

BP-004 *3 ASC 16392
POINT COUNTESS

ACE 1369517



)
)

- Prince William Sound -

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. 5, 1991)
____ '90 ASAP Survey ____ ASAP Rec. ____ ADEC Rec. (7-91)
____ '90 Other Documents _____

OPERATIONS FIELD NOTES

See Back for Instructions

SEGMENT ID ANAD BP-004
STREAM ID # 226-20-16392

ANNOTATED MAP INCLUDED ☒ Y/N

DATE 4-24-90
NAME GARCIA
TEAM # 15

SURFACE OIL	Quantities in Meters			None	Treatment Recommendation					
	Length	Width	Area		Bioremediation		Tilling		Spot Hot Water	
					Y/N	% Treat	Y/N	% Treat	Y/N	% Treat
Wide Band	VERY	SPORADICALLY		NONE						
Medium Band	STAINED, LESS THAN									
Narrow Band	0.5%									
Very Light										
TOTAL MANDAYS						0		0		0

SUBSURFACE OIL - NONE

Other (Describe)?	

TARMATS	Quantities in Meters			Treatment Rec			# of Bags	Mandays Required	
	Length	Width	Thick(cm)	None	Breakup	Remove		Breakup	Remove
Area #1	25	2	6			✓	30		3
Area #2 SPORADIC	20	2	6			✓	10		3
Area #3 OILED MOUSSE ALSO	6	4	4			✓	10		2
Area #4	4	1	5			✓	10		2
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								
"Pocket" #2	NONE							
"Pocket" #3								
Random/Continuous								

OILED LOGS ☒ Y/N	OILING <u>H/M/L</u>	QUANTITY <u>L/M/S</u>	BURN ☐ Y/N
--	---------------------	-----------------------	-----------------------------------

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

GENERAL

Snow covering 5 % of the Supratidal Zone?

Wave Exposure H/M/L Access Limitations: NONE

Snare Boom/Pom Poms Recommended? NO

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

COMMENTS:

MANUAL PICKUP OF TARMATS AND SPORADIC TAR PATTIES AS NOTED ON ATTACHED MAP ONLY TREATMENT RECOMMENDED, NO OTHER TREATMENT NECESSARY. TOTAL MANDAYS REQUIRED FOR THIS STREAM IS 10.

ACE 6976400 +1/2

5/32

OG WILLIAM KEID

SEGMENT ST/

STREAM 226-40-16392

DATE 24 / APR 90

CHECKLIST

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

LEGEND

1 ▲

Pit - No Subsurface Oil

2 ▲

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

lll

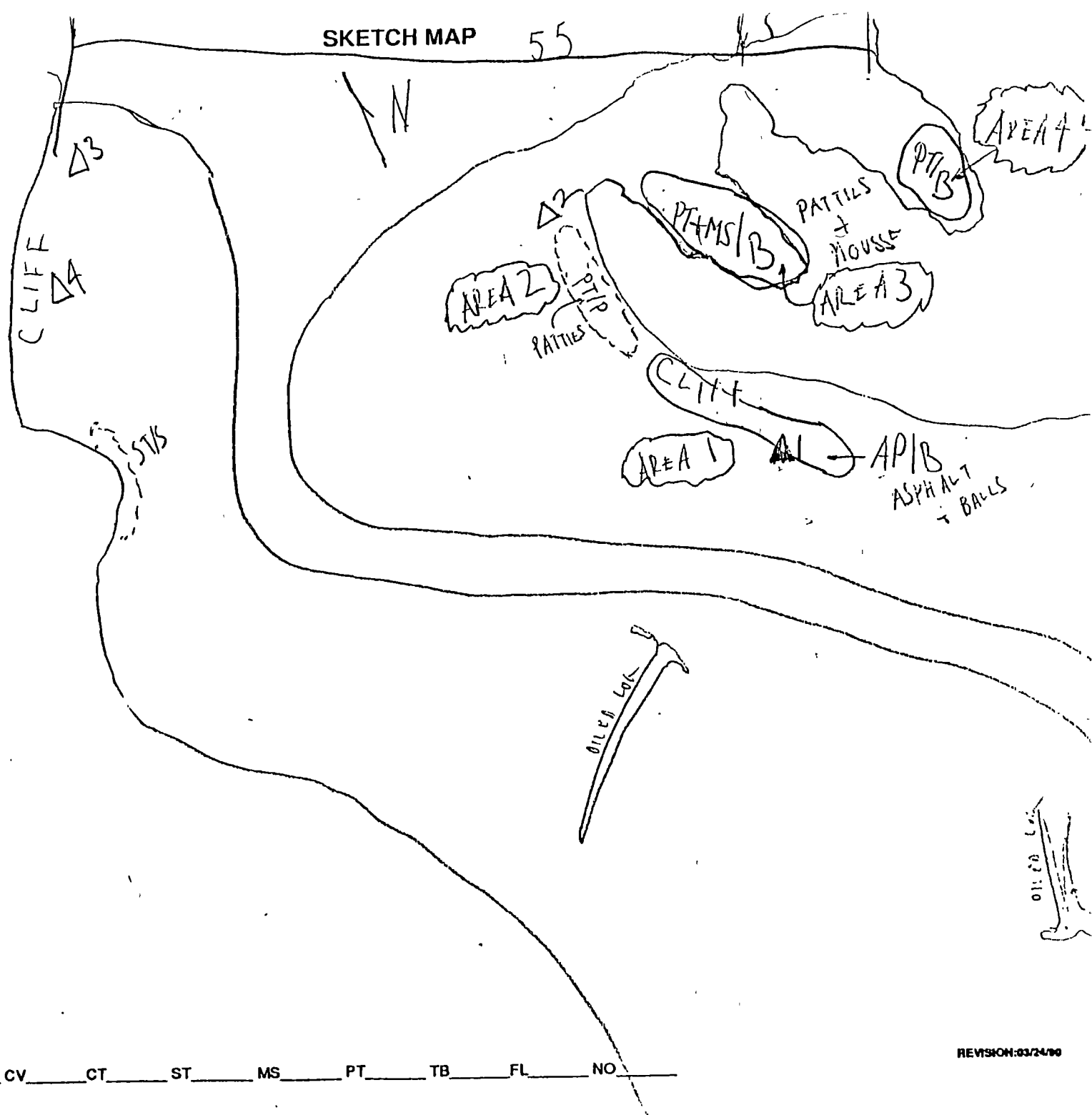
Oiled Vegetation

1 ➔

Photo location, direction, and number

SKETCH MAP

55



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

REVISION: 03/24/90

ACE 6976401

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1 BP004 SUBDIVISION: 16392 DATE 4/24/90

USCG

NAME CWO McMAHON SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

1. MANUAL TREATMENT; REMOVE TAR BALLS
AND MOUSSE PER MAP LEFT SIDE (LOOKING ONSHORE)

~~ADFEF~~ TOM CROWE
~~ADEC~~

NAME NO TEAM MEMBER SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

MANUAL TREATMENT; REMOVE TAR MATS WITH SPECIAL
CONSIDERATION TO POCKET COVERS.

LAND MANAGER

NAME NO TEAM MEMBER SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

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: 4/24/90 15 HIGH TIDE TIMES: 0059, 1347 21 TEAM RECORDER: M. WIEDNER

4 START TIME: 0920 16 HIGH TIDE HTS: 12.5, 10.9 22 OBSERVERS: T. CROWE

5 STOP TIME: 1005 17 LOW TIDE TIMES: 0731, 1935 23 AGENCY: ADF&G

6 SEGMENT #: BP-004 18 LOW TIDE HTS: -2.2, 0.7 24 PHOTOS TAKEN: Y N

7 STATION #: 226-20-16392 19 TIDE HT AT SURVEY: 0.71' 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: POINT COUNTESS Sediment _____

14 DESCRIPTION: _____ Biological _____

Water _____

EXTENT OF OIL

	SHORELINE				STREAM			
	L	W	M ²	%	L	W	M ²	%
27 SURFACE COVERAGE	75	200		3	200	4		<1
28 SURFACE THICKNESS	2cm	1cm	3cm					
29 PENETRATION	4cm	5cm	6cm					

30 OVERALL OIL IMPACT: N VL L N H

31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain

32 OILED DEBRIS? Y N

33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cove

34 WAVE EXPOSURE: High Moderate Low

35 SUBSTRATE TYPE: Bedrock 2 Boulder 10 Cobble 44

Gravel 44 Sand _____ Mud/silt _____

36 CATALOGED ANAD. FISH SKELET? Y N

37 CATALOG #: 226-20-16392

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: _____

43 ANADROMOUS FISH PRESENT? Y N
ALEUTIC PERCH

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

COMMENTS: ASPHALT BAND ALONG HIGH TIDE LINE EAST OF CHANNEL
SCATTERED ASPHALT PATCHES SEAWARD FROM CONTINUOUS BAND
AREAS OF POOLED MOUSSE IN SMALL PROTECTED POCKETS
E.E. OF CHANNEL MOUTH

FRAME(S)	DESCRIPTION
	RECOMMENDATIONS: MANUALLY REMOVE ALL SURFACE TAR MATS AND PATTIES AND MOUSSE. REMOVAL OF MOUSSE FROM BETWEEN BOULDERS MAY REQUIRE TROWELS AND ABSORBENTS.
	I agree with recommendations. M. B. Fawcett

46 OIL DISTRIBUTION DIAGRAM

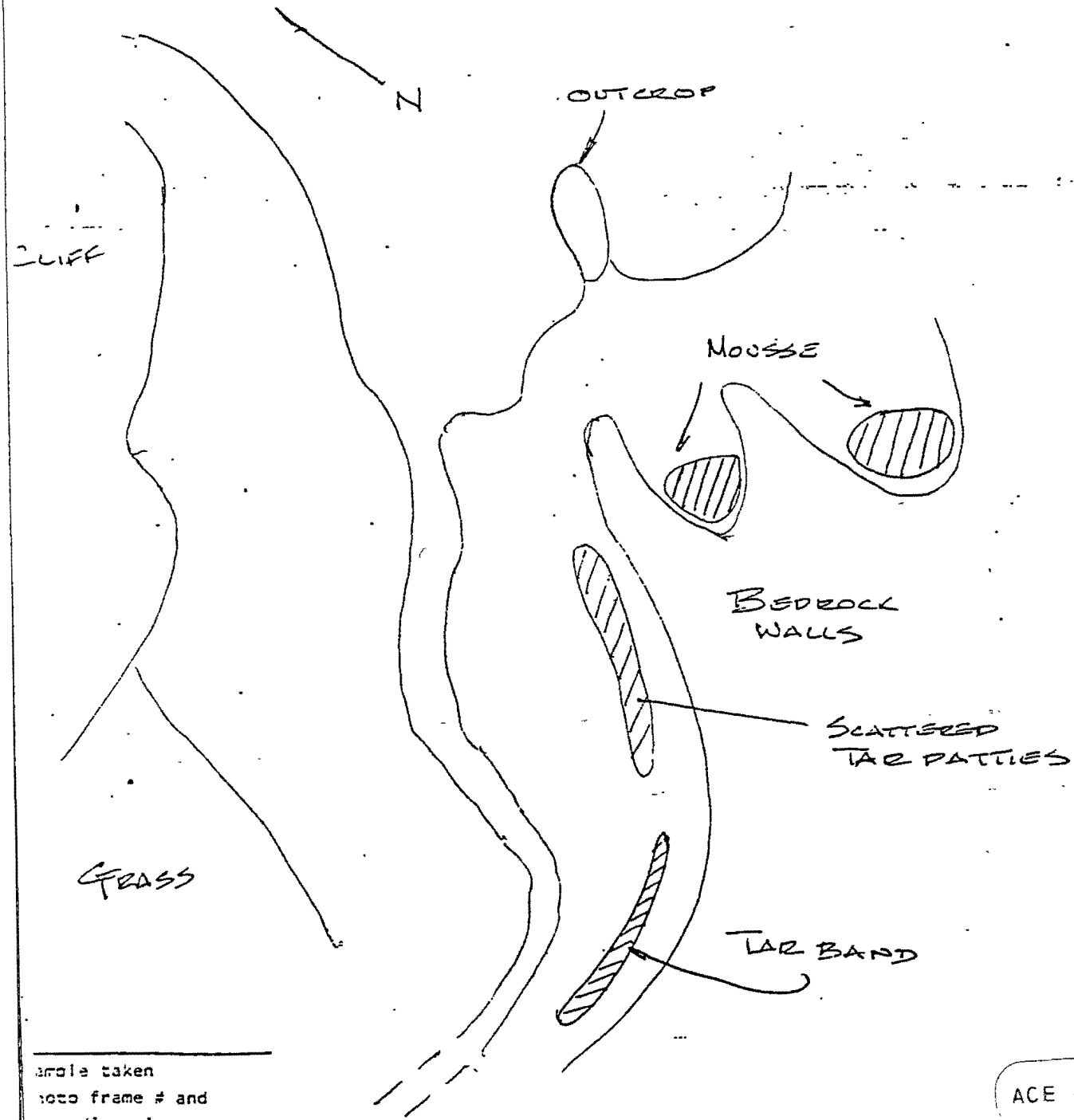


photo taken
photo frame # and
photo direction.

SHORELINE OILING SUMMARY (ANAD.)

REVISION NO. 04/1

OG WILLIAM LEID USCG McMAHON SEGMENT ST/ RPMMA
 BIO MICHAEL FAWCETT LAND REP STREAM 226-20463921 OF 9/32
 EXXON GUS GARCIA ADFG MIKE WIEDMER TIME 09:25 to 10:00
 TEAM NO. 15 TIDE LEVEL 0 FT DATE 24 / APR / 1990
 EST. SUBDIVISION LENGTH: 55 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 5 % B 35 % C 60 % G 0 % S 0 % M 0 % V
 SLOPE: Long 80 % Hang 20 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 8 m M 0 m N 2 m VL 0 m NO 45 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	TC	TB	TP	TS	BR PH	DR PW	GY	SL	DR TL	LR	SU	U	M	L
ASPHALT PAVEMENT		X				X						X		
POOLED														
COVER														
COAT														
STAIN		X					X					X		
MOUSSE		X							X			X		
PATTIES		X				X			X			X		
TARBALLS														
FILM														
NO OIL														

PAVEMENT H (F) (S) 150 sq. m by 7

PATTIES / TARBALLS 0 BAG

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)	V	SURFACE SUBSURFACE SEDIMENT
		OP	OR	OL	OF	NO		UO	UC	BR	FR	GY	SL	OR	TL	LR	SU	U	M	L					
1	40		X				0-6		X		X						X					N			P/G/C
2	35					X	.										X					N			P/G/C
3	30					X	.											X				N			P/G/C
4	30					X	.											X				N			P/G/C
5	35					X	.										X					N			P/G/C
6	25					X	.										X					N			P/G

COMMENTS

REVIEWED 0 DATE 0

10/3/85 OG WILLIAM REID

SEGMENT ST/

STREAM 226-20-16392

DATE 24 APR 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 $\blacktriangle$
Pit - Subsurface Oil
- CT/C

Continuous Distribution
- CT/B

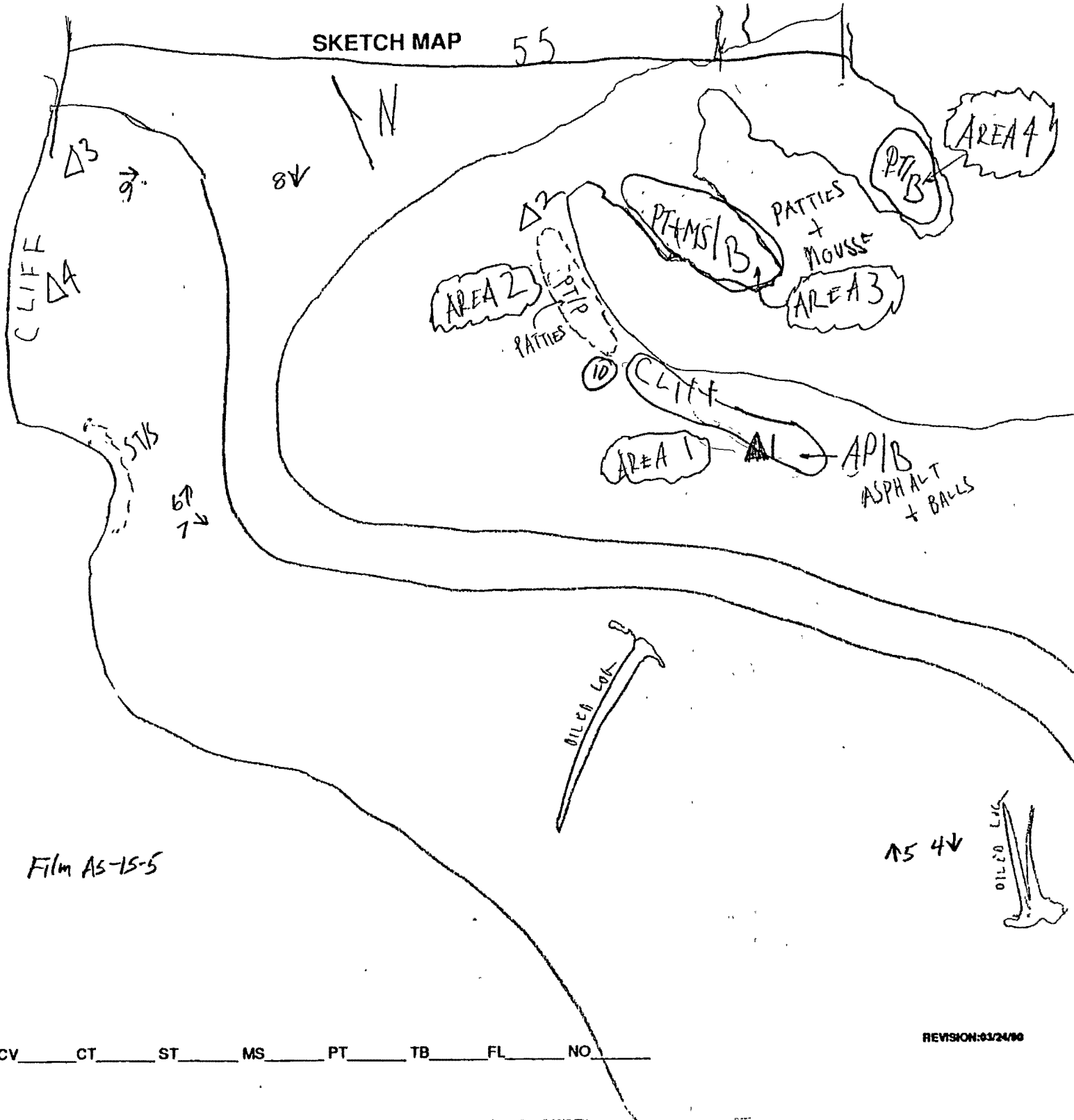
Broken Distribution
- CT/P

Patchy Distribution
- CT/S

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

SKETCH MAP

55



Film AS-15-5

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

REVISION: 03/24/90

ACE 6976406

11/32

SSAT DATA ENTRY FORM

PAGE 1 OF 2

GENERAL DATA

SEG ID: BP004 ²²⁶⁻²⁰⁻ SUBDIV: 16392 TEAM: AS-15 SURVEY DATE: 4/24/90
PAVEMENT: CHAR F, S AREA 150 THICKNESS 7 TARBALLS 0
OILED: LGS - VEG - TRH - DBR - WAVE EXP: LW X MD - HG -
FAX RCVD: - DT: - AGENCY DISAGREE: -
EST SUBDIV LGTH: 55 OIL CATEGORY: W 8 M 0 N 2 VL 0 NO 45 U 0

SURFACE DATA

SURFACE SEDIMENT: BRK - BLD 5 COB 35 PEB 60 GRN - SAN - MUD - VEG -

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

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

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

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

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

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

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

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

ACE 6976407

SSAT DATA ENTRY FORM

SUBSURFACE DATA

PAGE 2 OF 2SEGMENT ID: BP004 SUBDIV: 226-20-16392

PIT # 1 PIT DEPTH 40 OIL CHARACTER OR OIL INTVAL: FROM 0 TO 6
 QUANT: UC OIL CLR: DBL FLM CLR: — ZONE: SU — UI X MI — LI —
 SUBSURF SEDIMENT: BRK — BLD — COB X PEB X GRN X SAN — MUD — VEG —

PIT # 2 PIT DEPTH 35 OIL CHARACTER — OIL INTVAL: FROM 0 TO 0
 QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI X MI — LI —
 SUBSURF SEDIMENT: BRK — BLD — COB X PEB X GRN X SAN — MUD — VEG —

PIT # 3 PIT DEPTH 30 OIL CHARACTER — OIL INTVAL: FROM 0 TO 0
 QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI — MI X LI —
 SUBSURF SEDIMENT: BRK — BLD — COB X PEB X GRN X SAN X MUD — VEG —

PIT # 4 PIT DEPTH 30 OIL CHARACTER — OIL INTVAL: FROM 0 TO 0
 QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI — MI X LI —
 SUBSURF SEDIMENT: BRK — BLD — COB X PEB X GRN X SAN X MUD — VEG —

PIT # 5 PIT DEPTH 35 OIL CHARACTER — OIL INTVAL: FROM 0 TO 0
 QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI X MI — LI —
 SUBSURF SEDIMENT: BRK — BLD — COB X PEB X GRN X SAN — MUD — VEG —

PIT # 6 PIT DEPTH 25 OIL CHARACTER — OIL INTVAL: FROM 0 TO 0
 QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI X MI — LI —
 SUBSURF SEDIMENT: BRK — BLD — COB — PEB X GRN X SAN — MUD — VEG —

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

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

PROBLEMS: —

Segment PP004

4/23/90

Stream 226-20-16392

Michael Fawcett

Ecological Summary

The intertidal portion of this stream is long, about 250 m. *Fucus*, barnacles and littorines occur on boulders in the stream as far as 200 m from the sea at low tide. Most of the beach consists of unstable pebbles with sparse biota, mainly littorines and scattered mussels. There are no ecological constraints re: cleanup that apply to the intertidal biota.

M Fawcett



ATW
Pre-AWADSCAT-90

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS OS TS AVS SCHA MMS PTA

2 REGION: PWS KP, CI K, AP

METHOD: Aerial Ground Boat

3 DATE: 4/15/90

15 HIGH-TIDE TIMES: 1

21 TEAM RECORDER: Tom Crowe

4 START TIME: 1019

16 HIGH TIDE HTS: 1

22 OBSERVERS: GREG CHERNEY (EYKON)

5 STOP TIME: 1032

17 LOW TIDE TIMES: 1

23 AGENCY: ADF&G ATW

6 SEGMENT #: BPOO4

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: PT. COUNTRESS

14 DESCRIPTION: _____

Oil _____

Sediment _____

Biological _____

Water _____

EXTENT OF OIL

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

36 CATALOGED ANAD. FISH SREMT? (Y) N

37 CATALOG #: 226-20-16392

38 STREAM NAME: _____

39 OIL IN STREAM BED? (Y) N

40 OIL ON STREAM BANKS? (Y) N

30 OVERALL OIL IMPACT: N VL L M H

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

31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain

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

32 OILED DEBRIS? Y : N

Where: _____

33 SHORELINE TYPE: Headland 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 X

Gravel X Sand _____ Mud/silt _____

COMMENTS: 6 SMOLT TRAPS SET UPSTREAM FROM OILED AREA.

HVY ASPHALT ON RT. SIDE OF STREAM

ACE 6976410 H/S

E(S)

DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM

PT. COUNTRESS

286-80-16392.
LON

TWC

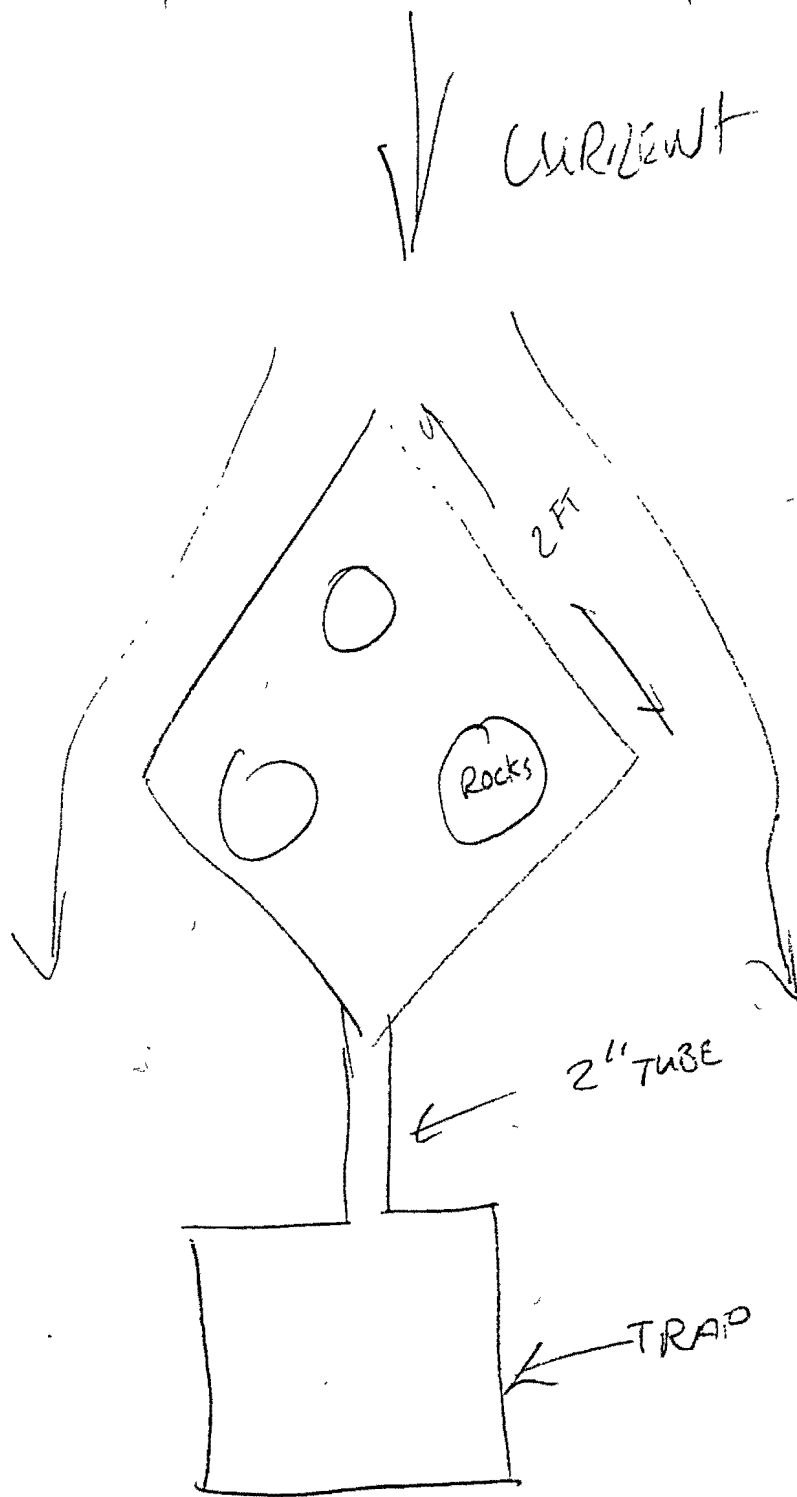
BP 004

4/13/90

SMOOT
TRAP

= Sample taken
 = Photo frame # and
 shot direction.

ACE 6976411



SMOLT TRAP COVERING RIOD
DAMES + MOORE

YR CATALOGED:

LOCATION:

STREAM NAME:

DIAMOND K-UNIT: .

USGS QUADRANGLE:

SHORELINE TYPE:

WAVE EXPOSURE:

LOCAL STREAM #:

ALL SEGMENTS:

LATITUDE:

LONGITUDE:

LEGAL:

ASC NUMBER: 226-20-16392

SURVEY TYPE:

METHOD:

DATE: 4 / 15 / 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							AP
SITE 2							
SITE 3							
SITE 4							
SITE 5							

OVERALL OIL IMPACT: H K H

OIL IN STREAM CHANNEL?

-SUBSTRATE-

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

Bedrock

Granule

Boulder

Sand

Cobble

Silt

Pebble

Veget.

SPECIES					
COUNT					

COMMENTS:

ANADSCAT - Spring 90

ACF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS CS TS AVS SC-A MMS PTA

2 REGION: PWS KP, CI K, AP

METHOD: Aerial Ground Boat

3 DATE: 4/24/90

15 HIGH TIDE TIMES: 0059, 1347

21 TEAM RECORDER: M. WIEDNER

4 START TIME: 0920

16 HIGH TIDE HTS: 12.5, 10.9

22 OBSERVERS: T. CROWE

5 STOP TIME: 1005

17 LOW TIDE TIMES: 0731, 1935

23 AGENCY: ADFG

6 SEGMENT #: BP-004

18 LOW TIDE HTS: -2.2, 0.7

24 PHOTOS TAKEN: Y N

7 STATION #: 226-20-16392

19 TIDE HT AT SURVEY: 0.71'

Roll #: _____ Frame: _____

8 K-UNIT: _____

Ebb Slack Flood Slack

25 VIDEO TAKEN: Y N TAPES: _____

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: POINT CUNTESS

Sediment _____

14 DESCRIPTION: _____

Biological _____

Water _____

NOT TRANSFERRED?

EXTENT OF OIL

	SHORELINE				STREAM			
	L	W	M ²	%	L	W	M ²	%
27 SURFACE COVERAGE	75	200		3	200	4		<1

36 CATALOGED ANAD. FISH STREAM? Y N

37 CATALOG #: 226-20-16392

38 STREAM NAME: _____

28 SURFACE THICKNESS	2cm	1cm	3cm			
----------------------	-----	-----	-----	--	--	--

39 OIL IN STREAM BED? Y N

29 PENETRATION	4cm	5cm	6cm			
----------------	-----	-----	-----	--	--	--

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

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

43 ANADROMOUS FISH PRESENT? Y N

Lagoon Marsh

ALEVINS PRESENT **(C)**

34 WAVE EXPOSURE: High Moderate Low

44 ANADROMOUS FISH OBSERVATION

35 SUBSTRATE TYPE: Bedrock 2 Boulder 10 Cobble 44

Gravel 44 Sand _____ Mud/silt _____

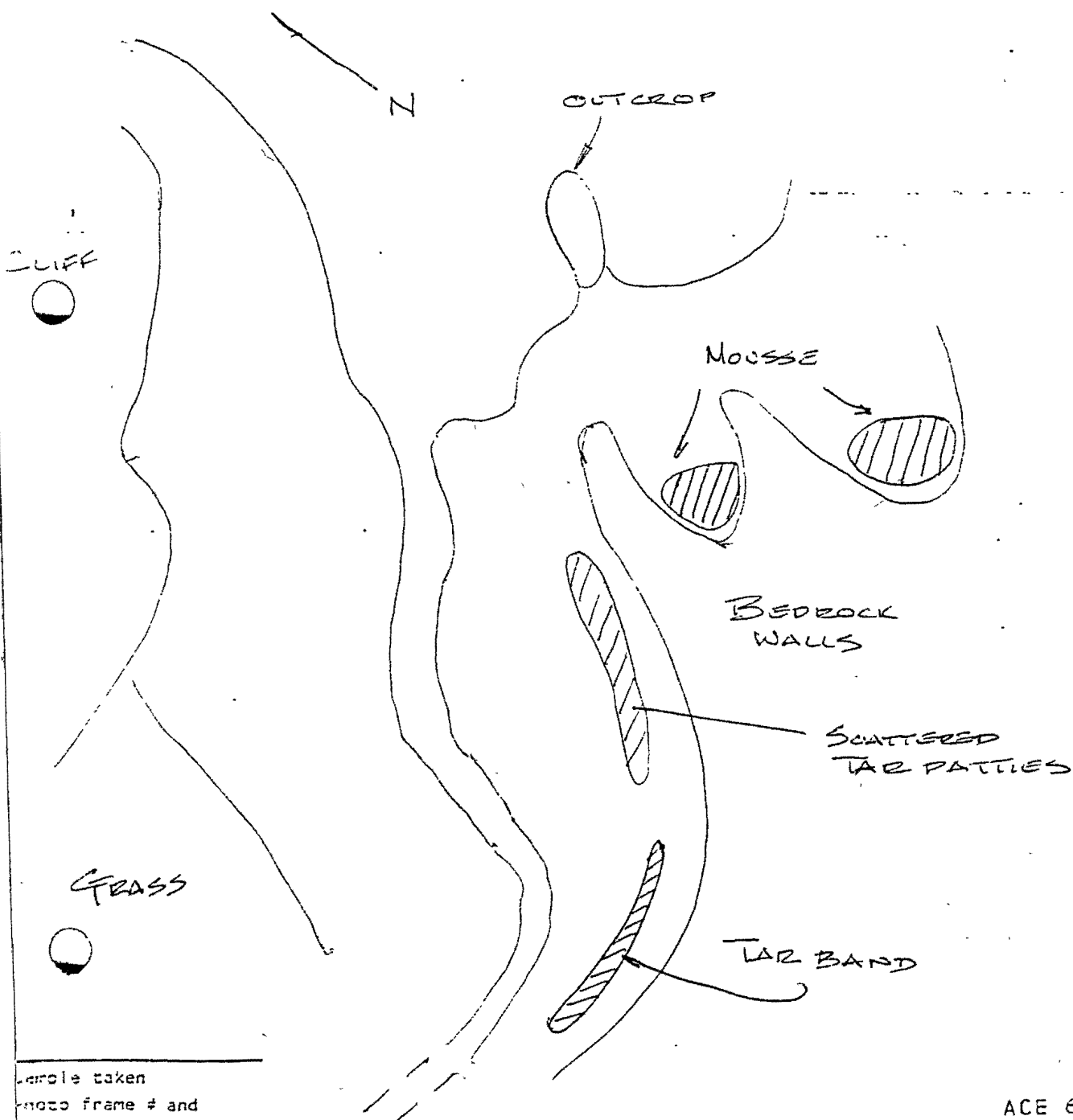
Species	Aerial	Ground

COMMENTS: ASPHALT BAND ALONG HIGH TIDE LINE EAST OF CHANNEL
SCATTERED ASPHALT PATCHES SEAWARD FROM CONTINUOUS BAND
AREAS OF POOLED MOUSSE IN SMALL PROTECTED POCKETS
E. OF CHANNEL MOUTH

ACE 6976388 +15

DESCRIPTION

RECOMMENDATIONS: MANUALLY REMOVE ALL SURFACE
TAR MATS AND PATTIES AND MOUSSE. REMOVAL
OF MOUSSE FROM BETWEEN BOULDERS MAY
REQUIRE TROWELS AND ABSORBENTS.

48 OIL DISTRIBUTION DIAGRAM

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

ASC NUMBER: 226-20-16392
 SURVEY TYPE:
 METHOD:
 DATE: 4/24/90
 START TIME:
 STOP TIME:

TEAM RECORDER:
 OBSERVERS:
 AGENCY(IES):
 PHOTOS TAKEN? NO
 Roll #: Frames:
 VIDEO TAKEN? NO 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							MS
SITE 2							MS
SITE 3							MS PT
SITE 4							AP
SITE 5							

OVERALL OIL IMPACT:

OIL IN STREAM CHANNEL?

SUBSTRATE

Bedrock	Granule
Boulder	Sand
Cobble	Silt
Pebble	Veget.

OIL ON BEACH WITHIN 50M OF STREAM MOUTH?

SPECIES	PISA				
COUNT					

COMMENTS:

Alevins presumed.

Recommendations: manually remove all surface tarballs and patties and mousse. Removal of mousse from between boulders may require trawls and absorbents.

Mark -



mt
ANADSCAT-90

ADFG MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: SS SS DS TS AVS SCH MOHS PTA 2 REGION: PTS XP CI K AP

METHOD: Aerial Ground Boat

3 DATE: 4/24/90 16 HIGH TIDE TIMES: 0059, 1347 21 TEAM RECORDED: M. WIEDNER

4 START TIME: 0920 18 HIGH TIDE HTS: 12.5, 10.9 22 OBSERVERS: T. CROWE

5 STOP TIME: 1005 17 LOW TIDE TIMES: 0731, 1935 23 AGENCY: ADFG

6 SEGMENT #: BP-004 18 LOW TIDE HTS: -2.2, 0.7 24 PHOTOS TAKEN: Y N

7 STATION #: 226-20-16392 19 TIDE HT AT SURVEY: 0.71' Roll #: _____ Frame: _____

8 X-UNIT: _____ Ebb Slack Flood Slack 25 VIDEOS TAKEN: Y N TAPES: _____

9 STAT AREA: _____ 20 USCG QUAD: _____ Starts: _____ Ends: _____

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

12 SOURCE: Map Loran _____

13 LOCATION: POINT COUNTERSS _____

14 DESCRIPTION: _____

Oil _____

Sediments _____

Biological _____

Water _____

EXTENT OF OIL

	SHORELINE				STREAM			
	L	V	N	S	L	V	N	S
27 SURFACE COVERAGE	75	200		3	200	4		<1
28 SURFACE THICKNESS	2cm	1cm	3cm					
29 PENETRATION	4cm	5cm	6cm					

30 OVERALL OIL IMPACT: N VL L N N

31 OIL TYPES: Pooled Mousse Tar Asphalt Sticky Stain

32 OILED DEBRIS: Y N

33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cave

34 WAVE EXPOSURE: High Moderate Low

35 SUBSTRATE TYPE: Bedrock 2 Boulder 10 Cobble 44

Gravel 44 Sand _____ Mud/silt _____

36 CATALOGED ANAG. FISH STREAM: Y N

37 CATALOG #: 226-20-16392

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: _____

43 ANAGOROUS FISH PRESENT? Y N
ALVINUS PRISON

44 ANAGOROUS FISH PRESERVATION

Species	Aerial	Ground

COMMENTS: ASPHALT BAND ALONGS HIGH TIDE LINE EAST OF CHANNEL
SCATTERED ASPHALT PATCHES SEAWARD FROM CONTINUOUS BAND
AREAS OF POOLED MOUSSE IN SMALL PROTECTED POCKETS
E.E. OF CHANNEL MOUTH

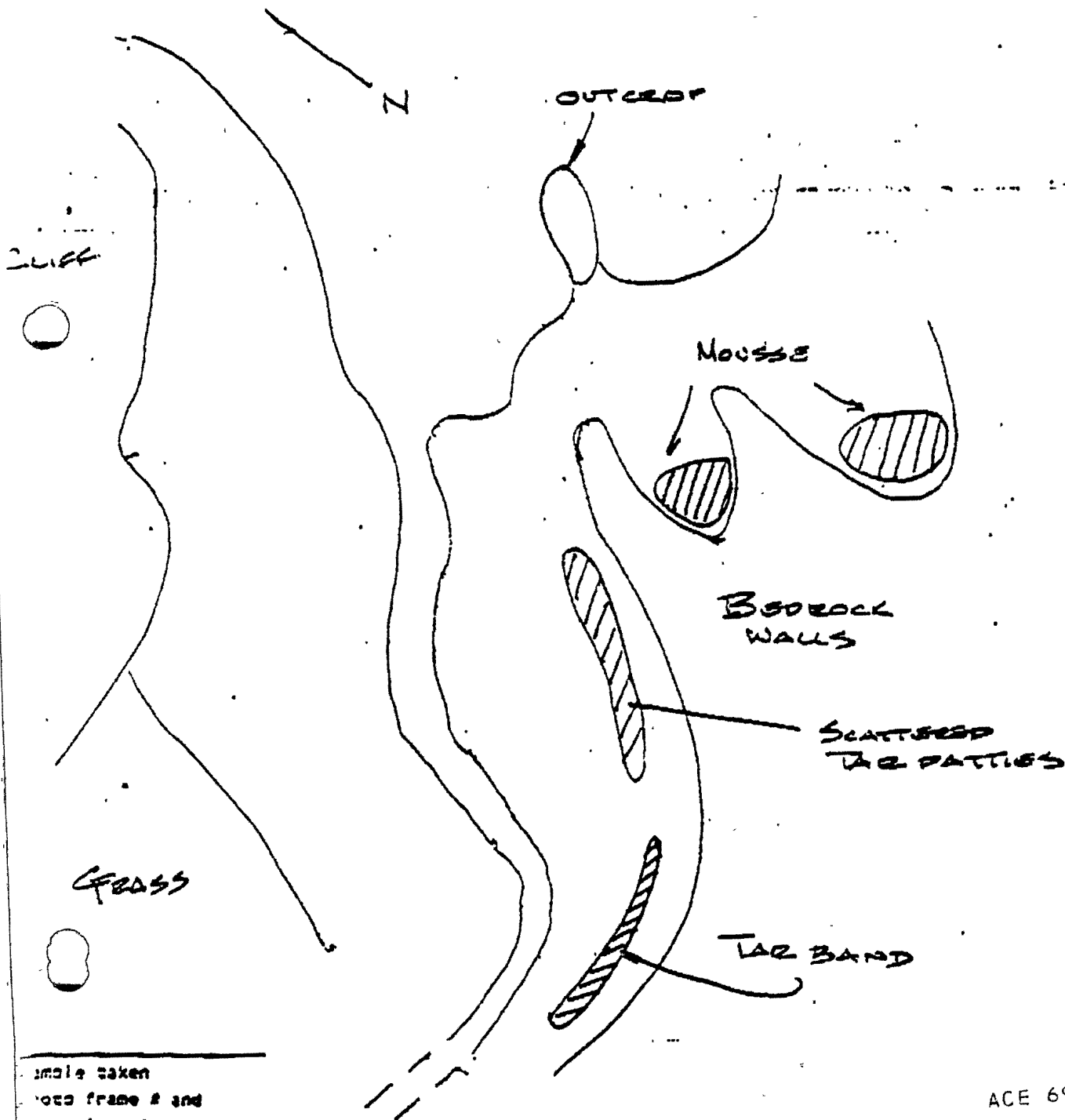
FRAME(S)

DESCRIPTION

RECOMMENDATIONS: MANUALLY REMOVE ALL SURFACE TAR MATS AND PATTIES AND MOUSSE. REMOVAL OF MOUSSE FROM BETWEEN BOULDERS MAY REQUIRE TROWELS AND ABSORBENTS.

I agree with recommendations. M. H. FROST

48 OIL DISTRIBUTION DIAGRAM



sample taken
from frame 2 and
not direction.

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: 226-20-16392
 SURVEY TYPE: _____
 METHOD: _____
 DATE: 4/24/90
 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							tb
SITE 2							ms
SITE 3							AP
SITE 4							
SITE 5							

OVERALL OIL IMPACT: M

OIL IN STREAM CHANNEL?

OIL ON BEACH WITHIN 50M OF STREAM MOUTH?

SUBSTRATE

Bedrock
 Boulder
 Cobble
 Pebble

Granule
 Sand
 Silt
 Veget.

SPECIES					
COUNT					

COMMENTS: Recommendation: Manually remove all surface tar mats and patties and ~~the~~ mussels. Removal of mussels from between boulders may require tools and absorbents.

I agree with recommendation

M H Fawcett

ADF&G MULTI-ASSESSMENT DATA FORM

- 1) SURVEY TYPE: BS SS 2) REGION: PWS KP, CI K, AP
- 3) METHOD: Aerial Ground Boat
- 4) DATE: 5/5/91 16) HIGH TIDE TIME: _____ 22) TEAM RECORDER: TOM CROWC
- 5) START TIME: 1430 17) HIGH TIDE HTS: _____ 23) OBSERVERS: AMER WASEMAN
- 6) STOP TIME: 1455 18) LOW TIDE TIMES: 1230 24) AGENCY: ADF+G
- 7) SEGMENT #: BP004 19) LOW TIDE HTS: +1.6 25) PHOTOS TAKEN: Y (N)
- 8) K-UNIT: _____ 20) TIDE HT AT SURVEY: +3 to +4 ROLL #: _____ FRAMES: _____
- 9) LAT: _____ Ebb Slack Flood Slack 26) VIDEO TAKEN: Y (N)
- 10) LONG: _____ 21) USCG QUAD: _____ TAPE # _____
- 11) ASC #: 226-20-16392 START: _____ STOP: _____
- 12) STREAM NAME: RT. COUNTESS 27) SAMPLES TAKEN? Y (N)
- 13) LOCATION: DANIELS DOG MARLAND 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 $\geq 3m$ to $\leq 6m$ with $\geq 10\%$ oil coverage
- L = <3m band with $> 10\%$ oil coverage
- VL = $\leq 10\%$ oil coverage regardless of band width
- (N) = No oil observed
- 30) OIL IN STREAMBED: Y (N) 34) WILDLIFE OBSERVATION
- 31) OIL ON BEACH ADJACENT TO MOUTH: Y (N)
- 32) SUBSTRATE TYPE (PERCENT):
- Bedrock _____ Boulder 10% Gravel 90% Sand _____ Cobble _____ Mud/Silt _____
- 35) COMMENTS: NO TREATMENT RECOMMENDED AT THIS STREAM SITE AS MOST ALL OILING WAS REMOVED AND TREATED LAST SUMMER. NO OILING DISCOVERED.
- Species _____ Number _____
- Bald Eagle 1
- mergansers 2
- ravin 1
- Pink salmon fry 1

CATALOG NUMBER: 2262016392 SEGMENT#: BP004 A LOCATION: MAINLAND, BAINBRIDGE PASSAGE, POINT COUNTESS							
DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL(cm)	SITE SPECIFIC COMMENTS
04/15/90	PRE-ANADSCAT	1	SURFACE			AP	RIGHT SIDE: HEAVY AP.
MAD vs. OG: COMMENTS: SIX (6) SMOLT TRAPS SET UPSTREAM FROM OILED AREA.							

CATALOG NUMBER: 2262016392 SEGMENT#: BP004 A LOCATION: MAINLAND, BAINBRIDGE PASSAGE, POINT COUNTESS							
DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL(cm)	SITE SPECIFIC COMMENTS
04/24/90	ANADSCAT	1	SURFACE	91-100		MS AP	CONTINUOUS BAND AP IN UITZ. SE SIDE: ADJACENT TO CHANNEL
04/24/90	ANADSCAT	2	SURFACE	11-50		PT	SCATTERED TAR PATTIES FORM A CONTINUATION OF TAR BAND IN SITE #1 - ADJACENT TO CHANNEL - UITZ.
04/24/90	ANADSCAT	3	SURFACE			MS	POOLED MOUSSE IN PROTECTED POCKETS TO NORTHEAST OF CHANNEL MOUTH.
MAD vs. OG: COMMENTS: OIL ON STREAM BANKS. RECOMMENDATIONS: MANUALLY REMOVE ALL SURFACE TARMATS AND PATTIES AND MOUSSE. REMOVAL OF MOUSSE FROM BETWEEN BOULDERS MAY REQUIRE TROWELS AND ABSORBENTS.							

CATALOG NUMBER: 2262016392 SEGMENT#: BP004 A LOCATION: MAINLAND, BAINBRIDGE PASSAGE, POINT COUNTESS							
DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL(cm)	SITE SPECIFIC COMMENTS
04/24/90	OG'S ANADSCAT	1	2 x 25 SURFACE	51-90	7	AP	EAST SIDE: BROKEN AP BAND UITZ. (DIMENSIONS FROM OFN).

04/24/90	OG'S ANADSCAT	2	2 x 20 SURFACE	11-50	6	PT	EAST SIDE: PATCHY TAR PATTIES. (DIMENSIONS FROM OFN). CONTINUATION OF SITE #1.
04/24/90	OG'S ANADSCAT	3	4 x 6 SURFACE	51-90	4	MS PT	EAST SIDE: BROKEN TAR PATTIES AND MOUSSE. (DIMENSIONS FROM OFN).
04/24/90	OG'S ANADSCAT	4	1 x 4 SURFACE	51-90	5	PT	EAST SIDE: BROKEN TAR PATTIES. (DIMENSIONS FROM OFN).
04/24/90	OG'S ANADSCAT	5	SUBSURF		6	OR	6 PITS DUG - SUBSURFACE OIL FOUND IN PIT 1 (AREA 1) WITH AN OILED INTERVAL OF 0-6CM.

MAD vs. OG: NO CONFLICTS
COMMENTS:

CATALOG NUMBER: 2262016392

SEGMENT#: BP004 A

LOCATION: MAINLAND, BAINBRIDGE PASSAGE, POINT COUNTESS

DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL (cm)	SITE SPECIFIC COMMENTS
05/05/91	MAYSAP	1	SURFACE			NO OIL	

MAD vs. OG:
COMMENTS:

NO TREATMENT RECOMMENDED AT THIS STREAM SITE AS MOST ALL OILING WAS REMOVED AND TREATED LAST SUMMER. NO OILING DISCOVERED.

CATALOG NUMBER: 2262016392		SEGMENT#: BP004 A		LOCATION: MAINLAND, BAINBRIDGE PASSAGE, POINT COUNTLESS			SEQ:
DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL(cm)	SITE SPECIFIC COMMENTS
04/15/90	PRE-ANADS CAT	1	SURFACE			AP	<u>Right side of stream - Heavy AP</u>
MAD vs. OG: COMMENTS: SIX (6) SMOLT TRAPS SET UPSTREAM FROM OILED AREA. HEAVY ASPHALT ON RIGHT SIDE OF STREAM.							

CATALOG NUMBER: 2262016392		SEGMENT#: BP004 A		LOCATION: MAINLAND, BAINBRIDGE PASSAGE, POINT COUNTLESS			SEQ:
DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL(cm)	SITE SPECIFIC COMMENTS
04/24/90	ANADSCAT	1	SURFACE	91-100		MS <u>AP</u>	CONTINUOUS TARBAND/AP IN UITS. - SE side of stream - adjacent to channel Band
04/24/90	ANADSCAT	2	SURFACE	11-50		PT	SCATTERED TAR PATTIES. form a continuation of tarband in site 1 - adjacent to channel - UITS
04/24/90	ANADSCAT	3	SURFACE			MS	POOLED MOUSSE IN PROTECTED POCKETS IN NORTHEAST CHANNEL MOUTH. to of
04/24/90	ANADSCAT	4	SURFACE			MS	POOLED MOUSSE IN PROTECTED POCKETS IN NORTHEAST CHANNEL MOUTH. to of
MAD vs. OG: COMMENTS: ASPHALT BAND ALONG HIGH TIDE LINE SOUTHEAST OF CHANNEL SCATTERED ASPHALT PATTIES SEAWARD FROM CONTINUOUS BAND. AREAS OF POOLED MOUSSE IN SMALL PROTECTED POCKETS EAST OF CHANNEL MOUTH. OIL ON STREAM BANKS. RECOMMENDATIONS: MANUALLY REMOVE ALL SURFACE TARMATS AND PATTIES AND MOUSSE. REMOVAL OF MOUSSE FROM BETWEEN BOULDERS MAY REQUIRE TROWELS AND ABSORBENTS.							

CATALOG NUMBER: 2262016392		SEGMENT#: BP004 A		LOCATION: MAINLAND, BAINBRIDGE PASSAGE, POINT COUNTLESS			SEQ:
DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL(cm)	SITE SPECIFIC COMMENTS

04/24/90	OG'S ANADSCAT	1	2 x 25 SURFACE	51-90	7	AP	EAST SIDE OF STREAM BROKEN AP BAND UITS. (DIMENSIONS FROM OFN).
04/24/90	OG'S ANADSCAT	2	2 x 20 SURFACE	11-50	6	PT	EAST SIDE OF STREAM - PATCHY TAR PATTIES. (DIMENSIONS FROM OFN). <u>continuation of site 1</u>
04/24/90	OG'S ANADSCAT	3	4 x 6 SURFACE	51-90	4	MS PT	EAST SIDE : BROKEN TAR PATTIES AND MOUSSE. (DIMENSIONS FROM OFN).
04/24/90	OG'S ANADSCAT	4	1 x 4 SURFACE	51-90	5	PT	EAST SIDE : BROKEN TAR PATTIES. (DIMENSIONS FROM OFN).
04/24/90	OG'S ANADSCAT	5	<u>SUBSURFE</u>		6	OR	6 PITS DUG - SUBSURFACE OIL FOUND IN PIT 1 (AREA 1) WITH AN OILED INTERVAL OF 0-6CM.

MAD vs. OG: NO CONFLICTS
COMMENTS:

CATALOG NUMBER: 2262016392

SEGMENT#: BP004 A

LOCATION: MAINLAND, BAINBRIDGE PASSAGE, POINT COUNTESS

SEQ:

DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL (cm)	SITE SPECIFIC COMMENTS
05/05/91	MAYSAP	1	SURFACE			NO OIL	

MAD vs. OG:
COMMENTS:

← OG MAD

NO TREATMENT RECOMMENDED AT THIS STREAM SITE AS MOST ALL OILING WAS REMOVED AND TREATED LAST SUMMER. NO OILING DISCOVERED.

OG records : - East side of stream - 0.5x1m MS 25% and west side 0.5x5 HSOR 30%, picked up at time of survey

dt.
m. 06/01/91

CATALOG NUMBER: 2262016392

STREAM NAME:

LOCATION: MAINLAND, BAINBRIDGE PASSAGE, POINT COUNTESS

SEGMENT NUMBER: BP004 A

SHORELINE TYPE:

DATE: 04/15/90 TIME: BEACH-1032

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

COMMENTS:

SIX (6) SMOLT TRAPS SET UPSTREAM FROM OILED AREA. HEAVY ASPHALT ON RIGHT SIDE OF STREAM.
OIL WITHIN 1 MILE OF STREAM.

CATALOG NUMBER: 2262016392

STREAM NAME:

LOCATION: MAINLAND, BAINBRIDGE PASSAGE, POINT COUNTESS

SEGMENT NUMBER: BP004 A

SHORELINE TYPE:

DATE: 04/24/90 TIME: BEACH-1005

SITE	WIDTH (m)	LENGTH (m)	AREA (sqm)	PERCENT OIL	THICKNESS (cm)	PENETRATION (cm)	SURFACE SUBSURF	OIL TYPES	COMMENTS
1				91-100			SURFACE	MS MS	recorded oil on east side of stream
2				11-50			SURFACE	MS FT	tarband/AP-UITZ-continuous
3							SURFACE	PT AP ms	scattered tar patties
4							SURFACE	AP ms	pooled mousse in protected pockets NE channel mouth

COMMENTS:

ASPHALT BAND ALONG HIGH TIDE LINE SOUTHEAST OF CHANNEL SCATTERED ASPHALT PATTIES SEAWARD FROM CONTINUOUS BAND AREAS OF POOLED MOUSSE IN SMALL PROTECTED POCKETS EAST OF CHANNEL MOUTH. ALEVINS PRESUMED. ANADROMOUS FISH PRESENT: ALEVINS PRESUMED

RECOMMENDATIONS: MANUALLY REMOVE ALL SURFACE TARMATS AND PATTIES AND MOUSSE. REMOVAL OF MOUSSE FROM BETWEEN BOULDERS MAY REQUIRE TROWELS AND ABSORBENTS.
OIL WITHIN 1 MILE OF STREAM, ON BANKS.

CATALOG NUMBER: 2262016392

STREAM NAME:

LOCATION: MAINLAND, BAINBRIDGE PASSAGE, POINT COUNTESS

SEGMENT NUMBER: BP004 A

SHORELINE TYPE:

DATE: 05/05/91 TIME: BEACH-1455

SITE	WIDTH (m)	LENGTH (m)	AREA (sqm)	PERCENT OIL	THICKNESS (cm)	PENETRATION (cm)	SURFACE SUBSURF	OIL TYPES	COMMENTS
1							SURFACE	NO OIL	

COMMENTS:

NO TREATMENT RECOMMENDED AT THIS STREAM SITE AS MOST ALL OILING WAS REMOVED AND TREATED LAST SUMMER. NO OILING DISCOVERED.

ANADSCAT-Spring 90

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS DS TS AVS: SCHA MMS PTA2 REGION: PWS KP, CI K, APMETHOD: Aerial Ground Boat3 DATE: 4/24/9015 HIGH TIDE TIMES: 0059, 134721 TEAM RECORDER: M. WIEDNER4 START TIME: 092016 HIGH TIDE HTS: 12.5, 10.922 OBSERVERS: T. CROWE5 STOP TIME: 100517 LOW TIDE TIMES: 0731, 193523 AGENCY: ADF&G6 SEGMENT #: BP-00418 LOW TIDE HTS: -2.2, 0.7

24 PHOTOS TAKEN: Y N

7 STATION #: 226-20-1639219 TIDE HT AT SURVEY: 0.71'

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: POINT COUNTERSS

Sediment _____

14 DESCRIPTION: _____

Biological _____

EXTENT OF OIL

Water _____

	SHORELINE				STREAM			
	L	W	M ²	%	L	W	M ²	%
27 SURFACE COVERAGE	75	200		3	200	4		<1

36 CATALOGED ANAD. FISH SREAM? Y N37 CATALOG #: 226-20-16392

38 STREAM NAME: _____

28 SURFACE THICKNESS	2cm	1cm	3cm			
----------------------	-----	-----	-----	--	--	--

39 OIL IN STREAM BED? Y N

29 PENETRATION	4cm	5cm	6cm			
----------------	-----	-----	-----	--	--	--

40 OIL ON STREAM BANKS? Y N30 OVERALL OIL IMPACT: N VL L M H41 OIL ON BEACH ADJACENT TO MOUTH? Y N
(within 50 meters)31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain42 OIL WITHIN 1 MILE OF STREAM? Y N32 OILED DEBRIS? Y N

Where: _____

33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cove
Lagoon Marsh43 ANADROMOUS FISH PRESENT? Y N34 WAVE EXPOSURE: High Moderate LowALEKINS PRESUMED35 SUBSTRATE TYPE: Bedrock 2 Boulder 10 Cobble 44

44 ANADROMOUS FISH OBSERVATION

Gravel 44 Sand _____ Mud/silt _____

Species Aerial Ground

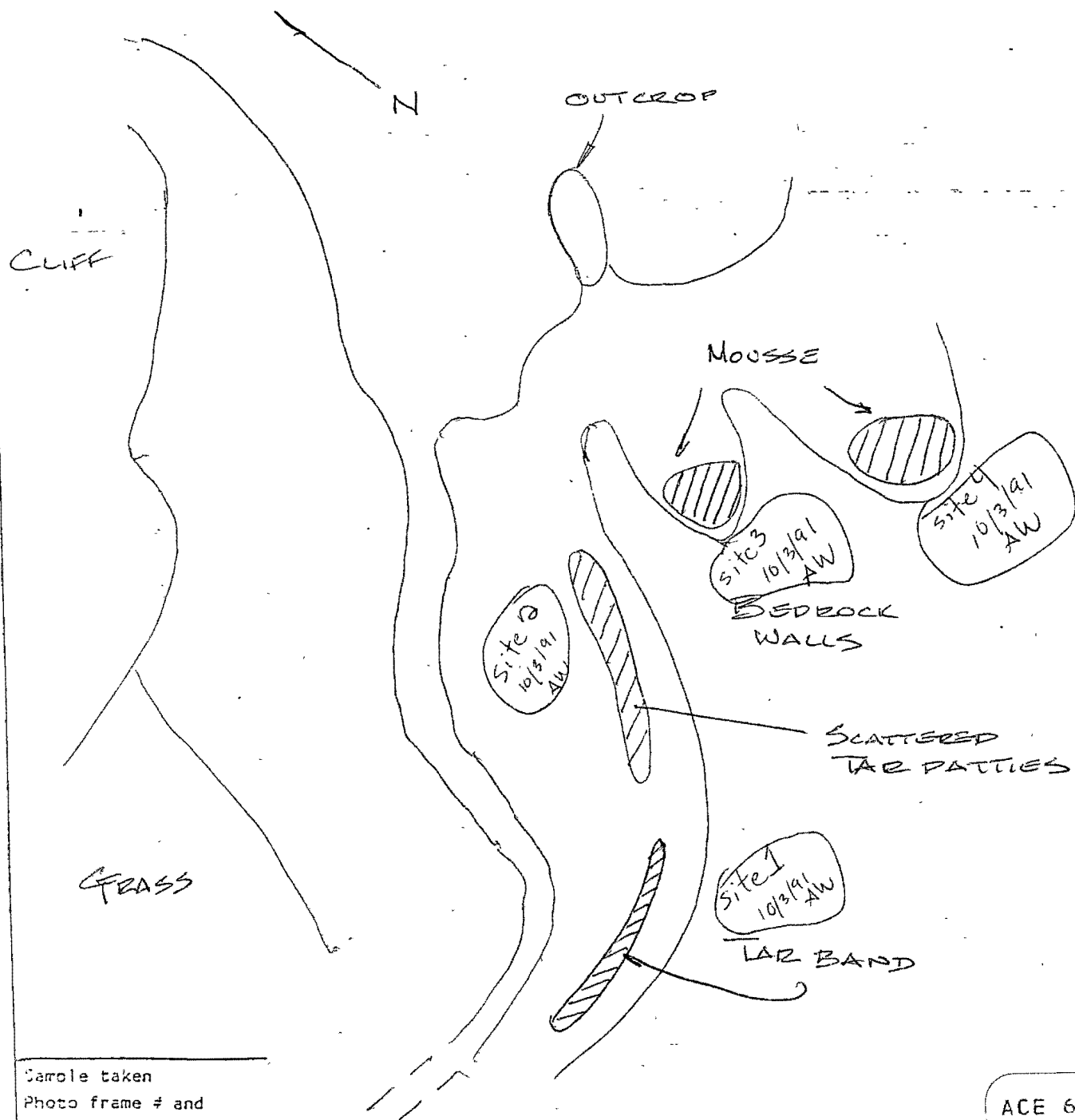
COMMENTS: ASPHALT BAND ALONG HIGH TIDE LINE & EAST OF CHANNEL
SCATTERED ASPHALT PATCHES SEAWARD FROM CONTINUOUS BAND
AREAS OF POOLED MOUSSE IN SMALL PROTECTED POCKETS
E.E. OF CHANNEL MOUTH

ACE 6976388 +15

FRAME(S)

DESCRIPTION

RECOMMENDATIONS: MANUALLY REMOVE ALL SURFACE TAR MATS AND PATTIES AND MOUSSE. REMOVAL OF MOUSSE FROM BETWEEN BOULDERS MAY REQUIRE TROWELS AND ABSORBENTS.

46 OIL DISTRIBUTION DIAGRAM

Sample taken
Photo frame # and
shot direction.

ACE 6976389 -12

ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 226-20-16392

SEGMENT BP-004 SUBDIVISION A

WORK WINDOW

Manual Pickup
Tarmat Removal

OPEN

Bioremediation Less Than 100m From Stream

WORK PRIOR TO 7/10
(ADF&G MONITOR REQ.)

Bioremediation More Than 100m From Stream

OPEN

*No Inipol - Use Customblen Only

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

ADF&G catalogued anadromous stream (226-20-16392) is 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

NO CONSTRAINT. USFWS 6/1/90 map indicates no active nest within 400m of Subdivision A work site.

OTHER ECOLOGICAL CONSIDERATIONS

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

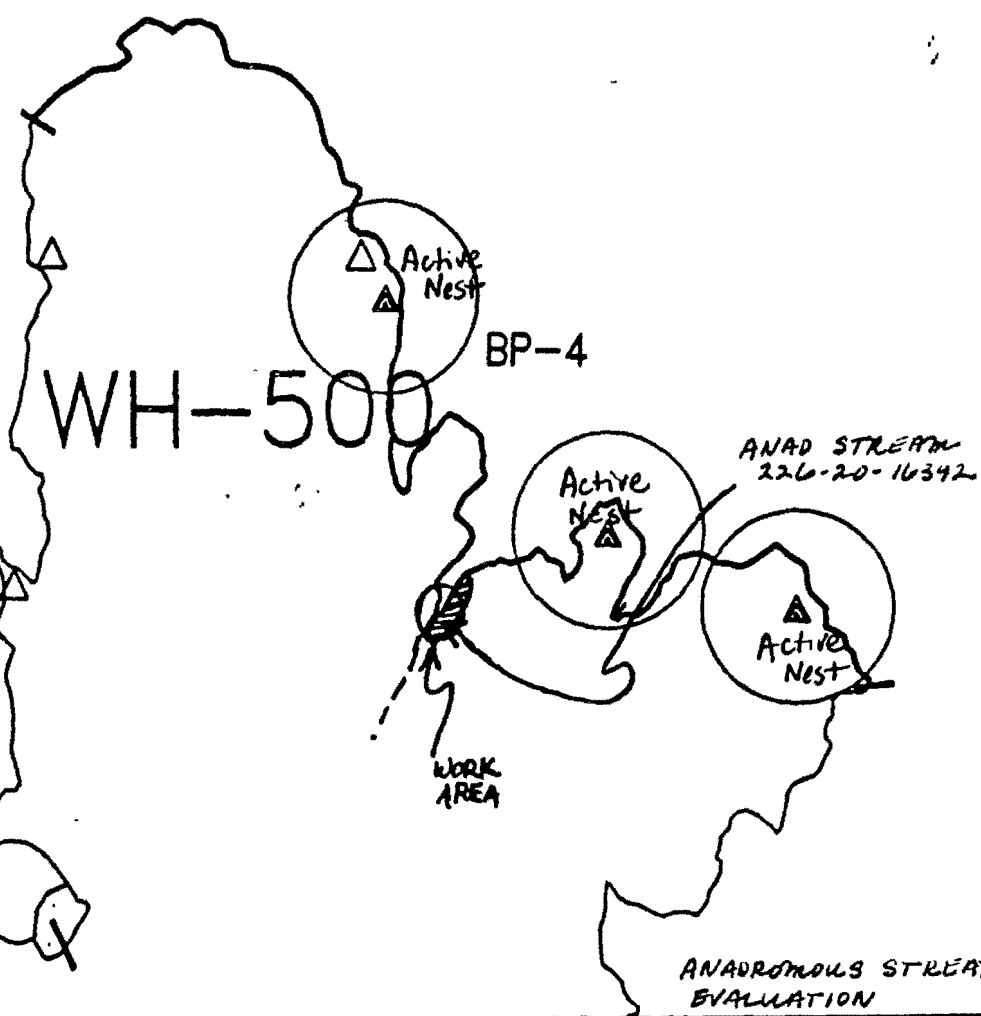
SEE SUBDIVISION CONSTRAINT ADDENDUM BP-004A
FOR ADDITIONAL CONSTRAINT INFORMATION.

FOSC

Date

6-14-90

ACE 6976492 +15



Exxon Company, USA
 Map Key: PWS-BP-4
 June 12, 1990

ECOLOGY MAP
 SEGMENT BP-4
 SUBDIVISION A (1-01-1)
 METERS
 0 810 1610

- | | |
|---|---------------------|
| ★ | Seabird Colony |
| ▲ | Active Eagle Nest |
| △ | Inactive Eagle Nest |
- 1 inch = 2656 feet

ACE 6976493

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ BP-04 A STREAM NO: 226-20-16392 DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Subject salmon stream and 226-20-16388 (Ps, 12/89), 226-20-16395 (Ps, 12/89), 226-20-16397 (Ps, 12/89)

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

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

5T-4 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unopened biota and substrate. Eagle nest > 400 M from work area - manual pickup with 10 man crew.

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: [Signature] DATE: 5/8/90

Subsurface Oil Observed: Yes X No Maximum Depth 6 cm

RECOMMENDATIONS:

 No Treatment Recommended

X Treatment Recommended

X Manual Pickup

 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 manual removal of tarmats and pickup of mousse in areas shown on attached sketch map.

 SEE CONSTRAINTS ADDENDUM DATED 6/16/90. [Signature]

TAG COMMENTS:

TAG APPROVAL DATE: 5/7/90

ADEC Art Womack

EXXON Art Womack

NOAA Gary Peterson

USCG G.A. Heiter

FOSC: [Signature]

DATE: 5-7-90

ACE 6976494

Access road for Customland following TARMAT removal. Note EUC 24 hours prior to work.

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ BP-04 STREAM NO: 226-20-16392 DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Subject salmon stream and 226-20-16388 (Ps, 12/89), 226-20-16395 (Ps, 12/89), 226-20-16397 (Ps, 12/89)

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

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

5T-4 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Eagle nest > 400 M from work area - manual pickup with 10 man crew.

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: [Signature] DATE: 5/8/90

Subsurface Oil Observed: Yes X No Maximum Depth 6 cm

RECOMMENDATIONS:

 No Treatment Recommended

X Treatment Recommended

X Manual Pickup

 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 manual removal of tarmats and pickup of mousse in areas shown on attached sketch map.

TAG COMMENTS:

TAG APPROVAL DATE: 5/7/90

ADEC Art Weisner [Signature]

EXXON Arny Ten [Signature]

NOAA Gary DeFranco [Signature]

USCG G.A. Reiter [Signature]

FOSC: [Signature] DATE: 5-7-90

Assess need for Customblend following TARMAT removal. notify CVC 24 hours prior to work.

Processed
5/7/90
mk

RECEIVED
MAY 03 1990

DEPT. OF
ENVIRONMENTAL CONSERVATION

ANADROMOUS FISH STREAM ASSESSMENT

REGION: PRINCE WILLIAM SOUND

SEGMENT: BP-04

STREAM NO: 226-20-16392

concur

ACE 6976496

ANONYMOUS FISH STREAM EVALUATION

SEGMENT ST/ BP-04 STREAM NO: 226-20-16392 DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Subject salmon stream and 226-20-16388 (Ps, 12/89), 226-20-16395 (Ps, 12/89), 226-20-16397 (Ps, 12/89)

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

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

5T-4 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Eagle nest > 400 M from work area - manual pickup with 10 man crew.

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 6 cm

RECOMMENDATIONS:

 No Treatment Recommended

X Treatment Recommended

X Manual Pickup

 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 manual removal of tarmats and
pickup of mousse in areas shown on attached sketch map.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

ACE 6976497

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

Salmon stream mouth - spawning (7/15 to 8/31)

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

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

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

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

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

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

1E Main Bay Hatchery release (4/20 to 6/15)

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

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

1H Remote release site

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

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

1D 1F 1G PWS Aquaculture Association John McMillan or Bruce 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 unopened intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.

AGENCY CONTACT PERSON: ADF&G 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 Roth 267-2206

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

ACE 6976498

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / BP004 SUBDIVISION: 16392 DATE 4/24/90

USCG

NAME CWO MC NATION SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

1. MANUAL TREATMENT; REMOVE TAR BALLS
AND MOUSSE PER MAP LEFT SIDE (BEHIND ONSHORE)

~~ADP~~
~~ADP~~

TOM CRONE

NAME NO TEAM MEMBER SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

MANUAL TREATMENT; REMOVE TAR MATS WITH SPECIAL
CONSIDERATION TO POCKET COALS.

LAND MANAGER

NAME NO TEAM MEMBER SIGNATURE _____

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Alaska Department of Fish and Game
ANADSCAT Observations and Recommendations
Team 15 - Michael Wiedmer and Tom Crowe

24 April 1990

ASC # No number

Segment BA-002

Observations This site supports a very rich intertidal flora and fauna. The intertidal zone is bordered by bedrock walls north and south of the stream channel. The bases of these walls are littered with boulder rubble. Two tar patties were found in the boulder rubble south of the channel and two to three tar splatters were found in the boulders north of the channel. No buried oil was observed at the site.

Treatment Recommendations Manually remove tar patties. This was done by the ANADSCAT crew, therefore no further treatment is required.

ASC # 226-20-16392

Segment BP-004

Observations A long, protected intertidal zone borders this stream channel. North and south of the channel, bedrock walls confine the intertidal zone. South of the stream mouth, bedrock outcrops protect two small beach pockets. The upper portions of each of these protected pockets contain mobile mousse deposits trapped between boulders. Further up the south side of the stream channel, tar mats and patties ring the high tide line. No significant quantities of buried mousse were identified.

Treatment Recommendations Manually remove surface tar mats and patties. Manually remove mousse deposits from protected coves. Removal of mousse may require trowels and absorbents.

OG WILLIAM LEI USCG McMAHON SEGMENT ST/ 3700A
 BIO MICHAEL FAWCETT LAND REP 525-2000 OF 225-2000
 EXXON GUS GARCIA ADFG MIKE WEDDER TIME 09:25
 TEAM NO. 15 TIDE LEVEL 0 FT DATE 24 / 12 / 90
 EST. SUBDIVISION LENGTH: 5.5 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 5 % B 5 % C 35 % P 60 % G 0 % S 0 % M 0 % V 0
 SLOPE: Long 80 % Hang 20 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ H
 OIL CATEGORY LENGTH: W 8 m M 0 m N 2 m VL 0 m NO 45

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	W	M	N	VL	SW	W	M	N	U	SW	M	N	U
ASPHALT PAVEMENT	☒				☒					☒			
POOLED													
COVER													
COAT													
STAIN	☒					☒				☒			
MOUSSE	☒						☒			☒			
PATTIES	☒				☒		☒			☒			
TARBALLS													
FILM													
NO OIL										☒	☒	☒	☒

PAVEMENT H ☒ S ☒ 150 sq. m by 7

PATTIES / TARBALLS

NEAR SHORE SHEEN? ☒ NO BR RW SL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

Did you collect DEBRIS ☒ YES ☐ NO

TYPE

#BAGS

Photographs:

Roll No.

Frames

SUBSURFACE OIL * BOILED INTERVAL < 5cm IN PIT NO. 1 DOES NOT CONSTITUTE SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					BOILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN	CYC	T	SURF/ SUBSURF SEDIM
		OP	OR	OL	OF	NO		W	U	SW	W	M	N	U	SW	M	N	U					
* 1	40	☒					0-6	☒		☒					☒					N			P/G
2	35					☒	.								☒					N			P/G
3	30					☒	.										☒			N			P/G
4	30					☒	.										☒			N			P/G
5	35					☒	.								☒					N			P/G
6	25					☒	.								☒					N			P/G

COMMENTS

REVIEWED JW DATE 4-25-91

5/36

SEGMENT ST/

STREAM 226-40-8392

DATE 24 / APR 90

CHECKLIST

☐ H Area
☐ Approx. Scale
☐ Seg/Sub Body
☐ Oil Out.
☐ Width
☐ Length
☐ % Cover
☐ Substrate Character
☐ Est. HWA/LWR
☐ SSI
☐ Profile Location(s)
☐ Profile(s)
☐ PH Location(s)
☐ Photo Location(s)

LEGEND

1 Δ

PH - No Subsurface Oil

2 Δ

PH - Subsurface Oil

CT/C

Continuous Distribution

CT/D

Broken Distribution

CT/P

Patchy Distribution

CT/S

Spaced Distribution

lll

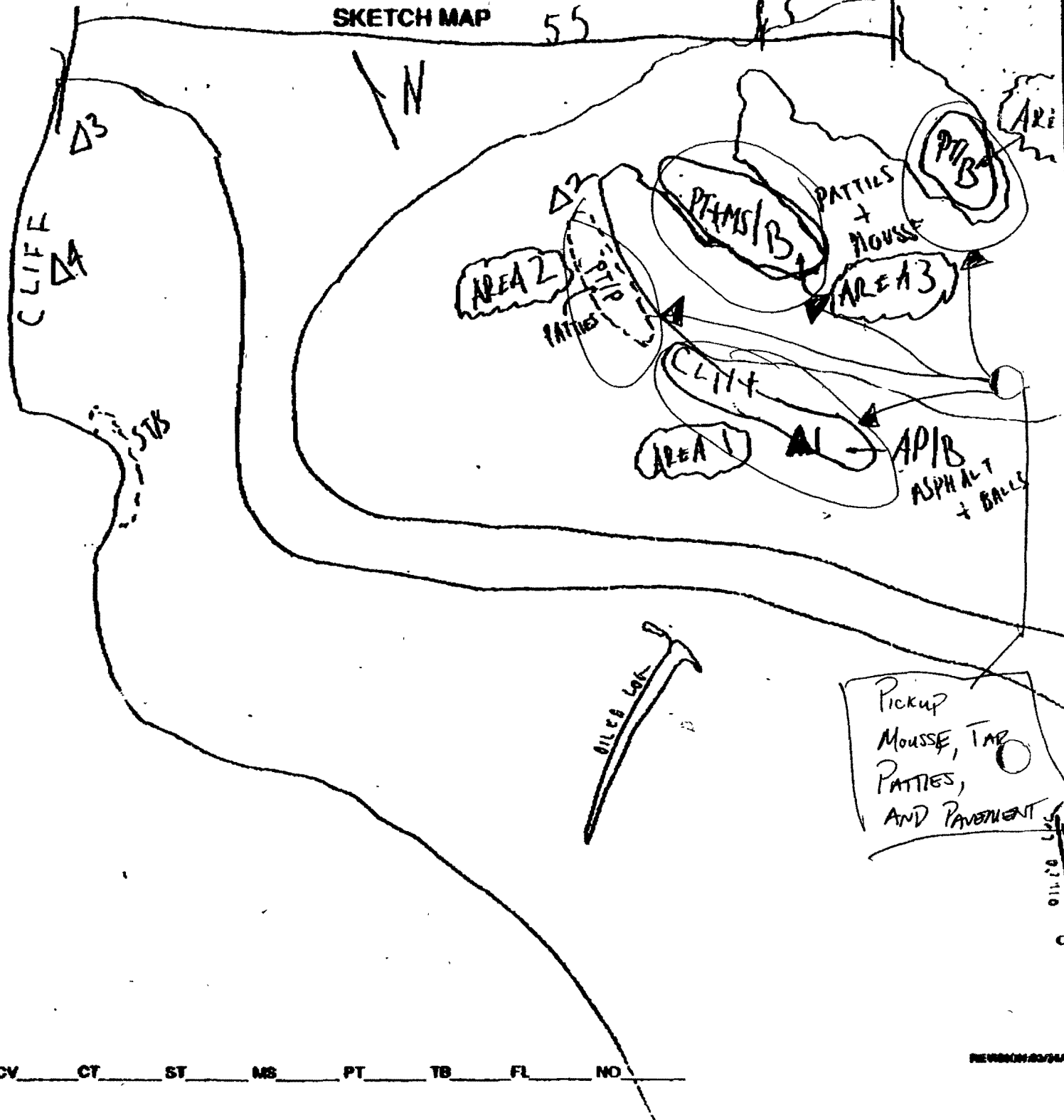
Oiled Vegetation

1 →

Photo location, direction,
and number

SKETCH MAP

55



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

ADFG MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: SS SS DS TS AVS SCH HNS PTA 2 REGION: PYS KP, CI X, AP

METHOD: Aerial Ground Seas

3 DATE: 4/24/90 18 HIGH TIDE TIMES: 0059, 1347 21 TEAM RECORDER: M. WIEDNER

4 START TIME: 0920 19 HIGH TIDE HTS: 12.5, 10.9 22 OBSERVERS: T. CROWE

5 STOP TIME: 1005 17 LOW TIDE TIMES: 0731, 1935 23 AGENCY: ADFG

6 SEGMENT #: BP-004 18 LOW TIDE HTS: -2.2, 0.7 24 PHOTOS TAKEN: Y N

7 STATION #: 226-20-16392 19 TIDE HT AT SURVEY: 0.71' Roll #: _____ Frame: _____

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

9 STAT AREA: _____ 20 USCG QUAD: _____ Starts: _____ Ends: _____

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

12 SOURCE: Map Loran _____ OIL _____

13 LOCATION: POINT CANTRESS Sediment _____

14 DESCRIPTION: _____ Biological _____

Water _____

EXTENT OF OIL

	SHORELINE				STREAM			
	L	W	H	S	L	W	H	S
27 SURFACE COVERAGE	75	200		3	200	4		<1
28 SURFACE THICKNESS	2cm	1cm	3cm					
29 PENETRATION	4cm	5cm	6cm					

30 OVERALL OIL IMPACT: N YL L N H

31 OIL TYPES: Pooled Mousse Tar Asphalt Sticky Slain

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 2 Boulder 10 Cobble 44

Gravel 44 Sand _____ Mud/silt _____

36 CATALOGED ANAD. FISH SKELET Y N

37 CATALOG #: 226-20-16392

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: _____

43 ANADROMOUS FISH PRESENT? Y N

ALBUQUERQUE PRESUMED

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

COMMENTS: ASPHALT BAND ALONGS HIGH TIDE LINE EAST OF CHANNEL
SCATTERED ASPHALT PATCHES SEAWARD FROM CONTINUOUS BAND
AREAS OF POOLED MOUSSE IN SMALL PROTECTED POCKETS
N.E. OF CHANNEL MOUTH

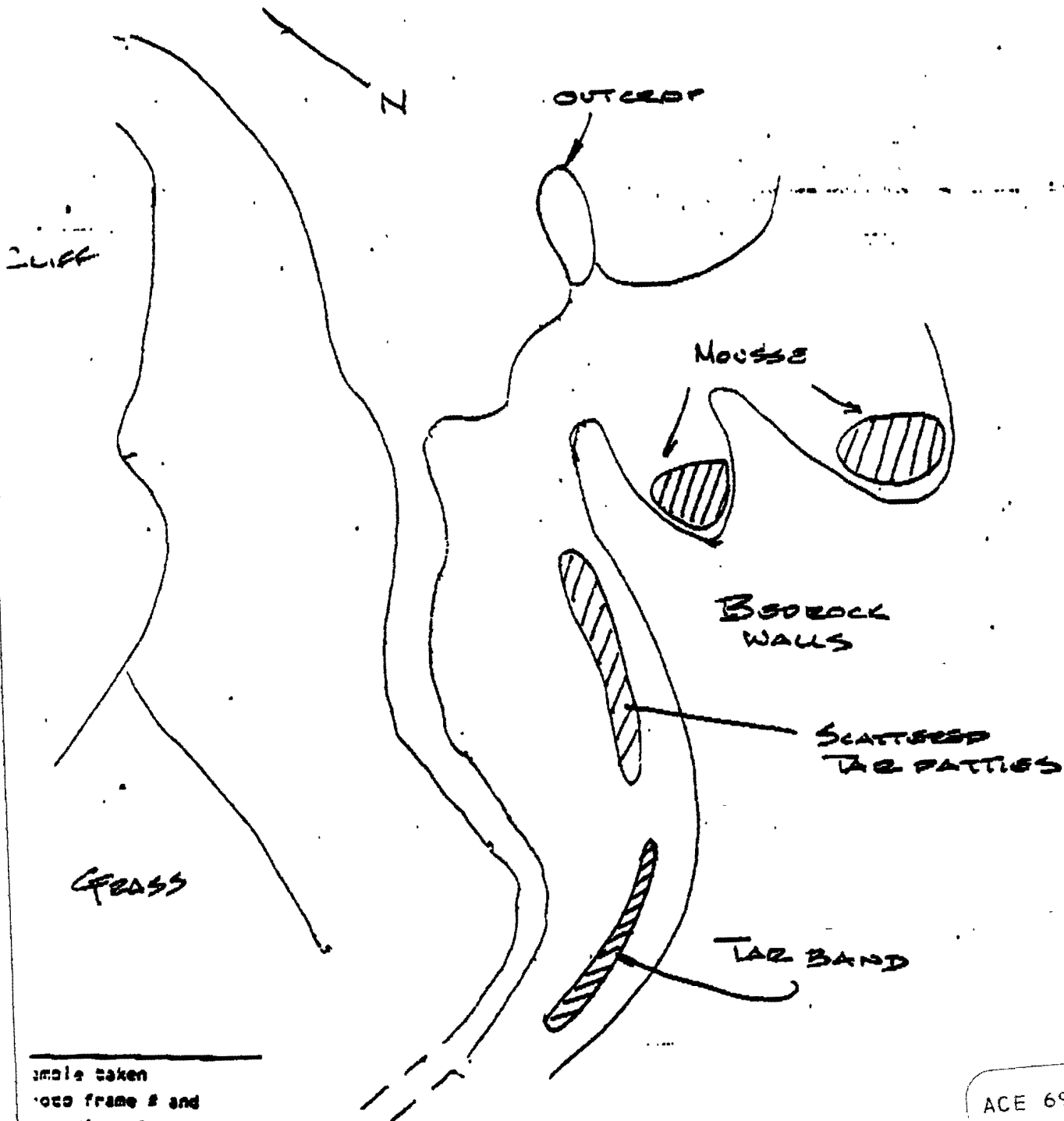
FOAMS(S)

DESCRIPTION

RECOMMENDATIONS: MANUALLY REMOVS ALL SURFACE
TAR MATS AND PATTIES AND MOUSSE. REMOVAL
OF MOUSSE FROM BETWEEN BOULDER MAY
REQUIRE TOOLS AND ABSORBENTS.

I agree with recommendations. M. H. FORD

48 OIL DISTRIBUTION DIAGRAM



sample taken
photo frame # and
compass direction.

ACE 6976504

(SEWARD B-4)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

148° 07' 30" 439000m E. 850 000 FEET - ZONE 4 148°

226-20

BALD EAGLE
NESTS

5679000m N

2 280 000 FEET

16388

16395

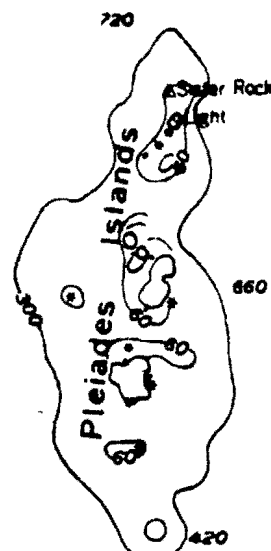
BP-04

16397

Countess

Pt. Countess

Sage



226-2

226-4

16351

Bain

Bainbridge Pt

Tate

16348

16337

16335

16332

16328

16324

16330

16372

16390

16388

16384

16381

ACE 6976505

Gage 1

15

15

15

15

15

15

FINAL

ALASKA

63,360 SERIES (TOPOGRAPHIC)

830 000 FEET

148°02'

226-20

01-04

WHALE BAY

BRUI
LX411
N12-3T

16290

16321

16322

16320

16368

16310

16362

16360

16010

CH/SH-1-6976506

VABM

10

226-20

OPERATIONS FIELD NOTES

See Back for Instructions

SEGMENT ID ANAD BP-004
 STREAM ID # 226-20-16392
 ANNOTATED MAP INCLUDED Y/N

DATE 4-24-90
 NAME GARCIA
 TEAM # 15

SURFACE OIL	Quantities in Meters			None	Treatment Recommendation					
	Length	Width	Area		Bioremediation		Tilling		Spot Hot Water	
					Y/N	% Treat	Y/N	% Treat	Y/N	% Treat
Wide Band	VERY SPORADICALLY			NONE						
Medium Band	STAINED, LESS THAN									
Narrow Band	0.59%									
Very Light										
TOTAL MANDAYS						0		0		0

SUBSURFACE OIL - NONE

Other (Describe)?	

TARMATS	Quantities in Meters			Treatment Rec			# of Bags	Mandays Required	
	Length	Width	Thick(cm)	None	Breakup	Remove		Breakup	Remove
Area #1	25	2	6			✓	30		3
Area #2 SPORADIC	20	2	6			✓	10		3
Area #3 OILED MOUSSE ALSO	6	4	4			✓	10		2
Area #4	4	1	5			✓	10		2
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								
"Pocket" #2								
"Pocket" #3								
Random/Continuous								

OILED LOGS <u>Y/N</u>	OILING <u>H/M/L</u>	QUANTITY <u>L/M/S</u>	BURN <u>Y/N</u>
-----------------------	---------------------	-----------------------	-----------------

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

GENERAL
 Wave Exposure H/M/L Snow covering 5 % of the Supratidal Zone?
 Access Limitations: NONE
 Snare Boom/Pom Poms Recommended? NO
 Would the production Craft have to be relocated to complete work on this subdivision? Y/N # of Times —

COMMENTS:
MANUAL PICKUP OF TARMATS AND SPORADIC TAR PATTIES AS NOTED ON ATTACHED MAP ONLY TREATMENT RECOMMENDED, NO OTHER TREATMENT NECESSARY. TOTAL MANDAYS REQUIRED FOR THIS STREAM IS 10.

ACE 6976390 +15

DATE 24, APR 90

CHECKLIST

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

LEGEND

1 

Pit - No Subsurface Oil

2 ▲
Pit - Subsurface Oil

CT/C
Continuous Distribution

CT/B

Broken Distribution

CT/P
Patchy Distribution

[CT/S]
Splashed Distribution

Oil Vegetation

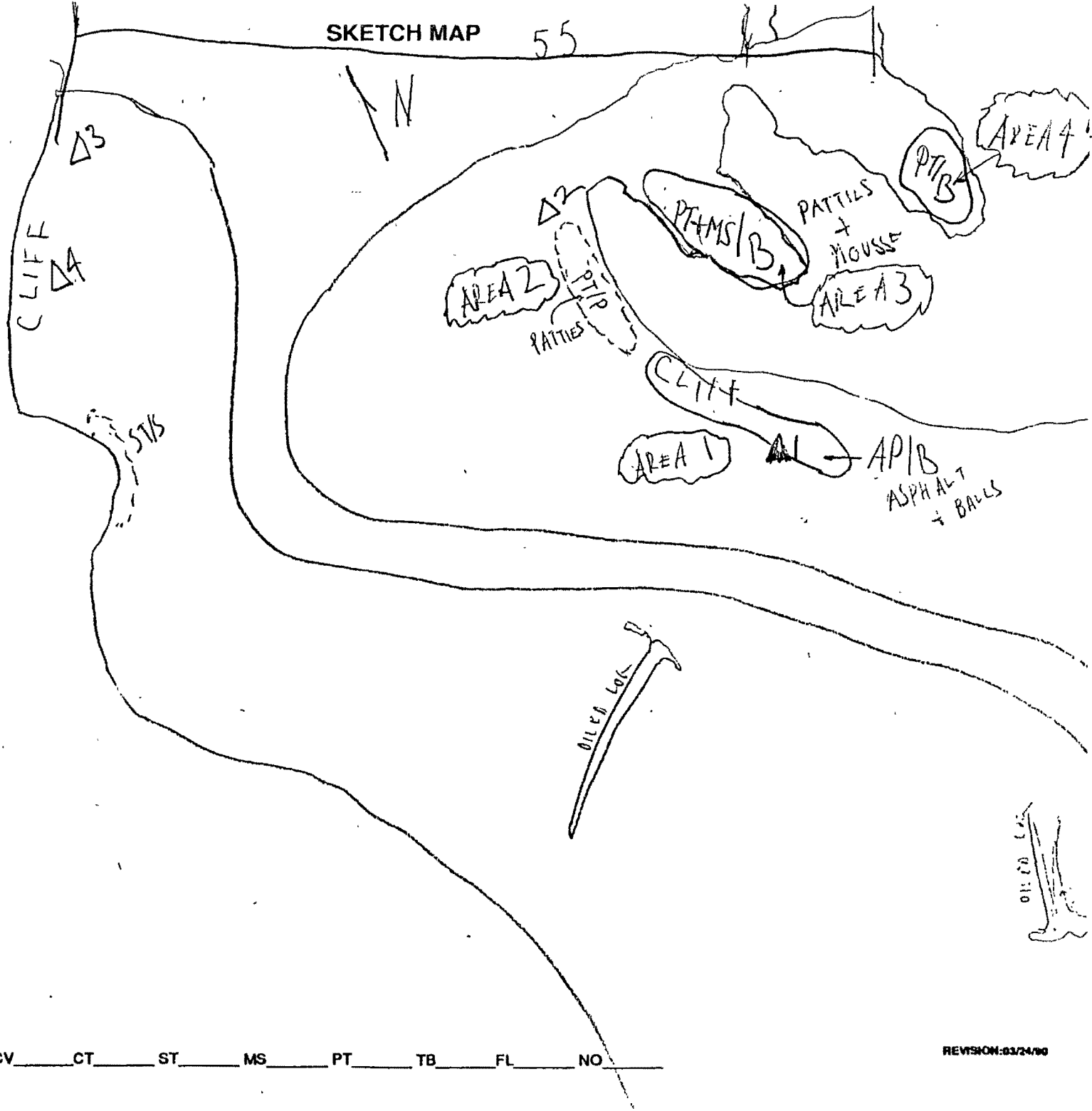
1 

Photo location, direction,
and number

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

REVISION:01/24/90

ACE 6976391



FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1 BR004 SUBDIVISION: 16392 DATE 4/24/90

USCG

NAME CWO McMAHON SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

1. MANUAL TREATMENT; REMOVE TAR BALLS
AND MOUSSE PER MAP LEFT SIDE (LOOKING ONSHORE)

~~ADFC~~
~~ADEC~~ TOM CROWE

NAME ~~NO TEAM MEMBER~~ SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

MANUAL TREATMENT; REMOVE TAR MATS WITH SPECIAL
CONSIDERATION TO POCKET COVES.

LAND MANAGER

NAME NO TEAM MEMBER SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ACE 6976392

ADF&G MULTI-ASSESSMENT DATA FORM

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

2 REGION: PNS KP, CI K, AP

METHOD: Aerial Ground Boat

3 DATE: 4/24/90 15 HIGH TIDE TIMES: 0059, 1347

21 TEAM RECORDER: M. WIEDNER

4 START TIME: 0920 16 HIGH TIDE HTS: 12.5, 10.9

22 OBSERVERS: T. CROWE

5 STOP TIME: 1005 17 LOW TIDE TIMES: 0731, 1935

23 AGENCY: ADF&G

6 SEGMENT #: BP-004 18 LOW TIDE HTS: -2.2, 0.7

24 PHOTOS TAKEN: Y N

7 STATION #: 226-20-16392 19 TIDE HT AT SURVEY: 0.71'

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: POINT COUTESS

Sediment _____

14 DESCRIPTION: _____

Biological _____

Water _____

EXTENT OF OIL

	SHORELINE				STREAM			
	L	W	M ²	%	L	W	M ²	%
27 SURFACE COVERAGE	75	200		3	200	4		<1

36 CATALOGED ANAD. FISH SKELETON? Y N

37 CATALOG #: 226-20-16392

38 STREAM NAME: _____

	SURFACE THICKNESS					
	2cm	1cm	3cm			
28 SURFACE THICKNESS	2cm	1cm	3cm			
29 PENETRATION	4cm	5cm	6cm			

39 OIL IN STREAM BED? Y N

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

ALEUTIC PRESIDENT

34 WAVE EXPOSURE: High Moderate Low

44 ANADROMOUS FISH OBSERVATION

35 SUBSTRATE TYPE: Bedrock 2 Boulder 10 Cobble 44
Gravel 44 Sand _____ Mud/silt _____

Species Aerial Ground

COMMENTS: ASPHALT BAND ALONG HIGH TIDE LINE EAST OF CHANNEL
SCATTERED ASPHALT PATCHES SEAWARD FROM CONTINUOUS BAND
AREAS OF POOLED MOUSSE IN SMALL PROTECTED POCKETS
E.E. OF CHANNEL MOUTH

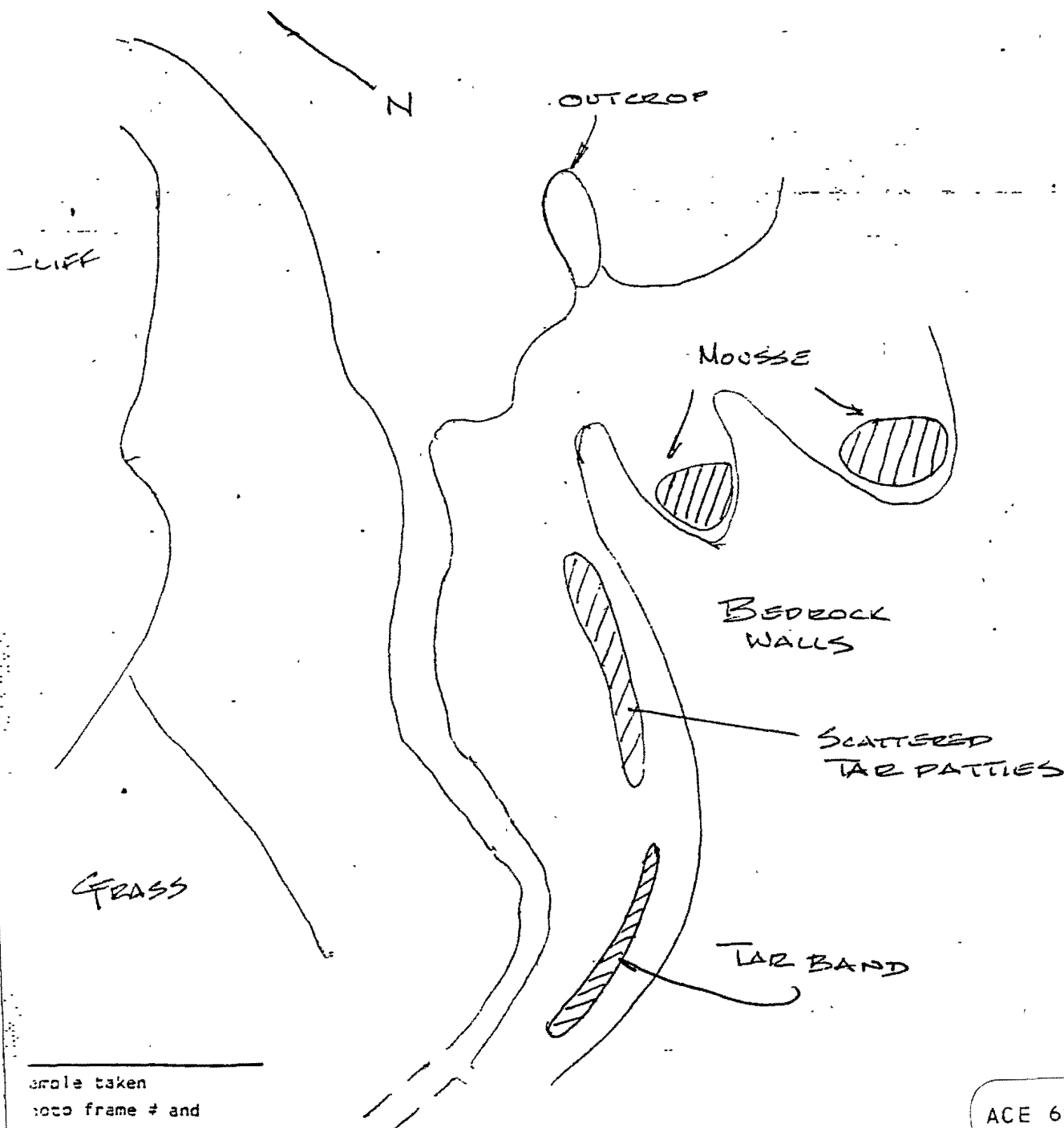
FRAME(S)

DESCRIPTION

RECOMMENDATIONS: MANUALLY REMOVE ALL SURFACE
TAR MATS AND PATTIES AND MOUSSE. REMOVAL
OF MOUSSE FROM BETWEEN BOULDERS MAY
REQUIRE TROWELS AND ABSORBENTS.

I agree with recommendations. M. R. Fawcett

46 OIL DISTRIBUTION DIAGRAM



Sample taken
photo frame # and
not direction.

ACE 6976394

OG WILLIAM LEID USCG McMAHON SEGMENT ST/ BP004
 BIO MICHAEL FAWCETT LAND REP STREAM 226-20463921 OF 9/32
 EXXON GUS GARCIA ADFG MIKE WIEDMER TIME 09:25 to 10:00
 TEAM NO. 15 TIDE LEVEL 0 FT DATE 24 / 1 / APR / 90
 EST. SUBDIVISION LENGTH: 55 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 0 % B 5 % C 35 % P 60 % G 0 % S 0 % M 0 % V
 SLOPE: Lang 80 % Hang 20 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 8 m M 0 m N 2 m VL 0 m NO 45 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	IC	IB	IF	IS	BR PH	DEL RW	GY SL	DEK TL	LEK	SU	U	M	LJ
ASPHALT PAVEMENT		X				X					X		
POOLED													
COVER													
COAT													
STAIN		X					X				X		
MOUSSE		X						X			X		
PATTIES		X				X		X			X		
TARBALLS													
FILM													
NO OIL													

PAVEMENT H (F) (S) 150 sq. m by 7

PATTIES / TARBALLS _____ BAG _____

NEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

Did you COLLECT

DEBRIS

☐ YES ☒ NO

TYPE _____

#BAGS _____

Photographs:

Roll No. _____

Frames _____

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CH)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SHEEN (Y/N)	SURFACE SUBSURFACE SEDIMENT
		OP	OR	OL	OF	NO		UO	UC	BR	FR	GY	SL	DR	TL	LR	SU	U	M	L				
1	40		X				0-6		X		X					X						N		P/G/C
2	35					X	.									X						N		P/G/C
3	30					X	.											X				N		P/G/C
4	30					X	.											X				N		P/G/C
5	35					X	.									X						N		P/G/C
6	25					X	.									X						N		P/G

COMMENTS

REVIEWED _____ DATE _____

ACE 6976395

SEGMENT ST/

STREAM 226-20-76392

DATE 24 / APR 90

CHECKLIST

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

LEGEND

1 ▲

Pit - No Subsurface Oil

2 ▲

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

lll

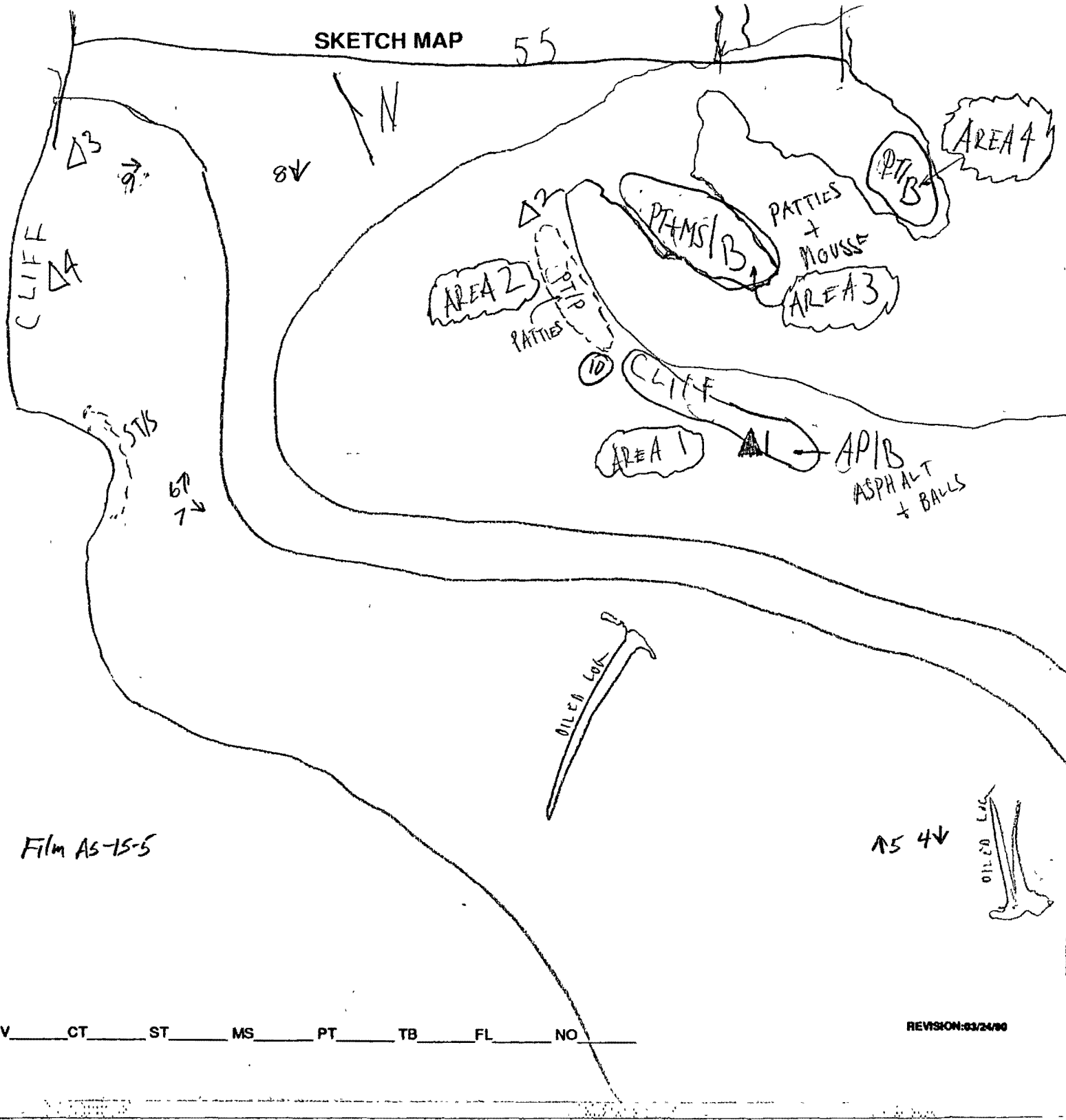
Oiled Vegetation

1 ●→

Photo location, direction,
and number

SKETCH MAP

55



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

REVISION: 03/24/90

ACE 6976396

GENERAL DATA

226-20-
SEG ID: BP004 SUBDIV: 16392 TEAM: AS-15 SURVEY DATE: 4/24/90
PAVEMENT: CHAR F, S AREA 150 THICKNESS 7 TARBALLS 0
OILED: LGS — VEG — TRH — DBR — WAVE EXP: LW X MD — HG —
FAX RCVD: — DT: — AGENCY DISAGREE: —
EST SUBDIV LGTH: 55 OIL CATEGORY: W 8 M 0 N 2 VL 0 NO 45 U 0

SURFACE DATA

SURFACE SEDIMENT: BRK — BLD 5 COB 35 PEB 60 GRN — SAN — MUD — VEG —

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

CHAR #: 2 OIL CHAR: ST OIL DIST: CONT — BRKN X PTCH — SPLH —
OIL CLR: GY FILM CLR: — TIDAL ZONE: SU — UI X MI — LI —

CHAR #: 3 OIL CHAR: MS OIL DIST: CONT — BRKN X PTCH — SPLH —
OIL CLR: DBR FILM CLR: — TIDAL ZONE: SU — UI X MI — LI —

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

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

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

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

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

SSAT DATA ENTRY FORM

SUBSURFACE DATA

PAGE 2 OF 2

SEGMENT ID: B P004 SUBDIV: 226-20-16392

PIT # 1 PIT DEPTH 40 OIL CHARACTER OR OIL INTVAL: FROM 0 TO 6
QUANT: UC OIL CLR: DBL FLM CLR: — ZONE: SU — UI X MI — LI —
SUBSURF SEDIMENT: BRK — BLD — COB X PEB X GRN X SAN — MUD — VEG —

PIT # 2 PIT DEPTH 35 OIL CHARACTER — OIL INTVAL: FROM 0 TO 0
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI X MI — LI —
SUBSURF SEDIMENT: BRK — BLD — COB X PEB X GRN X SAN — MUD — VEG —

PIT # 3 PIT DEPTH 30 OIL CHARACTER — OIL INTVAL: FROM 0 TO 0
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI — MI X LI —
SUBSURF SEDIMENT: BRK — BLD — COB X PEB X GRN X SAN X MUD — VEG —

PIT # 4 PIT DEPTH 30 OIL CHARACTER — OIL INTVAL: FROM 0 TO 0
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI — MI X LI —
SUBSURF SEDIMENT: BRK — BLD — COB X PEB X GRN X SAN X MUD — VEG —

PIT # 5 PIT DEPTH 35 OIL CHARACTER — OIL INTVAL: FROM 0 TO 0
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI X MI — LI —
SUBSURF SEDIMENT: BRK — BLD — COB X PEB X GRN X SAN — MUD — VEG —

PIT # 6 PIT DEPTH 25 OIL CHARACTER — OIL INTVAL: FROM 0 TO 0
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI X MI — LI —
SUBSURF SEDIMENT: BRK — BLD — COB — PEB X GRN X SAN — MUD — VEG —

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

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

PROBLEMS: —

Segment #P004
Stream 226-20-16392
Ecological Summary

4/23/90
Michael Fawcett

The intertidal portion of this stream is long, about 250 m. Fucus, barnacles and littorines occur on boulders in the stream as far as 200 m from the sea at low tide. Most of the beach consists of unstable pebbles with sparse biota, mainly littorines and scattered mussels. There are no ecological constraints re: cleanup that apply to the intertidal biota.

M Fawcett

ADEC EXXON VALDEZ POST-TREATMENT SURVEY REPORT

SEGMENT#: BP004
LOCATION: BAINBRIDGE PASSAGE

DATE: 10/12/89
TIME: 17:00

Survey Type: Boat, Ground
Team: J. Krieger, K. Dutcher

WEATHER AND SEA CONDITIONS

Weather: Sunny
Sea State: Calm

Wind Direction: variable
Knots: 0-15

Low Tide: 6:02	Feet: 0.63	High Tide: 12:17	Feet: 12.3
Low Tide: 18:27	Feet: 0.82	High Tide: -0-	Feet: -0-

SHORELINE DESCRIPTION

Shoretypes: H,LR,B,C
(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
(R=bedrock, B=boulder, C=cobble, G=gravel, S=sand, M=silt)

OIL CHARACTERISTICS

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

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

Percent Segment Categorized as Oiled: 0%
Presence of Oiled Driftwood (y/n): n
Oil Types: none
(P=pooled, M=mousse, SY=sticky, T=tar, A=asphalt, ST=stain)
Samples: none / none / none / none

DAMAGED OR OILED ORGANISMS

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

SOLID WASTE FOUND

Type: None
Bags Collected: 0

Draft

Printed: 12/12/89 11:00

Walk-a-thon

ACE 6976476

ASAP Follow-Up Recommendations
TAG Recommendations - August 23, 1990

SEGMENT

PWS

KN-24 A Site 1-4 Pickup accessible heavy AP rake and bioremediate where applicable (M.P.)
KN-110 A Site 2 Reapply bioremediation (L.P.)
KN-111 A Site 1 Reapply bioremediation (L.P.)
KN-113 A Site 1 NTR - Reassessment in 1991
KN-135 A Site 1 Reassessment in 1991
KN-206 A Site 1 NTR
Site 3 NTR
KN-300 A Site 1 NTR - Reassessment in 1991
KN-508 A Site 1 Reapply bioremediation and reassessment in 1991 (L.P.)
KN-701 B Site 1 NTR - Reassessment in 1991
KN-702 A Site 1 Bioremediation and reassessment in 1991 (L.P.)
KN-702 B Site 1-5 Reapply bioremediation and reassessment in 1991 (L.P.)
GR-09 A Site 1 NTR - Reassessment in 1991
GR-103 A Site 1 Reapply bioremediation and reassessment in 1991
Site 2 Reapply bioremediation and reassessment in 1991
BP-04 ANAD Site 4 Reapplication of bioremediation with approval from ADF&G - reassessment in 1991 (L.P.)
GR-103 C Site 1 Reapplication of bioremediation and reassessment in 1991 (L.P.)
Site 2 Manual pickup of AP followed by bioremediation (M.P.)
KN-209 B Site 1 NTR
KN-209 D Site 1 Reapply bioremediation
Site 2 NTR
SM-05 B Site 1 NTR - Reassessment in 1991
SM-06 A Site 1 NTR - Reassessment in 1991
SM-06 B Site 1 NTR - Reassessment in 1991
SM-06 C Site 1 NTR - Reassessment in 1991
KN-211 B Site B NTR - Reassessment in 1991

Kenai

PY-06 A Site 1 NTR - Reassessment in 1991
TB-03 A Site 1 NTR - Reassessment in 1991
Site 2 NTR - Reassessment in 1991
US-09 A Site 1 NTR
WA-01 A Site 1 NTR

Kodiak

K10-5 AS-4 Site 1 Pickup small patch of mousse

TAG APPROVAL DATE Aug 23 1990 SHPO _____
EXXON Amot Ten Real
ADEC Ron M... Le... ..
USCG G.A. REITER G.A. Reiter FOSC _____
NOAA Burt Wascott Burt Wascott DATE _____

SEGMENT ST/SP-004

SUBDIVISION 226-20-16392

DATE AUG 15/ 90 0710

CHECKLIST

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

LEGEND

1 Δ

Pit No Subsurface Oil

2 Δ

Pit Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

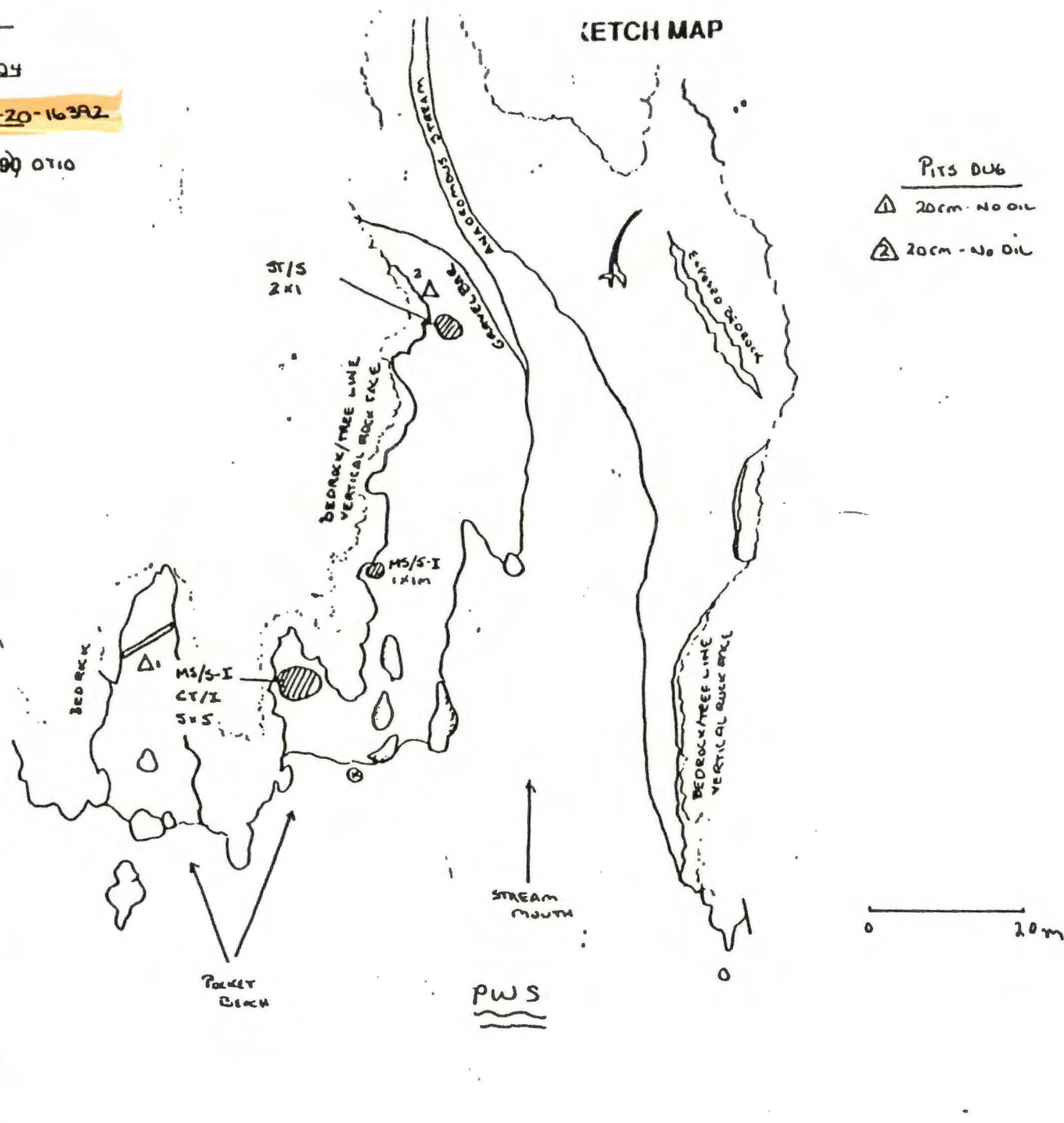
Oil

Oiled Vegetation

1 ●→

Photo location, direction,
and number

ETCH MAP



PITS DUG

Δ 20cm - No Oil

Δ 20cm - No Oil

ACE 6976482

Oil Character Length (m) AP _____ PO _____ CV _____ CT 5 ST 7 MS 6 PT _____ TB _____ FL _____ NO _____

LIST OF ASAP REPORTS and TAG RECOMMENDATIONS
CONTAINING ANDROMOUS STREAMS

9/10/90

<u>SEGMENT</u>	<u>CATALOG #</u>	<u>TAG RECOMMENDATION</u>
BA002A	226-40-16450	
BP004	226-20-16392	
BP004	226-20-16397	Bio/Customblen
BP004	226-20-16388	
BP004	226-20-16395	
CH002A	226-20-16180	
CH009B	226-20-16182	Tarmat removal/Bio
CH900A	226-20-16200	
CU014A	224-20-13036	
CU013A	224-20-13030	
EL052B	226-10-16902	NTR
EV014A	226-40-16640	
EV017A	226-40-16620	
EV025A	226-40-16613	
EV071B	228-40-16484	
GR007A	NOT CATALOGED	
GR103A	227-20-17880	
KN213B	226-30-16853	NTR
KN129A	226-10-16975	
KN129B	NOT CATALOGED	
KN132B	226-10-16982	
KN135A	226-30-16285	
KN211E	226-10-16875	NTR
KN401A	226-30-16820	
KN500A	226-10-16992	NTR
KN701B	226-30-16840	NTR
LA018A	226-40-16780	
LA021B	226-40-16776	
LA021A	226-40-16774	

Final Anadromous Stream Treatment Information

Segment ID - Stream ID	NTR	Bio	Bio Start	Bio End	Man	Man Start	Man End
BA002 226-40-16450	X						
BA002 226-40-16451		X	6/22/90	6/23/90	X	6/22/90	6/23/90
BP004 226-20-16388					X	7/1/90	7/2/90
BP004 226-20-16392					X	7/2/90	7/3/90
BP004 226-20-16395					X	7/3/90	7/4/90
BP004 226-20-16397		X	7/7/90	8/27/90	X	7/4/90	7/7/90
CB003 242-20-10190					X	6/14/90	6/14/90
CH001 226-20-16280					X	6/16/90	6/16/90
CH002 226-20-16180		X	7/3/90	9/12/90	X	6/16/90	6/16/90
CH009 226-20-16182		X	7/4/90	9/12/90	X	7/4/90	7/4/90
CH014 226-20-16255					X	6/20/90	6/20/90
CH016 226-20-16258	X						
CH0900 226-20-16200					X	7/3/90	7/3/90
CU001 224-20-12995					X	5/18/90	5/23/90
CU007 224-20-13010	X						
CU013 224-20-13030					X	6/3/90	6/3/90
CU014 224-20-13034					X	6/21/90	6/21/90
CU014 224-20-13036					X	6/21/90	6/21/90
EI001 242-10-10270					X	7/1/90	7/1/90
EL015 226-10-16906					X	6/30/90	6/30/90
EL052 226-10-16902		X	6/28/90	9/4/90			
ER005 226-50-16432					X	6/21/90	6/21/90
ER006 226-50-16430					X	6/20/90	6/20/90
ER007 226-50-16428					X	6/20/90	6/20/90
ER019 226-50-16406	X						
EV003 226-40-16590					X	6/10/90	6/10/90
EV007 226-40-16559	X						
EV012 EV012-UNCAT		X	6/22/90	6/23/90	X	6/22/90	6/23/90
EV014 226-40-16640					X	6/23/90	6/23/90
EV017 226-40-16620					X	6/19/90	6/19/90
EV017 226-40-16630					X	6/19/90	6/19/90
EV025 226-40-16613		X	7/1/90	7/1/90	X	6/9/90	6/9/90
EV027 226-40-16610					X	7/8/90	7/8/90
EV070 226-40-16509		X	6/12/90	9/1/90	X	6/12/90	6/12/90
EV071 226-40-16484		X	7/5/90	9/1/90	X	6/21/90	6/21/90
FL002 226-40-16390	X						
FL005 226-40-16400	X						
GR007 GR007-UNCAT					X	6/27/90	6/27/90
GR013 227-20-17890	X						
GR103 227-20-17880					X	6/24/90	6/26/90
IN031 226-10-16916					X	7/5/90	7/5/90
K0101-SI008 251-81-10010	X						
K0101-SI014 251-82-10090					X	7/3/90	7/3/90
K0112-SS009 251-50-10045					X	7/2/90	7/2/90
K0201-SI013 251-81-812	X						
K0302-IB005 252-31-10020					X	6/5/90	6/5/90
K0911-CD018 262-10-10100					X	7/5/90	7/7/90
K0911-CD020 262-10-10040					X	7/3/90	7/8/90
K0911-CD020 262-10-10070	X						

ASAP survey 90

226-20-16392

Don

SEGMENT AS/30-004 SUBDIVISION: ANADROMOUS SITE: 3 DATE 15 AUG 1990

1990

NAME DON CRUIS USCG SIGNATURE *Don*

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

TWO SMALL POCKET BEACHES, NEXT TO LARGE ANADROMOUS STREAM OPENING: SPLASHY TO INTERSTITIAL MUDSSE NOTED IN POCKET BEACH DIRECTLY TO THE LEFT OF ANADROMOUS STREAM OPENING. AN ADDITIONAL SMALL SPLASHY AREA OF MUDSSE NOTED AWAY WITH SINE STAIN IN ANADROMOUS STREAM SECTION OF LEFT BANK. NO OTHER OIL NOTED. REMOVAL OF DEPOSITS, RAKING OF PATCHES RECOMMENDED REASSESS IN 1991 DUE TO ANADROMOUS STREAM SEGMENT.

DEC

NAME *Bob M. Brady* SIGNATURE *Bob M. Brady*

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Sporadic patches of MS located as well as some residual subsurface oil. CT/ST on rocks near quad. stream. No silt was located on North bank of stream. Silt remains after 1991 reassessment, manual removal of all remaining deposits as well as beached pods. ADF & B approval is recommended

MANAGER NOAA

NAME DON CLINE SIGNATURE *Don Cline*

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

SOR FOUND IN SMALL POCKET BEACHES, ALONG W/ INTERSTITIAL MUDSSE NOTED BY USCG ABOVE. RAKING IS RECOMMENDED TO REMOVE SOR, + MANUAL REMOVAL OF MUDSSE.

XXON

NAME AL SNOOK SIGNATURE *Al Snook*

☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

VERY LIGHT DEGREE OF OILING REMAINS AFTER THIS SUMMER'S CLEANUP; VECO CREW REMOVED REMAINING RECOVERABLE OIL DURING INSPECTION. NORTH FACING BEACH SHOULD NOT NEED REASSESSMENT IN 1991.

SHORELINE OILING SUMMARY PAGE 1 OF 1
 TEAM NO. 3 EXXON AL SNOOK SEGMENT AS BP004
 OG LINDSAY NAKASHIMA USCG DON ORRIS SUBDIVISION 226-40-16392
 ADEC BOB McCREARY LAND REP STEVE WARD TOTAL NO. SITES 4
 DATE 8/15/90 TIME 7:09 to 7:33 TIDE LEVEL +5.2 to +5.2 3/4
 TOTAL EST LENGTH OF SHORELINE SURVEYED: 160 m ^{DOWN CLWG}
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WEATHER: ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 OIL CATEGORY LENGTH: W m M m N m VL 8 m NO 152 m US m

SURFACE OIL

SITE 1/3

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SU	UI	MI	LI
ASPHALT								
S.O.R.								
POOLED								
COVER								
COAT				I		X		
STAIN				X		X		
MOUSSE				I		X		
PATTIES/T.B.								
FILM								
NO OIL					X		X	X
EST. SITE LENGTH						160m		

SITE 2

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

SITE 3

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

SITE 3
ANAD
BP4

SUBSURFACE OIL

SITE NO.	PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER				OILED INTERVAL	CLEAN BELOW (Y/N)	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS
			OP	OR	OF	NO			SU	UI	MI	LI	
3	1	20				X	.	-Y		X			P/B/GK
3	2	20				X	.	Y		X			P/C/G
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							.						
							.						

Photographs:

Roll No. _____

Frames _____

ACE 6976481

COMMENTS

- EAST SIDE OF STREAM CONTAINS MS/SY/CT/S-I IN BEDROCK CREVICES AND IN A BOULDER/CORAL/PEBBLE MATRIX
- OIL WAS NOT PRESENT IN THE SUBSURFACE

ETCH MAP

SEGMENT ST/PP-004

SUBDIVISION 226-20-16392

DATE AUG 15/ 90 0710

CHECKLIST

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

LEGEND

1 Δ

Pit No Subsurface Oil

2 Δ

Pit Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

LT/P

Patchy Distribution

LT/S

Splashed Distribution

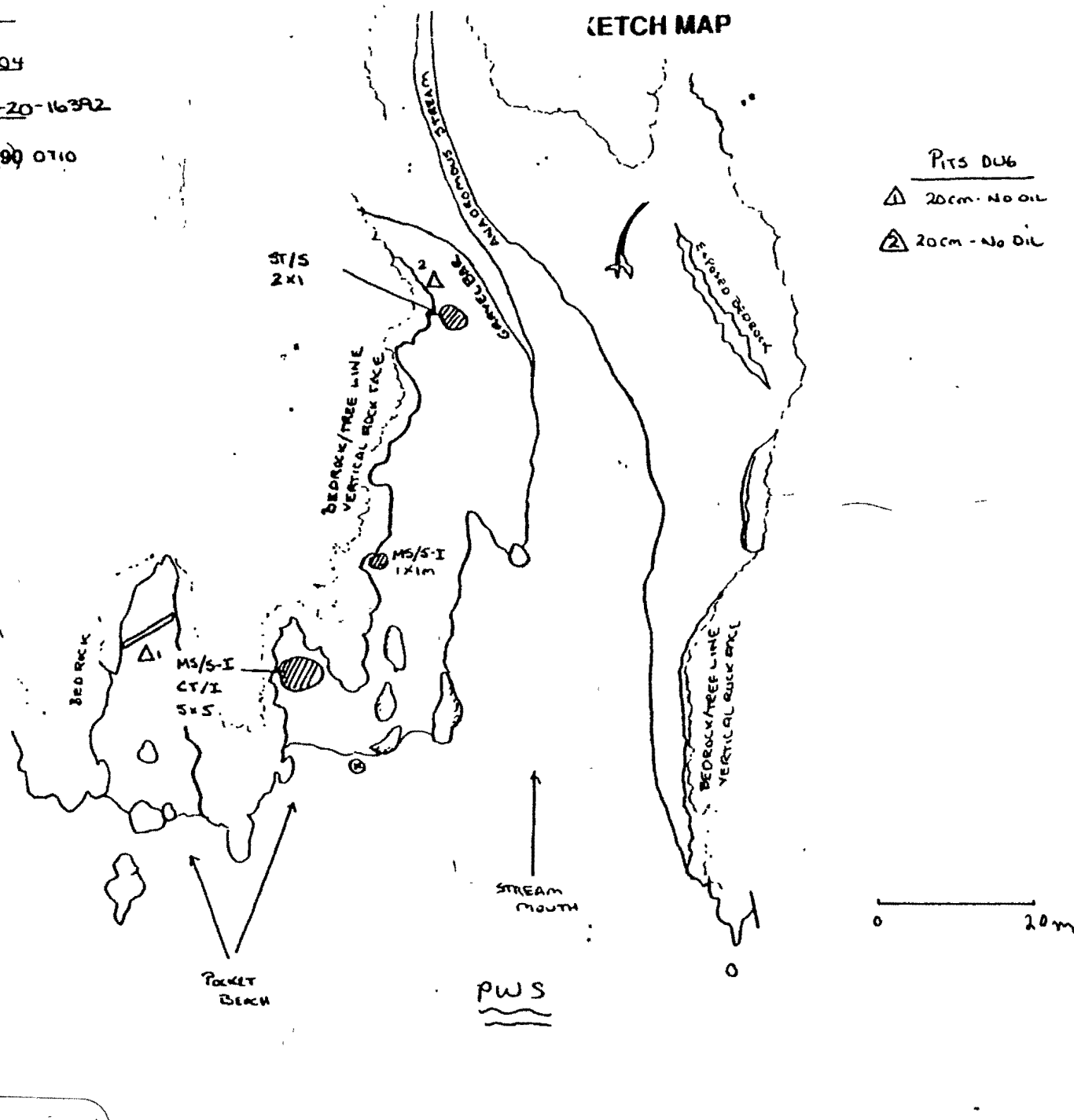
Oil Vegetation

Photo location, direction, and number

PITS DUG

1 Δ 20cm - No Oil

2 Δ 20cm - No Oil



0 20m

N

PWS

POCKET BEACH

STREAM MOUTH

BED ROCK

ST/S 2x1

BED ROCK/TREE LINE VERTICAL ROCK FACE

GARDNER

MS/S-I 1x1m

MS/S-I CT/I 5x5

BED ROCK/TREE LINE VERTICAL ROCK FACE

EXPLOD BED ROCK

ACE 6976482

Oil Character Length (m) AP PO CV CT 5 ST 7 MS 6 PT TB FL NO

WH-500

BP-4

226-20-16388

226-20-16395

226-20-16392

226-20-16397

SITE 23
(465)

ACE 6976483

XXXX

Wide

BP-4

Subdivision Field Map

///

Medium

ADEC Subsegment Length: 0m

Map Key: PWSBP-4a

Narrow

METERS

Name: TRIM FOR NAKASHIMA

TTTT

Very Light

0 457 914

Date: 24 Aug 190

0000

No Oil

AK State Plane Zone 4 1:18000



Data Entered:

A.S.A.P.

BP 04-anad
site 3

August 15, 1990

ADEC recommends the following treatment:

- 1) Manually remove all AP, SOR and subsurface oiling present
- 2) Till and bioremediate all treatment areas including those with residual oiling - with ADF&G approval

ATW
Pre-AVADSCAT-90

ADF&G MULTI-ASSESSMENT DATA FORM

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

2 REGION: PWS KP, CI K, AP

METHOD: Aerial Ground Boat

3 DATE: 4/15/90

15 HIGH-TIDE TIMES: 1

21 TEAM RECORDER: Tom Crowe

4 START TIME: 1019

16 HIGH TIDE HTS: 1

22 OBSERVERS: GREG CROWLEY (Rxnw)

5 STOP TIME: 1032

17 LOW TIDE TIMES: 1

23 AGENCY: ADF&G ATW

6 SEGMENT #: BPOOH

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: PT. COUNTERS

Sediment _____

14 DESCRIPTION: _____

Biological _____

Water _____

EXTENT OF OIL

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

36 CATALOGED ANAD. FISH STREAM? (Y) N

37 CATALOG #: 286-20-16392

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 X
Gravel X Sand _____ Mud/silt _____

Species	Aerial	Ground

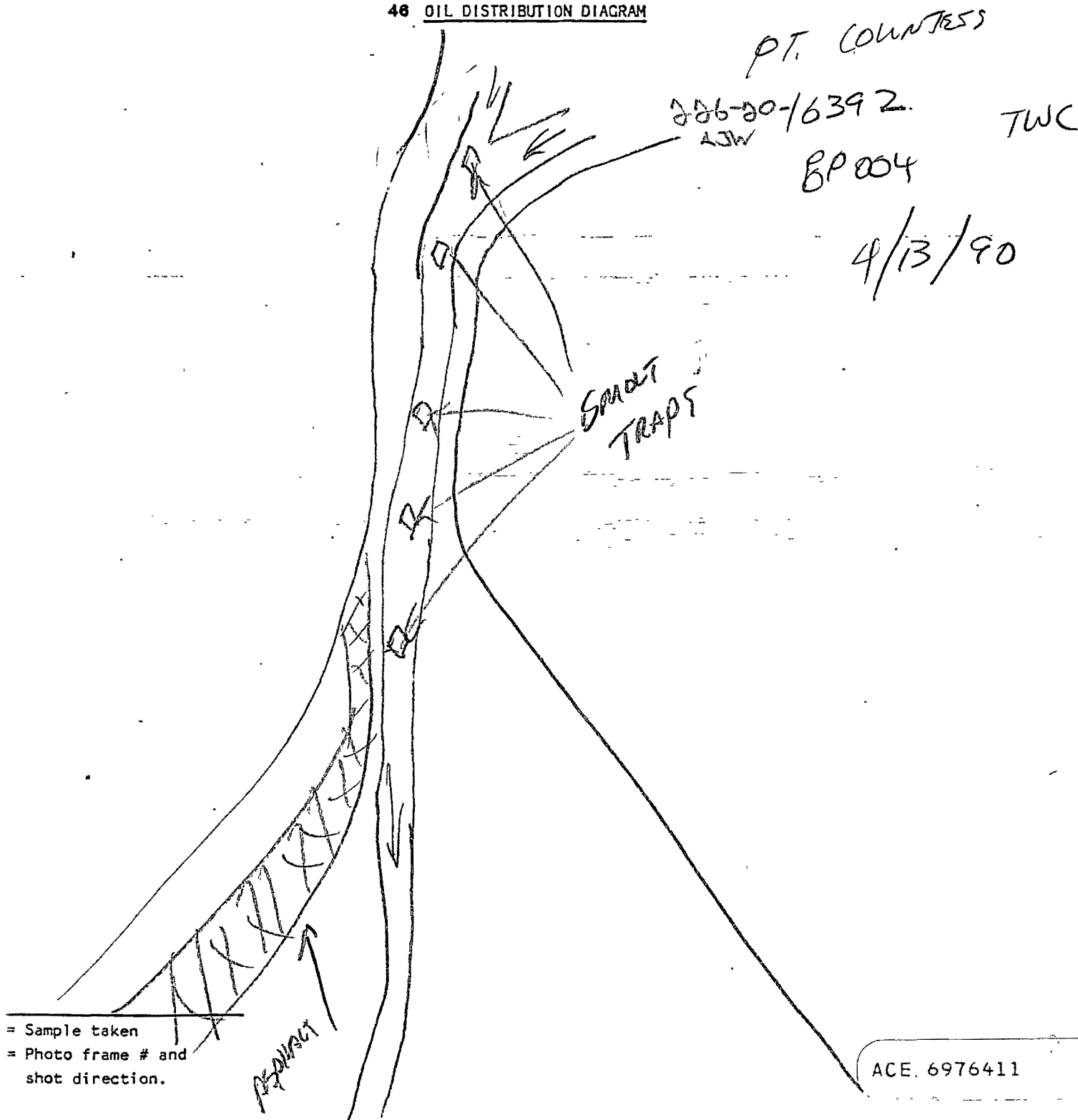
COMMENTS: 6 SMOLT TRAPS SET UPSTREAM FROM OILED AREA
HVY ASPHALT ON RT SIDE OF STREAM

ACE 6976410 +15

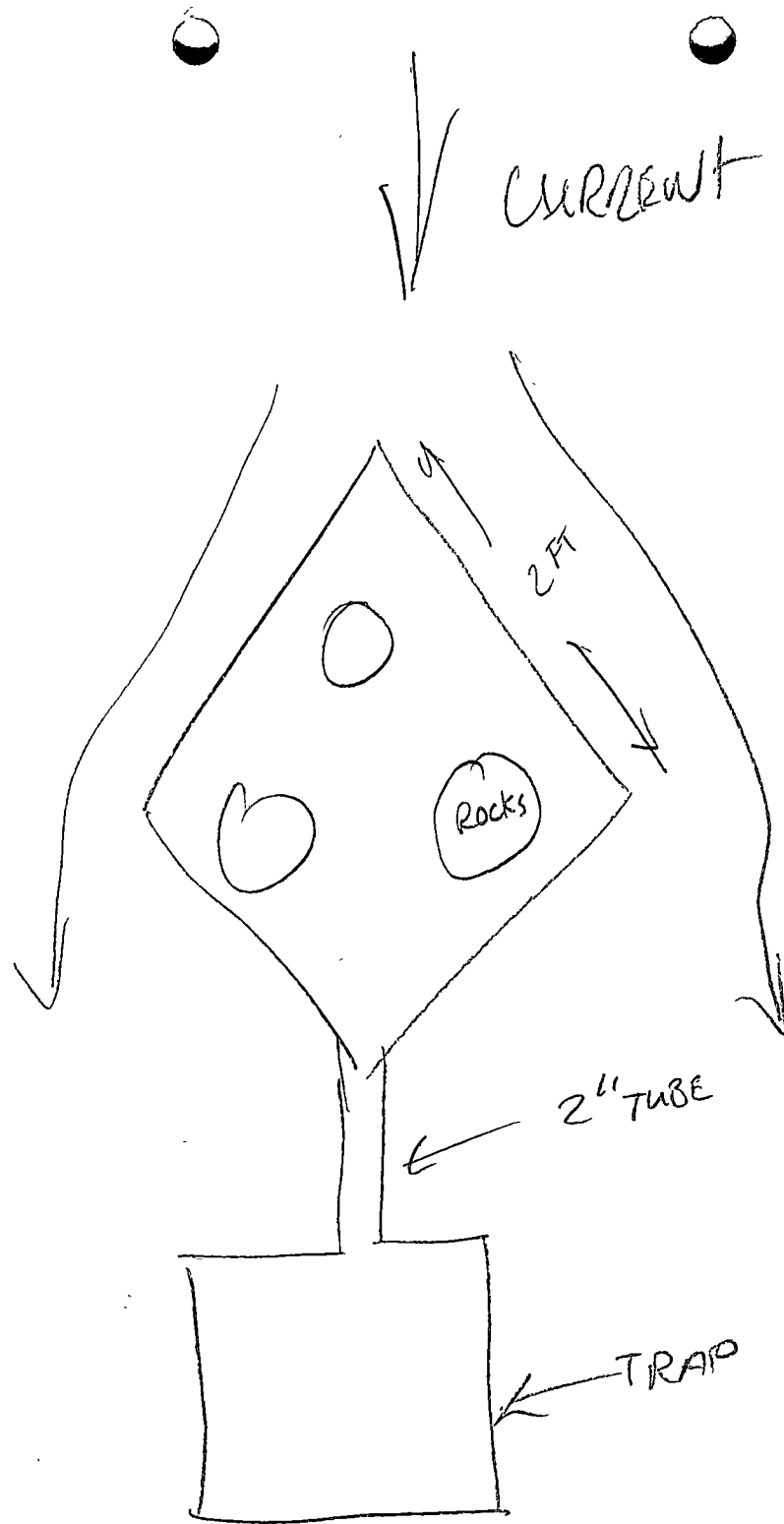
FRAME(S)

DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM



ACE. 6976411



SMOLT TRAP COVERING REED
DAMES + MOORE

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 8/03/89

SHORELINE SEGMENT BP-04

LOCATION: (see enclosed map) BAINBRIDGE PASSAGE-Mainland side
(Bainbridge Passage Northwest Block)

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/30/89

Recommended Cleanup Activity(ies):

- Manually remove contaminated drift material (fucus and driftwood).
- Flood/flush with warm to hot water (up to 140°F) on low angle beaches; *minimize erosion;*
- Use moderate to high pressure washing on rock.
- Use other approved methods as appropriate.
- *institute sedimentation controls on beaches 3, 6, 7, 10*

Priorities Considerations:

Class 3-4: Moderate to light oil

Class A: Resources present

Ecological Constraints (from site survey): Work at mid tide + or take appropriate measures to protect lower intertidal zone.

Cataloged
~~A possible~~ anadromous stream is located in this segment. Notify ADF&G and RAT 48 hours prior to beginning cleanup activities. A bald eagle's nest is located in this segment (see advisory).

inactive eagle nest

Archeological Constraints (from site survey):

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

Charles E. Jones
State Historic Preservation Officer *

Date: August 4, 1989

ISCC: _____

Date: _____

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 6976485+12

SHORELINE OIL EVALUATION

Date: 7/30 Time: 09:00

Observer: Mike Foget

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fo

LOCATION

LOCATION Mainland between Bainbridge Passage and Whale Bay

SEGMENT NUMBER BP-04

LENGTH OF SHORELINE SEGMENT: 7400 m

ACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane

SHORELINE:

Shoreline Type: SPI/SEA/COV/HLD/STRT

Slope: LANG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B 25 % / C 20 % / P 10 % / G 10 % / S — % / M — % / R 35 %

Drift Debris on Beach: Yes/No

Supra/Upper/Mid/Lower Type Driftwood
Drift Fucus

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Area of Beach Impact: SU / SP / H / M / L

Continuous: Y/N % of Segment 5 Width of Band: 5 m

Sporadic: Y/N % of Segment 15

Est. Oil Thickness where > 1cm: — cm Est. Oil Penetration: 20 ^{max} cm

Pooled Oil: — % "Free" Oil: — % Coated: H — % / M — % / L 10 %

Fresh — % Mousse — % Tar Formation: 90 %

Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H/M/L

Comments:

Segment consists of rocky headlands with 3 bays and several pocket beaches. The segment has a high wave exposure. No oil was observed on the rocky headlands. Oil was only observed in the protected bays and some of the pocket gravel beaches. No oil was observed after beach 10. Beaches lightly oiled were 1, 2, 4, 5 and 9 those beaches with moderate tar oil were 3, 6, 7 and 10. See attached maps

4. 1, 2, 4, 5, 9

30 7/10

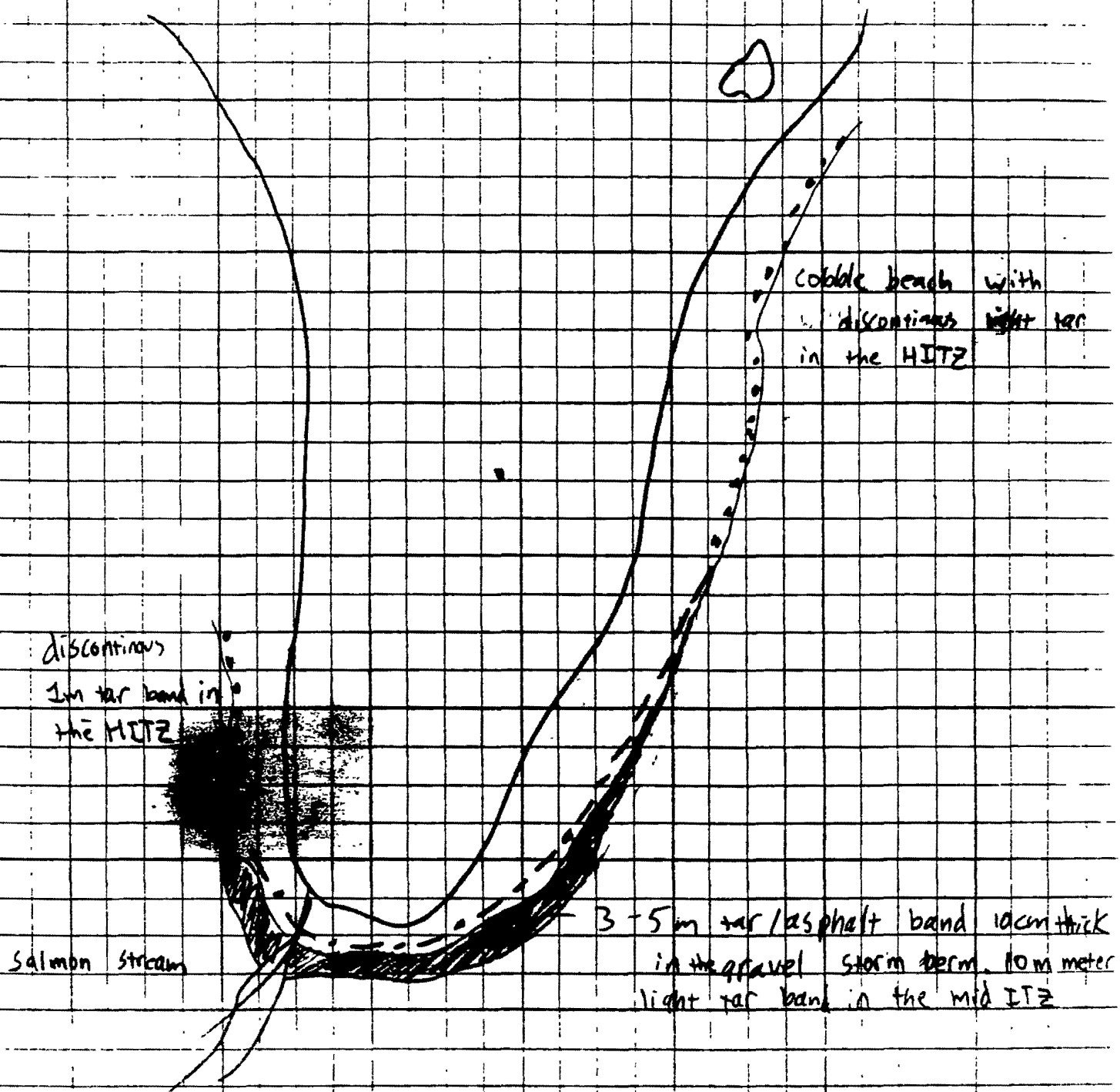
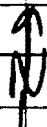
ACE 6976486

BPO 4

Beach 3

OP 2

moderate tar



BP-04

Map 4

Beach 10

gravel beach in the
low ITZ throughout
the bay

Large
Boulders
and no
apparent oil

Large cobble/boulders
with a discontinuous
1 meter tar band in the
+ HITZ

In the HITZ is a 5m
5m moderate tar (asphalt)
band in the gravel storm
berm w/ 10 cm maximum
penetration. Light tar
in the MITZ.

stream

ECOLOGICAL EVALUATION

LOCATION: Mainland on Bainbridge Passage SITE: _____ OBSERVER: Crank
 LOCATION PREFIX: BP SEG. NO.: 4 LENGTH: 7400 (M)
 DATE: 17/31/89 TIME (HHMM): 0900 - 1200 TIDE HT.: +1 - +9 ft
0730 - 0945 -1 - +3 ft
 OILED ZONE: Splash High Medium Low asphalting - see map
 SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Moderate Sparse Y/N None Y/N
Patchy distribution with dense to sparse concentrations on beaches 1-9 and 13
Continuous and dense to med on headlands and beaches 10-12 and 14.
Small areas of concentrated Fucus and beaches 3 & 4

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Moderate Sparse Y/N None Y/N
Patchy distribution with moderate to sparse concentrations on headlands and beaches 1, 2, 4-9, & 13
Extensive intergravel/cobble mussel beds on beaches 3, 10, 11, 12 & 14

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Moderate Sparse Y/N None Y/N
Continuous population with dense to moderate concentration

Littorina

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

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

OTHER OBSERVATIONS: Salmon Stream # 037 at beach 7, possible salmon
traces on beaches 3, 5, 10. Clams shells on the beaches
Stream gravel on beach 3 is oil coated.

CLEANUP PRECAUTIONS: Salmon Stream and Bald Eagle nesting area. Contact
ANEG 48 for cleanup. Use appropriate precautions to avoid contamination
the lower intertidal zone. Beach 14 has other dug holes in gravel.

MAMMALS: Otters 1 Harbor Seals 2 Sea Lions _____ Whales 4 Humpback
Other Fresh Bear scat

BIRDS: Bald Eagle, Gulls, Kittiwakes, Murre, Murrelets, Guillemots

GENERAL OBSERVATIONS: There are 5 reported Bald Eagles nests in the cove,

one in the cove, one on beach, and three on the shore.
Salmon 1, 2, 4 - low biota on beach, fish found on the shore.

ACE 6976489

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 7/31/89 Location Bainbridge Parkway Site

Location Prefix BP Segment # BP-04 Length 7.4 Km

Survey Method:

Air (A - indicate on map) Boat (A - indicate on map)

Ground (G - indicate on map)

Known cultural resources (AHRS #) None Data Source None

Oil conditions/beach visibility moderate ~~None to very little to none~~

Width of beach zone surveyed 5-15 m Tree fringe surveyed None

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) None

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

Shore Profile beaches are moderately to steeply sloped; trees are
have streams. Pocket beaches have inaccessible uplands; others have
Fresh Water Sources several streams

Sea Exposure usually open to north

Access/Safety good on beaches

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

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

Photos: Color Roll # Frames

B/W Frames

Observer(s)

Time survey started 0915 7/30/89 Time survey ended 1000 7/31/89

Cultural resource considerations/restraints:

Standard.



ADFC - Sport/Com Fish Survey - Spring 89

ASSESSMENT OF INTERTIDAL SPAWNING AREAS AFFECTED BY THE PRINCE WILLIAM SOUND OIL SPILL

NAME: ^{Head of} Bainbridge Pass (Pt Countess)

USGS MAP: Seward (A-3)

MAP #:

DATE: 4/16

TIME OF SURVEY: 1742

LOW TIDE +1.6 TIME 17:51

COLLECTORS: DR, SM

ASC# 226-20-16392

NO OIL
SHEEN
MOUSSE
BLACK OIL

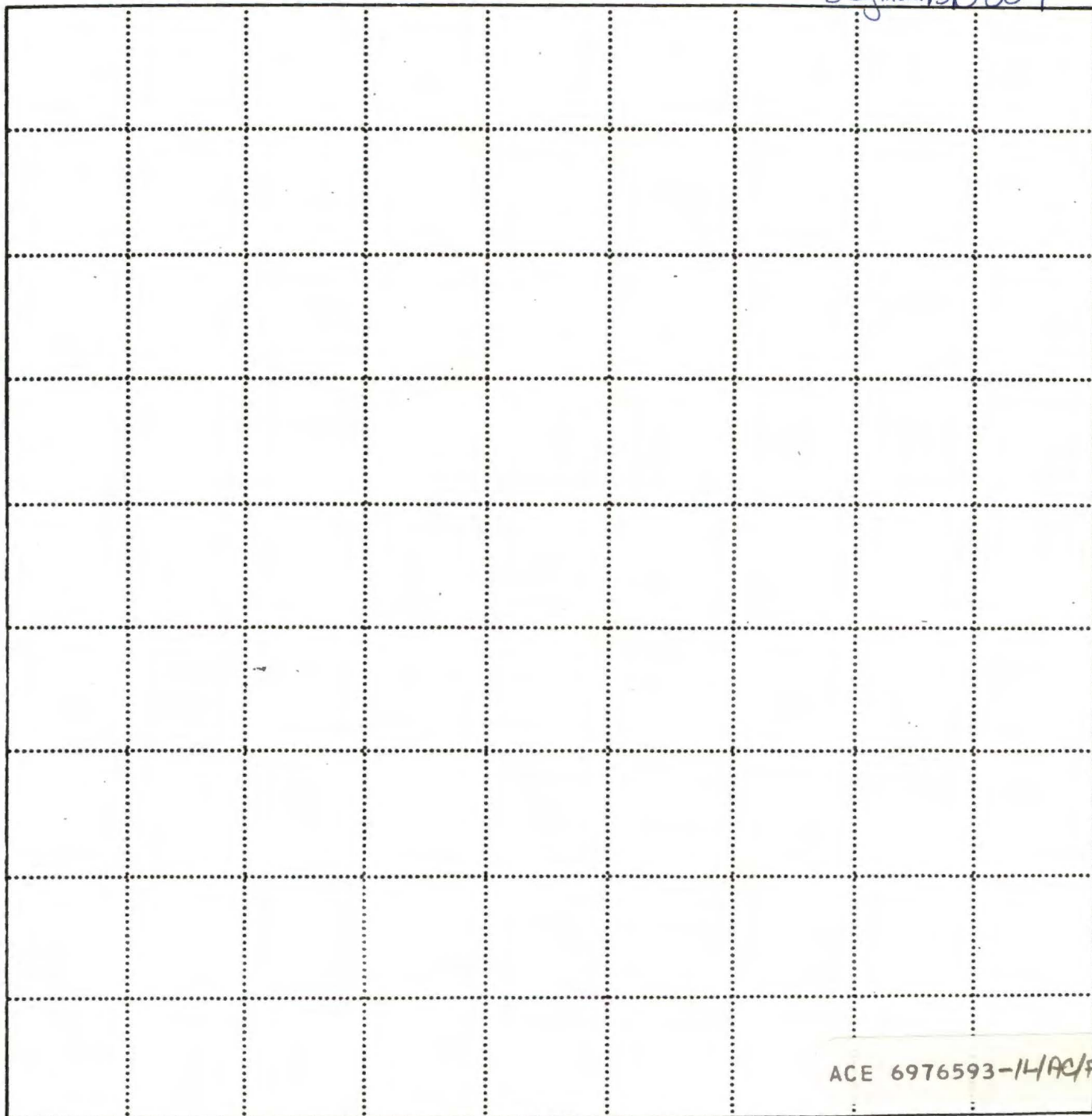
OIL TYPES PRESENT (1 2 3 4)

PHOTO #: Roll 4 27, 28

STREAM CATALOG #: 16370 now 16392

SCALE: ONE GRID EQUALS

segment B004



ACE 6976593-14AC/FF

COLOR CODE: 1) NO OIL - BLANK 2) SHEEN - GREEN 3) MOUSSE - BROWN 4) BLACK OIL - BLACK

COMMENTS:

NO MAP
MADE

1) lot of Ice in passage
Small size stream to the East .5 mi looks like
a spawning area 2) oil in streambed

3rd off on tape

ADF&G MULTI-ASSESSMENT DATA FORM

- 1) SURVEY TYPE: BS SS 2) REGION: PWS KP, CI K, AP
- 3) METHOD: Aerial Ground Boat
- 4) DATE: 5/5/91 16) HIGH TIDE TIME: _____ 22) TEAM RECORDER: TOM CROWC
- 5) START TIME: 1430 17) HIGH TIDE HTS: _____ 23) OBSERVERS: AMEL WASEMAN
- 6) STOP TIME: 1455 18) LOW TIDE TIMES: 1230 24) AGENCY: ADF+G
- 7) SEGMENT #: BP004 19) LOW TIDE HTS: +1.6 25) PHOTOS TAKEN: Y (N)
- 8) K-UNIT: _____ 20) TIDE HT AT SURVEY: +3 to +4 ROLL #: _____ FRAMES: _____
- 9) LAT: _____ Ebb Slack Flood Slack 26) VIDEO TAKEN: Y (N)
- 10) LONG: _____ 21) USCG QUAD: _____ TAPE # _____
- 11) ASC #: 226-20-16392 START: _____ STOP: _____
- 12) STREAM NAME: RT. COUNTESS 27) SAMPLES TAKEN? Y (N)
- 13) LOCATION: BANBRIDGE MARSHLAND SAMPLE I.D. _____
- 14) WAVE EXPOSURE: High Moderate Low
- 15) SHORELINE TYPE: Headland Low-lying Rocks Beach
Cove Lagoon Marsh

28) EXTENT OF OIL

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

29) OVERALL OIL IMPACT:

H = >6m band with $\geq 50\%$ oil coverageM = >6m band with $\leq 50\%$ oil coverage or $\geq 3m$ to $\leq 6m$ with $\geq 10\%$ oil coverageL = <3m band with $> 10\%$ oil coverageVL = $\leq 10\%$ oil coverage regardless of band width(N) = No oil observed30) OIL IN STREAMBED: Y (N)31) OIL ON BEACH ADJACENT TO MOUTH: Y (N)

32) SUBSTRATE TYPE (PERCENT):

Bedrock _____ Boulder 10% Gravel 90% Sand _____ Cobble _____ Mud/Silt _____35) COMMENTS: NO TREATMENT RECOMMENDED AT THIS STREAM SITE AS MOST ALL OILING WAS REMOVED AND TREATED LAST SUMMER. NO OILING DISCOVERED.33) ANADROMOUS FISH PRESENT: (Y) (N)

34) WILDLIFE OBSERVATION

Species	Number
Bald eagle	1
mergansers	2
ravin	1
Pink salmon fry	1

36) PHOTOLOG

FRAME(S)

DESCRIPTION

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

A:EDDATFO
April 3, 1991

MAYSAP SHORELINE OILING SUMMARY

PAGE 1 OF 2

TEAM NO. 6

OG D.I. LITTLE

BIO T. SCHROEDER

SEGMENT BP-004

ADEC A. WESEMAN / T. CROWE

LANDMANAGER C. SELANOFF for CVC

SUBDIVISION A

EXXON SCOTT NAUMAN

USCG/NOAA CWO SPURR / R. HOFF

DATE 05 / 05 / 91

TIME 14:30 to 17:40

TIDE LEVEL 3 1/2 ft. to 7 ft.

ENERGY LEVEL: ☐ H ☒ M ☒ L

SURVEYED FROM: ☒ FOOT ☐ BOAT ☐ HELO

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

TOTAL LENGTH SHORELINE SURVEYED: _____ m

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

EST. OIL CATEGORY LENGTH: W _____ m M _____ m N _____ m VL _____ m NO _____ m US _____ m

L O C	SURFACE OIL CHARACTER										SURFACE SEDIMENT TYPE	SHORE SLOPE VHML	AREA		ZONE				NOTES
	AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO			m	LENGTH m	S	UI	MI	LI	
A		P									boulder	VH	0.5	1	X				200% PU moss on bd.
B				P							pcg	L	0.5	5		X			heavy (most PU). site 3
C		P									rock	H	2	3	X				in moss on bedrock site 4
D	S										pg	M	10	30		X			PU "
E	S										g (neg)	M	2	10	X				" "
F	S										pg	L	2	15		X			broken up "
G		T									B	H	3	10	X	X			in rock crevices "
H					T	T					BC	H	1	10	X	X			" " site 1
J				T							pg	L	1	20		X			PU site 1
K	T				T						pcg	M	1	15	X	X			site 1
L					S						b rock	M	0.1	0.1	X	X			SITE 2 site 2
M					S						b rock	M	0.5	1		X			" "
N	P												1	2		X			PU (all) " "
O	S			SH							pg	M	0.5	20		X			Broken up " "
P	B			BH							pgc	L	0.1	0.1			X		Broken up " "
Q											rock	HV	0.5	0.5		X			" "

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

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

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO					S	UI	MI	LI		
1	20							X	—	Y	10	N			X		gc/g	site 3
2	25							X	—	Y	—	N			X		pg/sg	" "
3	25							X	—	Y	—	N		X			gp/gs	site 4
4	30							X	—	Y	—	N			X		pc/gp	" "
5	20							X	—	Y	—	N			X		p/gsp	" "
6	15							X	—	Y	—	N			X		gp/gp	site 1
7	25							X	—	Y	—	N		X			gp-gs	" "
8	25							X	—	Y	—	N			X		p-gp	" "
9	30							X	—	Y	—	N		X			pg-gp	" "

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

OG COMMENTS:

Surface oil was found in very sporadic patches, usually in the MITZ and occasionally in the SUTZ., however, much was picked up or broken up in situ, leaving (L) SOR at most. No oiled sediments were found in the MITZ which were not treated. By wading and puddling LITZ sediments underwater, it is unlikely that oil is present there because no oil sheens were seen.

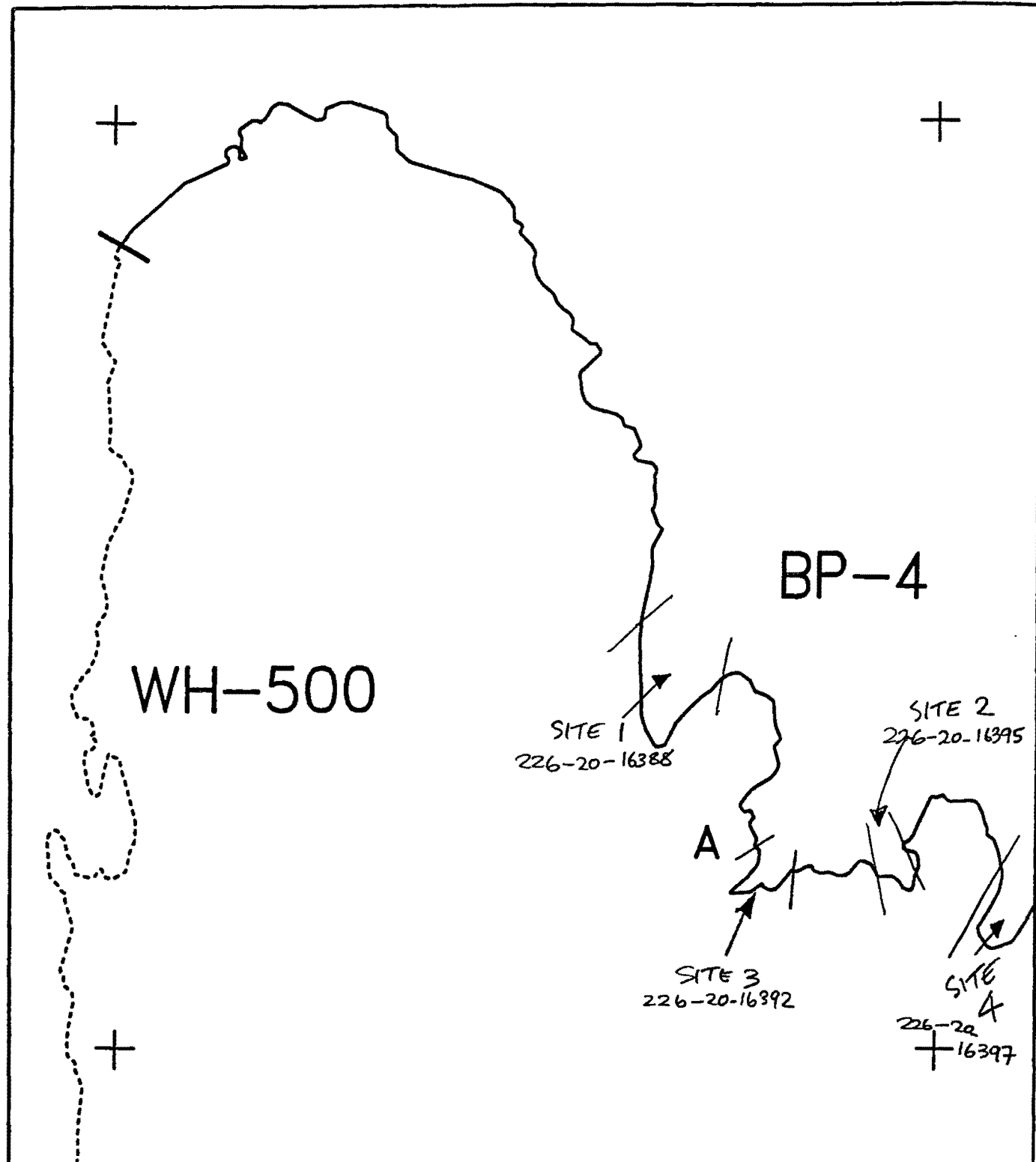
No subsurface oil was observed in a total of eleven pits.

PAGE 2 OF 2

DATE 05 / 05 / 91

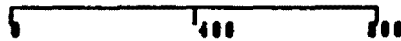
SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

OG COMMENTS:



BP004 A

METERS



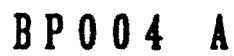
AK State Plane Zone 4
NAD83

Subdivision Field Map

Map Key: PVSRP004Aa

Name: DAVID LITTLE

Date: 05/05/91



Subdivision Field Map

Map Key: PWSBP004Ab

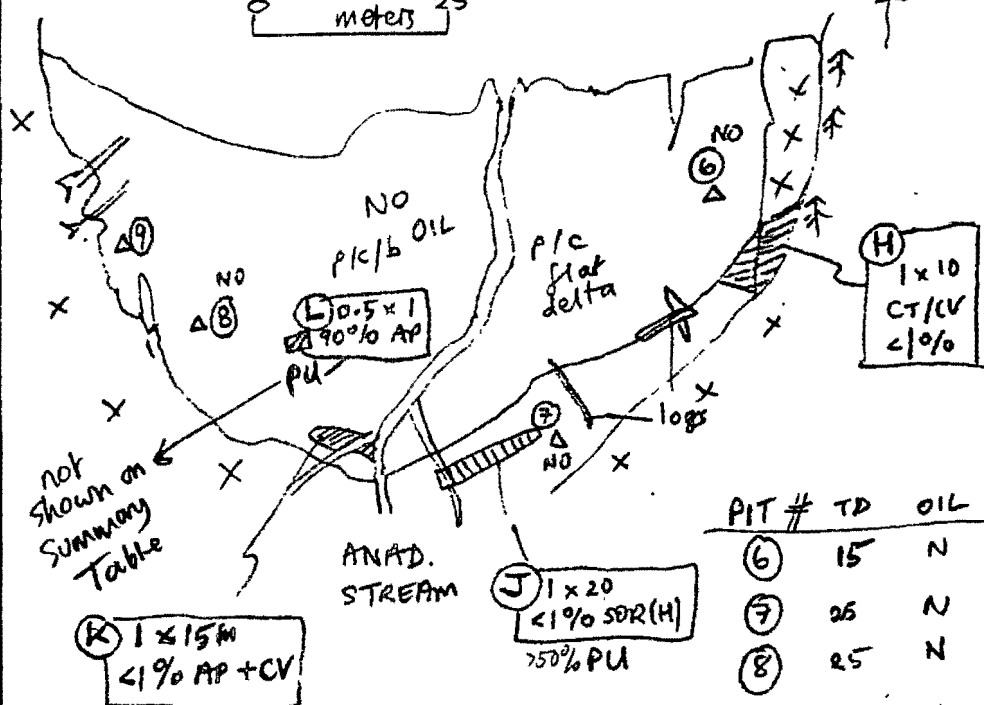
Name: DAVID LITTLE

Date: 05/05/91

SITE 1 226-20-16388

226-20-16388

meters ²⁵



not shown on Summary Table

ANAD.
STREA

J 1 x 20
 < 1% SER(H)
 750% PU

(H)
1 x 10
CT/CV
C/O/O

BP-004-A 05/05/91

05/05/91

OG map

D. I. Little

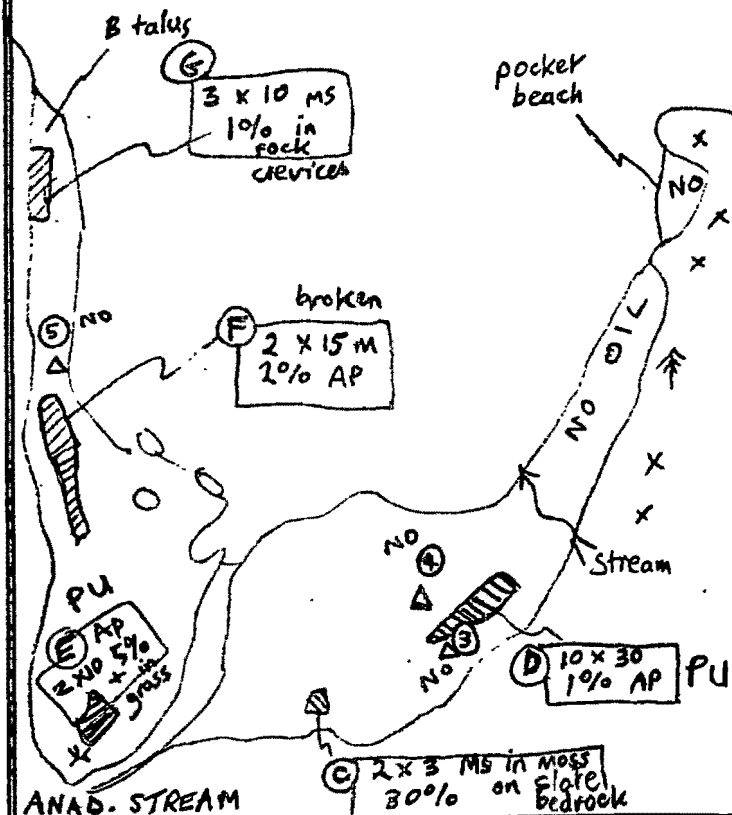
1430-1630

PIT #	TD	OIL	clean below	screen	seals	H ₂ O	zone
(6)	15	N	Y	N	gp-gp	-	MITZ
(7)	25	N	Y	N	gp-gs	-	UITZ
(8)	25	N	Y	N	p-gp	-	MITZ
(9)	30	N	Y	N	pg-gf	-	UITZ

SITE 4

226-20-16397

0 20



pocket
bench

Stream

pu

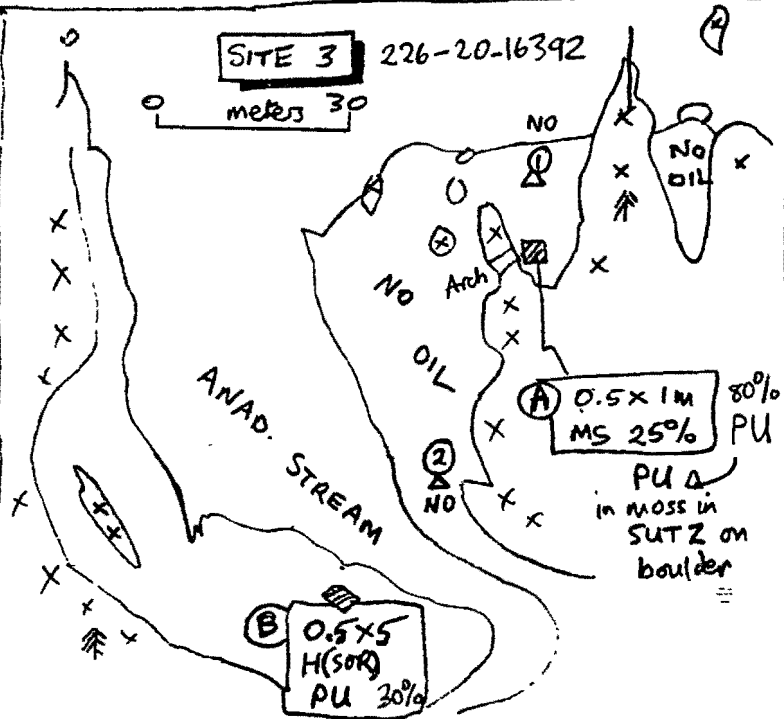
ANAD. STREAM

② 2x3 MS in moss
30% on slate
bedrock

SITE 3

226-20-16392

meter 30



ANAD. STREAM

0.5 x 1m 80%
MS 25% PU

PU 4
moss in
SUTZ on
boulder

(B) 0.5×5
H(SOR)
PU 30%

#	Pit	TD	DIC	clean below	sheen	cods	H ₂ O	zone
①	20	N	✓	N	gc/g	10		MITZ
②	25	N	✓	N	pg/sg			MITZ
③	25	N	✓	N	gp/gs			MITZ
④	30	N	✓	N	pc/p			MITZ
⑤	20	N	✓	N	p-gp			MITZ

SITE 2 226-20-16395

BP-004-A

OG. map

05/05/91

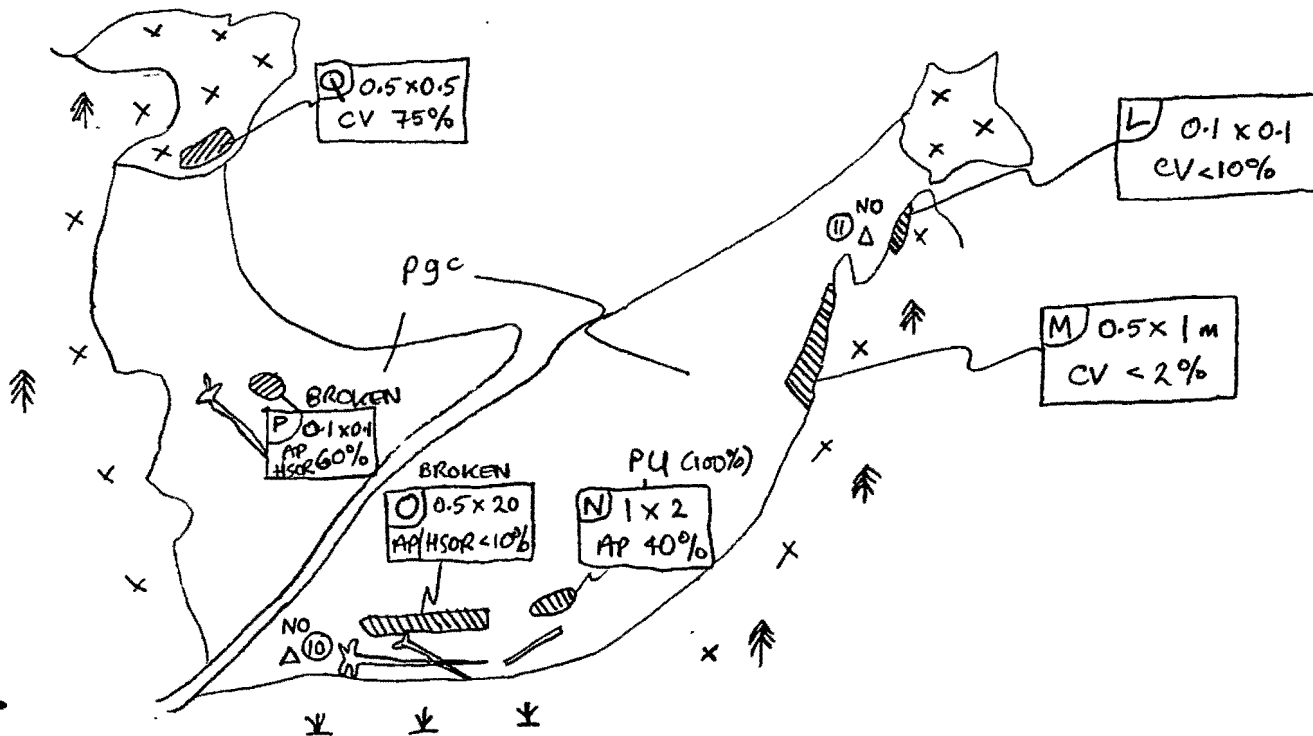
D. J. Little

1700-1740

Continued from
BP-004 sites 1, 3 & 4.

0 15M

KNIGHT ISLAND
PASSAGE



ANADROMOUS
STREAM

226-20-16395

PIT # To oil clean below sheer H₂O Seds zone

⑩	20	NO	4	N	—	g-g	SUTZ
⑪	25	NO	4	N	—	pg-gpm	UITZ

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 DATE 5/5/91
 SEGMENT # BP-004 TIDAL HEIGHT(Range) +3 1/2 to +4 ft.
 SUBDIVISION A (Site 3) BIOLOGIST T.R. Schroeder
 SEA STATE calm WIND SPEED/DIRECTION calm
 PHOTOGRAPHS: ROLL # FRAME #

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

(A + B) = Tidepools did not allow a close look at the LITZ in this area. The eastern side of the stream had good barnacle growth and abundant eel on the rocks. Only one small bed of fucus held was observed. West side of stream channel had excellent fucus growth but the bank dropped off steeply into the stream.
 Little oil observed and it was picked up.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1 (bald)	1	1 pink sd. frog
Seabirds			
Waterfowl	2	2 mergansers	
Gulls/Kittiwakes	1 gulls	2	
Shorebirds			
Corvids	1	1 raven	
Other Birds			

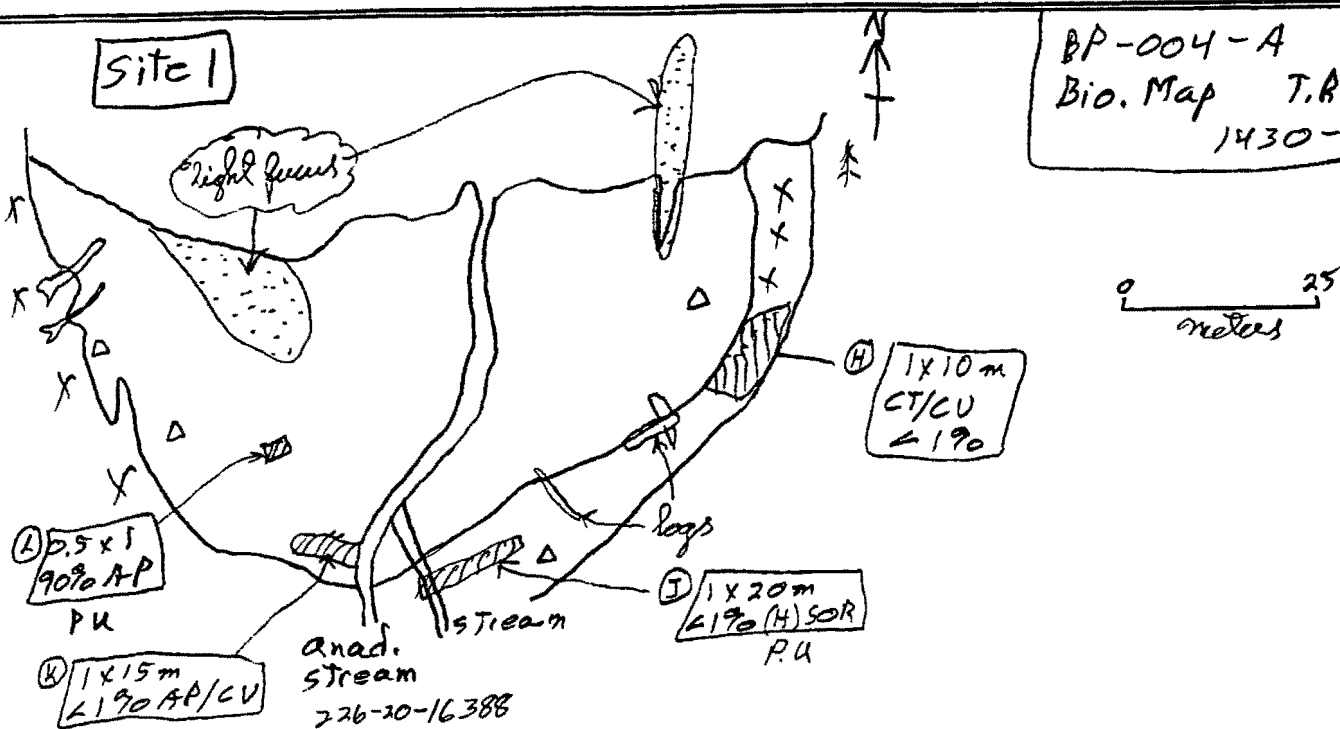
LAND MAMMALS

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

Shoreline subdivision map showing important biological features attached.

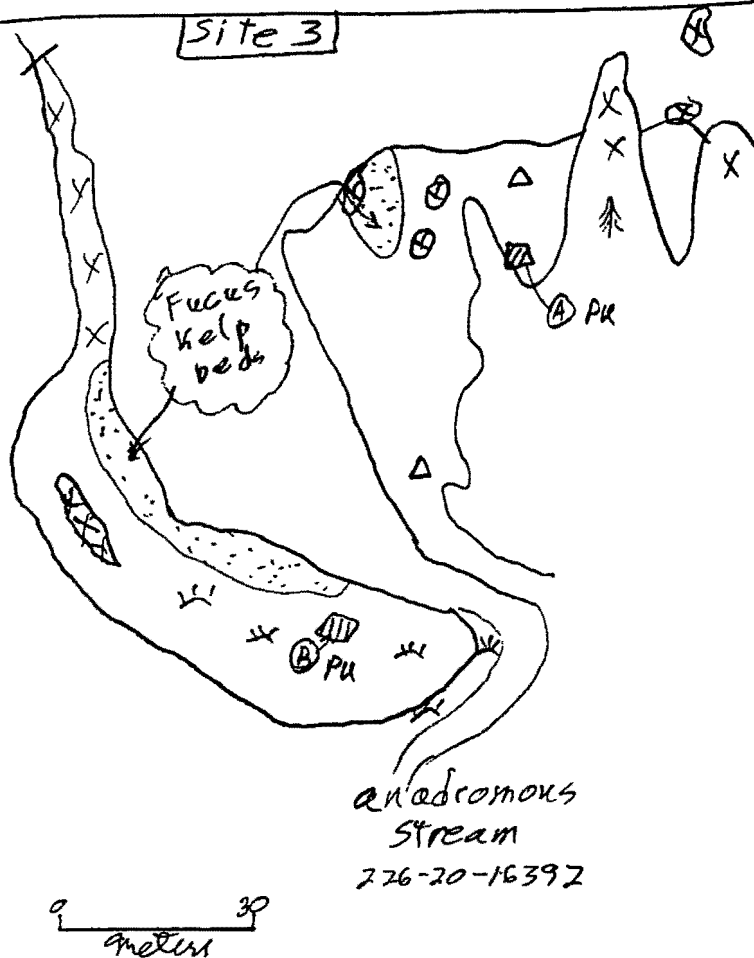
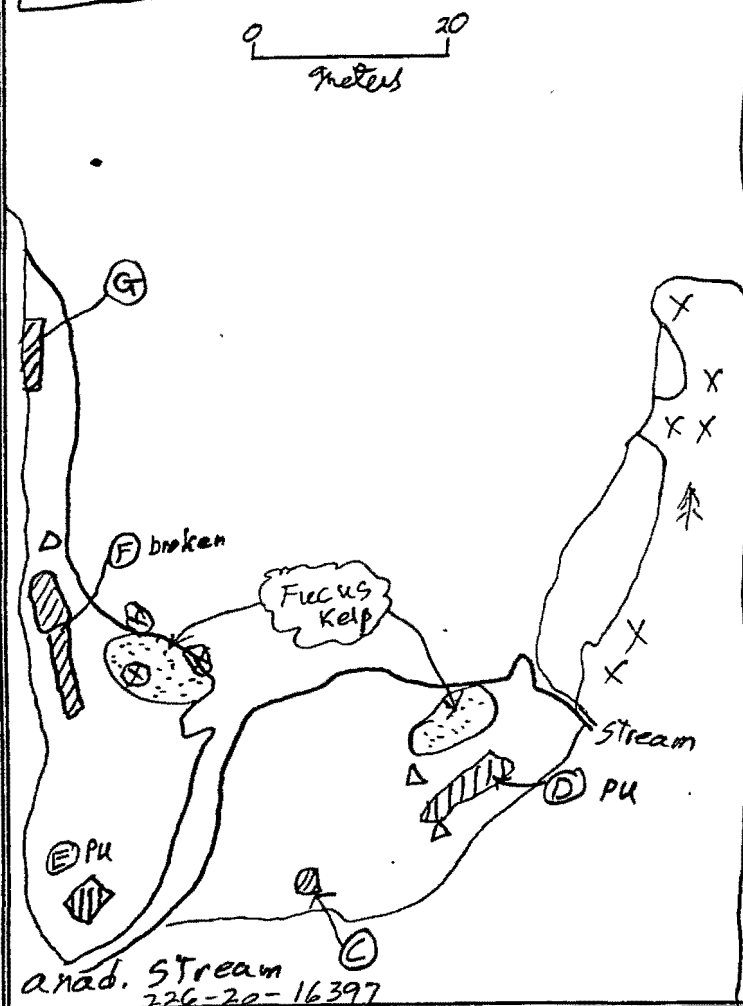
Site 1

BP-004-A 5/5/91
Bio. Map T.A. Schroeder
1430-1630



Site 4

Site 3

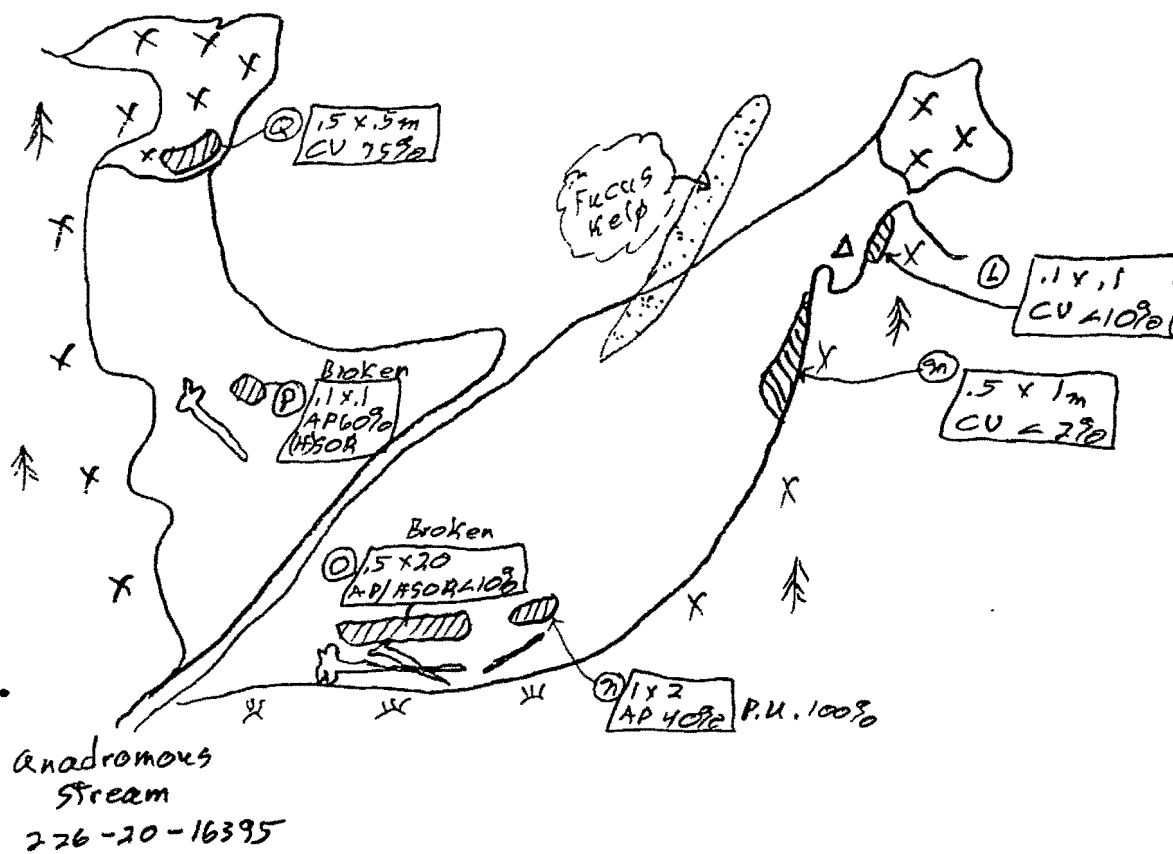


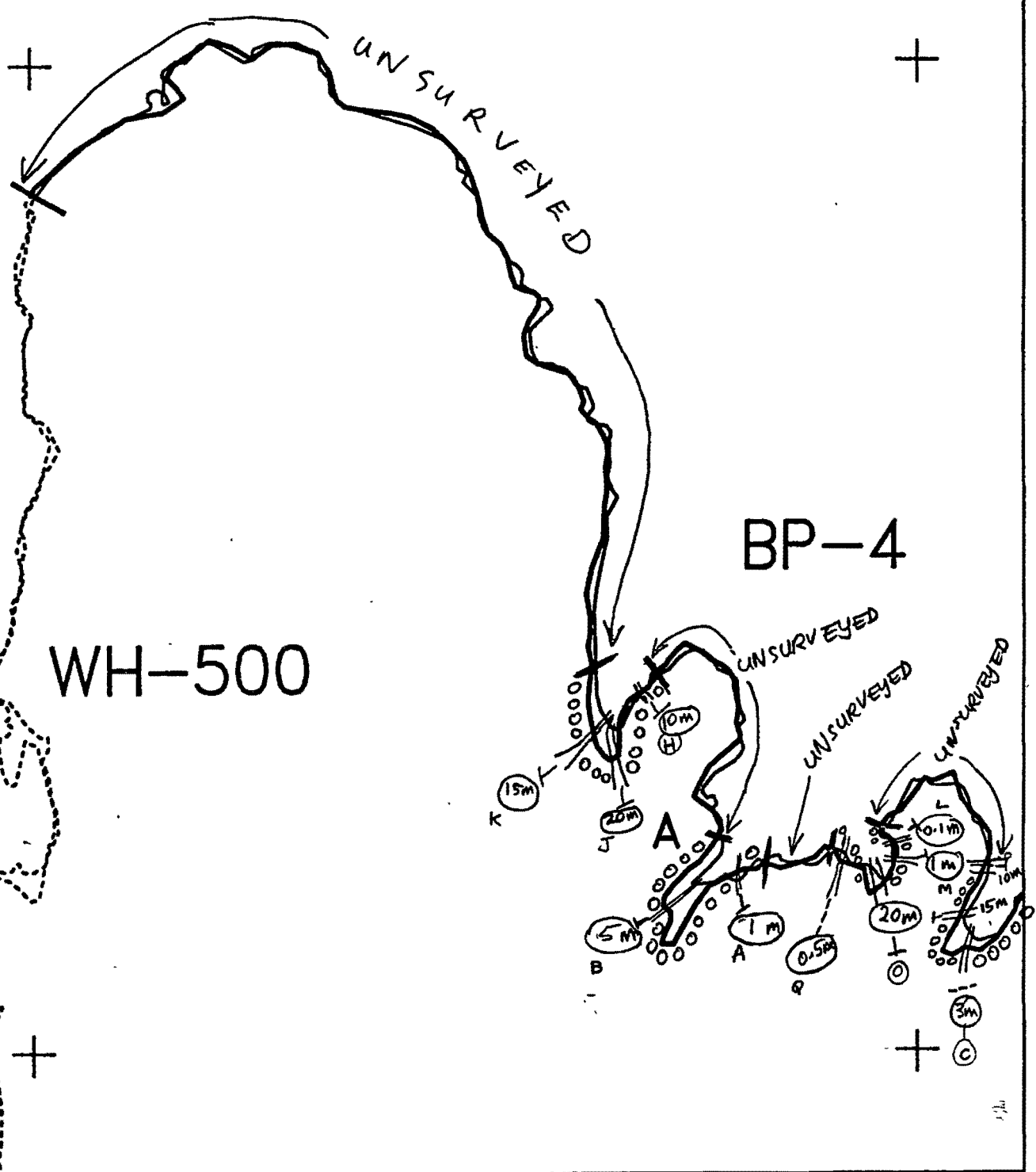
site 2



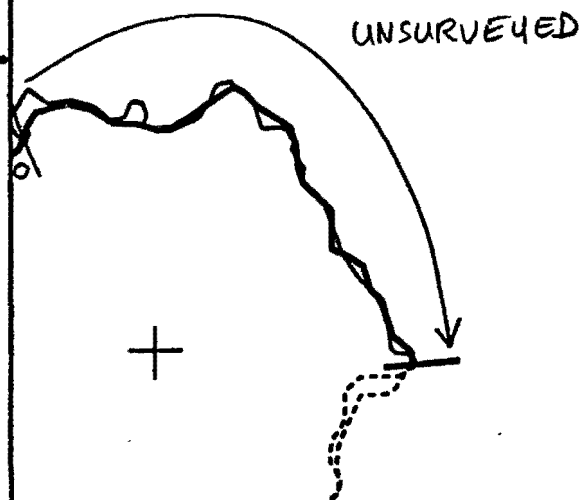
BP-004-A 5/5/91
Bio. Map(42) T.R. Schroeder
1700-1740

0 15
meters





XXXX	Wide	BP004 A ADEC Subsegment Length: 8287m METERS 5 100 200 AK State Plane Zone 4 pbg004a	Subdivision Field Map Map Key: PWSBP004Aa Name: <u>DAVID LITTLE</u> Date: <u>05/05/91</u> Date Entered:
////	Medium		
----	Narrow		
TTTT	Very Light		
0000	No Oil		



XXXX
////

TTTT
0000

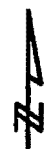
Wide
Medium
Narrow
Very Light
No Oil

BP004 A

ADEC Subsegment Length: 8287m
METERS

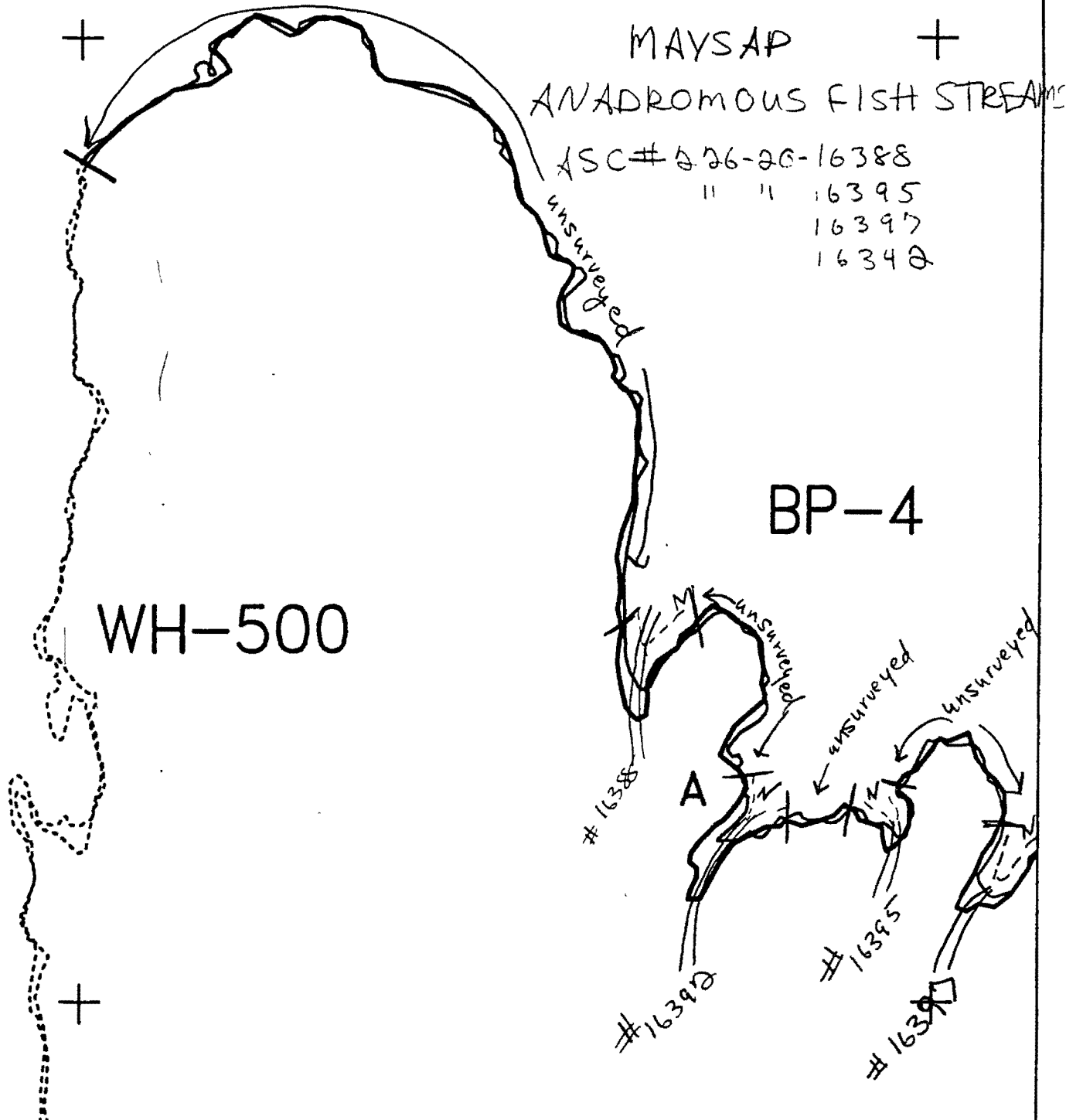
0 400 800

AK State Plane Zone 4
pby884ab



Subdivision Field Map
Map Key: PWSBP004Ab
Name: DAVID LITTLE
Date: 05/05/91
Date Entered:

ADEC comments cont...



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

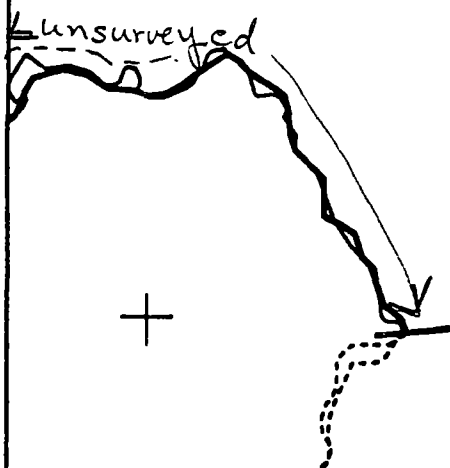
BP004 A
 ADEC Subsegment Length: 8287m
 METERS
 0 400 800
 AK State Plane Zone 4
 9608400



Subdivision Field Map
 Map Key: PWSBP004Aa
 Name: A. Weseman
 Date: 5/5/91
 Date Entered:

ADEC Comments cont ..

MAYSAP



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

BP004 A

ADEC Subsegment Length: 8287m

METERS

0 100 200

AK State Plane Zone 4
ph004ab



Subdivision Field Map

Map Key: PWSBP004Ab

Name: A. Weseman

Date: 5/5/91

Date Entered:

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 6 SEGMENT BP 004 SUBDIVISION A DATE 5/5/91

ADEC/ADF46

NAME Aimee Weseman

SIGNATURE Aimee Weseman

☐ NTR ☒ Treatment Recommended. 4 Anad fish streams Resource Uses - Commercial Fishing & Recreation.
Survey was rushed due to incoming tide & full extent of oiling may not have been documented.

ASC# 226-20-16397-site 4 = This beach stream area still contains AP/Hsor deposits which should be manually removed & tilled. Areas of concern are in the vicinity of sites C, D, E & F. Some PU occurred but not enough

ASC# 226-20-16395-site 2 = due to short survey & injury, ADF46 monitor unable to determine extent of oiling & how much was removed. A quick inspection of area with removal of AP sediments & or tilling is in order.

EXXON

NAME Scott A. Nauman

SIGNATURE Scott A. Nauman

☒ NTR

All four streams on this subdivision were surveyed. No subsurface oil was found. AP/SOR was either picked up or broken up by the survey team. This subdivision and the four streams are in very good shape - no further work is warranted.

LANDMANAGER

NAME _____

OF _____

SIGNATURE _____

☐ NTR

USCG/NOAA

NAME CWO SPURR / R. Hoff

SIGNATURE R. Hoff / Rebecca Hoff

☒ NTR

This segment with 4 anadromous streams had little remaining oil. Some asphalt patches were found, and these were mostly picked up or broken apart. The small areas of remaining coat or oil in crevices of boulders is largely inaccessible. The segment requires no further treatment.

TEAM NO. 6 SEGMENT B P-04 SUBDIVISION _____ DATE 5/5/91

ADEC

NAME _____ SIGNATURE _____

☐ NTR
:
!

EXXON

NAME _____ SIGNATURE _____

☐ NTR

LANDMANAGER

NAME CHARLES SELANOFF OF Chenega Bay SIGNATURE Charles Selanoff

☐ NTR Treatment recommended
a lot of oily debris, rocks and pebbles. This area can be manually worked over with shovels, rakes and tilled by hand. Also this area is consistantly oiled in spots but with a lot of manual work this area can be greatly improved. Heavily used subsistace area.

USCG/NOAA

NAME _____ SIGNATURE _____

☐ NTR



see OG-map. k2 + NF 7/23/91

ADF&G OIL SPILL RESPONSE MONITORING

ASC# 226-20-16388 16392

Date: 7/12/91

Stream Name: _____

Observer: Doug Hill

Segment-Sub Unit BP-04A/site #3 (MAYSAP)

Location: Bainbridge Peninsula-North End

Anad. Stream Permit Issued? Y ☒ N

Date: _____

Work Order Issued: ☒ N

Date: 7/2/91

Demob Date: _____

Oil Characteristics (circle appropriate ones)

Surface: AP, ☒ MS, ☒ TB, SOR, CV, CT, ST, FL, DB, None
Subsurface: OP, HOR, MOR, LOR, OF, TR, None

Treatment Techniques:

Manual Removal
☒ Manual Raking
Spot Wash
Other

Bioremediation & Type
Mechanical Tilling
Header Flood (Hot/Cold)

Crew Size: 0

Lbs. or Bags of Oil/Sediment Removed 0

Other Agency Reps, and Names: Peter Montesano (ADEL), Terry Schultz (USCG), Chris Kastimpalis (EXXON)

<u>Photos</u>	Y ☒	<u>Roll #</u>	<u>Frames</u>
		_____	_____
		_____	_____

<u>Video</u>	<u>Tape #</u>	<u>Start</u>	<u>End</u>
	_____	_____	_____
	_____	_____	_____

Sediment/Oil Samples (Y ☒ N) Collection Number

Purpose of Trip * M/V Don Bollinger Bioremediation Crew on Site

* Form designed primarily for cleanup inspection trips, but should be used for any field trips, i.e., to check on bird rookeries, seal haulouts, special habitat areas, etc.



Describe extent of remaining oil (any comments on expected completion of cleanup).

Comments: (Are work order procedures being followed?, etc.) *CLEANUP SITE #3.*

A few tarballs observed at head of bay in the UITZ (on high gravel berms - gravel vegetation interface).

Customblen applied to two sites west of the Stream embayment. Both applications occurred considerably further than 100m from the stream channel. No Inipol Applied

A:OPRESP
April 2, 1991

ADEC DAILY SHORELINE ASSESSMENT (rvsd 4-15-91)

LOCATION Bainbridge Passage SEGMENT BP4 SUBSEG A
 DATE 7-12-91 TIME: Begin 0555 End 0908 SITE _____
 WEATHER: Cloudy Rain Fog Snow Sunny Other _____
 MONITOR(S) P. Montesano
 ENVIRONMENTAL CONSTRAINTS Arvad Streams

DESCRIPTION OF TREATMENT SITE:

SHORE COMPOSITION

Surface sediments: R _____ % B _____ % C _____ % P _____ % G _____ % S _____ %

Subsurface sdmnts: R _____ % B _____ % C _____ % P _____ % G _____ % S _____ %

Wave Exposure: Low Moderate High

OIL CHARACTERISTICS Before Treatment

Surface: Mousse Tarball/Patty Pavement Cover Coat Stain

Subsurface: OP HOR MOR LOR OF Depth: 0 Thickness: 15

Across Tidal Zone: Low Mid Upper Supra

TREATMENT PERFORMED:

MANUAL REMOVAL Type: MS TB AP SOR OP OR OF

MANUAL RAKING MECHANICAL TILLING - WITH/WITHOUT TIDAL FLUSH

BERM RELOCATION BIOREMEDIATION granular 127^{lbm} lbs Inipol 0 gal

OTHER _____

EQUIPMENT USED Shovels, Backhoe, 101, + Picks

WORKERS ON SITE: # ORTS 9 OTHER 2 Skiff

OTHER REPRESENTATIVES: EXXON C. Katsimpalis

USCG J. Schultz

OTHER OG MacDonald ADFG D. Hill

METHOD TO CONTAIN/COLLECT OIL _____

NUMBER OF BAGS COLLECTED: Oiled Sediments _____ Oiled Debris _____
 Oiled Vegetation _____ Unoiled Debris _____ Oiled Logs Present _____

BP 4A

Montesano

7-12

PHOTOGRAPHS: Roll # _____ Frames _____ Reason _____

VIDEO: TAPE # _____ Reason _____

COMMENTS: (Observations, problems & efforts made to correct, etc.)

[illegible]

1

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

OIL CHARACTERISTICS After Treatment

Surface: Mousse Tarball/Patty Pavement ~~Cover~~ ~~Coat~~ ~~Stain~~ (LSOR)

Subsurface: OP HOR MOR LOR OF Depth: 0 Thickness: 15

TAG WORK ORDER COMPLETED? NO YES COMMENTS

WORK ORDER MODIFICATION REQUESTED? NO YES DATE _____

RECOMMEND FOR FUTURE REASSESSMENT? NO YES (include map identifying treatment performed and oil remaining)

and oil remaining)

TOTAL P.01

1991 MAYSAP EVALUATION

SEGMENT: BP 004 SUB: A REGION: PWS SURVEY DATE: 5/5/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) RESTRICTED 3/1 - 9/15

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: Rachel Dan Oam Date: 5/21/91

RECOMMENDATIONS:

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

COMMENTS:

INITIAL: _____

TAG: _____

FOSC: DUE TO PROXIMITY TO ANADROMOUS FISH STREAMS - RESTRICTED SUBSTANCE FISHING OIL IN FORM OF ASPHALT / MOVING IN SITE 2 + 4 SHALL BE REMOVED/COLLECTED - 112

TAG APPROVAL DATE: MAY 21 1991 FOSC APPROVAL DATE: 5/21/91

ADEC [Signature] FOSC E. E. PAGE, CDR, USCG

EXXON [Signature] CHIEF OF STAFF, FOSC

USCG [Signature]

NOAA [Signature]

→ The state will evaluate the need for further treatment

PAGE ____ OF ____

BIO _____

SUBDIVISION A

SIC _____ M. Hall
LANDMANAGER L. Carlson for APNR

DATE 06 / 13 / 91

USCG/NOAA _____

TIDE LEVEL -2.0 ft. to +8.0 ft.

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_____m VL_____m NO_____m US_____m

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

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

PHOTO ROLL # MAYSAP-

FRAMES

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

SUBJECT BEARING THE NEW ANDERSON STREAMS NOT SUBJECT DUE TO
H. J. P. DID NOT SUBJ. NORTH END OF SELWITT DUE TO EARTH QUAKES
S. J. P. AND E. J. P. ANDERSON - STREAMS 226-20-1639, 226-20-1639-
AND 226-20-1639. ASKED FOR CONTINUED P. J. ALONG WITH, AS WELL AS
AN ASSOCIATED SUBSTRATE LENS OF OR A L. + THE NEAR THE SURFACE. LENS APPEARS

MAYSAP SHORELINE OILING SUMMARY (cont.)

PAGE 2 OF 2

TEAM NO. M/V Renown State #1SEGMENT BP004SUBDIVISION ADATE 06/13/91

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO					S	UI	MI	LI		
6	15		X						5-12	Y	-	N			X		PC-PC	Location B1
7	25		X						10-18	Y	-	N		X			P-PG	" "
8	45		X						25-27	Y	-	N		X			P-PGC	" "
9	25		X						10-20	Y	-	N		X				" "
10	8	X	X						5-8	Y?	-	N		X			P-PB	" "
11	30							X	-	Y	-	N		X			PC-PCG	" "
12	9	X	X						4-9	Y?	-	N		X			P-PC	" "
13	30	X	X						8-23	Y	-	N		X			PG-PG	" "
14	20		X						6-11	Y	-	N		X			P-PG	" "
15	20		X						5-12	Y	-	N			X		PC-PC	" "
16	18							X	-	Y	-	N			X		PCB-PC	Location C
17	20							X	-	Y	-	N			X		PG-PG	" "
18	40							X	-	Y	-	N		X			P-PGC	Location D
19	20							X	-	Y	-	N		X			P-PGS	" "
20	35							X	-	Y	-	N		X			P-PGS	" "
21	20							X	-	Y	-	N		X			P-PGS	" "
22	10							X	-	Y	-	N			X		CP-GSM	" "
23	15							X	-	Y	-	N			X		CP-GSMC	" "
24	10		X						0-2	Y	-	N			X		PC-SM	surface oil
25	10	X	X						3-6	Y	-	N		X			PC-PSM	
26	12	X	X						3-7	Y	-	N		X			P-PGSM	
27	35							X	-	Y	-	N	X	X			PG-GP	
28	10		X						0-5	Y	8	R,B		X	X		CPG-GPS	surface oil

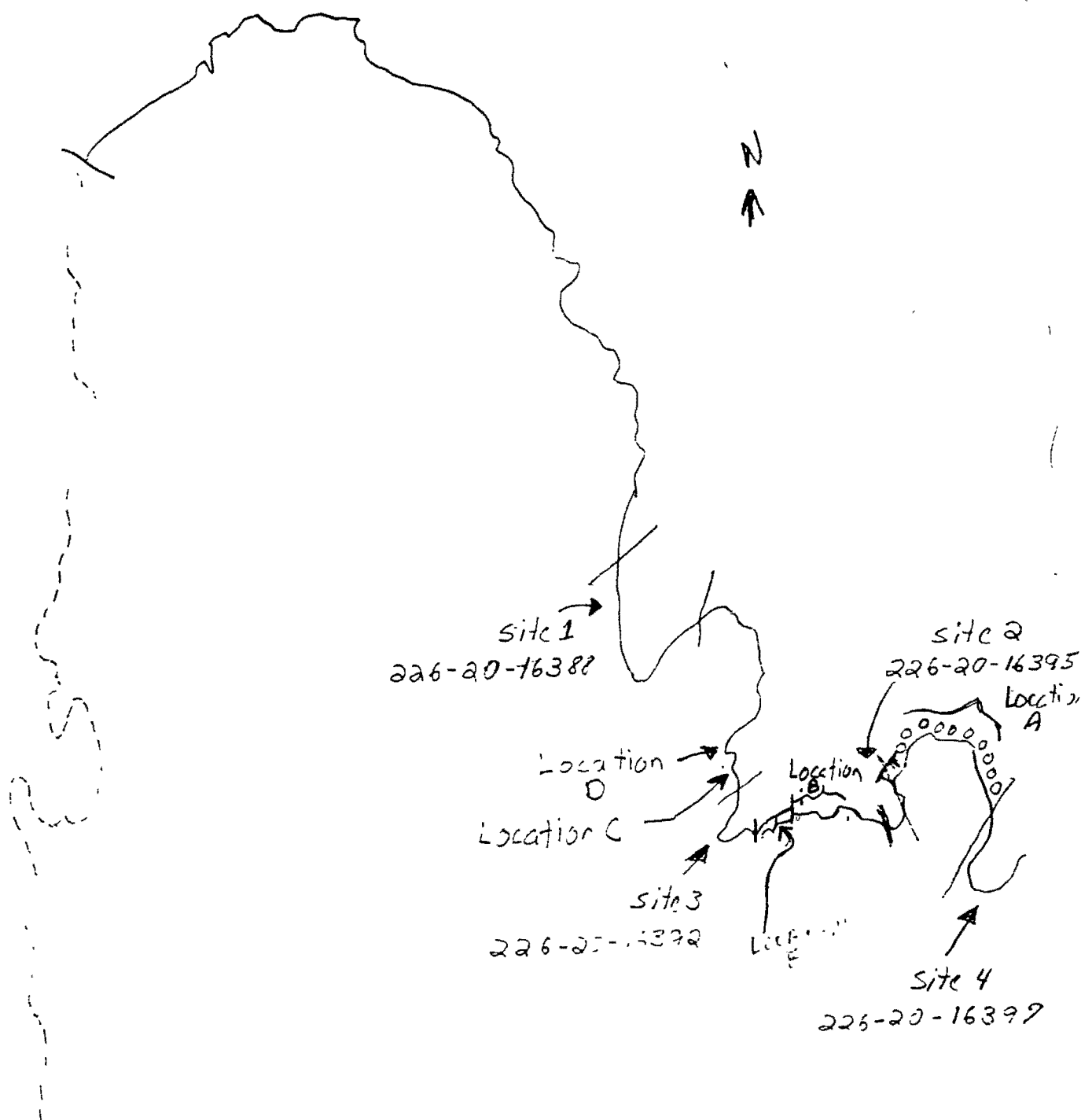
SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

OG COMMENTS:

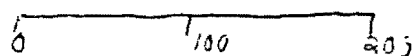
TO BE IN THE PROCESS OF HARDENING AND AN ASPHALT TARMAT
NE ORIENTATION OF SEGMENT SEEMS TO HAVE PROVIDED FOR
HEAVY IMPACT IN 1989 AND SEDIMENTS SEEM TO BE HOLDING
OIL.

RECOMMEND MANUAL REMOVAL AP/MS/TB AS WELL AS OP/HOR
LENS. IF SUBSURFACE REMOVAL BECOMES IMPRACTICAL, SHOULD CONTINUE
WITH TILLING, WITH CONTAINMENT. ACCESSIBILITY NO PROBLEM

- SHOULD CONSIDER SURVEY OF REMAINDER OF SEGMENT (CLEAR EYE
CONSTRAINT). MOSTLY VERTICAL SHORELINE REMAINS, BUT A COUPLE
OF POCKET BEACHES EXIST



BP004 A



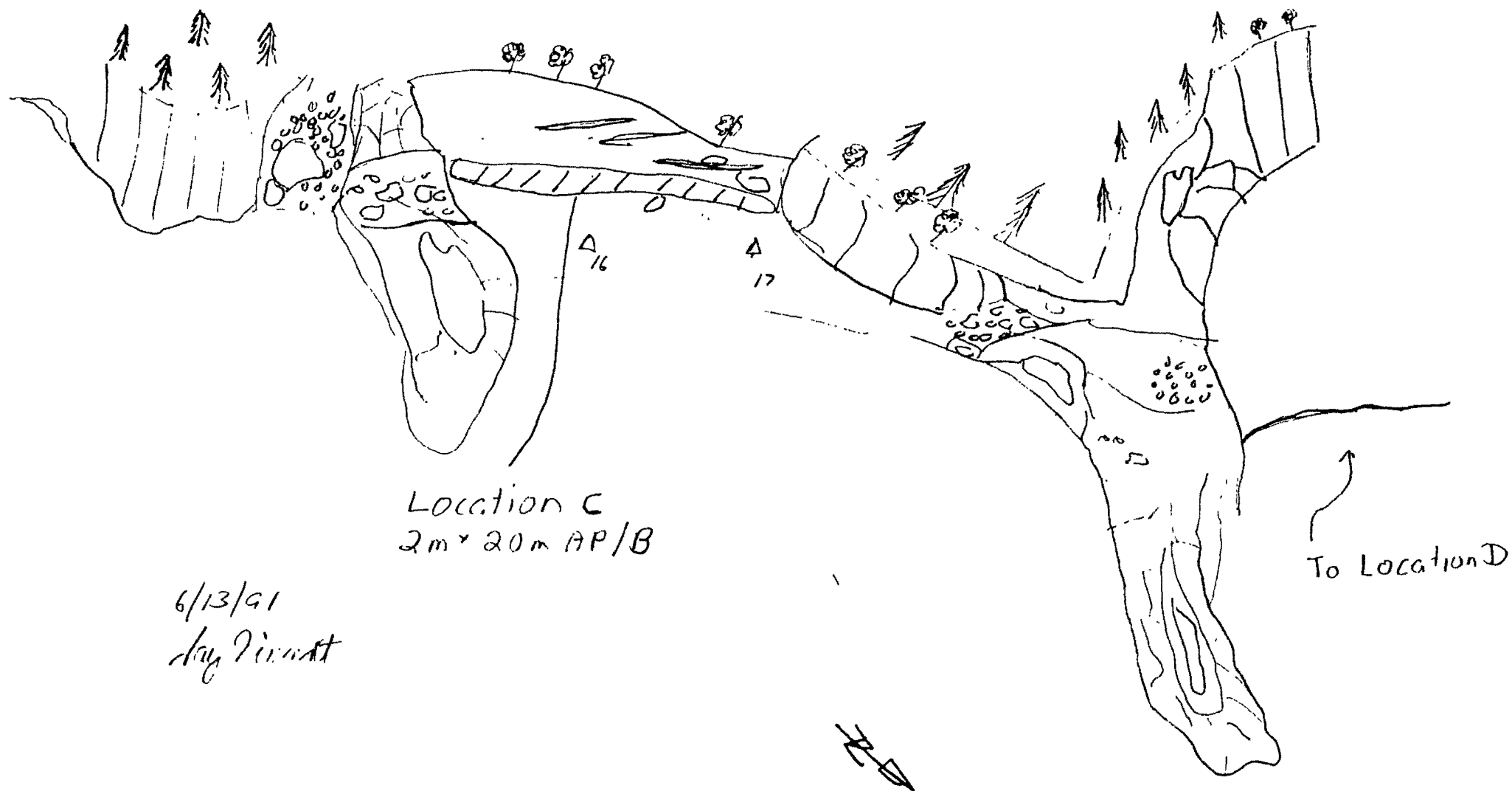
Note: Sites 1, 2, 3 & 4 were surveyed during the 1999 May/June
for anadromous stream portions only
6/13/91.
Andy Duncan



BP 4 A
Location B

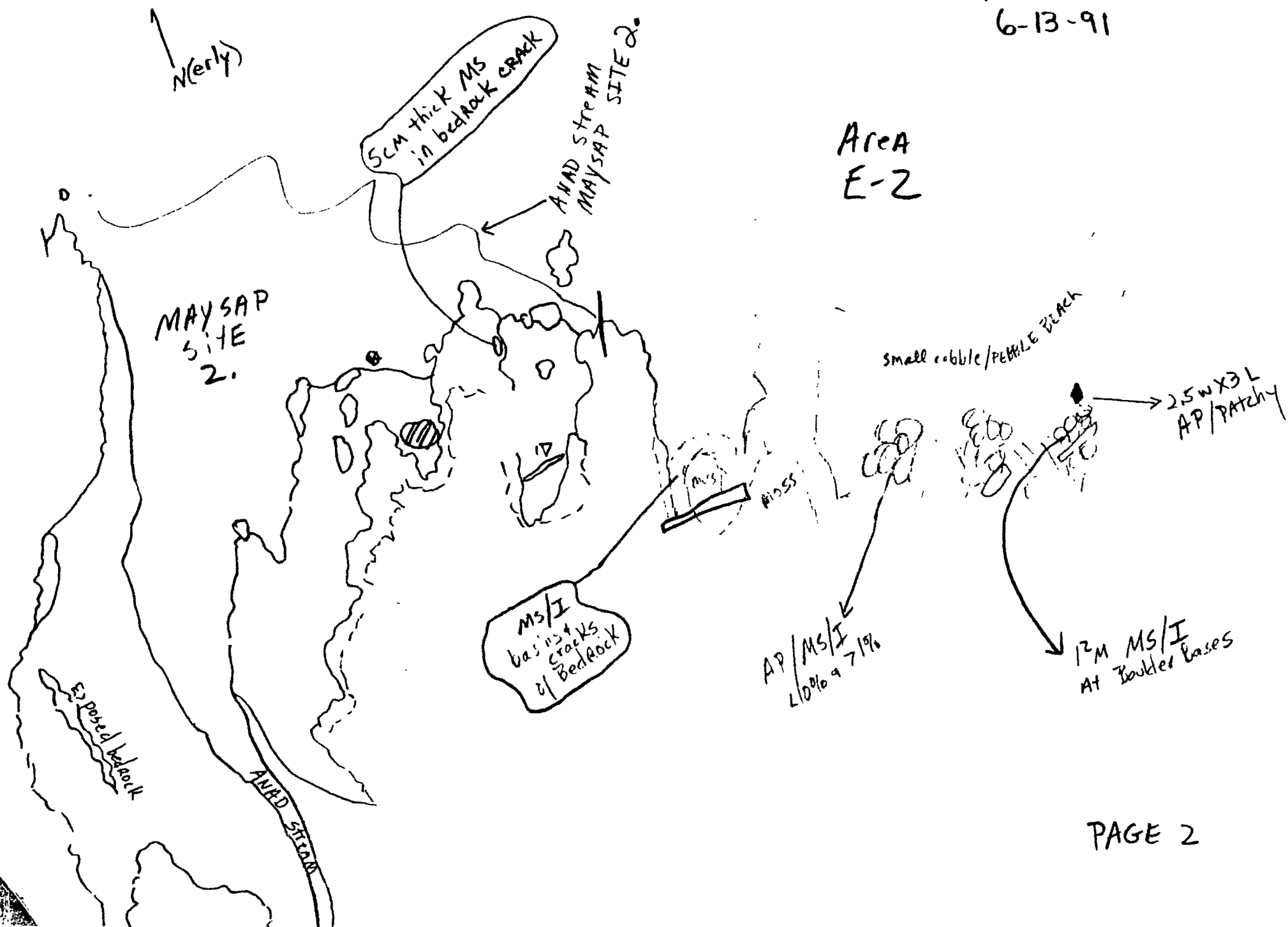
6/13/91
Doug Viret

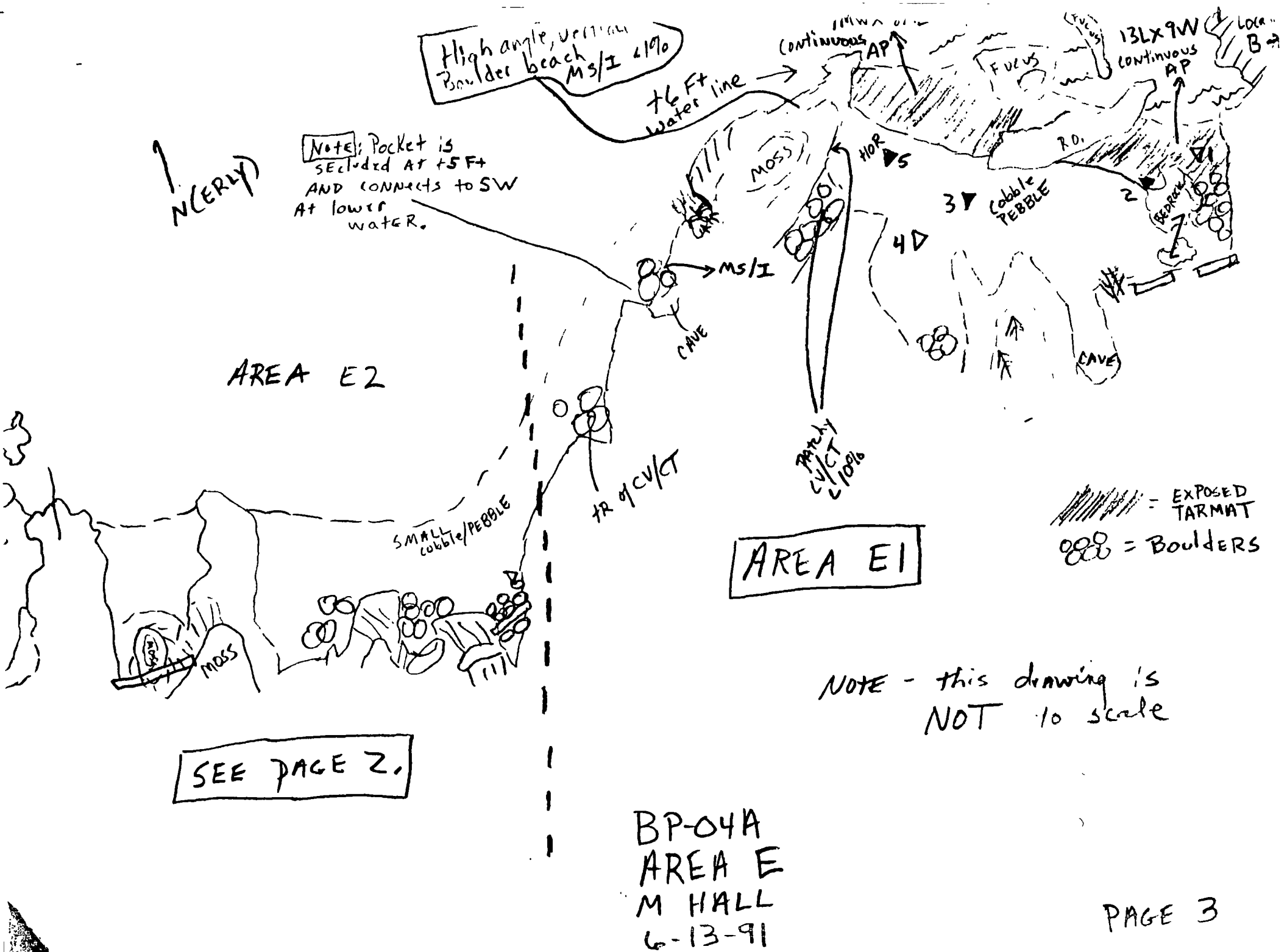
BP 004 A
Location C



6/13/91
by Vincent

BP-04A
M. HALL
6-13-91





MAYSAP
stream



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

PRINCE WILLIAM SOUND

SEGMENT: BP004 SUBDIVISION: A
anadromous fish stream, recreation area

SITE:

226-20-16392

RECOMMENDED TREATMENT:

In areas of sites 2 and 4:
- Manually pickup AP, HSOR, and MS.

ENVIRONMENTAL SENSITIVITIES:

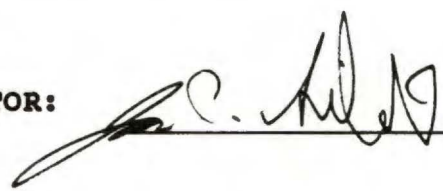
Eagle nest must be cleared prior to treatment.
anadromous fish stream

WORK WINDOW: 05/21/91 - 07/10/91

CLEANUP PLAN AND COST ESTIMATE DUE:

DATE SUBMITTED: 05/21/91

STATE ON SCENE COORDINATOR:

 Ser E Piper

1991 MAYSAP EVALUATION

SEGMENT: BP 004 **SUB:** A **REGION:** PWS **SURVEY DATE:** 5/5/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) RESTRICTED 3/1 - 9/15

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: _____ **Date:** _____

RECOMMENDATIONS:

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

COMMENTS:

INITIAL: Manually remove + fill site 4, areas C, D, E, F AP/HSDR

5/20 site 3, area B; site 1, area J, K; site 2 area O, P

Man. pickup AP/HSDR/MS sites 2, 3, 4

5/21 **TAG:** Site to reevaluate for rework next

FOSC: _____

TAG APPROVAL DATE: _____ **FOSC APPROVAL DATE:** _____

ADEC _____ **FOSC** _____

EXXON _____

USCG _____

NOAA _____

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

Eagle Nest: Access restricted from 3/1 to 9/1. USF&WS authorization required. Maintain 1000' vertical and 1/4 mile horizontal buffer.

Anadromous Stream: Unlimited treatment up to stream bank between May 15 and July 10. ADF&G approval required for work after July 10. Fish Habitat Permit required for instream work. ADF&G approval required for bioremediation within 100 meters of anadromous stream after July 10.

DATE: 10/16/91

REGION: PWS

PAGE 2

STREAM#: 2262016392

SEGMENT#: BP004 A

LOCATION: MAINLAND, BAINBRIDGE PASSAGE, POINT COUNTESS

STREAM NAME:

PURPOSE: M/V DON BOLLINGER, BIOREMEDIATION CREW ON SITE

DATE	OBSERVER OTHER REPS	WORK ORDER DATE	DEMOBIL. DATE	SURFACE OIL SUBSURFACE OIL	TREATMENTS	AMOUNT REMOVED	REMAINING OIL
07/12/91	HILL ADEC MONTESANO, USCG SCHULTZ, EXX KATSIMPAL	07/02/91		MS TB	MANUAL RAKING		

COMMENTS:

CLEANUP SITE #3: A FEW TARBALLS OBSERVED AT HEAD OF BAY IN THE UITZ (ON HIGH GRAVEL BERMS - GRAVEL VEGETATION INTERFACE). CUSTOMBLEN APPLIED TO TWO SITES WEST OF THE STREAM EMBAYMENT. BOTH APPLICATIONS OCCURRED CONSIDERABLY FURTHER THAN 100M FROM THE STREAM CHANNEL. NO INIPOL APPLIED.

STREAM#: 2262016397

SEGMENT#: BP004 A

LOCATION: MAINLAND, BAINBRIDGE PASSAGE, POINT COUNTESS

STREAM NAME:

PURPOSE: CLEANUP MONITORING, M/V DON BOLLINGER

DATE	OBSERVER OTHER REPS	WORK ORDER DATE	DEMOBIL. DATE	SURFACE OIL SUBSURFACE OIL	TREATMENTS	AMOUNT REMOVED	REMAINING OIL
07/12/91	HILL ADEC MONTESANO, USCG SCHULTZ	07/02/91		AP MS	MANUAL REMOVAL	100 LBS	LIGHT SCATTERING OF 'TB' & 'AP', SOME 'SOR'/LIGHT 'AP' REMAINS IN CLOSE PROXIMITY TO STREAM, WHATEVER WAS MISSED BY THIS PICKUP, BENEATH VEGETATION (MITZ & UITZ). AREA IN NEAR VICINITY OF STREAM CHANNEL SHOULD BE SURVEYED IN FUTURE. SCATTERED 'AP' LOCATED WHICH WAS NOT ON MAYSAP MAY (WEST SHORE - UITZ). <i>MAP!</i>

COMMENTS:

'AP/SOR' REMOVED FROM MITZ/UITZ IN VICINITY OF STREAM ON EAST SHORE. 'AP/SOR' FOUND AMONGST PLANTAGO, SILVERWEED AND GRASS. NO SIGNIFICANT OIL FOUND AT LOCATION E & C (PROBABLY REMOVED BY AURIGA CREW WITH ADEC DALE GARDNER).

ADF&G MULTI-ASSESSMENT DATA FORM

- 1) SURVEY TYPE: BS SS 2) REGION: PWS KP, CI K, AP
- 3) METHOD: Aerial Ground Boat
- 4) DATE: 5/5/91 16) HIGH TIDE TIME: _____ 22) TEAM RECORDER: TOM CROWC
- 5) START TIME: 1430 17) HIGH TIDE HTS: _____ 23) OBSERVERS: AIMEE WASEMAN
- 6) STOP TIME: 1455 18) LOW TIDE TIMES: 1230 24) AGENCY: ADF+G
- 7) SEGMENT #: BP004 19) LOW TIDE HTS: +1.6 25) PHOTOS TAKEN: Y (N)
- 8) K-UNIT: _____ 20) TIDE HT AT SURVEY: +3 to +4 ROLL #: _____ FRAMES: _____
- 9) LAT: _____ Ebb Slack Flood Slack 26) VIDEO TAKEN: Y (N)
- 10) LONG: _____ 21) USCG QUAD: _____ TAPE # _____
- 11) ASC #: 226-20-16392 START: _____ STOP: _____
- 12) STREAM NAME: RT. COUTESS 27) SAMPLES TAKEN? Y (N)
- 13) LOCATION: Lawis Bay MARIANA SAMPLE I.D. _____
- 14) WAVE EXPOSURE: High Moderate Low
- 15) SHORELINE TYPE: Headland Low-lying Rocks Beach
- Cove Lagoon Marsh

28) EXTENT OF OIL

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

29) OVERALL OIL IMPACT:

H = >6m band with $\geq 50\%$ oil coverageM = >6m band with $\leq 50\%$ oil coverage or $\geq 3m$ to $\leq 6m$ with $\geq 10\%$ oil coverageL = <3m band with $> 10\%$ oil coverageVL = $\leq 10\%$ oil coverage regardless of band width(N) No oil observed30) OIL IN STREAMBED: Y (N)31) OIL ON BEACH ADJACENT TO MOUTH: Y (N)

32) SUBSTRATE TYPE (PERCENT):

Bedrock _____ Boulder 10% Gravel 90% Sand _____ Cobble _____ Mud/Silt _____

35) COMMENTS: No treatment recommended at this stream site as most all oil was removed and treated last summer. No oiling discovered.

33) ANADROMOUS FISH PRESENT: (Y) (N)

34) WILDLIFE OBSERVATION

Species	Number
<u>pink fly</u>	<u>1</u>
<u>Bald eagle</u>	<u>1</u>
<u>mergamers</u>	<u>2</u>
<u>raven</u>	<u>1</u>

MAYSAP SHORELINE OILING SUMMARY

PAGE 1 OF 2

TEAM NO. 6

OG D.I. LITTLE

BIO T. SCHROEDER

SEGMENT BP-004

ADEC A. WESEMAN / T. CROWE

LANDMANAGER C. SELANOFF for CVC

SUBDIVISION A

EXXON SCOTT NAUMAN

USCG/NOAA CWO SPURR / R. HOFF

DATE 05 / 05 / 91

TIME 14 : 30 to 17 : 40

TIDE LEVEL 3 1/2 ft. to 7 ft.

ENERGY LEVEL: ☐ H ☒ M ☒ L

SURVEYED FROM: ☒ FOOT ☐ BOAT ☐ HELO

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

TOTAL LENGTH SHORELINE SURVEYED: _____ m

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

EST. OIL CATEGORY LENGTH: W _____ m M _____ m N _____ m VL _____ m NO _____ m US _____ m

L O C	SURFACE OIL CHARACTER										SURFACE SEDIMENT TYPE	SHORE SLOPE VHML	AREA		ZONE				NOTES
	AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO			WIDTH m	LENGTH m	S	UI	MI	LI	
A		P									boulder	VH	0.5	1	X				80% PU moss on bd.
B				P							pcg	L	0.5	5		X			heavy (most PU). site 3
C		P									rock	H	2	3	X				in moss on bedrock site 4
D	S										pg	M	10	30		X			PU " "
E	S										g (neg)	M	2	10	X				" "
F	S										pg	L	2	15		X			broken up " "
G		T									B	H	3	10	X	X			in rock crevices " "
H					T	T					BC	H	1	10	X	X			" " site 1
J				T							pg	L	1	20		X			PU site 1
K	T				T						pcg	M	1	15	X	X			site 1
L					S						b rock	M	0.1	0.1	X	X			SITE 2 site 2
M					S						b rock	M	0.5	1		X			" "
N	P												1	2		X			PU (all) " "
O	S			SH							pg	M	0.5	20		X			Broken up " "
P	B			BH							pgc	L	0.1	0.1			X		Broken up " "
Q											rock	HV	0.5	0.5		X			" "

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

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

PHOTO ROLL # MAYSAP- _____

FRAMES _____

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO					S	UI	MI	LI		
1	20							X	—	Y	10	N			X		gc/g	Site 3
2	25							X	—	Y	—	N			X		pg/sg	" "
3	25							X	—	Y	—	N		X			gp/gs	Site 4
4	30							X	—	Y	—	N			X		pc/gp	" "
5	20							X	—	Y	—	N			X		p/gsp	" "
6	15							X	—	Y	—	N			X		gp/gp	Site 1
7	25							X	—	Y	—	N		X			gp-gs	" "
8	25							X	—	Y	—	N			X		p-gp	" "
9	30							X	—	Y	—	N		X			pg-gp	" "

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

OG COMMENTS:

Surface oil was found in very sporadic patches, usually in the MITZ and occasionally in the SURZ., however, much was picked up or broken up in situ, leaving (L) SOR at most. No oiled sediments were found in the MITZ which were not treated. By wading and puddling LITZ sediments underwater, it is unlikely that oil is present there because no oil sheens were seen.

No subsurface oil was observed in a total of eleven pits.

PAGE 2 OF 2

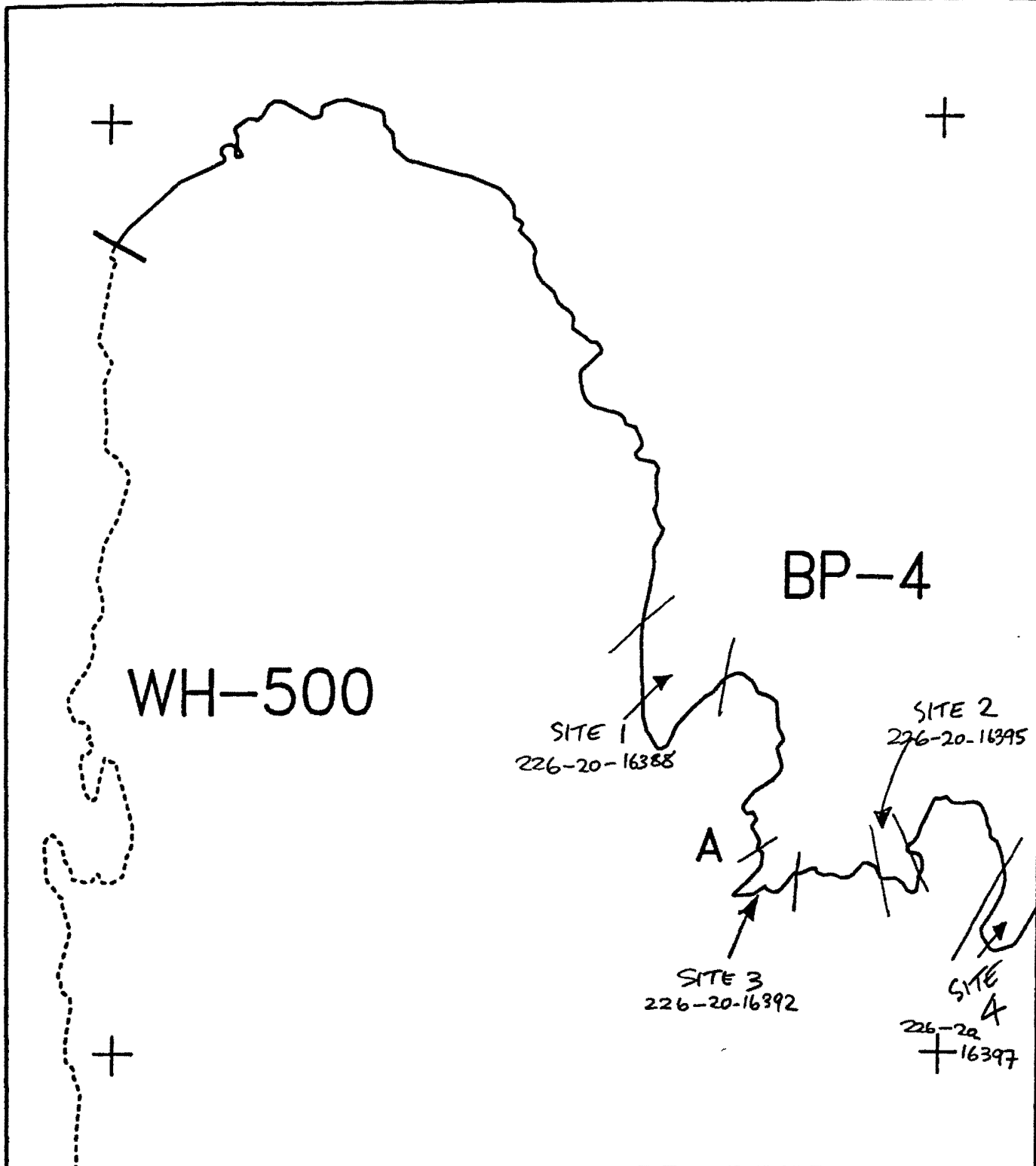
SEGMENT BP-004

SUBDIVISION A

DATE 05 / 05 / 91

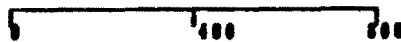
SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

OG COMMENTS:



BP004 A

METERS



AK State Plane Zone 4
published

Subdivision Field Map

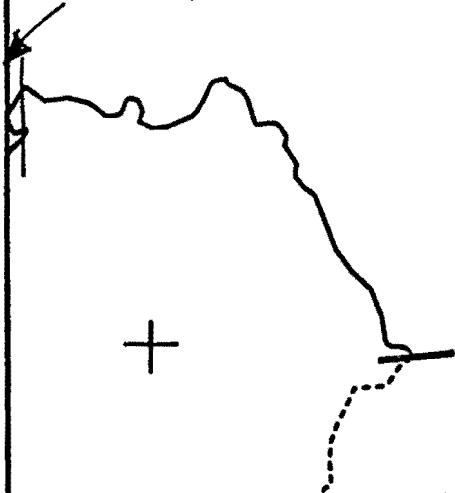
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Name: DAVID LITTLE

Date: 05/05/91

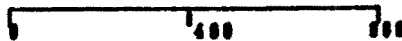


PART of site 4



BP004 A

METERS



AK State Planning Zone 4
989884ab

Subdivision Field Map

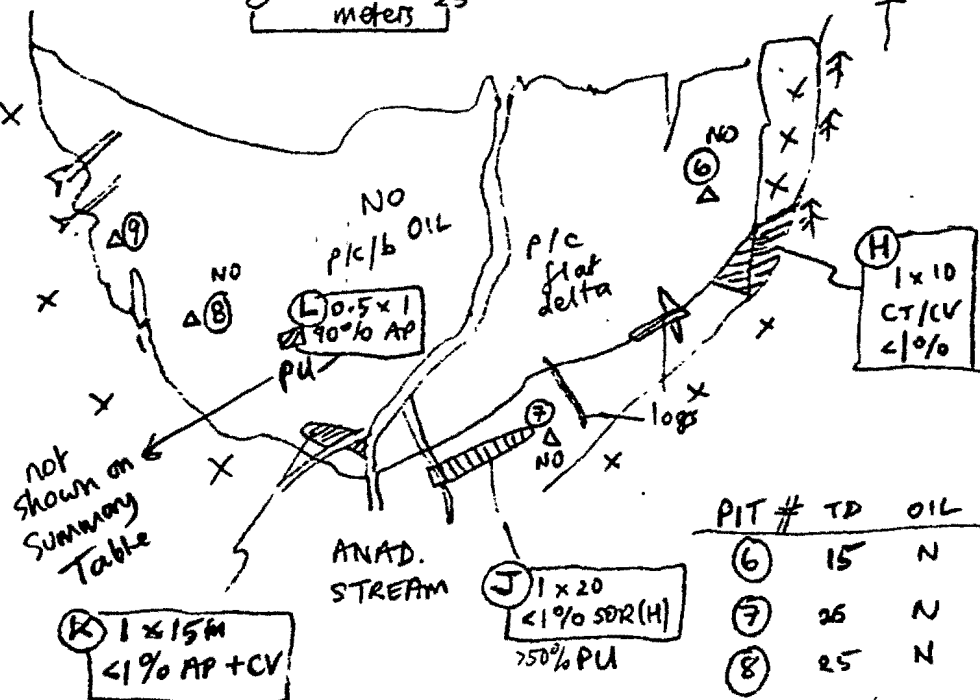
Map Key: PWSBP004Ab

Name: DAVID LITTLE

Date: 05/05/91

SITE 1 226-20-16388

0 meters 25

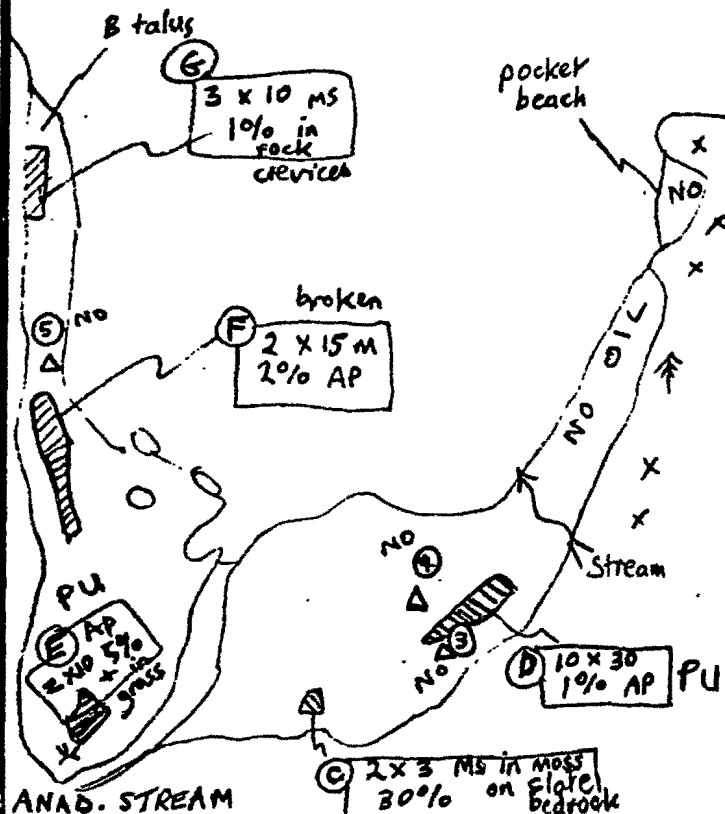


BP-004-A 05/05/91
OG map D.I. Little
1430-1630

PIT #	TD	OIL	clean below	sheen	seeds	H ₂ O	zone
⑥	15	N	Y	N	gp-gp	-	MITZ
⑦	26	N	Y	N	gp-gs	-	UITZ
⑧	25	N	Y	N	p-gp	-	MITZ
⑨	30	N	Y	N	pg-gp	-	UITZ

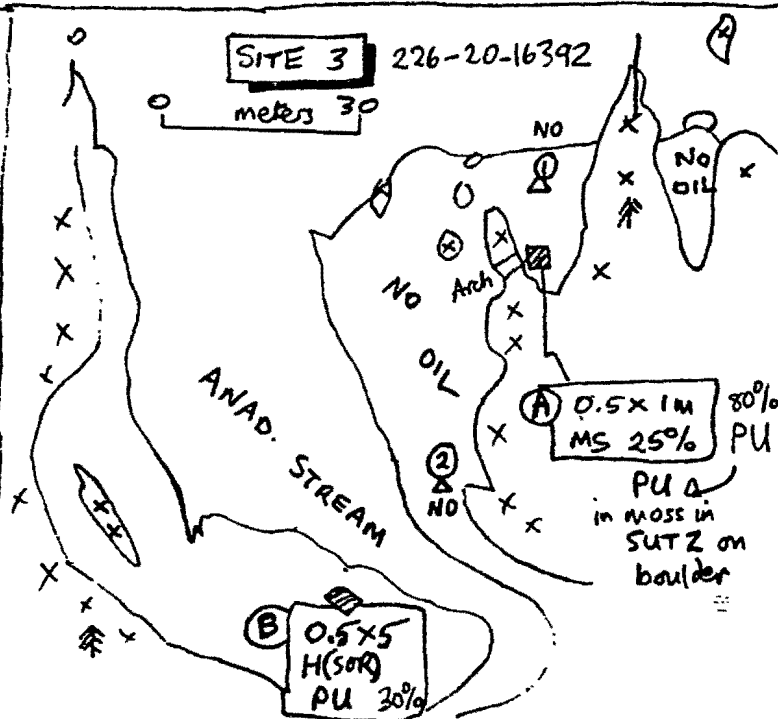
SITE 4 226-20-16397

0 20



SITE 3 226-20-16392

0 meters 30



#PIT	TD	OIL	clean below	sheen	seeds	H ₂ O	zone
①	20	N	Y	N	gc/g 10	-	MITZ
②	25	N	Y	N	pg/sg	-	MITZ
③	25	N	Y	N	gp/gs	-	UITZ
④	30	N	Y	N	kgp	-	MITZ
⑤	20	N	Y	N	p-gp	-	MITZ

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 DATE 5/5/91
 SEGMENT # BP-004 TIDAL HEIGHT(Range) $+3\frac{1}{2}$ to $+4$ ft.
 SUBDIVISION A (Site 3) BIOLOGIST T.R. Schroeder
 SEA STATE calm WIND SPEED/DIRECTION calm
 PHOTOGRAPHS: ROLL # FRAME #

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

(A + B) = Tides didn't allow a close look at the LITZ in this area. The eastern side of the stream had good barnacle growth and abundant eel on the rocks. Only one small bed of furus felt was observed. West side of stream channel had excellent furus growth but the bank dropped off steeply into the stream.
 Little oil observed and it was picked up.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

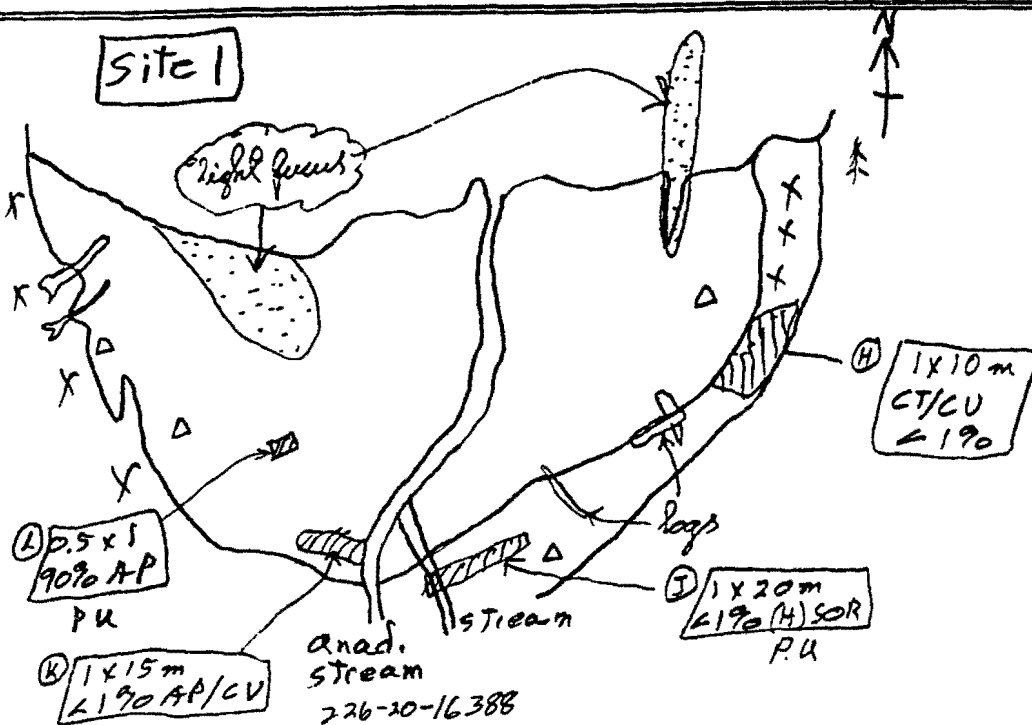
BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1 (bald)	1	1 pink sd. frog
Seabirds			
Waterfowl	2	2 ^{1 wilson} 2 mergansers	
Gulls/Kittiwakes	1 gulls	2	
Shorebirds			
Corvids	1	1 raven	
Other Birds			

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

Shoreline subdivision map showing important biological features attached.

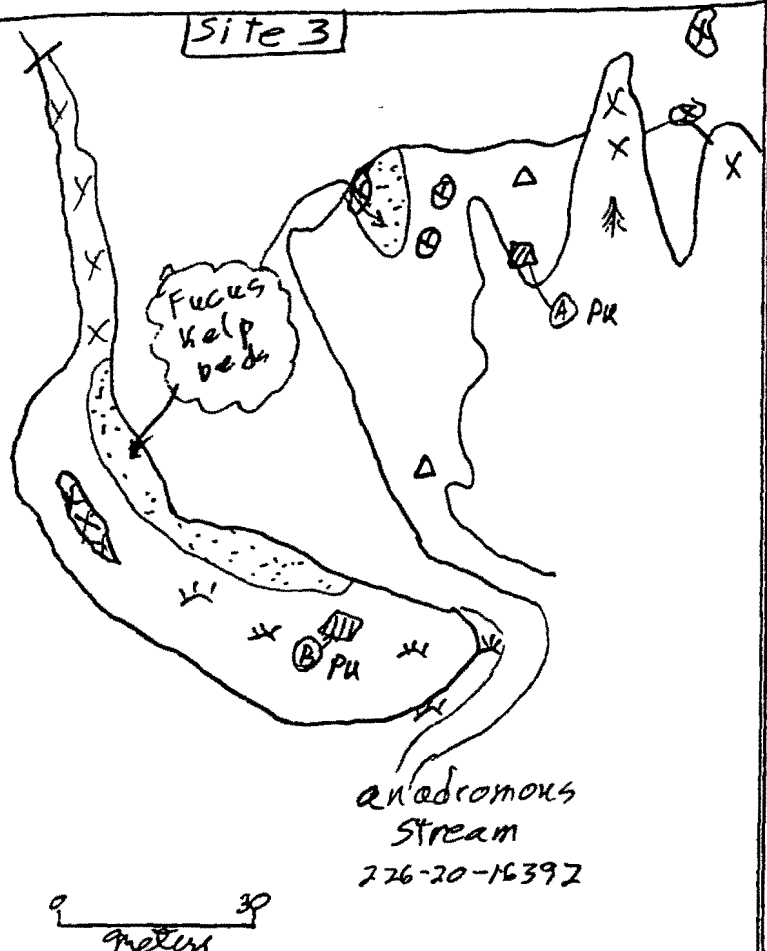
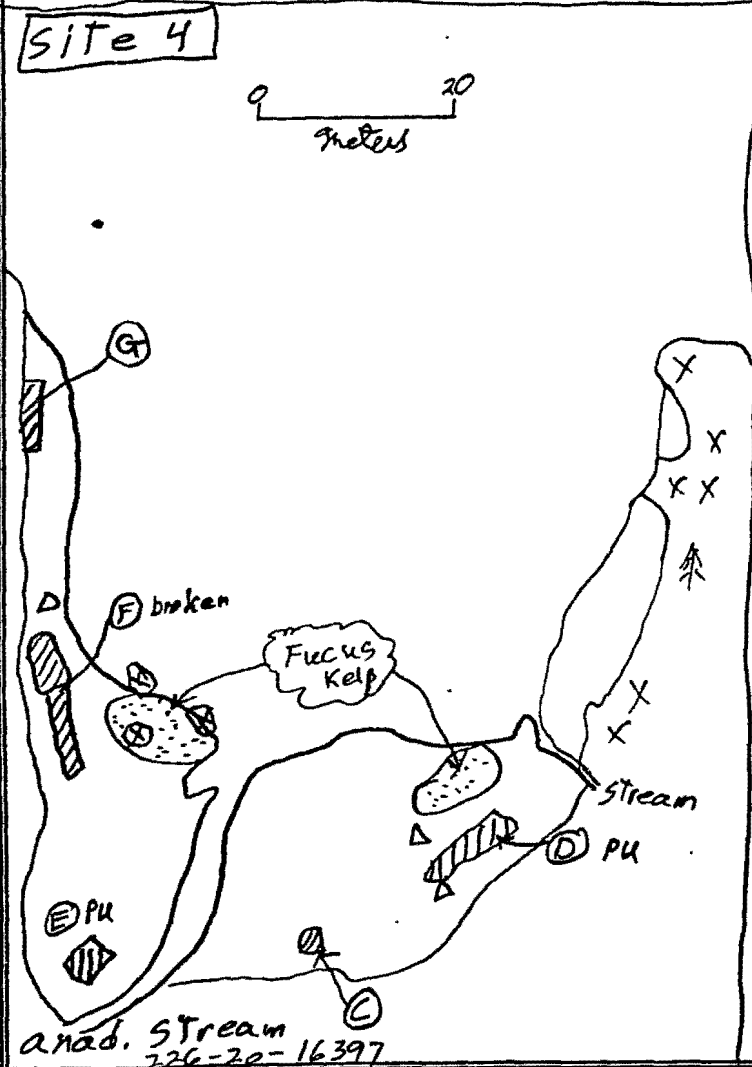
Site 1

BP-004-A 5/5/91
Bio. Map T.R. Schroeder
1430-1630



Site 4

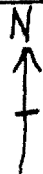
Site 3



anad. Stream
226-20-16397

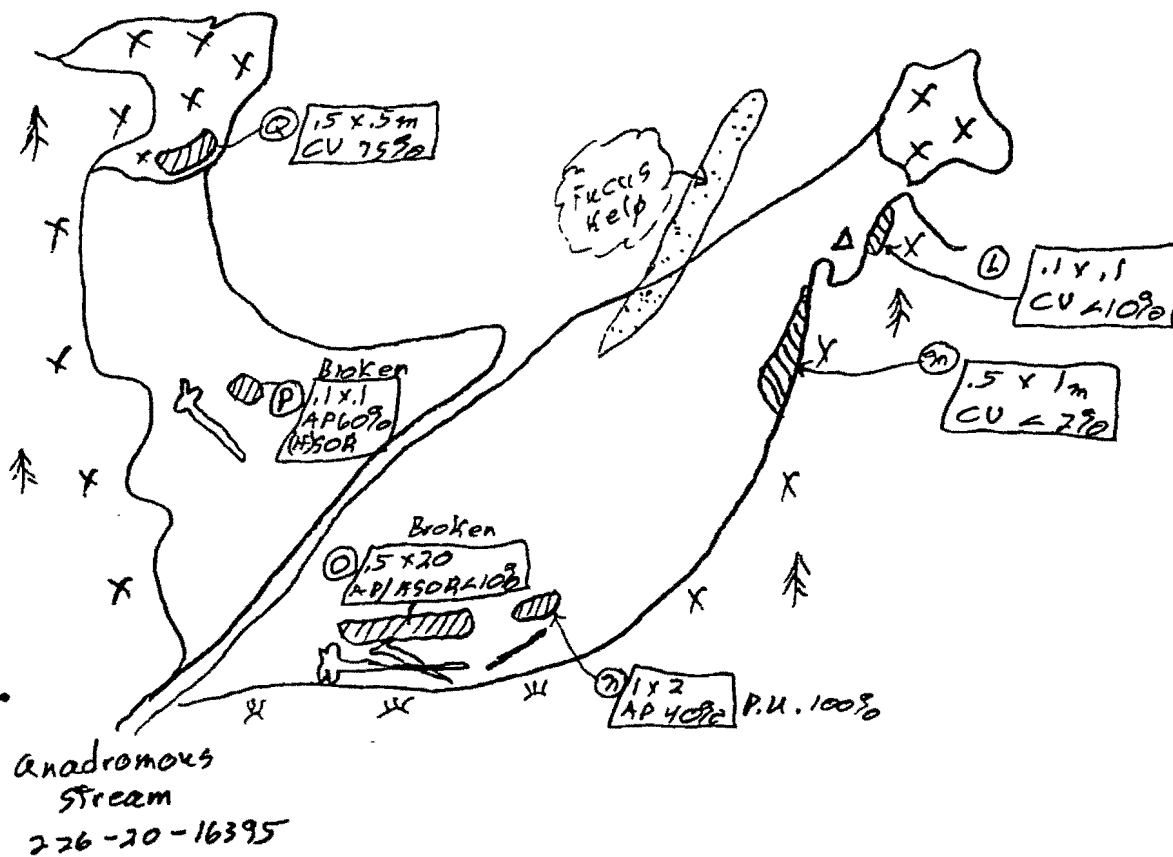
anadromous Stream
226-20-16392

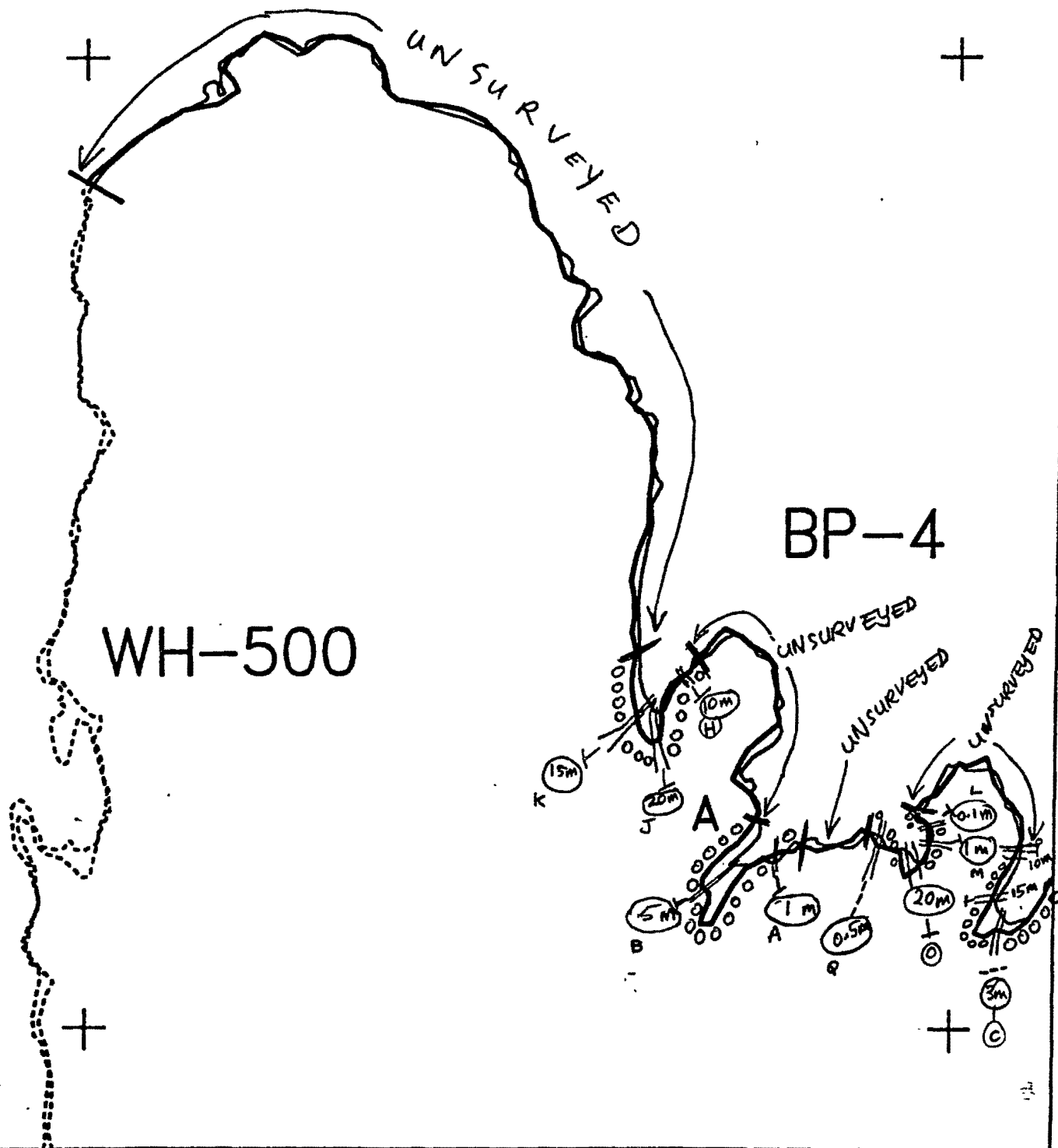
Site 2



BP-004-A 5/5/91
Bio. Map(42) T.R. Schroeder
1700-1740

0 15
meters



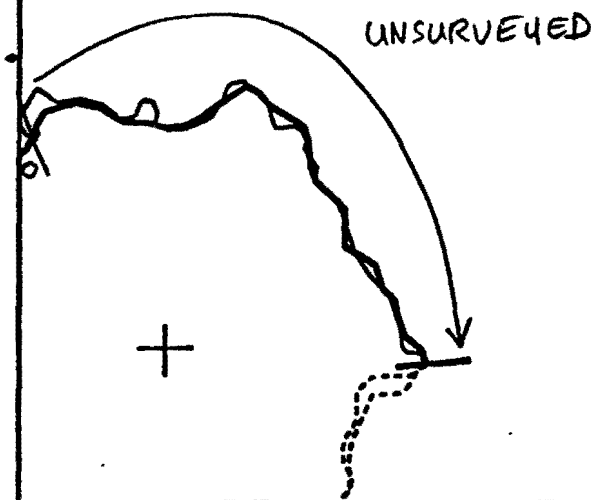


XXXX Wide
 //// Medium
 ---- Narrow
 TTTT Very Light
 0000 No Oil

BP004 A
 ADEC Subsegment Length: 8287m
 METERS
 0 400 800
 AK State Plane Zone 4
 psp004a

Subdivision Field Map
 Map Key: PWSBP004Aa
 Name: DAVID LITTLE
 Date: 05/05/91
 Date Entered:





4.7h

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

BP004 A

ADEC Subsegment Length: 8287m

METERS

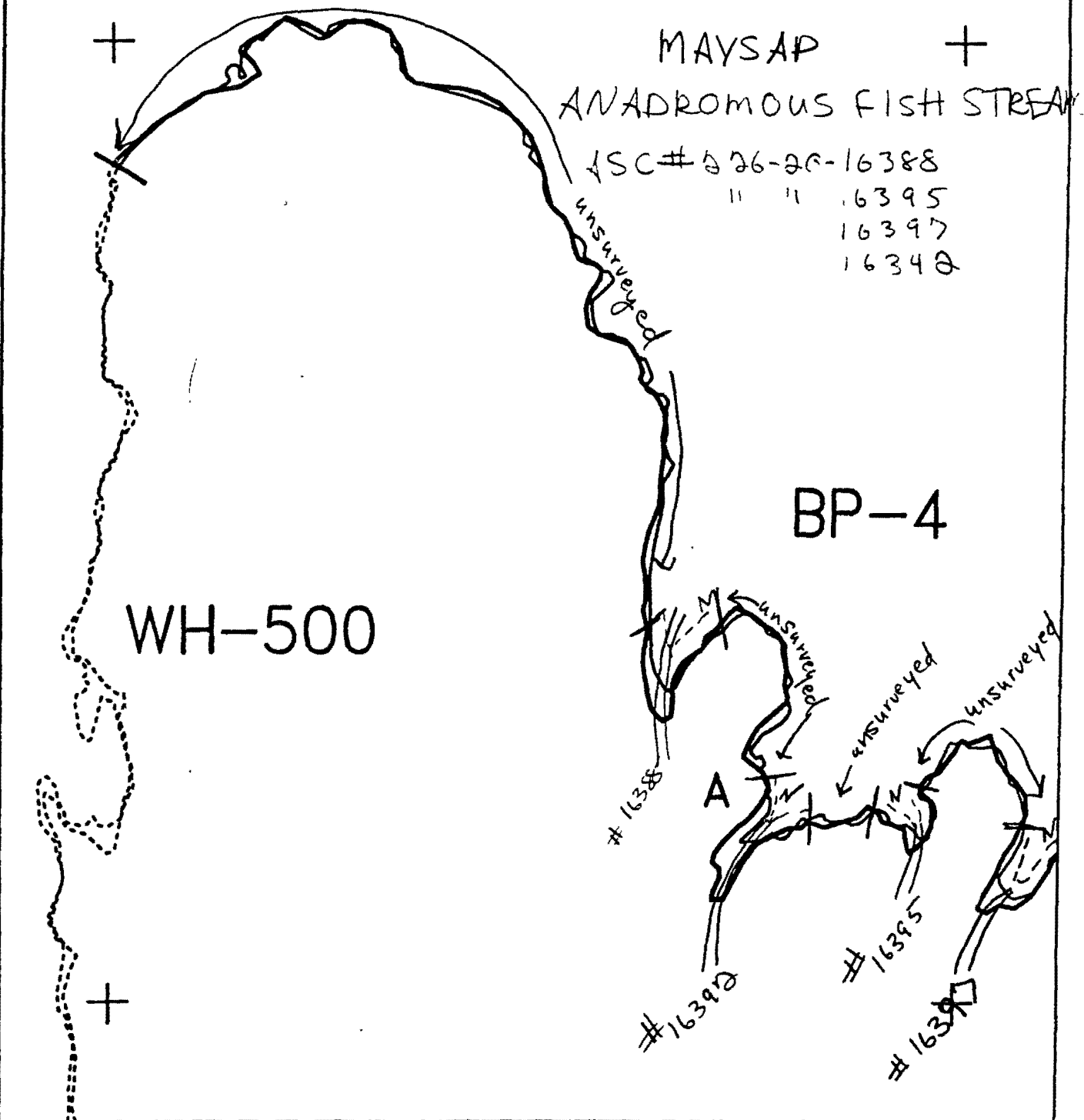


AK State Plane Zone 4
pbp884ab



Subdivision Field Map
Map Key: PWSBP004Ab
Name: DAVID LITTLE
Date: 05/05/91
Date Entered:

ADEC comments cont...



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

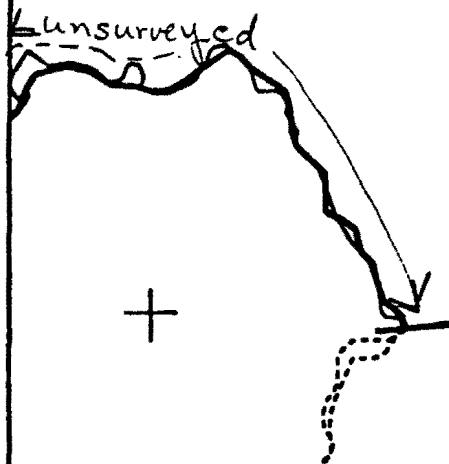
BP004 A
 ADEC Subsegment Length: 8287m
 METERS
 0 100 200
 AK State Plane Zone 4
 86900400

Subdivision Field Map
 Map Key: PWSBP004Aa
 Name: A. Weseman
 Date: 5/5/91
 Date Entered:



ADEC Comments cont ..

MAYSAP



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

BP004 A

ADEC Subsegment Length: 8287m

METERS

5 100 200

AK State Plane Zone 4
980846b



Subdivision Field Map

Map Key: PWSBP004Ab

Name: A. Weseman

Date: 5/5/91

Date Entered:

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 6 SEGMENT BP 004 SUBDIVISION A DATE 5/5/91

ADEC/ADF46

NAME Aimee Weseman

SIGNATURE Aimee Weseman

☒ Treatment Recommended. 4 Anad fish streams Resource Uses - Commercial Fishing & Recreation.
☐ NTR Survey was rushed due to incoming tide & full extent of oiling may not have been documented.

ASC# 226-20-16397-site 4 = This beach stream area still contains AP/Hsor deposits which should be manually removed & tilled. Areas of concern are in the vicinity of sites C, D, E & F. Some PU occurred but not enough

ASC# 226-20-16395-site 2 = due to short survey & injury, ADF46 monitor unable to determine extent of oiling & how much was removed. A quick inspection of area with removal of AP sediments & or tilling is in order.

EXXON

NAME Scott A. Nauman

SIGNATURE Scott A. Nauman

☒ NTR

All four streams on this subdivision were surveyed. No subsurface oil was found. AP/SOR was either picked up or broken up by the survey team. This subdivision and the four streams are in very good shape - no further work is warranted.

LANDMANAGER

NAME _____ OF _____

SIGNATURE _____

☐ NTR

USCG/NOAA

NAME CWO SPURR / R. Hoff

SIGNATURE R. Hoff / Rebecca Hoff

☒ NTR This segment with 4 anadromous streams had little remaining oil. Some asphalt patches were found, and these were mostly picked up or broken apart. The small areas of remaining coat or oil in crevices of boulders is largely inaccessible. The segment requires no further treatment.

TEAM NO. 6 SEGMENT BP-04 SUBDIVISION _____ DATE 5/5/91

ADEC

NAME _____ SIGNATURE _____

☐ NTR

!
!

EXXON

NAME _____ SIGNATURE _____

☐ NTR

LANDMANAGER

NAME CHARLES SELANDOFF OF Chenega Bay SIGNATURE Charles Selandoff

☐ NTR treatment recommended

a lot of oily debris, rocks and pebbles. This area can be manually worked over with shovels, rakes and tilled by hand. Also this area is consistantly oiled in spots but with a lot of manual work this area can be greatly improved. Heavily used subsistence area.

USCG/NOAA

NAME _____ SIGNATURE _____

☐ NTR

Discrepancy comment

5/13/91

1/5

Review

3P004

226 - 20 - 15392

OG site 3

HAB:

no site info, as no oiling discovered.

OK

OG

2 very small patches. (.5m², .25m²)

TEAM NO. 6 SEGMENT BP 004 SUBDIVISION A DATE 5/5/91

ADEC/ADF46

NAME Aimee Weseman

SIGNATURE Aimee Weseman

☐ NTR ☒ Treatment Recommended. 4 had fish streams Resource Uses - Commercial Fishing & Recreation
Survey was rushed due to incoming tide & full extent of oiling may not have been documented.

ASC# 226-20-16397-site 4 = This beach stream area still contains AP/Hsor2 deposits which should be manually removed & tilled. Areas of concern are in the vicinity of sites C, D, E & F. Some PU occurred but not enough.

ASC# 226-20-16395-site 2 = due to short survey & injury, ADF46 monitor unable to determine extent of oiling & how much was removed. A quick inspection of area with removal of AP sediments & or tilling is in order.

EXXON

NAME Scott A. Nauman

SIGNATURE Scott A. Nauman

☒ NTR

All four streams on this subdivision were surveyed. No subsurface oil was found. AP/SOR was either picked up or broken up by the survey team. This subdivision and the four streams are in very good shape - no further work is warranted.

LANDMANAGER

NAME _____ OF _____ SIGNATURE _____

☐ NTR

USCG/NOAA

NAME CWO SPURA / R. Hoff

SIGNATURE R. Hoff / Rebecca Hoff

☒ NTR This segment with 4 anadromous streams had little remaining oil. Some asphalt patches were found, and these were mostly picked up & broken apart. The small areas of remaining coat or oil in crevices of boulders is largely inaccessible. The segment requires no further treatment.

ADEC

NAME _____ SIGNATURE _____

☐ NTR

EXXON

NAME _____ SIGNATURE _____

☐ NTR

LANDMANAGER

NAME CHARLES SELANOFF OF Chenega Bay SIGNATURE Charles Selanoff

☐ NTR

Treatment recommended
a lot of oily debris, rocks and pebbles. This area can be manually worked over with shovels, rakes and tilled by hand. Also this area is consistantly oiled in spots but with a lot of manual work this area can be greatly improved. Heavily used subsistence area.

USCG/NOAA

NAME _____ SIGNATURE _____

☐ NTR

Discrepancy

5/13/91

~~KE~~

(HAB + OG complement)

BP044 - 225 20 16388

OG site 1

HAB

10k1

OG

Site 1, 1A
1 x 5 90% Nelson
15 x 1 10% AP

Site L
.5 x 1 90% AP
(picked up - not on sheet)
several more "trace" sites

1991 STREAM FILE LOG HABITAT

STREAM CATALOG # : 226-20-16392
STREAM NAME : Bainbridge Passage

LOCATION : P.W.S.
SEGMENT : BP 004a

[illegible]