

KN-500A ASC: 226-10-16992
NW side Knight Island

ACE 1369631

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS DS TS AVS SCHA MMHS PTA

2 REGION: PWS KP,CI K,AP

METHOD: Aerial Ground Boat

3 DATE: 4-21-90

15 HIGH TIDE TIMES: 1

21 TEAM RECORDER: Aimee Weseman

4 START TIME: 1735

16 HIGH TIDE HTS: 1

22 OBSERVERS: Rick Gustin

5 STOP TIME: 1845

17 LOW TIDE TIMES: 1730

23 AGENCY: ADF&G

6 SEGMENT #: KN-500N

18 LOW TIDE HTS: 1

24 PHOTOS TAKEN: Y N

7 STATION #: ASW

19 TIDE HT AT SURVEY: 1

Roll #: 1 Frame: 1

8 K-UNIT: 1

Ebb Slack Flood Slack

25 VIDEO TAKEN: Y N TAPE#: 90-ASW-01-SSS

9 STAT AREA: 1

20 USCG QUAD: S-B-3

Start: 0 End: 89

10 LAT: 1

11 LONG: 1

26 SAMPLES TAKEN? Y N Number

12 SOURCE: Map Loran

Oil 1

13 LOCATION: NW side Knight I

Sediment 1

14 DESCRIPTION: outer side Herring Bay

Biological 1

EXTENT OF OIL

Water 1

27 SURFACE COVERAGE

SHORELINE				STREAM			
L	W	M ²	%	L	W	M ²	%
100	75						

36 CATALOGED ANAD. FISH SREAM? Y N

37 CATALOG #: 226-10-16992

38 STREAM NAME: 1

28 SURFACE THICKNESS

39 OIL IN STREAM BED? Y N

29 PENETRATION

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: 1

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

43 ANADROMOUS FISH PRESENT? Y N

34 WAVE EXPOSURE: High Moderate Low

44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground

35 SUBSTRATE TYPE: Bedrock 1 Boulder 1 Cobble 1
Gravel 1 Sand 1 Mud/silt 1

COMMENTS: Oiled area that needs the most attention is on the north bank of the stream near the mouth in the U.I.T.Z. A small stream coming from the north & connecting with main stream contains moderately oiled gravels which when agitated produce a silver to brown sheen. This flow likely feeds a salmon spawning/rearing area.

ACE 7379346 +/S

FRAME(S)

DESCRIPTION

pit 1 - 20cm 8cm (ch brown oil)

pit 2 - 20cm - no vis oil

pit 3 - 18cm - no vis oil

pit 4 - 12cm 4cm oil penetration in tar mat

pit 5 - 20cm - 8cm

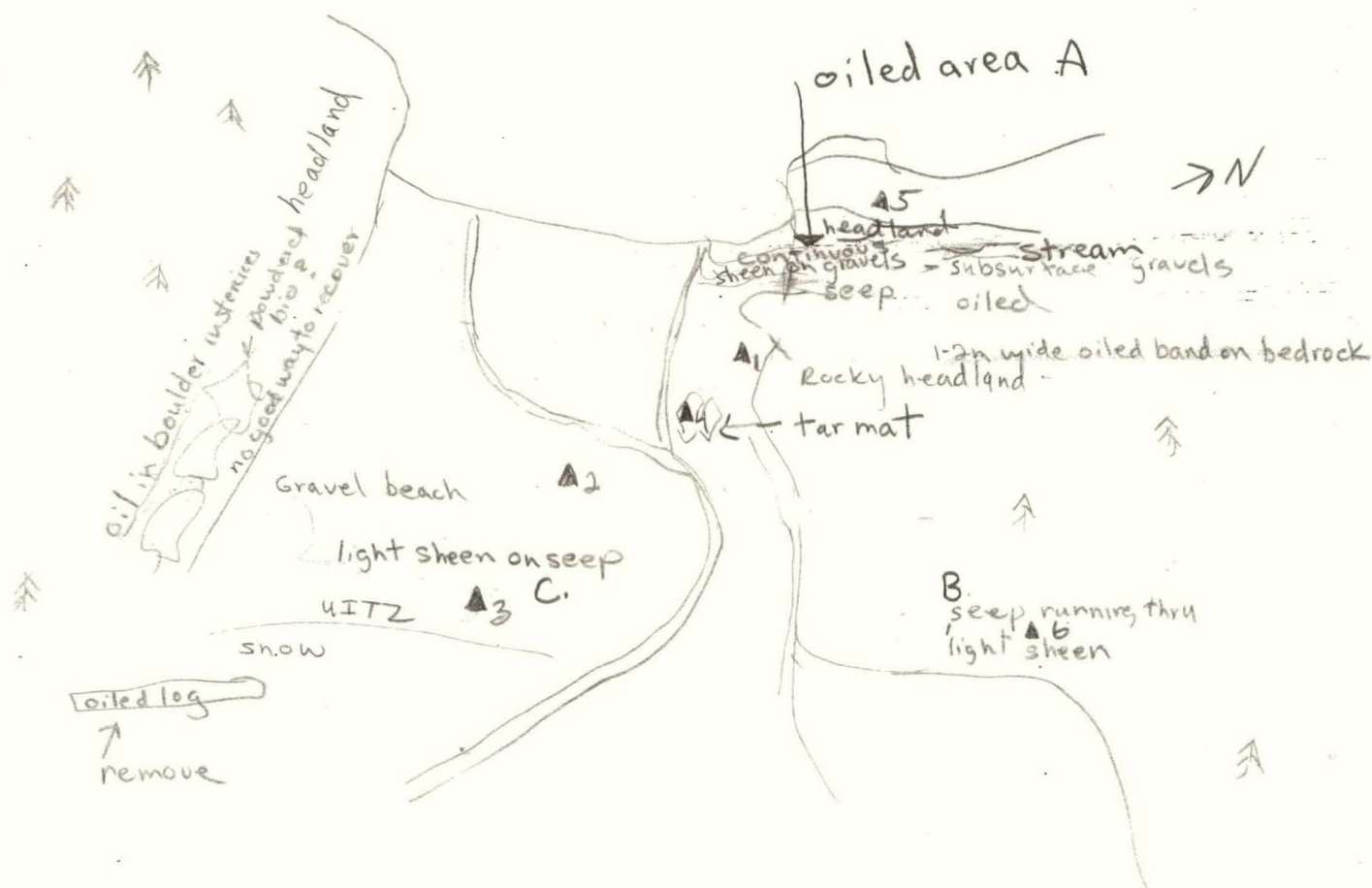
pit 6 -

in tar patty - 1t brown

sheen on water

filling pit

46 OIL DISTRIBUTION DIAGRAM



Recommendations-

treat during window period

Bury sorbant boom within & below oiled area A. on north side of stream near mouth turn & agitate oiled gravels & let self flush & collect in sorbants. Place pom-poms below area. Agitate & turn several times at intervals & change sorbants.

Bury, stake & mark sorbants in other sheening areas - B & C & change once or twice depending on oil recovered.

Remove oiled debris & tar mats where found

ACE 7379347

Apply Granular Bioremediation - Custom blend to oiled boulder interstices in Supra-ITZ

Sample taken on south side of stream near mouth

Photo frame # and

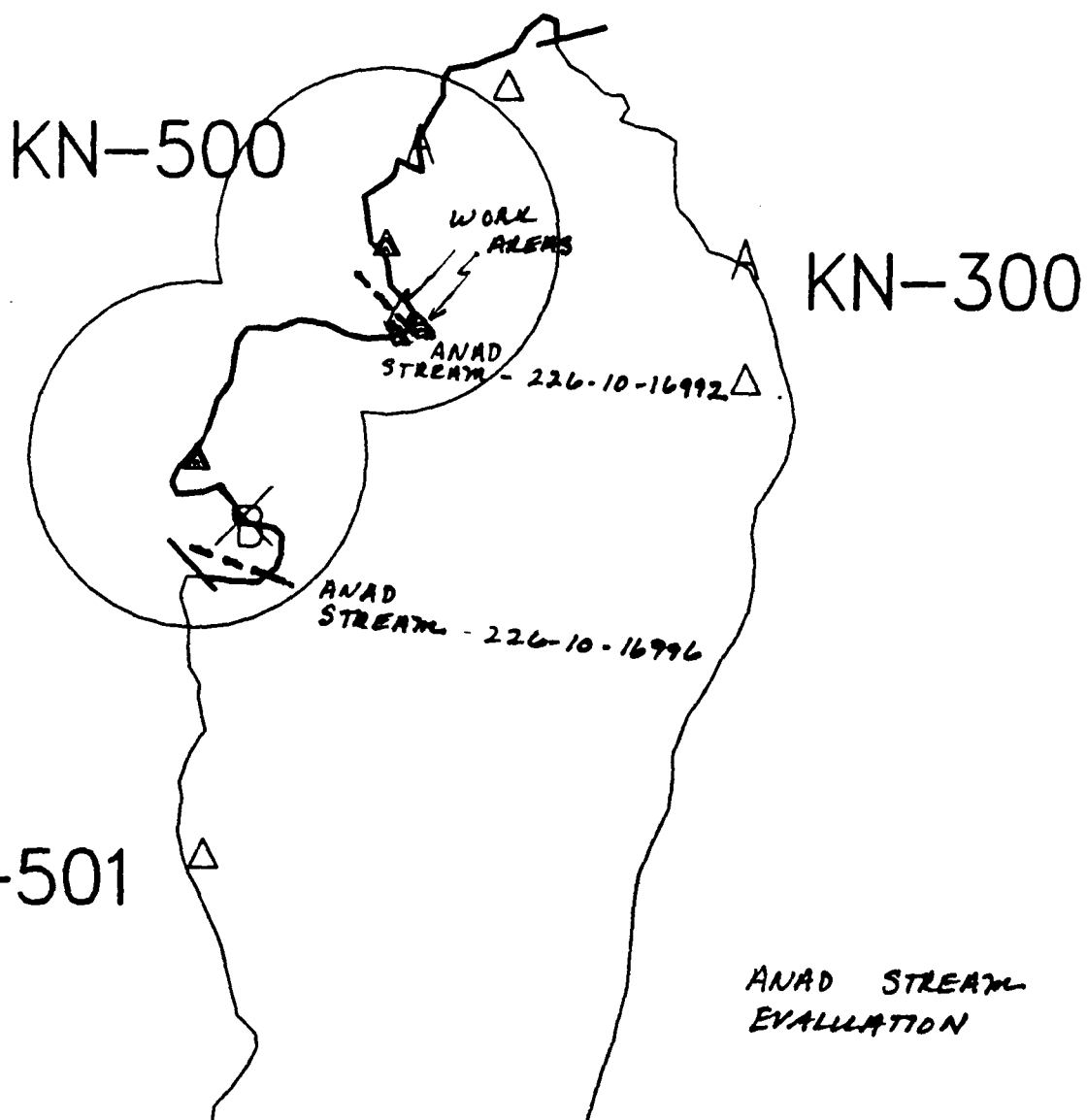
shot direction.

OVER Do not attempt removal of oil band along bedrock on north side of stream

This beach, team poses difficult treatment
problems. ADFB's suggestions appear to be feasible
and should significantly improve the situation

Ken Cretlow

ACE 7379348



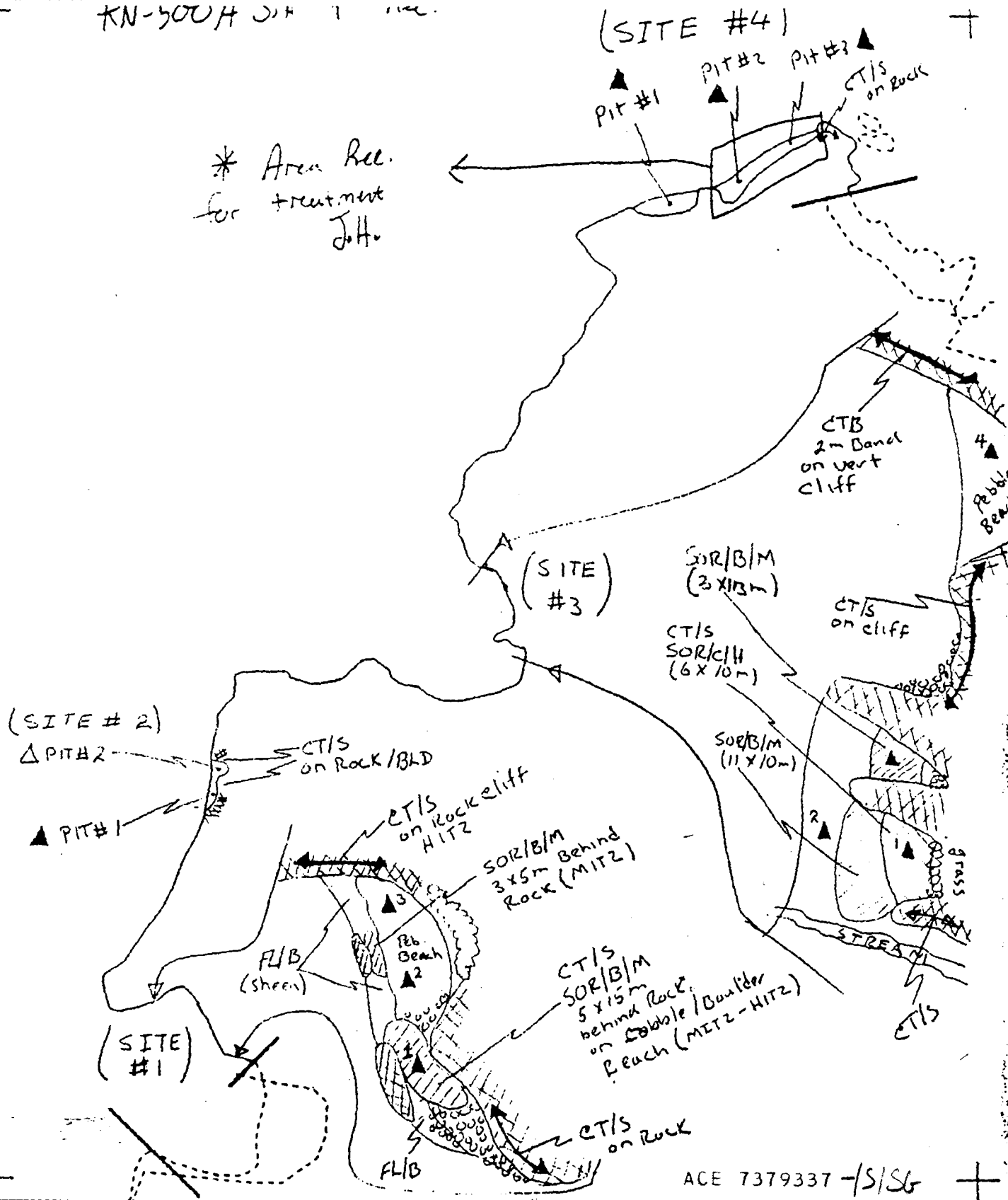
Exxon Company, USA
 Map Key: PMS-KN-500
 1 inch = 1482 feet



ECOLOGY MAP
 SEGMENT KN-500
 SUBDIVISION A (1 of 2)
 METERS
 0 452 903

- ★ Seabird Colony
 - ▲ Active Eagle Nest
 - △ Inactive Eagle Nest
- 1 inch = 1482 feet

KN-500A JH 1



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

KN-500 A
 ADEC Subsegment Length: 2175m
 METERS

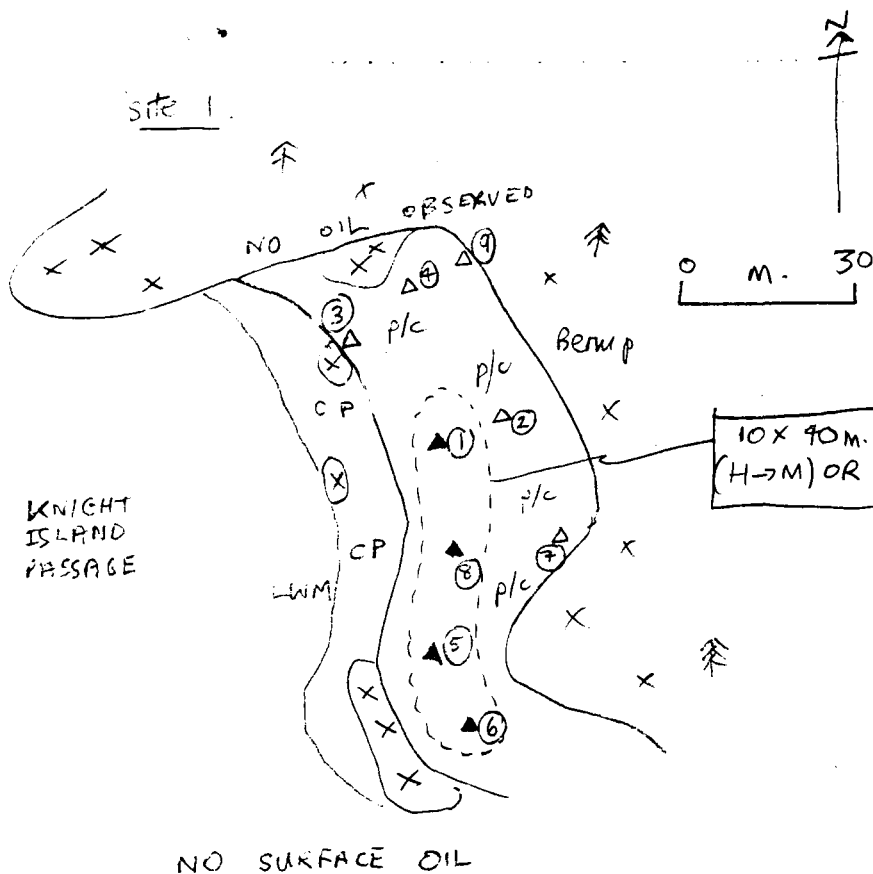
AK State Plane Zone 4 1:6610
 kn-500a

ACE 7379337 -S/SG

Subdivision Field Map
 Map Key: KNKN-500A
 Name: Reimer
 Date: 8/18/90
 Date Entered:



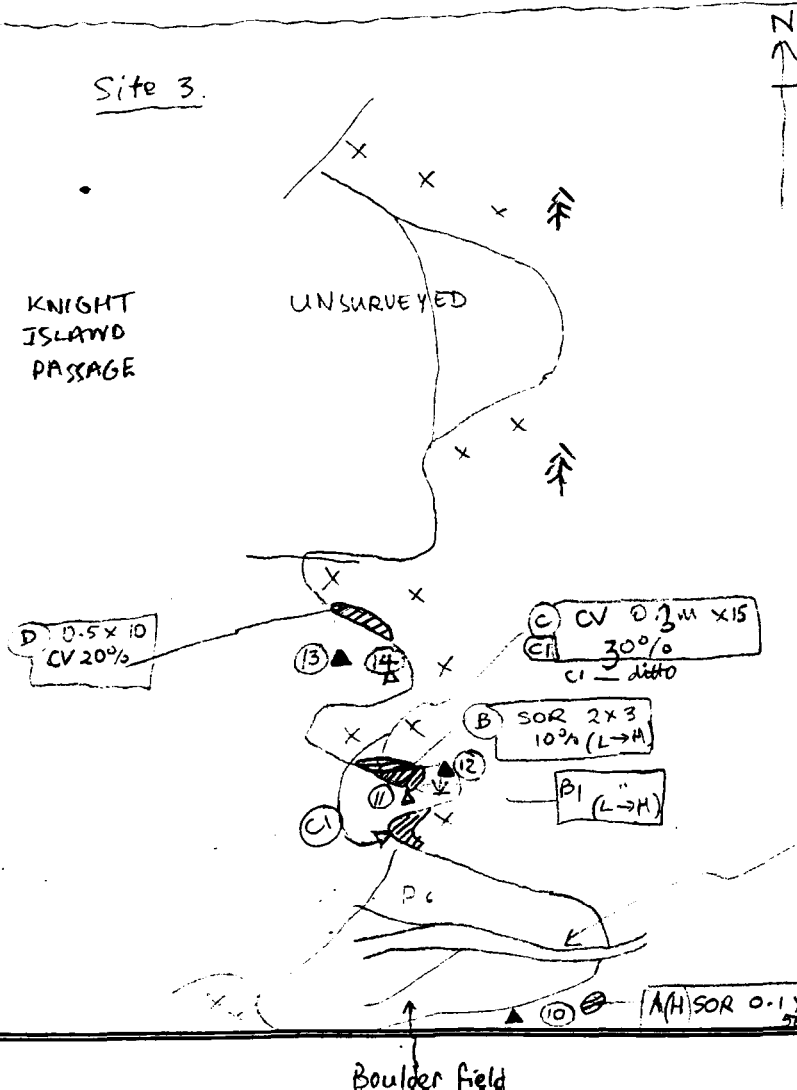
Site 1.



KN-500-A (Site 1) 04/30/91
OG Map D.I. Little
0950 - 1010

#	pit	TD	OIL	H/N	WT	Seeds	Sp
1		40 cm	(H) OR	5-40	N	C/P	
2		25 cm	NO		NO WT	g/p	
3		20 cm	NO		WT	5 cm	P/g
4		25 cm	NO		WT	10 cm	P/g
5		25 cm	(H) OR		10 cm	sp/g	
6		15 cm	(M) OR		5-10	sp/g	
7		20 cm	NO		-	P/g	
8		25	(M) OR		5-?	sp	
9		40	NO			NO P/g	

Site 3.



KN-500-A (Site 3) 04/30/91
OG Map D.I. Little
1030 - 1118

#	pit	TD	OIL	H/N	WT	Seeds	Sp
10		25	5-10 (H) OR	4	15	B/g	P
11		20	NO				P/g
12		20 (L) OR			0-10	10	P/g
13		20 (M) OR	5-20 in pocket		15 cm		P/g
14		25	NO		20		P/g

OG CAL LARSON

SEGMENT ST/ KN 500N

STREAM 226-1016992

DATE 4/21/90

CHECKLIST

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

LEGEND

1 Δ

Pli - No Subsurface Oil

2 Δ

Pli - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Open Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

eee

Oiled Vegetation

1 $\rightarrow$

Photo location, direction, and number

ACE 7379349

SKETCH MAP 100M

WATER LINE

OILED PORT POIN

GROUND WATER

CT/C/CL
30X4CM

$\Delta 6$ 1X1

CT/P/FL
LITZ

SSR/LITZ1 MITZ1

$\Delta 4$
open
Lows

CT/C/AP/S
3X3X8CM

CT/P/FL
10X5

CT/C/CT
75X3M

CT/C/MS
8X2X8CM

REVISION: 03/24/90

Oil Character Length (m): AP 3 PO 30 CV 75 ST 8 MS 8 PT 11 TB 11 FL 11 NO 11

√-500

SITE #2
NO

SITE #1
yes

SITE #3
yes

SITE #4
yes

B

A

ACE 7379327

XXXX
////

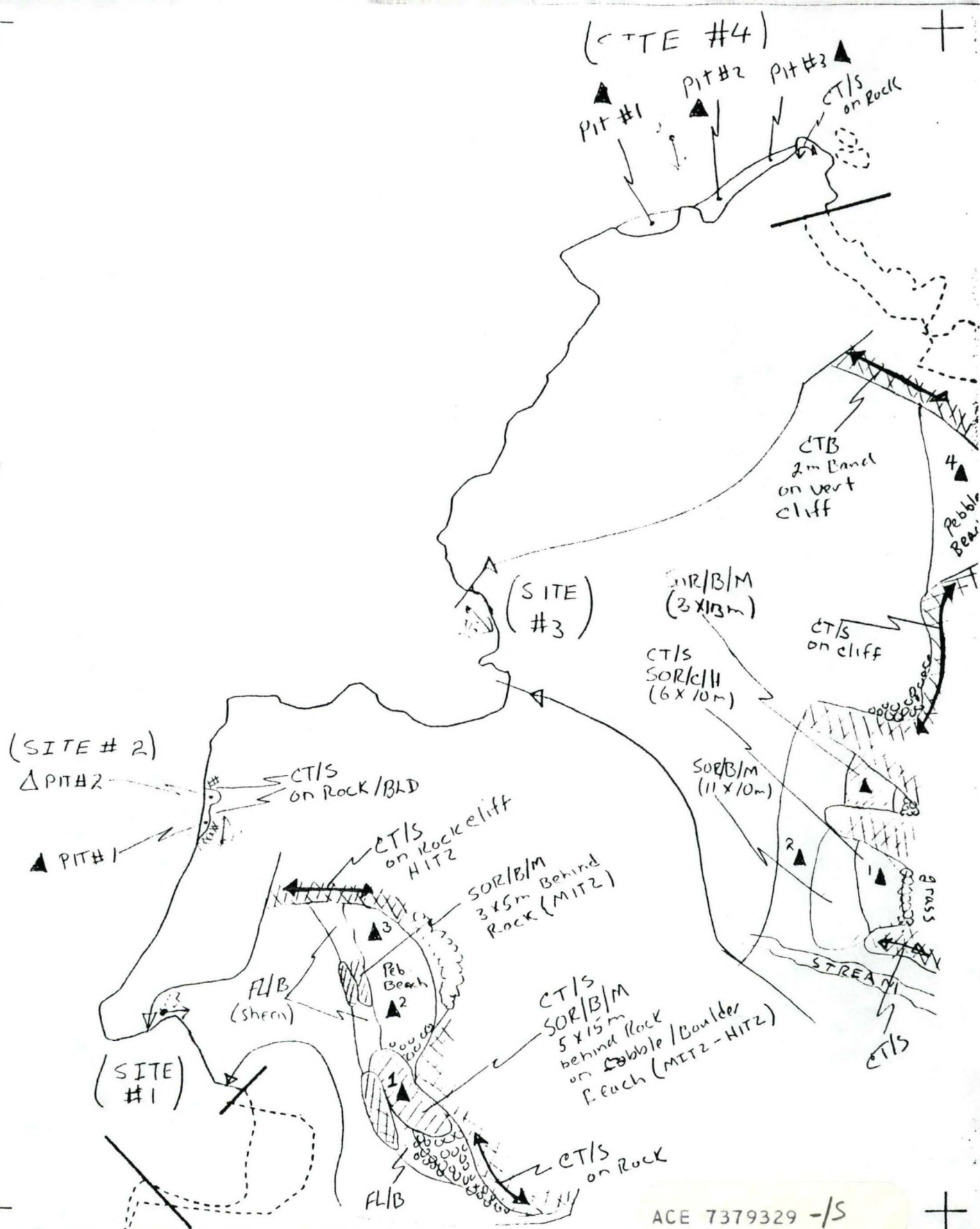
TTTT
0000

Wide
Medium
Narrow
Very Light
No Oil

KN-500 A
ADEC Subsegment Length: 2175m
METERS
0 173 346
AK State Plane Zone 4 1:6810
kkn-500a



Subdivision Field Map
Map Key: KNIKM-500A
Name: Reimer
Date: 8/8/90
Data Entered:



ACE 7379329 -/S

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

KN-500 A
 ADEC Subsegment Length: 2175m
 METERS
 0 173 340
 AK State Plane Zone 4 1:6810
 kn-500a



Subdivision Field Map
 Map Key: KNIK-500A
 Name: Reimer
 Date: 8/8/90
 Data Entered:

TEAM NO ONE EXXON MARTINEZ SEGMENT AS/ KN-500 PAGE 1 OF 2
 OG Reimer USCG BROWN DIVISION A
 ADEC HAYES LAND REP GIBSON TOTAL NO. SITES 4
 DATE 8/8/90 TIME 10:15 to 11:40 TIDE LEVEL -1 to +2
 TOTAL EST LENGTH OF SHORELINE SURVEYED: 620 m
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WEATHER: ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 OIL CATEGORY LENGTH: W 20 m M 15 m N 25 m VL 90 m NO 370 m US 1555 m

SURFACE OIL

SITE 1

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SU	UI	MI	LI
ASPHALT								
S.O.R.		M				M	M	
POOLED								
COVER								
COAT				X		X		
STAIN								
MOUSSE								
PATTIES/T.B.								
FILM		X					X	X
NO OIL					X			
EST. SITE LENGTH					/ 70			

SITE 2

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SU	UI	MI	LI
ASPHALT								
S.O.R.								
POOLED								
COVER								
COAT				X		X		
STAIN								
MOUSSE								
PATTIES/T.B.								
FILM								
NO OIL					X		X	X
EST. SITE LENGTH					80			

SITE 3

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SU	UI	MI	LI
ASPHALT								
S.O.R.	H	M				H	M	
POOLED								
COVER								
COAT				X		X		
STAIN								
MOUSSE								
PATTIES/T.B.								
FILM								
NO OIL					X			X
EST. SITE LENGTH					130			

SUBSURFACE OIL

SITE NO.	PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER				OILED INTERVAL (CM-CH)	CLEAN BELOW (Y/N)	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS
			OP	OR	OF	NO			SU	UI	MI	LI	
1	1	30		H			0-14	Y		X			BC-G-Pent
	2	30		M			5-10	Y			X		P-PG-Pent
	3	20		M			5-10	Y		X			P-GPM
							.						
2	1	35		H			20-35	N			X		P-GPSC
	2	20				X	.				X		P-GPM
							.						-
3	1	20		M			0-20	N		X			BC-PG
	2	30		M			5-30	N			X		P-PG
	3	40		M			5-30	Y			X		P-GP
	4	20				X	10-20	Y			X		P-PGC Rock
							.						

Photographs:

Roll No. 1571

Frames 15

Water filled
Water filled

COMMENTS Rocky Shoreline with intermittent Pocket Beaches. Four Sites were
 Surveyed with significant Surface oiling only at sites 1 and 3, where
 SOR moderate and Heavy areas were found. Subsurface OR was found
 in pits at all four Sites

REVISION NO. 7/27/90

ACE 7379325

GENERAL DATA

SEG ID: KN-500 SBDV: A SITE: 3 TEAM: 1 DATE: 8/8/90
SITE LGTH 130 OIL CATEGORIES: W 20 M 15 N 25 VL 190 NO 370 U 1555
1991 REASSESSMENT: USCG: N ADEC: 4 LDMGR: 4 EXXON: N

SURFACE DATA

CHAR #: 1 OIL CHAR: SOR OIL DIST: CONT H BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI H MI — LI —

CHAR #: 2 OIL CHAR: SOR OIL DIST: CONT — BRKN M PTCH — SPLH —
TIDAL ZONE: SU — UI M MI M LI —

CHAR #: 3 OIL CHAR: CT OIL DIST: CONT — BRKN — PTCH — SPLH X
TIDAL ZONE: SU — UI X MI — LI —

CHAR #: 4 OIL CHAR: NO OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU X UI — MI — LI X

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

ASAP DATA ENTRY FORM

SUBSURFACE DATA

PAGE 2 OF 2

SEGMENT ID: KN-500 SUBDIV: A SITE: 3

PIT # 1 PIT DEPTH 20 OIL CHARACTER OR OIL INTVAL: FROM 0 TO 20
 CLEAN BELOW: N PIT ZONE: SU - UI X MI - LI -

SUBSURF SEDIMENT: BRK - BLD - COB - PEB X GRN X SAN - MUD - VEG -

PIT # 2 PIT DEPTH 30 OIL CHARACTER M OIL INTVAL: FROM 5 TO 30
 CLEAN BELOW: N PIT ZONE: SU - UI - MI X LI -

SUBSURF SEDIMENT: BRK - BLD - COB - PEB X GRN X SAN - MUD - VEG -

PIT # 3 PIT DEPTH 40 OIL CHARACTER OR OIL INTVAL: FROM 5 TO 30
 CLEAN BELOW: Y PIT ZONE: SU - UI - MI X LI -

SUBSURF SEDIMENT: BRK - BLD - COB - PEB X GRN X SAN - MUD - VEG -

PIT # 4 PIT DEPTH 20 OIL CHARACTER OF OIL INTVAL: FROM 10 TO 20
 CLEAN BELOW: Y PIT ZONE: SU - UI - MI X LI -

SUBSURF SEDIMENT: BRK X BLD - COB X PEB X GRN X SAN - MUD - VEG -

PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO
 CLEAN BELOW: PIT ZONE: SU UI MI LI

SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO
 CLEAN BELOW: PIT ZONE: SU UI MI LI

SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO
 CLEAN BELOW: PIT ZONE: SU UI MI LI

SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO
 CLEAN BELOW: PIT ZONE: SU UI MI LI

SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO
 CLEAN BELOW: PIT ZONE: SU UI MI LI

SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

CATALOG NUMBER: 2261016992				SEGMENT NUMBER: KN500 A					
STREAM NAME:				SHORELINE TYPE:					
LOCATION: KNIGHT ISLAND, NORTHWEST SIDE				DATE: 04/12/90		TIME: -1243			

SITE	WIDTH (m)	LENGTH (m)	AREA (sqm)	PERCENT OIL	THICKNESS (cm)	PENETRATION (cm)	SURFACE SUBSURF	OIL TYPES	COMMENTS
1							SURFACE	AP	
2							SURFACE	MS	
3							SURFACE	CT CV	

COMMENTS:
DEAD OILED DEBRIS EVERYWHERE. REEKS OF OIL. HEAVY OIL BANDS ON CLIFFS. (DREDGE) OIL ON STREAM BANKS: YES OIL WITHIN 1 MILE OF STREAM: YES, EVERYWHERE

CATALOG NUMBER: 2261016992				SEGMENT NUMBER: KN500 A					
STREAM NAME:				SHORELINE TYPE:					
LOCATION: KNIGHT ISLAND, NORTHWEST SIDE				DATE: 04/21/90		TIME: -1845			

SITE	WIDTH (m)	LENGTH (m)	AREA (sqm)	PERCENT OIL	THICKNESS (cm)	PENETRATION (cm)	SURFACE SUBSURF	OIL TYPES	COMMENTS
1					4		SURFACE	FL-OR CT	oil in boulder interstices south end of cove, UITZ Tarmat, UITZ, north side. pit 4 y 4 cm, oil in tarmat UITZ, north end, sheen on gravels pit 5-8 cm oil in tar patch - 1-2 m wide oiled band on bedrock, north end of cove
2							SURFACE	FL AP	
3							SURFACE	CT FL AP	
4	2						SURFACE	AP CT	

COMMENTS:
OILED AREA THAT NEEDS THE MOST ATTENTION IS ON THE NORTH BANK OF THE STREAM NEAR THE MOUTH IN THE UITZ. A SMALL STREAM COMING FROM THE NORTH AND CONNECTING WITH MAIN STREAM CONTAINS MODERATELY OILED GRAVELS WHICH WHEN AGITATED PRODUCE A SILVER TO BROWN SHEEN. THIS FLOW LIKELY FEEDS A SALMON SPAWNING/REARING AREA. RECOMMENDATIONS: TREAT DURING WINDOW PERIOD. BURY SORBANT BOOM WITHIN & BELOW OILED AREA 'A' ON NORTH SIDE OF STREAM NEAR MOUTH. TURN & AGITATE OILED GRAVELS & LET SELF FLUSH & COLLECT IN SORBANTS. PLACE POMPOMS BELOW AREA. AGITATE & TURN SEVERAL TIMES AT INTERVALS & CHANGE SORBANTS. BURY, STAKE & MARK SORBANTS IN OTHER SHEENING AREAS - B&C, CHANGE ONCE OR TWICE DEPENDING ON OIL RECOVERED. REMOVE OILED DEBRIS & TARMATS WHERE FOUND. APPLY GRANULAR BIOREMEDIATION - CUSTOMBLEND TO OILED BOULDER INTERSESES IN SUPRA ITZ ON SOUTH SIDE OF STREAM NEAR MOUTH. DO NOT ATTEMPT REMOVAL OF OIL BAND ALONG BEDROCK ON NORTH SIDE OF STREAM. THIS STREAM/BEACH POSES DIFFICULT TREATMENT PROBLEMS. ADF&G'S SUGGESTIONS APPEAR TO BE FEASIBLE AND SHOULD SIGNIFICANTLY IMPROVE THE SITUATION, KEN CRITCHLOW. OIL ON STR

CATALOG NUMBER: 2261016992				SEGMENT NUMBER: KN500 A					
STREAM NAME:				SHORELINE TYPE:					
LOCATION: KNIGHT ISLAND, NORTHWEST SIDE				DATE: 04/30/91		TIME: -1115			

SITE	WIDTH (m)	LENGTH (m)	AREA (sqm)	PERCENT OIL	THICKNESS (cm)	PENETRATION (cm)	SURFACE SUBSURF	OIL TYPES	COMMENTS
1						5	PIT	MOR	

✓
- 1-
DATE PRINTED: 10/02/91

PAGE 25

COMMENTS:

BURIED OIL IN SITE #1 & 2. SITE # 2 IS IN AND DIRECTLY ADJACENT TO THE STREAM FLOW THROUGH THE INTERTIDAL AREA. SITE #2 RECOMMEND THOROUGH TILLING IN AND AROUND STREAM FLOW. SITE #1 ALSO RECOMMEND TILLING TO BRING OILED DEPOSITS TO THE SURFACE. (SEE MAP FOR SITES) NOTE: SITE #1 WAS NOT RECORDED ON OG MAP AS EXXON ADVISOR DID NOT WANT IT FOR DATA.

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 4/30/91 16) HIGH TIDE TIME _____
 5) START TIME 1015 17) HIGH TIDE HTS. _____
 6) STOP TIME 1115 18) LOW TIDE TIMES 0900
 7) SEGMENT # KN500A^{#3} 19) LOW TIDE HTS -2
 8) K-UNIT _____ 20) TIDE HT AT SURVEY -3 + 1 0
 9) LAT. _____ Ebb Slack Flood Slack
 10) LONG: _____ 21) USCG QUAD _____
 11) ASC # _____
 12) STREAM NAME 266-10-10992
 13) LOCATION KNIGHT ISLAND
 14) WAVE EXPOSURE High Moderate Low
 15) SHORELINE TYPE Headland Low-lying Rocks Beach
Cove Lagoon Marsh

22) TEAM RECORDER Tom Crowe
 23) OBSERVERS AMEL WESKMAN
 24) AGENCY ADFG
 25) PHOTOS TAKEN Y (N)
 ROLL # _____ FRAMES _____
 26) VIDEO TAKEN Y (N)
 TAPE # _____
 START _____ STOP _____
 27) SAMPLES TAKEN? Y (N)
 SAMPLE I D _____

28) EXTENT OF OIL

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

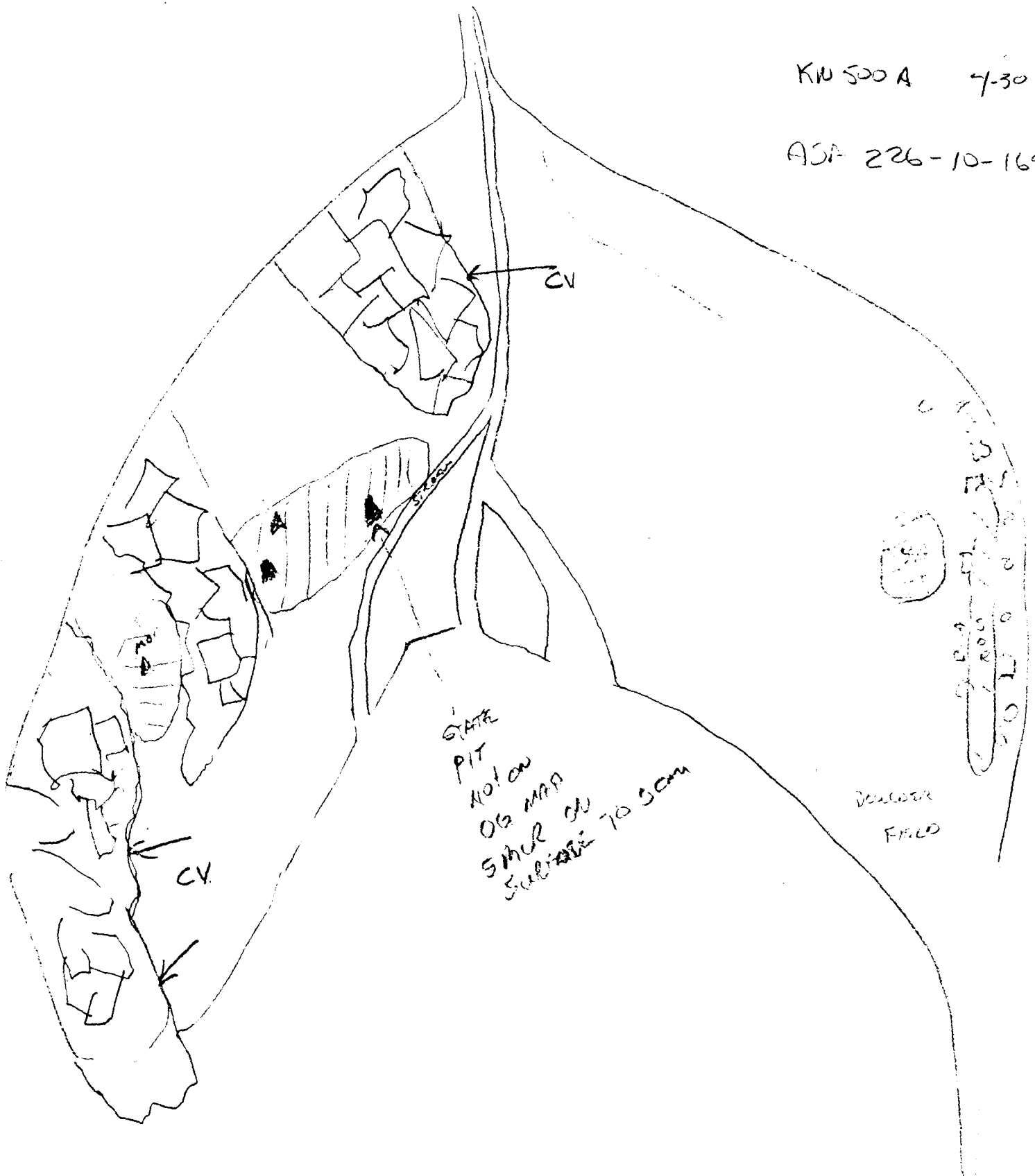
29) OVERALL OIL IMPACT 33) ANADROMOUS FISH PRESENT Y N
 H = >6m band with $\geq 50\%$ oil coverage
 M = >6m band with $\leq 50\%$ oil coverage or $\geq 3\text{m}$ to $\leq 6\text{m}$ with $\geq 10\%$ oil coverage
(L) = $\leq 3\text{m}$ -band with $\geq 10\%$ oil coverage over all
 VL = $\leq 10\%$ oil coverage regardless of band width
 N = No oil observed
 30) OIL IN STREAMBED Y N
 31) OIL ON BEACH ADJACENT TO MOUTH Y N
 32) SUBSTRATE TYPE (PERCENT)
 Bedrock 40 Boulder _____ Gravel 60 Sand _____ Cobble _____ Mud/Silt _____

34) WILDLIFE OBSERVATION
 Species _____ Number _____
Rock Blennies numerous

35) COMMENTS _____

KW 500 A 7-30 91

ASA 226-10-16992



PAGE 1 OF 2

SEGMENT KN-500

SUBDIVISION A

DATE 04 / 30 / 91

ENERGY LEVEL: ☐ H ☒ M ☐ L

EST. OIL CATEGORY LENGTH: W — m M — m N 45 m VL 0.5 m NO 410 m US 1720 m

SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE PHOTO ROLL # MAYSAP- 6 - 03 FRAMES 6-11

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

Sites "1" and "3" (ASAP Doug Reimer terminology) were partially surveyed - last pocket beach on "site 3" was not accessible by helo / foot. Surface oil was restricted to site 3, where vertical rocks had CV in patches occupying a band of Q2 - 0.5m width and studded with spruce needles. Beach sediments were SOR (light to heavy) in two patches (B and B1) with sheen running off. Subsurface oil was found in 4 pits of H→M OR occupying a putative band of about 10x40m in the MITZ. (site 1 only) to cm max. obs. per. All pits on this page are from KN-500-A ("site 1" from ASAP). [For site 3 see over.

MAYSAP SHORELINE OILING SUMMARY (cont.)

TEAM NO. 6

PAGE 2 OF 2

SEGMENT KN-500

SUBDIVISION A

DATE 04 / 30 / 91

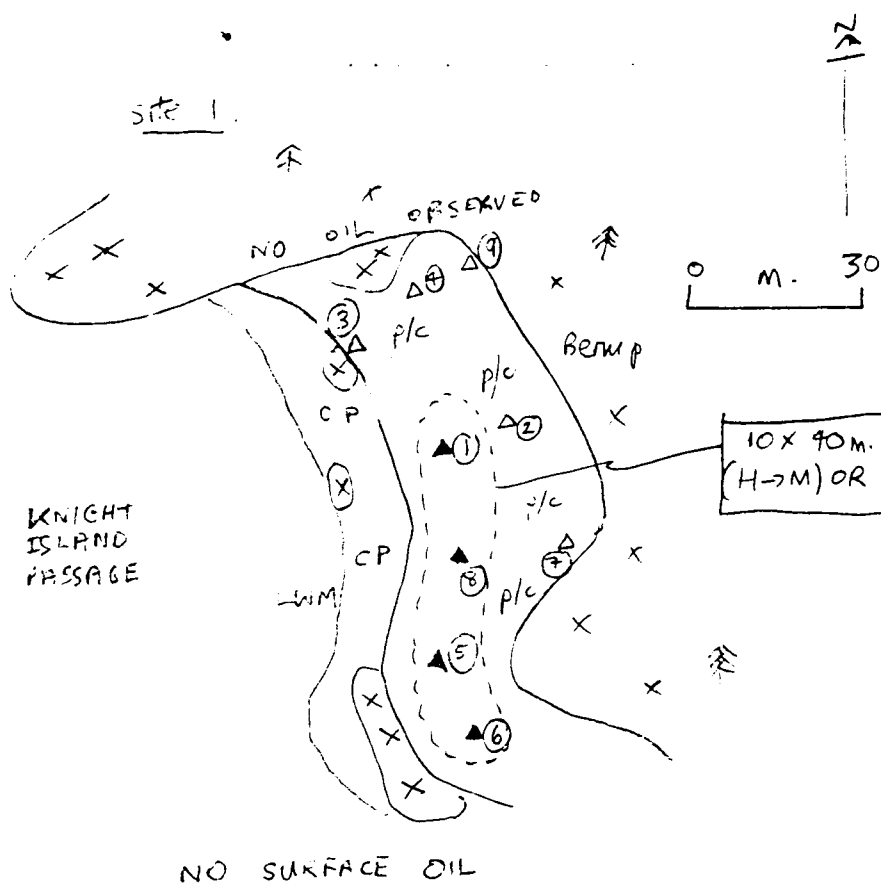
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SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

OG COMMENTS:

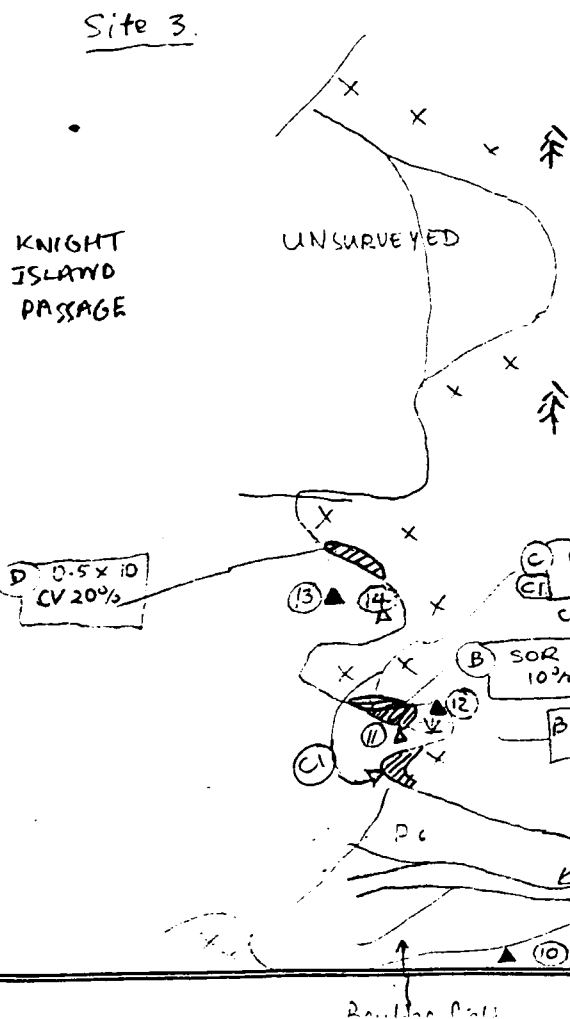
Pits on this page are in LN-500-A ("Site 3" from ASAP).

Subsurface out in site "3" was restricted to a maximum penetration of 20 cm. and occurred in each of 2 small pockets in addition to the boulder field south of the ANAD. stream.



0950 — 1010

#	pit	①	TD	40 cm	(H) OR	5-40	N	C/P
②	25 cm	NO	NO WT	g/p				
③	20 cm	NO	WT	P/p				
④	25 cm	NO	WT	Pg				
⑤	25 cm	(H) OR	10 cm	spg				
⑥	15 cm	(H) OR	5-10	spg				
⑦	20 cm	NO	-	P s g				
⑧	25	(H) OR	5-?	sp				
⑨	40	NO	NO	Pg				



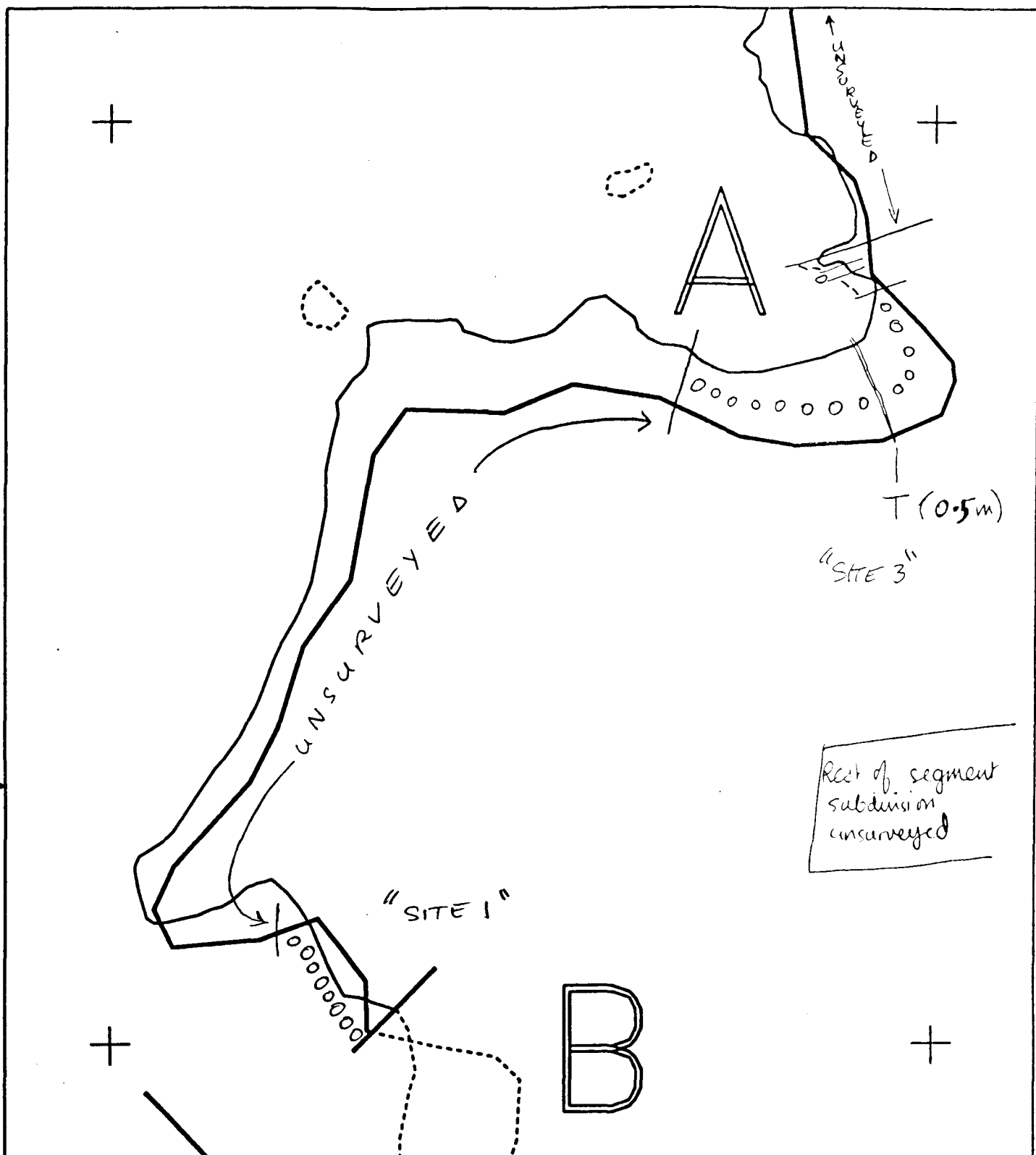
OG. map D.1 Little

1030 - 1118

# <u>pk</u> (10)	TD 25	OIL 5-10 4/0R	4/N WIT Seet 15 Pg	St A
(11)	20	NO	 Pg	
(12) 20 (L) OR			0-10 10 Pg	E
(13) 20 (M) OR		5-20 in pocket	15 ca. Pg 5.	E
(14) 25 NO		—	20 Pg	

0 m. 20

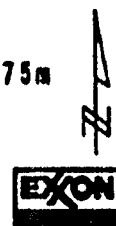
APH SOR 0.1 x 0.5
STO/O



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

KN0500 A
 ADEC Subsegment Length: 2175m
 METERS

6 100 200
 AK State Plane Zone 4
 kn0500a



Subdivision Field Map
 Map Key: KNKN0500Aa
 Name: S. I. LITTLE
 Date: 4/30/91
 Date Entered:

TEAM NO. 6

SEGMENT

KN-500

SUBDIVISION

A

DATE 04/30/91

ADEC & USFS

NAME Aimee WesemanSIGNATURE Aimee Weseman

- ☐ NTR ☒ Treatment Recommended Anad Fish Stream, commercial fishing & recreation site 1 - The Anadromous fish stream portion of the subdivision looks in good shape. Area C1 along the cliff face adjacent to the stream could be manually tilled to expose OR sediments.
- site 3 - contains a 10x40m band of H+MOR sediments near the surface in the MITZ. The lense rests on "peat" & could be problematical to treat. The area could be assessed further to determine if "tilling" would cause more harm than good.

EXXON

NAME Scott A. NaumanSIGNATURE Scott A. Nauman☒ NTR

Site 3, which contains the stream, was largely oil free - with very small patches of SOR. The area was rich with mussels and fucus. I would definitely not see a net benefit to treating this area. site 1, near KN-500B, had no surface oil. The band of subsurface oil is stable and limited to oil residues. To treat this band would disturb a thriving intertidal zone, and I believe cause more harm than good.

LANDMANAGER

NAME TOM CROWEOF ADFCSIGNATURE [Signature]☐ NTR☒ TREATMENT RECOMMENDED

SITE #3 MANUAL TILLING OF MOR AND SOR SEDIMENTS ADJACENT TO THE STREAM CHANNEL ON NORTH SIDE. EASILY ACCOMPLISHED BY A SMALL CREW WITH HAND TOOLS SITE #1 THIS SITE WILL REQUIRE MECHANICAL TILLING TO ACCOMPLISH ANY REDUCTION OF THE VERY LARGE LENSE OF MOR SEDIMENTS ON THIS BEACH.

USCG/NOAA

NAME CWO R. S. [Signature] / Rebecca HoffSIGNATURE [Signature] / Rebecca Hoff☒ NTR

Site 1: This small cove showed heavy subsurface oil in places. However, it is at depth and covered by clean sediments. There is a rich intertidal zone with algal diversity + mussels growing directly over areas with subsurface oil. This oil represents no threat to any sensitive habitats + should not be treated.

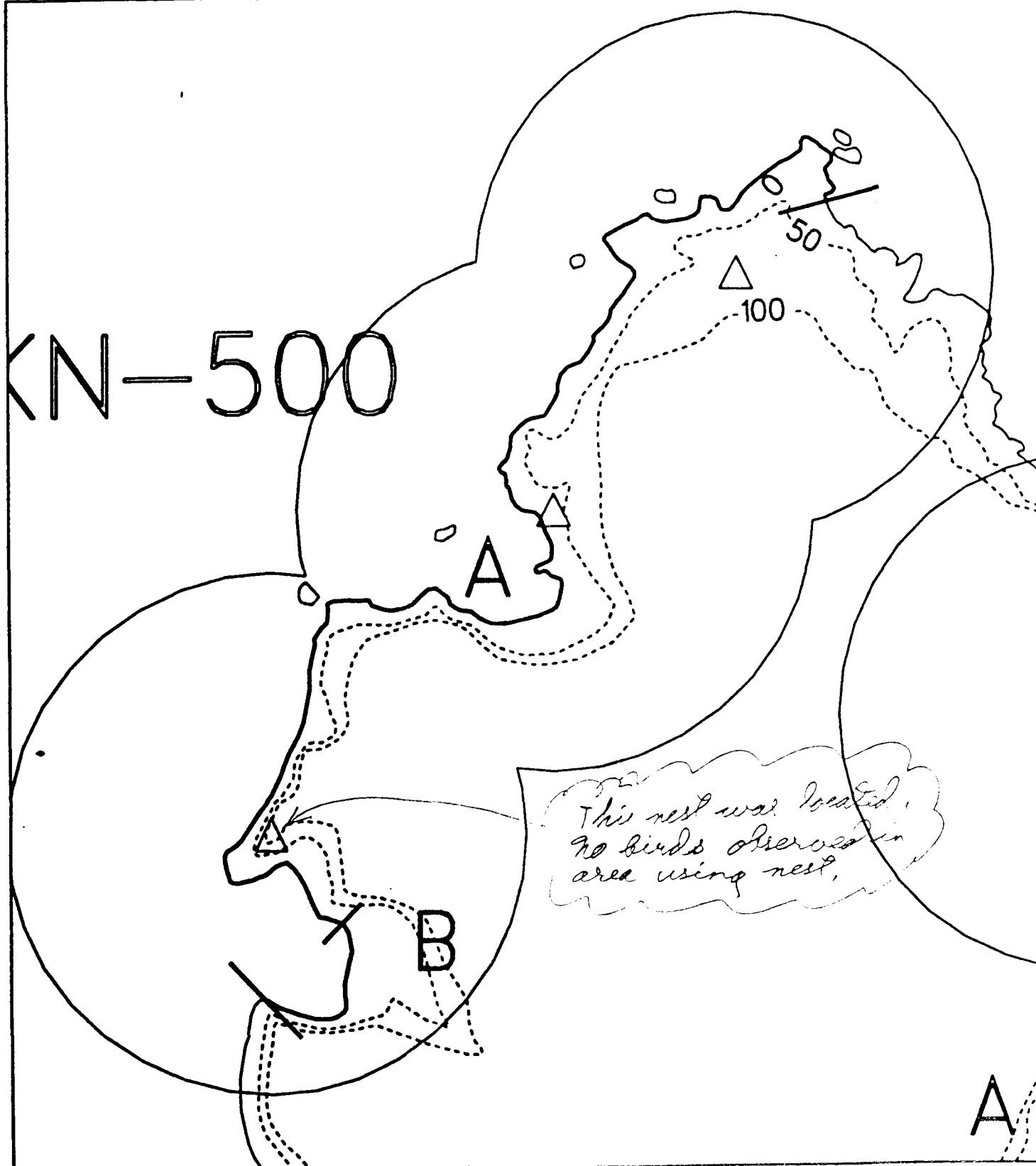
Site 3: all oil found was surface oil residue in only small areas. This should weather well on its own and does not warrant any additional treatment.

RECEIVED
MAY 01 1991DEPT. OF
ENVIRONMENTAL CONSERVATION

ORIGINAL COPY

Bauer & Art
Impressed
oil here✓ KM
did not see this
site personally -
only B.

KN-500



KN0500

METERS



AK State Plane Zone 4
630500

Segment Reference Map

Map Key: KN|KN0500



EAGLE NEST

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 DATE 4/30/91
 SEGMENT # KN-500 TIDAL HEIGHT(Range) -1.0 to +3.0 feet
 SUBDIVISION A BIOLOGIST T.A. Schroeder
 SEA STATE Very rough WIND SPEED/DIRECTION N.E. 30 mph +
 PHOTOGRAPHS: ROLL # FRAME #

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

(Site 1) = Oil found was all subsurface MOR or HCR. Center of beach area is composed of loose sand and gravel and is unproductive. North and south portions of beach are extremely lush and abundant. Mussels, barnacles, kelp, littorine snails and fish are all thriving in spite of presence of subsurface oil. Any methods used to remove or treat this oil would be very intrusive and detrimental to this thriving area.

(Site 3) (A) Located in LITZ. mussel beds are reestablishing themselves in braided section of anadromous stream.

(B, B, C, C, + D) = CV and SOR located above and adjacent to very healthy intertidal community. Limpets, littorine snails and mussels present on back of rocks directly under CV. Remaining oil not affecting living organisms. Subsurface oil is adjacent to heavy regrowth of mussels and fishes spawning. LITZ is extremely lush throughout this site.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

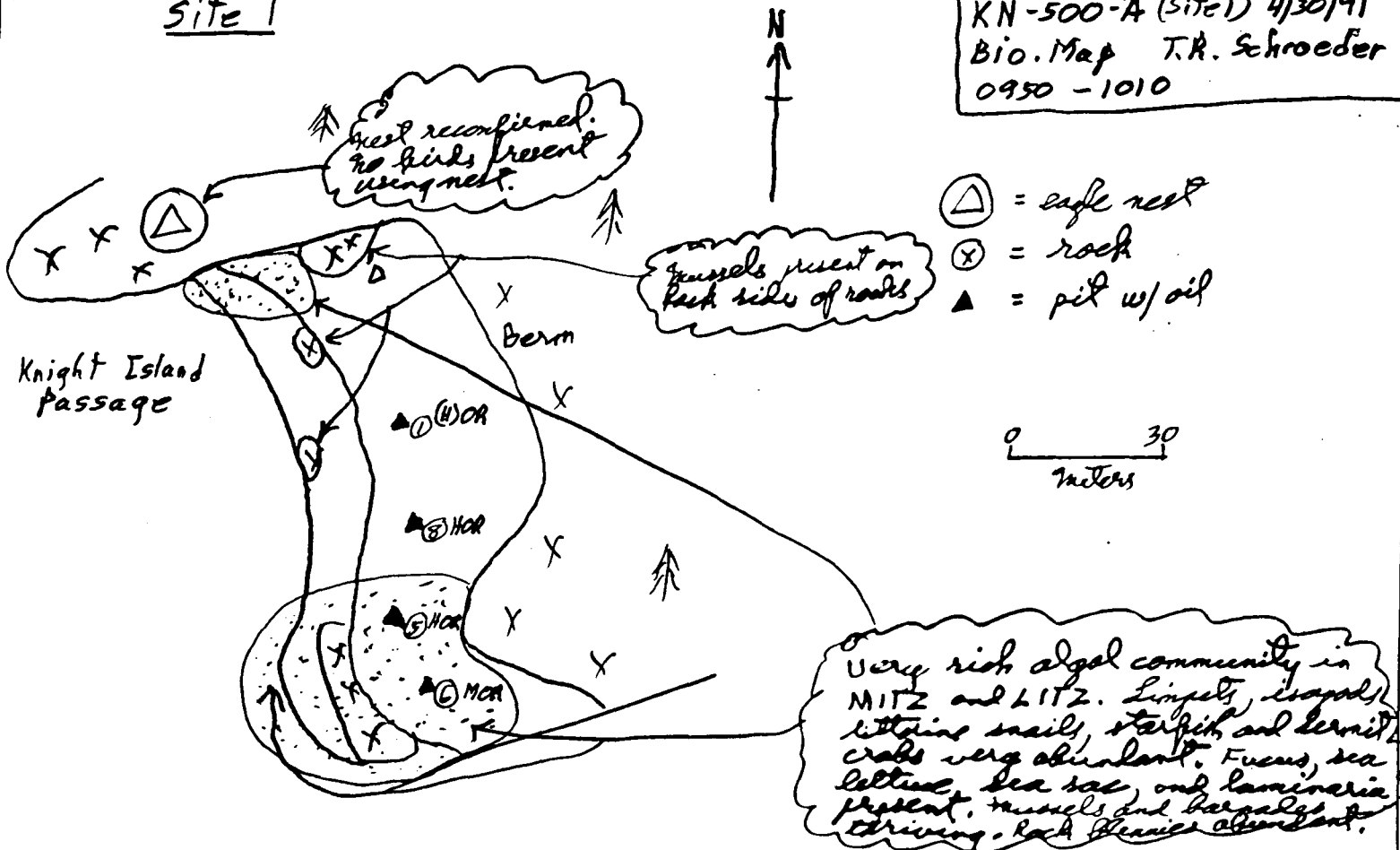
BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles			Rock Shrimps
Seabirds			
Waterfowl			
Gulls/Kittiwakes	1	1	
Shorebirds			
Corvids			
Other Birds			

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

Shoreline subdivision map showing important biological features attached.

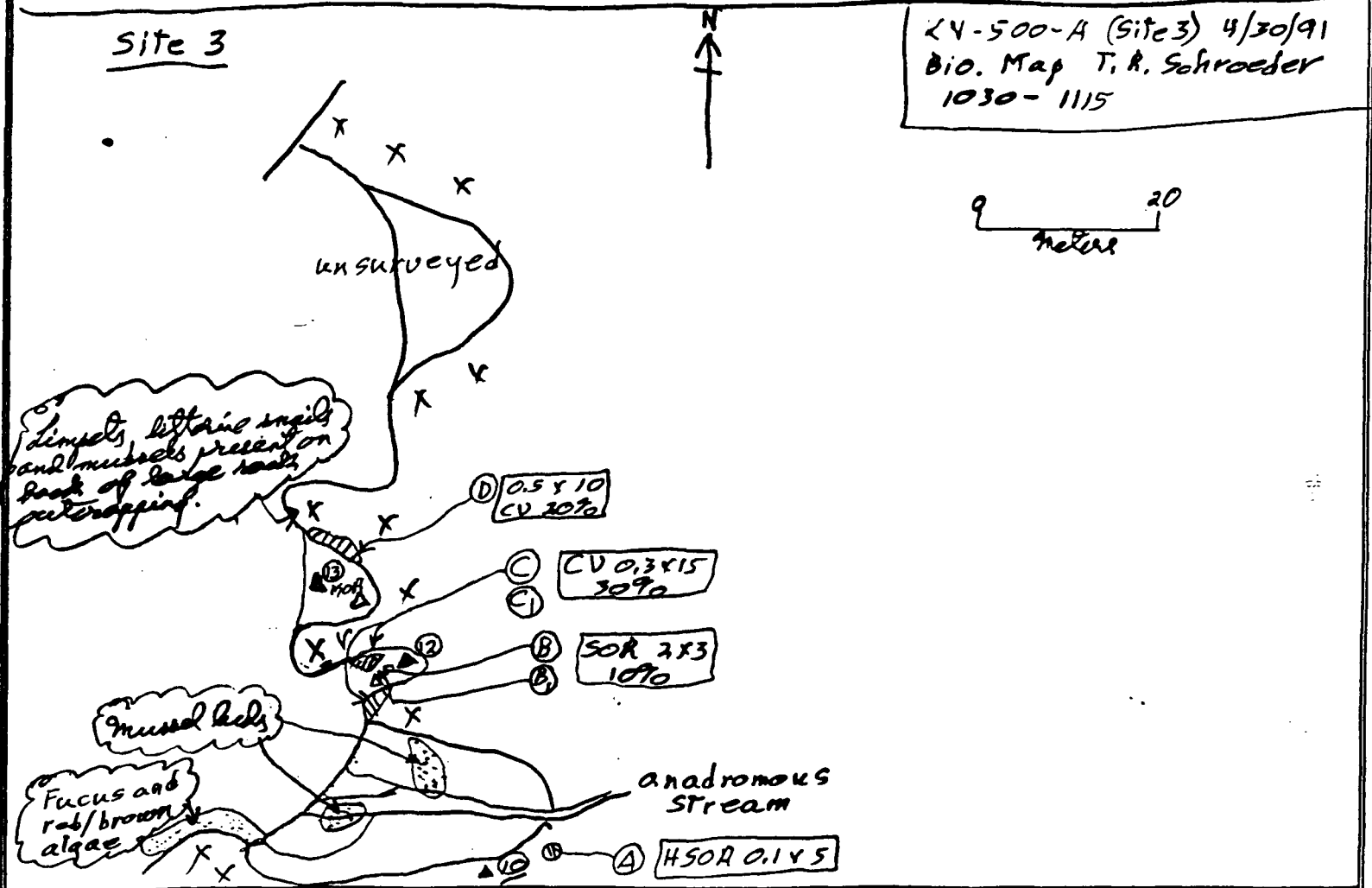
Site 1

KN-500-A (Site 1) 4/30/91
Bio. Map T.R. Schroeder
0950 - 1010

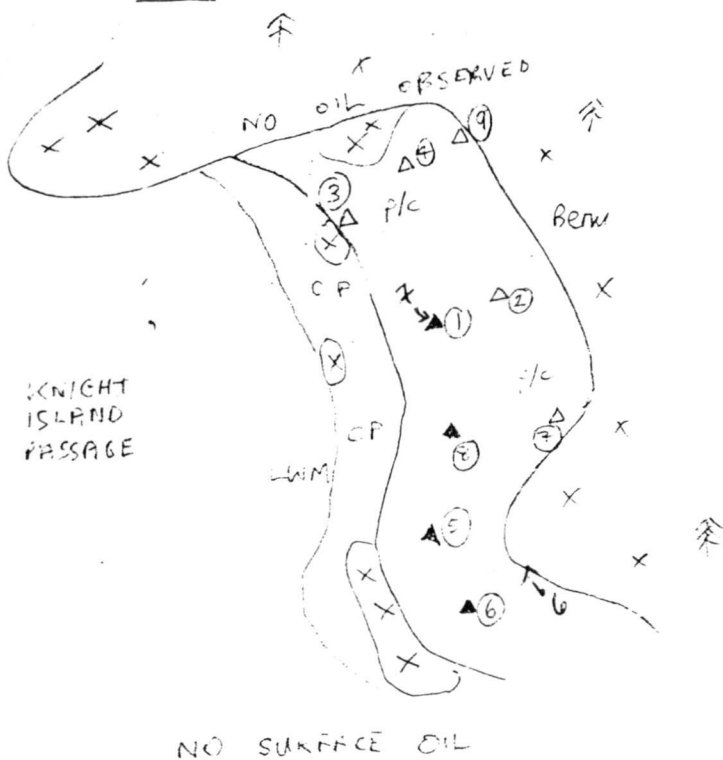


Site 3

KN-500-A (Site 3) 4/30/91
Bio. Map T.R. Schroeder
1030 - 1115



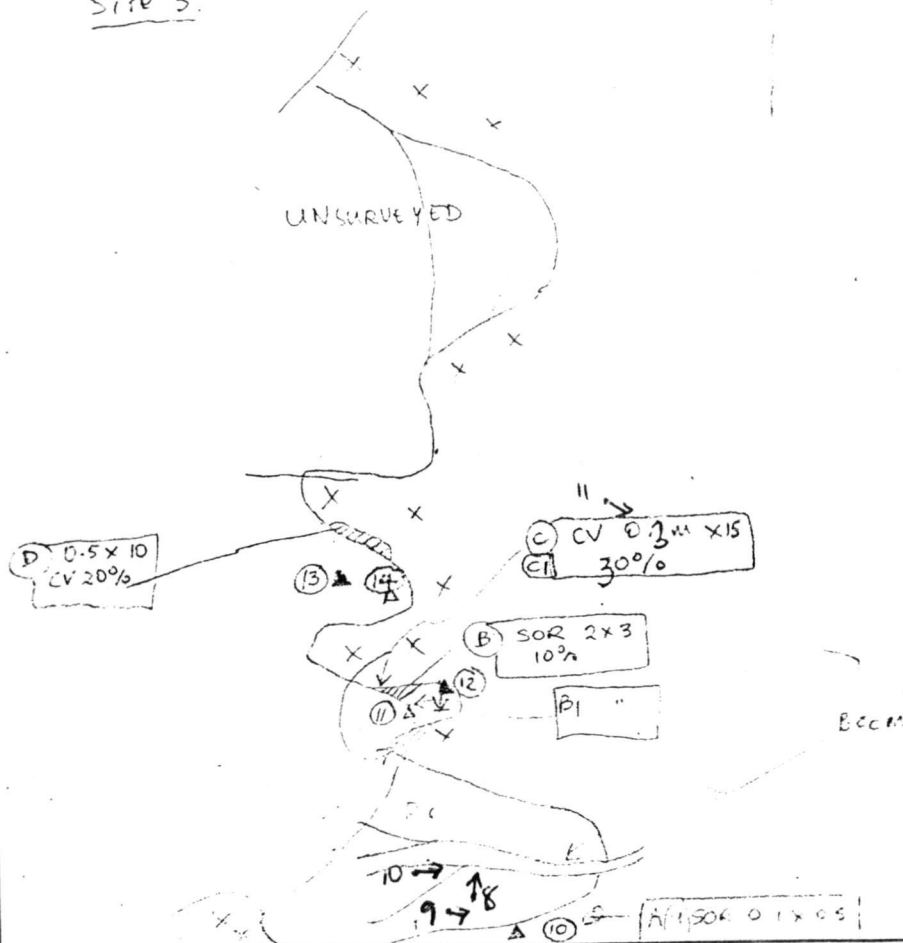
Site 1.



KN-500-A (Site 1) 04/30/91
OG Map D.I. Little
0950 - 1010

#	pit	TD	OIL	HT	WT	PG
1		40 cm	(H) OR	5-40	N	C/P
2		25 cm	NO		NO WT	g/p
3		20 cm	NO		WT	P/L
4		25 cm	NO		WT	PG
5		25 cm	(H) OR	10 cm	SP	g
6		15 cm	(M) OR	5-10	SP	g
7		20 cm	NO			P/L
8		25	(H) OR	5-?	SP	
9		40	NO			NO PG

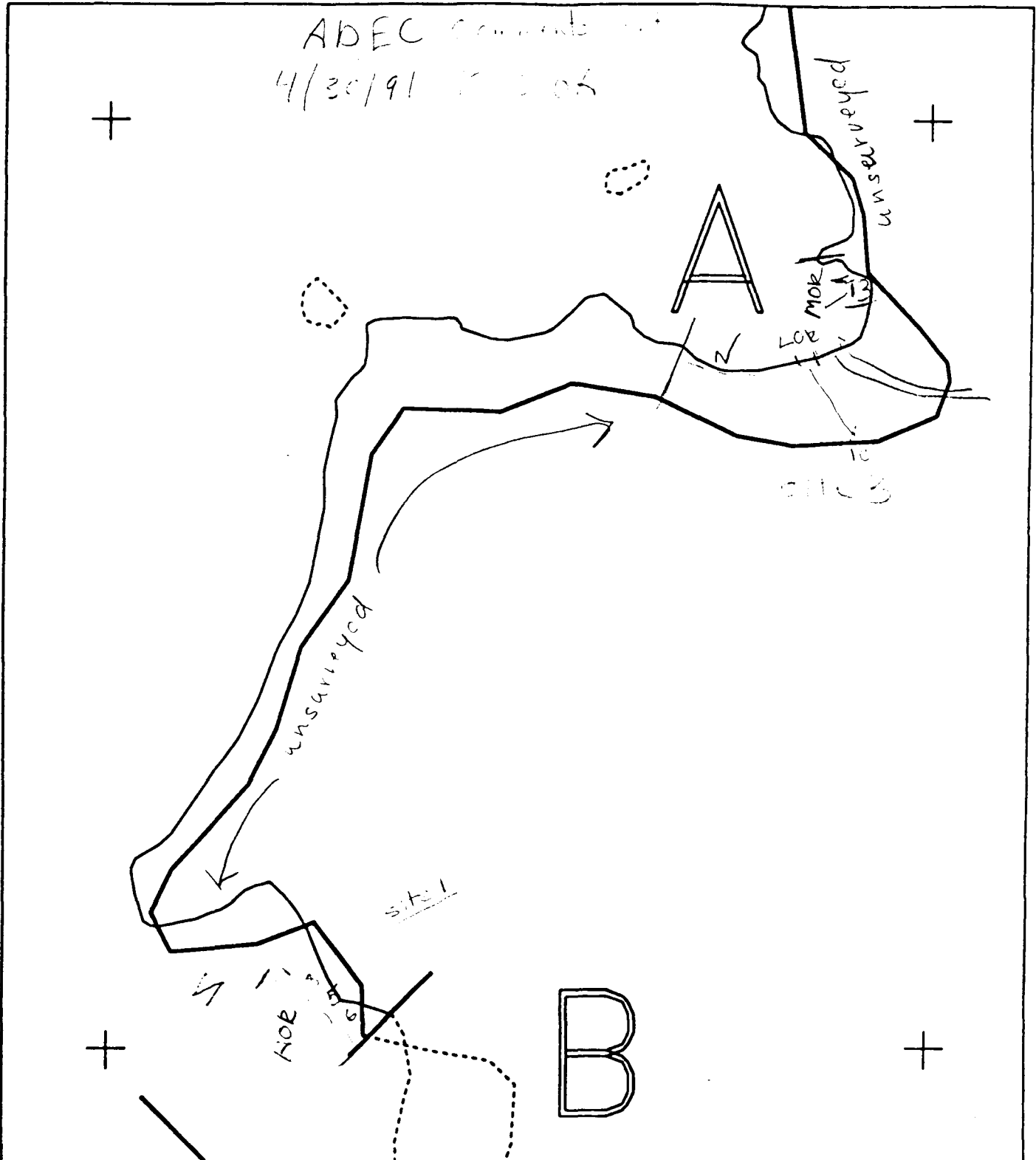
Site 3.



KN-500-A (Site 3) 04/30/91
OG Map D.I. Little
1050 - 1118

#	pit	TD	OIL	HT	WT	PG
10		25	5-10		4/15	SP
11		20	NO			PG
12		20	(L) OR	0-10	10	PG
13		20	(M) OR	5-20	15 cm	PG
14		25	NO		20	PG
15						

ADEC Comments
4/30/91 R. J. Osh



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

KN0500 A
 ADEC Subsegment Length: 2175m

METERS

0 100 200
 AK State Plane Zone 4
 14N038000



Subdivision Field Map

Map Key: KN1KN0500Ae

Name: James W. Osborn

Date: _____

Date Entered: _____

ADEC comments cont...

KN500A 4/30/91



-5000



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

KN0500 A

ADEC Subsegment Length: 2175m

METERS

0 100 200

AK State Plane Zone 4
kn0500ac



Subdivision Field Map

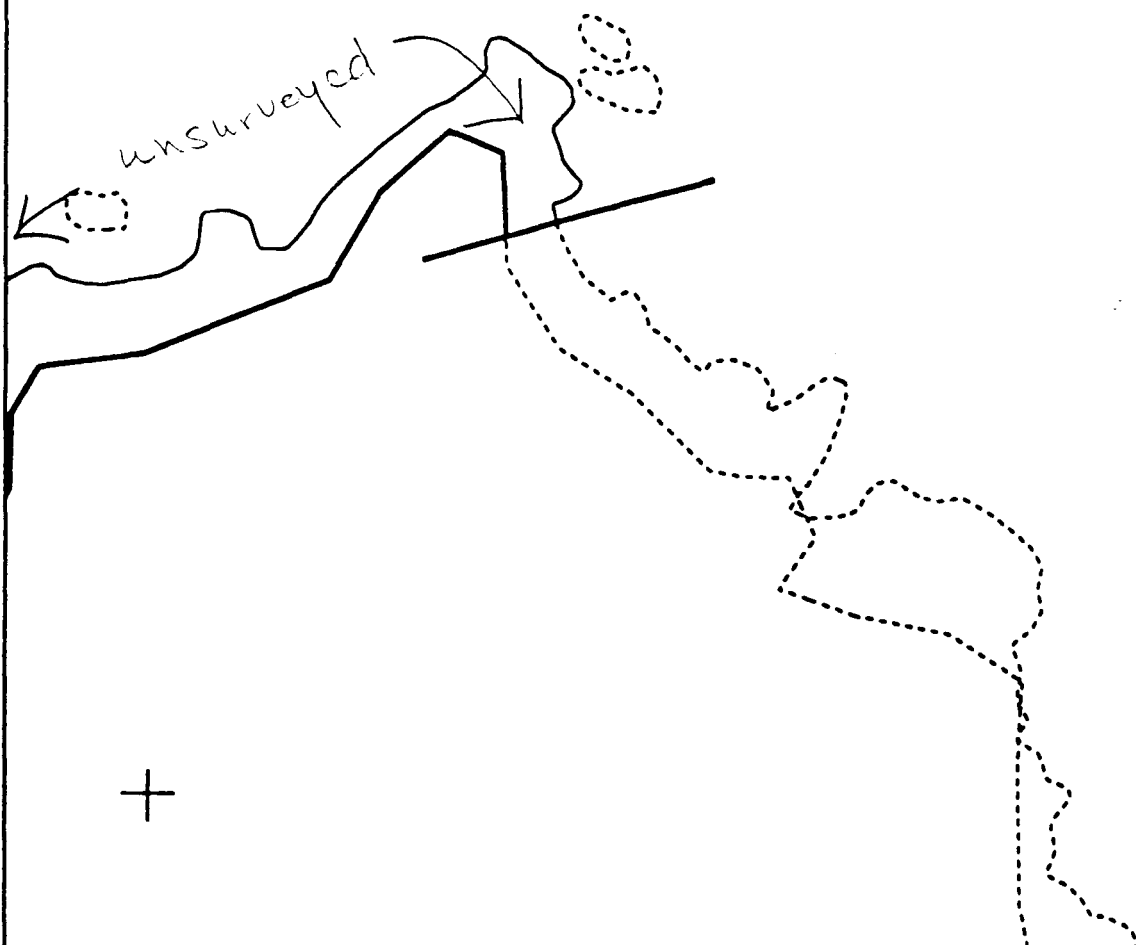
Map Key: KNKN0500Ac

Name: Amre Wezeman

Date: _____

Date Entered: _____

ADEC comments cont.
4/30/91 KN500A



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

KN0500 A
ADEC Subsegment Length: 2175m
METERS
0 100 200
AK State Plane Zone 4
kn0500ad



Subdivision Field Map
Map Key: KNIK0500Ad
Name: Aimee Weseman
Date: _____
Date Entered: _____

5/16/91 Discrepancy comments k_z

KN500 1 226-10-16992

Review

HAB

OG

need to fill oil extnd, if possible

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS DS TS AVS SC-A MMHS PTA

2 REGION: PWS KP,CI K,AP

METHOD: Aerial Ground Boat

3 DATE: 4-21-90

15 HIGH TIDE TIMES: 1

21 TEAM RECORDER: Aimee Weseman

4 START TIME: 1735

16 HIGH TIDE HTS: 1

22 OBSERVERS: Rick Gustin

5 STOP TIME: 1845

17 LOW TIDE TIMES: 1730

23 AGENCY: ADF&G

6 SEGMENT #: KN-500N

18 LOW TIDE HTS: 1

24 PHOTOS TAKEN: Y (N)

7 STATION #: ASW

19 TIDE HT AT SURVEY:

Roll #: Frame:

8 K-UNIT:

Ebb Stack Flood Slack

25 VIDEO TAKEN: (Y) N 90-ASW-01-SSS

9 STAT AREA:

20 USCG QUAD: S-B-3

Start: 0 End: 89

10 LAT:

11 LONG:

26 SAMPLES TAKEN? Y (N) Number

12 SOURCE: Map Loran

Oil

13 LOCATION: NW side Knight I

Sediment

14 DESCRIPTION: Outer side Herring Bay

Biological

EXTENT OF OIL

	SHORELINE				STREAM			
	L	W	M ²	%	L	W	M ²	%
27 SURFACE COVERAGE	100	75						
28 SURFACE THICKNESS								
29 PENETRATION								

36 CATALOGED ANAD. FISH SREAM? (Y) N

37 CATALOG #: 226-10-16998

38 STREAM NAME:

39 OIL IN STREAM BED? (Y) N

40 OIL ON STREAM BANKS? (Y) N

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

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

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

31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain

32 OILED DEBRIS? (Y) N

Where:

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

43 ANADROMOUS FISH PRESENT? Y N

34 WAVE EXPOSURE: High Moderate Low

44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground

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

Species	Aerial	Ground

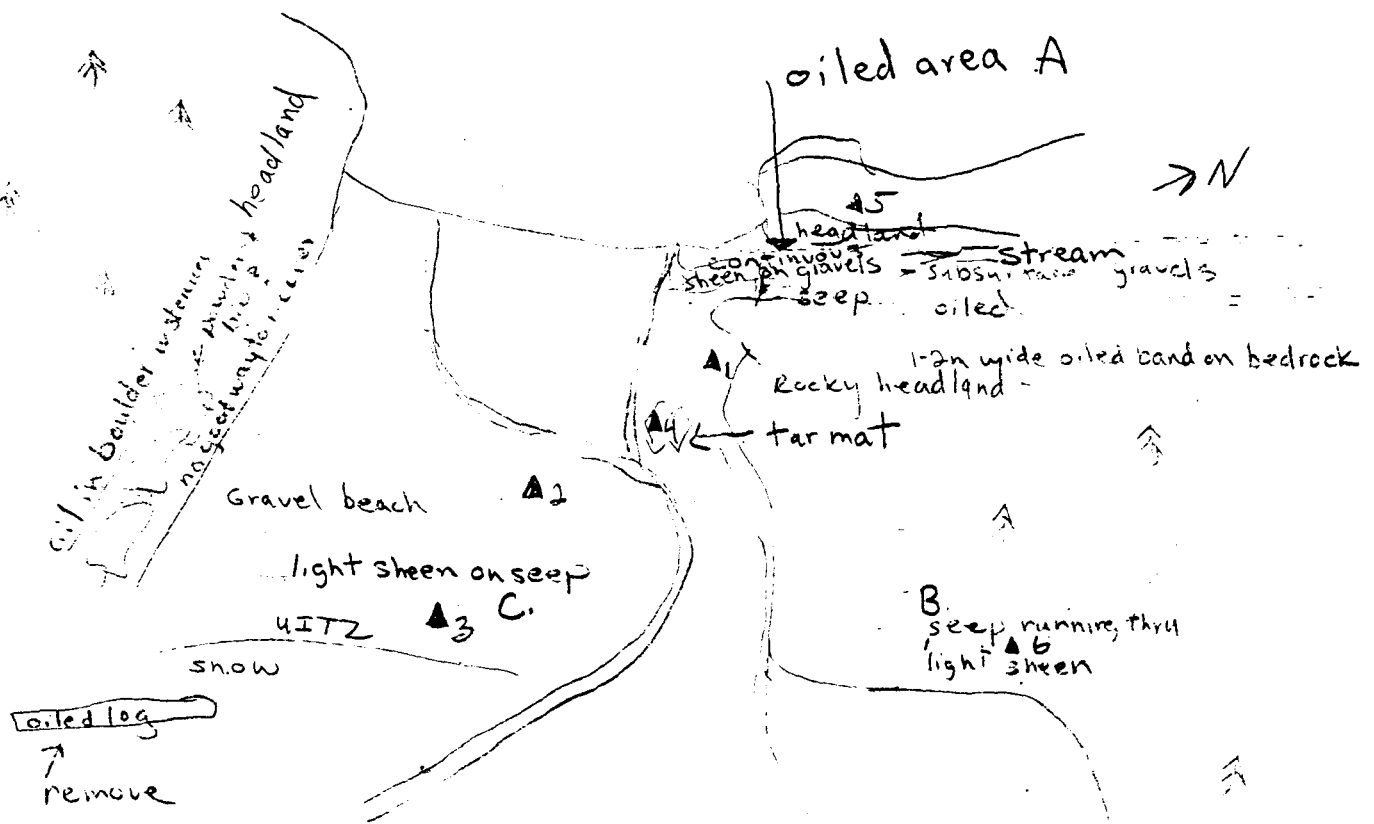
COMMENTS: Oiled area that needs the most attention is on the north bank of the stream near the mouth in the U.I.T.Z. A small stream coming from the north & connecting with main stream contains moderately oiled gravels which when agitated produce a silver to brown sheen. This flow likely feeds a salmon spawning/rearing area.

ACE 7379346 4/S

DESCRIPTION

pit 1 - 20cm 8cm brown oil	pit 2 - 20cm - no vis oil
pit 3 - 18cm no vis oil	pit 4 - 12cm 4cm oil penetration in tar mat
pit 5 - 20cm - 8cm	pit 6 - sheen on water
in tar patty - lt brown	filling pit

46 OIL DISTRIBUTION DIAGRAM



Recommendations-

treat during window period

Bury sorbant boom within & below oiled area A. on north side of stream near mouth turn & agitate oiled gravels & let self flush & collect in sorbants. Place pom-poms below area. Agitate & turn several times at intervals & change sorbants.

Bury, stake & mark sorbants in other sheening areas - B & C & change once or twice depending on oil recovered.

ACE 7379347

Remove oiled debris & tar mats where found

Apply Granular Bioremediation - custom blend to oiled boulder intercesses in Supra ITZ on south side of stream near mouth

photo frame # and

map of site

Do not attempt removal of oil band along bedrock on north side of stream

This beach/tream poses diff. lt treatment
problems. ADFB's suggestions appear to be feasible
and should significantly improve the situation
Ken Cretshaw

ACE 7379348

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

ASC NUMBER: 226-10-16992
 SURVEY TYPE:
 METHOD:
 DATE: 4/21/90
 START TIME:
 STOP TIME:

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

SAMPLES TAKEN?

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

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1							FL/OR
SITE 2							FL
SITE 3							CT
SITE 4						.04	AP
SITE 5							

OVERALL OIL IMPACT: H

.04 m?

OIL IN STREAM CHANNEL?

OIL ON BEACH WITHIN 50M OF STREAM MOUTH?

SUBSTRATE

Bedrock	Granule
Boulder	Sand
Cobble	Silt
Pebble	Veget.

SPECIES					
COUNT					

COMMENTS: Oil on stream banks.

Recommendations - Treat during window period. Bury sorbent boom within & below oiled area A on north side of stream near mouth. Turn & agitate oiled gravels & let self flush & collect in sorbants. Place pom-poms below area. Agitate & turn several times at intervals & change sorbants. Bury, stake, and mark sorbants in other sheening areas - B & C - and change once or twice depending on oil recovered. Remove oiled debris & tar mats where found. Apply granular bioremediation - custom blend to oiled boulder interstices in supra ITZ on south side of stream near mouth.

Do not attempt removal of oil band along
bedrock on north side of stream

San Jo.

This beach/stream poses ~~difficult~~ difficult
treatment problems. NDF+6's suggestions appear to be
feasible and should significantly improve the situation.
Ken Critchlow

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: 4/30/91 16) HIGH TIDE TIME: _____ 22) TEAM RECORDER: Tom Crowe
- 5) START TIME: 1015 17) HIGH TIDE HTS: _____ 23) OBSERVERS: Amee Weskman
- 6) STOP TIME: 1115 18) LOW TIDE TIMES: 0900 24) AGENCY: ADFG
- 7) SEGMENT #: KN500A^{#3} 19) LOW TIDE HTS: -2 25) PHOTOS TAKEN: Y N
- 8) K-UNIT: _____ 20) TIDE HT AT SURVEY: -3 to +1.2 ROLL #: _____ FRAMES: _____
- 9) LAT: _____ Ebb Slack Flood Slack 26) VIDEO TAKEN: Y N
- 10) LONG: _____ 21) USCG QUAD: _____ TAPE #: _____
- 11) ASC #: _____ START: _____ STOP: _____
- 12) STREAM NAME: 226-10-16992 27) SAMPLES TAKEN? Y N
- 13) LOCATION: KNIGHT ISLAND SAMPLE I.D. _____
- 14) WAVE EXPOSURE: High Moderate Low
- 15) SHORELINE TYPE: Headland Low-lying Rocks Beach
- Cove Lagoon Marsh

28) EXTENT OF OIL

	DEPTH LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1	10 cm					5 cm	MOR
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 OVERALL
- VL = $\leq 10\%$ oil coverage regardless of band width
- N = No oil observed
- 33) ANADROMOUS FISH PRESENT: Y N

34) WILDLIFE OBSERVATION

Species	Number
Rock Blennies	3

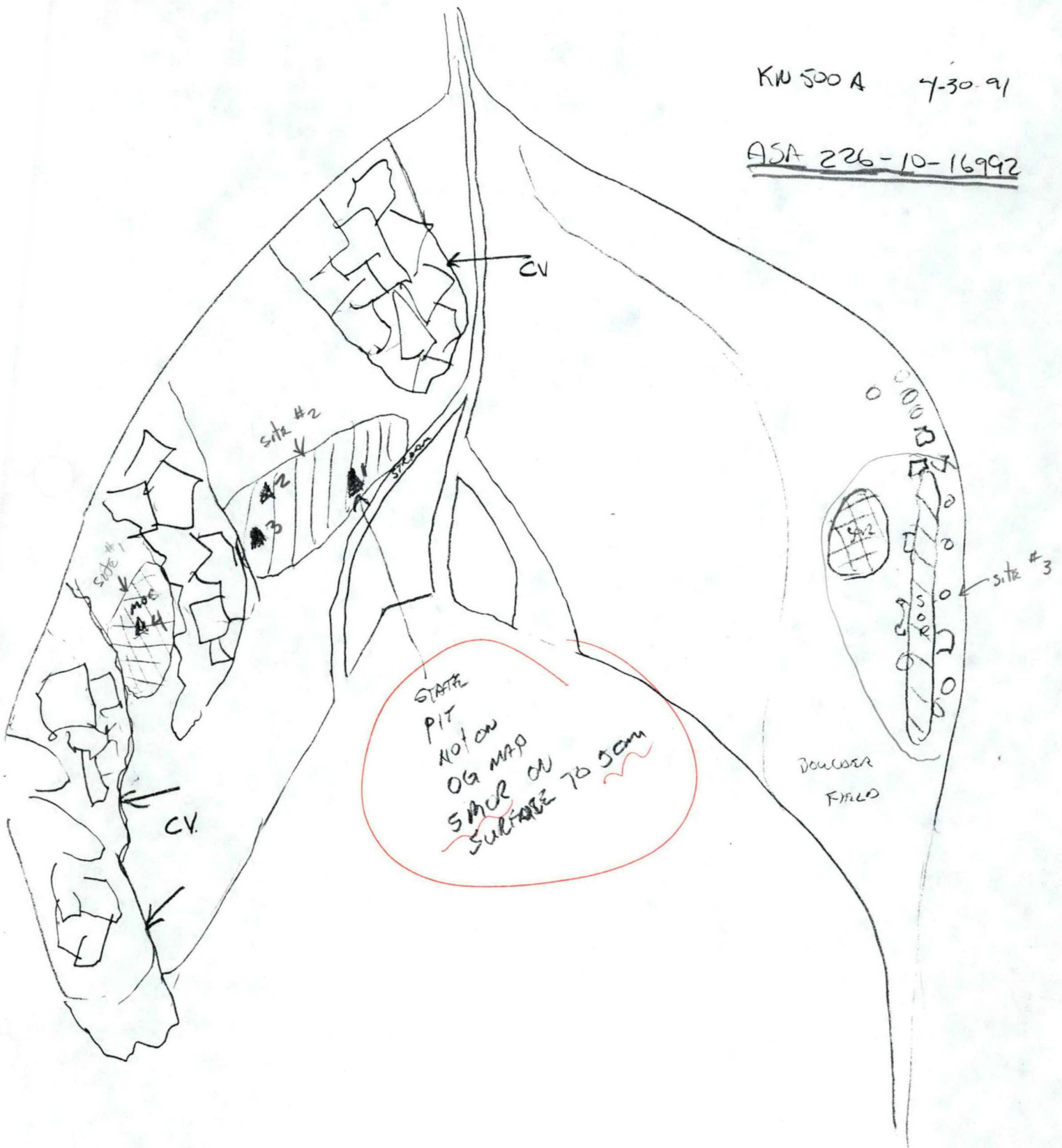
- 30) OIL IN STREAMBED: Y N TWC
- 31) OIL ON BEACH ADJACENT TO MOUTH: Y N
- 32) SUBSTRATE TYPE (PERCENT):

Bedrock 40 Boulder _____ Gravel 60 Sand _____ Cobble _____ Mud/Silt _____

- 35) COMMENTS: BURIED OIL IN SITE #1 AND SITE #2. SITE #2 IS IN
AND DIRECTLY ADJACENT TO THE STREAM FLOW THROUGH THE INTERIOR
AREA. SITE #2 RECOMMEND THOROUGH TILLING IN AND AROUND STREAM
FLOW. SITE #1 ALSO RECOMMEND TILLING TO BRING OILED DEPOSITS
TO THE SURFACE. (SEE MAP FOR SITES)
NOTE: SITE #1 WAS NOT RECORDED ON OG. MAP AS EXCON
ADVISOR DID NOT WANT IT FOR DATA.

KW 500 A 7-30-91

ASA 226-10-16992





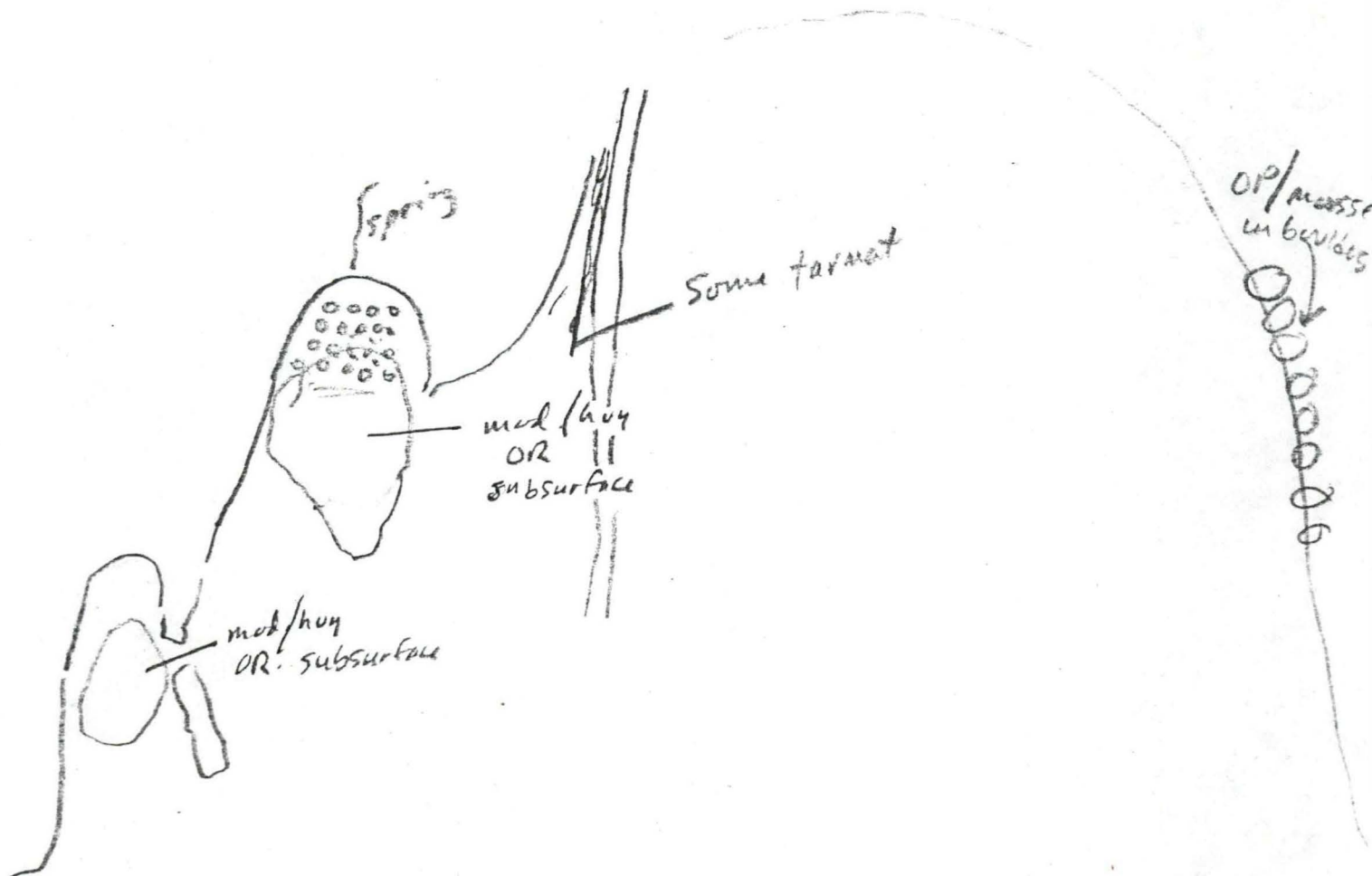
ANADROMOUS FISH STREAMS/OILING CONDITION
PWS

Segment # KN500A ASC# 226-10-16992 Location Knight Is.
Date 8/15/90 Recorder/Observer T. Crowe / R. Gustin
Oil in streambed Yes Oil on streambanks Yes
Oil within 50m of mouth Yes Anadromous Fish present None

Description of oil and comments Oil near stream is primarily
on the north bank - some taromat remains near stream.
large upper T/TZ boulders packed with OP + mussels on
south side. 2 small cores on north side of stream have
buried subsurface oil. It still remains
which present

Rec - Manual removal of heavier OR sediments & manual
or mechanical tilling of remaining oiled sediments AK

Oil Distribution Diagram





Pre-ANADASCAT-90 AJW

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS DS TS AVS SCHA MMS PTA

2 REGION: PWS KP, CI K, AP

METHOD: Aerial Ground Boat

3 DATE: 4-12-90

15 HIGH TIDE TIMES: 1

21 TEAM RECORDER: R. Crutch

4 START TIME: 1237

16 HIGH TIDE HTS: 1

22 OBSERVERS: 1 pilot

5 STOP TIME: 1243

17 LOW TIDE TIMES: 1

23 AGENCY: ADFG HAB

6 SEGMENT #: KN500 NA

18 LOW TIDE HTS: 1

24 PHOTOS TAKEN: Y (N)

7 STATION #:

19 TIDE HT AT SURVEY:

Roll #: Frame:

8 K-UNIT:

Ebb Slack Flood Slack

25 VIDEO TAKEN: Y (N) TAPE#:

9 STAT AREA:

20 USCG QUAD:

Start: End:

10 LAT:

11 LONG:

26 SAMPLES TAKEN? Y (N) Number

12 SOURCE: Map Loran

Oil

13 LOCATION: KNIGHT IS.

Sediment

14 DESCRIPTION: OUTSIDE COAST HERRING BAY

Biological

Water

EXTENT OF OIL

27 SURFACE COVERAGE

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

28 SURFACE THICKNESS

29 PENETRATION

30 OVERALL OIL IMPACT: N VL L M H

31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain

32 OILED DEBRIS? (Y) N

33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cove

Lagoon Marsh

34 WAVE EXPOSURE: High Moderate Low

35 SUBSTRATE TYPE: Bedrock Boulder Cobble

Gravel Sand Mud/silt

36 CATALOGED ANAD. FISH STREAM? (Y) (N) AJW

37 CATALOG #: 22610-16992 AJW

38 STREAM NAME:

39 OIL IN STREAM BED? (Y) N

40 OIL ON STREAM BANKS? (Y) N

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

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

Where: Everywhere

43 ANADROMOUS FISH PRESENT? Y N

44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground

COMMENTS:

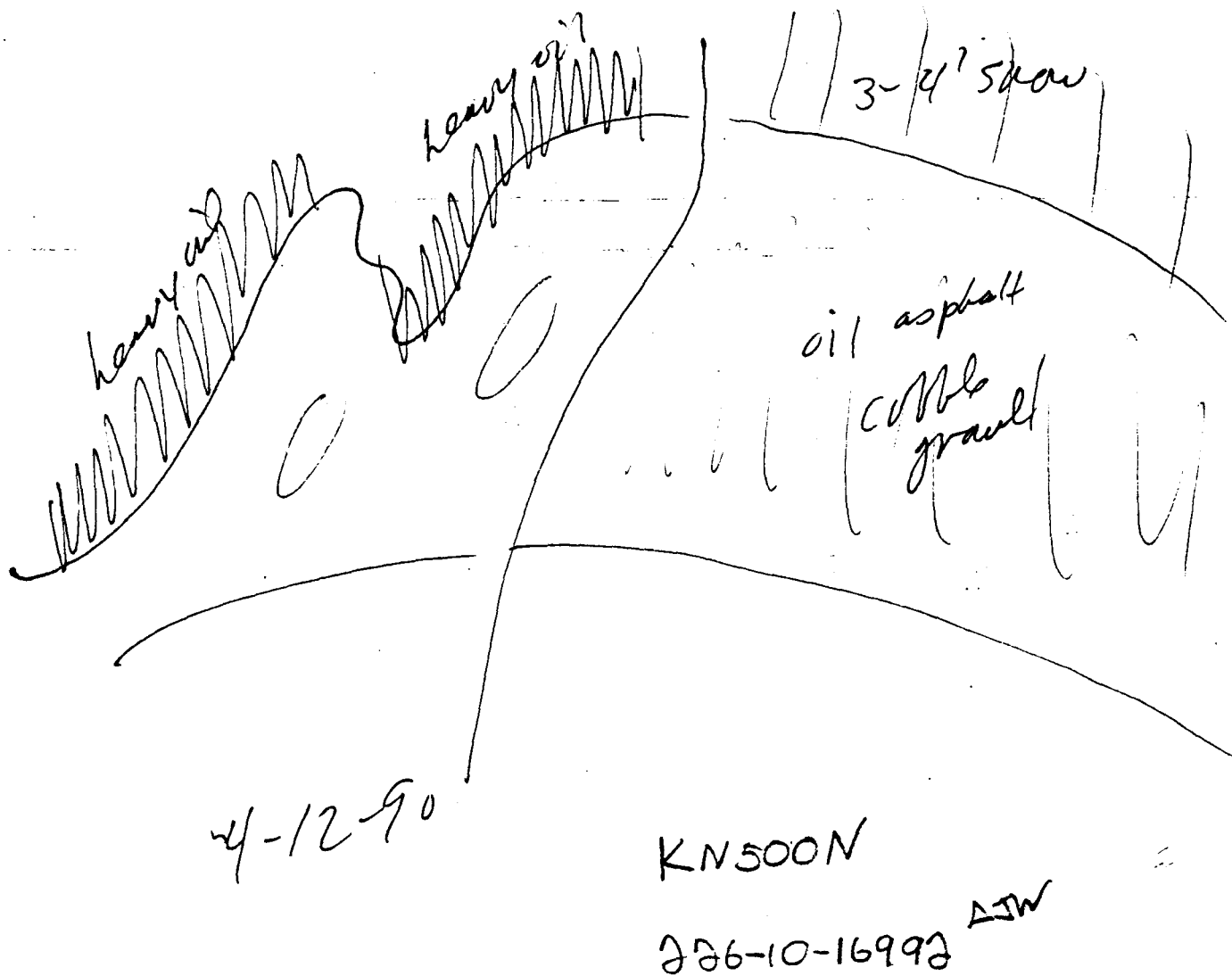
dead oiled debris everywhere / weeks of oil
heavy oil bands on cliffs

(dredge)

ACE 7379369 +/S

NAME(S)

DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM

- Sample taken
- Photo frame # and shot direction.

ACE 7379370
-7L/S/AC/RT/FF

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

ASC NUMBER: 226-10-16992	TEAM RECORDER:
SURVEY TYPE:	OBSERVERS:
METHOD:	
DATE: 4/12/90	AGENCY(IES):
START TIME:	PHOTOS TAKEN?
STOP TIME:	Roll #: Frames:
	VIDEO TAKEN? Tape Number:
	Counter Start:

SAMPLES TAKEN?

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

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1							AP
SITE 2							MS
SITE 3							CT/CV
SITE 4							
SITE 5							

OVERALL OIL IMPACT:

OIL IN STREAM CHANNEL? Y

OIL ON BEACH WITHIN 50M OF STREAM MOUTH?

SUBSTRATE	
Bedrock	Granule
Boulder	Sand
Cobble	Silt
Pebble	Veget.

SPECIES					
COUNT					

COMMENTS: Oil on stream banks

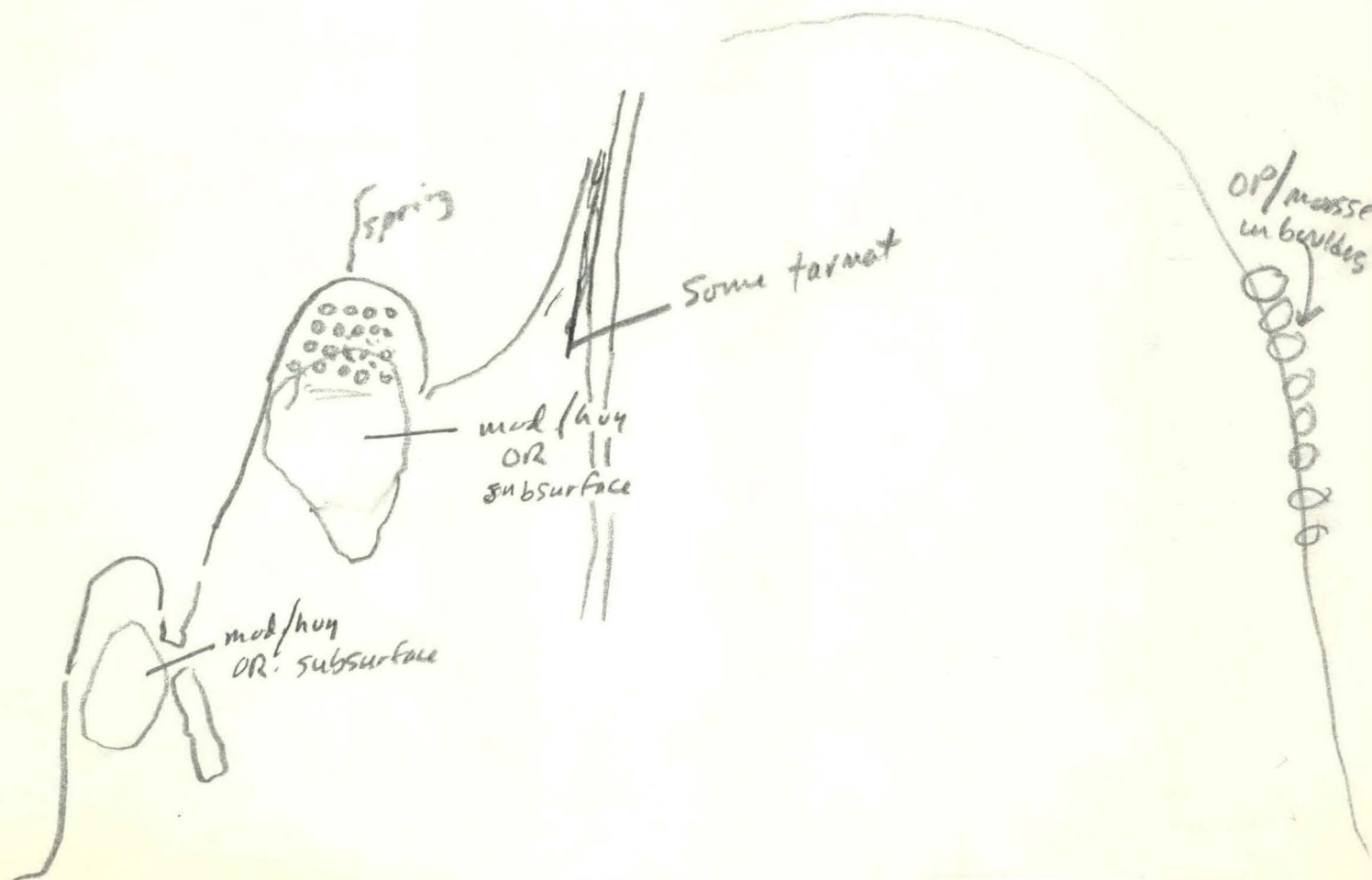
ANADROMOUS FISH STREAMS/OILING CONDITION
PWS

Segment # KN500A ASC# 226-10-16992 Location Knight Is.
Date 8/15/90 Recorder/Observer T. Crowe / R. Gustin
Oil in streambed Yes Oil on streambanks Yes
Oil within 50m of mouth Yes Anadromous Fish present None

Description of oil and comments Oil near stream is primarily
on the north bank - some tar mat remains near stream.
large upper ITZ boulders packed with OP + mucus on
south side. 2 small cores on north side of stream have
buried subsurface oil. It still remains.
no fish present

Rec - Manual removal of heavier OR sediments & manual
or mechanical tilling of remaining oiled sediments plus

Oil Distribution Diagram



ASAP FOI OWUP RECOMMENDATIONS

Stream in site #3 ?

Segment: ASI KN-500 Subd.: A Site: 4 Date: 8/8 1990

Conditions Observed: Lens of subsurface oil OR/H+m
also interval to form into to U T 25. See OG oiling summary.

Depth of lens N/A boulders or bedrocks below 40cm. at test
pits.

Followup Recommendations: _____

Completed by Pickup Crew: ☐ YES ☐ NO

Priority for Addressing in 1990: ☐ High ☐ Mod. ☐ Low

ADEC John Hays (name) [Signature] (signature)

Comments: (1) Mechanically till (2) Remove any mousse or oil sediments
(3) Deploy snare booms (4) Wash if necessary (5) Retill if necessary
(6) Bioremediate.

Bxxon Martinez M.D. (name) [Signature] (signature)

Comments: No action needed winter storm will get
encouraging oil sub surface oil is deep & no
threat

USCG MICHAEL D. BROWN (name) [Signature] (signature)

Comments: NO ACTION REQUIRED

Land Rep. DOUGLAS GIBSON (name) [Signature] (signature)

Comments: NO FOLLOWUP REQUIRED.

ASAP SHOP LINE OILING SUMMARY
SEGMENT AS/ KN-500 SUBDIVISION A

PAGE 204

SURFACE OIL (CONTINUED)

SITE 4									SITE									SITE																
CHARACTER	DISTRIBUTION				OILED ZONES						DISTRIBUTION				OILED ZONES								DISTRIBUTION				OILED ZONES							
	/C	/B	/P	/S	SU	UI	M	L			/C	/B	/P	/S	SU	UI	M	L					/C	/B	/P	/S	SU	UI	M	L				
ASPHALT																																		
S.O.R.																																		
POOLED																																		
COVER																																		
COAT				X		X																												
STAIN																																		
MOUSSE																																		
PATTIES/T.B.																																		
FILM																																		
NO OIL					X		X	X																										
EST. SITE LENGTH					240																													

SUBSURFACE OIL (CONTINUED)

SITE NO.	PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER				OILED INTERVAL (CM-CL)	CLEAN BELOW (Y/N)	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS
			OP	OR	OF	NO			SU	UI	MI	LI	
4	1	40		M			30-40	N		X			P-GPB
	2	20		H			5-12	Y		X			PC-PGC
	3	35		H			25-35	N			X		P-PGCB
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COMMENTS

ACE 7379335

ASAP SHORELINE OILING SUMMARY

PAGE 1 OF 2

NAME MARTINEZ EXXO BROWN SEGMENT KN-500
 USCC BROWN SUBDIVISION A
 LAND REP GIBSON TOTAL NO. SITES 4
 TIME 10:15 to 11:40 TIDE LEVEL -1 to +2

LENGTH OF SHORELINE SURVEYED: 620 m

ED FROM: ☒ Foot ☐ Boat ☐ Helo WEATHER: ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 CATEGORY LENGTH: W 20 m M 15 m N 25 m VL 90 m NO 370 m US 1555 m

SURFACE OIL

SITE 1

SITE 2

SITE 3

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SU	UI	MI	LI
ASPHALT								
S.O.R.		M				M	M	
POOLED								
COVER								
COAT				X		X		
STAIN								
MOUSSE								
PATTIES/T.B.								
FILM		X					X	X
NO OIL					X			
EST. SITE LENGTH					170			

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SU	UI	MI	LI
ASPHALT								
S.O.R.								
POOLED								
COVER								
COAT								
STAIN								
MOUSSE								
PATTIES/T.B.								
FILM								
NO OIL					X		X	X
EST. SITE LENGTH					80			

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SU	UI	MI	LI
ASPHALT								
S.O.R.	M	M				M	M	
POOLED								
COVER								
COAT								
STAIN								
MOUSSE								
PATTIES/T.B.								
FILM								
NO OIL					X			X
EST. SITE LENGTH					130			

SUBSURFACE OIL

SITE NO.	PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER				OILED INTERVAL (CM-CM)	CLEAN BELOW (Y/N)	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS
			OP	OR	OF	NO			SU	UI	MI	LI	
1	1	30		H			0-14	Y		X			BC-G-Pent
	2	30		M			5-10	Y			X		P-PG-Pent
	3	20		M			5-10	Y		X			P-G-P/M
							.						
2	1	35		H			20-35	N			X		P-G-PSC
	2	20				X	.				X		P-G-P/M
							.						
3	1	20		M			0-20	N		X			BC-PG
	2	30		M			5-30	N			X		P-PG
	3	40		M			5-30	Y			X		P-GP
	4	20				X	10-20	Y			X		P-PG-Rock
							.						

Photographs:

Roll No. 177

Frames 15

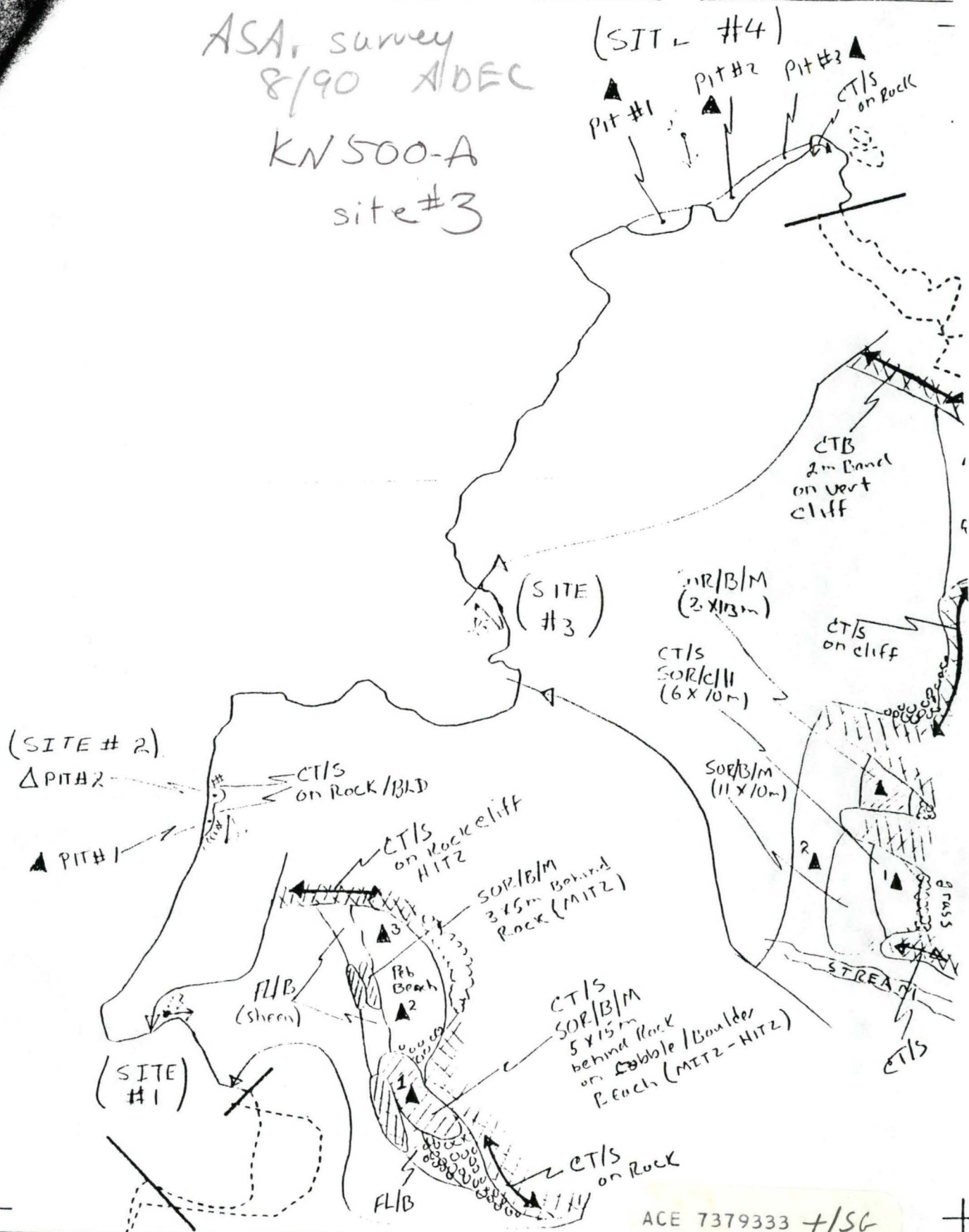
Location filled
water filled

COMMENTS Rocky shoreline with intermittent thick oil. Four sites were surveyed with significant surface oiling only at sites 1 and 3, where SOR moderate and heavy areas were found. Subsurface OR was found in pits at all four sites.

REVISION NO. 7/27/90

ACE 7379334

ASA, survey
8/90 ADEC
KN500-A
site #3



ACE 7379333 +/SG

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

KN-500 A
ADEC Subsegment Length: 2175m
METERS
AK State Plane Zone 4 1:6810
kkn-500a

Subdivision Field No
Map Key: KNIK-500A
Name: Reimer
Date: 8/18/90
Date Entered:

ADEC BIOREMEDIATION DAILY REPORT

DATE: 8/24/90

ADEC Monitor: Rowann Hudnall

TIDES: TIME: HEIGHT:
 Low 10:18 0.7
 High 04:17 11.7
 Low 22:49 0.7
 High 16:32 12.6

WEATHER: Cloudy Rain Fog (Sun)
 TEMP: 65 SEA COND: Calm
 WIND DIR: N-NE-E-SE-S-SW-W-NW
 WIND SPEED (0-15) 16-30 30+

USCG Dan Percy Exxon Frank Box
 OOPS James Byars Other _____

OGS Dan Mann, Bill Barstow

Segment	Sub	No. Sites	Inipol (gal)	Custom (lbs.)	Comments
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KN104	A	3	13	37.5	
KN105	B	1	0	21.5	
KN110	A	3	0	51	
KN111	A	7	85.5	237	
KN115	A	3	24.5	86	
KN122	A	2	52	26	
KN132	B	1	162	80	
KN500	A-S	3	0	134	
KN500	B	2	70	1110	
KN500	B-S	2			
KN502	A	13	0	202.5	
KN508	A	4	4	46	
KN701	B	1	0	61	
KN701	B-S	1	0	28	
KN702	A	5	57	58	
KN702	B	5	34.5	49.5	
KN703	A	10	12.5	80	

same area KN500 B + KN500 B-S overlap

\\shorelin\rowann\biorept 8/7/90

SLO1 C 6 0 40.5

ADEC BIOREMEDIATION DAILY REPORT

DATE: 8/24/90

ADEC Monitor: Rowann Hudnall

TIDES: TIME: HEIGHT:
 Low 10:18 0.7
 High 04:17 11.7
 Low 22:49 0.7
 High 16:32 12.6

WEATHER: Cloudy Rain Fog (Sun)
 TEMP: 65 SEA COND: Calm
 WIND DIR: N-NE-E-SE-S-SW-W-NW
 WIND SPEED 0-15 16-30 30+

USCG Dan Pearcey Exxon Frank Box
 OOPS James Byars Other _____

OGS Dan Mann, Bill Barstow

Segment Sub No. Inipol Custom Comments
 Sites (gal) (lbs.)

KN104	A	3	13	37.5
KN105	B	1	0	21.5
KN110	A	3	0	51
KN111	A	7	85.5	237
KN115	A	3	24.5	86
KN122	A	2	52	26
KN132	B	1	162	80
KN500	A-S	3	0	134
KN500	B	2	70	1110
KN500	B-S	2		
KN502	A	13	0	202.5
KN504	A	4	4	46
KN701	B	1	0	61
KN701	B-S	1	0	28
KN702	A	5	57	58
KN702	B	5	34.5	49.5
KN703	A	10	12.5	80

same area KN500 B
 + KN500 B-S overlap

\shorelin\rowann\biorept 8/7/90

SLO1 C 6 0 40.5

ADEC BIOREMEDIATION DAILY REPORT

DATE: 8/24/90

ADEC Monitor: Rowann Hudnall

TIDES: TIME: HEIGHT:
 Low 10:18 0.7
 High 04:17 11.7
 Low 22:49 0.7
 High 16:32 12.6

WEATHER: Cloudy Rain Fog (Sun)
 TEMP: 65 SEA COND: Calm
 WIND DIR: N-NE-E-SE-S-SW-W-NW
 WIND SPEED (0-15) 16-30 30+

USCG Dan Pearcey Exxon Frank Boy
 OOPS James Byars Other _____

OGS Dan Mann, Bill Barstow

Segment Sub No. Inipol Custom Comments
 Sites (gal) (lbs.)

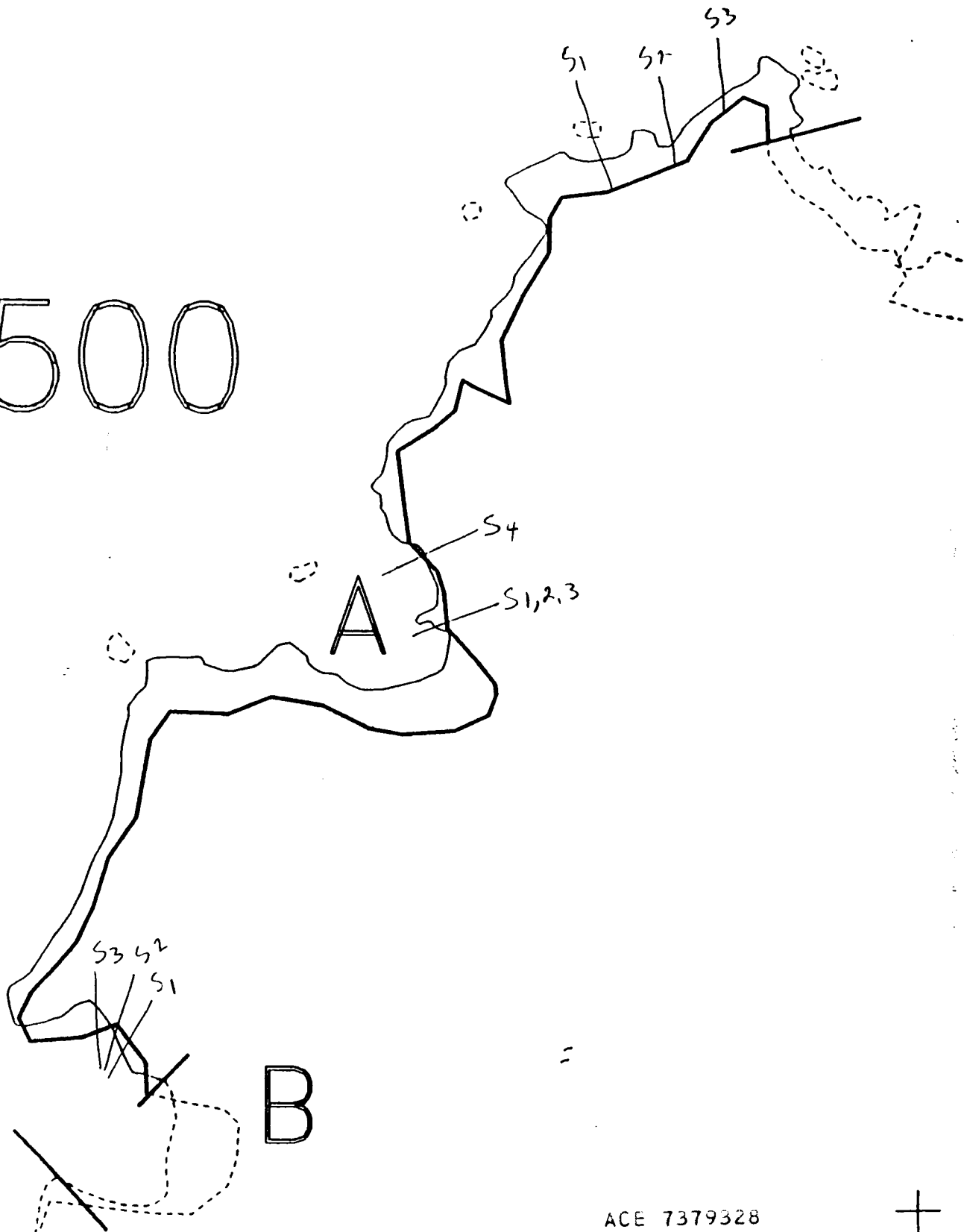
KN104	A	3	13	37.5
KN105	B	1	0	21.5
KN110	A	3	0	51
KN111	A	7	85.5	237
KN115	A	3	24.5	86
KN122	A	2	52	26
KN132	B	1	162	80
KN500	A-S	3	0	134
KN500	B	2	70	1110
KN500	B-S	2		
KN502	A	13	0	202.5
KN508	A	4	4	46
KN701	B	1	0	61
KN701	B-S	1	0	28
KN702	A	5	57	58
KN702	B	5	34.5	49.5
KN703	A	10	12.5	80

same area KN500 B
 + KN500 B-S overlap

\shorelin\rowann\biorept 8/7/90

SLO1 C 6 0 40.5

N-500



ACE 7379328

XXXX
////

TTTT
0000

Wide
Medium
Narrow
Very Light
No Oil

KN-500 A

ADEC Subsegment Length: 2175m

METERS

0 173 340

AK State Plane Zone 4 1:6010
kkn-500a



Subdivision Field Map

Map Key: KNIK-500A

Name: Reimer

Date: 8/8/90

Data Entered:

SURFACE OIL (CONTINUED)

SITE 4									SITE									SITE												
CHARACTER	DISTRIBUTION				OILED ZONES						DISTRIBUTION				OILED ZONES						DISTRIBUTION				OILED ZONES					
	/C	/B	/P	/S	SU	UI	MI	LI			/C	/B	/P	/S	SU	UI	MI	LI			/C	/B	/P	/S	SU	UI	MI	LI		
ASPHALT																														
S.O.R.																														
POOLED																														
COVER																														
COAT				X		X																								
STAIN																														
MOUSSE																														
PATTIES/T.B.																														
FILM																														
NO OIL					X		X	X																						
EST. SITE LENGTH					240																									

SUBSURFACE OIL (CONTINUED)

SITE NO.	PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER				OILED INTERVAL (cm-clm)	CLEAN BELOW (Y/N)	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS
			OP	OR	OF	NO			SU	UI	MI	LI	
4	1	40		M			30-40	N		X			P-GPB
	2	20		H			5-12	Y		X			PC-PGC
	3	35		H			25-35	N			X		P-PGCB
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COMMENTS

GENERAL DATA

SEG ID: KN-500 SBDV: A SITE: 4 TEAM: 1 DATE: 8/8/90
SITE LGTH 240 OIL CATEGORIES: W 20 M 15 N 25 VL 190 NO 370 U 155.5
1991 REASSESSMENT: USCG: N ADEC: 4 LDMGR: NO EXXON: N

SURFACE DATA

CHAR #: 1 OIL CHAR: CT OIL DIST: CONT — BRKN — PTCH — SPLH X
TIDAL ZONE: SU — UI X MI — LI —

CHAR #: 2 OIL CHAR: NO OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU X UI — MI X LI X

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

ASAP DATA ENTRY FORM

SUBSURFACE DATA

PAGE 2 OF 2SEGMENT ID: KN-500 SUBDIV: A SITE: 4PIT # 1 PIT DEPTH 40 OIL CHARACTER OR OIL INTVAL: FROM 30 TO 40
CLEAN BELOW: N PIT ZONE: SU - UI X MI - LI -SUBSURF SEDIMENT: BRK - BLD X COB - PEB X GRN X SAN - MUD - VEG -PIT # 2 PIT DEPTH 20 OIL CHARACTER OR OIL INTVAL: FROM 5 TO 12
CLEAN BELOW: Y PIT ZONE: SU - UI X MI - LI -SUBSURF SEDIMENT: BRK - BLD - COB X PEB X GRN X SAN - MUD - VEG -PIT # 3 PIT DEPTH 35 OIL CHARACTER OR OIL INTVAL: FROM 25 TO 35
CLEAN BELOW: N PIT ZONE: SU - UI - MI X LI -SUBSURF SEDIMENT: BRK - BLD X COB X PEB X GRN X SAN - MUD - VEG -PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO
CLEAN BELOW: PIT ZONE: SU UI MI LI SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO
CLEAN BELOW: PIT ZONE: SU UI MI LI SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO
CLEAN BELOW: PIT ZONE: SU UI MI LI SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO
CLEAN BELOW: PIT ZONE: SU UI MI LI SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO
CLEAN BELOW: PIT ZONE: SU UI MI LI SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO
CLEAN BELOW: PIT ZONE: SU UI MI LI SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

FIELD SHORELINE COMMENT SHEET

SEGMENT AS KN-500 SUBDIVISION: A SITE: 4 DATE 8/8/90**USCG**NAME Mr. Michael D. Brown SIGNATURE Michael D. Brown☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:**ADEC**NAME John Hayes SIGNATURE John Hayes☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

sub-surface Work plan modification sent in addressing the
oiling in the M+V TZ's.

LAND MANAGERNAME DOUGLAS GIBSON SIGNATURE Douglas Gibson☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:**EXXON**NAME Martinez NJ. SIGNATURE Nicholas G. Martinez☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

Given the degree + type of oiling I
would rate this as a moderate priority.

SEGMENT AS / KN-500 SUBDIVISION: A SITE: 3 DATE 8/8/90**USCG**NAME Mr. MICHAEL D. BROWN SIGNATURE Michael D. Brown☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:**ADEC**NAME John Hayer SIGNATURE John Hayer☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

Extensive surface SOR & subsurface OR/m
oiling at this site.

LAND MANAGERNAME DOUGLAS GIBSON SIGNATURE Douglas Gibson☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

low priority site for reassessment in 1991

EXXONNAME Martinez M.L. SIGNATURE Richard J. Martinez☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

Due to the relatively small area oiled
& the type I would give this moderate
priority.

ASAP DATA ENTRY FORM

SUBSURFACE DATA

PAGE 2 OF 2

SEGMENT ID: KN-500 SUBDIV: A SITE: 2

PIT # 1 PIT DEPTH 35 OIL CHARACTER OR OIL INTVAL: FROM 20 TO 35
 CLEAN BELOW: N PIT ZONE: SU - UI - MI X LI -

SUBSURF SEDIMENT: BRK - BLD - COB X PEB X GRN X SAN X MUD - VEG -

PIT # 2 PIT DEPTH 20 OIL CHARACTER NO OIL INTVAL: FROM - TO -
 CLEAN BELOW: - PIT ZONE: SU - UI - MI X LI -

SUBSURF SEDIMENT: BRK - BLD - COB - PEB X GRN X SAN - MUD X VEG -

PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO
 CLEAN BELOW: PIT ZONE: SU UI MI LI

SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO
 CLEAN BELOW: PIT ZONE: SU UI MI LI

SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO
 CLEAN BELOW: PIT ZONE: SU UI MI LI

SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO
 CLEAN BELOW: PIT ZONE: SU UI MI LI

SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO
 CLEAN BELOW: PIT ZONE: SU UI MI LI

SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO
 CLEAN BELOW: PIT ZONE: SU UI MI LI

SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO
 CLEAN BELOW: PIT ZONE: SU UI MI LI

SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

GENERAL DATA

SEG ID: KN-500 SBDV: A SITE: 2 TEAM: 1 DATE: 8/8/90
SITE LGTH 80 OIL CATEGORIES: W 20 M 15 N 25 VL 190 NO 370 U 1555
1991 REASSESSMENT: USCG: N ADEC: N LDMGR: N EXXON:

SURFACE DATA

CHAR #: 1 OIL CHAR: CT OIL DIST: CONT — BRKN — PTCH — SPLH X
TIDAL ZONE: SU — UI X MI — LI —

CHAR #: 2 OIL CHAR: NO OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU X UI — MI X LI X

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

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

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

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

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

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

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

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

FIELD SHORELINE COMMENT SHEET

SEGMENT AS KN-500 SUBDIVISION: A SITE: 2 DATE 8/8/90**USCG**NAME Mr. Michael D. Brown SIGNATURE Michael D. Brown☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:**ADEC**NAME John Hayer SIGNATURE John Hayer☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:No treatment necessary at this time.**LAND MANAGER**NAME DOUGLAS GIBSON SIGNATURE Douglas Gibson☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:**EXXON**NAME Martinez N.J. SIGNATURE Nicholas J. Martinez☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

ASAP DATA ENTRY FORM

SUBSURFACE DATA

PAGE 2 OF 2SEGMENT ID: KN-500 SUBDIV: A SITE: 1PIT # 1 PIT DEPTH 30 OIL CHARACTER OR OIL INTVAL: FROM 0 TO 14
CLEAN BELOW: Y PIT ZONE: SU - UI X MI - LI -SUBSURF SEDIMENT: BRK - BLD - COB - PEB - GRN X SAN - MUD - VEG -PIT # 2 PIT DEPTH 30 OIL CHARACTER OR OIL INTVAL: FROM 5 TO 10
CLEAN BELOW: Y PIT ZONE: SU - UI - MI X LI -SUBSURF SEDIMENT: BRK - BLD - COB - PEB X GRN X SAN - MUD - VEG -PIT # 3 PIT DEPTH 20 OIL CHARACTER OR OIL INTVAL: FROM 5 TO 10
CLEAN BELOW: Y PIT ZONE: SU - UI X MI - LI -SUBSURF SEDIMENT: BRK - BLD - COB - PEB X GRN X SAN - MUD X VEG -PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO CLEAN BELOW: PIT ZONE: SU UI MI LI SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO CLEAN BELOW: PIT ZONE: SU UI MI LI SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO CLEAN BELOW: PIT ZONE: SU UI MI LI SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO CLEAN BELOW: PIT ZONE: SU UI MI LI SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO CLEAN BELOW: PIT ZONE: SU UI MI LI SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO CLEAN BELOW: PIT ZONE: SU UI MI LI SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

GENERAL DATA

SEG ID: KN-500 SBDV: A SITE: 1 TEAM: 1 DATE: 8/8/90
SITE LGTH 170 OIL CATEGORIES: W20 M15 N25 VL190 NO370 U1555
1991 REASSESSMENT: USCG: N ADEC: 4 LDMGR: 4 EXXON: N

SURFACE DATA

CHAR #: 1 OIL CHAR: SOR OIL DIST: CONT - BRKN M PTCH - SPLH -
TIDAL ZONE: SU - UI M MI M LI -

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

CHAR #: 3 OIL CHAR: FL OIL DIST: CONT - BRKN X PTCH - SPLH -
TIDAL ZONE: SU - UI - MI X LI X

CHAR #: 4 OIL CHAR: NO OIL DIST: CONT - BRKN - PTCH - SPLH -
TIDAL ZONE: SU X UI - MI - LI -

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

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

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

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

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

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

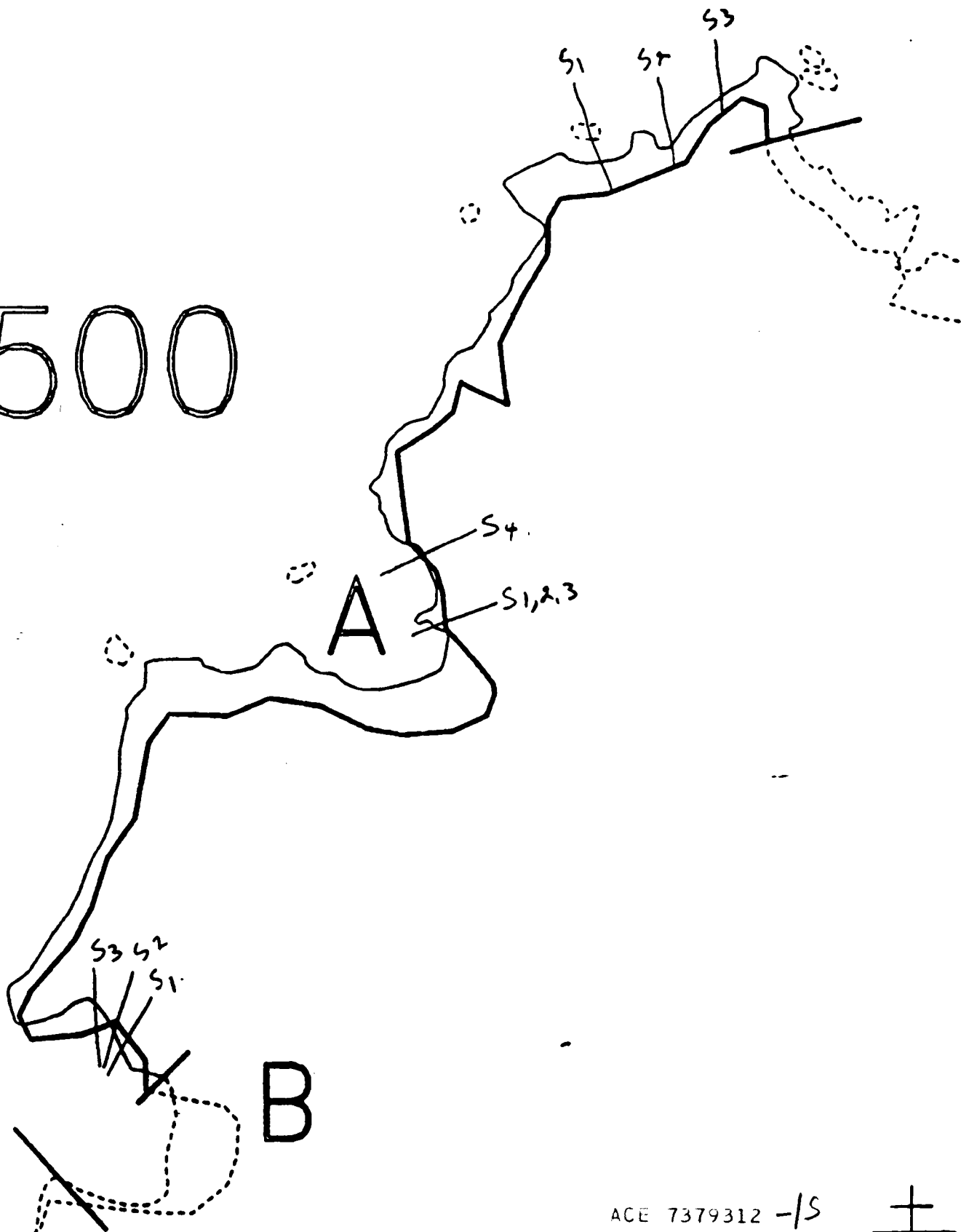
FIELD SHORELINE COMMENT SHEET

SEGMENT AS/ KN-500 SUBDIVISION: A SITE: 1 DATE 8/8/90USCGNAME NOTE Michael D. Brown SIGNATURE Michael D. Brown☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

ASC 226-10-16992

ADECNAME John Hayes SIGNATURE [Signature]☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:Followup Recommendation sent in regarding this beach.
addressing the subsurface oiling see O&G oiling summary.LAND MANAGERNAME DOUGLAS GIBSON SIGNATURE Douglas Gibson☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:Recommend low priority site for
reassessment in 1991EXXONNAME Martinez N.W. SIGNATURE Nicholas G. Martinez☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

KN-500



ACE 7379312 -15

XXXX
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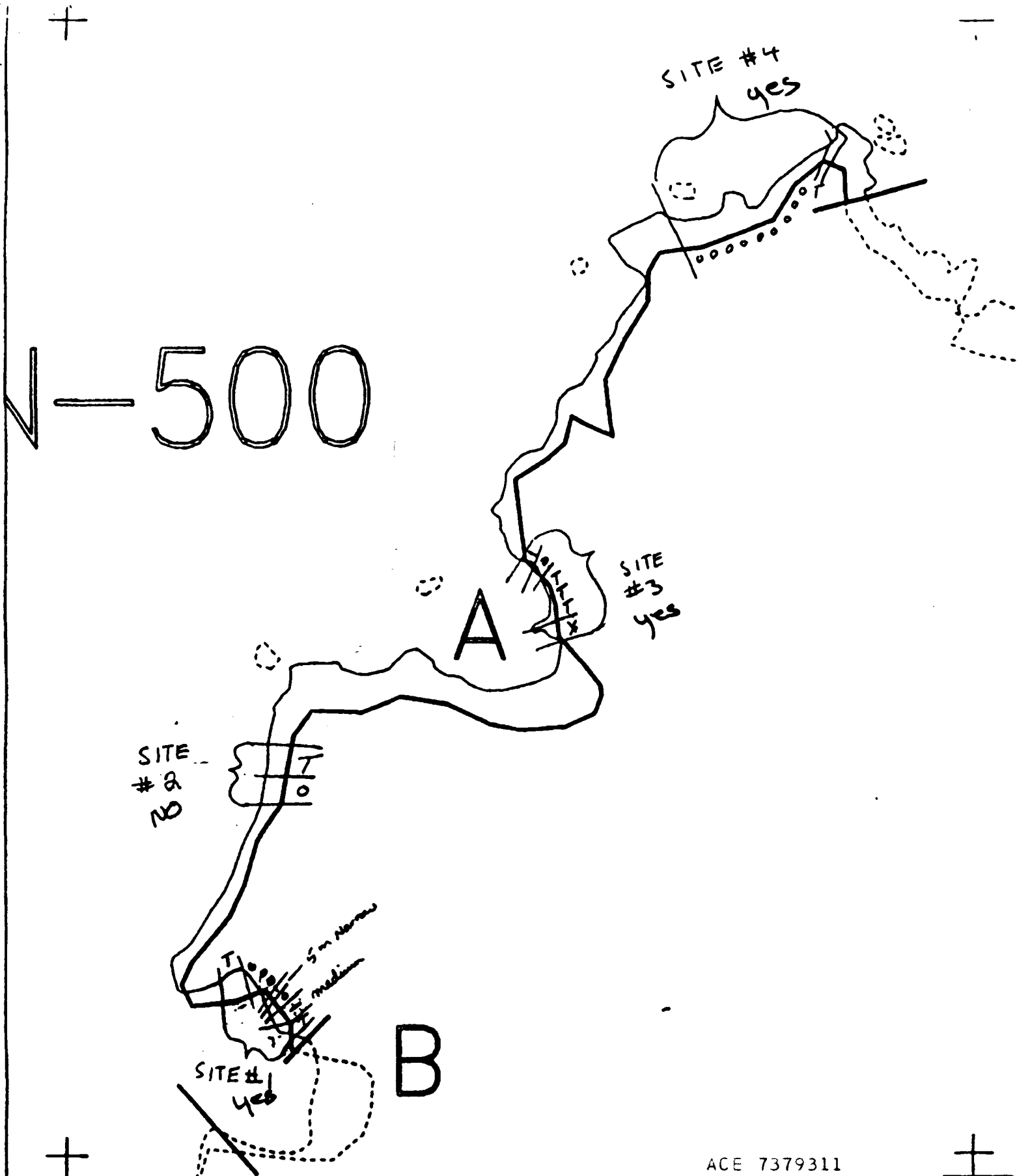
TTTT
0000

Wide
Medium
Narrow
Very Light
No Oil

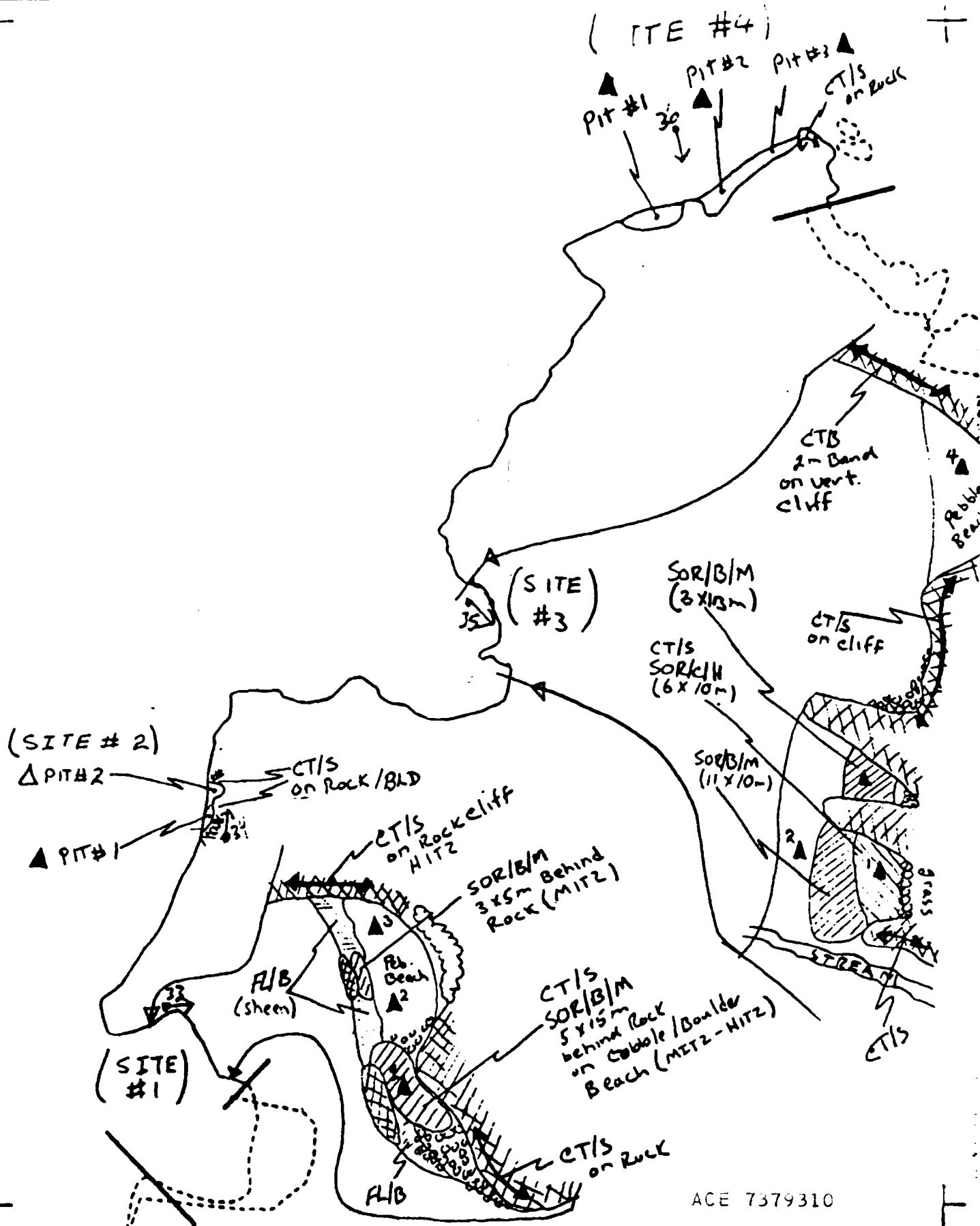
KN-500 A
ADEC Subsegment Length: 2175m
METERS
0 175 340
AK State Plane Zone 4 1:0010



Subdivision Field Map
Map Key: KNIK-500A
Name: Reimer
Date: 8/8/90



XXXX	Wide	KN-500 A ADEC Subsegment Length: 2175m METERS 0 173 340 AK State Plane Zone 4 1:0010	Subdivision Field Map
////	Medium		Map Key: KNKN-500A
---	Narrow		Name: <u>Reimer</u>
TTTT	Very Light		Date: <u>8/8/90</u>
oooo	No Oil		



ACE 7379310

XXXX
////

TTTT
0000

Wide
Medium
Narrow
Very Light
No Oil

KN-500 A
ADEC Subsegment Length: 2175m
METERS

0 175 340
AK State Plane Zone 4 1:8810



Subdivision Field Map
Map Key: KNKN-500A
Name: Reimer
Date: 8/8/90
Data Colored.

SURFACE OIL (CONTINUED)

SITE 4									SITE									SITE												
CHARACTER	DISTRIBUTION				OILED ZONES						DISTRIBUTION				OILED ZONES						DISTRIBUTION				OILED ZONES					
	/C	/B	/P	/S	SU	U	M	L			/C	/B	/P	/S	SU	U	M	L			/C	/B	/P	/S	SU	U	M	L		
ASPHALT																														
S.O.R.																														
POOLED																														
COVER																														
COAT				X		X																								
STAIN																														
MOUSSE																														
PATTIES/T.B.																														
FILM																														
NO OIL					X		X	X																						
EST. SITE LENGTH					240																									

SUBSURFACE OIL (CONTINUED)

SITE NO.	PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER				OILED INTERVAL (cm)	CLEAN BELOW (Y/N)	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS
			OP	OR	OF	NO			SU	U	M	L	
4	1	40		M			30-40	N		X			P-GPB
	2	20		H			5-12	Y		X			PC-PGC
	3	35		H			25-35	N			X		P-PGCCB
							.						
							.						
							.						
							.						
							.						
							.						
							.						
							.						
							.						
							.						

REVIEWED
8/10/90 T/V

COMMENTS

TEAM NO ONE EXXON MARTINEZ SEGMENT AS 1A-500
 OG Reimer ISCG BROWN DIVISION A
 ADEC HAYES LAND REP GIBSON TOTAL NO. SITES 4
 DATE 8/8/90 TIME 10:15 to 11:40 TIDE LEVEL -1 to +2
 TOTAL EST LENGTH OF SHORELINE SURVEYED: 620 m
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WEATHER: ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 OIL CATEGORY LENGTH: W 20 m M 15 m N 25 m VL 90 m NO 370 m US 155 m

SURFACE OIL

SITE 1

SITE 2

SITE 3

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SU	UI	MI	LI
ASPHALT								
S.O.R.		M				M	M	
POOLED								
COVER								
COAT				X		X		
STAIN								
MOUSSE								
PATTIES/T.B.								
FILM		X					X	X
NO OIL					X			
EST. SITE LENGTH					/70			

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SU	UI	MI	LI
ASPHALT								
S.O.R.								
POOLED								
COVER								
COAT				X		X		
STAIN								
MOUSSE								
PATTIES/T.B.								
FILM								
NO OIL					X		X	X
EST. SITE LENGTH					80			

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SU	UI	MI	LI
ASPHALT								
S.O.R.		M				M	M	
POOLED								
COVER								
COAT				X		X		
STAIN								
MOUSSE								
PATTIES/T.B.								
FILM								
NO OIL					X			X
EST. SITE LENGTH					130			

SUBSURFACE OIL

SITE NO.	PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER				OILED INTERVAL (cm)	CLEAN BELOW (Y/N)	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS
			OP	OR	OF	NO			SU	UI	MI	LI	
1	1	30		H			0-14	Y		X			BC-G-Peat
	2	30		M			5-10	Y			X		P-PG-Peat
	3	20		M			5-10	Y		X			P-GPM
							.						
2	1	35		H			20-35	N			X		P-GPSC
	2	20				X	.				X		P-GPM
							.						
3	1	20		M			0-20	N		X			BC-PG
	2	30		M			5-30	N			X		P-PG
	3	40		M			5-30	Y			X		P-GP
	4	20				X	10-20	Y			X		P-PGCRock
							.						

Photographs:

Roll No. ASAP-8-03

Frames 32, 33, 35, 36

Water filled
Water filled

REVIEWED
8/10/90 YW

COMMENTS Rocky Shoreline with intermittent Pocket Beaches. Four Sites were
 Surveyed with significant Surface oiling only at sites 1 and 3, where
 SOR moderate and Heavy areas were found. Subsurface OR was found
 in pits at all four Sites.

SEGMENT AS KN-500 SUBDIVISION: A SITE: 4 DATE 8/8/90

USCG

NAME 151c Michael D. Brown SIGNATURE Michael D Brown

☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

ADEC

NAME John Hoyer SIGNATURE [Signature]

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

sub-surface Work plan modification sent in addressing the oiling in the M+U TZ's.

LAND MANAGER

NAME DOUGLAS GIBSON SIGNATURE Douglas Gibson

☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

EXXON

NAME Martinez W. SIGNATURE Nicholas G. Martinez

☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

Given the degree & type of oiling I would rate this as a moderate priority.

ASAI FOLLOWUP RECON ENDATIONS

Segment: ASI KN-500 Subd.: A Site: 4 Date: 8/8 1990

Conditions Observed: Leak of subsurface oil CR/H-m
oiled interval is from - - - - - mld to U T 2's. See OG oiling summary.

Depth of leak N/A boulders or bedrock below 90cm. at test
pits.

Followup Recommendations: _____

Completed by Pickup Crew: ☐ YES ☐ NO

Priority for Addressing in 1990: ☐ High ☐ Mod. ☐ Low

ADEC

John Hoyer
 (name)

[Signature]
 (signature)

Comments: ① Mechanically till ② Remove any mousse or oil sediments
③ Deploy spare booms ④ Wash if necessary ⑤ Retill if necessary
⑥ Bioremediate.

Baxon

Martinez Nid.
 (name)

[Signature]
 (signature)

Comments: No action needed winter storm will get
removing oil sub surface oil is deep to no
threat.

USCG

MICHAEL D. BROWN
 (name)

[Signature]
 (signature)

Comments:

NO ACTION REQUIRED

Land Rep.

DOUGLAS GIBSON
 (name)

[Signature]
 (signature)

Comments:

NO FOLLOWUP REQUIRED.

SEGMENT AS / KN-500 SUBDIVISION: A SITE: 1 DATE 8/8/90

USCG

NAME NOTE Michael D. Brown SIGNATURE Michael D. Brown

☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

ADEC

NAME John Hayes SIGNATURE [Signature]

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

Followup Recommendation sent in regarding this beach.
addressing the subsurface oiling see oiling summary.

LAND MANAGER

NAME DOUGLAS GIBSON SIGNATURE Douglas Gibson

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

Recommend low priority site for
reassessment in 1991

EXXON

NAME Martinez Nub SIGNATURE Nub Martinez

☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

ASAP FOLLOWUP RECOM ENDATIONS

Segment: AS/KH560-A Subd.: A Site: 1 Date: 3/8 1990

Conditions Observed: Lease of CR/H + CR/M subsurface oil
lease is 0-14 - 5-10 throughout U+M T2's on segment.

* Pent moss under lens

* Difficult access small equip. profile

Segment appears to not have been treated in 1990.

Followup Recommendations:

Completed by Pickup Crew: ☐ YES ☐ NO

Priority for Addressing in 1990: ☐ High ☐ Mod. ☐ L

ADEC

John Hays
 (name)

(signature)

Comments: ① Mechanically till + expose oil lens in U+M T2's. ② Remove any
mousse + CR sediments ③ H.V. wash if necessary ④ Deploy snowbowl for final
case ⑤ Bio remediate.

Baxon

Martinez M.W.
 (name)

(signature)

Comments: Oiling is like in a small area but
storms should handle it nicely + safely talking
+ H.V. are overkill + environmentally harsh

USCG

MTC Michael A. Brown
 (name)

(signature)

Comments:

NO ACTION REQUIRED

Land Rep.

DOUGLAS GIBSON
 (name)

(signature)

Comments: I DO NOT RECOMMEND ANY FOLLOWUP WORK
IN 1990. I REQUEST THE SITE BE GIVEN PRIORITY
STATUS FOR REASSESSMENT IN 1991.

ASAP TAG REVIEW S1 F

Segment: KN 500 Subd: A Site: 4

Date
PRE-Review 14 Feb

Priority For Addressing In 1990

 HIGH

 MEDIUM

 LOW

X NTR

Treatment
Recommended:

NTR

OG - separate COAT
- heavy OR subsurface

Priority Site For Reassessment In 1991

YES NO
 CG X

YES NO
X ADEC

YES NO
 EXXON X

YES NO
 LAND MGR X

TAG 21
NTR Reassess 91

ASAP TAG REVIEW SHEET

Segment: KN 500 Subd: A Site: L

Date
PRE-Review 14 AUG 90

Priority For Addressing In 1990

 HIGH

 MEDIUM

 LOW

X NTR

Treatment
Recommended:

NTR

(SOR - M - Broken)

L -> ADEC

Sketch/OG - SOR M Broken - NTR

ASC 226-10-16992

Priority Site For Reassessment In 1991

YES

NO

 CG X

YES

NO

X ADEC

YES

NO

 EXXON X

YES

NO

X LAND MGR

TAG 21

NTR Reassess 91

Final Anadromous Stream Treatment Information

Segment ID - Stream ID	NTR	Bio	Bio Start	Bio End	Man	Man Start	Man End
K0911-CD020 262-10-10080					X	6/28/90	6/28/90
K0911-CD020 262-10-10092					X	6/28/90	6/28/90
K0917-CC100 262-15-10040	X						
K0919-HB001 262-20-10040					X	6/12/90	6/14/90
K0919-HB004 262-20-10030	X						
K1002-AB002 262-65-655					X	7/7/90	7/8/90
K1007-PB001 262-70-10025					X	6/23/90	6/24/90
K1007-PB016 262-70-10010					X	7/10/90	7/10/90
K1009-DB008 262-75-10020	X						
KN0103 226-10-16922		X	7/7/90	9/1/90	X	7/7/90	7/7/90
KN0106 226-10-16890					X	6/30/90	6/30/90
KN0110 226-10-16928	X						
KN0120 226-10-16940	X						
KN0129 226-10-16975					X	5/30/90	5/30/90
KN0129 KN0129-UNCAT		X	6/19/90	6/19/90	X	5/30/90	5/30/90
KN0132 226-10-16982		X	6/19/90	9/11/90	X	5/26/90	5/29/90
KN0134 226-30-16865		X	6/23/90	6/23/90	X	6/23/90	6/23/90
KN0201 226-30-16872					X	6/1/90	6/1/90
KN0205 226-30-16860					X	6/1/90	6/3/90
KN0211 226-10-16875		X	7/1/90	7/9/90	X	7/1/90	7/9/90
KN0211 226-10-16880					X	7/1/90	7/1/90
KN0213 226-30-16853		X	7/1/90	7/6/90	X	7/1/90	7/6/90
KN0401 226-30-16820					X	6/30/90	6/30/90
KN0500 226-10-16992		X	7/5/90	9/11/90	X	7/5/90	7/7/90
KN0500 226-10-16996		X	7/7/90	9/11/90	X	7/5/90	7/7/90
KN0601 226-40-16855	X						
KN0602 226-40-16851	X						
KN0602 226-40-16853	X						
KN0701 226-30-16840		X	6/30/90	9/13/90	X	6/30/90	7/27/90
KN0704 226-30-16844	X						
LA015 226-40-16782		X	7/3/90	7/8/90	X	7/3/90	7/8/90
LA018 226-40-16780		X	7/3/90	8/26/90	X	6/15/90	7/4/90
LA021 226-40-16774		X	6/17/90	6/17/90	X	6/13/90	6/14/90
LA021 226-40-16776	X						
LA023 226-40-16772	X						
LA029 226-40-16788	X						
LA031 226-40-16785	X						
MA009 226-20-15044	X						
MN001 227-20-17570	X						
NA026 226-40-12950	X						
NK001 232-21-10230		X	7/3/90	7/4/90	X	7/3/90	7/4/90
PD002 242-42-10450					X	6/21/90	6/23/90
PD003 242-42-10460					X	6/21/90	6/23/90
TB002 232-10-10340					X	7/1/90	7/1/90
TB003 232-10-10342					X	6/20/90	7/1/90
WB001 242-32-10155					X	6/19/90	6/19/90
WB003 242-32-10160					X	6/19/90	6/19/90
WH003 226-40-16322		X	7/8/90	7/8/90	X	7/8/90	7/8/90

ASAP Follow-Up Recommendation
IAG Recommendations - August 27, 1990

SEGMENT

PWS

DI-69 A Site 1 Manual rake area of test pit 1 followed by bioremediation (M.P.)
IN-31 B Site 1 Manual rake 10 x 10 patch on north side of spit. Reapply bioremediation (M.P.)
IN-32 A Site 1 Reapply bioremediation and reassessment in 1991
KN-209 A Site 1 Reapply bioremediation and reassessment in 1991
KN-401 B Site 1 Recover AP remaining outside of the set-aside followed by bioremediation. Reapply bioremediation to remaining oiling conditions outside the set-aside.
KN-402 A Site 1 Manual pickup of mousse and re-bioremediation
LA-16 A Site 1 Manual pickup of accessible mousse and AP followed by reapplication of bioremediation (H.P.)
LA-17 A Site 1 Manual removal of accessible mousse and AP followed by reapplication of bioremediation (H.P.)
LA-20 A Site 1 NTR - Reassessment in 1991
LA-20 B Site 1 Reapply bioremediation and reassessment in 1991
LA-20 D Site 1 Reapply bioremediation and reassessment in 1991
LA-21 A Site 1 Manual pickup of AP - 1 x 1 m patch indicated on sketch and reapply bioremediation
NA-06 C Site 1 Manual pickup of AP patch as indicated on sketch and reapply bioremediation to all oiled areas
SP-19 A Site 1 Reapply bioremediation and reassessment in 1991
EL-106 C Site 1 NTR - Reassessment in 1991
Site 2 NTR - Reassessment in 1991
EL-109 A Site 2 Manual till band of subsurface oil 10m x 3m and re-bioremediate
Site 4 Reapply customblen and reassessment in 1991
BL-12 A Site 1 NTR - Reassessment in 1991
EL-54 A Site 2 NTR - Reassessment in 1991
EL-57 A Site 1 Manually rake down the storm berm where oil present and reapply bioremediation. Pickup two small patches of OP sediment in SUITZ at the southern most end of the site. (M.P.)
EL-11 A Site 1 NTR
Site 2 Manual or mechanical relocation of oiled berm material and bioremediate
KN-500 A Site 4 Reapply bioremediation and reassessment in 1991
KN-113 B Site 1 NTR - Reassessment in 1991

KODIAK

K10-05-AS-003 A Site 1 Completed by ASAP - NTR
K10-04-AS-005 A Site 1 NTR - Reassessment in 1991
Site 2 NTR - Reassessment in 1991
K10-02-AS-008 B Site 1 NTR - Reassessment in 1991
Site 2 NTR - Reassessment in 1991
Site 4 NTR - Reassessment in 1991
Site 6 NTR - Reassessment in 1991

TAG APPROVAL DATE

Aug 27 - 90

SHPO

EXXON

Andy Tera

ADEC

Lou Morris

USCG

G.A. Reiter

FOSC

NOAA

Burl Wescott

DATE

ACE 7379300

ADEC EXXON VALDEZ POST-TREATMENT SURVEY REPORT

SEGMENT#: KN500
LOCATION: N KNIGHT ISLAND PASSAGE

DATE: 09/26/89
TIME: 17:30

Survey Type: Boat, Ground
Team: G. Winter, D. Gardner, J. Krieger

WEATHER AND SEA CONDITIONS

Weather: Sunny, Cloudy
Sea State: Calm

Wind Direction: NE
Knots: 0-15

Low Tide: 18:24	Feet: 3.01	High Tide: -0-	Feet: -0-
Low Tide: 6:07	Feet: 1.1	High Tide: 12:33	Feet: 11.1

SHORELINE DESCRIPTION

Shoretypes: H,LR,B
(H=headland, LR=low-lying rock, B=beach, C=cove, L=lagoon, M=marsh)

Wave Exposure: H,M (H=high, M=moderate, L=low)

Shoreline Composition: R,B,C,G,S
(R=bedrock, B=boulder, C=cobble, G=gravel, S=sand, M=silt)

OIL CHARACTERISTICS

Degree of Oiling: VL,L,M,H
(N=none, VL=very light, L=Light, M=moderate, H=heavy)

Area of Impact: H,M,L
(S=supratidal, H=high intertidal, M=mid tidal, L=low intertidal)

Max. Oil Thickness: 4 mm (1 = 1 mm or less, 0 = no oil)

Max. Oil Penetration: 20 cm (35 = 35 cm or greater)

Percent Segment Categorized as Oiled: 100%

Presence of Oiled Driftwood (y/n): y

Oil Types: SY,T,A,ST

(P=pooled, M=mousse, SY=sticky, T=tar, A=asphalt, ST=stain)

Samples: KN500-1 / KN500-2 / none / none

DAMAGED OR OILED ORGANISMS

Fucus (y/n): y Barnacles (y/n): y Mussels (y/n): y
Dead Mammals: 0 Dead Birds: 0

SOLID WASTE FOUND

Type: Few localities, boom, cleanup debris, garbage
Bags Collected: 0

Draft

Printed: 12/12/89 11:37

Walk-a-thon

ACE 7379299

ADEC EXXON VALDEZ POST-TREATMENT SURVEY REPORT

SEGMENT#: KN500
LOCATION: N KNIGHT ISLAND PASSAGE

DATE: 09/26/89
TIME: 17:30

Survey Type: Boat, Ground
Team: G. Winter, D. Gardner, J. Krieger

WEATHER AND SEA CONDITIONS

Weather: Sunny, Cloudy
Sea State: Calm

Wind Direction: NE
Knots: 0-15

Low Tide: 18:24	Feet: 3.01	High Tide: -0-	Feet: -0-
Low Tide: 6:07	Feet: 1.1	High Tide: 12:33	Feet: 11.1

SHORELINE DESCRIPTION

Shoretypes: H,LR,B
(H=headland, LR=low-lying rock, B=beach, C=cove, L=lagoon, M=marsh)

Wave Exposure: H,M (H=high, M=moderate, L=low)
Shoreline Composition: R,B,C,G,S
(R=bedrock, B=boulder, C=cobble, G=gravel, S=sand, M=silt)

OIL CHARACTERISTICS

Degree of Oiling: VL,L,M,H
(N=none, VL=very light, L=Light, M=moderate, H=heavy)
Area of Impact: H,M,L
(S=supratidal, H=high intertidal, M=mid tidal, L=low intertidal)

Max. Oil Thickness: 4 mm (1 = 1 mm or less, 0 = no oil)
Max. Oil Penetration: 20 cm (35 = 35 cm or greater)

Percent Segment Categorized as Oiled: 100%
Presence of Oiled Driftwood (y/n): y
Oil Types: SY,T,A,ST
(P=pooled, M=mousse, SY=sticky, T=tar, A=asphalt, ST=stain)
Samples: KN500-1 / KN500-2 / none / none

DAMAGED OR OILED ORGANISMS

Fucus (y/n): y Barnacles (y/n): y Mussels (y/n): y
Dead Mammals: 0 Dead Birds: 0

SOLID WASTE FOUND

Type: Few localities, boom, cleanup debris, garbage
Bags Collected: 0

Draft

Printed: 12/12/89 11:37

Walk-a-Thon

OG SUPPLEMENTAL INFO TO MAD

RECORDER: F. N. K.

RED-DATE: 10/8/91

PAGE

CATALOG NUMBER: 226-10-16992

STREAM NAME:

LOCATION:

SEGMENT NUMBER: KUS00A

SHORELINE TYPE:

DATE:

TIME:

OG vs. MAD:

conflict site 5, 06 shows CT
while same location in map (site 2)

[illegible]

July 13, 1990
Rick Gustin
Salmon Stream Report
KN500A Knight Island
ASC#226-10-16992

Work began on KN500A on July 6 with the Buella Candies crew on site. The group consisted of Rey Satella Exxon, Scott Thomas USCG, Wess Ghormley ADEC, Tommy Smith OOPS, and myself. The work order called for manual removal of tarmat, heavy OR, and oiled debris. This was done, however two areas of heavy OR and OP were discovered in the two pocket coves just north of the salmon stream. Even though the work order didn't address this problem, Rey was willing to do manual tilling of these areas and some manual removal of the heavy OR sediments. The crew proceeded to till the two pocket coves but were run out by the rising tide and the low tide was a hold up so it couldn't be finished that day.

July 7

When I arrived on site today the crew had been increased by the addition of Fred Wiemark and his crew. They had finished the manual tilling of the two areas and were in the process of stringing snare boom to absorb the free oil. Customblen had been applied and raked under. Approximately 1\2 super sack of oiled sediments were removed. The only area left for treatment was the large boulder rock area on the south side of the beach in the upper ITZ. It has been designated for Inipol in the not to distant future.

ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 226-10-16992

SEGMENT KN-500 SUBDIVISION A

WORK WINDOW

Manual Pickup
Tarmat Removal

CLOSED

Bioremediation

CLOSED

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,B Salmon Stream

ADF&G catalogued anadromous streams (226-10-16992 and 226-10-16996) are in Subdivision A. This subdivision is closed to bioremediation less than 100m from stream 7/10 to 8/31. Before 7/10, bioremediation is permitted less than 100m from stream with on-site ADF&G monitor or ADEC alternate present. No constraint to bioremediation more than 100m from stream. No constraint to manual pickup and tarmat removal.

5T Bald Eagle Nest

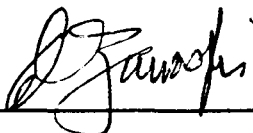
USFWS 6/1/90 map indicates an active nest in Subdivision A. Closed to manual pickup, tarmat removal, and bioremediation within 400m of active nest. No constraint to manual pickup, tarmat removal, and bioremediation more than 400m from active nest.

OTHER ECOLOGICAL CONSIDERATIONS

No flushing of pollutants or sediments into stream drainage; do not allow Inipol to enter stream flow. On-site examination and consultation by ADF&G monitor is required prior to bioremediation in order to authorize a setback distance from the stream during chemical application; if ADF&G monitor's presence is impossible, authorization may be given by the ADEC monitor. If eagle nest constraint is removed, other ecological considerations will apply.

SEE SUBDIVISION CONSTRAINT ADDENDUM KN-500A
FOR ADDITIONAL CONSTRAINT INFORMATION.

FOSC



Date

7/3/90

Prepared by



Date

7/3/90

ACE 7379340 +/S

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ KN-500 A STREAM NO: 226-10-16992 DATE 4/21/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Two ADF&G catalogued streams are in KN-500: 226-10-16992, 226-10-16996.
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
6Y Recreation: Special use destination
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate. One bald eagle nest to the north is within 400 M of stream 226-10-16992 - see ecology map.

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: *J. Daniel McPherson* DATE: 5/10/90

Subsurface Oil Observed: Yes X No Maximum Depth 8 cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual removal of asphalt pavement, 2) manual pickup of debris and mousse tarballs, 3) bioremediation of areas outlined on sketch map. Work should be conducted between 6/1 and 7/10 based on eagle nest and salmon constraints with approval of USFWS regarding eagle nest and ADF&G regarding bioremediation of stream bank. See Constraint Addendum dated 7/3/90 wks

TAG COMMENTS:

TAG APPROVAL DATE: 5/10/90

ADEC *Art Weir*
EXXON *Art Weir*
NOAA *Buel Weir*
USCG *D.D. Rome*

FOSC: *KL* DATE: 5-15-90

ANADROM ; FISH STREAM EVALUATION

SEGMENT ST/ KN-500 A STREAM NO: 226-10-16992 DATE 4/21/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Two ADF&G catalogued streams are in KN-500: 226-10-16992, 226-10-16996.
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
6Y Recreation: Special use destination
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unopened biota and substrate. One bald eagle nest to the north is within 400 M of stream 226-10-16992 - see ecology map.

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: J. Daniel McManus DATE: 5/10/90

Subsurface Oil Observed: Yes X No Maximum Depth 8 cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual removal of asphalt pavement, 2) manual pickup of debris and mousse tarballs, 3) bioremediation of areas outlined on sketch map. Work should be conducted between 6/1 and 7/10 based on eagle nest and salmon constraints with approval of USFWS regarding eagle nest and ADF&G regarding bioremediation of stream bank.

TAG COMMENTS:

TAG APPROVAL DATE: 5/10/90

ADEC Art Weiner Art Weiner

EXXON Timothy Egan

NOAA Burt Wescott

USCG D.D. Rome

FOSC: KL DATE: 5-15-90

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 6/14/90

EXXON Authorized Representative _____

Shoreline Segment KN-500A

Anadromous Fish Stream Number(s) 226-10-16992

Approved Cleanup Techniques are to be in accordance with the AnadScat stream work order approved by the FOSC with special emphasis on manual removal of all oil of any form within the stream channel and bottom substrate, and on the stream banks within the high water limits. Minimize removal of stream bank substrate and surface components to that required for removing oiled materials.

Approved Cleanup Period 5/15/90 to 7/10/90

Alaska Department of Fish and Game

[Signature]
Authorized Officer

[Signature]
Permittee's Signature

Approved Cleanup techniques have been reviewed and complied with: _____

EXXON Authorized Field Representative

Date _____

ACE 7379344

SEGMENT ST/ KN-500 A STREAM NO: 226-10-16992 DATE 4/21/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Two ADF&G catalogued streams are in KN-500: 226-10-16992, 226-10-16996.
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
6Y Recreation: Special use destination
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate. One bald eagle nest to the north is within 400 M of stream 226-10-16992 - see ecology map.

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: J. Daniel McManis DATE: 5/10/90Subsurface Oil Observed: Yes X No Maximum Depth 8 cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual removal of asphalt pavement, 2) manual pickup of debris and mousse tarballs, 3) bioremediation of areas outlined on sketch map. Work should be conducted between 6/1 and 7/10 based on eagle nest and salmon constraints with approval of USFWS regarding eagle nest and ADF&G regarding bioremediation of stream bank.

TAG COMMENTS:

 TAG APPROVAL DATE: 5/10/90ADEC Art Weimer Art WeimerEXXON Andy Teal Andy TealNOAA Burt Wescott Burt WescottUSCG D.D. Rome D.D. RomeFOSC: DATE: 5-15-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / KN-500N SUBDIVISION: ^{ASC#} 226-10-16992 DATE 4-21-90

USCG

NAME Kerwin L. Dreher SIGNATURE CWO2 K. L. Dreher

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Agree.

~~ADEC~~ → ADF&G

NAME Rick Gustin SIGNATURE Richard J. Gustin

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Recommendations - treat during window period
Bury sorbant boom within and below oiled area A. (see map) on north side of stream near mouth.
Turn + agitate these oiled gravels and let self flush + collect in Sorbants. Place pom-poms below area. Agitate and turn several times at intervals over the summer and determine how frequently to change sorbants and stick to this schedule.
Bury, stake and mark sorbants in other sheening areas (B+C) on map.

~~LAND MANAGER~~ → NONE

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Change once or twice depending on oil recovered.

Remove oiled debris + tar mats where found

Apply Granular Bioremediation - Custom blend to oiled boulder interstices in Supra ITZ.

ACE 7379351

Do not attempt removal of oil band along bedrock on north ^{over}

OPERATIONS FIELD NOTES

See Back for Instructions

SEGMENT ID ANAD KN-500N
 STREAM ID # 226-10-16992
 ANNOTATED MAP INCLUDED ☒ Y/N

DATE 4-21-90
 NAME DARIL JONES
 TEAM # 14

SURFACE OIL	Quantities in Meters			None	Treatment Recommendation					
					Bioremediation		Tilling		Spot Hot Water	
	Length	Width	Area		Y/N	% Treat	Y/N	% Treat	Y/N	% Treat
Wide Band	10	5	50		Y	100	Y	100	Y	100
Medium Band										
Narrow Band										
Very Light										
TOTAL MANDAYS						2		10		10

SUBSURFACE OIL

Other (Describe)?	RECOMMEND BIOREMEDIATION OF BEACH AFTER REMOVAL OF TARMAT & MOUSSE IF ADE & G WILL ALLOW. BID OF BEACH WILL REQUIRE AROUND 5 M/D OVER ABOVE ESTIMATE.									
-------------------	---	--	--	--	--	--	--	--	--	--

TARMATS	Quantities in Meters			Treatment Rec			# of Bags	Mandays Required	
	Length	Width	Thick(cm)	None	Breakup	Remove		Breakup	Remove
Area #1	3	3	8			✓	10		1
Area #2									
Area #3									
Area #4									
Sporadic Mats									

MANUAL PICKUP	Type of Debris			In Meters		# of Bags	Pickup Y/N	Manday Estimate
	Mousse Tarballs	Oiled Veget	Cleanup Debris	Length	Width			
"Pocket" #1			✓	—	—	1	Y	1
"Pocket" #2	✓			8	2	10	Y	1
"Pocket" #3								
Random/Continuous								

OILED LOGS ☒ Y/N	OILING H/M ☒ ①	QUANTITY L/M ☒ ⑤	BURN Y/N ☒ ①
--	--	--	--

→ TWO OIL STAINED LOGS AT HEAD OF RIVER - OIL VERY WEATHERED
 Is there Other Debris on the Beach? ☒ Y/N How Many Bags? MANY Is it mingled with the Oiled Debris ☒ Y/N

GENERAL

Snow covering 20 % of the Supratidal Zone?
 Wave Exposure H/M ☒ ① Access Limitations: GOOD ACCESS
 Snare Boom/Pom Poms Recommended? YES - TO PROTECT STREAM DURING WORK
 Would the production Craft have to be relocated to complete work on this subdivision? ☒ Y/N, # of Times 2

COMMENTS:

ALL WORK SHOULD BE PLANNED FOR PERIOD 5-15 → 7-10
CONTACT ADE & G BEFORE STARTING WORK.

ACE 7379352

SHORELINE OILING SUMMARY (FAD)

REVISION NO. 04/13/90

OG CAL LARSON USCG DREHER, CWE SEGMENT STI KN 500N
 BIO KEN CRITCHLOW LAND REP STREAM 226-10-16992 (OF)
 EXXON DARLYL YOE ADFG RICK GUSTIN-AIMEE WESEMAN TIME 17:35 to 18:30
 TEAM NO. 14 TIDE LEVEL +2 ft DATE 4/21/90
 EST. SUBDIVISION LENGTH: 250 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☐ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 20 % B 20 % C 20 % P 60 % S 0 % M 0 % V 0 %
 SLOPE: Lang 0 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 105 m M 0 m N 0 m VL 0 m NO 145 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	IC	IS	IP	IR	SL	BR	FW	GY	BL	TR	LR	LR	SU	UI	ME	LI
ASPHALT PAVEMENT	✓						✓							✓		
POOLED																
COVER	✓						✓							✓		
COAT	✓						✓							✓		
STAIN																
MOUSSE	✓						✓							✓		
PATTIES																
TARBALLS																
FILM																
NO OIL																

PAVEMENT H F (S) 25 sq. m by 8 cm

PATTIES / TARBALLS 0 BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

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

Did you COLLECT DEBRIS
☐ YES ☐ NO

TYPE 0
 #BAGS 0

Photographs:

Roll No. 0

Frames 0

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 (Y/N)	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SL	BR	FW	GY	BL	TR	LR	LR	SU	UI	ME	LI				
1	20				✓		5-8		L							✓		✓				✓	N	N	CB, PB, SD, PB, SD
2	20					✓	.											✓					N		CB, PB, GR, CB, PB, GR, SD
3	18					✓	.											✓					N		PB, GR, PB, GR, SD
4	12					✓	.											✓					N		PB, GR, SD, PB, GR
5	20				✓		5-8		✓							✓			✓				Y	Y	PB, GR, PB, GR
6	7					✓	.											✓					Y	Y	CB, PB, GR

COMMENTS OIL DOWN IN INTERSTICES OF BULDERS/CORBLES ON WEST SIDE OF COVE / SHEENING OBSERVED COMING OFF SUBSTRATUM VITZ.

REVIEWED 0 DATE 0

ACE 7379353

GENERAL DATA

SEG ID: KN-500N SUBDIV: 226-10 TEAM: 14 SURVEY DATE: 4/21/90
PAVEMENT: CHAR — AREA — THICKNESS — TARBALLS —
OILED: LGS — VEG — TRH — DBR — WAVE EXP: LW — MD X HG —
FAX RCVD: — DT: — AGENCY DISAGREE: —
EST SUBDIV LGTH: 230 OIL CATEGORY: W — M 120 N — VL — NO 110 U —

SURFACE DATA

SURFACE SEDIMENT: BRK — BLD 5 COB 55 PEB 10 GRN 20 SAN 10 MUD — VEG —

CHAR #: 1 OIL CHAR: CT OIL DIST: CONT X BRKN — PTCH — SPLH —
OIL CLR: DBL FILM CLR: RW TIDAL ZONE: SU — UI X MI — LI —
LBR

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

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

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

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

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

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

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

ANAD

SSAT DATA ENTRY FORM

SUBSURFACE DATA

PAGE 1 OF 1

SEGMENT ID: KN-500N SUBDIV: 226-10
16922

PIT # 1 PIT DEPTH 30 OIL CHARACTER NO OIL INTVAL: FROM — TO —
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI X MI — LI —
SUBSURF SEDIMENT: BRK — BLD — COB — PEB — GRN — SAN — MUD X VEG —

PIT # 2 PIT DEPTH 30 OIL CHARACTER NO OIL INTVAL: FROM — TO —
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI X MI — LI —
SUBSURF SEDIMENT: BRK — BLD — COB — PEB — GRN X SAN X MUD — VEG —

PIT # 3 PIT DEPTH 20 OIL CHARACTER NO OIL INTVAL: FROM — TO —
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI — MI X LI —
SUBSURF SEDIMENT: BRK — BLD — COB — PEB X GRN X SAN X MUD — VEG —

PIT # 4 PIT DEPTH 28 OIL CHARACTER NO OIL INTVAL: FROM — TO —
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI X MI — LI —
SUBSURF SEDIMENT: BRK — BLD — COB — PEB X GRN X SAN X MUD — VEG —

PIT # 5 PIT DEPTH 28 OIL CHARACTER OR OIL INTVAL: FROM 5 TO 8
QUANT: UC OIL CLR: SBL FLM CLR: BR ZONE: SU — UI X MI — LI —
SUBSURF SEDIMENT: BRK — BLD — COB — PEB — GRN X SAN X MUD — VEG —

PIT # 6 PIT DEPTH 12 OIL CHARACTER NO OIL INTVAL: FROM — TO —
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI X MI — LI —
SUBSURF SEDIMENT: BRK — BLD — COB — PEB — GRN X SAN X MUD — VEG —

PIT # — PIT DEPTH — OIL CHARACTER — OIL INTVAL: FROM — TO —
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI — MI — LI —
SUBSURF SEDIMENT: BRK — BLD — COB — PEB — GRN — SAN — MUD — VEG —

PIT # — PIT DEPTH — OIL CHARACTER — OIL INTVAL: FROM — TO —
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI — MI — LI —
SUBSURF SEDIMENT: BRK — BLD — COB — PEB — GRN — SAN — MUD — VEG —

PROBLEMS: —

RECEIVED
MAY 07 1990

DEPT. OF
ENVIRONMENTAL CONSERVATION

ANADROMOUS FISH STREAM ASSESSMENT

REGION: PRINCE WILLIAM SOUND

SEGMENT: KN-500 A - we called it North.

STREAM NO: 226-10-16992

See ADFG Rec. & stream summary.

Exxon work plan lacking

what is rationale?

Use granular fertilizer in biochem.

ORIGINAL FIELD MAP ALTERED

ACE 7379356 +/S

ANADRO S FISH STREAM EVALUATION

SEGMENT ST/ KN-500 A STREAM NO: 226-10-16992 DATE 4/21/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Two ADF&G catalogued streams are in KN-500: 226-10-16992, 226-10-16996.

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

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

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

6Y Recreation: Special use destination

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unholed biota and substrate. One bald eagle nest to the north is within 400 M of stream 226-10-16992 - see ecology map.

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

Subsurface Oil Observed: Yes X No _____ Maximum Depth 8 cm

RECOMMENDATIONS:

_____ No Treatment Recommended

X Treatment Recommended

X Manual Pickup

X Bioremediation

X Tarmat Removal

→ _____ Snare/Absorbent Booms

→ _____ Oil Snares (pom poms)

_____ Absorbents (pads, rolls, etc)

→ _____ Spot Washing: _____ Wands

_____ Beach Cleaner

_____ Other (see comments)

COMMENTS: Recommended treatment includes 1) manual removal of asphalt pavement, 2) manual pickup of debris and mousse tarballs, 3) bioremediation of areas outlined on sketch map. Work should be conducted between 6/1 and 7/10 based on eagle nest and salmon constraints with approval of USFWS regarding eagle nest and ADF&G regarding bioremediation of stream bank.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

JPA
118

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

Salmon stream mouth - spawning (7/10 to 8/3)

No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G Habitat Division prior to treatment for consultation and/or permit application.

AGENCY CONTACT PERSON: ADF&G John Morison 267-2324

1C Salmon fry nursery area (4/31 to 7/31)

No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to July 31 unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.

AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214

1D Esther Hatchery release (4/15 to 6/1)

1E Main Bay Hatchery release (4/20 to 6/10)

1F Sawmill Bay Hatchery release (4/15 to 6/1)

1G Cannery Creek Hatchery release (4/21 to 6/1)

1H Remote release site

No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G or PWS Aquaculture Association for confirmation and authorization.

AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214

1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511

1I Gill net area (6/7 to 8/31)

1J Purse seine area (7/20 to 9/30)

1K Purse seine hook-off (7/20 to 9/30)

1L Set net sites (6/11 to 7/25)

Contact ADF&G for specific dates, locations and constraints. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.

AGENCY CONTACT PERSON: ADF&G James Brady 424-3212

2M Herring spawning (4/1 to 6/15)

Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.

AGENCY CONTACT PERSON: ADF&G Evelyn Biggs 424-3235

3N, 3P Harbor seal and sea lion pupping (5/15 to 7/1)

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

Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.

AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235

ADF&G Don Calkins 267-2403

5R Seabird colony (5/1 to 9/1)

Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

5S Shorebird/waterfowl concentration (4/1 to 5/15)

Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

ADF&G Tom Rothy 267-2206

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

Active Bald Eagle nests (3/1 to 9/1)

Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

6U Recreation:

Tent sites (6/1 to 9/15)

6V Anchorages (6/1 to 9/15)

6W Forest Service cabins (6/1 to 9/15)

6X Lodge (6/1 to 9/15)

✓ 6Y Special use destination

7Z Subsistence area: Salmon harvesting (5/1 to 9/30)

7HH Finfish harvesting

7II Deer harvesting (8/15 to 2/28)

7JJ Invertebrate harvesting

Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.

AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

46/51

SEGMENT ST / ~~KN-500A~~ ^{ASC#} SUBDIVISION: 226-10-16992 DATE 4-21-90

USCG

NAME Kerwin L. Dreher SIGNATURE CWO2 K. L. Dreher

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Agree.

ADEC

~~ADF/G~~

NAME Rich Gustin SIGNATURE Richard J. Gustin

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Recommendations - treat during window period
Bury sorbant boom within and below oiled area A. (see map) on north side of stream near mouth.
Turn + agitate these oiled gravels and let self flush + collect in sorbants. Place pom-poms below area. Agitate and turn several times at intervals over the summer and determine how frequently to change sorbants and stick to this schedule.
Bury, stake and mark sorbants in other sheening areas (B + C) on n

LAND MANAGER → NAME

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Change once or twice depending on oil recovered.
Remove oiled debris + tar mats where found
Apply Granular Bioremediation - Custom blend to oiled boulder interstices in Supra ITZ.
Do not attempt removal of oil band along bedrock on north are

ACE 7379359

Side of stream. Also peak smaller amounts 47/5.
of Granular bioremediation slightly lower in upper
intertidal zone in oiled boulder area on south
side of beach.

SHORELINE OILING SUMMARY (AD)

REVISION NO. 04/12/88

OG CAL LARSON USCG DREHER, CWE SEGMENT STI KN 500A 20/5
 BIO KEN CRITCHLOW LAND REP STREAM 22610-169921 OF 1
 EXXON DALLAL YVES ADFG 24 K. DUSTIN-AIMEE WEEMAN TIME 17:35 10/8:30
 TEAM NO. 14 TIDE LEVEL +2 ft DATE 4/21/90
 EST. SUBDIVISION LENGTH: 250 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☐ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 20 % B 20 % C 20 % P 20 % G 00 % S 00 % M 00 % V 00
 SLOPE: Long 00 % Hang 00 % Vert 00 % WAVE EXPOSURE: ☒ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 105 m M 00 m N 00 m VL 00 m NO 145 m

SURFACE OIL

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

PAVEMENT H F 25 sq. m by 0.8 or

PATTIES / TARBALLS 00 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 00

#BAGS 00

Photographs:

Roll No. 00

Frames 00

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (Y/N)	↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UO	1	2	3	4	5	SU	U	M	L				
1	20				✓		5.0		✓	✓					✓				✓	N	N	CB, PB, SO, PG, SL
2	20					✓			✓						✓					N		CB, PB, SL, PG, SO, UO, S.O.
3	18					✓			✓						✓					N		PB, SL, PG, UO, S.O.
4	12					✓			✓						✓					N		PB, SL, PG, UO, S.O.
5	20				✓		5.0		✓	✓						✓				Y	Y	PB, SL, PG, UO, S.O.
6	7					✓			✓						✓					Y	Y	CB, PB, SL, PG, UO, S.O.

COMMENTS OIL DOWN IN INTERSTICES OF BOLDERS/COBBLES ON WEST SIDE OF CREEK/SHEENING OBSERVED COMING OFF SUBSTRATUM VITZ.

REVIEWED JW

DATE 4-23-90

OG CAL LAKSON

SEGMENT ST/KN500N

STREAM 226-1010992

DATE 4/21/90

CHECKLIST

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

LEGEND

1 Δ
Pit - No Subsurface Oil

2 Δ
Pit - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

CT/P
Patchy Distribution

CT/S
Splashed Distribution

eee
Oiled Vegetation

1 →
Photo location, direction, and number

* IF ADF 3 G PERMITS

SKETCH MAP 100M

WATER LINE

Pickup DEBRIS

OILED PORT PORN

BIO AREAS OF CT/CV

Δ 6/1 x1
CT/P/FL 1 LIT 2

CT/C/CV
30X4 CM

Remove PAVEMENT

bury AW sorbants here

BIO HERE

Pickup Mousse

*BIO

Ground water no good for bio

CT/P/A 10XS

75XS

CT/C/CV 75XS

CT/C/MS 8x24cm

Δ 2

Δ 4

Oil Character Length (m): AP 3 PO CV 30 CT 75 ST MS 8 PT TB FL 11 NO

43/5

ADF&C MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS DS TS AVS SCHM MMS PTA

2 REGION: PWS KP, CI K, AP

METHOD: Aerial Ground Boat

3 DATE: 4-21-90

15 HIGH TIDE TIMES: 1

21 TEAM RECORDER: Aimee Waseman

4 START TIME: 1735

16 HIGH TIDE HTS: 1

22 OBSERVERS: Rick Gustin

5 STOP TIME: 1845

17 LOW TIDE TIMES: 1730

23 AGENCY: ADF&G

6 SEGMENT #: KN-500N

18 LOW TIDE HTS: 1

24 PHOTOS TAKEN: Y N

7 STATION #: _____

19 TIDE HT AT SURVEY: _____

Roll #: _____ Frame: _____

8 K-UNIT: _____

ebb Stack Flood Stack

25 VIDEO TAKEN: Y N TAPES: ASW-01

9 STAT AREA: _____

20 USCC QUAD: S-B-3

Start: 0 End: 89

10 LAT: _____

11 LONG: _____

26 SAMPLES TAKEN? Y N Number

12 SOURCE: Map Loran

Oil _____

13 LOCATION: NW side Knight I

Sediment _____

14 DESCRIPTION: Outer side Herring Bay

Biological _____

EXTENT OF OIL

Water _____

	SHORELINE				STREAM			
	L	N	M ²	A	L	N	M ²	A
27 SURFACE COVERAGE	100	75						

36 CATALOGED ANAD. FISH STREAM? Y N

37 CATALOG #: 226-10-16990

38 STREAM NAME: _____

28 SURFACE THICKNESS

39 OIL IN STREAM BED? Y N

29 PENETRATION

40 OIL ON STREAM BANKS? Y N

30 OVERALL OIL IMPACT: N VL L N H

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

31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain

42 OIL WITHIN 1 MILE OF STREAM? Y N

32 OILED DEBRIS? Y N

Where: _____

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

43 ANADROMOUS FISH PRESENT? Y N

34 WAVE EXPOSURE: High Moderate Low

44 ANADROMOUS FISH OBSERVATION

35 SUBSTRATE TYPE: Bedrock _____ Boulder _____ Cobble _____

Species Aerial Ground

Gravel _____ Sand _____ Mud/silt _____

Comments: Oiled area that needs the most attention is on the north bank of the stream near the mouth in the U.I.T.Z. A small stream coming from the north connecting with main stream contains moderately oiled gravels which when agitated produce a silver to brown sheen. This flow likely feeds a salmon

ACE 7379363

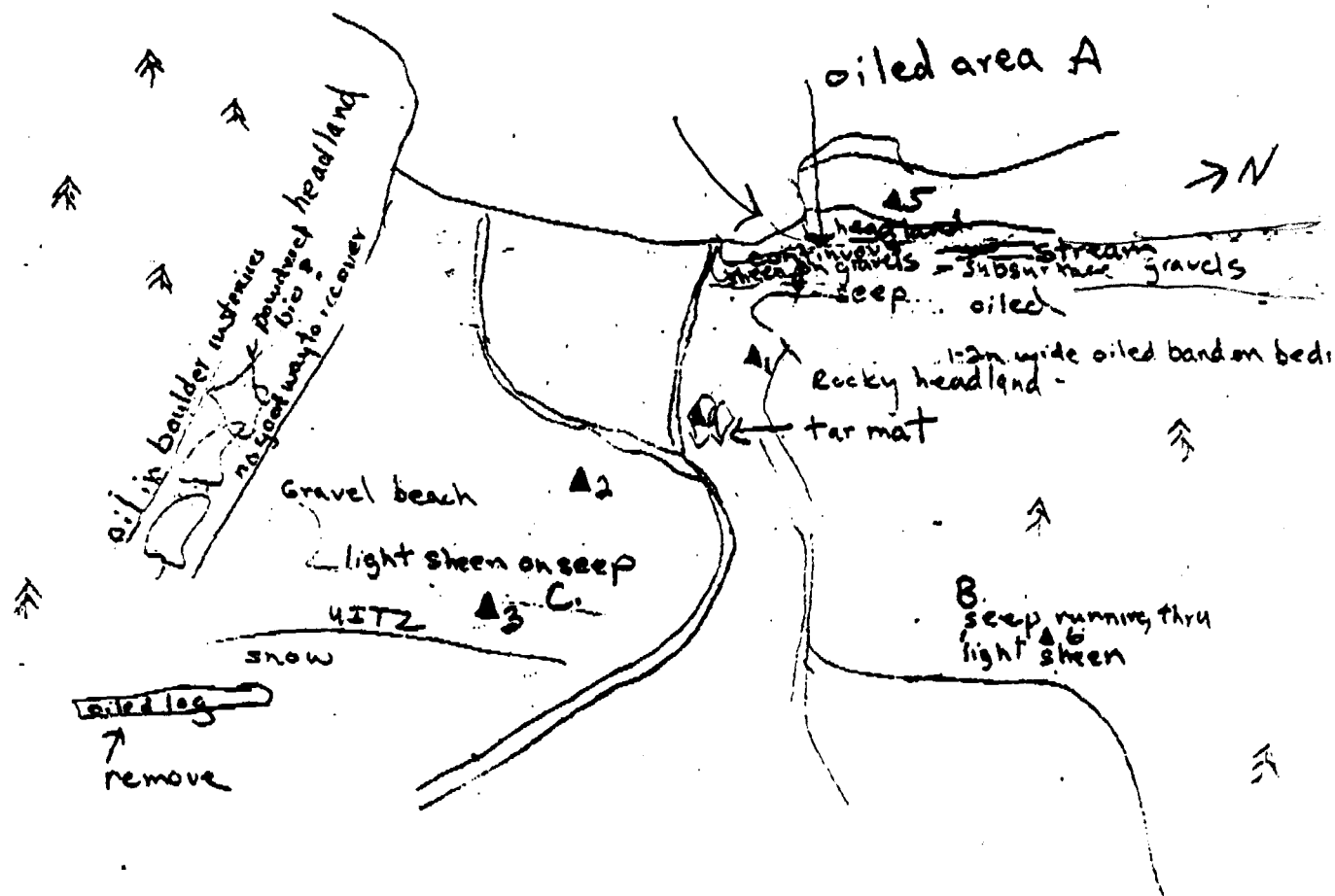
AA/C

KN5002

45 PHOTOLOG

FRAME(S)	DESCRIPTION
	pit 1 - 20cm 8cm 1cm brown oil
	pit 2 - 20cm - no visible oil
	pit 3 - 18cm - no visible oil
	pit 4 - 12cm 4cm oil penetration in
	pit 5 - 20cm 8cm
	pit 6 - sheen on water
	in tar patty - 1cm brown
	filling pit

46 OIL DISTRIBUTION DIAGRAM



Recommendations-

treat during window period

Bury sorbant boom within & below oiled area A. on north side of stream near turn & agitate oiled gravels & let self flush & collect in sorbents. Place pom-pom below area. Agitate & turn several times at intervals & change sorbents.

Bury, stake & mark sorbants in other sheening areas - B & C & change once or depending on oil recovered.

Remove oiled debris & tar mats where found

Apply Granular Bioremediation - Custom blend to oiled boulder interstices in Suora.

ACE 7379364

This beach/stream poses difficult treatment problems. ADFB's suggestions appear to be feasible and should significantly improve the situation.

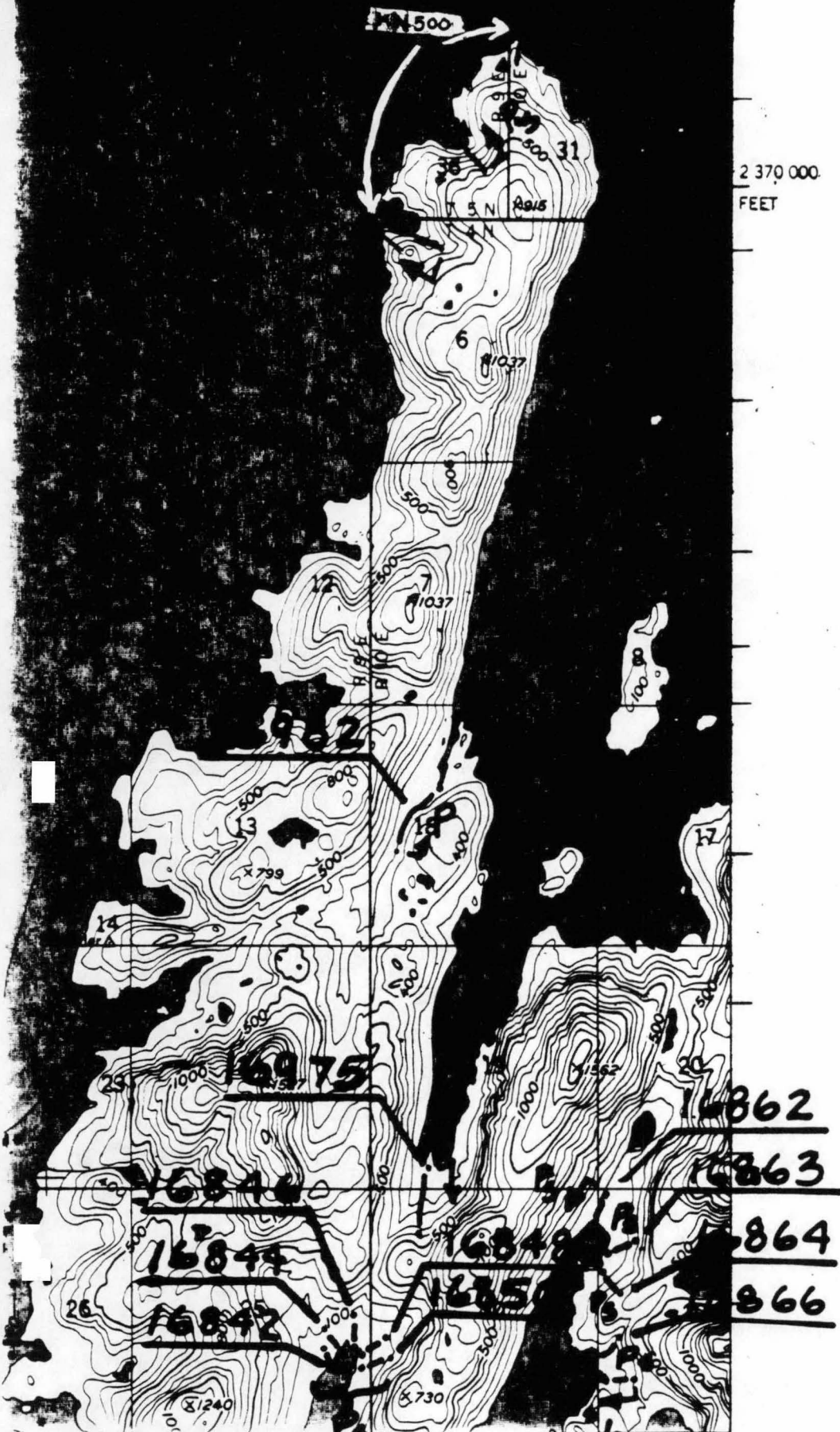
Ken Cutchlow

ECOLOGY MAP

2 370 000.
FEET

▲ = Bald Eagle
Nests

(am)
4/24/90



**ASAP Follow-Up Recommendations
TAG Recommendations - August 21, 1990**

SEGMENT

KN-04	A Site 1	Manual rake in area of test pit 2 and bioremediation (M.P.) <i>of</i>
KN-05	B Site 1	Manual pickup of AP-mousse followed by bioremediation (M.P.) <i>of</i>
KN-026	A Site 1	NTR - Reassessment in 1991 ✓
KN-113	A Site 1	NTR - Reassessment in 1991 ✓
KN-134	A Site 1	Check for AP in vicinity of stream and remove re-bioremediate remainder of the site. (L.P.) <i>of</i>
KN-135	B Site 1	Manual pickup of small patches of AP re-bioremediate <i>of</i> including the storm berm. (M.P.)
KN-136	A Site 1	NTR - Reassessment in 1991 ✓
KN-208	A Site 1	NTR - Reassessment in 1991 ✓
KN-213	B Site 1	NTR - Reassessment in 1991 ✓
KN-213	E Site 1	NTR - Reassessment in 1991 ✓
KN-300	A Site 1	NTR - Reassessment in 1991 ✓
KN-500	A Site 1	Re-bioremediate and reassessment in 1991 (check with ADF&G for <i>of</i> bioremediation approval) (M.P.) <i>ARCHAEOLOGICAL INSPECTION CONSTRAINT APPLIES</i>
KN-506	A Site 2	NTR - Reassessment in 1991 ✓
	Site 3	NTR - Reassessment in 1991 ✓

TAG APPROVAL DATE Aug 21 1990.

EXXON ANDY TEAL *Andy*

ADEC RAY MORRIS *R. Morris*

USCG G.A. REITER *G.A. Reiter*

NOAA Burl Wescott *Burl Wescott*

SHPO Rachel Jan Doe 8/22/90

ORIGINAL CONSTRAINTS APPLY

FOSC *D. J. J. J.*

DATE 8/23/90

DOCUMENTS IN STREAM FILES

ASC# _____ Segment # _____

____ '89 Intertidal Assessment Survey, Sport/Com. Fish
____ '89 Shoreline Clean-Up Program (SAT)
____ '89 Anadromous Fish Stream Authorization, for instream work
____ '89 Stream Treatment Reports
____ '89 Demobilization Reports ____ Bioremediation ____ other
____ '89 RLS Sheet ____ Oil sed. sample ____ Egg sample
____ '89 Fall Walk-a-thon Survey, ADEC
____ '89 Winter Assess. Study Site ____ Winter Stream Survey Form
____ '89 Other Documents _____

____ '90 Pre-Anadscat Survey, multi-assessment form
____ '90 Anadscat Survey
____ '90 Anadromous Fish Stream Evaluation (work order)
____ '90 Anadromous Fish Stream Addendum to work order
____ '90 Shoreline Evaluation, SAT and work order for segment
____ '90 Anadromous Fish Stream Authorization, Title 16 permit
____ '90 Stream Treatment Report
____ '90 ADEC Demobilization Report for Bio
____ '90 ADF&G Oiling Condition Survey, for ASAP use (Aug. Surv.)
____ '90 ASAP Survey ____ ASAP Rec. ____ ADEC Rec. (Feb)
____ '90 Other Documents _____

OG CAL LARSON

SEGMENT ST/ KN500N

STREAM 226-10/6992

DATE 4/21/90

CHECKLIST

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

LEGEND

1 Δ
Pit - No Subsurface Oil

2 Δ
Pit - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

CT/P
Patchy Distribution

CT/S
Splashed Distribution

eee
Oiled Vegetation

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

SKETCH MAP 100M

WATER LINE

REMOVE POM POM

NO BIO
MANUALLY REMOVE PATTIES

REMOVE TARMAT

OILED POM POM

LAYER POM POM
AND MANUALLY TILL
PEBBLE/CORRIE TO
EXPOSE OILED SEDIMENTS
JAST WASH INTO
POM POM

BIO BATH
AREA AFTER
TARMAT/PATTY
REMOVING IF
ALLOWED BY
ARE 8 G

CT/C/UV
30X4 CM

$\Delta 6$ 1X1

CT/P/FL

LITZ
LITZ
LITZ

GROUP WATER

CT/P/FL
10X5

CT/C/CT
75X3M

$\Delta 3$

CT/C/MS
8X2X8CM

$\Delta 2$

$\Delta 4$
10cm
L
L
L

SNOW COVER

ACE 7379367

(m): AP 3 PO CV 30 CT 75 ST MS 8 TB FL 11 NO

OG CAL LARSON

SEGMENT STI KN 500N

STREAM 226-10/6992

DATE 4/21/90

CHECKLIST

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

LEGEND

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

Continuous Distribution
- CT/B

Broken Distribution
- CT/P

Patchy Distribution
- CT/S

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

SKETCH MAP 100M

WATER LINE

OILED POIN PORN

GROUND WATER

CT/C/CL
30X4 CM

$\Delta 6$ 1X1
CT/P/FL
LITZ

CT/C/AP/S
3X3X8 CM

CT/P/FL
10X5

75X3M
CT/C/CT

CT/C/MS
8X2X8 CM

$\Delta 4$
Oiled Logs

$\Delta 2$

SNOW COVER

Length (m): AP 3 PO CV 30 CT 75 ST MS 8 PT TB FL 11 NO

REVISION: 8/24/90

ACE 7379368 -/S

ATW
Pre-ANADSCAT-90

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS DS TS AVS SCHA MMS PTA

2 REGION: PWS KP,CI K,AP

METHOD: Aerial Ground Boat

3 DATE: 4-12-90

15 HIGH TIDE TIMES: 1

21 TEAM RECORDER: R. Custer

4 START TIME: 1237

16 HIGH TIDE HTS: 1

22 OBSERVERS: 1 pilot

5 STOP TIME: 1243

17 LOW TIDE TIMES: 1

23 AGENCY: ADF&G HAB

6 SEGMENT #: KN500 NA

18 LOW TIDE HTS: 1

24 PHOTOS TAKEN: Y (N)

7 STATION #: _____

19 TIDE HT AT SURVEY: _____

Roll #: _____ Frame: _____

8 K-UNIT: _____

Ebb Slack Flood Slack

25 VIDEO TAKEN: Y (N) TAPE#: _____

9 STAT AREA: _____

20 USCG QUAD: _____

Start: _____ End: _____

10 LAT: _____

11 LONG: _____

26 SAMPLES TAKEN? Y (N) Number _____

12 SOURCE: Map Loran

13 LOCATION: KNIGHT IS.

14 DESCRIPTION: OUTSIDE COAST HERRING BAY

Oil _____

Sediment _____

Biological _____

Water _____

EXTENT OF OIL

27 SURFACE COVERAGE

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

28 SURFACE THICKNESS

--	--	--	--	--	--	--	--

29 PENETRATION

--	--	--	--	--	--	--	--

30 OVERALL OIL IMPACT: N VL L M H

31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain

32 OILED DEBRIS? (Y) N

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

34 WAVE EXPOSURE: High Moderate Low

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

36 CATALOGED ANAD. FISH SREAM? (Y) (N) ATW

37 CATALOG #: 22610-16990 ATW

38 STREAM NAME: _____

39 OIL IN STREAM BED? (Y) N

40 OIL ON STREAM BANKS? (Y) N

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

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

Where: Everywhere

43 ANADROMOUS FISH PRESENT? Y N

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

COMMENTS: dead oiled debris everywhere / greasy oil
heavy oil bands on cliffs

(dredge)

ACE 7379369 +/S

FRAME(S)

DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM

= Sample taken
 = Photo frame # and
 shot direction.

ACE 7379370
 -1/1/8/AC/RT/FF

TEAM NO. 7 REARUN (STATE # 1)

SEGMENT KN-500

OG _____

BIO _____

SUBDIVISION A

DEC J. G. PALLAS / J. VINCENT

LANDMANAGER L. CARLSON/M Hall for ACNR

DATE 6 / 10 / 91

EXXON

USCG/NOAA _____

TIME 18 : 55 to 20 : 10

TIDE LEVEL 3.0 ft. to 5.75 ft.

ENERGY LEVEL: ☐ H ☒ M ☐ L

SURVEYED FROM: ☒ FOOT ☐ BOAT ☐ HELO

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

TOTAL LENGTH SHORELINE SURVEYED: 200 m

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

EST. OIL CATEGORY LENGTH: W 0 m M 10 m N 20 m VL 10 m NO 100 m US 0 m

[illegible]

DISTRIBUTION: C = 91-100%; S = 51-80%; P = 11-50%; B = 1-10%; T = <1%

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

PHOTO ROLL # MAYSAP-

FRAMES

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO					S	UI	MI	LI		
1	20							X	- - -	Y	-	N			X	PG - CGSM	BOTTOM END OF LEAK	
2	25					X			20 - 25	Y	-	N			X	PG - PGS		
3	30				X				20 - 25	Y	-	N			X	PG - PGS		
4	30			X					20 - 30	N	-	N			X	PG - PGS		
5A	25					X			15 - 18	N	-	N		X		PG - G		
5B	25			X					18 - 25	N	-	N		X		PG - G		
6	28				X				22 - 29	N	-	N		X		PG - G		
7	45					X			40 - 46	Y	-	N		X		PG - GR	NOW DEFINABLE LEAK	
8	25						X		- - -	Y	-	N		X		PG - GR	UNDERLYING ROCK	

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

OG COMMENTS:

A FOLLOW UP SURVEY OF AREA WITH NOTED PRIOR OILING BUT NOT COVERED DURING NAYSAP. BEACH MORPHOLOGY SHOWS BEDROCK SUITE SLOPING DOWNWARD TOWARD SEA, WITH MITE DOMINATED BY PEBBLE/GRAVELS. OIL APPEARS TO HAVE "SLID" DOWN BEDROCK AND SETTLED INTO MITE-MITE SEDIMENTS. HEAVIER CONCENTRATION OF SUBSURFACE OIL AT WESTERN COVE OILED ZONE AT WESTERN EDGE (A) FOUND DEEPER THAN EAST COVE (B), AS FINE SEDIMENTS AT WESTERN COVE. IMPACT AREA AT SITE "A" IS 12X20, TAPERING

* PARTIAL SURVEY. OTHER AREAS IN SEGMENT WERE SURVEYED BY MANSAP

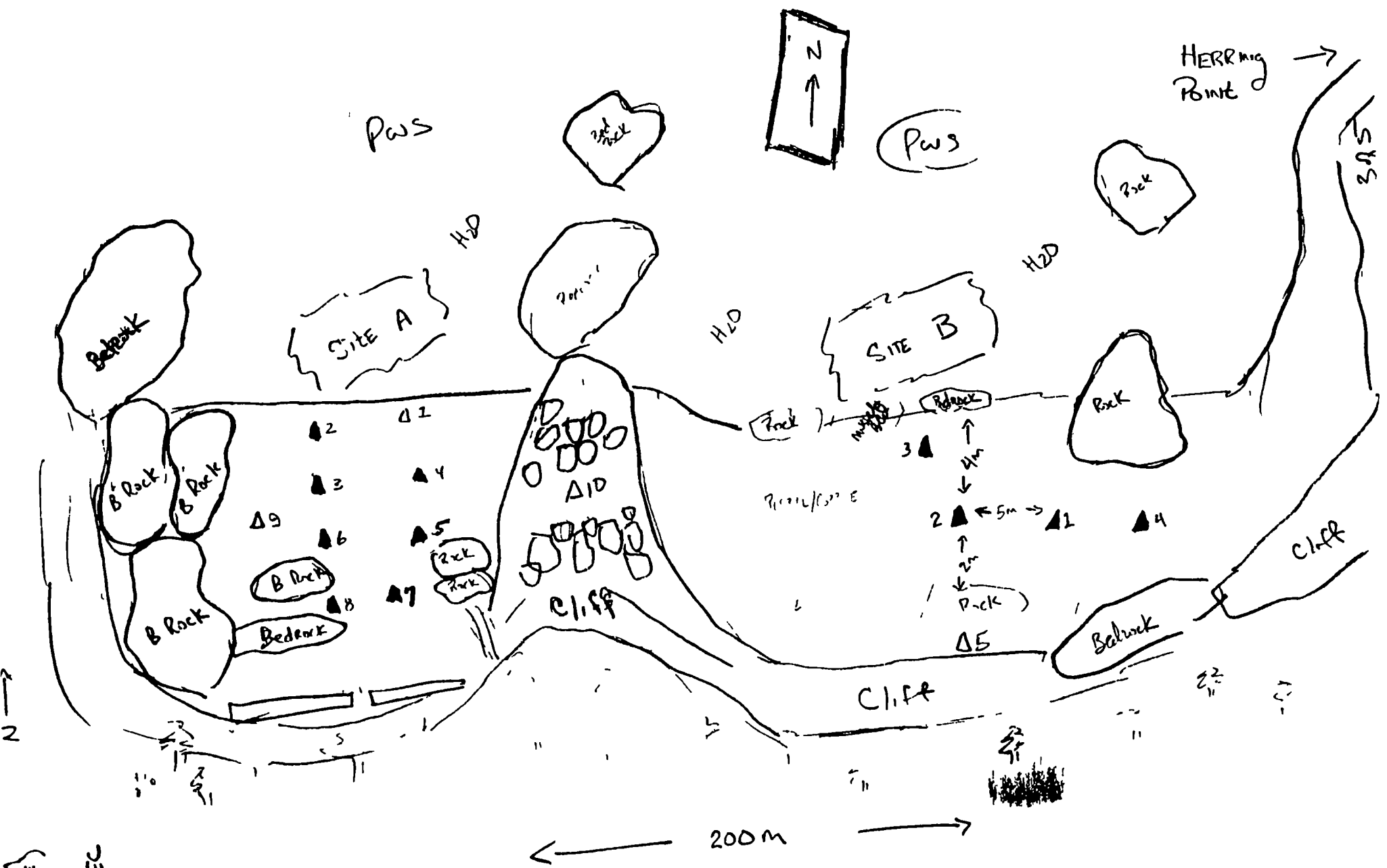
185

DATE 6/10/91

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

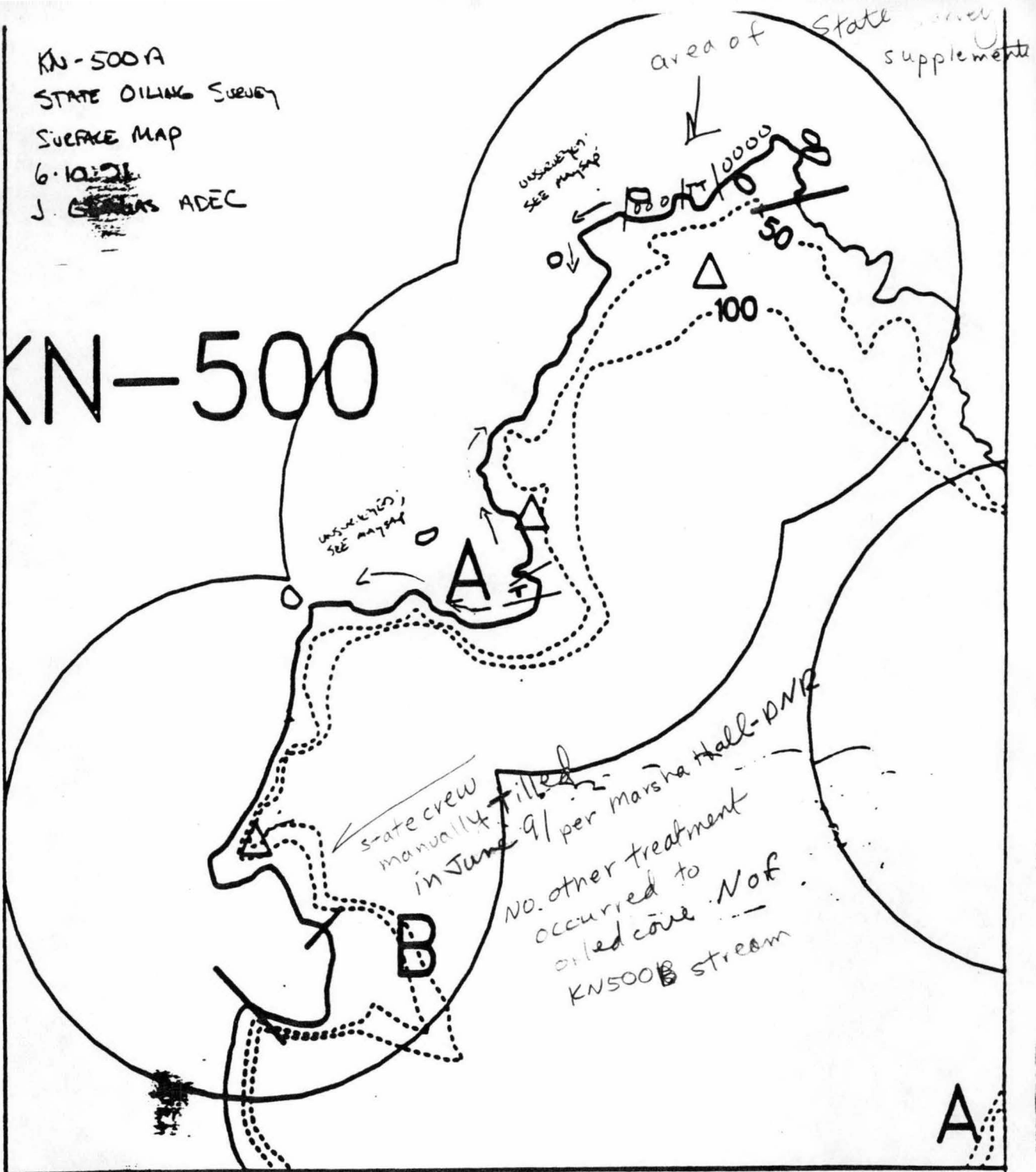
RECOMMENDATION: OIL IS MORE HEAVILY CONCENTRATED AT SITE "A", BUT TOO DEEP TO EFFECTIVELY MANUALLY TILL. MECHANICAL TILLING WOULD BE TOO ~~EXPENSIVE~~ WHEN BALANCED AGAINST OIL RECOVERED. SITE "A" IS FAIRLY STERILE BIOLOGICAL BEACH; SITE "B" CONTAINS MUSSEL BED AND A MORE "TYPICAL" PWS INTERIORAL BIODIA AREA, I.E., FUCUS, POPWEED, LITTORINIDS, LIMPETS.

STATE OILING SURVEY
SURFACE & SUBSURFACE
6 10 91
J GINALIAS ADEC
SITES A & B



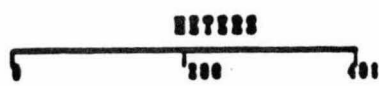
KN-500A
 STATE OILING SURVEY
 SURFACE MAP
 6-10-71
 J. G. ADEC

KN-500



KN0500

Segment Reference Map
 Map Key: KN0500



At State Plant, Spec 4
 1200500

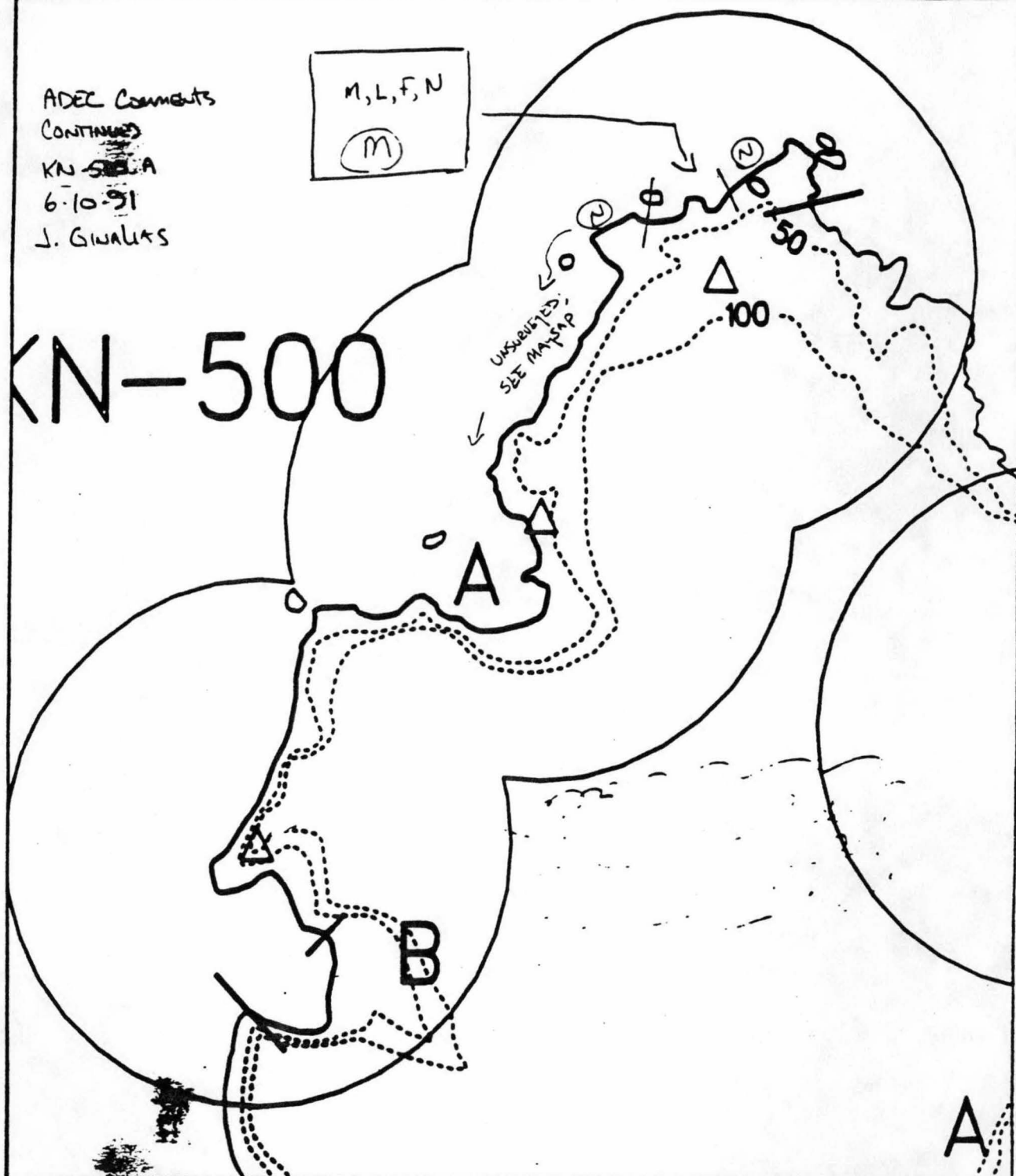


EAGLE NEST

ADEC Comments
 CONTINUED
 KN-500-A
 6-10-91
 J. Givialis

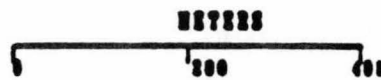
M, L, F, N
 (M)

KN-500



KN0500

Segment Reference Map
 Map Key: ENEN0600



AS State Plane Zone 4
 1250000



EAGLE NEST





6

Segment KN500 Subdivision A
Location KNIGHT ISLAND
Photographer REBECCA HOFF
Roll No MAYSAP-6-03 Date 4/30/91
Control No 824 (Office Use Only)
Log Frame No 7 Negative No 6
Comments VIEW OF PIT 1 WITH SUBSURFACE
OIL RESIDUE



7

Segment KN500 Subdivision A
Location KNIGHT ISLAND
Photographer REBECCA HOFF
Roll No MAYSAP-6-03 Date 4/30/91
Control No 824 (Office Use Only)
Log Frame No 8 Negative No 7
Comments OVERVIEW OF SITE FROM
BOULDERS LOOKING NORTH



8

Segment KN500 Subdivision A
Location KNIGHT ISLAND
Photographer REBECCA HOFF
Il No MAYSAP-6-03 Date 4/30/91
Control No 824 (Office Use Only)
Log Frame No 9 Negative No 8
Comments CLOSEUP OF MUSSELS ON ROCK
FROM SAME LOCATION AS FRAME 8



9

Segment KN500 Subdivision A
Location KNIGHT ISLAND
Photographer REBECCA HOFF
Roll No MAYSAP-6-03 Date 4/30/91
Control No 824 (Office Use Only)
Log Frame No 10 Negative No 9
Comments VIEW LOOKING UPSTREAM



10

Segment KN500 Subdivision A
Location KNIGHT ISLAND
Photographer REBECCA HOFF
Roll No MAYSAP-6-03 Date 4/30/91
Control No 824 (Office Use Only)
Log Frame No 11 Negative No 10
Comments VIEW OF SURFACE OIL RESIDUE

1991 MAYSAP EVALUATION

Maysap Y

2261016992

SEGMENT: KN 500 SUB: A REGION: PWS SURVEY DATE: 4/30/91

ENVIRONMENTAL SENSITIVITIES:

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

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: Ricki DanDale Date: 5/22/91

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

N

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE: MAY 22 1991

FOSC APPROVAL DATE: 5/25/91

ADEC

FOSC

EXXON

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

USCG

NOAA

MAY SAP
Stream

1991 STATE WORK ORDER
EXXON VALDEZ OIL SPILL PROJECT
STATE OF ALASKA



PRINCE WILLIAM SOUND

SEGMENT: KN500 SUBDIVISION: A
anadromous fish stream, recreation area

SITE:

226-10-16992

RECOMMENDED TREATMENT:

TEST TILLING

In area of site 1:

Manually till to the depth of the oil a 10 meter by 10 meter area centered around pit 1.

Till during a rising tide and agitate the sediments to release sheen as the water table rises.

The tilling should occur during neap tides so that sheen and possible turbidity plume can be controlled.

Place sorbents/snare to collect and control sheen.

The TAG will inspect the site during and/or after tilling to determine the effects of tilling.

THE STATE WILL OBSERVE THIS SITE FOR SHEENING DURING THE SUMMER. IF SHEENING IS OBSERVED, THE ABOVE TEST TILLING IS RECOMMENDED.

ENVIRONMENTAL SENSITIVITIES:

Open only after eagle nest is cleared.

WORK WINDOW: 05/15/91 - 07/10/91

CLEANUP PLAN AND COST ESTIMATE DUE:

DATE SUBMITTED: 05/21/91

STATE ON SCENE COORDINATOR:

 for E. Piper

1991 STATE WORK ORDER
EXXON VALDEZ OIL SPILL PROJECT
STATE OF ALASKA



PRINCE WILLIAM SOUND

SEGMENT: KN0500 SUBDIVISION: A
anadromous fish stream, recreation area

SITE:

RECOMMENDED TREATMENT:

Further TAG evaluation is recommended.

ENVIRONMENTAL SENSITIVITIES:

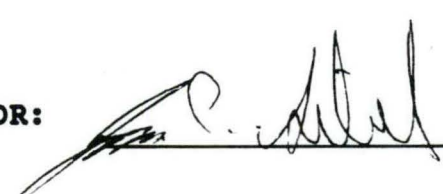
Open only after eagle nest is cleared.

WORK WINDOW: 05/15/91 - 07/10/91

CLEANUP PLAN AND COST ESTIMATE DUE:

DATE SUBMITTED: 05/13/91

STATE ON SCENE COORDINATOR:

 for E. Piper

**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.

1991 MAYSAP EVALUATION

SEGMENT: KN 500 SUB: A REGION: PWS SURVEY DATE: 4/30/91

ENVIRONMENTAL SENSITIVITIES.

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

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature _____ Date _____

RECOMMENDATIONS: INITIAL TAG FOSC

TREATMENT REQUIRED (Y or N) N _____

Manual Pickup (Check as Req) _____

Spot Washing _____

Bio-Customblen Only _____

Bio-Inipol/Customblen _____

Other _____

Other _____

COMMENTS

INITIAL Med till Site 1, Hand rake
Site 3

TAG review in field - TAG review

FOSC _____

TAG APPROVAL DATE: _____ FOSC APPROVAL DATE: _____

ADEC _____ FOSC _____

EXXON _____

USCG _____

NOAA _____

1991 STREAM FILE LOG HABITAT

STREAM CATALOG # : 226-10-16992
STREAM NAME : Knight Island

LOCATION : PWS.
SEGMENT : Kn-500a

[illegible]

TEAM NO. 7 REDAUN (STATE # 1)

SEGMENT KN-500

OG _____

BIO _____

SUBDIVISION A

DEC J. G. NATHAN / J. VINCENT

LANDMANAGER L. CARLSON/M. Hail for ACNR

DATE 6 / 10 / 91

EXXON _____

USCG/NOAA _____

TIME 18 : 55 to 20 : 10

TIDE LEVEL 3.0 ft. to 5.75 ft.

ENERGY LEVEL: ☐ H ☒ M ☐ L

SURVEYED FROM: ☒ FOOT ☐ BOAT ☐ HELO

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

TOTAL LENGTH SHORELINE SURVEYED: 200 m

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

EST. OIL CATEGORY LENGTH: W 8 m M 10 m N 20 m VL 10 m NO 150 m US 0 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-

FRAMES

PIT NO.	DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO					S	UI	MI	LI		
1	20							X	- - -	Y	-	N			X	PG - CGSM	BOTTOM END OF LENS	
2	25					X			20 - 25	Y	-	N			X	PG - P6S		
3	30				X				20 - 25	Y	-	N			X	PG - P6S		
4	30			X					20 - 30	N	-	N			X	PG - PGs		
5A	25					X			15 - 18	N	-	N		X		PG - G		
5B	25			X					18 - 25	N	-	N		X		PG - G		
6	28			X					22 - 23	N	-	N		X		PG - G		
7	45			X		X			40 - 46	Y	-	N		X		PG - GR	NON DEFINABLE LENS	
8	25						X		- - -	Y	-	N		X		PG - GR	UNDERLYING BARREL	

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

OG COMMENTS:

A FOLLOW UP SURVEY OF AREA WITH NOTED PRIOR OILING BUT NOT COVERED DURING MAYSAP. BEACH MORPHOLOGY SHOWS BEDROCK SURFACE SLOPING DOWNWARD TOWARD SEA, WITH MITE DOMINATED BY PEBBLE/GRAVELS. OIL APPEARS TO HAVE "SLID" DOWN BEDROCK AND SETTLED INTO MITE - MITE SEDIMENTS. HEAVIER CONCENTRATION OF SUBSURFACE OIL AT WESTERN COVE. OILED ZONE AT WESTERN EDGE (A) FOUND DEEPER THAN EAST COVE (B), AS FINE SEDIMENTS AT WESTERN COVE. IMPACT AREA AT SITE "A" IS 12X20, TAPERING

* PARTIAL SURVEY. OTHER AREAS IN SEGMENT WERE SURVEYED BY MANSAP

185

DATE 6/10/91

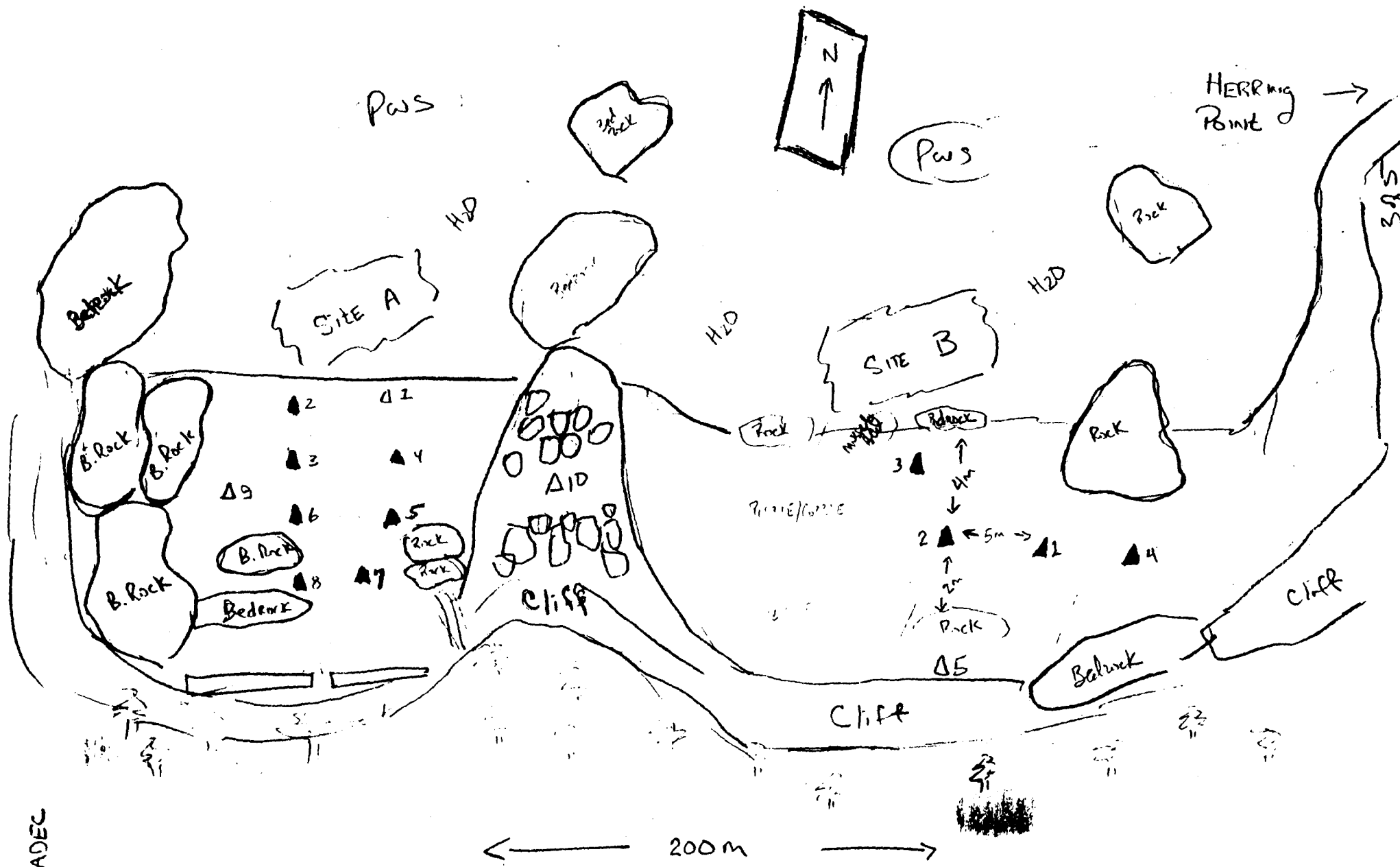
SHEEN COLOR: B = BROWN: R = RAINBOW: S = SILVER: N = NONE

RECOMMENDATION: OIL IS MORE HEAVILY CONCENTRATED AT SITE "A", BUT TOO DEEP TO EFFECTIVELY MANTLEY TILL. MECHANICAL TILLING WOULD BE TOO ~~EXPENSIVE~~ WHEN BALANCED AGAINST OIL RECOVERED. SITE "A" IS FAIRLY STERILE BIOLOGICAL BEACH; SITE "B" CONTAINS MUSSEL BED AND A MORE "TYPICAL" PWS INTERIORAL BIODIA AREA, I.E., FUCUS, POPWEED, LITHORINIDS, LIMPETS.

SURFACE & SUBSURFACE
6.10.91

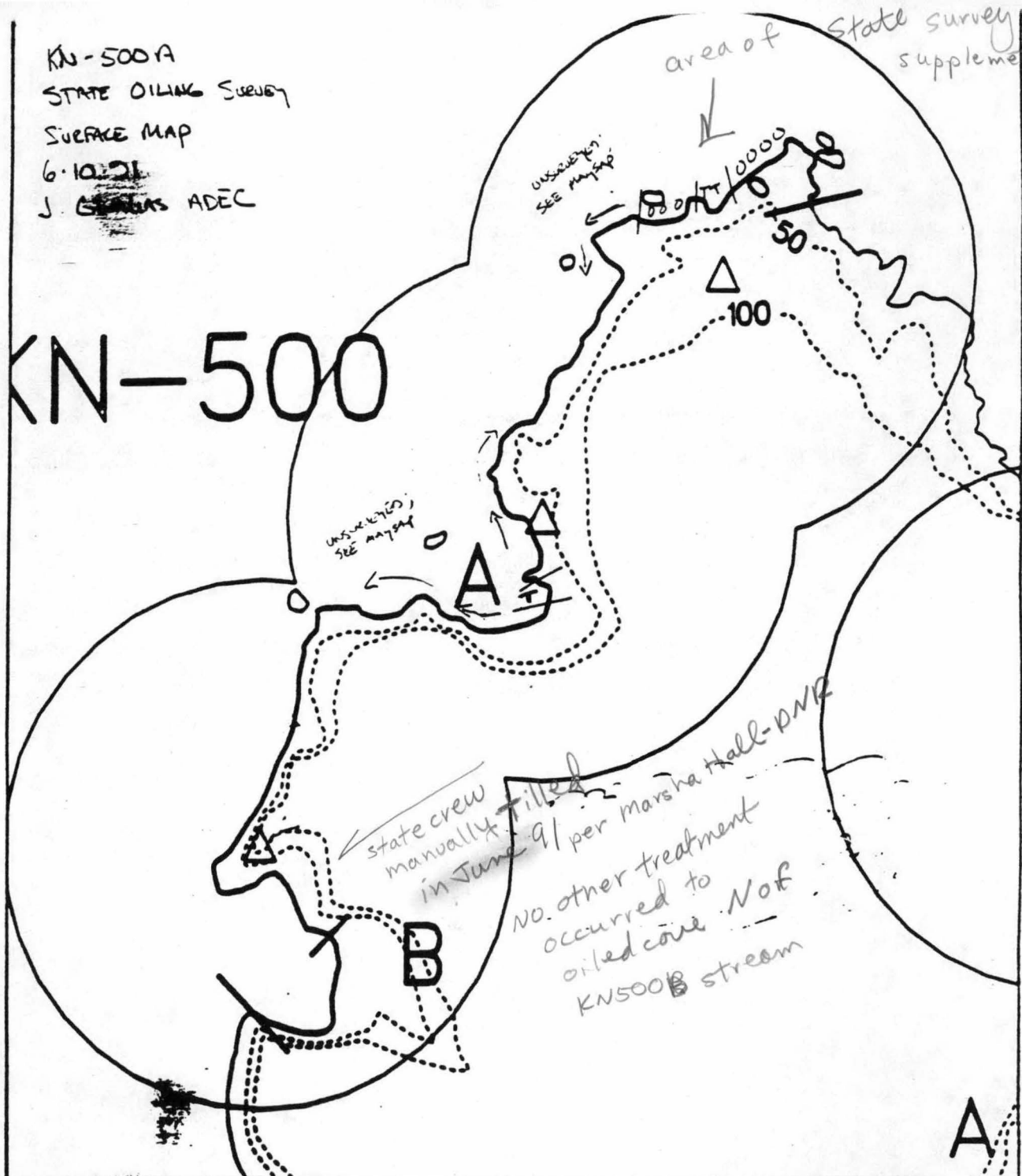
J. GINALIAS ADEC

SITES A & B



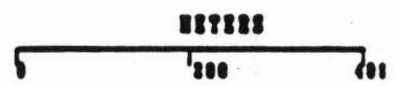
KN-500A
 STATE OILING SURVEY
 SURFACE MAP
 6-10-71
 J. G. ADEC

KN-500



KN0500

Segment Reference Map
 Map Key: KN180600



AS State Plane Zone 4
 1850500

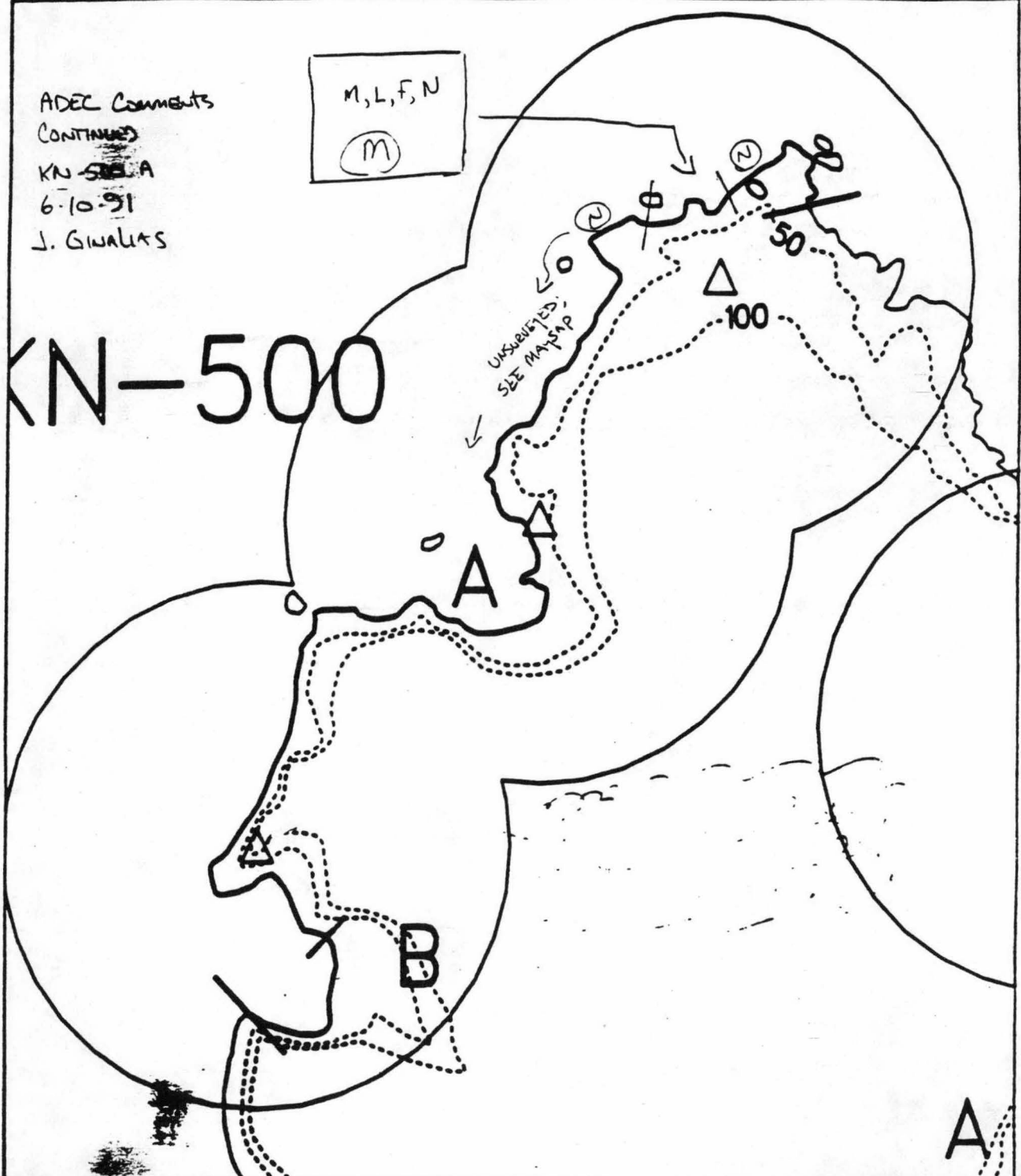


EAGLE NEST

ADEC Comments
 CONTINUED
 KN-500 A
 6-10-91
 J. GIVALLAS

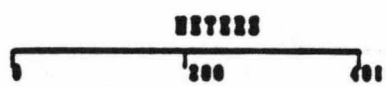
M, L, F, N
 (M)

KN-500



KN0500

Segment Reference Map
 Map Key: ENEN0500



AK State Plane Zone 4
 1800500



EAGLE NEST

ADF&G MULTI-ASSESSMENT DATA FORM

- 1) SURVEY TYPE: BS SS 2) REGION: PWS KP, CI K, AP
- 3) METHOD: Aerial Ground Boat
- 4) DATE: 4/30/91 16) HIGH TIDE TIME: _____ 22) TEAM RECORDER: Tom Crowe
- 5) START TIME: 1015 17) HIGH TIDE HTS: _____ 23) OBSERVERS: AMKE WESMAN
- 6) STOP TIME: 1115 18) LOW TIDE TIMES: 0900 24) AGENCY: ADF&G
- 7) SEGMENT #: KN500A^{#3} 19) LOW TIDE HTS: -2 25) PHOTOS TAKEN: Y N
- 8) K-UNIT: _____ 20) TIDE HT AT SURVEY: -0.3 to +1.2 ROLL #: _____ FRAMES: _____
- 9) LAT: _____ Ebb Slack Flood Slack 26) VIDEO TAKEN: Y N
- 10) LONG: _____ 21) USCG QUAD: _____ TAPE # _____
- 11) ASC #: _____ START: _____ STOP: _____
- 12) STREAM NAME: 246-10-18992 27) SAMPLES TAKEN? Y N
- 13) LOCATION: KNIGHT ISLAND SAMPLE I.D. _____
- 14) WAVE EXPOSURE: High Moderate Low
- 15) SHORELINE TYPE: Headland Low-lying Rocks Beach
- Cove Lagoon Marsh

28) EXTENT OF OIL

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

- 29) OVERALL OIL IMPACT: 33) ANADROMOUS FISH PRESENT: Y N
- H = >6m band with $\geq 50\%$ oil coverage
- M = >6m band with $\leq 50\%$ oil coverage or $\geq 3\text{m}$ to $\leq 6\text{m}$ with $\geq 10\%$ oil coverage
- L = <3m band with >10% oil coverage OVERALL
- VL = $\leq 10\%$ oil coverage regardless of band width
- N = No oil observed
- 30) OIL IN STREAMBED: Y N
- 31) OIL ON BEACH ADJACENT TO MOUTH: Y N
- 32) SUBSTRATE TYPE (PERCENT):
- Bedrock 40 Boulder _____ Gravel 60 Sand _____ Cobble _____ Mud/Silt _____
- 34) WILDLIFE OBSERVATION
- Species _____ Number _____
- Rock Blennies 3
- 35) COMMENTS: _____
- _____
- _____
- _____
- _____
- _____

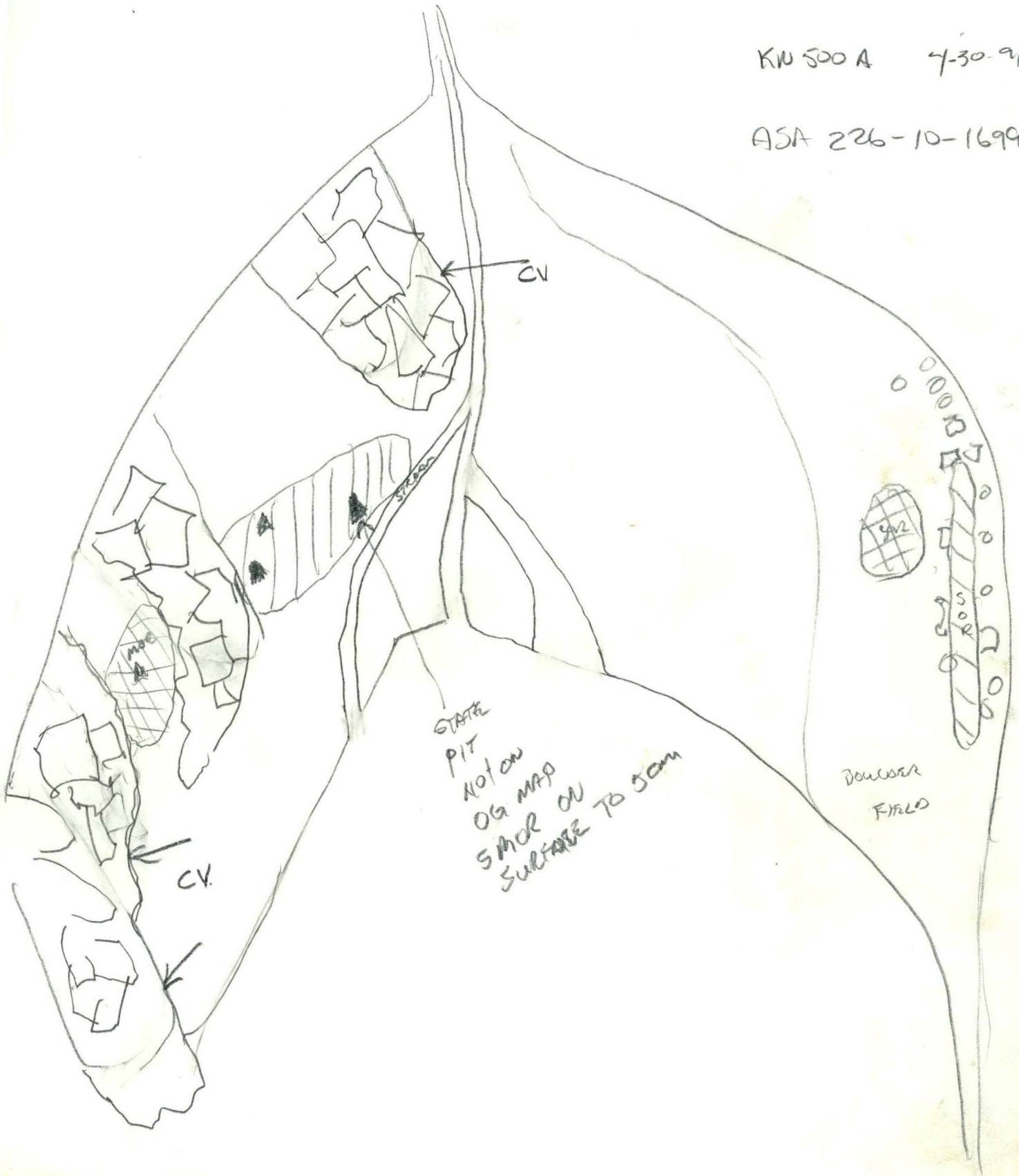
36) PHOTOLOG

FRAME(S)

DESCRIPTION

KN 500 A 4-30-91

ASA 226-10-16992



PAGE 1 OF 2

DATE 04 / 30 / 91

ENERGY LEVEL: ☐ H ☒ M ☐ L

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

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

EST. OIL CATEGORY LENGTH: W — m M — m N 45 m VL 0.5 m NO 410 m US 1720 m

↑
all in site 3

SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE PHOTO ROLL # MAYSAP- 6 - 03 FRAMES 6-11

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

Sites "1" and "3" (ASAP Doug Reimer terminology) were partially surveyed - last pocket beach on "site 3" was not accessible by helo / foot. Surface oil was restricted to site 3, where vertical rocks had CV in patches occupying a band of Q2 - 0.5m width and studded with spruce needles. Beach sediments were SOR (light to heavy) in two patches (B and B1) with sheen running off. Subsurface oil was found in 4 pits of H→M OR occupying a putative band of about 10x40m in the MITZ. (site 1 only) to cm max. obs. pen. All pits on this page are from KN-500-A ("site 1" from ASAP). [For site 3 see over.

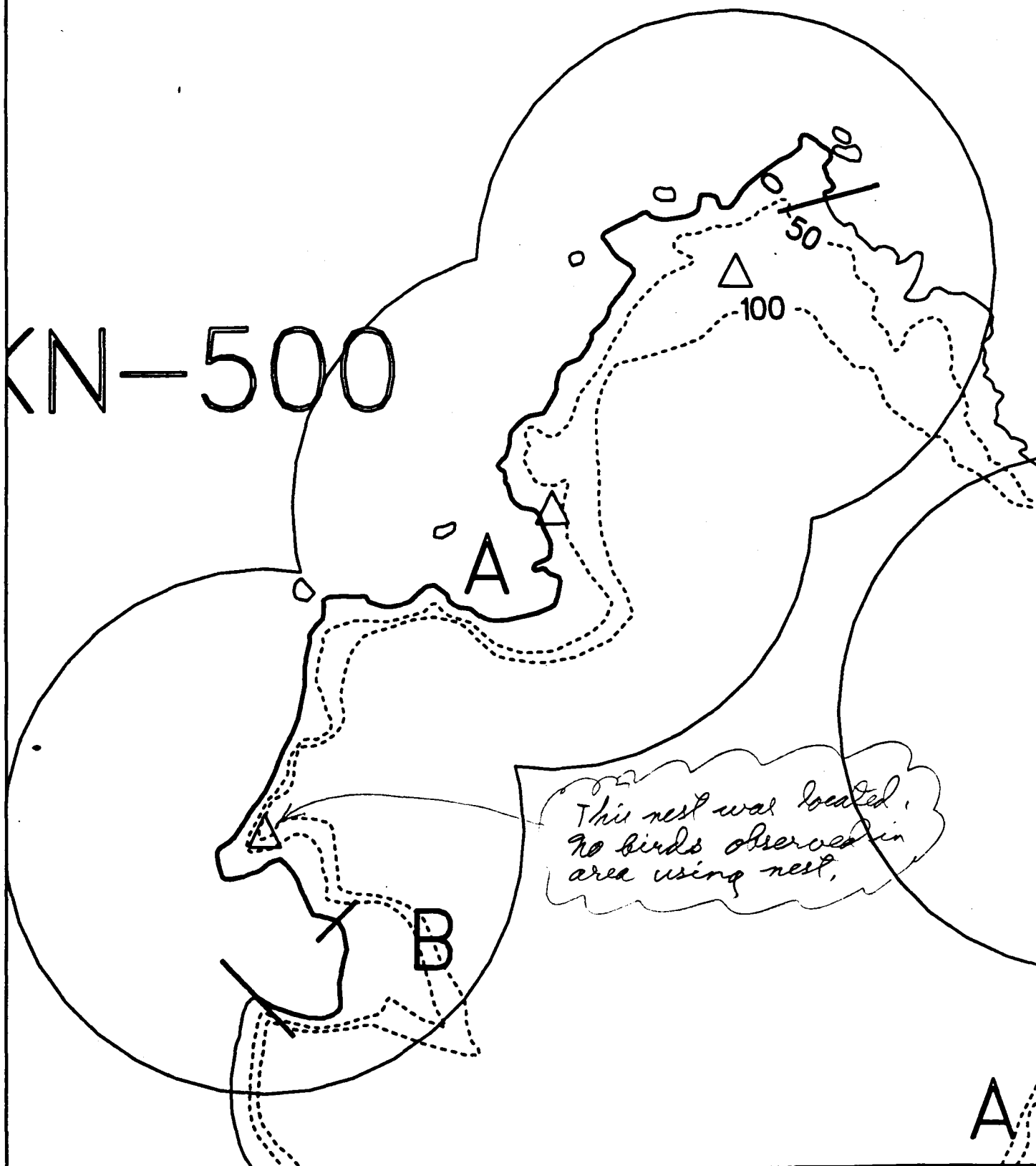
PAGE 2 OF 2

DATE 04 / 30 / 91

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

Subsurface oil in site "3" was restricted to a maximum penetration of 20 cm. and occurred in each of 2 small pockets in addition to the boulder field south of the ANAD. stream.

KN-500



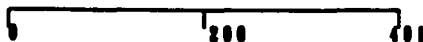
*This nest was located.
No birds observed in
area using nest.*

A



KN0500

METERS



AK State Plane Zone 4
KN0500

Segment Reference Map

Map Key: KN1KN0500



EAGLE NEST

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6

DATE 4/30/91

SEGMENT # KN-500

TIDAL HEIGHT(Range) -1.0 to +3.0 feet

SUBDIVISION A

BIOLOGIST T.A. Schroeder

SEA STATE Very rough

WIND SPEED/DIRECTION N.E. 30 mph +

PHOTOGRAPHS: ROLL #

FRAME #

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

(Site 1) = Oil found was all subsurface MOR or HOR. Center of beach area is composed of loose sand and gravel and is unproductive. North and south portions of beach are extremely lush and abundant. Mussels, barnacles, kelp, littorine snails and fish are all thriving in spite of presence of subsurface oil. Any methods used to remove or treat this oil would be very intrusive and detrimental to this thriving area.

(Site 3) (A) Located in LITZ. mussel beds are reestablishing themselves in braided section of anadromous stream.

(B, B, C, C, + D) = CV and SOR located above and adjacent to very healthy intertidal community. Limpets, littorine snails and mussels present on back of rocks directly under CV. Remaining oil not affecting living organisms. Subsurface oil is adjacent to heavy regrowth of mussels and fishes spawning. LITZ is extremely lush throughout this site.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles			Rock Blennies
Seabirds			
Waterfowl			
Gulls/kittiwakes	1	1	
Shorebirds			
Corvids			
Other Birds			

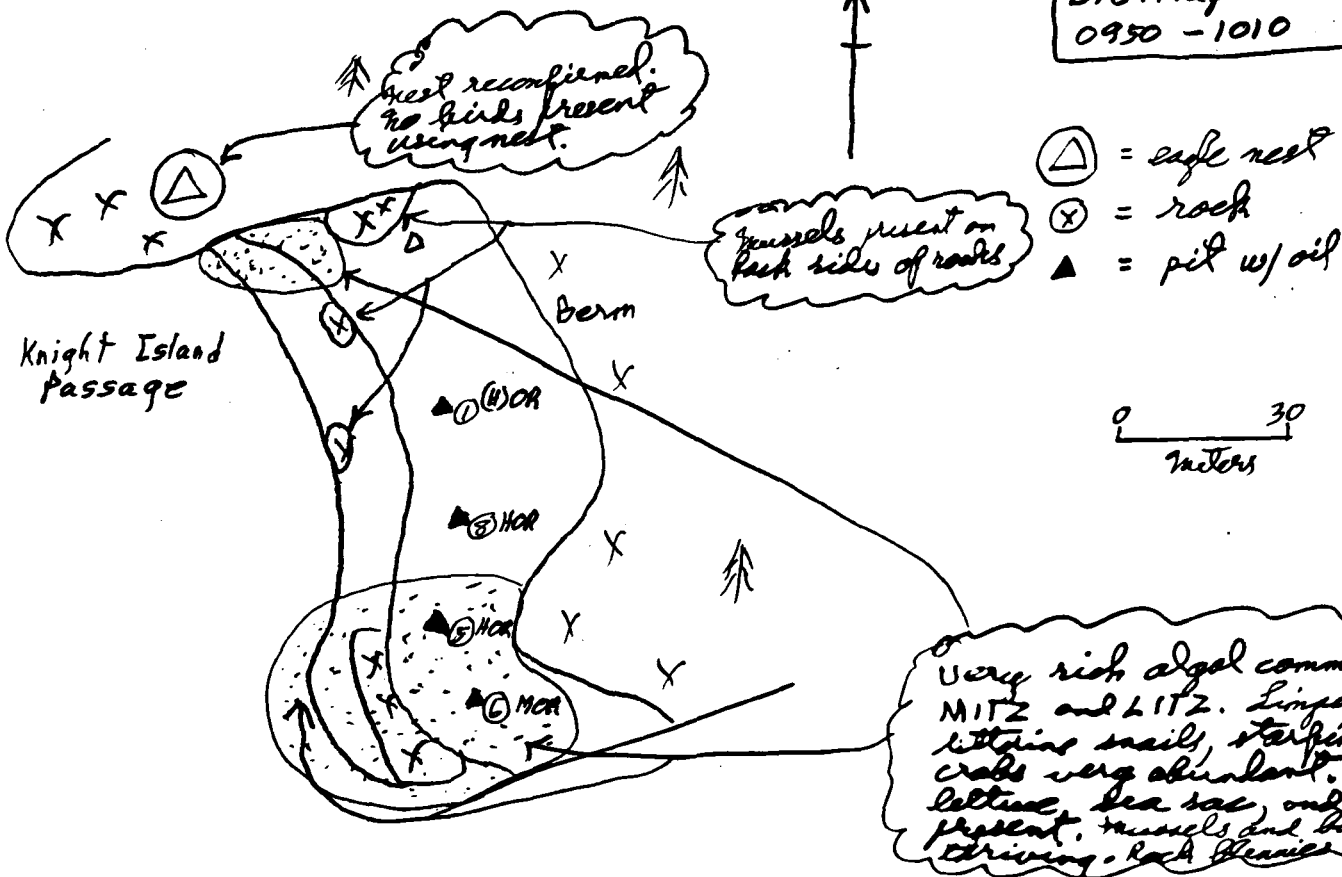
LAND MAMMALS

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

Shoreline subdivision map showing important biological features attached.

Site 1

KN-500-A (Site 1) 4/30/91
Bio. Map T.R. Schroeder
0950 - 1010



Site 3

KN-500-A (Site 3) 4/30/91
Bio. Map T.R. Schroeder
1030 - 1115

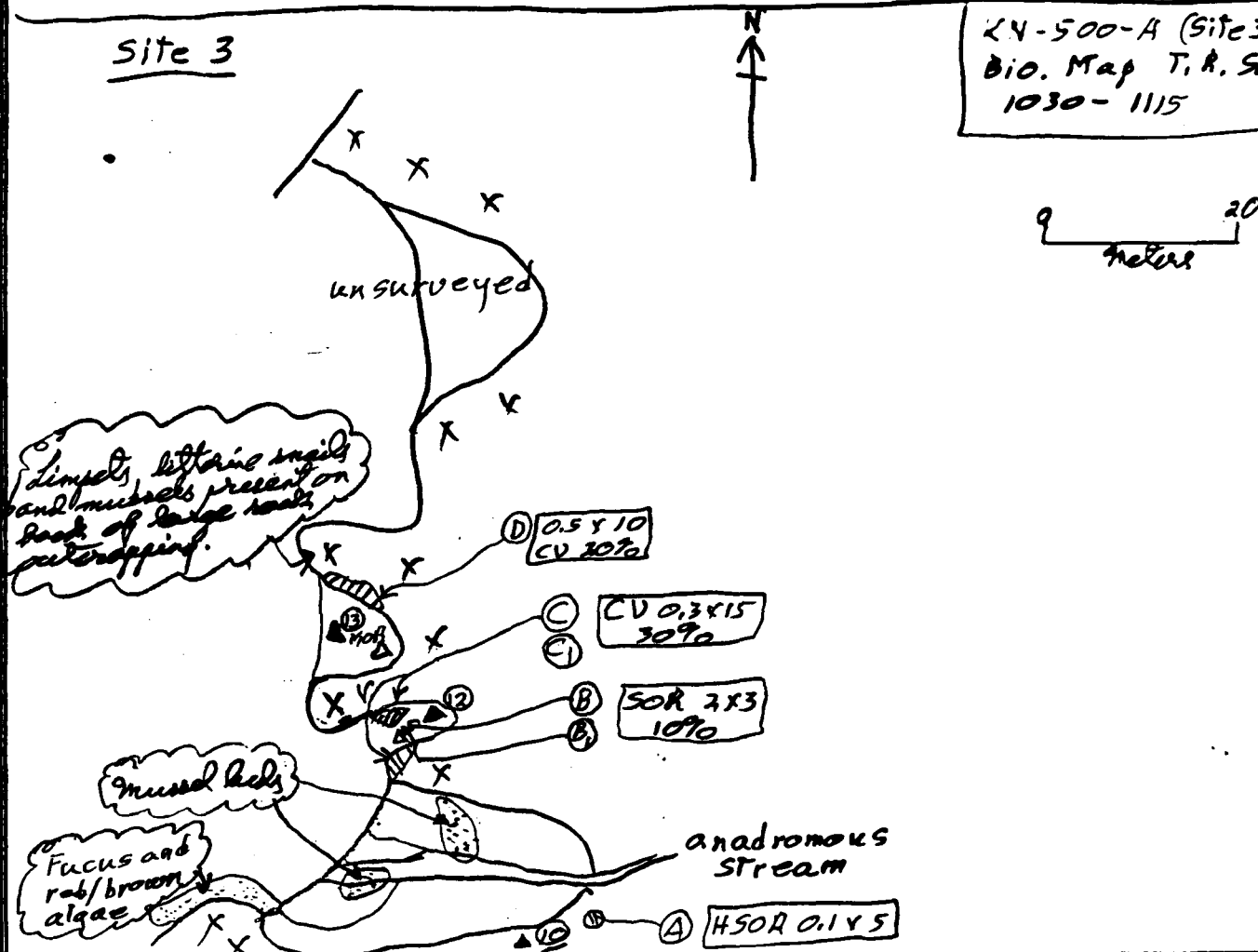
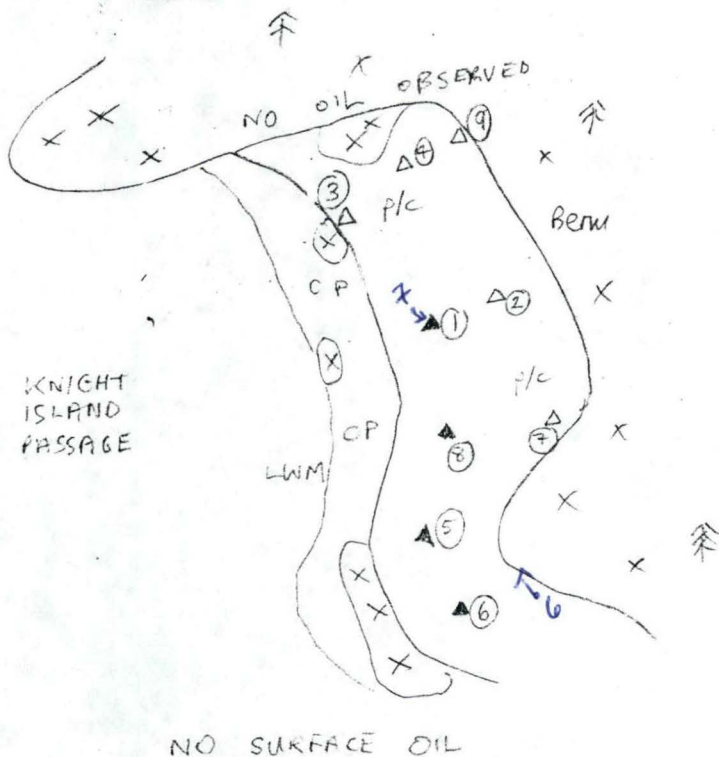


Photo locations

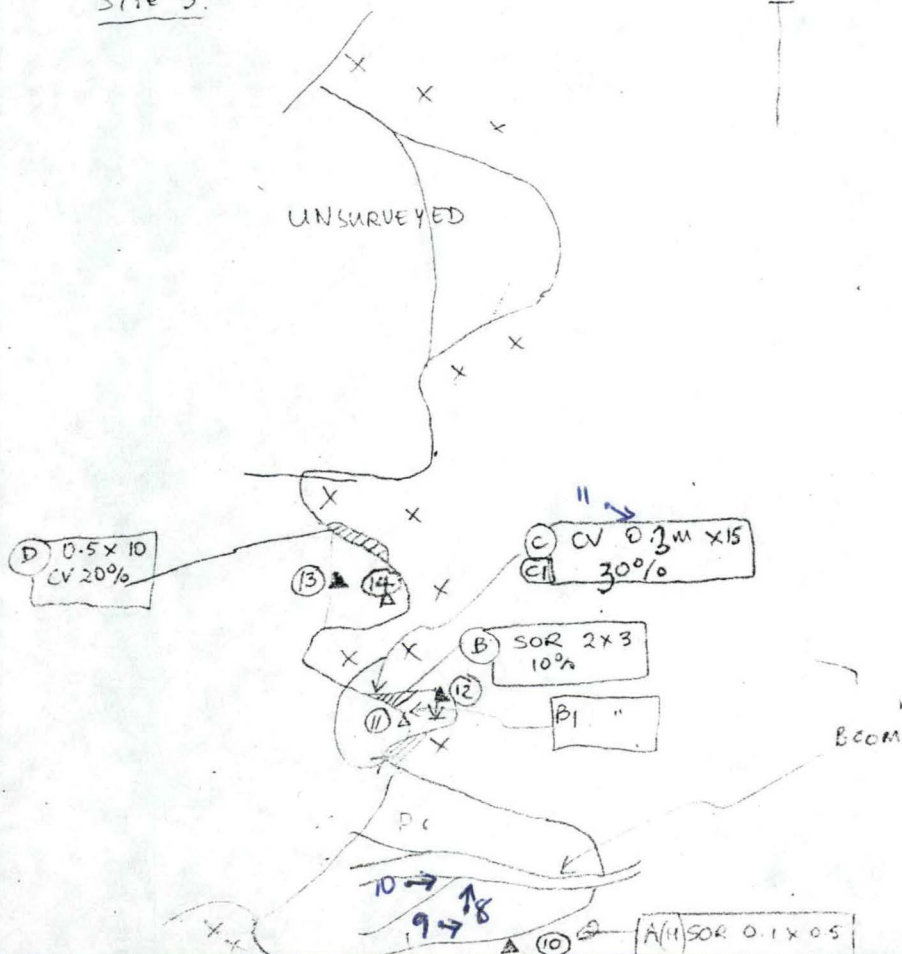
Site 1.



KN-500-A (Site 1) 04/30/91
OG Map D.I. Little
0950 - 1010

#	pit	TD	OIL	4/N Wt	Seeds	Sp
1		40 cm (H)	OR	5-40	N	C/P
2		25 cm	NO	NO WT	g/p	
3		20 cm	NO	WT	5 cm	P/g
4		25 cm	NO	WT	10 cm	P/g
5		25 cm (H)	OR	10 cm	SP/g	
6		15 cm (M)	OR	5-10	SP/g	
7		20 cm	NO	-	P/g	
8		25	(H)	OR	5-?	SP
9		40	NO	NO	P/g	

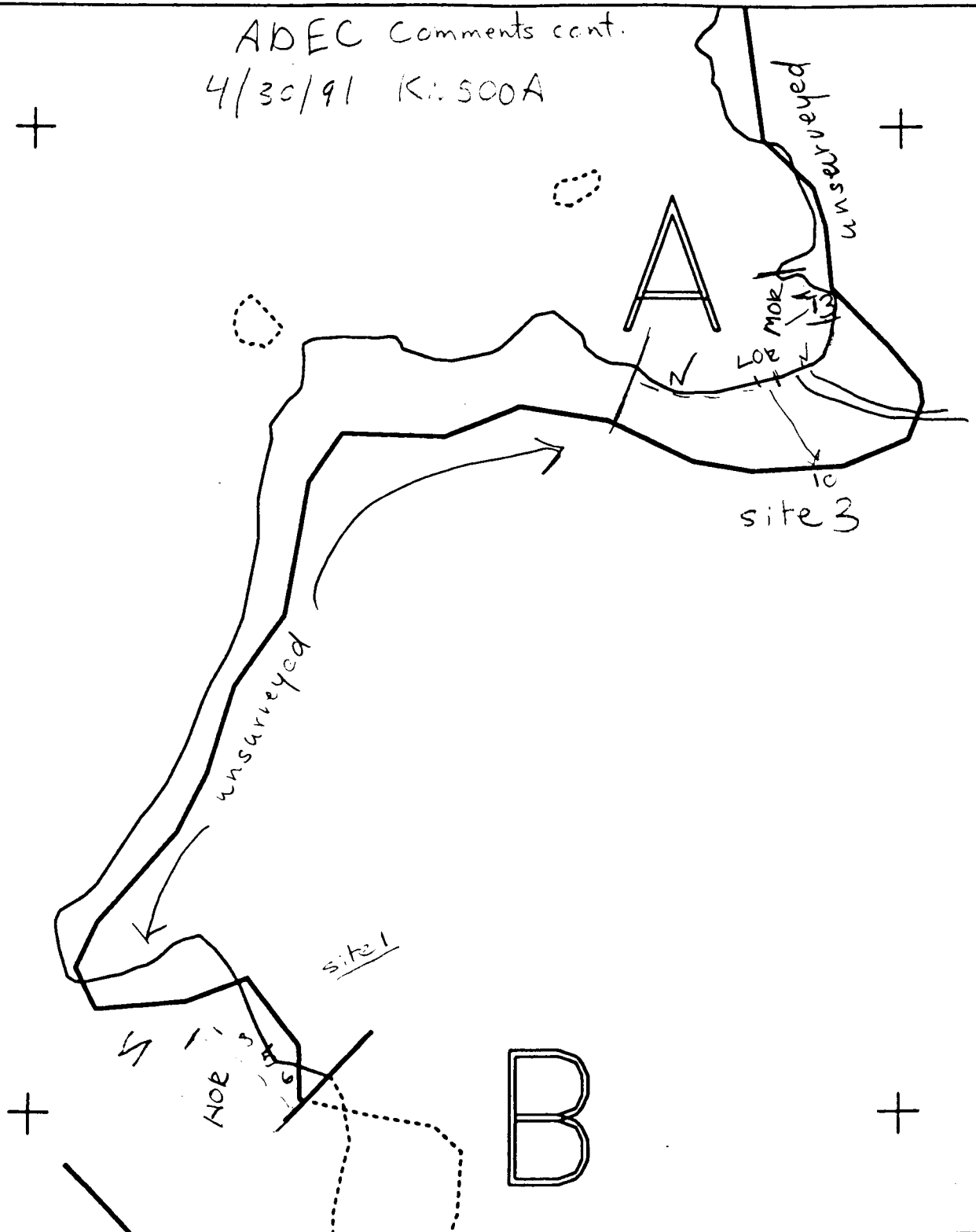
Site 3.



KN-500-A (Site 3) 04/30/91
OG Map D.I. Little
1050 - 1118

#	pit	TD	OIL	4/N Wt	Seeds	Sp
10		25	5-10	4	15	B/g
11		20	NO	..	..	P/g
12		20 (L)	SCR	0-10	10	P/g
13		20 (M)	OR	5-20 in pocket	15 cm	P/g
14		25	NO	-	20	P/g
15						

ADEC Comments cont.
4/30/91 K1500A



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

KN0500 A
 ADEC Subsegment Length: 2175m

METERS
 0 100 200

AK State Plane Zone 4
 44050000



Subdivision Field Map

Map Key: KN1KN0500Ae

Name: Aimee Weseman

Date: _____

Date Entered: _____

ADEC comments cont...

KN500A - 4/30/91



-5000



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

KN0500 A
ADEC Subsegment Length: 2175m
METERS

0 100 200

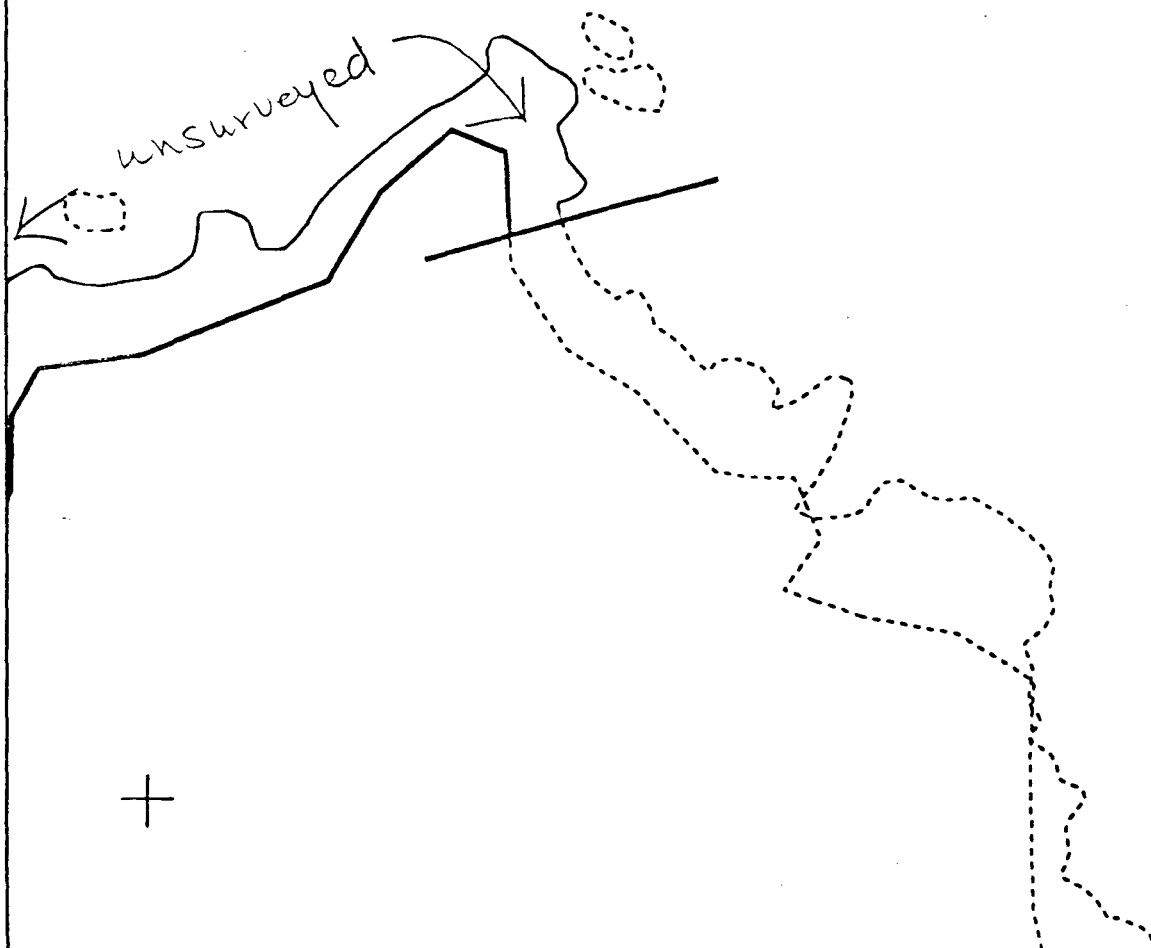
AK State Plane Zone 4
hkn0500ac



Subdivision Field Map
Map Key: KNIK0500Ac
Name: Aimee Weseman

Date: _____
Date Entered: _____

ADEC comments cont.
4/30/91 KN500A



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

KN0500 A
ADEC Subsegment Length: 2175m
METERS
0 100 200
AK State Plane Zone 4
440500ad



Subdivision Field Map
Map Key: KNKN0500Ad
Name: Aimee Weseman
Date: _____
Data Entered: _____

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 6 SEGMENT KN-500 SUBDIVISION A DATE 04/30/91

ADEC & USFS

NAME Aimee Weseman SIGNATURE Aimee Weseman

- ☐ NTR ☒ Treatment Recommended Anad Fish Stream, commercial fishing & recreation site 1 - The Anadromous fish stream portion of the subdivision looks in good shape. Area C1 along the cliff face, adjacent to the stream could be manually tilled to expose OR sediments.
- site 3 - contains a 10x40m band of H+MOR sediments near the surface in the MITZ. The lense rests on "peat" & could be problematical to treat. The area could be assessed further to determine if "tilling" would cause more harm than good.

EXXON

NAME Scott A. Nauman SIGNATURE Scott A. Nauman

- ☒ NTR
- Site 3, which contains the stream, was largely oil free - with very small patches of SOR. The area was rich with mussels and fucus. I would definitely not see a net benefit to treating this area. Site 1, near KN-500B, had no surface oil. The band of subsurface oil is stable and limited to oil residues. To treat this band would disturb a thriving intertidal zone, and I believe cause more harm than good.

LANDMANAGER

NAME TOM CROWE OF ADFC SIGNATURE Tom Crowe

- ☐ NTR ☒ TREATMENT RECOMMENDED

Site #3 MANUAL TILLING OF MOR AND SOR SEDIMENTS ADJACENT TO THE STREAM CHANNEL ON NORTH SIDE. EASILY ACCOMPLISHED BY A SMALL CREW WITH HAND TOOLS Site #1 THIS SITE WILL REQUIRE MECHANICAL TILLING TO ACCOMPLISH ANY REDUCTION OF THE VERY LARGE LENSE OF MOR SEDIMENTS ON THIS BEACH.

USCG/NOAA

NAME CWO R. SPURR / Rebecca Hoff SIGNATURE R. Spurr / Rebecca Hoff

- ☒ NTR Site 1: This small cove showed heavy subsurface oil in places. However, it is at depth and covered by clean sediments. There is a rich intertidal zone with algal diversity + mussels growing directly over areas with subsurface oil. This oil represents no threat to any sensitive habitats + should not be treated.
- Site 3: all oil found was surface oil residue in only small areas. This should weather well on its own and does not warrant any additional treatment.