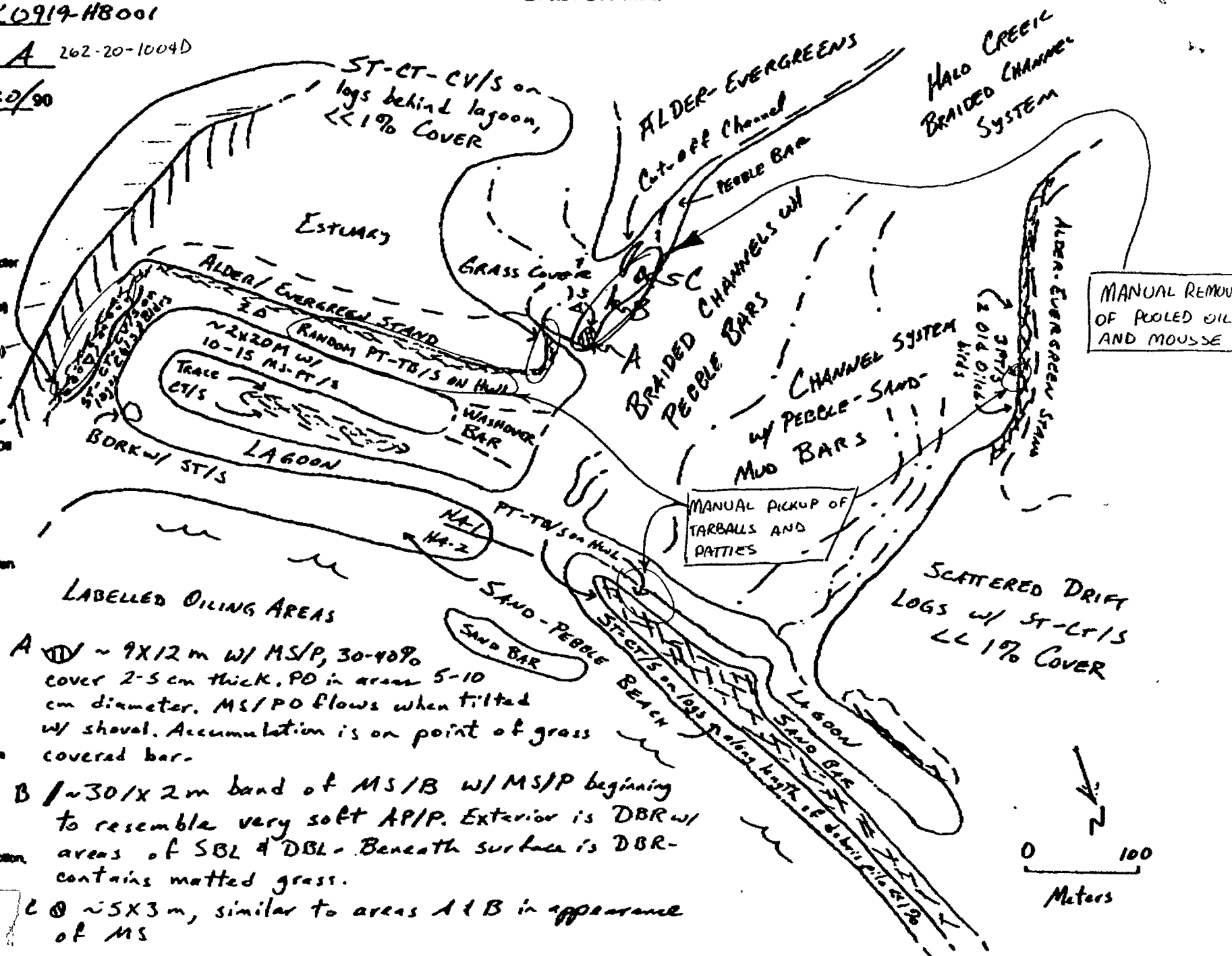
- Old Vegetation

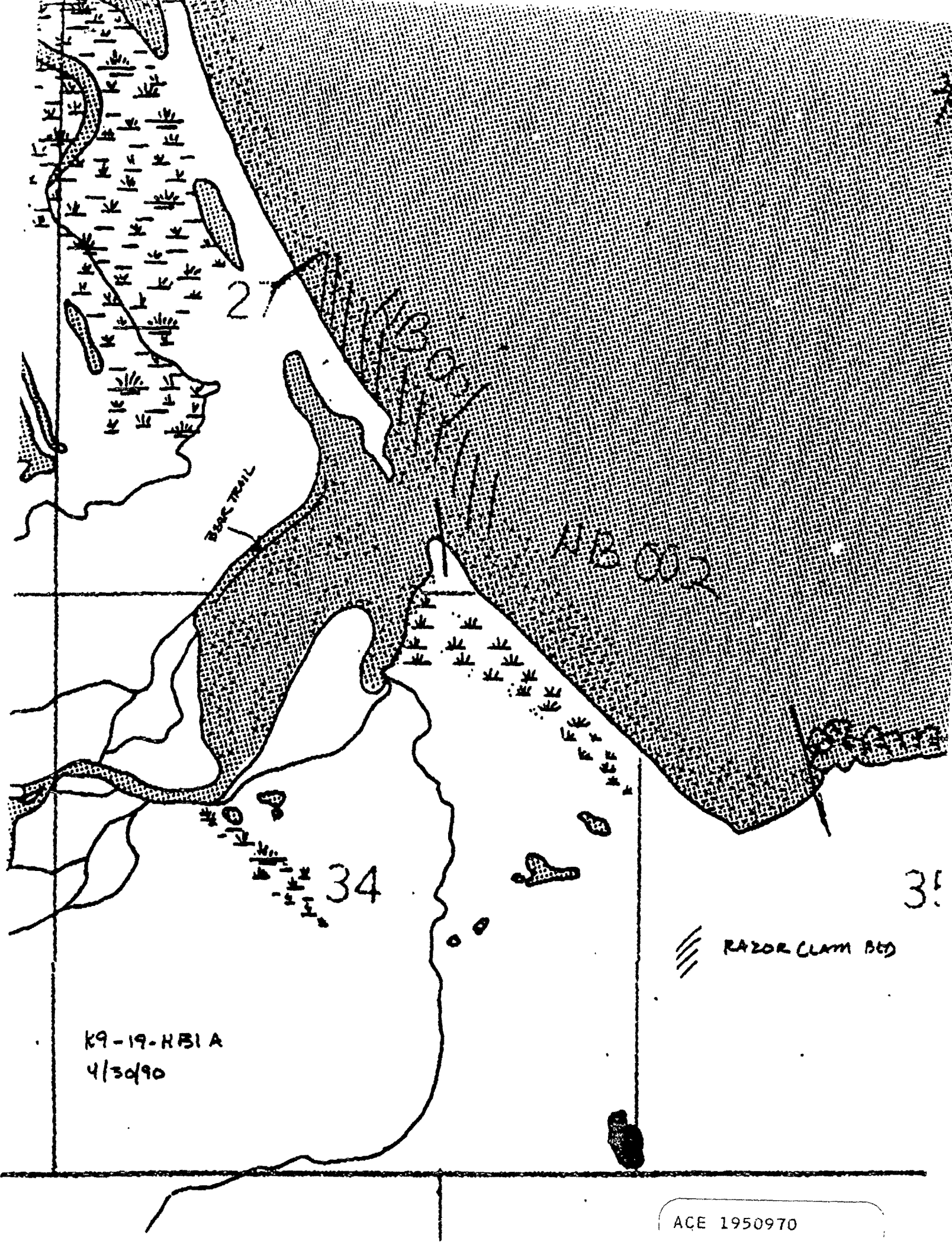
- Photo location, direction,
and number

ACE 1950969

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

1994-1995





2

BEAR TRAIL

AB 002

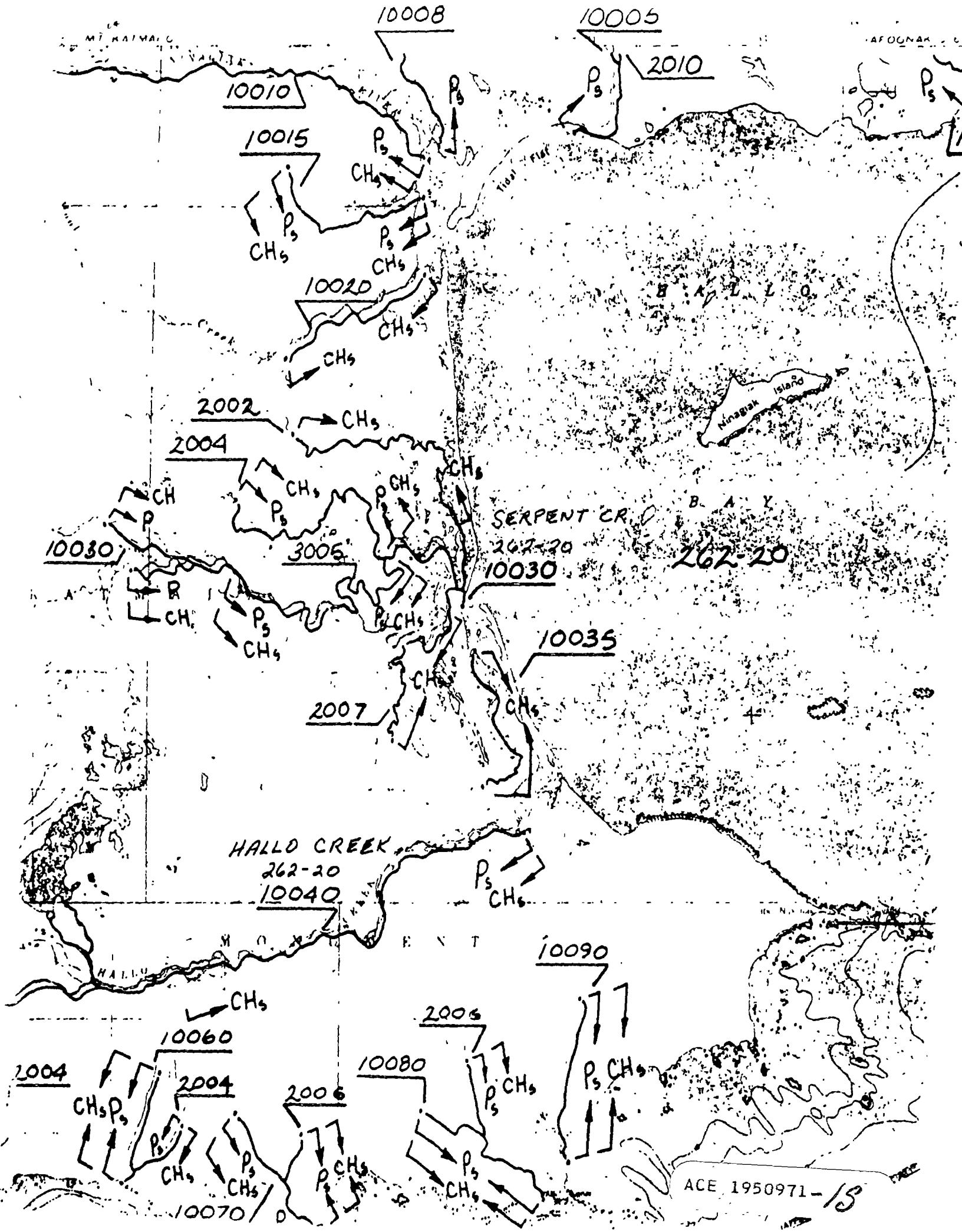
34

3



RAZOR CLAM BED

K9-19-HB1A
4/30/90



TAB
5/23/90
mm

RECEIVED
MAY 19 1990

DEPT. OF
ENVIRONMENTAL CONSERVATION

ANADROMOUS FISH STREAM ASSESSMENT

REGION: KODIAK

SEGMENT: K09-19-HB-001

SUBDIVISION: A

STREAM NO: 262-20-10040

(Halls Bay)
Halls Creek
Conan KAM 5/22/90

ACE 1950972 +/S

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/K09-19-HB-001 STREAM NO: 262-20-10040 DATE 4/30/90

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)
9LM Land mammals
7JJ Subsistence area: Invertebrate harvesting
ADF&G Anadromous Stream #262-20-10040 or 10035 (near border in HB-004)
See attached Ecological Constraint sheet for specific constraints and contracts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unopened biota and substrate. Avoid disturbance or damage to clam bed in sand beach near Hallo Creek.

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3276 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: _____ DATE: _____

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: Recommend manual pick up of pooled oil, mousse, tarballs and patties. Consult ADF&G for appropriate work dates.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

ACE 1950973

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 (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 (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 1950974

SEGMENT ST / 10919-HB001 ^{STREAM} SUBDIVISION: 262-20 ~~#~~ 10090 DATE _____

USCG

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

~~ADFG~~ ADFG

NAME EDWARD W. WEISS SIGNATURE Edward W. Weiss

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

MANUAL REMOVAL OF TARBALLS/PATIES ON S & SE SIDES
OF LAGOON RECOMMENDED. AND OILED DEBRIS
ALSO IN AREAS INDICATED ON NORTH SIDE.

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

OG GLENN HEYMAN NOAA JOHN NAUGHTON SEGMENT ST/ K 0919-HB 001
 BIO JIM GARRS LAND REP CARL SCHOLZ NPS SUBDIVISION A (LOF)
 EXXON FRED BYARS ADEC TERRY ELLSWORTH TIME 13:20/16:30
 TEAM NO. 19 TIDE LEVEL -0.5 to +1.5 DATE 4/30/90
 EST. SUBDIVISION LENGTH: m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 1 % B 3 % C 3 % P 20 % G 33 % S 20 % M 20 % V 0 %
 SLOPE: Lang 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W m M m N m VL m NO m

SURFACE OIL

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

PAVEMENT H F S 0 sq. m by 0 cm

PATTIES / TARBALLS 3 BAGS

NEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒

TYPE 0

#BAGS 0

Photographs:

Roll No. ST-6/19-7

Frames 20-22

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		US	SC	100% BR	75% BR	50% BR	25% BR	100% TR	75% TR	SU	U	M	U				
1	15					X	0-0		X								X			N	-	-	G/GS
2	15					X	0-0		X								X			N	-	-	G/GS
3	10					X	0-0		X							X				N	-	-	VS/SM
							.																
							.																
							.																

COMMENTS

Oiling in areas A, B, & C (shown on sketch map) is listed as MS/B & P. This is grading in areas to AP, but is included on the surface oil matrix as MS only.

REVIEWED th DATE 5-10

SEGMENT STIK 0919-H8001

SUBDIVISION A 262-20-1004D

DATE 4/30/90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Sep/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HWA/LWL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Photo(s)
- ☐ PI Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ
PI - No Subsurface Oil

2 Δ
PI - Subsurface Oil

$\square$ CT/C
Continuous Distribution

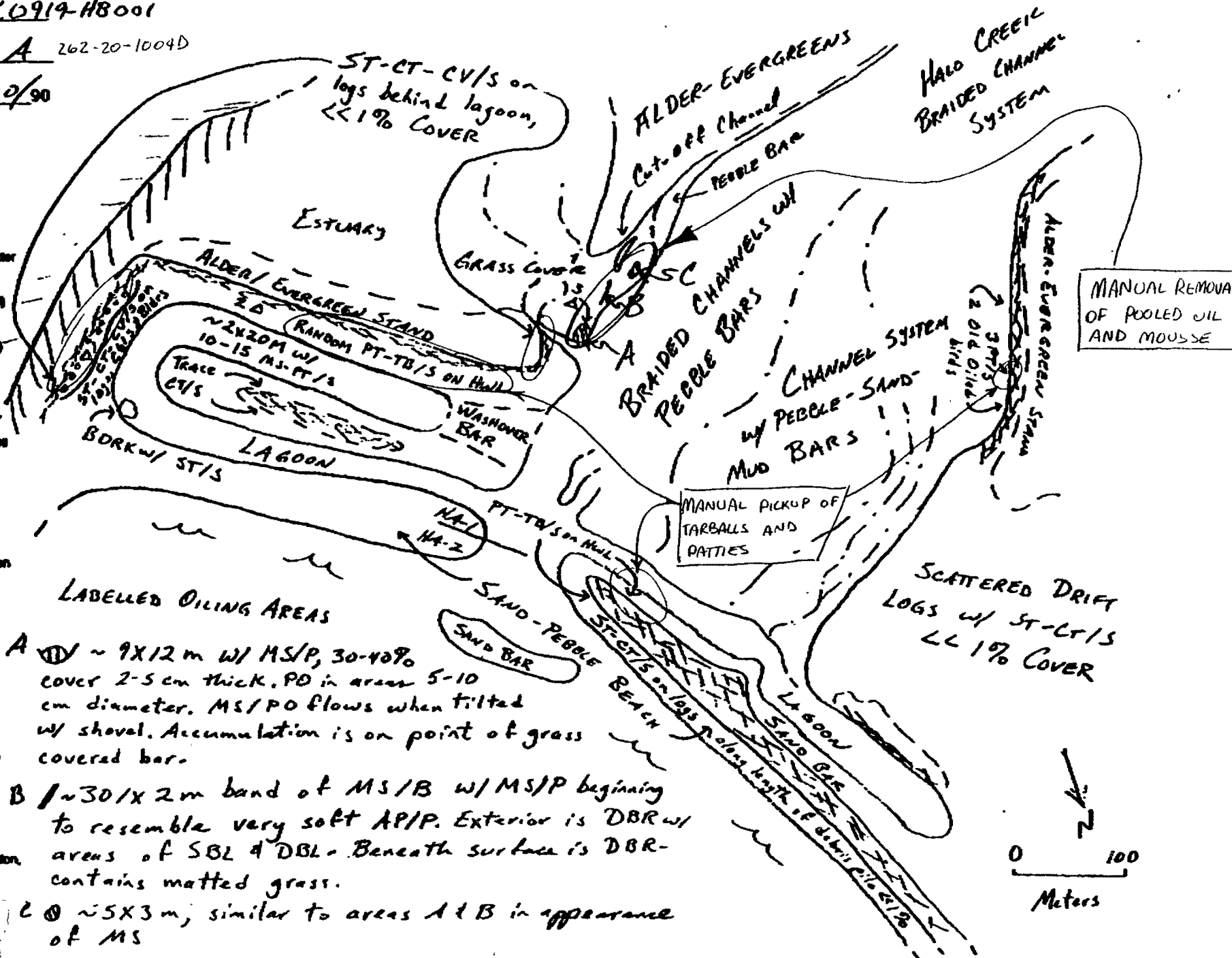
$\square$ CT/B
Broken Distribution

$\square$ CT/P
Patched Distribution

$\square$ CT/S
Splashed Distribution

$\lll$
Oiled Vegetation

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



- A** $\odot$ ~ 9x12 m w/ MS/P, 30-40% cover 2-5 cm thick. PO in areas 5-10 cm diameter. MS/PO flows when tilted w/ shovel. Accumulation is on point of grass covered bar.
- B** $\odot$ ~ 30x2 m band of MS/B w/ MS/P beginning to resemble very soft AP/P. Exterior is DBR w/ areas of SBL & DBL. Beneath surface is DBR - contains matted grass.
- C** $\odot$ ~ 5x3 m, similar to areas A & B in appearance of MS

ACE 1950977

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

ADFLG MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: AS SB DS TS AVS SCHA HHS PTA SSAT

2 REGION: PWS KP,CI

K,AD

METHOD: Aerial Ground Boat

3 DATE: 4/30/90

16 HIGH TIDE TIMES: 0637 , 20:04

21 TEAM RECORDER: Jim Barry

4 START TIME: 1320

18 HIGH TIDE HTS: 12.8 , 11.3

22 OBSERVERS: SSAT TEAM #19

5 STOP TIME: 1640

17 LOW TIDE TIMES: 0:48 , 13:38

23 AGENCY:

6 SEGMENT #: K9-19-HB-1A

19 LOW TIDE HTS: 2.9 , 1.0-0.5

24 PHOTOS TAKEN: (Y) N

7 STATION #:

19 TIDE HT AT SURVEY: -0.5 → +4.5

Roll # 37-6-7 Frames 20-27

8 K-UNIT: K9-19

Ebb Slack Flood Slack

25 VIDEO TAKEN: Y N TAPES:

9 STAT AREA:

20 USCG QUAD:

Start: End:

10 LAT: 154° 35' W

11 LONG: 58° 24' N

26 SAMPLES TAKEN Y (N) Number

12 SOURCE: Map Loren

OIL 0

13 LOCATION: HALLO BAY

Sediment 0

14 DESCRIPTION: STREAM MOUTH / LAGOON for HALLO CREEK

Biological 0

Water 0

EXTENT OF OIL

27 SURFACE COVERAGE

SHORELINE				STREAM			
L	W	N	S	L	W	N	S
				0	0	0	0

35 CATALOGUED ANAD. FISH STREAM? (Y) N

28 SURFACE THICKNESS

				0	0	0	
				0	0	0	

37 CATALOG #: 10040

38 STREAM NAME: HALLO CREEK

29 PENETRATION

39 OIL IN STREAM BED? Y (N)

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

40 OIL ON STREAM BANKS? (Y) N

31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stone

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

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

32 OILED CEDRIST? (Y) N

Where:

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

43 ANADROMOUS FISH PRESENT? Y (Y)

34 WAVE EXPOSURE: High Moderate Low

44 ANADROMOUS FISH OBSERVATION

35 SUBSTRATE TYPE: Bedrock Boulder Cobble

Species Aerial Ground

Gravel Sand Mud/silt

COMMENTS:

ACE 1950978

48 PHOTOLOG

THESE PHOTOS ARE CATALOGED
IN THE SIAT FILES UNDER ROLL # 57-6-7

FRAME(S)	DESCRIPTION
20	MOUSSE PATCHES ON STREAM BANK MARCH
21	30 x 2m PATCH OF PATCHES/MOUSSE

48 OIL DISTRIBUTION DIAGRAM

ATTACHED

* Sample taken
* Photo frame # and

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/22/90

Segment ST / K9-19-HB-1 Subdivision A Date (mo / day / yr) 4/30/90Time (24 hr) 1320-1640 Biologist JIM BARRY

1/5

(A) Substrate type and % of segments:
(1) Bedrock 1 (2) Boulder 3 (3) Cobble (4) Pebble (5) Sand (6) Silt (B) Overall % cover of biota (% of segment): Dense 15 Moderate 35 Low 50

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

Photographs:
Roll No. ST-6/19-7Frames 20-22

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

COMMON Merganser - 6

BEAROW'S GULLS - 1

FOX TRACKS - ABUNDANT

BEAR TRACKS/SCAT

MOOSE TRACKS/SCAT

RIVER OTTER TRACKS

Ecological Considerations:

1) ANADROMOUS STREAM LOCATION

CHUM SALMON (SPAWNING)
PINK SALMON (SPAWNING)

2) OIL CLEANUP WILL BE MINOR & WILL LIKELY NOT IMPACT SENSITIVITIES

SEGMENT K9-19-HB-1 SUBDIVISION A
BIOLOGIST - JIM BARRY

APRIL 30, 1990

Time 1320-1640

Tidal Window -0.5 => +4.5

I. GENERAL COMMENTS

A. Exposure - This segment includes a moderately exposed sandy beach and a lagoon/stream mouth with low exposure..

B. Habitats

1. Sand Beach

The mouth of Hallo Creek enters into Hallo Bay in this segment. This sandy beach has a clam bed with razor clams (*Siliqua patula*) and probably other species such as *Macoma balthica*, *M. nasuta*, and *Tresus capax*. No algae were found on the sand flat. This beach is listed as a site for invertebrate harvesting (clams).

2. Lagoon/Stream Mouth

Tidal flow apparently extends for a considerable distance (ca. 1000 m) into the mouth of Hallo Creek and includes a small lagoon. Other than a small number of amphipods swimming under and around logs and other debris, no invertebrates or macroalgae were found in this habitat. Filamentous and mat-forming algae and other microbes (diatoms, bacteria) exist as a thin coat on sediments and debris in still waters. Beach rye grass (*Leymus mollis*) and perhaps other species of grasses (*Puccinellia* spp.?) are abundant at high tidal levels and above along the stream banks.

C. Oil-Related Comments

1. Oil or Cleanup Related Mortality
None evident.

2. **Ecological Sensitivities to oil or cleanup.**
Oil cover on this segment was very light. Patches of oil coat or mousse were rare and localized, and debris spattered with oil was sparse along the drift line. This very small amount of oil constitutes a minimal biological risk for the biota of the area.

Ecological sensitivities listed are:

- a. **Anadromous streams (see map)**
Stream code 10040 Chum Salmon and Pink Salmon spawn in Hallo Creek.
- b. **Invertebrate Harvesting.** Clam beds located along the sand beach are used for clam digging.
- c. **Land Mammals.** Brown Bears, Red Fox, Moose, and River Otter were indicated by tracks, scat, or both at this site.

II. **WILDLIFE OBSERVATIONS**

Brown Bear - tracks
Red Fox - tracks
Moose - tracks
River Otter - tracks
Glaucous-winged gulls - 3
Common Merganser - 6
Barrow's Goldeneye - 1

III. SPECIES LIST**Legend for densities and distribution**

D	Dense	A	High Tidal Zone
M	Moderate	B	Middle Tidal Zone
S	Sparse	C	Low Tidal Zone
R	Rare	U	Subtidal Zone
1	Bedrock	J	Juveniles Present
2	Boulder	E	Eggs Present
3	Cobble	X	Probably Present
4	Pebble		
5	Sand/mud		

A. MARINE PLANTS

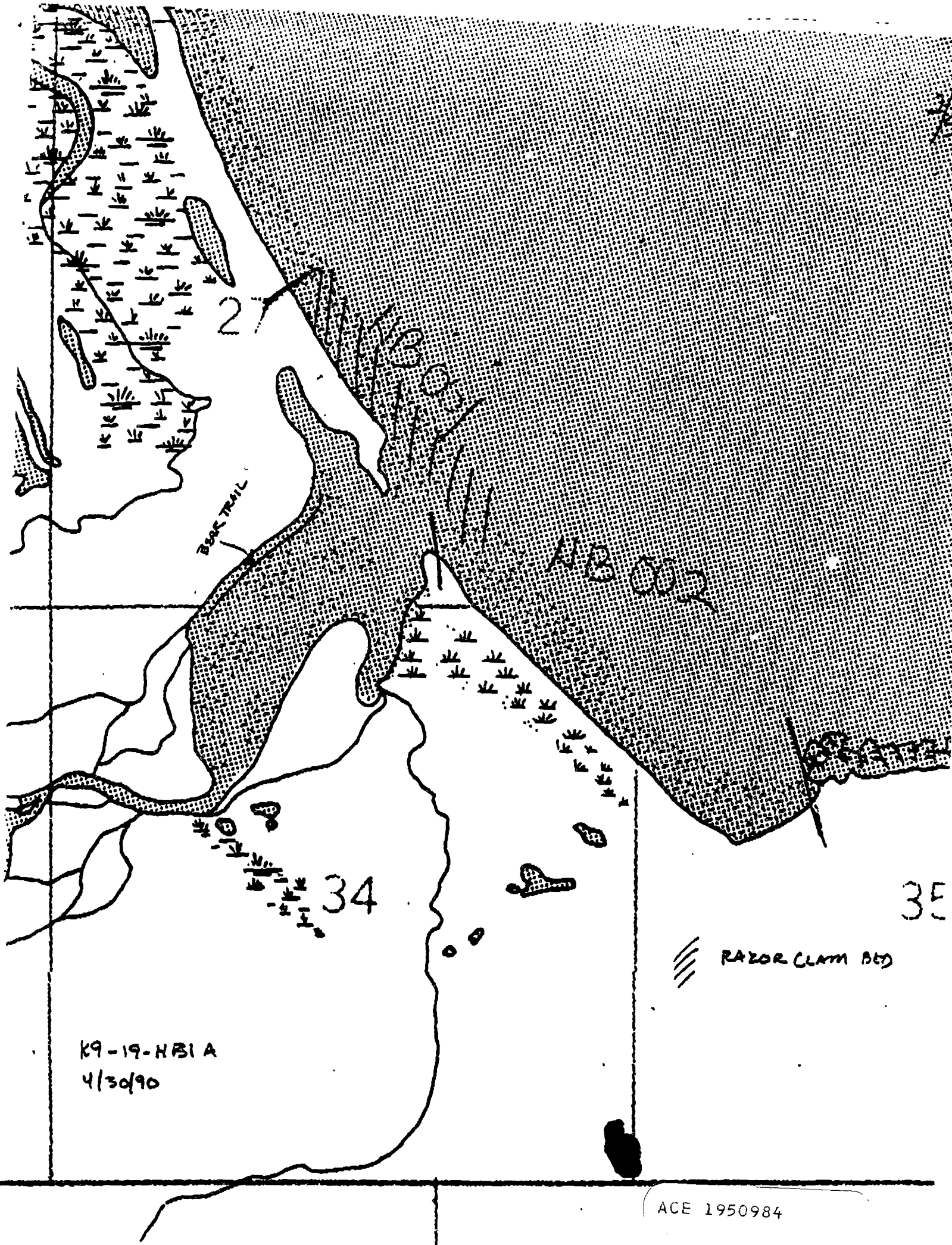
1. **DIATOMS/BLUE GREEN ALGAE** M5BC
2. **GREEN ALGAE - CHLOROPHYTA**

Unknown filamentous green algae S5BC
3. **HIGHER PLANTS**
Leymus mollis - Beach Rye Grass M5A
Puccinellia spp.? - Alkali Grass M5A

B. MARINE ANIMALS

1. **CRUSTACEANS**
AMPHIPODS
?Orchestia spp. RS5BC
2. **MOLLUSCA**

MUSSELS AND CLAMS
Clinocardium nuttalli X
Macoma balthica X
Siliqua patula X
Tresus capax X
3. **FISH**
Salmon Smolts - Rare in stream



BOAT TRAIL

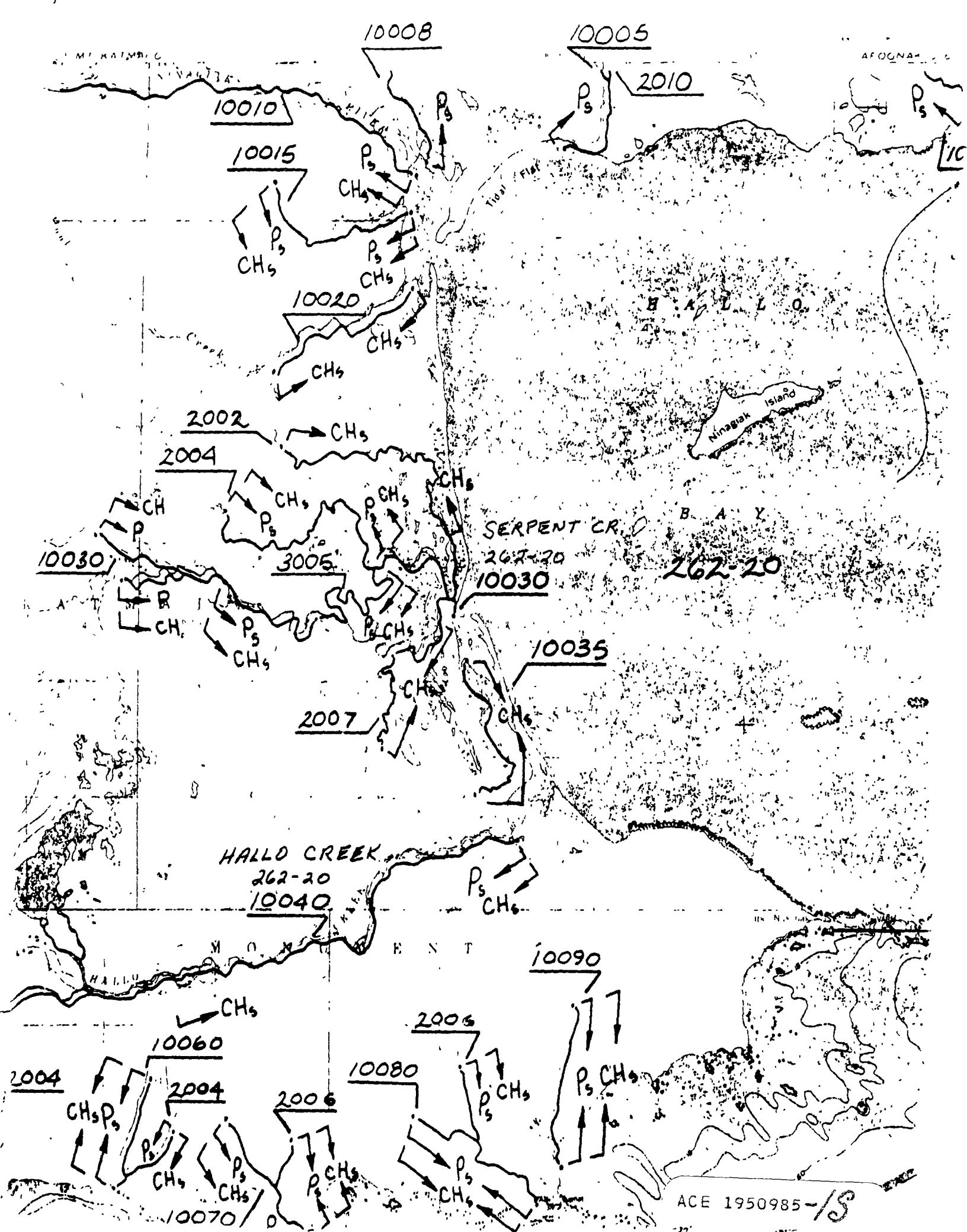
AB 002

34

35

RAZOR CLAM BED

K9-19-HBI A
4/30/90



STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

STEVE COWPER, GOVERNOR

Rapifax 349-1723

333 RASPBERRY ROAD
ANCHORAGE, ALASKA 99513-1599
PHONE: (907) 344-0541

RAPIFAX TRANSMITTAL SHEET

TO: Ken Middleton
Habitat Assoc.DATE: 5/7/90No. Pages: 13
(including this page)FROM: J. BARNHART
Habitat Institute

K9-19

MESSAGE: Hallo creek, Hallo Bay
Stream # 262-20-10040
segment H001.A

Ken,

This is the second stream surveyed by the SSAT Team. We were not present on the survey.

NOTE: Our ADPG form was filled out by the SSAT Team.

ALASKA DEPT. OF
FISH & GAME
MAY 07 1990
REGION II
HABITAT DIVISION

ACE 1950986+15

SEGMENT ST / 10919-HB001 SUBDIVISION: A DATE _____**USCG**

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED~~ADFG~~ ADFGNAME EDWARD W. WEISS SIGNATURE Edward W. Weiss☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

MANUAL REMOVAL OF TARBALLS/PATTIES ON S & SE SIDES
OF LAGOON RECOMMENDED. AND OILED DEBAIS
ALSO IN AREAS INDICATED ON NORTH SIDE.

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

SEGMENT ST/K0919-HB001 SUBDIVISION: A DATE 4-30-90NOAA
USCGNAME John Naughton SIGNATURE John J. Naughton☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

This segment along the southerly portion of Hallo Bay, include the delta of Hallo Creek, should receive treatment in specific areas. Splashes of stain and crust were found in the large debris lines on either side of the river, especially to the south. Unusual areas of concentrated mounds were found back on matted grass bank (Areas A, B, C on sketch map) well behind shoreline. Recommend manual removal of this broken and patchy mousse. Oiled debris is very light and need not be treated except for removal of heavily oiled rope, line and fishing net.

ADEC

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

COMMENTS

This segment is located primarily along Hallo Creek delta. Staining, coat and cover occurs very sporadically (<1%) over much of the area. On the SW side of the lagoon (see map) tarballs and patties are present in a 2x20m area. Three areas of broken or patchy mousse occur on the S side of the segment on the grass bank above the creek channel. Manual treatment is recommended for the areas containing mousse, patties, and tarballs as well as removal of the more heavily oiled small wood debris and oiled rope, net, etc.

LAND MANAGER

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

COMMENTS

The upper intertidal perimeter of the south-branch Lagoon in the Hallo Cr. estuary contains oiled debris, nets, rope, etc. that should be removed. The 20x2m area of mousse patties should also be treated. Sites A, B, and C indicated on the sketch map should be treated by shoveling the oiled grass and sand down to about 3 inches. Only the grass mat under the oil patches should be removed, not the entire dimensional area indicated.

SHORELINE OILING SUMMARY

OG GLENN HEYMAN ^{NOAA} USCG JOHN NAUGHTON SEGMENT ST/ K 0919-HB001
 BIO JIM BARRS LAND REP CARL SCHUCH NPS SUBDIVISION A (1 OF 1)
 EXXON FRED BARRS ADEC TERRY ELLSWORTH TIME 13:20 to 16:30
 TEAM NO. 19 TIDE LEVEL -0.5 to +4.5 DATE 4/30/90
 EST. SUBDIVISION LENGTH: _____ m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 1 % B 3 % C 3 % P 20 % G 33 % S 20 % M 20 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W _____ m M _____ m N _____ m VL _____ m NO _____ m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	/C	/B	/P	/S	SBL SR	DBL RW	GY	OSL TL	LR	SU	U	M	L	
ASPHALT PAVEMENT														
POOLED				X				X		X				
COVER				X		X					X			
COAT				X		X								
STAIN				X		X								
MOUSSE		X	X		X	X		X		X	X			
PATTIES				X		X					X			
TARBALLS				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			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE 0#BAGS 0

Photographs:

Roll No. ST-6/19-7Frames 20-22

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR							PIT ZONE				A	N	SHEEN (Y/N)	▼	SURFACE-SUBSURFACE SEDIMENTS	
		OP	OR	OL	OF	NO		UO	UC	SOL BR	DBL RW	GY SL	DRG TL	LBT	SU	U	M	L								
1	15					X	0-0		X								X				N		-	-		G/GS
2	15					X	0-0		X								X				N		-	-		G/GS
3	10					X	0-0		X								X				N		-	-		VS/SM
							.																			
							.																			
							.																			

COMMENTS

Oiling in areas A, B, & C (shown on sketch map) is listed as MS / P & / P. This is grading in areas to AP, but is included on the surface oil matrix as MS only.

REVIEWED _____ DATE _____

ACE 1950989

OPERATIONS FIELD NOTES

Out Back for 10 minutes

STK0919
 SEGMENT ID HB001
 DIVISION LETTER A
 NOTATED MAP INCLUDED Y/N

DATE 4/30/90
 NAME Fred B. HARRIS
 TEAM # 19

SURFACE OIL	Quantities in Meters			Treatment Recommendation						
	Length	Width	Area	None	Bioremediation	% Treat	Tilling	% 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)?

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

ANNUAL PICKUP	Type of Debris			In Meters			# of Bags	Pickup	
	Mousse	Oiled	Cleanup	Length	Width			Y/N	Manday Estimate
"Pocket" #1	mousse			9	12	5		Y	1
"Pocket" #2	mousse			30	2	10		Y	1
"Pocket" #3	mousse			5	3	2		Y	1
Random/Continuous									

OILED LOGS ☒ Y/N OILING H/M ☒ QUANTITY L/M ☒ BURN Y/N ☒

Other Debris on the Beach? ☒ 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 ☒ Access Limitations.

Are Boom/Pom Poms Recommended?

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

COMMENTS: mousse is along stream bed up on grass covered bar

SEGMENT K9-19-HB-1 SUBDIVISION A
BIOLOGIST - JIM BARRY

APRIL 30, 1990

Time 1320-1640

Tidal Window -0.5 => +4.5

I. GENERAL COMMENTS

A. Exposure - This segment includes a moderately exposed sandy beach and a lagoon/stream mouth with low exposure..

B. Habitats

1. Sand Beach

The mouth of Hallo Creek enters into Hallo Bay in this segment. This sandy beach has a clam bed with razor clams (*Siliqua patula*) and probably other species such as *Macoma balthica*, *M. nasuta*, and *Tresus capax*. No algae were found on the sand flat. This beach is listed as a site for invertebrate harvesting (clams).

2. Lagoon/Stream Mouth

Tidal flow apparently extends for a considerable distance (ca. 1000 m) into the mouth of Hallo Creek and includes a small lagoon. Other than a small number of amphipods swimming under and around logs and other debris, no invertebrates or macroalgae were found in this habitat. Filamentous and mat-forming algae and other microbes (diatoms, bacteria) exist as a thin coat on sediments and debris in still waters. Beach rye grass (*Leymus mollis*) and perhaps other species of grasses (*Puccinellia* spp.?) are abundant at high tidal levels and above along the stream banks.

C. Oil-Related Comments

1. Oil or Cleanup Related Mortality

None evident.

K9-19-HB-1-

APRIL 30, 1990 - BIOLOGY REPORT

4

2. Ecological Sensitivities to oil or cleanup.

Oil cover on this segment was very light. Patches of oil coat or mousse were rare and localized, and debris spattered with oil was sparse along the drift line. This very small amount of oil constitutes a minimal biological risk for the biota of the area.

Ecological sensitivities listed are:

- a. Anadromous streams (see map)
Stream code 10040 Chum Salmon and Pink Salmon spawn in Hallo Creek.
- b. Invertebrate Harvesting. Clam beds located along the sand beach are used for clam digging.
- c. Land Mammals. Brown Bears, Red Fox, Moose, and River Otter were indicated by tracks, scat, or both at this site.

II. WILDLIFE OBSERVATIONS

Brown Bear - tracks

Red Fox - tracks

Moose - tracks

River Otter - tracks

Glaucous-winged gulls - 3

Common Merganser - 6

Barrow's Goldeneye - 1

K9-19-HB-1- APRIL 30, 1990 - BIOLOGY REPORT

5

III. SPECIES LIST

Legend for densities and distribution

D	Dense	A	High Tidal Zone
M	Moderate	B	Middle Tidal Zone
S	Sparse	C	Low Tidal Zone
R	Rare	U	Subtidal Zone
1	Bedrock	J	Juveniles Present
2	Boulder	E	Eggs Present
3	Cobble	X	Probably Present
4	Pebble		
5	Sand/mud		

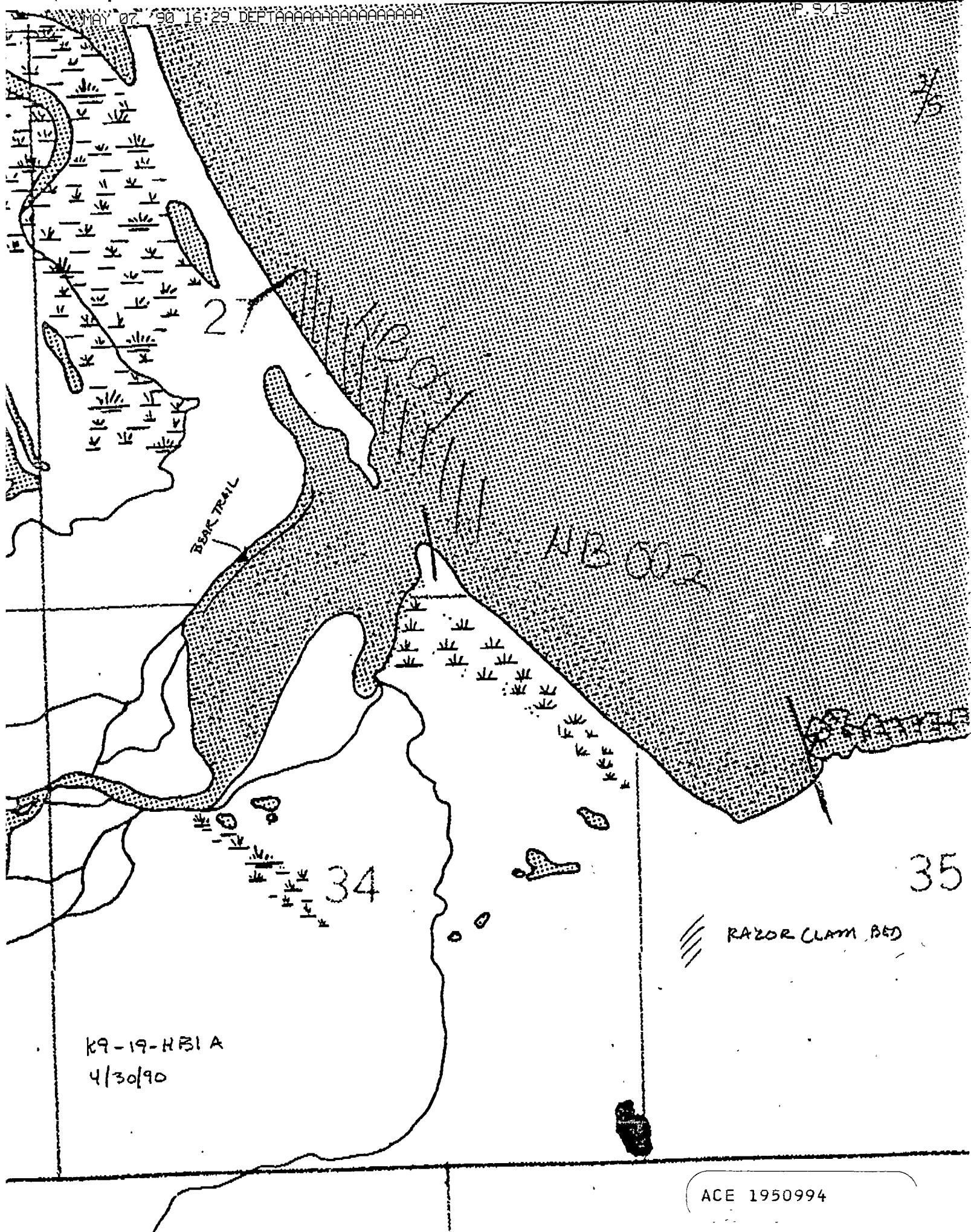
A. MARINE PLANTS

1. DIATOMS/BLUE GREEN ALGAE M5BC
2. GREEN ALGAE - CHLOROPHYTA
Unknown filamentous green algae S5BC
3. HIGHER PLANTS
Leymus mollis - Beach Rye Grass M5A
Puccinellia spp.? - Alkali Grass M5A

B. MARINE ANIMALS

1. CRUSTACEANS
AMPHIPODS
?Orchestia spp. RS5BC
2. MOLLUSCA
MUSSELS AND CLAMS
Clinocardium nuttalli X
Macoma balthica X
Siliqua patula X
Tresus capax X
3. FISH
Salmon Smolts - Rare in stream

2/5



K9-19-HB1A
4/30/90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / K9:19 - HB-1 Subdivision A Date (mo / day / yr) 4/30/90Time (24 hr) 1320-1640 Biologist JIM BARRY(A) Substrate type and % of segments:
(1) Bedrock 1 (2) Boulder 3 (3) Cobble (4) Pebble (5) Sand (6) Silt (B) Overall % cover of biota (% of segment): Dense 15 Moderate 35 Low 50

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

Photographs: 5+6/19-7
Roll No. Frames 20-22

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

COMMON MERRILLSE - 6

BARROW'S GOLDENROD - 1

FOX TRACKS - ABUNDANT

BEAR TRACKS/SCAT

MOOSE TRACKS/SCAT

RIVER OTTER TRACKS

Ecological Considerations:

1) ANADROMOUS STREAM LOCATION

CHUM SALMON (SPAWNING)
PINK SALMON (SPAWNING)

2) OIL CLEANUP WILL BE MINOR & WILL LIKELY NOT IMPACT SENSITIVITIES

ACE 1950995

AOF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS DS TS AVS SCHA MMS PTA SSAT 2 REGION: PWS KP,CI K,AP
 METHOD: Aerial Ground Boat
 3 DATE: 4/30/90 15 HIGH TIDE TIMES: 0637 , 20:04 21 TEAM RECORDER: Jim Barry
 4 START TIME: 1320 16 HIGH TIDE HTS: 12.8 , 11.3 22 OBSERVERS: SSAT TEAM #19
 5 STOP TIME: 1640 17 LOW TIDE TIMES: 0:48 , 13:33 23 AGENCY: _____
 6 SEGMENT #: K9-19-HB-1A 18 LOW TIDE HTS: 2.9 , -0.5 24 PHOTOS TAKEN: (Y) N
 7 STATION #: _____ 19 TIDE HT AT SURVEY: -0.5 → 4.5 Roll #: ST-6-7 Frame: 20-27
 8 K-UNIT: K9-19 Ebb Slack Flood Slack 25 VIDEO TAKEN: Y N TAPES: _____
 9 STAT AREA: _____ 20 USCG QUAD: _____ Starts: _____ Ends: _____
 10 LAT: 154° 35' W 11 LONG: 58° 24' N 26 SAMPLES TAKEN? Y (N) Number
 12 SOURCE: Map Loran _____ 011 _____
 13 LOCATION: HALLO BAY Sediment _____
 14 DESCRIPTION: STREAM MOUTH / LAGOON for HALLO CREEK Biological _____
 Water _____

EXTENT OF OIL

27 SURFACE COVERAGE

SHORELINE				STREAM			
L	M	H	%	L	M	H	%
				0	0	0	0

28 SURFACE THICKNESS

				0	0	0
--	--	--	--	---	---	---

29 PENETRATION

				0	0	0
--	--	--	--	---	---	---

30 OVERALL OIL IMPACT: N (VL) L M H
 31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain
 32 OILED DEBRIS? (Y) N
 33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cave
Lagoon Marsh
 34 WAVE EXPOSURE: High Moderate Low
 35 SUBSTRATE TYPE: Bedrock _____ Boulder _____ Cobble _____
 Gravel _____ Sand _____ Mud/silt _____

36 CATALOGUED ANAD. FISH STREAM? (Y) N
262-20-
 37 CATALOG #: 10040
 38 STREAM NAME: HALLO CREEK
 39 OIL IN STREAM BED? Y (N)
 40 OIL ON STREAM BANKS? (Y) N
 41 OIL ON BEACH ADJACENT TO MOUTH? (Y) N
 (within 50 meters)
 42 OIL WITHIN 1 MILE OF STREAM? (Y) N
 Where: _____

43 ANADROMOUS FISH PRESENT? Y (N)

44 ANADROMOUS FISH OBSERVATION

Species Aerial Ground

COMMENTS:

ACE 1950997

45 PHOTOC

THESE PHOTOS ARE CATALOGED
IN THE SJAT FILES UNDER ROLL # ST-6-7

FRAME(S)	DESCRIPTION
----------	-------------

20

MOUSSE PATCHES ON STREAM BANK MARCH

21

30 x 2m PATCH OF PATCHES/MOUSSE

46 OIL DISTRIBUTION DIAGRAM

ATTACHED

ACE 1950998-18

= Sample taken

= Photo frame # and

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/K09-19-HB-001 STREAM NO: 262-20-10040 DATE 4/30/90

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)
9LM Land mammals
7JJ Subsistence area: Invertebrate harvesting
ADF&G Anadromous Stream #262-20-10040 or 10035 (near border in HB-004)
See attached Ecological Constraint sheet for specific constraints and contracts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate. Avoid disturbance or damage to clam bed in sand beach near Hallo Creek.

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3276 (Anchorage) or 229-1508 (24 hrs.)).

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

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommend manual pick up of pooled oil, mousse, tarballs and patties. Consult ADF&G for appropriate work dates.

- POSSIBLE TIME WINDOW 7/15 - 7/31

TAG COMMENTS:

TAG APPROVAL DATE: 5/23/90

ADEC ART WEINER Art Weiner

EXXON ANDY GIL Andy Gil

NOAA Bruce Wiegert Bruce Wiegert

USCG G.A. FALTER G.A. Falter

FOSC: DATE:

ACE 1950999

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/K09-19-HB-001 STREAM NO: 262-20-10040 DATE 4/30/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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7JJ Subsistence area: Invertebrate harvesting
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SHPO SIGNATURE: Rachel Jean Sam DATE: 5/25/90

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RECOMMENDATIONS:

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<u>X</u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
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<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommend manual pick up of pooled oil, mousse, tarballs and patties. Consult ADF&G for appropriate work dates.

- POSSIBLE TIME WINDOW 7/15 - 7/31

TAG COMMENTS:

TAG APPROVAL DATE: 5/23/90

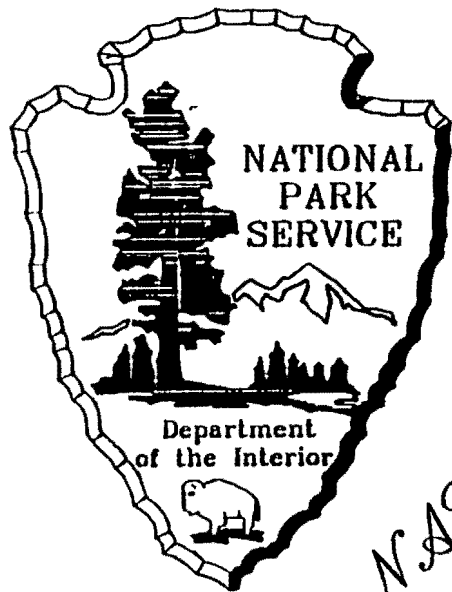
ADEC ART WEAVER Art Weaver

EXXON ANDY GALT Andy Galt

NOAA Burt Wesscott Burt Wesscott

USCG G.A. REITER G.A. Reiter

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



KATMAI NATIONAL PARK AND PRESERVE

K09-19-HB001

Shum. Island

CAPE DOUGLAS

SWIKSHAK BAY

HALLO BAY

KUKAK BAY

KATMAI BAY

Shelikof Strait



ACE 1951001 7/5

National Park Service
Shoreline Oil Assessment

Observer:... *Schoch*..... Zone:... *Kodiak*..... Segment #: *K09-19-4.000*

Date:..... *4/20/92*..... Place: *Halls Creek - Halls Bay - Kodiak*.....

Time:..... *12.00*..... Tide Height:..... Segment Length:.....

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 (

Length of Beach:.....^{inside}.....meters Width: ^{20-30m} *variable to 100* meters

=====

Impacted Area (length)

Total length of impacted area:.....meters

Wide: >6 m and >50% oil cover.....*12*.....meters

Moderate: 3 m to 6m and 10% to 50% oil cover.....*5*.....meters

Narrow: <3m and >10% oil cover.....*20*.....meters

Very Light: <10% oil cover regardless of width (splatters).....me

=====

Subsurface Oil Assessment

Pit #	Oil Type	Matrix Size	Intertidal Location	Pit Oiled Depth Interval	Pit Depth	% Sedi Satur
1	<i>Mousse</i>	<i>S</i>	<i>Su</i>	<i>0-6 cm</i>	<i>10 cm</i>	<i>10</i>
2	<i>Mousse</i>	<i>S</i>	<i>Su</i>	<i>0-6 cm</i>	<i>10 cm</i>	<i>10</i>
3						
4						
5						
6						
7						

ACE 1951002

Supratidal

Observer: ... Schuch ... Segment #: K09-19-H600!...

Substrate	%	oil type	continuous	broken	patchy/numerous	spa
bedrock	Ø	asphalt				
		pooled				
boulder	Ø	cover		✓	✓	✓
		coat		✓	✓	✓
cobble	Ø	stain		✓	✓	✓
		mousse		✓	✓	✓
pebble	~	patties		✓		
		tarballs				✓
sand	80	sheen				
		logs				
silt/mud	0	plastic				
		dead algae				
organics	10	dead wildlife number and type 2 oiled animals				

Upper Intertidal

Substrate	%	oil type	continuous	broken	patchy/numerous	spa
bedrock	Ø	asphalt				
		pooled				
boulder	Ø	cover			✓	✓
		coat			✓	✓
cobble	Ø	stain			✓	✓
		mousse			✓	✓
pebble	0	patties			✓	✓
		tarballs				
sand	80	sheen				
		logs				
silt/mud	10	plastic				
		dead algae				

ACE 1951003

Middle Intertidal

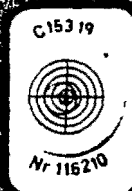
Observer: ... Schach ... Segment #: K09-19-H4

Substrate	%	oil type	continuous	broken	patchy/numerous	spa
bedrock	0	asphalt				
		pooled				
boulder	0	cover				
		coat				
cobble	0	stain				
		mousse				
pebble	0	patties				
		tarballs				
sand	0	sheen				
		logs				
silt/mud	10	plastic				
		dead algae				
organics	10	dead wildlife number and type 0				

Lower Intertidal

Substrate	%	oil type	continuous	broken	patchy/numerous	spa
bedrock	0	asphalt				
		pooled				
boulder	0	cover				
		coat				
cobble	0	stain				
		mousse				
pebble	0	patties				
		tarballs				
sand	50	sheen				
		logs				
silt/mud	0	plastic				
		dead algae				

ACE 1951004



CZ
276



15721

**Biological Assessment
Of Oil Impacted Area**

Observer: S. Loch....Segment #: K0.9-19-7

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:

Tracks Brown Bear Wolverine
River Otter
Fox

Bird Observations:

Gulls (Glaucous Wing)
Barrows Golden, e
Mergansers

General Observations:

The patches of moss found in the sparse
grasses should be maintained with special

The Lager area should be marked by a cleanup area
and oiled debris removed. The area should be marked

A piece of grass should be marked as a seed
at the same time. The remaining very light
majority would be difficult to find and remove without
specifically searching the location.

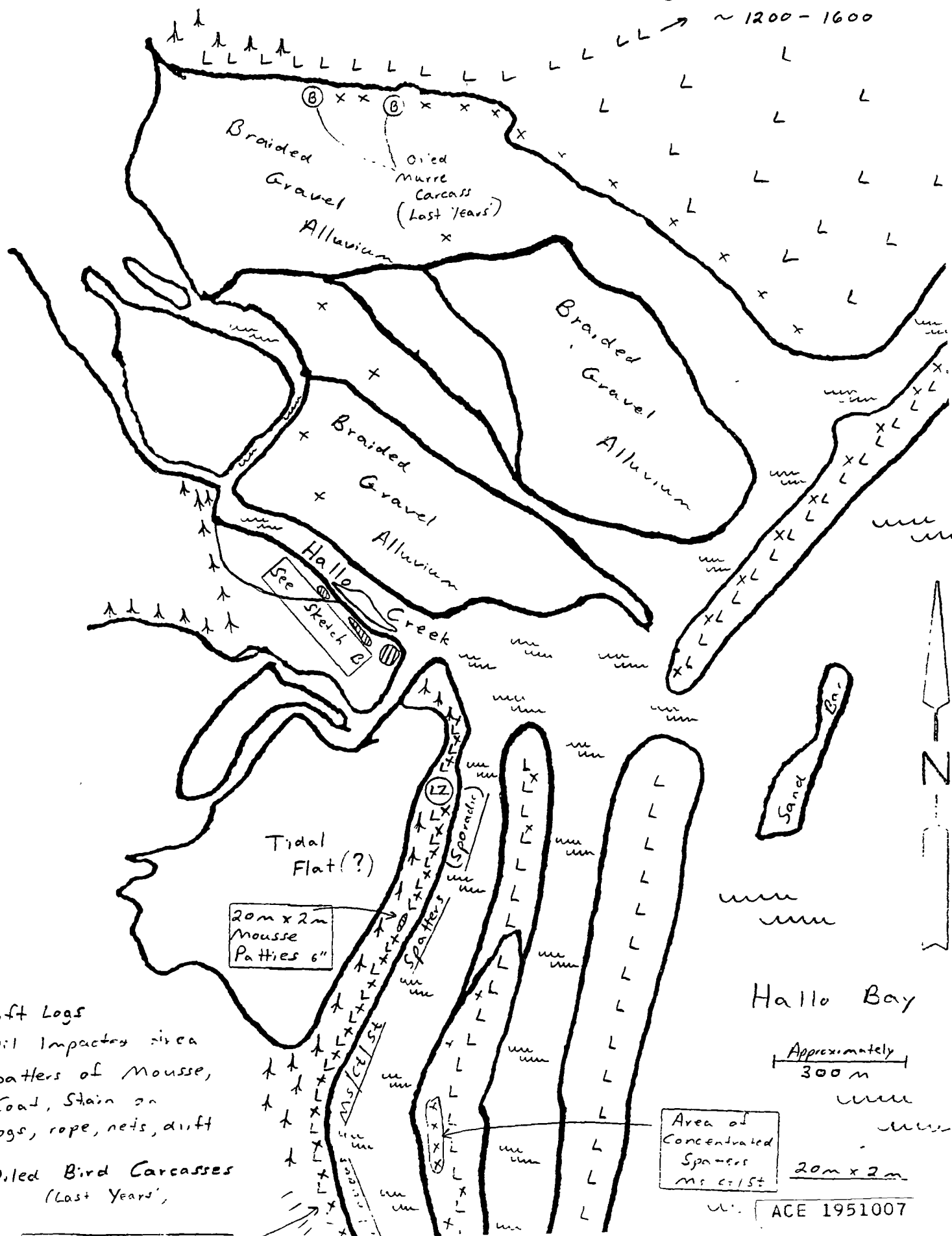
ACE 1951006

K09-19- HB001

4/30/90

Schoch - Sketch A

~ 1200 - 1600



L - Drift Logs

☐ - Oil Impacts area

x - Spatters of Mousse, Coal, Stain on logs, rope, nets, drift

Ⓟ - Oiled Bird Carcasses (Last Years)

Area of Concentrated Spatters
M.C. 15+

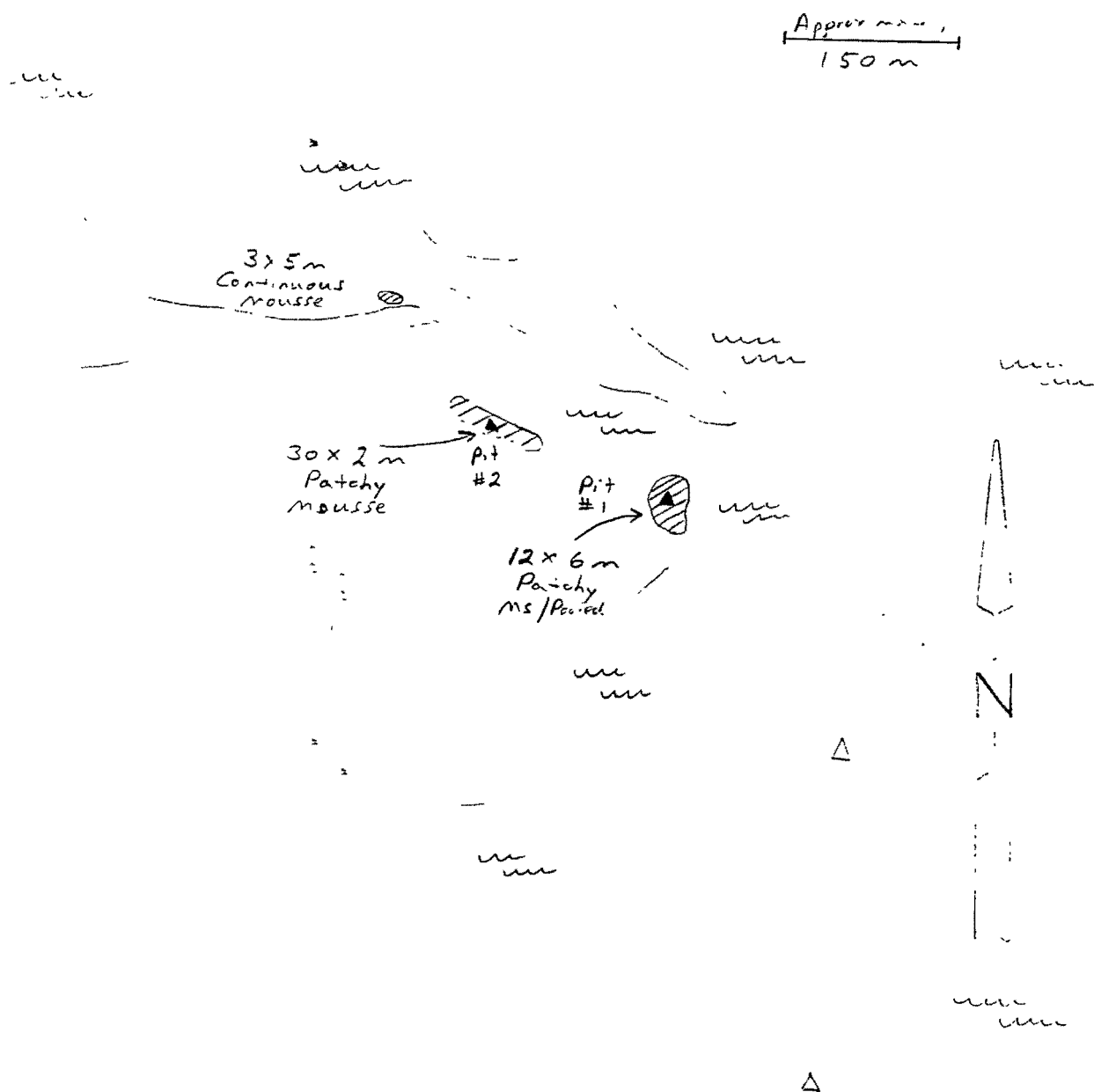
20m x 2m

ACE 1951007

K09-19-HB001

4/30/90

Schoch - Sketch B



K09-19 HB-001 AFS 262-20-10040

Hallo creek

10f1

DEMobilIZATION REPORT

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

SEGMENT NUMBER R 0919 HB 001 A
SUB DIVISION

DATE 6-12-90

Has work been completed as stated on the work order?

yes

Is there additional oil remaining?

yes

Do you recommend further treatment?

NO

What is the recommended treatment method?

Describe amount of oil remaining- size area and location

along the SE side of horse shoe lagoon I believe there are buried
mousse patches which will gradually be exposed to the surface possibly in amounts
Date and Time of demobilization from segment from 4% - 5%

6-12-90 @ 17:30

COMPLETE THIS FORM AND FAX TO ANCHORAGE AFTER DEMOBILIZATION FROM
EACH SEGMENT

Additional Comments

NAME Terry Ellsworth

VESSEL NAME Sea Trader

TEAM # 9

EXXON Floyd Avery

COAST GUARD Don Haven

VECO Foreman Clyde Z (Zuck) Kotelinkoff

NPS Ray Waber RPO

Grade
C

Terry Ellsworth

DEMobilization REPORT

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

AB-001 (stream)
SEGMENT NUMBER 262-20-10040 DATE 6-14-90
SUB DIVISION

Has work been completed as stated on the work order?

Yes

Is there additional oil remaining?

Very little surface oil remaining. Some buried mouse patches found suggests that more buried mouse may be present

Do you recommend further treatment?

NO - given the nature of the circumstance, it'd be more harm than good

What is the recommended treatment method?

Describe amount of oil remaining- size area and location

21% surface oil remaining

Date and Time of demobilization from segment

6-14-90 @ 21:00

COMPLETE THIS FORM AND FAX TO ANCHORAGE AFTER DEMOBILIZATION FROM EACH SEGMENT

Additional Comments

NAME *Fran Bennis*
VESSEL NAME *M/V Sea Trader*
TEAM # *9*
EXXON *Tom Tomblin*
COAST GUARD *Don Haven*
VCLD *Zack Kutelinkoff*

Post-It® brand fax transmittal memo 7671

» of pages »

To <i>Debbie W</i>	From <i>Fran Bennis</i>
Co. <i>AOSRC</i>	Co. <i>DEC</i>
Dept. <i>Documentation</i>	Phone # <i>811 872-50</i>
Fax # <i>1-265-4666</i>	Fax # <i>611 872-150 2147</i>

FIELD SHORELINE COMMENT SHEET

SEGMENT AS / K9-19 H3001 SUBDIVISION: A SITE: 1 DATE Aug. 3, 1990

USCG

NAME J. FAZIO SIGNATURE J. Fazio☐ 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:

* Entire treated area was not assessed by the S.A.P. work; the work crew had performed manual pick-up along beach in lagoon area to the east of where the S.A.P. team loaded.

LAND MANAGER

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

EXXON

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

NAME 55 EXAMINER J. FAZIO PROJECT NO. 7-2-1
 CG D. FITZGERALD USGS J. FAZIO SUBDIVISION M
 ADEC F. Bennis LAND REP W. Kroyer TOTAL NO. SITES 1
 DATE 3 Aug 1990 TIME 10:40 to 11:15 TIDE LEVEL 150 to 210 cm ABOVE MHW
 TOTAL EST LENGTH OF SHORELINE SURVEYED: 300 m
 SURVEYED FROM: ☒ Foot ☐ Boat ☒ Helo WEATHER: ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 OIL CATEGORY LENGTH: W m M m N m VL m NO 300 m US m

SITE 3

[illegible][illegible]

- #16 - view of pit
- #17 - tar patties being removed
- #18 - site where manual clean up had been done

COMMENTS This site was located from the entrance to a gravel point bar inside the embayment of Halls Bay Creek. Several sites were observed where patties had been removed from the SUTZ. No other oil was observed along this site and two pits were dug (see sketch map for location) to confirm the absence of subsurface oil. REVISION NO. 7/27/80

DATE 4 / 30 / 00

CHECKLIST

#1 Avenue
 Approx. 3000
 Sep 2000 Study
 CD 100
 With
 Length
 1/2 Cover
 Substrate Character
 Est. MRL/ML
 GEL
 Profile Location(s)
 Profile(s)
 PS Location(s)
 Photo Location(s)

LEGEND

1 A

3A
Fig. - Substrate Oil



CT/B

「五」

Weekly Distribution

15

۲۰۱۵

100

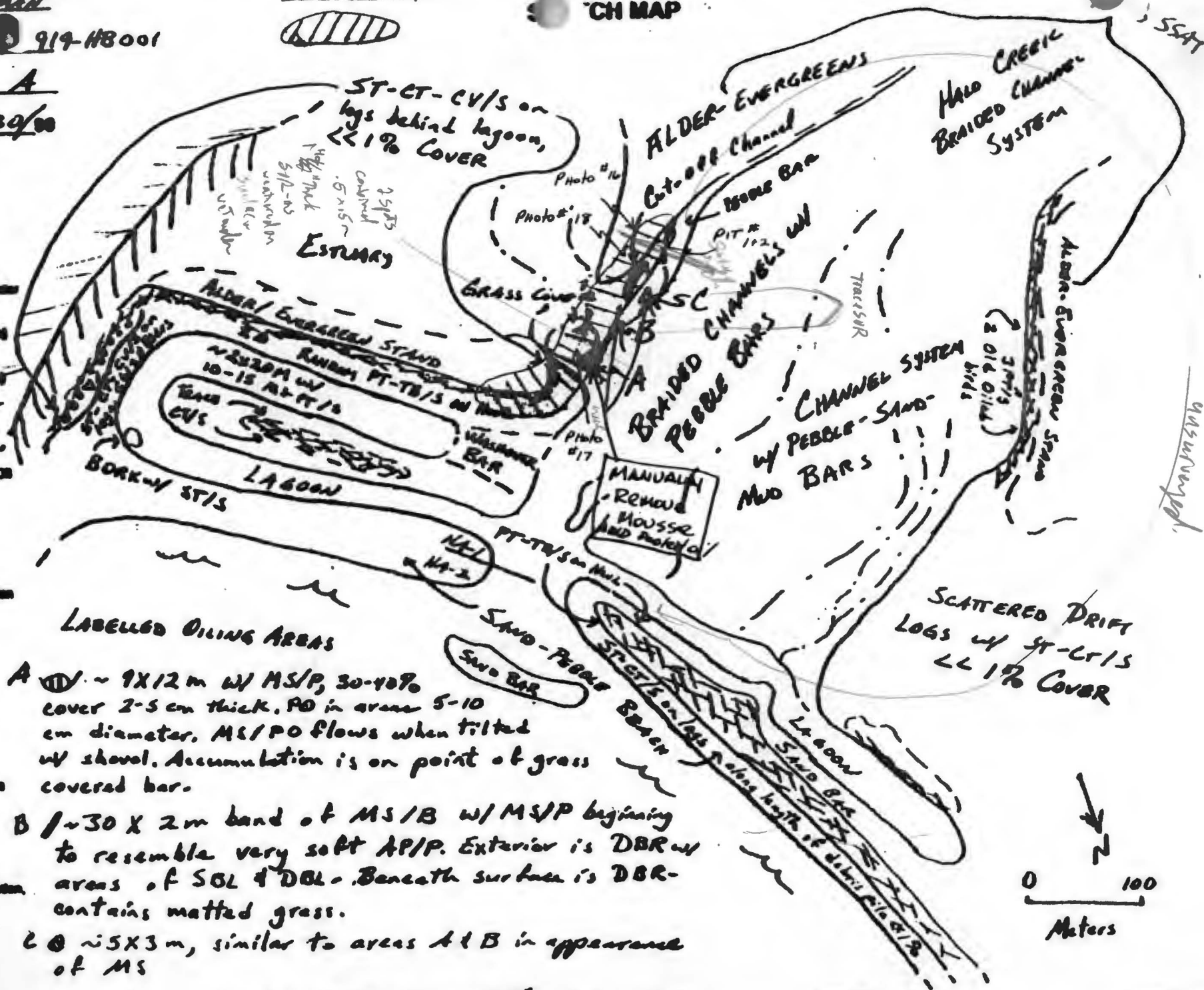
Red Vegetation

10



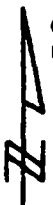
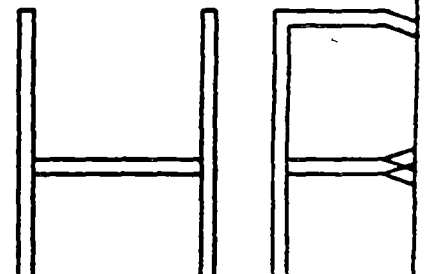
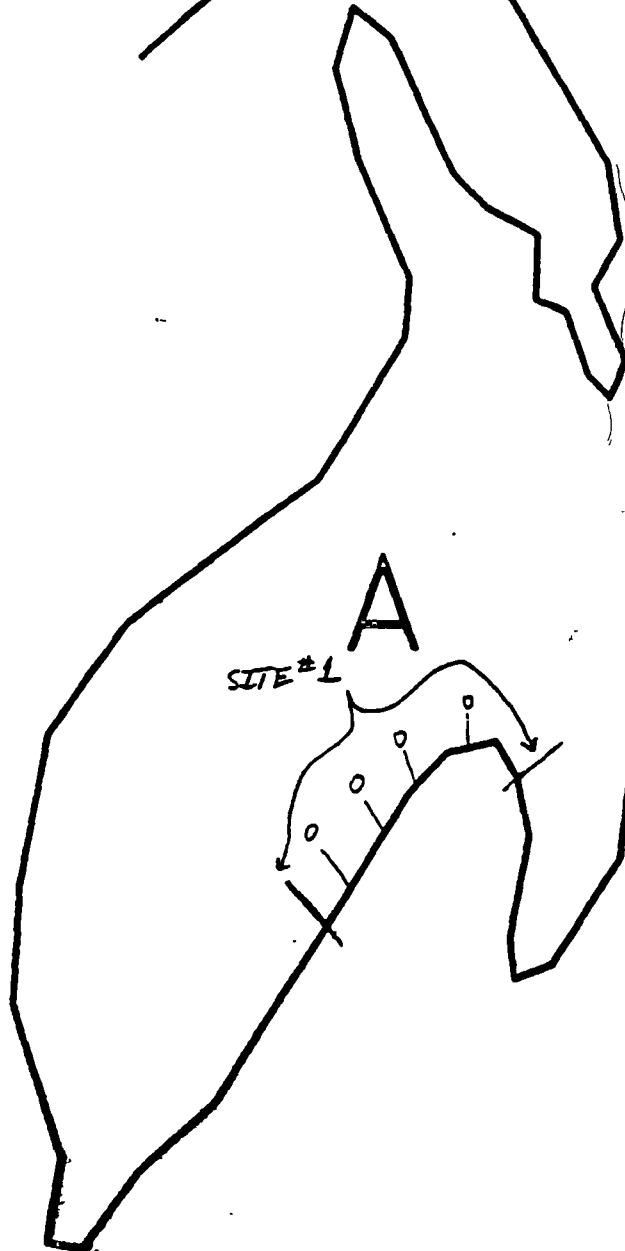
100

Character List



Character Length (m): AP _____ PO 1 CV 50 CT 400 ST 1000 MS 46 PT 100 TB 530 FL _____ NO 1577

HB



SEGMENT K9N-19 HB-1 Segment Location Map

Map Key: AKPK9N-19HB-1

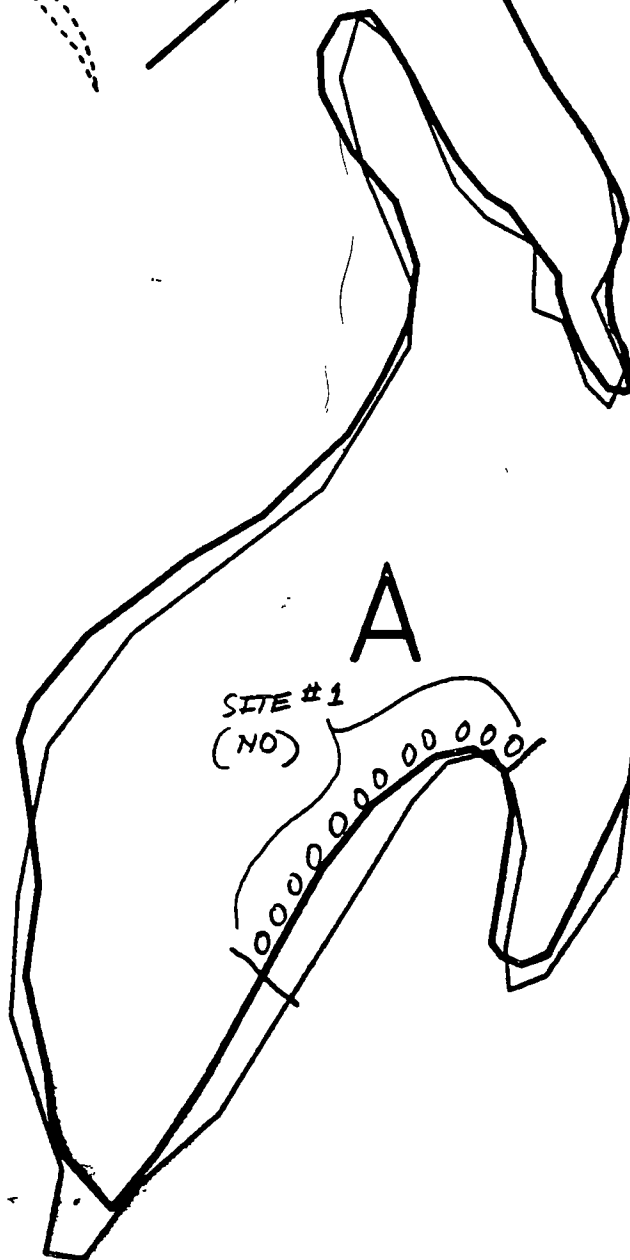
METERS



July 18, 1990

1:7564

HB



SITE #1
(NO)

A

XXXX
////

TTTT
0000

Wide
Medium
Narrow
Very Light
No Oil

K9N-19 HB-1 A
ADEC Subsegment Length: 3724m
METERS
0 102 304
AK State Plane Zone 4 1:7500

Subdivision Field Map
Map Key: AKPR08-10NB-1A
Name: D. Fitzgerald
Date: 3 August 90
Date Entered:



ANAD
STREAM
262-20-10085

HB-1

WORK AREA

A

ANAD STREAM
242-20-10040

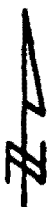
HB-2



Exxon Company, USA

Map Key: NP-18-1

June 10, 1980



ECOLOGY MAP
SEGMENT K9N-19 HB-1
SUBDIVISION A (---101---)

METERS



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

1 inch = 1452 feet

*Extra copy - used for cleanup monitoring trip 6/12/90 KLM**

ANADROMOUS FISH STREAM EVALUATION

* extra notes
on map from this trip

SEGMENT ST/K09-19-HB-001 STREAM NO: 262-20-10040 DATE 4/30/90

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)
9LM Land mammals
7JJ Subsistence area: Invertebrate harvesting
ADF&G Anadromous Stream #262-20-10040 or 10035 (near border in HB-004)
See attached Ecological Constraint sheet for specific constraints and contracts.

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ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3276 (Anchorage) or 229-1508 (24 hrs.)).

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

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommend manual pick up of pooled oil, mousse, tarballs and patties. Consult ADF&G for appropriate work dates.

- POSSIBLE TIME WINDOW 7/15 - 7/31

TAG COMMENTS:

TAG APPROVAL DATE: 5/23/90

ADEC ART WEINER Art Weiner

EXXON ANDY GATZ Andy Gatz

NOAA Burt Wescott Burt Wescott

USCG G.A. REITER G.A. Reiter

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

GLENN HEYMAN NOAA USCG JOHN NAUGHTON SEGMENT STI K 0919-HR 001
 JO. JIM BARRS LAND REP CARL SCHUCH NIPS SUBDIVISION A (LOFL)
 EXXON FRED BYARS ADEC TERRY ELLSWORTH TIME 13:200/16:30
 TEAM NO. 19 TIDE LEVEL -0.5 to +1.5 DATE 4/30/90
 EST. SUBDIVISION LENGTH: _____ m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 1 % B 3 % C 3 % P 20 % G 33 % S 20 % M 20 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W _____ m M _____ m N _____ m VL _____ m NO _____ m

SURFACE OIL

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

PAVEMENT H F S 0 sq. m by 0 cm

PATTIES / TARBALLS 3 BAGS

NEAR 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 0

#BAGS 0

Photographs:

Roll No. ST-6/19-7

Frames 20-22

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	CP	NO		UO	UC	1	2	3	4	5	6	SU	U	M	V				
1	15					X	0-0	X								X				N	-	-	G/GS
2	15					X	0-0	X								X				N	-	-	G/GS
3	10					X	0-0	X								X				N	-	-	VS/SM
							.																
							.																
							.																

COMMENTS

Oiling in areas A, B, & C (shown on sketch map) is listed as MS/P & P. This is grading in areas to AP, but is included on the surface oil matrix as MS only.

REVIEWED fw DATE 5-10

SEGMENT ST/K0919-H8001

SUBDIVISION A 262-20-1004D

DATE 4 / 30 / 90

CHECKLIST

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

LEGEND

1 Δ
PH - No Subsurface Oil

2 Δ
PH - Subsurface Oil

$\square$ CT/C
Continuous Distribution

$\square$ CT/B
Broken Distribution

$\square$ CT/P
Patched Distribution

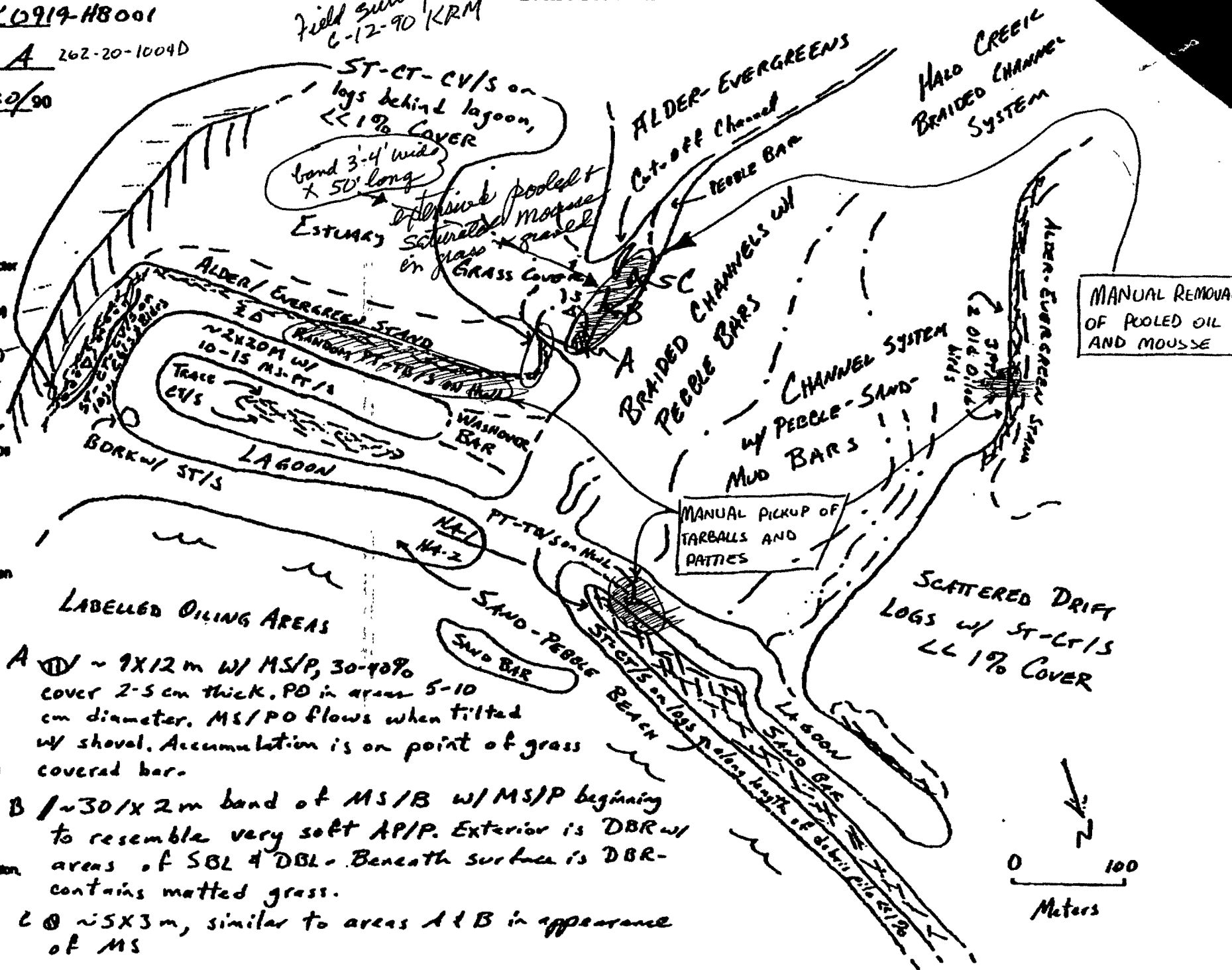
$\square$ CT/S
Splashed Distribution

$\lll$
Oiled Vegetation

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

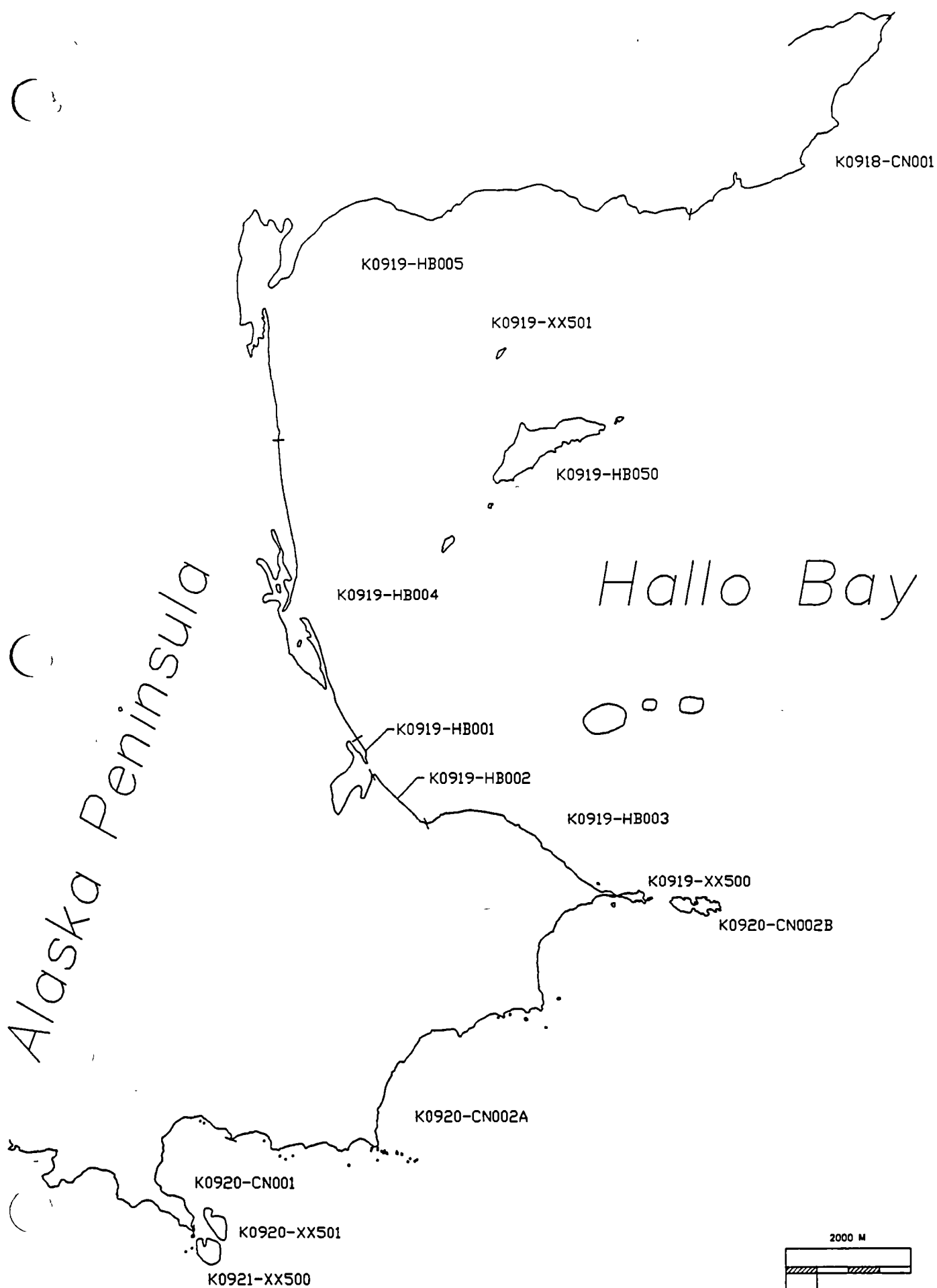
SKETCH MAP

Field survey
6-12-90 KRM



LABELLED OILING AREAS

- A $\textcircled{1}$ ~ 9X12 m W/ MS/P, 30-40% cover 2-5 cm thick. PO in areas 5-10 cm diameter. MS/PO flows when tilted w/ shovel. Accumulation is on point of grass covered bar.
- B $\textcircled{1}$ ~ 30X2 m band of MS/B W/ MS/P beginning to resemble very soft AP/P. Exterior is DBR w/ areas of SBL & DBL. Beneath surface is DBR - contains matted grass.
- C $\textcircled{1}$ ~ 5X3 m, similar to areas A & B in appearance of MS



EVOS CLEANUP MONITORING, 1990.

REGION: Alaska Peninsula

REPRESENTATIVES

K-UNIT: K9-19

Exxon: Floyd Avery

SEGMENT: HB-001

USCG: Dow Haven

LOCATION: Hallo Bay

DEC: Fran Bennis / Terry Ellsworth

STREAM NAME: Hallo creek

NPS: Ray Waber / Dow Mc Bee

ANAD. STREAM CAT. # : 262-20-10040

USFWS: None

ANAD. FISH STREAM PERMIT ISSUED: 6/12/90

ADFG: Jeff Barnhart / Ken Middlei

DATE(S) WORKED: 6/12/90 and 6/14/90

OTHER:

SQUAD # : 9 Sea Trader

HOURS WORKED: 11 est.

SQUAD SIZE: 8

TOTAL MAN HOURS worked: 88

NUMBER OF BAGS collected: Est. 285

WORK ORDER ISSUED: 5-31-90

POUNDS OF OIL/OILED SEDIMENT REMOVED: Est. 8,630

TREATMENT TECHNIQUES: MANUAL REMOVAL X BIOREMEDIATION

OTHER

OIL BANDS

DEMOS DATE: 06/14/90

L 9m W 12m m² 108 % oil cover 60 Surf to 9c

OIL SAMPLE(S) # : NONE

L 30m W 2m m² 60 % oil cover 60 Surf to 9c

OIL TYPE: Mousse, TB

L 5m W 3m m² 15 % oil cover 60 Surf to 9c

SUBSTRATE TYPE: C 10% P 30%

L 100m W 4m m² 400 % oil cover 3 Surf to 9c

G 33% Sand 20%

L W m² % oil cover

PHOTOLOG

Roll #

FRAME #

DESCRIPTION

ST-6-7

20

Mousse patches on stream bank marsh

ST-6-7

21

30x2m patch of patties/mousse

These photos are cataloged in the SSAT Files

90TSE03

18

Site after treatment (A on OG map)

90TSE03

14

Document Treatment

90TSE03

15

Document Treatment

ADFC
photographs

PROBLEMS: This segment was treated by the ^{squad of the} M/V Sea Trader. Ken Middleton and I were transported to the site via helo. We monitored the cleanup for approximately two hours, before having to return to Kodiak.

A final inspection did not occur after the cleanup due to time and space conflicts. I verbally requested space on the ASAP helo from Rex Coulter. My request was denied.

ADEC and NPS records were used to construct an estimate of the hours worked and amount of oil removed.

This stream system was surveyed during April 1990 by SSAT without the presence of ADF&G Habitat Division personnel. The ADF&G multi-assessment form was completed by Jim Barry a member of the SSAT.

OBSERVATIONS: The oil in areas indicated as A, B and C in the SSAT report was soft, brown, sticky unweathered mousse, deposited in the grass on the stream bank to a depth of nine centimeters. The grass and ^{oil} saturated sediments was removed. Ken Middleton discovered an area approx .5m x .5m of liquid, fluid oil which at first glance had the appearance of water on top of oil. This type of oil characteristic was atypical for the Kodiak zone during 1990.

The oiled area in the S.W. portion of the lagoon indicated as Random PT-TB/S and 2x20 m on the SSAT report had increased in size to 100m x 4m. Terry Ellsworth of ADEC was a member of the SSAT team that conducted the survey. She indicated perhaps the oil is subsurface, slowly moving to the surface and being exposed. The entire segment should be surveyed during 1991 with special emphasis placed on locating and determining the extent of the subsurface oiling.

SIGNED: Jeff Barnhart.

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: 1120 17) HIGH TIDE HTS: 15.7/16.1 23) OBSERVERS: F. Bennis, D. Spurr, R. Hesolton and others.
- 6) STOP TIME: 1240 18) LOW TIDE TIMES: 0157/1429 24) AGENCY: ADF&G, NPS, USCG, Exxon
- 7) SEGMENT #: HB-001 19) LOW TIDE HTS: 3.7/0.2 25) PHOTOS TAKEN: Y N
- 8) K-UNIT: K9-19 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 #: 262-20-10040 START: _____ STOP: _____
- 12) STREAM NAME: Hallo Creek 27) SAMPLES TAKEN? Y N
- 13) LOCATION: Hallo Bay 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	.5	.5	.25	100	1.25	1.25	SOR-MS
SITE 2							
SITE 3							
SITE 4							
SITE 5							

29) OVERALL OIL IMPACT:

H = >6m band with $\geq 50\%$ oil coverage

M = >6m band with $\leq 50\%$ oil coverage or $\geq 3m$ to $\leq 6m$ with $\geq 10\%$ oil coverage

L = <3m band with $> 10\%$ oil coverage

VL = $\leq 10\%$ 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):

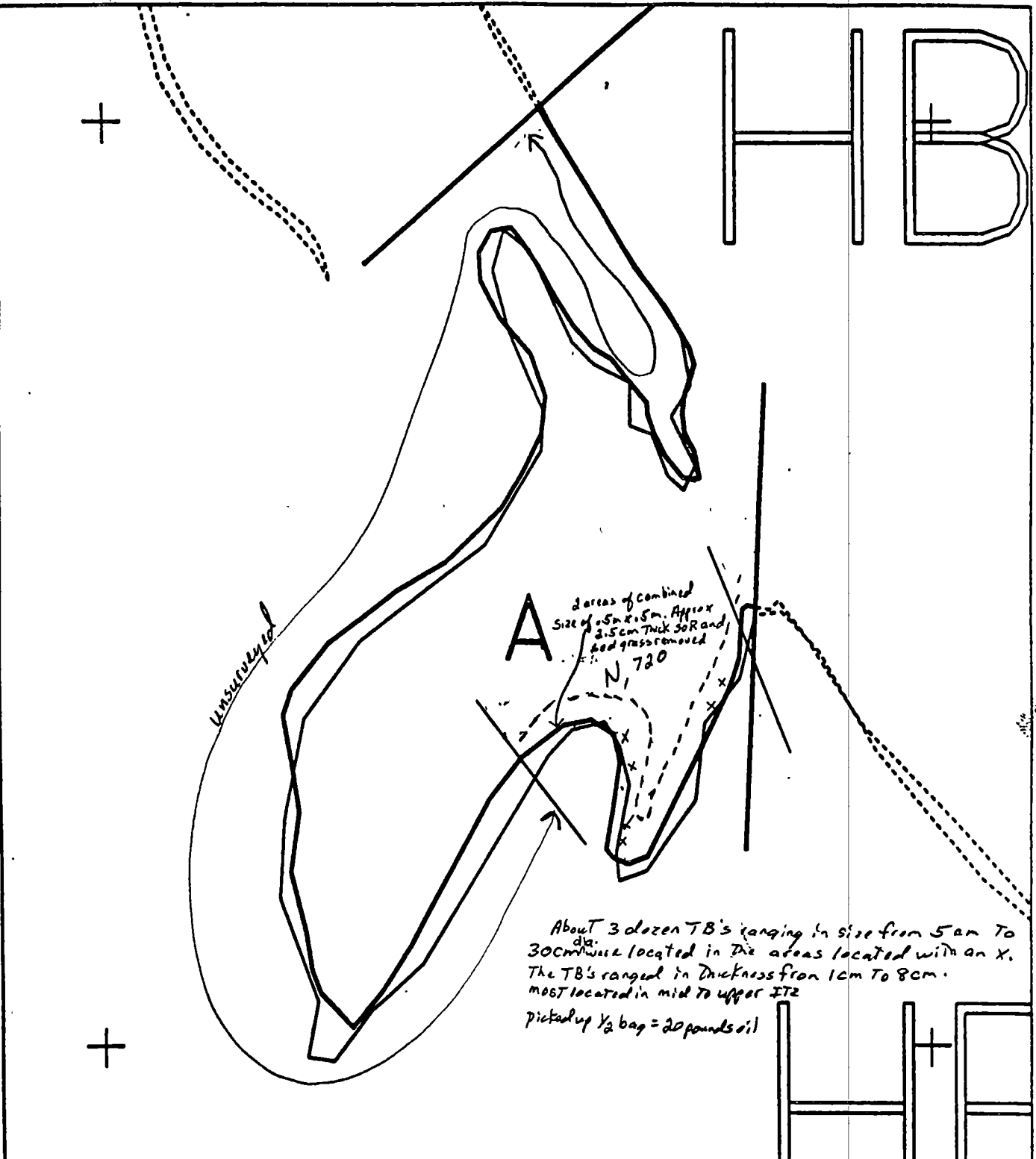
Bedrock _____ Boulder _____ Gravel 40 Sand 50 Cobble 10 Mud/Silt _____

34) WILDLIFE OBSERVATION

Species _____ Number _____

Moose, River otter + bear tracks

35) COMMENTS: About 3 dozen TB's ranging in size from 5cm to 30cm dia were located in the areas on the digitized shore line map marked with an x. The TB's ranged in thickness from 1cm to 8cm. Most located in mud to upper IT2. In the area where the oil was located on the stream bank in the grass in 1990, we removed 2 areas combined size of .5m x .5m, approx 2.5cm thick SOR and seed grass. The SOR was weathered on the outside and wet, fluid, sticky ms underneath. Approx oil removed from the surveyed area was 1/2 bag or 20 pounds.



About 3 dozen TB's ranging in size from 5cm to 30cm ^{dia} located in the areas located with an X. The TB's ranged in thickness from 1cm to 8cm. Most located in mid to upper ITZ
picked up 1/2 bag = 20 pounds oil

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

K0919 HB001 A
ADEC Subsegment Length: 3724m
Scale = 2m/ft 1/2 METERS
AK State Plane Zone 4
90019960010-1 ...

Subdivision Field Map
Map Key: 60AK0019HB001A
Name: _____
Date: _____
Date Entered: _____
EXON

TEAM NO. 6-Helo SEGMENT K9N-19-HB-1 SUBDIVISION A DATE 20 MAY 1991

ADEC

NAME J BARNHART ADFG SIGNATURE Jiff Barnhart

☒ NTR ☐ Treatment Recommended.

Very occasional TB picked up in area B+C. Trace amounts of SOR removed from the grass in area D, on the bank of this anadromous stream. Trace amounts of TB remain in area B+C. No additional Treatment recommended.

EXXON

NAME R. HARRELSON SIGNATURE _____

☐ NTR

LANDMANAGER

NAME F. BENNES OF NPS SIGNATURE F. Benes

☒ NTR

Scattered patches observed at sites B, C, + D have been collected. Very little other oil (ST, SOR) has been observed at sites A + D 1 + 2.

USCG/NOAA

NAME CWO SPURR / G. SHIGENAKA SIGNATURE R.P. Spurr Gary Shigenaka

☒ NTR

SURVEYED PORTION OF THE SEGMENT WAS A COMPLEX SERIES OF STREAM- AND TIDALLY-CUT CHANNELS ACROSS A BROAD SAND/MUD FLAT. SUPRATIDAL PORTIONS OF MIGRATING BERMS WERE STREWED WITH DRIFT LOGS, AS WAS THE SUPRATIDAL AROUND THE PERIMETER OF THE SURVEYED AREA. BEAR AND RIVER OTTER TRACKS WERE SEEN ALONG THE SEGMENT. THE SURVEY CONCENTRATED ON THOSE AREAS KNOWN TO HAVE BEEN OILED. ALONG THE EASTERN SHORELINE, SPLATTERS OF FRESH (FAIRLY FLUID) TAR WERE FOUND, PRIMARILY ALONG THE HIGH TIDE LINE, BUT THESE WERE BELIEVED TO NOT BE OF EXXON VALDEZ ORIGIN. FURTHER TO THE WEST, SOR (EXXON VALDEZ) WAS FOUND SCATTERED IN THE MUD. ALL OF THIS MATERIAL WAS RECOVERED. ALONG THE SEGMENT TO THE SOUTHWEST, A SMALL STREAM FLOWED IN FROM THE EAST AND TWO PATCHES OF ASPHALT WERE FOUND ON ITS SOUTH BANK — THESE WERE REMOVED BY THE VECO CREW. LITTLE OTHER EVIDENCE OF OILING WAS SEEN IN THE SURVEYED PORTION.

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST



STREAM#: 2622010040
SEGMENT: HB001

PAGE 47

DATE PRINTED: 06/21/91

LOCATION: HALLO BAY

SURVEY TYPE: 91 MAYSAP - SS

METHOD: GROUND

DATE: 05/20/91

TEAM RECORDER: BARNHART

START TIME: 1120

OBSERVERS: BENNIS SPURR HEROLDSON

END TIME: 1240

OG/HAB DISCREPANCIES: -

AGENCY: FG NPS USCG EXX

PHOTOS TAKEN: N

STATION: 2622010040

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: Y

OVERALL OIL IMPACT: VL

OIL ON BEACH BY MOUTH: N

WAVE EXPOSURE: LOW

SHORELINE TYPE: LAGOON

SUBSTRATE TYPE: BEDROCK -0- BOULDER -0- COBBLE 10 VEGETAT -0-

GRAVEL 40 SAND 50 MUD/SILT -0- GRANULE -0-

ANADROMOUS FISH PRESENT: N

SPECIES: ~~MOOSE~~

COUNT: -0-

~~RIVER OTTER~~

-0-

-0-

-0-

-0-

-0-

-0-

-0-

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST



PAGE 54

DATE PRINTED: 06/21/91

STREAM# : 2622010040
SEGMENT#: HB001

SURVEY TYPE : 91 MAYSAP - SS

LOCATION: HALLO BAY

DATE: 05/20/91

TIMES: 1120 - 1240

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-	.5	.5	.25	100	1.25	1.25	SOR MS

COMMENTS:

ABOUT 3 DOZEN TB'S RANGING IN SIZE FROM 5CM TO 30CM IN DIAMETER WERE LOCATED IN THE AREAS ON THE DIGITIZED SHORELINE MAP MARKED WITH AN X. THE TB'S RANGED IN THICKNESS FROM 1CM TO 8CM. MOST LOCATED IN MID TO UPPER ITZ. IN THE AREA WHERE THE OIL WAS LOCATED ON THE STREAM BANK IN THE GRASS IN 1990, WE REMOVED 2 AREAS COMBINED SIZE OF .5M X .5M, APPROX 2.5CM THICK 'SOR' AND SOD GRASS. THE 'SOR' WAS WEATHERED ON THE OUTSIDE AND WET, FLUID, STICKY 'MS' UNDERNEATH. APPROX OIL REMOVED FROM THE SURVEYED AREA WAS $\frac{1}{2}$ BAG OR 20 POUNDS. BEAR TRACKS OBSERVED.

↪ MOOSE, RIVER OTTER AND

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: 1120 17) HIGH TIDE HTS: 15.7/16.1 23) OBSERVERS: F. Bennis, D. Spurr, R. Heselton and others.
- 6) STOP TIME: 1240 18) LOW TIDE TIMES: 0157/1429 24) AGENCY: ADF&G, NPS, USCG, Exxon
- 7) SEGMENT #: HB-001 19) LOW TIDE HTS: 3.7/0.2 25) PHOTOS TAKEN: Y N
- 8) K-UNIT: K9-19 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 #: 262-20-10040 START: _____ STOP: _____
- 12) STREAM NAME: Hallo Creek 27) SAMPLES TAKEN? Y N
- 13) LOCATION: Hallo Bay 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	.5	.5	.25	100	1.25	1.25	SOR-MS
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 40 Sand 50 Cobble 10 Mud/Silt _____

34) WILDLIFE OBSERVATION

comments: Moose River Otter + Bear tracks

Species	Number
moose, River Otter + bear tracks	

35) COMMENTS: About 3 dozen TB's ranging in size from 5cm to 30cm dia were located in the areas on the digitized shore line map marked with an x. The TB's ranged in thickness from 1cm to 8cm. Most located in mid to upper ITZ. In the area where the oil was located on the stream bank in the grass in 1990, we removed 2 areas combined size of .5m x .5m, approx 2.5cm thick SOR and seed grass. The SOR was weathered on the outside and wet, fluid, sticky ms underneath. Approx oil removed from the surveyed area was 1/2 bag or 20 pounds.
Bear tracks observed

ANADSCAT
1991 MAYSAP EVALUATION

ASC # 262-20-10040

SEGMENT: KO919HB001 SUB: A REGION: KOD SURVEY DATE: 5/20/91

ENVIRONMENTAL SENSITIVITIES:

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

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: _____ Date: _____

RECOMMENDATIONS:

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

COMMENTS:

INITIAL: *NR*

TAG: _____

FOSC: _____

TAG APPROVAL DATE: _____ FOSC APPROVAL DATE: _____

ADEC _____ FOSC _____

EXXON _____

USCG _____

NOAA _____

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

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

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

262-20-10040

ADEC

NAME J BARNHART ADFG SIGNATURE Jff Barnhart

☒ NTR ☐ Treatment Recommended.

Very occasional TB picked up in area B+C. Trace amounts of SOR removed from the grass in area D, on the bank of this anadromous stream. Trace amounts of TB remain in area B+C. No additional Treatment recommended.

EXXON

NAME R. HARRELSON SIGNATURE R. Harrelson

☒ NTR The area is recovering nicely.

LANDMANAGER

NAME F. BENNETT OF NPS SIGNATURE F. Bennett

☒ NTR

Scattered patches observed at sites B, C, + D have been collected. Very little other oil (ST, SOR) has been observed at sites A + D 1 + 2.

USCG/NOAA

NAME CWO SPURR SIGNATURE R.P. Spurr Gary Stigum

☒ NTR

SURVEYED PORTION OF THE SEGMENT WAS A COMPLEX SERIES OF STREAM- AND TIDALLY-CUT CHANNELS ACROSS A BROAD SAND/MUD FLAT. SUPRATIDAL PORTIONS OF MIGRATING BERMS WERE STREWED WITH DRIFT LOGS, AS WAS THE SUPRATIDAL AROUND THE PERIMETER OF THE SURVEYED AREA. BEAR AND RIVER OTTER TRACKS WERE SEEN ALONG THE SEGMENT. THE SURVEY CONCENTRATED ON THOSE AREAS KNOWN TO HAVE BEEN OILED. ALONG THE EASTERN SHORELINE, SPLATTERS OF FRESH (FAIRLY FLUID) TAR WERE FOUND, PRIMARILY ALONG THE HIGH TIDE LINE, BUT THESE WERE BELIEVED TO NOT BE OF EXXON VALDEZ ORIGIN. FURTHER TO THE WEST, SOR (EXXON VALDEZ) WAS FOUND SCATTERED IN THE UITS. ALL OF THIS MATERIAL WAS RECOVERED. ALONG THE SEGMENT TO THE SOUTHWEST, A SMALL STREAM FLED IN FROM THE EAST AND TWO PATCHES OF ASPHALT WERE FOUND ON ITS SOUTH BANK - THESE WERE REMOVED BY THE VECO CREW. LITTLE OTHER EVIDENCE OF OILING WAS SEEN IN THE SURVEYED PORTION.

TEAM NO. 6-Helo

OG O.F. Fitzgerald

BIO H DAVIS

SEGMENT K09-19-HB-1

ADEC Т. БАКННАТ

LANDMANAGER F BENNES for NPS

SUBDIVISION A

EXXON R. HANSEN/SON

USCG/NOAA CWO Jensen / G. SHIGENAKA

DATE 20 / MAY / 91

TIME 11 : 20 to 12 : 50

TIDE LEVEL 5.0 ft. to 1.5 ft.

ENERGY LEVEL. ☐ H ☐ M ☒ L

SURVEYED FROM: ☒ FOOT ☐ BOAT ☐ HELO

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

TOTAL LENGTH SHORELINE SURVEYED: * 1200 m

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

EST. OIL CATEGORY LENGTH: W m M m N m VI 244^{*} m NO 956^{*} m US 2524^{*} m

[illegible]

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

SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE PHOTO ROLL # MAYSAP- 1 - 18 FRAMES 1 - 1

[illegible]

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

OG COMMENTS: THIS SEGMENT IS LOCATED AT THE MOUTH OF HALLO CREEK WITHIN HALLO BAY. THE REGION SURVEYED WAS SHELTERED AND CONSISTED OF THE SHORELINE INSIDE THE INLET ALONG A SERIES OF TIDAL CHANNELS AND BARS INCLUDING A PORTION OF THE INNER LAGOON MARSH SYSTEM. THE OILING WAS IN SPORADIC TRACE AMOUNTS AND INCLUDED INFREQUENT TINY PATCHES ALONG THE MAINLAND BEACH AND VERY MINOR RESIDUE OF SOX AT TWO SMALL SITES WITHIN THE MARSH ADJACENT TO THE CREEK. WHAT APPEARED TO BE ROOFING TAR WAS FOUND AT SEVERAL LOCATIONS ALONG THE BEACHES. SURVEY TEAM RETRIEVED ALL OBSERVED OILING IN THE AREA WHICH AMOUNTED TO ONE BAG OF OILED SEDIMENT.

* Due to bar migration - this segment does not agree with computer shoreline map. (see map)

Revised 5.26 per D.F. & R.C.

+

HB

MAP #1

A

+

+



K0919 HB001 A

Subdivision Field Map

Map Key: 6042001000001A

Name: D. FITZGERALD

Date: 20 May 1991

METERS

0 100 200

1:2500 Scale, Zone 4.

reviewed 5.25.94

P.U. * VECO WORKERS PICKED UP ALL OBSERVED OIL AMOUNTING TO 1 BAG OF OILED SEGMENTS

 EVERGREENS
 VEGETATED DUNE
 GRASSES
 LOGS
 PHOTO SITES

C. TB / ST (LOGS)
56, 200m, < 190
MITZ to SUTZ
VERY OCCASIONAL

B. TB
5 by 30 m. < 1%
UITZ, very
SPARSE

A ST
3 x 10m, <170
Driftwood
IN SUTZ

0. SOR
1. 1 by 1 m, << 1%
2. 1 by 3 m, << 1%
Highly weathered
IN MARSH GRASS

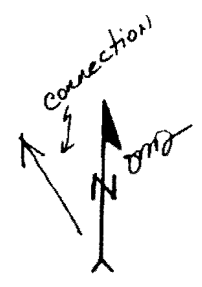
ANAD. STREAM
262-20-10040

- EVERGREENS
- VEGETATED DUNE
- W+ GRASSES
- LOGS
- PHOTO SITES

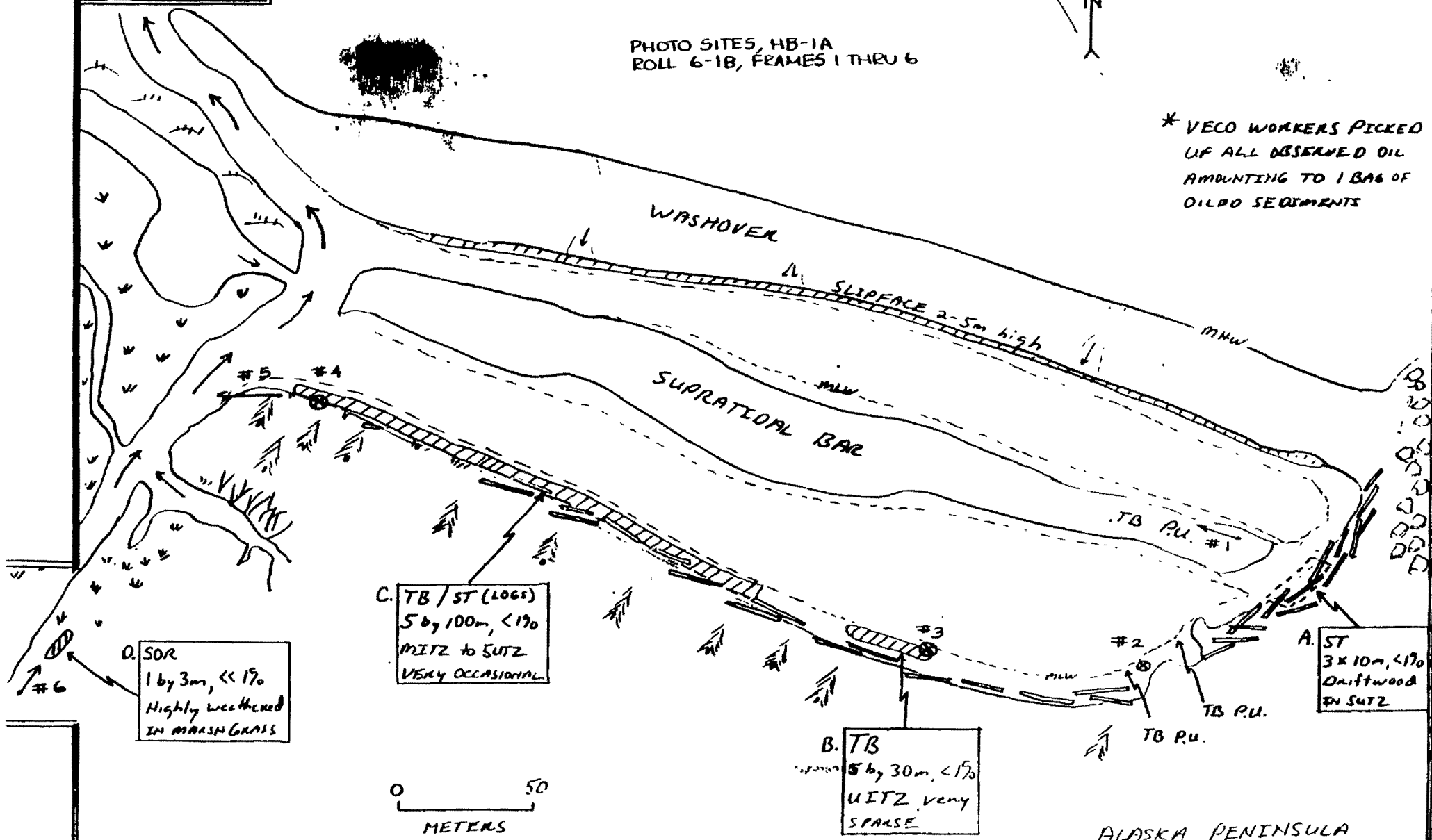
Sketch Map (06)
K0919-HB-1-A
D. Fitzgerald
20 MAY 1991
1120-1250

HALLO BAY

PHOTO SITES, HB-1A
ROLL 6-1B, FRAMES 1 THRU 6



* VECO WORKERS PICKED UP ALL OBSERVED OIL AMOUNTING TO 1 BAG OF OIL/O SEDIMENTS



MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 20 1991

SEGMENT # K9N-19 HB-01

TIDAL HEIGHT(Range) 50ft - 1.5ft (11:15 - 12:45)

SUBDIVISION A

BIOLOGIST H. Davis

SEA STATE < 1 ft Calm

WIND SPEED/DIRECTION light breeze 5kt NW

PHOTOGRAPHS: ROLL # 6-18

FRAME # 1-6

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

This area was the sand bar and migrating birds below anadromous stream # 242-29-10040. The intertidal biology is very sparse in this area. A, C, B Littorina, Barnacles (B. cariosus), limpets and Filamentous greens were on cobbles and small rocks 5-10 meters below sites C+B. The rest of the area is sand/gravel with logs debris and some kelp drift. Nereis, pelecypods, and Glycymeris are beginning their spring growth (possibly ammophila venusta) in the bays. Bear, Moose, Fox, and River Otter tracks were found throughout this area. D. This was a small area upon the grassy bank next to the stream. The grasses are growing up through the thin soil.

Waterfowl and mammals feed extensively throughout this area. Grass and plants are sprouting.

The VECO crew picked up the oil found in the areas surveyed. Any clean up work here would be much more disruptive (to the wildlife) than beneficial.

Goldcrowned sparrow (4) variegated sparrow (3) sandpipers (3) Kittiwakes (5) Glaucous-winged Gull (6) Widgeon (24) Shorelarks (30+) Buffleheads (20+ 14) Barnard's Golden eye (10+ 24) Mallards (8)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	0		0
Seabirds	0		
Waterfowl	5	68+	
Gulls/Kittiwakes	2	11+	
Shorebirds	1	3	
Corvids			
Other Birds <i>sparrows</i>	2	7	

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	0	Fox, Bear, River Otter	
Pinnipeds (specify)	0	and Moose tracks	
Whales (specify)	0		

Shoreline subdivision map showing important biological features attached.

Revised 5/20/91

EVERGREENS

- VEGETATED DUNE
- W + GRASSES
- LOGS
- PHOTO SITES

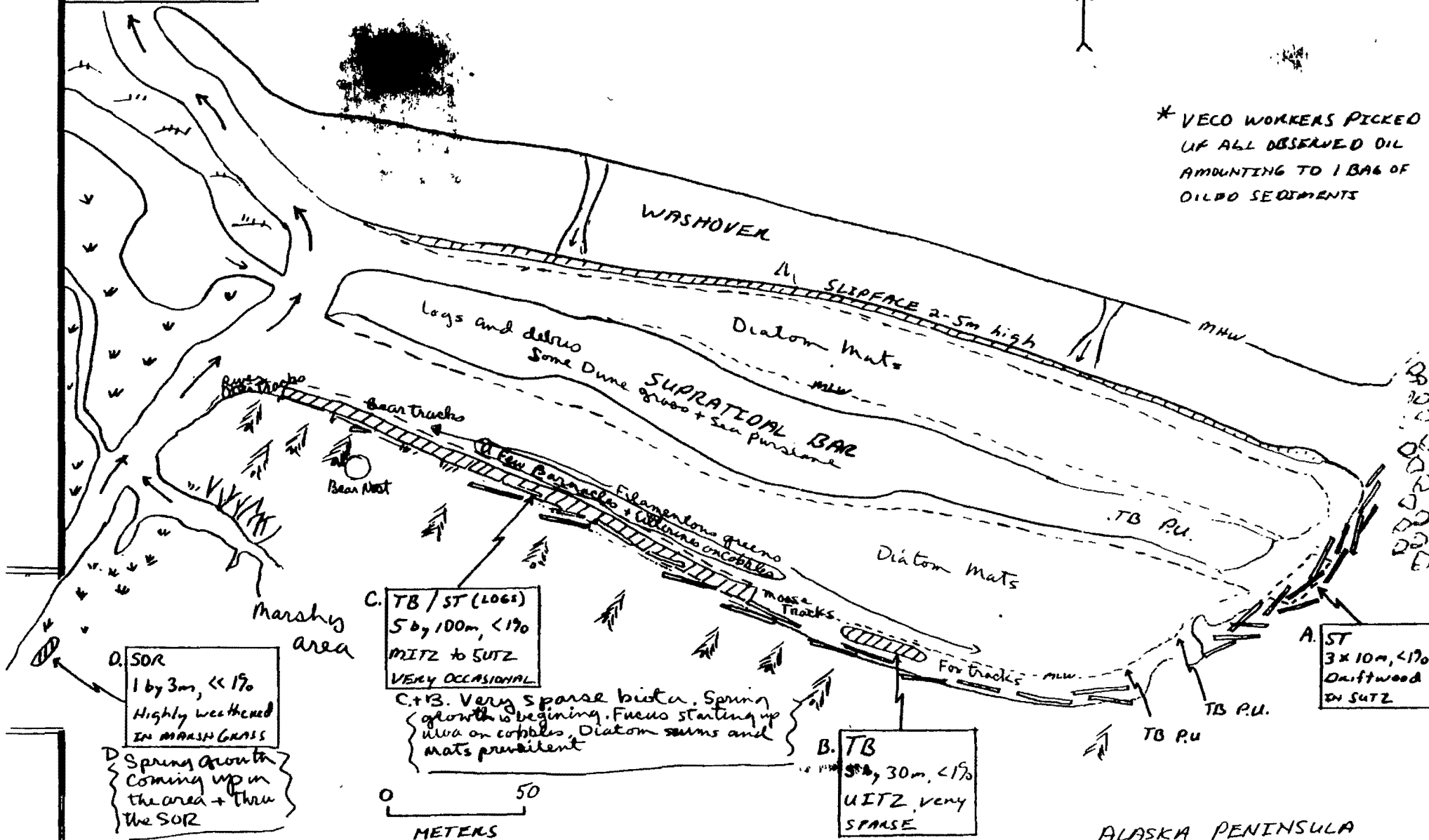
Bio Map
H. Davis

Sketch MAP (OG)
K0919-HB-1-A
D. FITZGERALD
20 MAY 1991
1120-1250

HALLO BAY

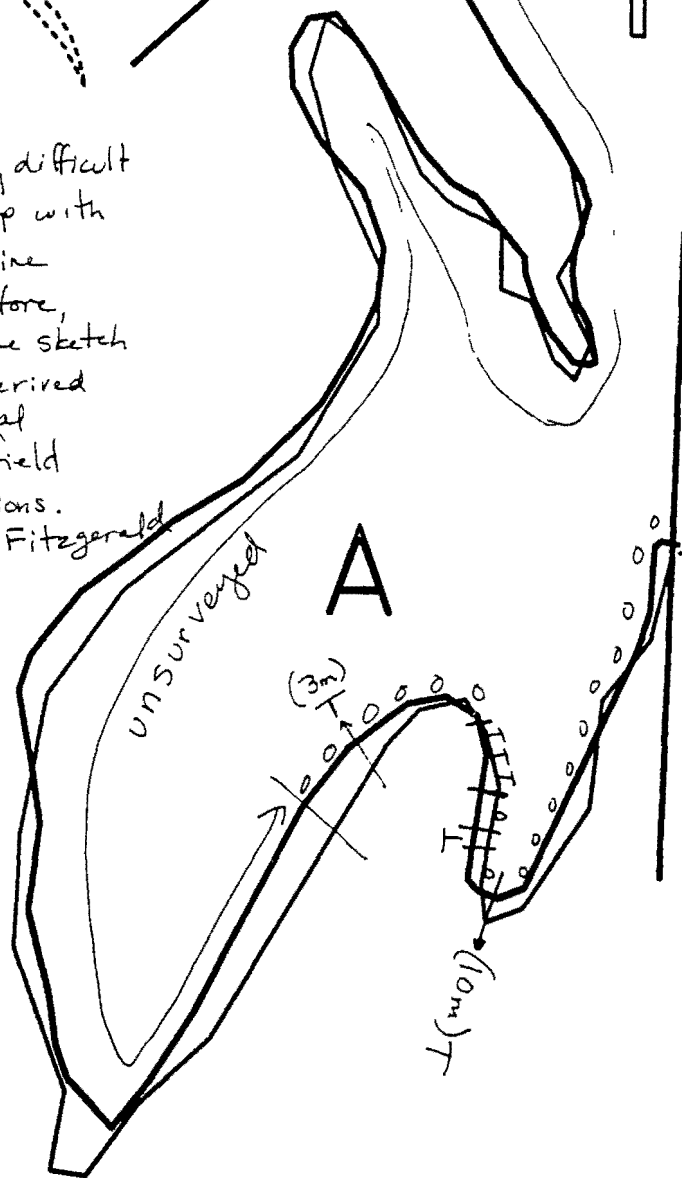


* VECO WORKERS PICKED UP ALL OBSERVED OIL AMOUNTING TO 1 BAG OF OILBO SEDIMENTS



ALASKA PENINSULA

* It was extremely difficult to reconcile this map with the actual shoreline configuration. Therefore, please refer to the sketch map which was derived from vertical aerial photographs with field survey modifications.
D. Fitzgerald



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

K0919 HB001 A
 ADEC Subsegment Length: 3724m
 METERS

AK State Plane Zone 4
 9001055001a-1



Subdivision Field Map
 Map Key: 60AK0019HB001A
 Name: D. Fitzgerald (TY)
 Date: 20 May '91
 Date Entered:

redone 5.28.91 gty



Date: 5/20/91 No. 932

Title: HB 001 A K9-19





Segment No HB-1 Subdivision A
Date 5/20/91 Log Frame No 2
Photographer GARY SHIGENAKA
Location HALLO BAY K 9-19
Comments TARRY MATERIAL FOUND IN SAND AT
HIGH TIDE LINE. ALTHOUGH THIS WAS SCATTERED
ACROSS A BROAD LATERAL AREA, CONSENSUS OF
TEAM WAS THAT IT WAS NOT EXXON VALDEZ IN
ORIGIN.
Roll No MAYSAP-6-1B Neg. No 1
Control No 932 (Office Use Only)



Segment No HB-1 Subdivision A
Date 5/20/91 Log Frame No 4
Photographer GARY SHIGENAKA
Location HALLO BAY K9-19
Comments LARGE MOUSSE MAT IN GRASS MATRIX

Roll No MAYSAP-6-18 Neg. No 3
Control No 932 (Office Use Only)



Segment No HB-1 Subdivision A
Date 5/20/91 Log Frame No 1
Photographer GARY SHIGENAKA
Location HALLO BAY K9-19
Comments VIEW ACROSS BEACH (WESTERLY ORIENTA-
TION) SHOWING PORTION OF TIDALLY CUT CHANNEL
(NOT A FREE-FLOWING STREAM)

Roll No MAYSAP-6-18 Neg. No 0
Control No 932 (Office Use Only)



Segment No HB-1 Subdivision A
Date 5/20/91 Log Frame No 3
Photographer GARY SHIGENAKA
Location HALLO BAY K 9-19
Comments SOR PATTY, EXXON VALDEZ IN ORIGIN.

Roll No MAYSAP-6-18 Neg. No 2
Control No 932 (Office Use Only)

NOTE: SEE NEXT PAGE FOR FRAME #5 (INADVERTANTLY OMITTED HERE!)



Date: 5/20/91 No. 932

Title: HB 001 A K9-19



Segment No HB-1 Subdivision A
Date 5/20/91 Log Frame No 26
Photographer GARY SHIGENAKA
Location HALLO BAY K 9-19
Comments VECO WORKER WITH ASPHALT MAT
BEING REMOVED FROM BANK OF ANADROMOUS
STREAM.

Roll No MAYSAP-6-18 Neg. No 5
Control No 932 (Office Use Only)



Segment No HB-1 Subdivision A
Date 5/20/91 Log Frame No 5
Photographer GARY SHIGENAKA
Location HALLO BAY
Comments VIEW (TO THE SOUTHWEST?) ACROSS
TIDAL FLAT TOWARD MOUNTAINS

Roll No MAYSAP- 6-18 Neg. No 4
Control No 932 (Office Use Only)

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: 1120 17) HIGH TIDE HTS: 15.7/16.1 23) OBSERVERS: F. Bennis, D. Spurr, R. Hesolton and others.
- 6) STOP TIME: 1240 18) LOW TIDE TIMES: 0157/1429 24) AGENCY: ADF&G, NPS, USCG, Exxon
- 7) SEGMENT #: HB-001 19) LOW TIDE HTS: 3.7/0.2 25) PHOTOS TAKEN: Y N
- 8) K-UNIT: K9-19 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 #: 262-20-10040 START: _____ STOP: _____
- 12) STREAM NAME: Hollo Creek 27) SAMPLES TAKEN? Y N
- 13) LOCATION: Hollo Bay 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	.5	.5	.25	100	1.25	1.25	SOR-MS
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

34) WILDLIFE OBSERVATION

Species _____ Number _____

moose, River otter + bear tracks30) OIL IN STREAMBED: Y N31) OIL ON BEACH ADJACENT TO MOUTH: Y N

32) SUBSTRATE TYPE (PERCENT):

Bedrock _____ Boulder _____ Gravel 40 Sand 50 Cobble 10 Mud/Silt _____

35) COMMENTS: About 3 dozen TB's ranging in size from 5cm to 30cm dia were located in the areas on the digitized shore line map marked with an x. The TB's ranged in thickness from 1cm to 8cm. most located in mid to upper IT2. In the area where the oil was located on the stream bank in the grass in 1990, we removed 2 areas combined size of .5m x .5m, approx 2.5cm thick SOR and sod grass. The SOR was weathered on the outside and wet, fluid, sticky ms underneath. Approx oil removed from the surveyed area was 1/2 bag or 20 pounds.

36) PHOTOLOG

FRAME(S)

DESCRIPTION

A
2/

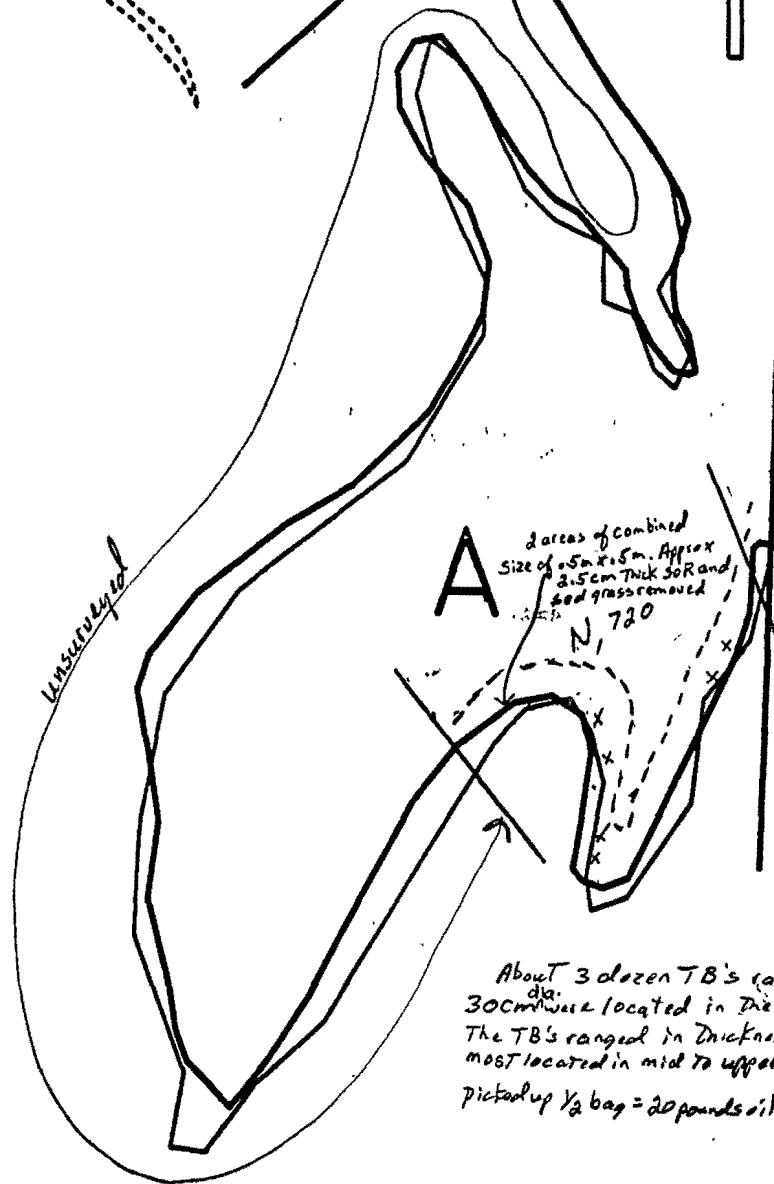
=
=

Sample Taken
Photo Frame # and
Shot Direction

A:EDDATFO
April 3, 1991

H B B

+



+

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

K0919 HB001 A
 ADEC Subsegment Length: 3724m
 1mm = 2meters METERS
 5 100 500
 AK State Plane Zone 4
 90019550010- . . .

Subdivision Field Map
 Map Key: 60AK0019HB001A
 Name: _____
 Date: _____
 Date Entered: _____



TEAM NO. 6-Helo SEGMENT K9N-19-HB-1 SUBDIVISION A DATE 20 MAY 191

ADEC

NAME J BARNHART ADFGSIGNATURE *Jff Barnhart*☒ NTR ☐ Treatment Recommended.

Very occasional TB picked up in area B+C. Trace amounts of SOR removed from the grass in area D, on the bank of this anodorous stream. Trace amounts of TB remain in area B+C. No additional Treatment recommended.

EXXON

NAME R. HARRELSON

SIGNATURE _____

☐ NTR

LANDMANAGER

NAME F. BENNETTOF NPSSIGNATURE *F. Bennett*☒ NTR

Scattered patches observed at sites B, C, + D have been collected. Very little other oil (ST, SOR) has been observed at sites A + D 1+2.

USCG/NOAA

NAME CWO SPURR / G. SHIGENAKASIGNATURE *R.P. Spurr* *Gary Shigenaka*☒ NTR

SURVEYED PORTION OF THE SEGMENT WAS A COMPLEX SERIES OF STREAM- AND TIDALLY-CUT CHANNELS ACROSS A BROAD SAND/MUD FLAT. SUPRATIDAL PORTIONS OF MIGRATING BERMS WERE STEWED WITH DRIFT LOGS, AS WAS THE SUPRATIDAL AROUND THE PERIMETER OF THE SURVEYED AREA. BEAR AND RIVER OTTER TRACKS WERE SEEN ALONG THE SEGMENT. THE SURVEY CONCENTRATED ON THOSE AREAS KNOWN TO HAVE BEEN OILED. ALONG THE EASTERN SHORELINE, SPLATTERS OF FRESH (FAIRLY FLUID) TAR WERE FOUND, PRIMARILY ALONG THE HIGH TIDE LINE, BUT THESE WERE BELIEVED TO NOT BE OF EXXON VALDEZ ORIGIN. FURTHER TO THE WEST, SOR (EXXON VALDEZ) WAS FOUND SCATTERED IN THE UITS. ALL OF THIS MATERIAL WAS RECOVERED. ALONG THE SEGMENT TO THE SOUTHWEST, A SMALL STREAM FED IN FROM THE EAST AND TWO PATCHES OF ASPHALT WERE FOUND ON ITS SOUTH BANK — THESE WERE REMOVED BY THE VECO CREW. LITTLE OTHER EVIDENCE OF OILING WAS SEEN IN THE SURVEYED PORTION.

ENVIRONMENTAL SENSITIVITIES:

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

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: Timothy A. Smith Date: 6/04/91

RECOMMENDATIONS:

INITIAL**TAG**

FOSC

TREATMENT REQUIRED (Y or N)

N

2

7

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE: JUNE 4 1991

FOSC APPROVAL DATE: 6/8/91

ADEC

FOSC

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

EXXON

USCG

NOAA

1991 STREAM FILE LOG HABITAT

STREAM CATALOG # : 262-20-10040
STREAM NAME : Hallo Creek

LOCATION : Kodiak
SEGMENT : HB-001A

[illegible]

AFS 262-20-10040
HALLO CREEK, HALLO BAY, AK PENN.
SITE AKA 4-2 - 89

262-20-204

ace
1950857/A H/H/H



89 55

12-7 M 4.0254

check with
ed weiss

ASC NUMBER: SEGMENT NUMBER:
LOCATION:
STREAM NAME: HALLO CRK
KODIAK K-UNIT: LOCAL STREAM #:
USGS QUADRANGLE:
SHORELINE TYPE:

ASC NUMBER: 262-20-10040
SURVEY TYPE: SS
METHOD: F
DATE: 09/04/89
START TIME: 1040
STOP TIME:

TEAM RECORDER: EDWARD W. WEISS
OBSERVERS: T. GIEGERICH

AGENCY(IES): ADP & G

PHOTOS TAKEN? Y
Roll #: 89FWW019K Frames: 11-15
VIDEO TAKEN? Y Tape Number: SSKAP001
Counter Start: 89FWW001K
1. KAP4-2-1
2. KAP4-2-2
3.
4.
5.
6.

SAMPLES TAKEN? Y

SAMPLE I.D. NUMBERS: 1. ~~KAP4-2-1~~
4.

OILING DATA

	LENGTH	WIDTH	M2	%	THICK	FEN	OIL TYPE
SITE 1	500 M	3 M	1500	55	.5"	.5"	PT, L
SITE 2	300 M	3 M	900	55	.5"	.5"	PT/TB, L
SITE 3	-	-	2000+	1.0	.5"	.5"	PT/S
SITE 4	400 M	3 M	1200	50	1"	2"	PT, L
SITE 5							

OVERALL OIL IMPACT: L

OIL IN STREAM CHANNEL? Y

SUBSTRATE

Bedrock Granule SO
Boulder Sand
Cobble Silt
Pebble SO Veget.

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SPECIES	BROWN BEAR				
COUNT	1				

COMMENTS: VIDEO FOOTAGE OF (SE) SIDE LAGOON AND OIL IMPACTS THERE, OIL MOUSSE PATCHES ON GRAISED STREAM FIELDS WITHIN TIDAL ZONE, AND OVERALL VIEW OF AREA, STREAM TO MURKY FOR ANADROMOUS FISH SPECIE COUNT. DID OBSERVE BROWN BEAR CATCH ONE PINK SALMON. AREA OF GRAISED TIDAL STREAM BED HAD SCATTERED OIL MOUSSE PATCHES 2-12" IN DIAMETER. DUE TO MIXING WITH GLACIAL SEDIMENTS THEY APPEAR TO BE CLAY PATCHES OR CLAY OUTCROPS. LARGE QUANTITY OF OILED LOG DEBRIS IN SITES 1 & 2

+131FF
ACE 1950857/B



89 55

12-7 M 4.0254

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

ASC NUMBER: 262-20-10040
SURVEY TYPE: 55
METHOD: F
DATE: 09/04/89
START TIME: 1040
STOP TIME:

TEAM RECORDER: EDWARD W. WEISS
OBSERVERS: T. GIEGERICH

AGENCY(IES): ADP & G

PHOTOS TAKEN? Y
Roll #: 89FW019K Frames: 11-15
VIDEO TAKEN? Y Tape Number: SSKAPOOI
Counter Start: 89FW001K
1. KAP4-2-1
2. KAP4-2-2
3.
4.
5.
6.

SAMPLES TAKEN? Y

SAMPLE I.D. NUMBERS: 1. ~~KAP4-2-1~~
4.

OILING DATA

	LENGTH	WIDTH	M2	%	THICK	FEN	OIL TYPE
SITE 1	500 M	3 M	1500	55	.5"	.5"	PT, L
SITE 2	300 M	3 M	900	55	.5"	.5"	PT/TB, L
SITE 3	-	-	2000+	1.0	.5"	.5"	PT/S
SITE 4	400 M	3 M	1200	50	1"	2"	PT, L
SITE 5							

OVERALL OIL IMPACT: L

OIL IN STREAM CHANNEL? Y

SUBSTRATE

Bedrock	Granule 50
Boulder	Sand
Cobble	Silt
Pebble 50	Veget.

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SPECIES	BROWN BEAR				
COUNT	1				

COMMENTS: VIDEO FOOTAGE OF (SE) SIDE LAGOON AND OIL IMPACTS THERE, OIL MOUSSE PATCHES ON GRAINED STREAM BEDS WITHIN TIDAL ZONE, AND OVERALL VIEW OF AREA. STREAM TO MURKY FOR ANATOMOUS FISH SPECIE COUNT. DID OBSERVE BROWN BEAR CATCH ONE PINK SALMON. AREA OF GRAINED TIDAL STREAM BED HAD SCATTERED OIL MOUSSE PATCHES 2-12" IN DIAMETER. DUE TO MIXING WITH GLACIAL SEDIMENTS THEY APPEAR TO BE CLAY PATCHES OR CLAY OUTCROPS. LARGE QUANTITY OF OILED LOG DEBRIS IN SITES 1 & 2

+131FF
ACE 1950857/B

90 Prescreen

ASC NUMBER:

SEGMENT NUMBER:

YR CATALOGED:

LOCATION:

STREAM NAME:

KODIAK K-UNIT:

USGS QUADRANGLE:

SHORELINE TYPE:

LOCAL STREAM #:

LATITUDE:

LONGITUDE:

LEGAL:

WAVE EXPOSURE: Low

ASC NUMBER: 262-20-10040

SURVEY TYPE: PA

METHOD: FRT

DATE: 04/15/90

START TIME: 1515

STOP TIME: 1550

TEAM RECORDER: JEFF P. BARNHART

OBSERVERS: J. PEVEE

AGENCY(IES): ANFG, EXXON

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. /

TAKEN FROM SKETCH
& PREVIOUSLY MEASURED
DISTANCES

OILING DATA

	LENGTH	WIDTH	M2	%	THICK	FEN	OIL TYPE
SITE 1	1300 M						MS, ST
SITE 2	/	/	/	/	/	/	/
SITE 3	/	/	/	/	/	/	/
SITE 4	/	/	/	/	/	/	/
SITE 5	/	/	/	/	/	/	/

OVERALL OIL IMPACT: /

OIL IN STREAM CHANNEL? No

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SUBSTRATE

Bedrock	Granule
Boulder	Sand 90
Cobble	Silt 10
Pebble	Veget.

SPECIES					
COUNT					

COMMENTS: RECOMMENDS ANADSSAT ASSESSMENT. LARGE LAGOON AREA
AREA THAT WAS SURVEYED HAD STAINING, OILED FEATHERS, &
SCATTERED MOUSSE.

ACE 1950873+15

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS DS TS AVS SCHA MMS PTA 2 REGION: PWS KP,CI KAP

METHOD: Aerial Ground Boat

3 DATE: 04/15/90 15 HIGH TIDE TIMES: 1 21 TEAM RECORDER: JEFF BARNHART

4 START TIME: 1515 16 HIGH TIDE HTS: 1 22 OBSERVERS: John Poirer

5 STOP TIME: 1550 17 LOW TIDE TIMES: 1216 1 23 AGENCY: ADF&G/Exxon

6 SEGMENT #: H001 18 LOW TIDE HTS: 1.4 1 24 PHOTOS TAKEN: Y N

7 STATION #: 262-20-10040 19 TIDE HT AT SURVEY: _____ Roll #: _____ Frame: _____

8 K-UNIT: K09-19 Ebb Slack Flood Slack 25 VIDEO TAKEN: Y N TAPE#: _____

9 STAT AREA: 262-20 20 USCG QUAD: MT. Katmai B-1 Start: _____ End: _____

10 LAT: 58°24'11"N 11 LONG: 154°3'19" 26 SAMPLES TAKEN? Y N Number _____

12 SOURCE: Map Loran Anadromous stream catalog Oil _____

13 LOCATION: Hallo Creek Hallo Bay Alaska Peninsula Sediment _____

14 DESCRIPTION: S 205 29W 34 Biological _____

Water _____

EXTENT OF OIL

	SHORELINE				STREAM				
	L	W	M ²	%	L	W	M ²	%	
27 SURFACE COVERAGE									36 CATALOGED ANAD. FISH STREAM? <u>Y</u> N
28 SURFACE THICKNESS									37 CATALOG #: <u>262-20-10040</u>
29 PENETRATION									38 STREAM NAME: <u>Hallo Creek</u>
30 OVERALL OIL IMPACT: N VL L M H									39 OIL IN STREAM BED? Y <u>N</u>
31 OIL TYPE: Pooled <u>Mousse</u> Tar Asphalt Sticky <u>Stain</u>									40 OIL ON STREAM BANKS? <u>Y</u> N
32 OILED DEBRIS? <u>Y</u> N									41 OIL ON BEACH ADJACENT TO MOUTH? <u>Y</u> N (within 50 meters)
33 SHORELINE TYPE: Headland <u>Lagoon</u> Low-lying Rocks Marsh Beach Cove									42 OIL WITHIN 1 MILE OF STREAM? Y N
34 WAVE EXPOSURE: High <u>Moderate</u> Low									Where: _____
35 SUBSTRATE TYPE: Bedrock _____ Boulder _____ Cobble _____									43 ANADROMOUS FISH PRESENT? Y N
Gravel _____ Sand <u>90</u> Mud/silt <u>10</u>									44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

COMMENTS: See oil distribution diagram on reverse side. Walked most of Area between B and D plus center spit. No subsurface observations made. Observed oil staining on logs, oiled feathers and widely scattered pieces of mousse. This is a large lagoon area. Needs a complete assessment.

Recommendation: Recommend Anadromous Jeff Barnhart ACE 1950874 →



90 ANADSSAT

FROM OG SHEETS

ASC NUMBER:	SEGMENT NUMBER: H8001	YR CATALOGED:
LOCATION:		
STREAM NAME:		LATITUDE:
KODIAK K-UNIT:	LOCAL STREAM #:	LONGITUDE:
USGS QUADRANGLE:		LEGAL:
SHORELINE TYPE:		WAVE EXPOSURE: M

ASC NUMBER: 262-20-10040
SURVEY TYPE: SA
METHOD: F
DATE: 4/30/90
START TIME: 13:20
STOP TIME: 16:30

TEAM RECORDER: GLENN HEYMAN
OBSERVERS: J. NAUGHTON, C. SHUCH, F. BEYERS

AGENCY(IES): EXXON, NPS, ADEC, NOAA

PHOTOS TAKEN? Y
Roll #: 5T-6/19-7 Frames: 20-21
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	9	12	108	35	5 cm		MS, PO
SITE 2	30	2	60				MS.
SITE 3	5	3	15				MS
SITE 4							
SITE 5							

OVERALL OIL IMPACT: M

OIL IN STREAM CHANNEL? Y

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SUBSTRATE			
Bedrock	1	Granule	33
Boulder	3	Sand	20
Cobble	3	Silt	20
Pebble	20	Veget.	0

SPECIES	COMMON MEGALOP	BARRAMUN GOLDENYE	BROWN BEAR	RIVER OTTER	FOX
COUNT	6	1	sign	sign	sign

COMMENTS: SURVEY WAS CONDUCTED BY 1990 SSAT SURVEY TEAM
RESULTS WERE THEN SIGNED BY ADEFG REPRESENTATIVE AND
THE SAME REPORT WAS SENT IN AS A ANADSSAT.
CONSEQUENTLY NO MULTIASSESSMENT FORM WAS COMPLETED INFO
WAS TAKEN FROM SSAT/ANADSSAT OG DRAWINGS.

ACE 1950876 + 15



'90 Cleanup

ASC NUMBER:	SEGMENT NUMBER: H8001	YR CATALOGED:
LOCATION:		
STREAM NAME:		LATITUDE:
KODIAK K-UNIT:	LOCAL STREAM #:	LONGITUDE:
USGS QUADRANGLE:		LEGAL:
SHORELINE TYPE: Lagoon		WAVE EXPOSURE: Low

ASC NUMBER: 262-20-10040
 SURVEY TYPE: CL
 METHOD: Foot
 DATE: 6/12/90
 START TIME: 1000
 STOP TIME: 1200

TEAM RECORDER: JEFFREY P. BARNHART
 OBSERVERS: Floyd Avery, Don Haven, Fran Bennis,
 Terry Ellsworth, Ray Weber, Don McBee, Ken Middleton
 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	9 m	12 m	108	60	9 cm	9 cm	MS
SITE 2	30 m	2 m	60	60	9 cm	9 cm	MS
SITE 3	5 m	3 m	15	60	9 cm	9 cm	MS, PO
SITE 4	100 m	4 m	400	3	1 cm	surface	TB
SITE 5							

OVERALL OIL IMPACT: M

OIL IN STREAM CHANNEL? Y

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SUBSTRATE

Bedrock	Granule
Boulder	Sand 20
Cobble 10	Silt
Pebble 30	Veget. 40

SPECIES

COUNT

COMMENTS: Site #3, Ken Middleton discovered an area within this site of approx size .5m x .5m of liquid, fluid pooled oil. This type of oil characteristic was atypical for the Kodiak zone during 1990.

This segment was treated by the squad of the M/V Sea Trader. Ken Middleton and I were transported to the site via helo. We monitored the cleanup for approximately two hours. A final inspection did not occur after the cleanup due to time and space conflicts. I verbally requested space on the ASAT helo from Rex Coulter. My request was denied.

8,630 pounds of oil/oiled sediment removed (estimated)

89 55

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

ASC NUMBER: 262-20-10040
 SURVEY TYPE: 55
 METHOD: F
 DATE: 09/04/89
 START TIME: 1040
 STOP TIME:

TEAM RECORDER: EDWARD W. WEISS
 OBSERVERS: T. GIEGERICH

AGENCY(IES): ADP & G

PHOTOS TAKEN? Y
 Roll #: 89FW019K Frames: 11-15
 VIDEO TAKEN? Y Tape Number: SSKAPOOI
 Counter Start:

SAMPLES TAKEN? Y
 SAMPLE I.D. NUMBERS: 1. KAPH-2-1
 4.

2. KAPH-2-2 3.
 5. 6.

OILING DATA

	LENGTH	WIDTH	M2	%	THICK	FEN	OIL TYPE
SITE 1	500 M	3 M	1500	55	.5"	.5"	PT, L..
SITE 2	300 M	3 M	900	55	.5"	.5"	PT/TB, L
SITE 3	-	-	2000+	1.0	.5"	.5"	PT/S
SITE 4	400 M	3 M	1200	50	1"	2"	PT, L
SITE 5							

OVERALL OIL IMPACT: L

OIL IN STREAM CHANNEL? Y

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SUBSTRATE

Bedrock	Granule 50
Boulder	Sand
Cobble	Silt
Pebble 50	Veget.

SPECIES	BROWN BEAR				
COUNT	1				

COMMENTS: VIDEO FOOTAGE OF (SE) SIDE LAGOON AND OIL IMPACTS THERE, OIL MOUSSE PATCHES ON GRAISED STREAM FIELDS WITHIN TIDAL ZONE, AND OVERALL VIEW OF AREA, STREAM TO MURKY FOR ANADROMOUS FISH SPECIE COUNT. A/D OBSERVE BROWN BEAR CATCH ONE PINK SALMON. AREA OF GRAISED TIDAL STREAM BED HAD SCATTERED OIL MOUSSE PATCHES 2-12" IN DIAMETER. DUE TO MIXING WITH GLACIAL SEDIMENTS THEY APPEAR TO BE CLAY PATCHES OR CLAY OUTCROPS. LARGE QUANTITY OF OILED LOG DEBRIS IN SITES 1 & 2

COMMENTS: RECOMMENDS ANADASSAT ASSESSMENT. LARGE LAGOON AREA
AREA THAT WAS SURVEYED HAD STAINING, OILED FEATHERS, &
SCATTERED MOUSSE.

ASC NUMBER:	SEGMENT NUMBER: H8001	YR CATALOGED:
LOCATION:		
STREAM NAME:		LATITUDE:
KODIAK K-UNIT:	LOCAL STREAM #:	LONGITUDE:
USGS QUADRANGLE:		LEGAL:
SHORELINE TYPE:		WAVE EXPOSURE: M

ASC NUMBER: 262-20-10040
 SURVEY TYPE: SA
 METHOD: F
 DATE: 4/30/90
 START TIME: 13:20
 STOP TIME: 16:30

TEAM RECORDER: GLENN HEYMAN
 OBSERVERS: J. NAUGHTON, C. SHUCH, F. BEYERS
 AGENCY(IES): EXXON, NPS, ADEC, NOAA
 PHOTOS TAKEN? Y
 Roll #: 5T-6/19-7 Frames: 20-21
 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	9	12	108	35	5 cm		MS, PO
SITE 2	30	2	60				MS
SITE 3	5	3	15				MS
SITE 4							
SITE 5							

OVERALL OIL IMPACT:

OIL IN STREAM CHANNEL? Y

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SUBSTRATE			
Bedrock	1	Granule	33
Boulder	3	Sand	20
Cobble	3	Silt	20
Pebble	20	Veget.	0

SPECIES	COMMON MEGALOPID	BARRAMUNDI GOLDENYE	BROWN BEE	RIVER OTTER	FOX
COUNT	6	1	SIGN	SIGN	SIGN

COMMENTS: SURVEY WAS CONDUCTED BY 1990 SSAT SURVEY TEAM
 RESULTS WERE THEN SIGNED BY ADF&G REPRESENTATIVE AND
 THE SAME REPORT WAS SENT IN AS A ANADSSAT.
 CONSEQUENTLY NO MULTIASSESSMENT FORM WAS COMPLETED INFO
 WAS TAKEN FROM SSAT/ANADSSAT OG DRAWINGS.

89 55

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

ASC NUMBER: 262-20-10040
 SURVEY TYPE: 55
 METHOD: F
 DATE: 09/04/89
 START TIME: 1040
 STOP TIME:

TEAM RECORDER: EDWARD W. WEISS
 OBSERVERS: T. GIEGERICH

AGENCY(IES): ADP & G

PHOTOS TAKEN? Y
 Roll #: 89ELW019K Frames: 11-15
 VIDEO TAKEN? Y Tape Number: SSKAPOOI
 Counter Start:

SAMPLES TAKEN? Y

SAMPLE I.D. NUMBERS: 1. KAP4-2-1
 4.

2. KAP4-2-2 3.
 5. 6.

OILING DATA

	LENGTH	WIDTH	M2	%	THICK	FEN	OIL TYPE
SITE 1	500 M	3 M	1500	55	.5"	.5"	PT, L
SITE 2	300 M	3 M	900	55	.5"	.5"	PT/TB, L
SITE 3	800 +		2000 +	1.0	.5"	.5"	PT/S
SITE 4	400 M	3 M	1200	50	1"	2"	PT, L
SITE 5							

OVERALL OIL IMPACT: L

OIL IN STREAM CHANNEL? Y

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SUBSTRATE	
Bedrock	Granule 50
Boulder	Sand
Cobble	Silt
Pebble 50	Veget.

SPECIES	BROWN BEAR				
COUNT	1				

COMMENTS: VIDEO FOOTAGE OF (SE) SIDE LAGOON AND OIL IMPACTS THERE, OIL MOUSSE PATCHES ON GRAIDED STREAM FIELDS WITHIN TIDAL ZONE, AND OVERALL VIEW OF AREA. STREAM TO MURKY FOR ANADROMOUS FISH SPECIE COUNT. DID OBSERVE BROWN BEAR CATCH ONE PINK SALMON. AREA OF GRAIDED TIDAL STREAM BED HAD SCATTERED OIL MOUSSE PATCHES 2-12" IN DIAMETER. DUE TO MIXING WITH GLACIAL SEDIMENTS THEY APPEAR TO BE CLAY PATCHES OR CLAY OUTCROPS. LARGE QUANTITY OF OILED LOG DEBRIS IN SITES 1 & 2

4/3/FF
 ACE 1950857/B

FISH HABITAT ASSESSMENT FORM

REGION: PWS KP, CI K, ☒ P OBSERVER(S) E. WEISS
J. GIEBERICHSITE NO. AKP-4-2 AERIAL PHOTO NO. K1-3 CAT NO. 262-204004CSTREAM NAME HALLO CREEK LAT 58°24'3" N LONG 154°02'5" WDATE 9-4-89 TIME 1040 TIDE: Low slack Flood High slack ☒ EbbCATALOGED ANADROMOUS STREAM? ☒ Y N ANAD. FISH FOUND? ☒ Y NOIL FOUND IN STREAM? ☒ Y N OIL FOUND NEAR STREAM (1 MI.)? ☒ Y NOIL SAMPLES TAKEN? ☒ Y N ID NOS. KAP 4-2-1 + 235 mm PICTURES TAKEN? ☒ Y NROLL NO(S). A-05

EXPOSURE NO.

DESCRIPTION

89EWJ019K

EWS-29-91

11+12 AERIAL OF MOUTH

13+14 OIL MOUSSE PATCHES ON SALT

15 VIEW OF BRAIDED STREAM FLAT ISLET

WHERE MOUSSE PATCHES FOUND.

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

DESCRIPTION: FOOTAGE OF SIDE LABOON (SE) AND

OIL IMPACTS THERE, OIL MOUSSE PATCHES

ON BRAIDED STREAM FIELD WITHIN TIDAL ZONE,

AND OVERALL VIEW OF AREA.

ANADROMOUS FISH OBSERVATIONS

	PINK	CHUM	RED	KING	COHO	DOLLY		
Aerial								
Ground								

COMMENTS: STREAM TOO MURKY FOR COUNT. DID OBSERVE

BROWN BEAR CATCH 1 PINK.

OIL OBSERVATIONS

EXTENT OF OIL:

	WITHIN STREAM	OUTSIDE STREAM
SURFACE COVERAGE	<u>1% / 2000 m²</u>	<u>3M x 1000M + 30-60%</u>
SURFACE THICKNESS	<u>.5"</u>	<u>1" +</u>
PENETRATION	<u>.5"</u>	<u>2" +</u>

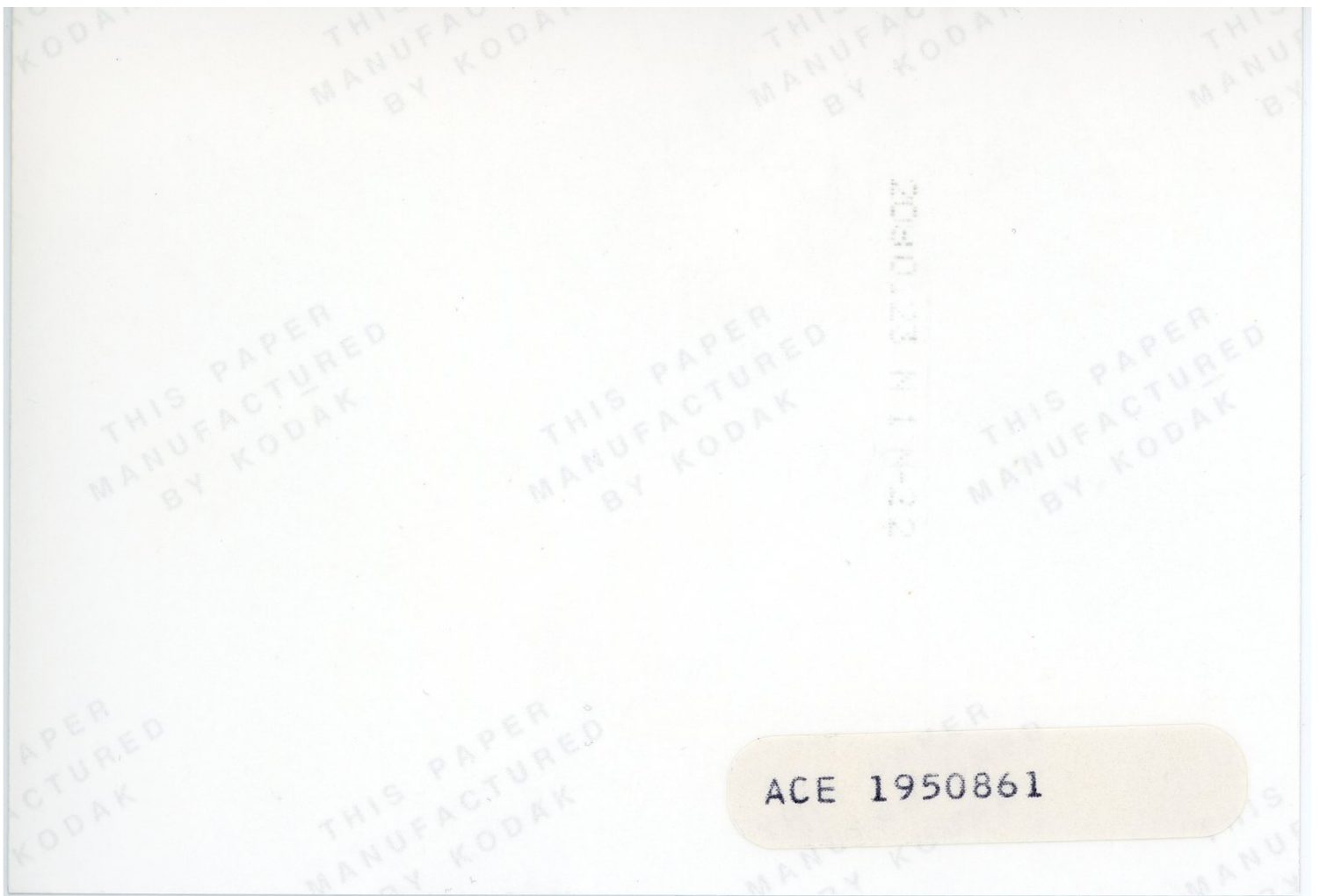
OIL DISTRIBUTION DIAGRAM
(SHOW SAMPLING SITES)PREDOMINANT
SUBSTRATE TYPE:

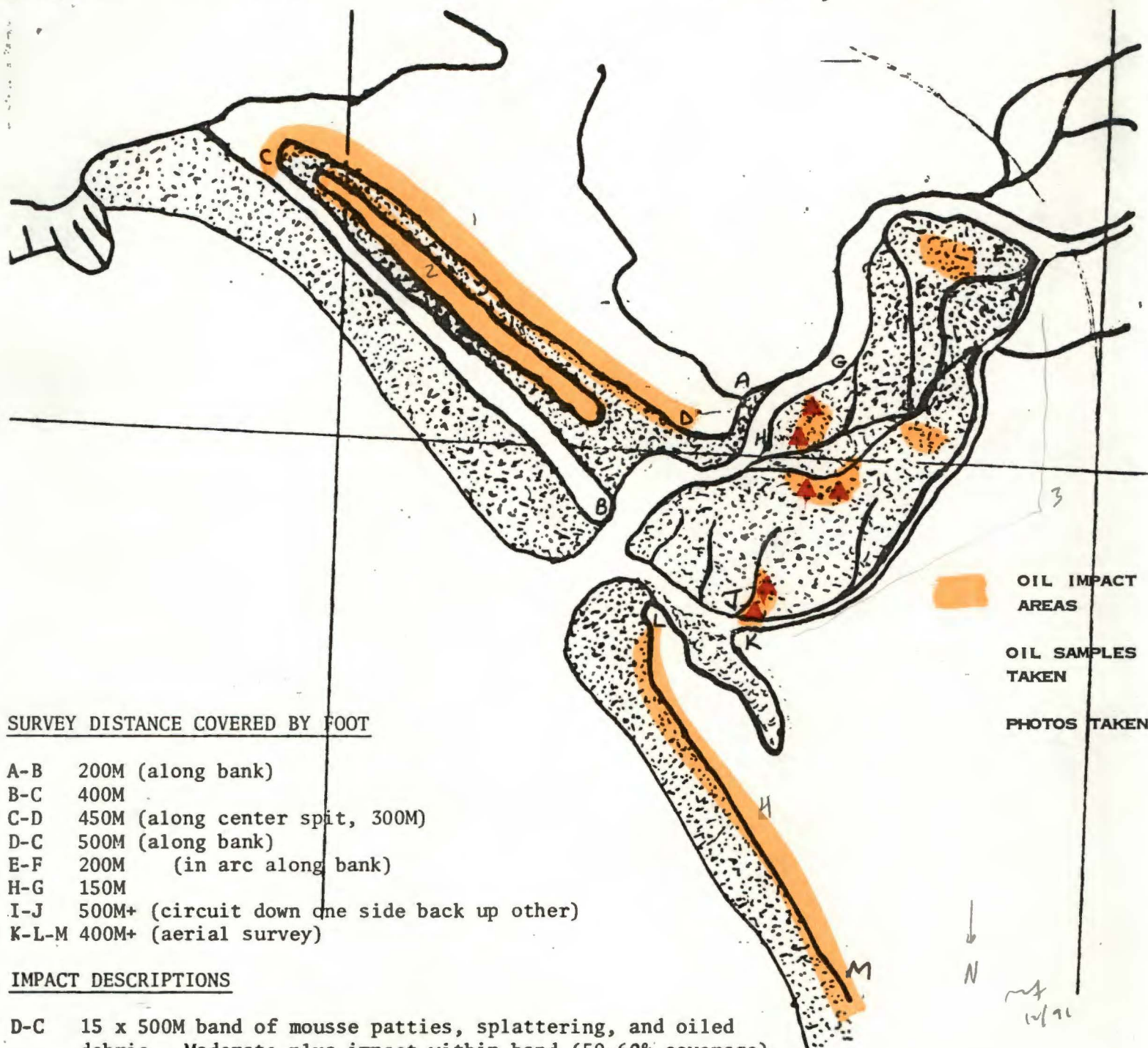
1. Bedrock
2. Boulder
3. Cobble
- ☒ 4. Gravel
5. Sand
6. Mud
7. Other _____

COMMENTS: _____

ACE 1950858

ACE 1950859





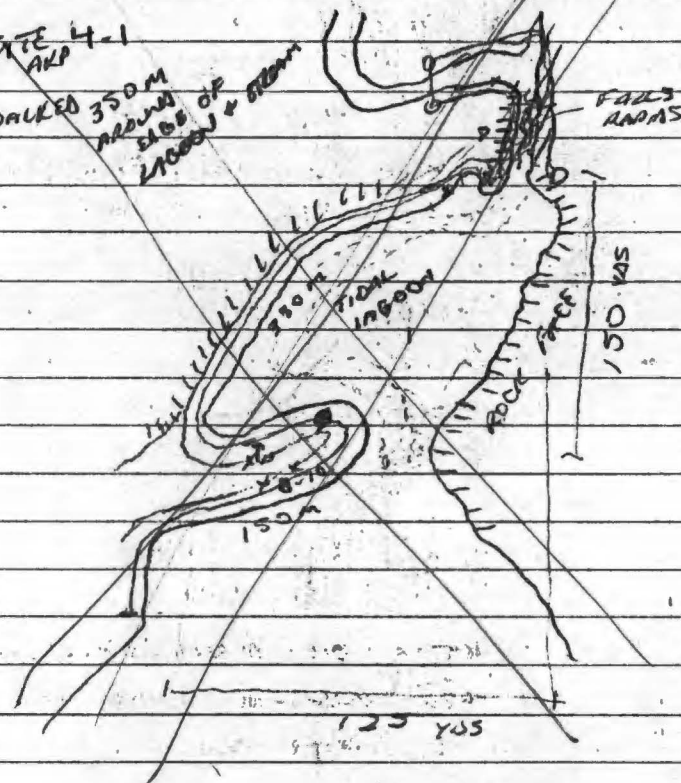
9-4-89

30

TAKE OFF GEOGRAPHIC HARBOR 0810
OVERCAST, LT RAIN, W 0-5
BOUND FOR STREAM 262-35-381,
KULIAK BAY. ARRIVE 0825

SITE 4-1
AKP

WALKED 350M
AROUND
EDGE OF
LAGOON + STREAM



ACE 1950863 +/g

31

6500 RISK IN L LAGOON. None is to LR

12 MERGANSERS IN LAKE

3,000 SOCKEYE IN LAKE

*7 OIL MOUSE/VEG ON SPIT BACKSIDE

REEL, SUBSTRATE OF L. STREAM + LAGOON

IS SAND w/ A GRAVEL BASE.

*8 STREAM ABOVE FALLS HERE RAPS INTO LAGOON

SHOWS EXT HIGH TIDE AREA IN STREAM

9-10 OIL MOUSE ON FRONT OF SPIT IN
MID TIDE LINE.

2M BAND 100M + 90% COVERAGE

W/IN BAND, MOUSE MIX W/ SAND SEGMENT

LYING ON GRAVEL SUBSTRATE, 45N BELOW

EXTREME HIGH TIDE LINE. LV. 1010

SITE 4-2 9-4-89
HALLO RIVER HALLO BAY
1040

A FEW MOUSE HATTES OIL BEALLS ON SE SPIT

VECO WORK CREW CLEAN-UP SPOTTED HERE

YESTERDAY 9-3-89. PARTIES FEW + SCATTERED

ALONG TOP AND INSIDE HIGH TIDE ZONE

HIGH TIDES WASH OVER TOP OF SPIT + INTO

LAGOON.

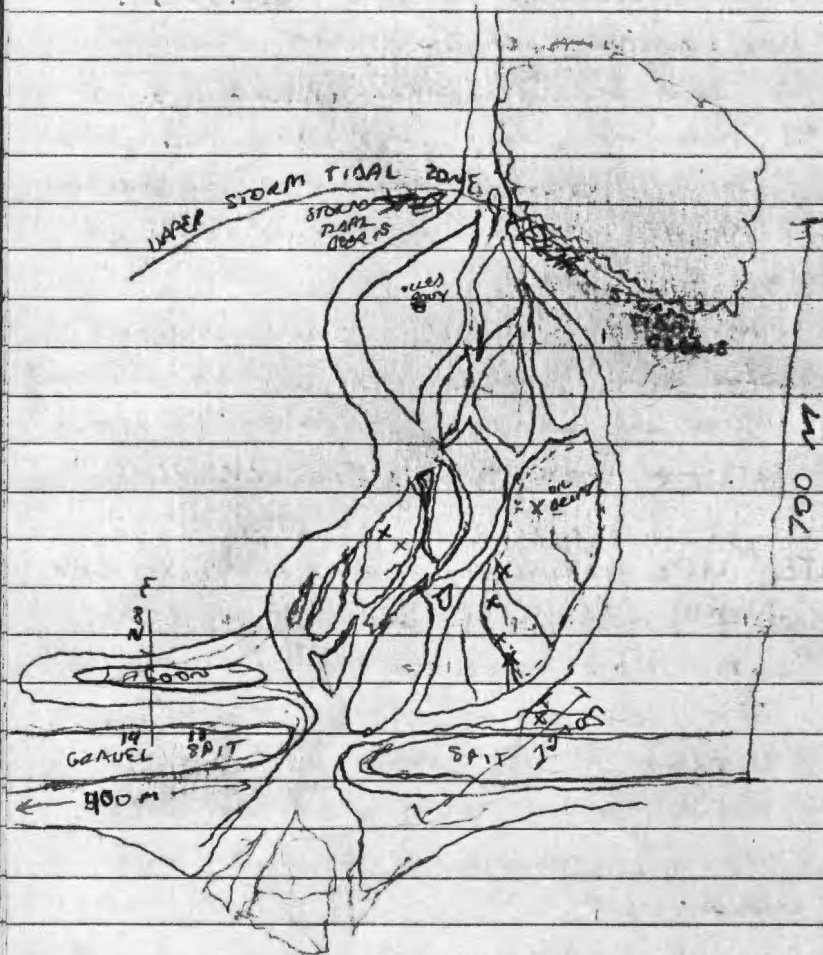
PERIMETER OF LAGOON WHOLE LENGTH 15M BAND

OF SPLATTERING + MOUSE HATTES IN SAND

13 + 14 OIL MOUSE ON SPIT

ACE 1950864

32



ACE 1950865

SITE 4-2 LOW

33

MOUSSE PATTIES/DEBRIS 3m BAND ON CENTER ISLAND IN LAGOON. COVERAGE WITHIN BAND 60% BAND LOCATED AT HIGH TIDE STORM LINE. SAME AS AROUND RACK + SIDE OF LAGOON.

OIL MOUSSE PATTIES SCATTERED ACROSS BRANDED STREAM BED 2-12" IN DIA. HARD TO FIND DUE TO FINE MUD SEDIMENTS MIXING + COVERING THEM. NOTHING ACTUALLY FOUND IN STREAM WATER BED DUE TO ITS MURKINESS FROM SEDIMENT LOAD.

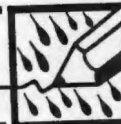
AERIAL OF NW SPIT OUTSIDE SAME BAND OF OILED DEBRIS + MOUSSE PATTIES 300 M X 3 M IN HIGH STORM LINE SPOTED A COUPLE MOUSSE PATTIES ON BANK INSIDE LAGOON - BACK OFF NW SPIT.

LV. 1322

REFUEL + GET WOOD KUKAK
REARATS OFF 1800

ACE 1950866

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ALL-WEATHER

LEVEL

Notebook No. 311-M

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STREAM SURVEY LOG

STREAM 262-20-204

CAT # 262-20-10040

58° 24.3' N 154° 02.5' W

HALLO CREEK, HALLO BAY

ACE 1950867

SITE 4-2 9-4-89 1040

ARRIVE 1040

TOOK AERIAL PHOTO'S OF
MOUTH & LAGOON AREA. A-05-1142

TRIED SURVEY OF STREAM.

FLEW ALL THE WAY TO
GLACIER SAW NO FISH

OR CARCASSES. UPON RETURN
TO MOUTH OBSERVED BROWN

BEAR CATCH / PINK SALMON.

AND AFTER LANDING SAW
SOME CARCASSES. LANDED

IN LAGOON AREA INSIDE

THE SE SPIT WALKED

PERIMETER OF SMALL BACK-
WATER LAGOON AND LENGTH
OF SPIT.

VECO WORK CREW WAS

SPOTTED WORKING ON SPIT
YESTERDAY 9-3-89, AND

SIGNS OF ACTIVITY WERE
PRESENT TODAY. ONLY A

FEW MOUSE RATTIES AND
PIECES OF OILED DEBRIS

ACE 1950868

2

WERE FOUND ALONG THE SPIT. WEATHER BECAUSE OF WORK CREW OR BECAUSE HIGH TIDES WASH COMPLETELY OVER SPIT, IS NOT KNOWN. THE REST OF THE PERIMETER OF THIS AREA AND THE SECONDARY SPIT IN THE MIDDLE OF IT HAD MODERATE IMPACTS. A 10 M BAND OF MOUSSE PATIES AND HEAVILY OILED DRIFT EXTENDS FROM SOUTH EDGE OF SPIT ALL THE WAY AROUND TO 50' SHORT OF STREAM BED. A DISTANCE OF APPROX. 500 M. AND THE SAME (3M) BAND ON THE SECONDARY SPIT IN THE CENTER OF THIS SIDE LAGOON EXTENDS APPROX. 300 M. PHOTOS A-05-13+14 WERE TAKEN ON FRONT SPIT AND VIDEO FOOTAGE WAS TAKEN OF

ACE 1950869

3

PERIMETER OF THIS SIDE LAGOON BY STOP #1. SEE MAP. COVERAGE WITHIN THESE BANDS WAS ~50-60%. SET DOWN IN 3 PLACES WITHIN BRAIDED STREAM BED THAT IS WITHIN TIDAL INFLUENCE. (SEE MAP) FOUND EVIDENCE OF OIL CONTAMINATION IN ALL 3 PLACES: WALKED VARYING DISTANCES BETWEEN 100-400 M IN THESE SPOTS. FOUND OIL MOUSSE PATIES AT STOP 2, OILED DEBRIS (FISHING BOY) AT STOP 3, AND MOUSSE PATIES AND OILED DEBRIS AT STOP 4. OIL MOUSSE PATIES SEEMED TO BE SCATTERED RANDOMLY ACROSS TIDAL BRAIDED STREAM FIELD. NONE WERE ACTUALLY FOUND IN WATER OF STREAM BED,

ACE 1950870

4

WATER IS VERY MURKY FROM GLACIAL SEDIMENT LOAD. PATIES RANGLED IN SIZE FROM 2-12" DIAMETER. DID AERIAL SURVEY OF SPIT NW OF LAGOON MOUTH. 3M BAND OF MOUSSE PATIES AND HEAVILY SPATTERED DEBRIS CONTIGUES HERE ON UP BEACH 300+ M. ALSO SPOTTED A FEW OIL MOUSSE PATIES INSIDE LAGOON ON BACKSIDE OF SPIT AREA.

LV: 1322 DUE TO WEATHER.

SUBSTRATE WAS GRAVEL BASE WITH GLACIAL SILT OVERLAYING IN SOME AREAS.

ACE 1950871

PHOTOS TAKEN A-05*11-15

11-12 AERIAL OF MOUTH
13-14 OIL MOUSSE ON SPIT
15 VIEW OF BRAIDED STREAM
FLAT ISLET WHERE
MOUSSE WAS FOUND.

SAMPLES TAKEN

OIL

KAP 4-2-1
KAP 4-2-2

VIDEO TAKEN

SSKAP-01

ACE 1950872 -15